

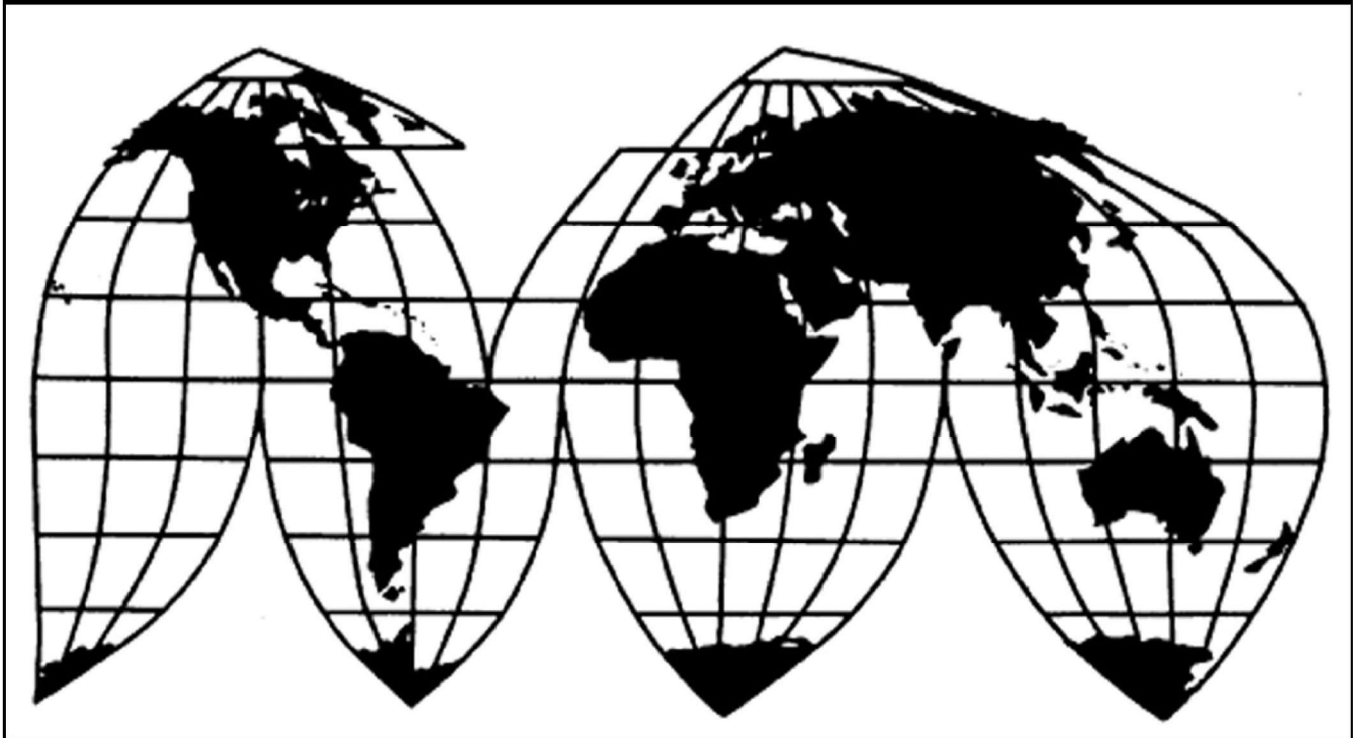
Mattresses from China

Investigation No. 731-TA-1424 (Final)

Publication 5000

December 2019

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published. Such information is identified by brackets in confidential reports and is deleted and replaced with asterisks (***) in public reports

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-1424 (Final)

Mattresses from China

DETERMINATION

On the basis of the record¹ developed in the subject investigation, 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 mattresses from China, provided for in subheadings 9404.21.00, 9404.29.10, 9404.29.90, 9401.40.00, and 9401.90.50 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”).^{2 3 4}

BACKGROUND

The Commission, pursuant to section 735(b) of the Act (19 U.S.C. 1673d(b)), instituted this investigation effective September 18, 2018, following receipt of a petition filed with the Commission and Commerce by Corsicana Mattress Company, Dallas, Texas; Elite Comfort Solutions, Newnan, Georgia; Future Foam Inc., Council Bluffs, Iowa; FXI, Inc., Media, Pennsylvania; Innocor, Inc., Red Bank, New Jersey; Kolcraft Enterprises Inc., Chicago, Illinois; Leggett & Platt, Incorporated, Carthage, Missouri; Serta Simmons Bedding, LLC, Atlanta, Georgia; and Tempur Sealy International, Inc., Lexington, Kentucky. The Commission scheduled the final phase of the investigation following notification of a preliminary determination by Commerce that imports of mattresses from China were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of

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

² 84 FR 56761 (October 23, 2019).

³ Commissioner Jason E. Kearns did not participate in this investigation.

⁴ 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 China.

the Commission's investigation 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* of June 13, 2019 (84 FR 27657). The hearing was held in Washington, DC, on October 11, 2019, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of the Commission

Based on the record in the final phase of this investigation, we determine that an industry in the United States is materially injured by reason of imports of mattresses from China found by the U.S. Department of Commerce (“Commerce”) to be sold in the United States at less than fair value.¹ We also find that critical circumstances do not exist with respect to imports of mattresses from China that are subject to Commerce’s affirmative critical circumstances determination.

I. Background

The petition in this investigation was filed on September 18, 2018 by Corsicana Mattress Company (“Corsicana”); Elite Comfort Solutions (“Elite”); Future Foam Inc. (“Future Foam”); FXI, Inc. (“FXI”); Innocor, Inc. (“Innocor”); Kolcraft Enterprises Inc. (“Kolcraft”); Leggett & Platt, Incorporated (“Leggett & Platt”); Serta Simmons Bedding, LLC (“Serta Simmons”); and Tempur Sealy International, Inc. (“Tempur Sealy”) (collectively, “petitioners”), which are domestic producers of mattresses. Representatives appeared at the hearing accompanied by counsel and submitted prehearing and posthearing briefs and final comments.

Several respondent parties participated actively in the final phase of this investigation. Chinese producers and exporters of subject merchandise Quanzhou Hen Ang Industrial and Trade Co., Ltd (Delandis); Zhejiang Glory Home Furnishings Co., Ltd.; Guangdong Diglant Furniture Industrial Co., Ltd.; Nigbo Shuibishen Home Textile Technology Co., Ltd.; Jiangsu Wellcare Home Furnishings Products Co., Ltd.; Jinlongheng Furniture Co., Ltd.; Inno-Sports Co., Ltd.; Healthcare Co., Ltd (Mlily) and China Beds Direct (“China Beds”); Sinomax Macao Commercial Offshore Limited and Sinomax USA, Inc. (“Sinomax”); and Better Zs Co., Ltd. (collectively, “Chinese respondents”) appeared at the hearing and jointly submitted prehearing and posthearing briefs and final comments. Ashley Furniture Industries, Inc. (“Ashley”), a domestic producer, importer, and purchaser of subject merchandise, also appeared at the hearing and submitted prehearing and posthearing briefs.

In addition, several respondent importers of subject merchandise filed prehearing and posthearing briefs addressing the issue of critical circumstances, including Classic Brands, LLC (“Classic”), which is also a domestic producer; Modway Inc. (“Modway”) and ZMM Services Inc. (“ZMM”); Atlantic Furniture Inc. (“Atlantic”), Grand Life Inc. (“Grand Life”), Grantec (Zhangzhou) Co., Ltd. (“Grantec”), and Home Furnishings Resource Group (“Home Furnishings”) (joint

¹ Commissioner Kearns did not participate in the investigation.

submissions); and Dorel Home Furnishings, Inc. (“Dorel”). Classic also submitted final comments addressing the issue of critical circumstances. Purchasers ESS Universal USA LLC (“ESS”) and Proactive Medical Products LLC (“Proactive”), and importer and foreign producer De RUCCI Bedding Co., Ltd. (“De RUCCI”), filed respective non-party statements addressing the issue of critical circumstances.

U.S. industry data are based on the questionnaire responses of 28 domestic producers of mattresses, which accounted for most U.S. production of mattresses in 2018.² U.S. import data are based on questionnaire responses from 42 U.S. importers, accounting for most subject imports from China.³ The Commission received usable responses to its questionnaires from 13 producers and exporters in China, whose exports accounted for 59.7 percent of subject imports from China in 2018.⁴

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.”⁵ 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.”⁶ In turn, the Tariff Act defines “domestic like product” as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”⁷

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.⁸ No single factor is

² Confidential Report (“CR”)/Public Report (“PR”) at I-4.

³ CR/PR at I-4.

⁴ CR/PR at VII-3.

⁵ 19 U.S.C. § 1677(4)(A).

⁶ 19 U.S.C. § 1677(4)(A).

⁷ 19 U.S.C. § 1677(10).

⁸ 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*

dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.⁹ The Commission looks for clear dividing lines among possible like products and disregards minor variations.¹⁰ Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized or sold at less than fair value,¹¹ the Commission determines what domestic product is like the imported articles Commerce has identified.¹²

B. Product Description

Commerce defined the imported merchandise within the scope of this investigation as:

{A}ll types of youth and adult mattresses. The term "mattress" denotes an assembly of materials that at a minimum includes a "core," which provides the main support system of the mattress, and may consist of innersprings, foam, other resilient filling, or a combination of these materials. Mattresses may also contain (1) "upholstery," the material between the core and the top panel of the ticking on a single-sided mattress, or between the core and the top and bottom panel of the ticking on a double-sided mattress; and/or (2) "ticking," the

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).

⁹ *See, e.g.*, S. Rep. No. 96-249 at 90-91 (1979).

¹⁰ *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.").

¹¹ *See, e.g.*, *USEC, Inc. v. United States*, 34 Fed. Appx. 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 *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); *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Torrington*, 747 F. Supp. at 748-52 (affirming the Commission's determination defining six like products in investigations in which Commerce found five classes or kinds).

outermost layer of fabric or other material (*e.g.*, vinyl) that encloses the core and any upholstery, also known as a cover.

The scope of this investigation is restricted to only “adult mattresses” and “youth mattresses.” “Adult mattresses” have a width exceeding 35 inches, a length exceeding 72 inches, and a depth exceeding 3 inches on a nominal basis. Such mattresses are frequently described as “twin,” “extra-long twin,” “full,” “queen,” “king,” or “California king” mattresses. “Youth mattresses” have a width exceeding 27 inches, a length exceeding 51 inches, and a depth exceeding 1 inch (crib mattresses have a depth of 6 inches or less from edge to edge) on a nominal basis. Such mattresses are typically described as “crib,” “toddler,” or “youth” mattresses. All adult and youth mattresses are included regardless of actual size description.

The scope encompasses all types of “innerspring mattresses,” “non-innerspring mattresses,” and “hybrid mattresses.” “Innerspring mattresses” contain innersprings, a series of metal springs joined together in sizes that correspond to the dimensions of mattresses. Mattresses that contain innersprings are referred to as “innerspring mattresses” or “hybrid mattresses.” “Hybrid mattresses” contain two or more support systems as the core, such as layers of both memory foam and innerspring units.

“Non-innerspring mattresses” are those that do not contain any innerspring units. They are generally produced from foams (*e.g.*, polyurethane, memory (viscoelastic), latex foam, gel-infused viscoelastic (gel foam), thermobonded polyester, polyethylene) or other resilient filling.

Mattresses covered by the scope of this investigation may be imported independently, as part of furniture or furniture mechanisms (*e.g.*, convertible sofa bed mattresses, sofa bed mattresses imported with sofa bed mechanisms, corner group mattresses, day-bed mattresses, roll-away bed mattresses, high risers, trundle bed mattresses, crib mattresses), or as part of a set in combination with a “mattress foundation.” “Mattress foundations” are any base or support for a mattress. Mattress foundations are commonly referred to as “foundations,” “boxsprings,” “platforms,” and/or “bases.” Bases can be static, foldable, or adjustable. Only the mattress is covered by the scope if imported as part of furniture, with furniture mechanisms, or as part of a set in combination with a mattress foundation.

Excluded from the scope of this investigation are “futon” mattresses. A “futon” is a bi-fold frame made of wood, metal, or plastic material, or any combination thereof, that functions as both seating furniture (such as a couch, love seat, or sofa) and a bed. A “futon mattress” is a tufted mattress, where the top covering is secured to the bottom with thread that goes completely through the mattress

from the top through to the bottom, and it does not contain innersprings or foam. A futon mattress is both the bed and seating surface for the futon.

Also excluded from the scope are airbeds (including inflatable mattresses) and waterbeds, which consist of air- or liquid-filled bladders as the core or main support system of the mattress.

Further, also excluded from the scope of this investigation are any products covered by the existing antidumping duty order on uncovered innerspring units. *See Uncovered Innerspring Units from the People's Republic of China: Notice of Antidumping Duty Order*, 74 FR 7661 (February 19, 2009).

The products subject to this investigation are currently properly classifiable under Harmonized Tariff Schedule for the United States (HTSUS) subheadings: 9404.21.0010, 9404.21.0013, 9404.29.1005, 9404.29.1013, 9404.29.9085, and 9404.29.9087. Products subject to this investigation may also enter under HTSUS subheadings: 9404.21.0095, 9404.29.1095, 9404.29.9095, 9401.40.0000, and 9401.90.5081. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the merchandise subject to this investigation is dispositive.¹³

Mattresses are defined by the industry as a resilient material or combination of materials generally enclosed by ticking that is intended or promoted for sleeping upon by people.¹⁴ Adult mattresses are produced in standard lengths and widths corresponding to the size descriptors twin, twin XL, full, queen, king, and California king, and youth mattresses are produced in standard dimensions corresponding to the size descriptors crib, toddler, and youth.¹⁵ Adult mattresses can be 12 to 18 inches in depth, while youth mattresses are required to be no more than 6 inches deep.¹⁶ In terms of construction, mattresses generally consist of 1) a core, which provides the main support system of the mattress; 2) upholstery material surrounding the core; and 3) ticking, which is the cover or outermost layer of fabric or other material enclosing the core and any upholstery.¹⁷

The U.S. mattress market is characterized by a large variety of mattresses. Depending upon the composition of their cores, mattresses can be characterized as innerspring, non-

¹³ *Mattresses From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 84 Fed. Reg. 56761 (October 23, 2019).

¹⁴ CR/PR at I-11.

¹⁵ CR/PR at I-8, II-1.

¹⁶ Transcript of Conference ("Conference Tr.") at 49 (Koltun).

¹⁷ CR/PR at I-11.

innerspring, and hybrid mattresses.¹⁸ Innerspring mattresses have a core made of densely packed rows of metal springs, sometimes individually wrapped, surrounded by upholstery and covered in ticking.¹⁹ Non-innerspring mattresses consist of either a single slab of foam or multiple layers of foam encased in a fabric sock and covered in ticking.²⁰ Hybrid mattresses have a core combining metal springs and one or more layers of foam surrounded by upholstery and covered in ticking.²¹ All three types of mattresses may be packaged for storage and transport as a flat-packed mattress (“FPM”), in the configuration used for sleeping, or compressed, rolled, and boxed as a mattress-in-a-box (“MiB”).²² Most MiB mattresses are made of foam.²³ Mattresses can also vary according to spring quality, foam density and type, upholstery and ticking quality, and special design features.²⁴

C. Arguments of the Parties

Petitioners argue that the Commission should define a single domestic like product encompassing all mattresses within the scope of the investigation, as it did in the preliminary determination.²⁵ The Chinese respondents accept the definition of the domestic like product from the Commission’s preliminary determination.²⁶

¹⁸ CR/PR at II-1.

¹⁹ CR/PR at I-12-13, Figure I-1.

²⁰ CR/PR at I-13-14, Figure I-2.

²¹ CR/PR at I-12-13, II-1, Figure I-1.

²² CR/PR at I-13-14, II-1.

²³ CR/PR at II-1.

²⁴ See Conference Tr. at 111-12 (Anderson), 143-44 (Dietz), 265 (Dockter).

²⁵ Petitioners’ Prehearing Brief at 5-6.

²⁶ Chinese Respondents’ Prehearing Brief at 2; Chinese Respondents’ Posthearing Brief at 1.

D. Domestic Like Product Analysis

In the preliminary phase of the investigation, the Commission defined a single domestic like product consisting of all mattresses coextensive with the scope of the investigation.²⁷ As previously stated, petitioners and the Chinese respondents agree that the Commission should adopt the like product definition from the preliminary determination.²⁸ There is no new information on the record to indicate that we should revisit the domestic like product definition.²⁹ We therefore define a single domestic like product consisting of all mattresses coextensive with the scope of the 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.

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise

²⁷ *Mattresses from China*, Inv. No. 731-TA-1424 (Preliminary), USITC Pub. 4842 (Nov. 2018) (“Preliminary Views”) at 11. The Commission defined a single domestic like product coextensive with the scope based upon the preponderance of similarities between in-scope mattresses in terms of physical characteristics and uses; channels of distribution; manufacturing facilities, production employees and, to some extent, production processes; and producer and customer perceptions. *Id.* The Commission also found that in-scope mattresses generally differ from out-of-scope futons, air mattresses, and waterbeds. *Id.*

²⁸ Petitioners’ Prehearing Brief at 5-6; Chinese Respondents’ Prehearing Brief at 2.

²⁹ See generally, CR/PR at I-10-16, Table I-3.

³⁰ 19 U.S.C. § 1677(4)(A).

or which are themselves importers.³¹ Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.³²

*** imported subject merchandise from China during the January 2016-June 2019 period of investigation, and *** meets the definition of a related party based on its affiliation with a Chinese producer and exporter of subject merchandise.³³ We discuss below whether appropriate circumstances exist to exclude each of these producers from the domestic industry.

A. Arguments of the Parties

Petitioners argue that the Commission should find that appropriate circumstances exist to exclude *** from the domestic industry as related parties, as it did in the preliminary determination.³⁴ As support, petitioners point to each firm's high and increasing ratio of subject imports to domestic production and their lack of support for the petition.³⁵

³¹ See *Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem.*, 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

³² The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

- (1) the percentage of domestic production attributable to the importing producer;
- (2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);
- (3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;
- (4) the ratio of import shipments to U.S. production for the imported product; and
- (5) whether the primary interest of the importing producer lies in domestic production or importation. *Changzhou Trina Solar Energy Co. v. USITC*, 100 F. Supp.3d 1314, 1326-31 (Ct. Int'l. Trade 2015); see also *Torrington Co. v. United States*, 790 F. Supp. at 1168.

³³ CR/PR at III-6, Table III-2. Although *** purchased subject imports from an importer, we find that its purchases do not qualify *** for exclusion under the related party provision because it did not control large volumes of subject imports. *** purchases of subject imports from importer *** increased from 2016 to 2018 and were *** units in January-June 2019 ("interim 2019"), but never accounted for more than *** percent of total subject imports (peaking in interim 2019) and this importer's own purchases of imports were not substantial, accounting for only *** percent of total subject imports in 2018. *Id.* at Tables III-15 and IV-1.

³⁴ Petitioners' Prehearing Brief at 14 (citing Confidential Preliminary Views, Inv. No. 731-TA-1424 (Preliminary) at 18-27 (EDIS Document No. 661936)).

³⁵ Petitioners' Prehearing Brief at 14-16.

B. Analysis

We find that appropriate circumstances exist to exclude *** but not *** from the domestic industry based on the following analysis.

***. *** was the *** largest domestic producer in 2018, accounting for *** percent of U.S. production.³⁶ It imported subject mattresses from China during the period of investigation.³⁷ Specifically, *** imported *** units of mattresses in 2016 (the equivalent of *** percent of its domestic production), *** units in 2017 (the equivalent of *** percent of its domestic production), and *** units in 2018 (the equivalent of *** percent of its domestic production).³⁸ *** imported *** units of mattresses in interim 2019 (the equivalent of *** percent of its domestic production), compared to *** units in January-June 2018 (“interim 2018”) (the equivalent of *** percent of its domestic production).³⁹ *** has stated that its reason for importing is ***.⁴⁰ It *** opposes the petition, ***.

The record shows that *** primary interest increasingly is in importation rather than domestic production. In this regard, *** ratio of subject imports to domestic production was high and increasing between 2016 and 2018, while its domestic production declined *** percent during the period.⁴¹ Accordingly, we find that appropriate circumstances exist to exclude *** from the domestic industry.

***. *** was *** domestic producers in 2018, accounting for *** of U.S. production.⁴² It imported subject mattresses from China during the period of investigation.⁴³ Specifically, *** imported *** units of mattresses in 2016 (the equivalent of *** percent of its domestic production), *** units in 2017 (the equivalent of *** percent of its domestic production), and *** units in 2018 (the equivalent of *** percent of its domestic production).⁴⁴ *** imported

³⁶ CR/PR at Table III-1.

³⁷ CR/PR at III-29, Table III-14.

³⁸ CR/PR at Table III-14. *** domestic production was *** units in 2016, *** units in 2017, and *** units in 2018. *Id.* It was *** units in interim 2019, compared to *** units in interim 2018. *Id.*

³⁹ CR/PR at Table III-14.

⁴⁰ CR/PR at Table III-14. *** operating income and net income to net sales ratios were *** than the domestic industry average in 2018. CR/PR at Table VI-1. In 2018, *** operating income to net sales ratio was *** percent and its net income margin was *** percent. Derived from Domestic Producers’ Questionnaire Response of *** at Question III-9a.

⁴¹ CR/PR at Table III-14. *** subject imports were *** percent lower and its domestic production was *** percent higher in interim 2019 compared to interim 2018. *Id.*

⁴² CR/PR at Tables III-1, III-14 (*** units in 2018).

⁴³ CR/PR at III-25, Table III-14.

⁴⁴ CR/PR at Table III-14.

*** units of mattresses in interim 2019 (the equivalent of *** percent of its domestic production), compared to *** units in interim 2018 (the equivalent of *** percent of its domestic production).⁴⁵ *** has stated that its “***.”⁴⁶ *** opposes the petition.⁴⁷

The record shows that *** primary interest is in importation rather than domestic production. In this regard, *** ratio of subject imports to domestic production was *** high and increasing during the period of investigation, while its domestic production remained ***. Accordingly, we find that appropriate circumstances exist to exclude *** from the domestic industry.

***. *** was the *** largest domestic producer in 2018, accounting for *** percent of U.S. production.⁴⁸ It imported subject mattresses from China ***.⁴⁹ Specifically, *** imported *** units of mattresses in 2017 (the equivalent of *** percent of its domestic production) and *** units of mattresses in 2018 (the equivalent of *** percent of its domestic production).⁵⁰ *** has stated that it began importing mattresses from China ***.⁵¹ *** reports that ***.⁵²

The record shows that *** primary interest is in domestic production rather than importation. In this regard, *** only imported subject merchandise in 2017 and 2018 ***. Its ratio of subject imports to domestic production was low in 2017 and lower in 2018, before imports ***.⁵³ ***, and among the larger domestic producers. For these reasons, we find that appropriate circumstances do not exist to exclude *** from the domestic industry.

***. *** commenced domestic production in *** and was among the smallest domestic producers in 2018, accounting for only *** percent of U.S. production that year.⁵⁴ It imported subject mattresses from China during the period of investigation and is related to a

⁴⁵ CR/PR at Table III-14.

⁴⁶ CR/PR at Table III-11. *** operating income to net sales ratio was *** than the domestic industry average in 2018 but its net income to net sales ratio was ***. CR/PR at Table VI-1. In 2018, *** operating income to net sales ratio was *** percent and its net income margin was *** percent. Derived from Domestic Producers’ Questionnaire Response of *** at Question III-9a.

⁴⁷ CR/PR at Table III-1.

⁴⁸ CR/PR at Table III-1.

⁴⁹ CR/PR at III-25, Table III-14.

⁵⁰ CR/PR at Table III-14. *** domestic production was *** units in 2016, *** units in 2017, and *** units in 2018. *Id.* It was *** units in interim 2019, compared to *** units in interim 2018. *Id.*

⁵¹ CR/PR at Table III-14.

⁵² CR/PR at Table III-14. *** operating income and net income to net sales ratios were *** than the domestic industry average in 2018. CR/PR at Table VI-1. In 2018, *** operating income to net sales ratio was *** percent and its net income margin was *** percent. Derived from Domestic Producers’ Questionnaire Response of *** at Question III-9a.

⁵³ CR/PR at Table III-14.

⁵⁴ CR/PR at Table III-1; Domestic Producers’ Questionnaire of *** at Questions II-2, II-3a.

Chinese producer and exporter of subject merchandise.⁵⁵ *** imported *** units of mattresses in 2016 (the equivalent of *** percent of its domestic production), *** units in 2017 (the equivalent of *** percent of its domestic production), and *** units in 2018 (the equivalent of *** percent of its domestic production).⁵⁶ *** imported *** units of mattresses in interim 2019 (the equivalent of *** percent of its domestic production), compared to *** units in interim 2018 (the equivalent of *** percent of its domestic production).⁵⁷ *** has stated that its reason for importing is “****.”⁵⁸ *** opposes the petition.⁵⁹

The record shows that *** primary interest is in importation rather than domestic production, although its ratio of subject imports to domestic production declined during the period of investigation as its domestic production increased.⁶⁰ Despite the decline in this ratio, its volume of subject imports exceeded its domestic production throughout the period of investigation. On balance, we find that appropriate circumstances exist to exclude *** from the domestic industry.

In sum, we find that appropriate circumstances exist to exclude *** from the domestic industry, but not ***. Accordingly, based on our definition of the domestic like product, we define the domestic industry to include all domestic producers of mattresses, with the exception of ***.

⁵⁵ CR/PR at III-3, 25, Table III-14.

⁵⁶ CR/PR at Table III-14. *** domestic production was *** units in 2016, *** units in 2017, and *** units in 2018. *Id.* It was *** units in interim 2019, compared to *** units in interim 2018. *Id.*

⁵⁷ CR/PR at Table III-14.

⁵⁸ CR/PR at Table III-14. *** operating income and net income to net sales ratios were *** than the domestic industry average in 2018. CR/PR at Table V-1. In 2018, *** operating income to net sales ratio was *** percent and its net income margin was *** percent. Derived from Domestic Producers’ Questionnaire Response of *** at Question III-9a.

⁵⁹ CR/PR at Tables III-1, 14.

⁶⁰ CR/PR at Table III-14.

IV. Material Injury by Reason of Subject Imports⁶¹

Based on the record in the final phase of this investigation, we find that an industry in the United States is materially injured by reason of imports of mattresses from China that Commerce has found to be sold in the United States at less than fair value.

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.⁶² 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.⁶³ The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”⁶⁴ 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.⁶⁵ 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.”⁶⁶

⁶¹ Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account 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 be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)).

During the most recent 12-month period preceding the filing of the petition in these investigations, September 2017-August 2018, imports from China accounted for *** percent of total imports. CR/PR at Table IV-5. Because subject imports from China were well above the statutory negligibility threshold, we find that such imports are not negligible.

⁶² 19 U.S.C. §§ 1671d(b), 1673d(b).

⁶³ 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).

⁶⁴ 19 U.S.C. § 1677(7)(A).

⁶⁵ 19 U.S.C. § 1677(7)(C)(iii).

⁶⁶ 19 U.S.C. § 1677(7)(C)(iii).

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,⁶⁷ 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.⁶⁸ 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.⁶⁹

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.⁷⁰ In performing its examination, however, the Commission need not isolate

⁶⁷ 19 U.S.C. §§ 1671d(b), 1673d(b).

⁶⁸ *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).

⁶⁹ 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).

⁷⁰ Uruguay Round Agreements Act Statement of Administrative Action (“SAA”) at 851-52 (“{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-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

the injury caused by other factors from injury caused by unfairly traded imports.⁷¹ 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.⁷² It is clear that the existence of injury caused by other factors does not compel a negative determination.⁷³

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.”⁷⁴ The Commission ensures that it has “evidence in the record” to “show that the

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.

⁷¹ 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.”).

⁷² S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

⁷³ *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.”).

⁷⁴ *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 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*.

harm occurred ‘by reason of’ the LTFV imports,” and that it is “not attributing injury from other sources to the subject imports.”⁷⁵ The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”⁷⁶

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.⁷⁷ Congress has delegated this factual finding to the Commission because of the agency’s institutional expertise in resolving injury issues.⁷⁸

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

Mattress demand is driven by housing activity, including new home sales, housing starts, and home resales; interest rates; gross domestic product (“GDP”) growth; and consumer sentiment.⁷⁹ Demand for mattresses increased throughout the period of investigation as a result of increasing housing starts, GDP growth, and generally improving consumer sentiment.⁸⁰ Specifically, apparent U.S. consumption of mattresses increased from *** units in 2016 to ***

⁷⁵ *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.

⁷⁶ *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.”).

⁷⁷ We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

⁷⁸ *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.”).

⁷⁹ CR/PR at II-15.

⁸⁰ CR/PR at II-15-16, IV-23, Figures II-1-II-2, IV-5, Table IV-10. Between January 2016 and December 2018, the total number of new homes sold and the value of home resales both decreased, by 2.6 and 8.8 percent, respectively, while the number of housing starts increased by 2.5 percent. Interest rates fluctuated during the period of investigation. CR/PR at II-15-17, Figures II-1, 3.

units in 2017 and *** units in 2018, a level *** percent higher than in 2016.⁸¹ Apparent U.S. consumption of mattresses was *** units in interim 2019, compared to *** units in interim 2018.⁸²

Different types of mattresses exhibited different demand trends during the period of investigation. The vast majority of responding domestic producers and importers reported increasing demand for foam and hybrid mattresses in the U.S. market during the period of investigation, as did a plurality of responding purchasers.⁸³ Apparent U.S. consumption of foam mattresses increased by *** percent between 2016 and 2018 and was *** percent higher in interim 2019 compared to interim 2018.⁸⁴ Similarly, apparent U.S. consumption of hybrid mattresses increased by *** percent between 2016 and 2018, and was *** percent higher in interim 2019 than in interim 2018.⁸⁵

Demand for innerspring mattresses exhibited a different trend. A majority of responding domestic producers reported declining demand for innerspring mattresses, and a plurality of responding importers and purchasers reported no change in demand for such mattresses.⁸⁶ Apparent U.S. consumption of innerspring mattresses declined *** percent between 2016 and 2018, and was 6.7 percent lower in interim 2019 than in interim 2018.⁸⁷

Demand trends also diverged for mattresses packaged as MiBs and FPMs. The vast majority of responding domestic producers, importers, and purchasers reported that demand for MiBs increased during the period of investigation.⁸⁸ Apparent U.S. consumption of MiBs increased *** percent between 2016 and 2018, and was *** percent higher in interim 2019 than in interim 2018.⁸⁹ By contrast, a majority of responding domestic producers reported no change in demand for FPMs, with majorities of responding importers and purchasers reporting

⁸¹ CR/PR at IV-23, Table IV-10.

⁸² CR/PR at Table IV-10.

⁸³ CR/PR at Table II-8a.

⁸⁴ CR/PR at IV-28, Table IV-12.

⁸⁵ CR/PR at IV-28, Table IV-13.

⁸⁶ CR/PR at Table II-8a. FPMs may be shipped either compressed or not compressed. Larger numbers of U.S. producers, importers, and purchasers observed declining demand for non-compressed FPMs than for compressed FPMs. *Id.*

⁸⁷ CR/PR at IV-26, Table IV-11. At the hearing, counsel for petitioners explained that innerspring and hybrid mattresses are similar: “[T]he other one is a hybrid, which is an innerspring mattress that is being marketed as hybrid because the distinction between innerspring and hybrid, you know, is a marketing term. Generally, hybrids have more foam than an innerspring mattress would, but all innerspring mattresses have some amount of foam, too.” Transcript of Hearing (“Hearing Tr.”) at 68 (Baisburd).

⁸⁸ CR/PR at Table II-8a.

⁸⁹ CR/PR at Table IV-14.

either no change or fluctuations in demand for such mattresses.⁹⁰ Apparent U.S. consumption of FPMs declined *** percent between 2016 and 2018, and was *** percent lower in interim 2019 than in interim 2018.⁹¹

2. Supply Considerations

The U.S. market for mattresses is served primarily by domestic producers, followed by subject imports, and to a lesser extent nonsubject imports. The domestic industry supplied *** percent of apparent U.S. consumption in 2016, but its share declined to *** percent in 2018.^{92 93}

Although 29 responding domestic producers reported producing mattresses in the United States, petitioners (Corsicana, Elite, Future Foam, FXI, Innocor, Kolcraft, Leggett & Platt, Serta Simmons, and Tempur Sealy) accounted for *** percent of domestic production in 2018, and the two largest domestic producers, Serta Simmons and Tempur Sealy, accounted for *** percent of reported domestic production that year.⁹⁴ Domestic producers manufacture mattresses in 23 states, with Serta Simmons alone producing mattresses at 22 different facilities.⁹⁵ Production facilities generally are located near customers to minimize transportation costs and lead times pursuant to a “just-in-time” or “made-to-order” delivery model, with the ability to produce and deliver a mattress door-to-door within 3 to 4 days of receiving an order.⁹⁶ In 2018, the domestic industry had a capacity of *** mattresses and a capacity utilization rate of *** percent.⁹⁷

⁹⁰ CR/PR at Table II-8a.

⁹¹ CR/PR at IV-31, Table IV-15.

⁹² CR/PR at Table C-4. The domestic industry’s market share declined from *** percent in 2016 to *** percent in 2017 and to *** percent in 2018. *Id.* The industry’s market share was *** percent in interim 2019, down from *** percent in interim 2018. *Id.*

⁹³ The related parties that we have excluded from the domestic industry, ***, supplied *** percent of apparent U.S. consumption in 2016, increasing irregularly to *** percent in 2018. CR/PR at Table C-4.

⁹⁴ CR/PR at III-1, Table III-1.

⁹⁵ CR/PR at Table III-1; Hearing Tr. at 19 (Swift).

⁹⁶ CR/PR at II-20; Hearing Tr. at 30 (Anderson), 71-72 (Baisburd); Petitioners’ Prehearing Brief at 17-18.

⁹⁷ CR/PR at Table C-4.

The domestic industry made commercial U.S. shipments of all types of mattresses during the period of investigation, including innerspring, foam, and hybrid, packaged as both FPMs and MiBs.⁹⁸ Moreover, most responding domestic producers (20 of 28 firms) reported U.S. shipments of multiple types of mattresses.⁹⁹

Subject imports supplied *** percent of apparent U.S. consumption in 2016, which increased to *** percent in 2018.¹⁰⁰ The largest suppliers of subject imports to the U.S. market were ***, which together accounted for *** percent of reported exports of mattresses from China to the United States in 2018.¹⁰¹ The largest importers of mattresses from China were ***, which together accounted for *** percent of reported subject imports in 2018.¹⁰² Like domestic producers, importers made commercial U.S. shipments of all types of mattresses during the period of investigation, including innerspring, foam, and hybrid mattresses, packaged as both FPMs and MiBs.¹⁰³ Nevertheless, most subject import shipments consisted of mattresses packaged as MiBs, which increased irregularly as a percentage of subject import shipments from 2016 to 2018. MiBs accounted for 82.4 percent of subject imports in 2016, 75.9 percent in 2017, and 95.7 percent in 2018; they accounted for 96.6 percent in interim 2019 compared to 95.1 percent in interim 2018.¹⁰⁴

Nonsubject imports had a relatively small but increasing presence in the U.S. market during the period of investigation, reaching *** percent of apparent U.S. consumption in 2018.¹⁰⁵ According to official import statistics, the largest nonsubject source of mattresses during the period of investigation was Mexico.¹⁰⁶ Nonsubject sources reported most frequently by responding importers were Vietnam, Thailand, Indonesia, Cambodia, Malaysia, Serbia, and Taiwan.¹⁰⁷

⁹⁸ See CR/PR at Tables III-9-12.

⁹⁹ CR/PR at III-18.

¹⁰⁰ CR/PR at Table IV-10. Subject import market share increased from *** percent in 2016 to *** percent in 2017 and *** percent in 2018. *Id.* Subject import market share was *** percent in interim 2019, compared to *** percent in interim 2018. *Id.*

¹⁰¹ CR/PR at Table VII-1.

¹⁰² CR/PR at Table IV-1.

¹⁰³ See CR/PR at Tables IV-6-9.

¹⁰⁴ CR/PR at IV-14, Tables IV-6-7.

¹⁰⁵ CR/PR at Table IV-10. Nonsubject import market share increased from *** percent in 2016 to *** percent in 2017 and to *** percent in 2018, and was *** percent in interim 2019, up from *** percent in interim 2018. *Id.*

¹⁰⁶ CR/PR at II-10.

¹⁰⁷ CR/PR at II-10; see also *id.* at IV-7.

3. Substitutability and Other Conditions

We find that there is a moderately high degree of substitutability between subject imports and domestically produced mattresses.¹⁰⁸ Most responding domestic producers (18 of 22), importers (22 of 37), and purchasers (26 of 36) reported that subject imports are always or frequently interchangeable with domestically produced mattresses.¹⁰⁹ Forty-four out of 47 responding purchasers also reported that domestic producers always or usually meet minimum quality specifications, and 28 out of 33 responding purchasers reported that subject imports always or usually meet such specifications.¹¹⁰ Moreover, most responding purchasers reported that domestically produced mattresses were comparable to subject imports in terms of 23 of 25 purchasing factors.¹¹¹ The only two exceptions were that half (18 of 36) reported that domestic mattresses were superior with respect to delivery time, and a majority (21 of 36) reported that domestic mattresses were inferior with respect to price (*i.e.*, subject imports were priced lower).¹¹²

Consistent with purchasers' responses regarding delivery time, the record shows that domestic producers reported shorter lead times, on average, than importers of mattresses from China did.¹¹³ Specifically, domestic producers reported that 84.6 percent of their commercial shipments were produced-to-order, with a lead time averaging 4 days.¹¹⁴ The remaining 15.4 percent of their commercial shipments came from inventories, with a lead time averaging 3 days.¹¹⁵ For responding importers, 77.4 percent of their commercial shipments were shipped from inventories, with a lead time of 4-5 days; another 15.9 percent were produced-to-order, with a lead time averaging 51 days; and 6.7 percent came from the foreign manufacturers' inventories, with a lead time averaging 60 days.¹¹⁶

¹⁰⁸ CR/PR at II-19-20.

¹⁰⁹ CR/PR at Table II-14.

¹¹⁰ CR/ PR at Table II-15. Eighteen responding purchasers reported that domestic producers usually meet minimum quality specification, while three reported sometimes. *Id.* Thirteen responding purchasers reported that subject imports always meet minimum quality specifications, while four reported sometimes and one reported rarely or never. *Id.*

¹¹¹ CR/PR at Table II-13. Fourteen responding purchasers rated domestic mattresses as comparable with respect to delivery time, and only four rated domestic mattresses as inferior with respect to the factor. *Id.*

¹¹² CR/PR at Table II-13.

¹¹³ CR/PR at Table II-13.

¹¹⁴ CR/PR at II-21.

¹¹⁵ CR/PR at II-21.

¹¹⁶ CR/PR at II-21.

Most market participants reported that the U.S. mattress market changed since January 2016, citing increases in sales of MiBs and direct-to-consumer sales over the internet,¹¹⁷ and the record shows that this shift in the market was initiated by sellers of domestic mattresses.¹¹⁸ Notwithstanding these changes in the U.S. mattress market, both domestic producers and importers of subject merchandise shipped the full range of mattress types during the period of investigation, including innerspring, foam, and hybrid mattresses, packaged as both FPMs and MiBs.¹¹⁹ Although a large and increasing proportion of subject import shipments consisted of MiBs during the period of investigation, these shipments differed from domestic industry shipments of FPMs only in terms of packaging, and otherwise consisted of the same types of mattresses – innerspring, foam, and hybrid – shipped by the domestic industry.¹²⁰ Furthermore, the domestic industry also shipped large and increasing volumes of MiBs during the period, including 2.0 million units in 2018.¹²¹

We find that price is an important factor in purchasing decisions for mattresses, although non-price factors are also important.¹²² Price was the most often cited top-three purchasing factor (42 firms), followed by quality (40 firms), and lead time/delivery (18 firms).¹²³ Forty-eight of 57 responding purchasers ranked price as a very important purchasing factor.¹²⁴ Although a slightly greater number of responding purchasers rated five non-price factors as very important (including availability, reliability of supply, product consistency, delivery time, and quality), price was the only factor that no responding purchaser rated as not important.¹²⁵ Indeed, significant numbers of responding domestic producers (14 of 21), importers (18 of 37), and purchasers (16 of 37) reported that differences other than price are never, or only

¹¹⁷ CR/PR at II-14.

¹¹⁸ CR/PR at II-14 (explaining that *** reported that “the majority of the impact” from the shift in market to online purchases from tech-enabled bed-in-a-box companies “is from U.S.-based companies that purchase from U.S. manufacturers.”); *see also* Chinese Respondents’ Prehearing Br. at 9 and Exhibit 18.

¹¹⁹ CR/PR at Tables IV-11-15.

¹²⁰ *Compare* CR/PR at Table III-9 *with id.* at Table IV-6. Chinese Respondents contend that MiBs require special designs and engineering, and specialized foam, because they must be rolled, compressed, and recover to normal height after unpacking. *See* Chinese Respondents’ Responses to Commissioner Questions at 55-56. However, FPMs are also sometimes shipped and sold in a compressed state. CR/PR at I-12.

¹²¹ CR/PR at Table III-10.

¹²² CR/PR at Tables II-10-11.

¹²³ CR/PR at Table II-10. Responding purchasers most frequently cited “quality” as the first most important factor and “price/cost” as the second and third most important factors. *Id.*

¹²⁴ CR/PR at Table II-11.

¹²⁵ CR/PR at Table II-11.

sometimes, significant when purchasers choose between subject imports and domestically produced mattresses, *i.e.*, that price alone is sometimes or always the only significant factor in making this choice.¹²⁶

Domestic producers and importers of subject merchandise shipped mattresses through the same channels of distribution during the period of investigation, primarily to retailers.¹²⁷ In particular, both domestic producers and importers of subject merchandise made a substantial proportion of their U.S. shipments to third party retailers, including brick and mortar stores, direct to consumer/internet, and omni-channel retailers, during the period of investigation, including *** percent of domestic industry shipments and *** percent of subject import shipments in 2018.¹²⁸ In 2018, the volume of the domestic industry's U.S. shipments to third party direct-to-consumer/internet retailers and omni-channel retailers, which also make sales over the internet, was similar (*** units) to the volume of subject import shipments through these channels (*** units).¹²⁹ Moreover, all of the ten largest responding purchasers, which accounted for *** percent of reported purchases during the 2016-18 period, reported purchasing both domestically produced mattresses and subject imports, with seven reporting substantial purchases of mattresses from both sources.^{130 131}

The record also shows that brick and mortar retail stores remain a viable way to sell mattresses, notwithstanding increasing sales of mattresses over the internet during the period of investigation.¹³² Around two-thirds of domestically produced mattresses (*** percent) and one-third of subject imports (*** percent) were shipped to brick and mortar retailers in

¹²⁶ CR/PR at Table II-16 (four of 21 responding domestic producers, eight of 37 responding importers, and seven of 37 responding purchasers reported that factors other than price are always important). *Id.*

¹²⁷ CR/PR at II-6, Table II-4.

¹²⁸ Derived from CR/PR at E-5, E-16 and Domestic Producers' Questionnaire Responses of ***. Specifically, in 2018, the domestic industry made *** percent of its U.S. shipments to third party brick and mortar retailers, *** percent of its U.S. shipments to third party direct to consumer/internet retailers, and *** percent of its U.S. shipments to third party omni-channel retailers. *Id.* That same year, importers of mattresses from China made *** percent of their U.S. shipments to third party brick and mortar retailers, *** percent of their U.S. shipments to third party direct to consumer/internet retailers, and *** percent of its U.S. shipments to third party omni-channel retailers. *Id.* at E-19.

¹²⁹ Derived from CR/PR at E-8, E-19, Tables IV-10, C-4; Domestic Producers' Questionnaire Responses of ***.

¹³⁰ CR/PR at Table V-25. These seven purchasers, ***, reported purchases of domestic mattresses ranging from *** units to *** units and purchases of mattresses imported from China ranging from *** units to *** units. *Id.*

¹³¹ For example, ***. CR/PR at Table V-25.

¹³² See CR/PR at Appendix E.

2018.¹³³ Indeed, contrary to respondents' claim that "e-commerce sales left the traditional brick and mortar stores out of touch with many consumers,"¹³⁴ importers of subject merchandise made between *** and *** percent of their U.S. shipments during the 2016-18 period to their own captive brick and mortar stores.¹³⁵ Healthcare (Mlily), one of the largest Chinese producers of mattresses, recently signed a letter of intent to purchase Mor Furniture for Less and Mattress One's Texas retail operations, including 36 brick and mortar stores owned by Mor Furniture and over 300 brick and mortar stores owned by Mattress One.¹³⁶ Furthermore, captive retailers, third-party retailers, online retailers, and brick and mortar retailers all compete for sales to consumers at the retail level, which ultimately drive sales at the wholesale level.¹³⁷

The domestic industry's raw material costs generally increased during the period of investigation.¹³⁸ The vast majority of responding domestic producers reported that raw material prices for innersprings and foam had increased since January 2016, and over half reported that raw material prices for upholstery and other raw materials had increased as

¹³³ CR/PR at E-8, 19; Domestic Producers' Questionnaire Responses of ***.

¹³⁴ Chinese Respondents' Prehearing Brief at 13.

¹³⁵ CR/PR at E-19.

¹³⁶ Petitioners' Posthearing Brief at Exhibit 1-9; Hearing Tr. at 12-13 (Alves), 57 (Baisburd); *see also* Chinese Respondents' Prehearing Br. at Exhibit 18 (describing Casper's retail partnership with Target).

¹³⁷ Hearing Tr. at 38 (Chrisafides) ("It is not the case that certain types of mattresses, like mattresses-in-a-box, are only sold online. Mattresses-in-a-box are sold in traditional brick-and-mortar stores. Some brick-and-mortar stores developed an online presence and some firms, like Casper, which began as an online store only, are now setting up brick-and-mortar stores. There are other retailers that might be characterized as Omni channel sellers. Chinese mattresses are sold throughout the market in all channels of distribution."), 66 (Swift) ("We see all the time, every day, today, consumers walking into retail with their iPhone, and what they're doing is, they're looking online and they're comparing what they could get that same product in retail with Amazon."), 75 (Chrisafides) ("We are a private label producer {ECS} for customers, for example, Casper and Tuft & Needles. So many -- some of their customers will buy in brick and mortar at retailers like Casper or with Target, for example. Casper also has their own stores. But they have a lot of people that buy their mattresses on their website. So those fulfillment requirements come to us, and we make the mattress within a couple of days. We print out the label with that customer's address on it, and we ship directly to that consumer."), 201-2 (Dougan) ("So well I mean it's a derived demand, right? So the consumer demand is pulling it, and if the consumers are demanding less of the flat pack mattresses, then the purchasers will be sourcing less of them, and they're sourcing less of them from domestic producers, because that's who's supplying them. So I don't want to overstate that there's no, you know, end consumer demand that's not a displacement between MiB and FPM, because I think that's an overstatement."); *see also* CR/PR at Table V-26 (***); Chinese Respondents' Prehearing Br. at Exhibit 18.

¹³⁸ *See* CR/PR at V-1-4.

well.¹³⁹ Consistent with these responses, the record shows that prices of the primary chemical materials used to produce foam for mattresses increased from early 2016 to mid-2018 before decreasing somewhat since mid- to late-2018 to levels that remain higher than in 2016.¹⁴⁰ The record also shows that the wire rod used to produce springs for innerspring and hybrid mattresses increased irregularly during the period of investigation, ending the period substantially higher than in 2016.¹⁴¹ The unit value of the domestic industry's raw materials increased from \$114 per unit in 2016 to \$133 per unit in 2018 and was \$131 per unit in interim 2019, compared to \$129 per unit in interim 2018, driving the entire increase in the industry's unit cost of goods sold during the period.¹⁴²

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."¹⁴³

We find that subject import volume and the increase in subject import volume were significant in absolute terms and relative to consumption in the United States. Subject import volume increased from 3.8 million units in 2016 to 7.2 million units in 2017 and 8.4 million units in 2018.¹⁴⁴ Subject import volume was 2.9 million units in interim 2019, compared to 3.2 million units in interim 2018.¹⁴⁵ U.S. commercial shipments of subject imports increased as a share of apparent U.S. consumption from *** percent in 2016 to *** percent in 2017 and *** percent in 2018.¹⁴⁶ Subject import market share was *** percent in interim 2019, compared to *** percent in interim 2018.¹⁴⁷

¹³⁹ CR/PR at V-3. Almost half of responding U.S. purchasers (28 of 57 firms) reported that they were familiar with prices of raw materials used to manufacture mattresses, and multiple purchasers reported that knowledge of raw material prices is important during negotiations. *Id.* at V-4.

¹⁴⁰ CR/PR at V-2-3, Figure V-3. Most mattresses typically use some foam in various thicknesses, densities, and amounts. *Id.* at V-1.

¹⁴¹ CR/PR at V-1, Figure V-1. Iron and steel scrap prices exhibited a similar increasing trend during the period. CR/PR at Figure V-2.

¹⁴² CR/PR at Table VI-1.

¹⁴³ 19 U.S.C. § 1677(7)(C)(i).

¹⁴⁴ CR/PR at Table IV-2.

¹⁴⁵ CR/PR at Table IV-2.

¹⁴⁶ CR/PR at Table IV-10.

¹⁴⁷ CR/PR at Table IV-10.

We also find that subject imports increased significantly at the direct expense of the domestic industry. As subject imports increased their penetration of the U.S. market by *** percentage points from 2016 to 2018, the domestic industry's market share declined by a roughly equivalent *** percentage points, from *** percent in 2016 to *** percent in 2017 and *** percent in 2018.¹⁴⁸ The domestic industry's market share was *** percent in interim 2019, down from *** percent in interim 2018.¹⁴⁹ Between 2016 and 2018, subject imports captured *** percentage points of market share from the domestic industry with respect to innerspring mattresses, *** percentage points of market share with respect to foam mattresses, and *** percentage points of market share with respect to hybrid mattresses.¹⁵⁰ When taking into account packaging, subject imports also captured *** percentage points of market share from the domestic industry during the 2016-18 period with respect to mattresses packaged as MiBs.¹⁵¹

We conclude that the volume of subject imports and the increase in that volume are significant both in absolute terms and relative to consumption in the United States.

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.¹⁵²

As addressed in section IV.B.3 above, the record indicates that there is a moderately high degree of substitutability between subject imports and the domestic like product, and that price is an important consideration in purchasing decisions.

¹⁴⁸ CR/PR at Tables IV-10, C-4.

¹⁴⁹ CR/PR at Tables IV-10, C-4.

¹⁵⁰ CR/PR at Tables IV-11-13; Domestic Producers' Questionnaire of ***.

¹⁵¹ CR/PR at Table IV-14; Domestic Producers' Questionnaire of ***. The domestic industry increased its market share during 2016-18 with respect to mattresses packaged as FPMs. CR/PR at Table IV-15; Domestic Producers' Questionnaire of ***.

¹⁵² 19 U.S.C. § 1677(7)(C)(ii).

Nine domestic producers and 22 importers provided usable quarterly net U.S. f.o.b. selling price data for five mattress products packaged both as MiBs and FPMs, although not all firms reported pricing for all products for all quarters.¹⁵³ Reported pricing data accounted for

¹⁵³ CR/PR at F-3 (excluding pricing data reported by related parties ***). Product 1 was defined as “Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.” *Id.* at V-8. Product 2 was defined as “Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than or equal to 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.” *Id.* Product 3 was defined as “Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.” *Id.* Product 4 was defined as “Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.” *Id.* Product 5 was defined as “Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less or equal to 12.0 inches.” *Id.* Pricing data for each of these products were reported separately for MiBs and FPMs. *Id.*

We are unpersuaded by respondents’ argument that the Commission’s pricing product definitions are overbroad because the Commission failed to specify and distinguish data based on the density of the base foam layer as part of the definitions. Chinese Respondents’ Posthearing Brief at 10. In defining pricing products, the Commission must strike a balance between product definitions that are narrow enough to permit apples-to-apples comparisons of directly competitive products but broad enough to yield reasonable coverage of domestic producer and importer shipments. In this regard, the pricing product definitions were selected in consultation with petitioners and respondents as being representative of competition between domestically produced mattresses and imported mattresses in the U.S. market. At respondents’ request, staff amended the pricing product descriptions in the final phase of the investigation to incorporate additional mattress height and foam density parameters, and collected pricing information separately for mattresses packaged as MiB and FPM (non-MiB). CR/PR at V-7-8 n.6. At the hearing, counsel for the Chinese respondents agreed that “{w}e did provide comments and they were largely accepted on the pricing products, just to be clear.” CR/PR at V-8 n.6; Hearing Tr. at 283 (Emerson). That these product definitions yielded representative pricing data is confirmed by the amount of domestic producer and importer U.S. shipments covered by the data. CR/PR at F-3. Consequently, we find that the pricing data on the record of this investigation provide a reliable basis for apples-to-apples price comparisons based on specifically defined mattress products.

Furthermore, while foam base layer density may vary to some degree for different mattresses classified within the same pricing product, the record does not establish that any such differences would skew the results toward either underselling or overselling to a significant degree. To the contrary, large majorities of purchasers reported that Chinese and domestic mattresses are comparable in terms of both foam density and foam type; of those who disagreed, equal numbers reported U.S. mattresses superior and inferior to subject imports in these respects. CR/PR at Table II-3. Similarly, although respondents argue that more U.S. mattresses are sold at higher price points, even if true, this would not establish that U.S. mattresses within the same pricing product category are inherently higher value. U.S. manufacturers can and do sell mattresses even at lower, “opening” price points. *Id.* at H-4 and H-7.

approximately 31.7 percent of domestic producers' U.S. shipments of mattresses and 32.8 percent of U.S. shipments of subject imports from China.¹⁵⁴

Based on these pricing data and purchase cost data discussed below, we find that subject import underselling was significant during the period of investigation.¹⁵⁵ Subject imports undersold the domestic like product in 90 of 96 quarters, or 94.0 percent of the time, at margins averaging 32.7 percent, and underselling accounting for 96.6 percent of reported subject import sales volume (3,065,779 of 3,174,920 units).¹⁵⁶ When analyzed separately by packaging type, underselling occurred in 53 of 59 quarters with respect to MiBs at margins averaging 30.9 percent and in 37 of 37 quarters with respect to FPMs at margins averaging 35.2 percent.¹⁵⁷

The Commission also collected purchase cost data for the same five pricing products imported from China for mattresses packaged as MiBs and FPMs. Sixteen importers reported usable import purchase cost data for all ten mattress products, although not all firms reported cost data for all products for all quarters.¹⁵⁸ Import purchase cost data reported by these firms accounted for approximately 10.4 percent of importers' imports from China in 2018.¹⁵⁹ The subject import purchase costs reported by responding importers were lower than the sales prices of domestically produced mattresses in *** of *** quarterly comparisons.¹⁶⁰ Moreover, on a quantity basis, there were *** units of directly imported subject mattresses in quarters in which the purchase costs were lower than the price for the domestic like product, and *** units of imports for which the purchase cost was higher than the price for the domestic like product.¹⁶¹ The average difference between purchase costs of subject imports and the domestic like product prices for the *** quarters in which purchase costs of directly imported subject mattresses were lower than domestic like product prices was *** percent.¹⁶²

The questionnaires also requested that direct importers provide additional estimated costs above landed duty paid value associated with their importing activities. Importers

Large majorities of purchasers reported that subject imports and domestically produced mattresses are comparable in terms of quality both meeting and exceeding industry standards, in consumer trials both at home and in stores, and in terms of consumer online ratings. CR/PR at Table II-3.

¹⁵⁴ CR/PR at F-3.

¹⁵⁵ CR/PR at Table V-12 (supplemental), EDIS Document No. 660541.

¹⁵⁶ CR/PR at Tables F-22a and F-22b.

¹⁵⁷ CR/PR at Tables F-22a and F-22b.

¹⁵⁸ CR/PR at F-24.

¹⁵⁹ CR/PR at F-24.

¹⁶⁰ CR/PR at Tables F-11-20.

¹⁶¹ CR/PR at Tables F-11-20.

¹⁶² CR/PR at Tables F-11-20.

reported estimates for the following factors: inland transportation costs, logistical or supply chain costs, warehousing/inventory carrying costs, and insurance costs.¹⁶³ These estimated costs totaled 26.3 percent of the landed duty paid value of direct imports on average.^{164 165} The average differential between import purchase costs and prices for the domestic like product was *** percent. The large differential between the import purchase costs and the prices of the domestic like product indicates that the subject imports were often priced lower than the domestic like product.

Based on the moderately high degree of substitutability between subject imports and the domestic like product and the importance of price in purchasing decisions, we find that pervasive subject import underselling caused market share to shift from the domestic industry to subject imports during the period of investigation. As further evidence, we observe that 21 of 57 responding purchasers reported purchasing subject imports instead of domestically produced mattresses during the period of investigation, while 17 of 22 responding purchasers reported that subject import prices were lower than domestic producer prices.¹⁶⁶ Responding purchasers reported that the domestic share of their total purchases declined by 17.1 percentage points between 2016 and 2018, while the subject import share increased by 14.5 percentage points.¹⁶⁷ In addition, nine of 17 purchasers further reported that the lower price of subject imports was a primary reason for purchasing more than 655,838 imported mattresses rather than domestic products.¹⁶⁸

¹⁶³ CR/PR at F-24.

¹⁶⁴ CR/PR at F-24.

¹⁶⁵ Commissioner Schmidlein affords these additional costs limited weight. The reported costs could also apply to purchases sourced from domestic producers but such costs were not requested and, therefore, could not be considered when evaluating the domestic industry's prices. Consequently, she finds the additional cost data to be of limited value in assessing the relative prices of subject imports and the domestic like product. *See Vertical Metal File Cabinets from China*, Inv. Nos. 701-TA-623 and 731-TA-1449 (Final), USITC Pub. 4995 (Dec. 2019) at 20 n.93.

¹⁶⁶ CR/PR at V-55, Tables V-25-26.

¹⁶⁷ CR/PR at Table V-25.

¹⁶⁸ CR/PR at Table V-26. We are unpersuaded by respondents' argument that subject imports could have had no adverse price effects because only nine of 24 purchasers reported that price was a primary reason for their shift to subject imports, accounting for 655,838 units, and only six of 58 purchasers reported that domestic producers had reduced their prices to compete with subject imports. Chinese Respondents' Prehearing Brief at 30; Chinese Respondents' Posthearing Brief at 11; CR/PR at V-55, 60, Tables V-26-27. These responses are inconsistent with the vast majority of responding purchasers (49 of 57) reporting that price was a very important factor influencing their purchasing decisions, CR/PR at Table II-11; *see also id.* at Table II-10, and pricing data showing that subject imports pervasively undersold the domestic like product. *Id.* at Tables F-22a and 22b. Consistent with the pricing data, a clear majority of responding purchasers reported that subject imports were priced lower

We also find that the significant and growing quantity of low-priced subject imports depressed domestic like product prices to a significant degree.¹⁶⁹ The domestic industry's sales prices declined between the first and last quarters for which data were collected on six of ten pricing products, notwithstanding strong overall demand growth and increasing production costs.¹⁷⁰ Despite the *** percent increase in apparent U.S. consumption of MiBs during the

than domestically produced mattresses. *Id.* at Table II-13 (21 of 36), Table V-26 (17 of 22). Furthermore, *** reported that price was a factor in their increased imports and purchases of subject imports during the period of investigation. *See* Importers' Questionnaire of *** at Question III-15; ***. At the hearing, petitioners' and respondents' witnesses emphasized the importance of price to Amazon and Walmart. *See* Hearing Tr. at 72-73 (Merwin) ("And then {Amazon} started coming back saying hey, this {pricing} is no good. You need to come lower, come lower, and we would continue to go as low as we could, and then eventually we got priced out of the market."), 162 (Douglas) ("Most retailers, but especially Amazon and Walmart, have a core dedication to their customers that they will not be beat on price. As such, these retailers will often sell their mattresses below their purchase price from us to stay competitive in that price war. This creates a race to the bottom that is independent of country of origin."), 249-50 (Douglas) ("{O}ne thing that did get mentioned that Jim touched on was the part about, you know, {domestic producers} go to Amazon and they tell us that our price isn't good enough, that it needs to be lowered. We've been selling Chinese mattresses to them. They tell us the same thing. It's absolutely, so it's a programmatic ask actually from the, and we have this from Amazon employees, they ask that of everyone no matter what."). Notwithstanding these discrepancies, we disagree with respondents' contention that we should predicate our analysis on the adverse price effects of subject imports entirely on purchaser responses that are inconsistent with other evidence on the record supporting the conclusion that low subject import prices contributed to the 14.5 percent shift in their purchases from domestic producers to subject imports from 2016 to 2018 that purchasers reported in their questionnaire responses.

Another reason to discount the significance of most responding purchasers reporting that price was not a primary reason for their increased purchases of subject imports is that these purchasers' demand for mattresses derives from consumers' demand. Hearing Tr. 201-2 (Dougan). In situations where retailers purchase at the wholesale level the products that their customers demand at retail, retailers' purchasing decisions will be sensitive to consumers' price preferences. The record contains persuasive evidence that mattress consumers consider price an important factor in their purchasing decisions both online and in stores. *See* ***. Accordingly, notwithstanding whether purchasers indicate that their own purchase decisions were not primarily influenced by price, evidence indicates that price would have exerted an indirect influence on those decisions.

¹⁶⁹ We are unpersuaded by respondents' argument that there could be no price depression because the average unit value of the domestic industry's U.S. shipments increased over the period of investigation for both FPMs and MiBs. Chinese Respondents' Prehearing Brief at 25; *see also* CR/PR at Tables III-10-11. Because the U.S. mattress market is characterized by a wide range of mattress types at different price points, we find that the average unit value of the domestic industry's U.S. shipments would be influenced by changes in product mix over time. Consequently, we do not rely on the average unit value of the domestic industry's U.S. shipments. *See* CR/PR at II-1, Tables F-21a-21b.

¹⁷⁰ CR/PR at V-1-4, Tables IV-10, C-2, F21a-21b.

2016-18 period, the domestic industry's sales prices declined with respect to four of five MiB pricing products by *** to *** percent.^{171 172}

In addition, we find that the significant and growing quantity of low-priced subject imports suppressed domestic like product price increases that otherwise would have occurred to a significant degree. As raw material costs increased during the period of investigation, the domestic industry was unable to pass its increased production costs on through higher prices, resulting in a cost-price squeeze.¹⁷³ The domestic industry's ratio of cost of goods sold to net sales increased from *** percent in 2016 to *** percent in 2017 and *** percent in 2018, and was *** percent in interim 2018 and 2019.¹⁷⁴ Four responding domestic producers reported that they were unable to adjust their mattress prices to cover increased raw material costs due to subject import competition, and some of the responding domestic producers that were able to adjust their prices reported having to absorb most of the increase in raw material costs.¹⁷⁵

In sum, we find that subject imports had significant adverse price effects on the prices of the domestic like product.

¹⁷¹ CR/PR at Tables IV-14, F-21a. Sales prices for MiB product 4 declined by *** percent between the first and last quarters for which pricing data were collected. *Id.* at Table F-4.

¹⁷² We acknowledge that the domestic industry's sales prices increased over the POI for ***.
CR/PR at Tables, F-1, F-20, F-21b.

¹⁷³ CR/PR at V-1-4, Tables VI-1, V-4. As total net sales value decreased from \$4.4 million in 2016 to \$4.3 million in 2018, total raw material costs increased from \$2.0 million in 2016 to \$2.1 million in 2018.

¹⁷⁴ CR/PR at Table C-4. Raw material costs as a ratio to net sales also increased from 44.2 percent in 2016 to 45.0 percent in 2017 and 47.3 percent in 2018; this ratio was 47.0 percent in interim 2018 and 46.9 percent in interim 2019. CR/PR at Table VI-1.

¹⁷⁵ CR/PR at V-3.

E. Impact of the Subject Imports¹⁷⁶

Section 771(7)(C)(iii) of the Tariff Act provides that in examining the impact of subject imports, the Commission “shall evaluate all relevant economic factors which have a bearing on the state of the industry.”¹⁷⁷ 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.”¹⁷⁸

During the period of investigation, the substantial increase in apparent U.S. consumption should have resulted in a stronger domestic industry performance. Apparent U.S. consumption increased *** percent between 2016 and 2018 and was *** percent higher in interim 2019 compared to interim 2018.¹⁷⁹ Instead, as subject imports captured *** percentage points of market share from the domestic industry between 2016 and 2018, the domestic industry’s performance declined according to most measures.¹⁸⁰

The domestic industry’s capacity, production, and rate of capacity utilization declined irregularly between 2016 and 2018, and were lower in interim 2019 compared to interim 2018.

¹⁷⁶ 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 of sales at less value, Commerce calculated dumping margins ranging from 57.03 percent to 1,731.75 percent on mattresses imported from China. *Mattresses From the People’s Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 84 Fed. Reg. 56761 (October 23, 2019). We take into account in our analysis the fact that Commerce has made final findings that all subject producers in China 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 underselling and adverse 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.

¹⁷⁷ 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.”).

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

¹⁷⁹ CR/PR at Table C-4.

¹⁸⁰ CR/PR at Table C-4.

Specifically, the industry’s capacity declined from *** units in 2016 to *** units in 2017 and *** units in 2018, a level *** percent lower than in 2016.¹⁸¹ The industry’s capacity was *** units in interim 2019, compared to *** units in interim 2018.¹⁸² The industry’s production declined from *** units in 2016 to *** units in 2017 and *** units in 2018, a level *** percent lower than in 2016.¹⁸³ The industry’s production was *** units in interim 2019, compared to *** units in interim 2018.¹⁸⁴ The industry’s rate of capacity utilization initially increased from *** percent in 2016 to *** percent in 2017 before declining to *** percent in 2018.¹⁸⁵ The industry’s rate of capacity utilization was *** percent in interim 2019, compared to *** percent in interim 2018.¹⁸⁶

Consistent with the domestic industry’s declining capacity and production, the industry’s employment declined irregularly from *** production related workers (“PRWs”) in 2016 to *** PRWs in 2018, a level *** percent lower than in 2016, and was *** PRWs in interim 2019, compared to *** PRWs in interim 2018.¹⁸⁷ The industry’s hours worked, wages paid, and productivity also generally declined during the period of investigation.¹⁸⁸

The domestic industry’s declining production resulted directly from the industry’s declining U.S. shipments and market share. The domestic industry’s U.S. shipments declined from *** units in 2016 to *** units in 2017 and to *** units in 2018, a level *** percent lower than in 2016.¹⁸⁹ The industry’s U.S. shipments were *** units in interim 2019, compared to *** units in interim 2018.¹⁹⁰ The industry’s share of apparent U.S. consumption declined from ***

¹⁸¹ CR/PR at Table C-4.

¹⁸² CR/PR at Table C-4.

¹⁸³ CR/PR at Table C-4.

¹⁸⁴ CR/PR at Table C-4.

¹⁸⁵ CR/PR at Table C-4.

¹⁸⁶ CR/PR at Table C-4.

¹⁸⁷ CR/PR at Table C-4.

¹⁸⁸ CR/PR at Table C-4. The domestic industry’s wages paid increased by *** percent from 2016 to 2017 before declining *** percent in 2018, ending *** percent lower in 2018 compared to 2016. *Id.* The industry’s wages paid were *** lower in interim 2019 compared to interim 2018. *Id.* The domestic industry’s hours worked declined *** percent between 2016 and 2018 but were *** percent higher in interim 2019 than in interim 2018. *Id.* The industry’s productivity in units per 1,000 hours declined 0.9 percent between 2016 and 2018 and was 7.3 percent lower in interim 2019 than in interim 2018. *Id.* Tempur Sealy reported that it was forced to reduce the hours worked by its employees and that the number of its mattress production facilities operating with two shifts fell from 11 in 2016 to one by the end of 2018 as subject import competition reduced its production and sales volume. Hearing Tr. at 30-31 (Anderson).

¹⁸⁹ CR/PR at Table C-4.

¹⁹⁰ CR/PR at Table C-4.

percent in 2016 to *** percent in 2017 and to *** percent in 2017, a level *** percentage points lower than in 2016.¹⁹¹ The industry's share of apparent U.S. consumption was *** percent in interim 2019, compared to *** percent in interim 2018.¹⁹²

The domestic industry's end-of-period inventories increased irregularly during the period of investigation, initially decreasing from *** units in 2016 to *** units in 2017 before increasing to *** units in 2018, a level *** percent higher than in 2016.¹⁹³ The industry's end-of-period inventories were *** units in interim 2019, compared to *** units in interim 2018.¹⁹⁴ Similarly, the industry's end-of-period inventories as a share of total shipments decreased from *** percent in 2016 to *** percent in 2017 before increasing to *** percent in 2018.¹⁹⁵ The industry's end-of-period inventories as a share of total shipments were *** percent in interim 2019, compared to *** percent in interim 2018.¹⁹⁶

The domestic industry's financial performance also declined during the period of investigation, as subject imports captured market share from the domestic industry and depressed and suppressed domestic like product prices.¹⁹⁷ Specifically, the industry's net sales value declined from \$*** in 2016 and 2017 to \$*** in 2018, a level *** percent lower than in 2016, and was \$*** in interim 2019, compared to \$*** in interim 2018.¹⁹⁸ The industry's operating income declined from \$*** in 2016 to \$*** in 2017 and to \$*** in 2018, a level *** percent lower than in 2016, and was \$*** in interim 2019, compared to \$*** in interim 2018.¹⁹⁹ Similarly, the industry's operating income margin declined from *** percent in 2016 to *** percent in 2017 and to *** percent in 2018, and was *** percent in interim 2019,

¹⁹¹ CR/PR at Table C-4.

¹⁹² CR/PR at Table C-4.

¹⁹³ CR/PR at Table C-4.

¹⁹⁴ CR/PR at Table C-4.

¹⁹⁵ CR/PR at Table C-4.

¹⁹⁶ CR/PR at Table C-4.

¹⁹⁷ See CR/PR at Table C-4.

¹⁹⁸ CR/PR at Table C-4.

¹⁹⁹ CR/PR at Table C-4.

compared to *** percent in interim 2018.²⁰⁰ The domestic industry's average operating return on assets declined from *** percent in 2016 to *** percent in 2017 and *** percent in 2018.²⁰¹

The domestic industry's capital expenditures and research and development ("R&D") expenses also declined during the period of investigation.²⁰² The domestic industry's capital expenditures declined from \$*** in 2016 to \$*** in 2017 and \$*** in 2018 and were \$*** in interim 2019, compared to \$*** in interim 2018.²⁰³ The industry's R&D expenses declined from \$*** in 2016 to \$*** in 2017 before increasing to \$*** in 2018, and were \$*** in interim 2019, compared to \$*** in interim 2018.²⁰⁴

Sixteen of 28 responding domestic producers reported that subject imports had negative effects on their investment, with ten reporting that the returns on specific investments were negatively impacted.²⁰⁵ For example, Brooklyn Bedding reported that subject imports adversely impacted the returns on its investments as sales lost to subject imports resulted in significantly lower capacity utilization levels.²⁰⁶ Serta Simmons reported that much of the capital and production equipment acquired in anticipation of growing demand for MiBs remains unused due to increased volumes of subject imports.²⁰⁷ Tempur Sealy reported that it did not achieve its anticipated sales following investments in foam technology

²⁰⁰ CR/PR at Table C-4. The domestic industry's gross profit and net income exhibited similar declining trends. The industry's gross profit decreased from \$*** in 2016 and 2017 to \$*** in 2018, and was \$*** in interim 2019, compared to \$*** in interim 2018. *Id.* The industry's net income declined from \$*** in 2016 to \$*** in 2017 and \$*** in 2018 and was \$*** in interim 2019, compared to \$*** in interim 2018. *Id.* Sixteen responding domestic producers reported that subject imports had negative effects on their investment and fourteen domestic producers reported that subject imports had negative effects on their growth and development. CR/PR at Table VI-8.

²⁰¹ CR/PR at Table IV-7, as amended by Memorandum INV-RR-120 (Nov. 12, 2019).

²⁰² CR/PR at Table C-4.

²⁰³ CR/PR at Table C-4.

²⁰⁴ Derived from CR/PR at Table VI-5; Domestic Producers' Questionnaire Responses of ***.

²⁰⁵ CR/PR at Tables VI-8, H-1; *see also* Hearing Tr. at 32-33, 99 (Anderson), 35-36 (Fallen), 40 (Chrisafides), 42-43 (Koltun); Declaration of ***, appended as Exhibit 6 to Petitioners' Prehearing Brief, paras. 5-6 (stating that *** investment "in a foam cutting line and equipment to produce convoluted foam" made in 2015 and 2016 "based on our sales volume and projected growth . . . is effectively idle because of the sale we lost to cheap Chinese mattresses."). We recognize that many domestic producers made capital investments during the period of investigation due to strong demand, including a \$100 million investment by Serta Simmons announced in February 2017. *See* Respondents' Prehearing Brief at 50-52, Exhibit 9; *see also* CR/PR at Tables VI-5 and VI-6. A substantial number of domestic producers, however, reported that these investments did not yield the expected returns due to increased volumes of low-priced subject imports, CR/PR at Tables VI-8, H-1, as the domestic industry's financial performance declined during the period of investigation. *Id.* at Table C-4.

²⁰⁶ Hearing Tr. at 51 (Merwin).

²⁰⁷ Hearing Tr. at 80-81 (Swift).

and compression equipment due to low-priced subject import competition.²⁰⁸ Kolcraft reported that its investments in factory automation in 2017 did not achieve the anticipated returns and that expansions planned for 2017 and 2018 were put on hold due to low-priced subject import competition.²⁰⁹ Corsicana reported that investments in roll-packing equipment to tap the growing MiB market were “barely used” as subject imported mattresses were priced below Corsicana’s cost of production.²¹⁰ ECS reported that its investments to expand its capacity to meet growing demand for foam mattresses remained underutilized, and the returns on its investments in R&D and engineering inadequate, due to large volumes of low-priced subject imports.²¹¹

We find that subject imports had a significant impact on the domestic industry during the period of investigation. Subject import volume increased significantly in absolute terms and relative to apparent U.S. consumption during the period of investigation, driven by significant subject import underselling.²¹² The increasing volume of low-priced subject imports captured *** percentage points of market share from the domestic industry between 2016 and 2018 and subject imports retained *** of this market share in interim 2019.²¹³ As a consequence, the domestic industry suffered declining capacity, production, capacity utilization, employment, and U.S. shipments, despite strong demand growth that should have boosted these measures of industry performance.²¹⁴

Strong demand growth should have also benefitted the domestic industry’s revenues and financial performance. Instead, as the industry’s production costs increased, significant volumes of low-priced subject imports depressed and suppressed domestic like product prices to a significant degree during the period of investigation.²¹⁵ The industry’s declining prices and increasing COGS to net sales ratio translated directly into declining net sales revenues, gross profits, operating income, and net income.²¹⁶ After investments made in anticipation of growing demand remained underutilized, the domestic industry also reduced its capital expenditures and R&D expenses during the period.²¹⁷

²⁰⁸ Hearing Tr. at 99 (Anderson).

²⁰⁹ Hearing Tr. at 42 (Koltun).

²¹⁰ Hearing Tr. at 35 (Fallen).

²¹¹ Hearing Tr. at 40 (Chrisafides).

²¹² CR/PR at Tables IV-3, IV-10, C-4, F-22a.

²¹³ CR/PR at Table C-4.

²¹⁴ CR/PR at Tables IV-10, C-4.

²¹⁵ CR/PR at Tables IV-3, C-4, F-21a-21b.

²¹⁶ CR/PR at Table C-4.

²¹⁷ CR/PR at Tables VI-5, C-4.

We also find that the significant increase in subject imports came at the expense of domestic producers of innerspring, foam, and hybrid mattresses, irrespective of packaging. Given the moderately high degree of substitutability we have found between subject imports and the domestic like product, the significant increase in lower priced subject imports during the period of investigation displaced all types of domestically produced mattresses – regardless of mattress type or packaging – from the U.S. market in every channel of distribution.²¹⁸ Despite the *** percent increase in apparent U.S. consumption between 2016 and 2018, the domestic industry’s U.S. shipments declined *** percent during the period.²¹⁹

We are unpersuaded by respondents’ argument that differences in packaging served to insulate the domestic industry from subject import competition.²²⁰ Rather, we find that subject imports packaged as MiBs competed not only with domestically produced MiBs – which represented a small but increasingly important part of domestic production²²¹ – but also with domestically produced FPMs. At the hearing, respondents’ economist acknowledged that increased sales of MiBs displaced sales of FPMs from the U.S. market during the period of investigation.²²² Consistent with this, ***.²²³ It is clear that increasing sales of MiBs in the period of investigation were replacing sales of FPMs to a significant extent, because not only did apparent consumption of MiBs increase during the period of investigation, but apparent consumption of FPMs fell, despite a growing economy and increasing overall demand.²²⁴

²¹⁸ CR/PR at Table IV-11 – IV-15, E-1 – E-2.

²¹⁹ CR/PR at Table C-4.

²²⁰ See Chinese Respondents’ Prehearing Brief at 2-3, 28, 39; Chinese Respondents’ Posthearing Brief at 2-4.

²²¹ U.S. shipments of MiBs increased from 6.3 percent of U.S. producers’ U.S. shipments in 2016 to 9.7 percent in 2017, 12.6 percent in 2018, and 17.0 percent in interim 2019, compared to 11.0 percent in interim 2018. CR/PR at III-21.

²²² Hearing Tr. at 202 (Dougan) (“So I don’t want to overstate that there’s no, you know, end consumer demand that’s not a displacement between MiB and FPM, because I think that’s an overstatement.”), 202 (Schmidlein) (“So you agree that some portion of the decrease in flat pack is attributable to increase in the MiB?”), 202 (Dougan) (“To MiB, yes.”), 232 (Dougan) (“a portion of the growth in MiB was perhaps a displacement of FPM”); see also Chinese Respondents’ Post-Hearing Brief at 4 (“While arguably some portion of the increase in demand for MiBs necessarily contributed to a decline in demand for FPMs, interest in MiBs also drove an increase in overall mattress demand. . .”).

²²³ ***.

²²⁴ From 2016 to 2018, apparent consumption of FPMs decreased from *** units to *** units, a decline of *** units or *** percent, and was *** units in interim 2019, down from *** units in interim 2018. CR/PR Table IV-15. Conversely, apparent consumption of MiBs increased from *** units in 2016 to *** units in 2018, and was *** units in interim 2019, up from *** units in interim 2018. CR/PR at Table IV-14

Moreover, despite distinctions in packaging, we have found a moderately high degree of substitutability between subject imports and the domestic like product. When asked for a full inventory of the differences between mattresses packaged as MiBs and those packaged as FPMs, respondents listed several differences, including that mattresses packaged as MiBs were capable of springing back into shape after being rolled and compressed, occupied less warehouse space, and could be delivered by common carrier.²²⁵ However, none of these purported differences were identified by purchasers as main factors in purchasing decisions.²²⁶ Moreover, at the hearing, the Product Development Director for Malouf, which sells the bestselling mattress online to Amazon, acknowledged that MiBs and FPMs can be “identical” in terms of their feel.²²⁷ The record also shows that subject imports, which consist mostly of MiBs, and domestic product, which consists mostly of FPMs, are comparable in terms of delivery times, quality, and return policies.²²⁸

²²⁵ Chinese Respondents’ Responses to Commissioner Question at 55-56.

²²⁶ CR/PR at Table II-10. Only one purchaser reported mattress type as an important purchasing factor. *Id.* We recognize that packaging was reported as a very important purchasing factor, CR/PR at Table II-11, but observe that most purchasers reported that domestic products and subject imports were comparable in terms of packaging, CR/PR at Table II-13.

²²⁷ See Hearing Tr. at 152 (Malouf), 213-14 (Stayin) (“Is there a difference between that flat mattress and the mattress that came in the box once it’s out, open.”), 214 (Robertson) (“In some cases, you could get an identical feel of the mattresses before and after something is roll compressed laying out flat, but in other cases there are very different feels between a mattress that can be rolled compressed to one that cannot.”); see also *id.* at 45 (Rhea) (“As I explained during the staff conference a year ago, all such mattresses are interchangeable, whether they are foam or innerspring, and no matter how they are packaged. Once that bed is opened, the mattress does not go back inside the box. They all serve the same purpose.”), 97 (Swift) (“{W}e believe strongly that a mattress is a mattress whether it comes in a box or whether it’s a flat mattress. And as we’ve said, the way it shows up in a consumer’s home, frankly, the consumer in many cases will be indifferent to how it actually arrives. Our retailers today, traditional retailers, like a Sam’s for example, they sell flat mattresses online. They sell mattress {in} the boxes {on}line of our product. They sell mattresses in the box in-store. They sell flat mattresses in the store. And so I think the retail community has the same view that we do, that a mattress is a mattress, and they’re going to carry it in either form, any form, and in any type of media whether it’s in their own store or through retail. There’s no differentiation.”).

²²⁸ See CR/PR at II-20, Tables II-13 (most or all responding purchasers rated domestic mattresses comparable or superior to subject imports in terms of quality, direct-to-consumer delivery, and consumer in-home trials), II-15; Respondents’ Responses to Commissioner Questions at Question 3, Exhibit 3 (“Memory Foam Mattress Brands: Rating and Comparisons” shows that domestically produced and subject imported mattresses had similarly generous return policies, and that the only mattress with a “no returns” policy was imported from China).

There is also little record support for respondents' claim that packaging was the decisive factor driving mattress sales in the U.S. market during the period of investigation.²²⁹ As discussed above, price and other factors are important to retailers' purchasing decisions. We recognize that MiBs offer consumers certain advantages over FPMs, such as the ability to drive a mattress home in the trunk of a car and to navigate mattresses through tight spaces.²³⁰ Yet, a third party market research study submitted by petitioners, ***, shows that ***.²³¹ Consistent with this study's findings, Amazon, which was ***, allows consumers to search for mattresses in terms of innumerable attributes, including price, brand, "mattress feel," and "mattress thickness," but not packaging.²³² Furthermore, a majority of responding domestic producers and purchasers and half of responding importers reported that demand for FPMs either did not change or increased during the period of investigation, indicating that such mattresses remained popular.²³³ Given these factors, and the substantial competitive overlap between subject imports and domestically produced mattresses in all channels of distribution, we find that the significant increase in subject import volume and market share reduced the domestic industry's sales of all types of mattresses, irrespective of packaging.

Price is a key motivator in mattress purchasing decisions. It is therefore not surprising that purchasers have increasingly turned to lower-priced subject imports. The fact that those lower-priced subject imports are packaged as MiBs (an economical means of packaging mattresses that must be shipped long distances overseas) does not insulate the domestic industry from subject import competition. For the reasons noted, subject imports – whether packaged as MiBs or FPMs – compete against all mattress types. Accordingly, we find that the segmented analysis of the domestic industry's performance advocated by respondents would not be appropriate, and base our impact analysis on the domestic industry as a whole.²³⁴

²²⁹ See Chinese Respondents' Prehearing Brief at 8-9; Chinese Respondents' Posthearing Brief at 5; Chinese Respondents' Responses to Commissioner Questions at 3-9; Hearing Tr. at 154, 191-92 (Douglas).

²³⁰ Hearing Tr. at 144, 146 (Adams).

²³¹ Petitioners' Responses to Commissioner Questions at 1-18, Exhibit 4. The study also showed that ***. *Id.*

²³² Petitioners' Posthearing Brief at Exhibit 2.

²³³ CR/PR at Table II-8a.

²³⁴ See Section IV.C., above; Chinese Respondents' Posthearing Brief at 1-2. We disagree with respondents that the Commission's negative determinations in *Bottom Mount Refrigerators from Korea and Mexico* are "highly instructive." Chinese Respondents' Posthearing Brief at 6 (citing *Bottom Mount Refrigerators from Korea and Mexico*, Inv. Nos. 701-TA-477 and 731-TA-1180-1181 (Final), USITC Pub. 4318 (May 2012)). Contrary to respondents' argument, the facts found by the Commission in *Bottom Mount Refrigerators from Korea and Mexico* are distinguishable from the facts on the record of this

We are also unpersuaded by respondents' argument that subject imports increased to satisfy demand for MiBs that the domestic industry was incapable of supplying due to a "structural deficit" in MiB capacity.²³⁵ The domestic industry had excess capacity for mattress production throughout the period of investigation and increased its capacity for the compression and rolling of mattresses to package them as MiBs from *** units in 2016 to *** units in 2017, and to *** units in 2018, a level *** percent higher than in 2016.²³⁶ The

investigation. In *Bottom Mount Refrigerators*, the Commission found that the significant increase in subject imports "did not displace a significant volume of domestic industry shipments" because "most of the increase in subject import volume and market share resulted from increased sales of models that the domestic industry either did not produce," namely jumbo capacity bottom mount refrigerators, "or produced only toward the end of the period examined," namely four door bottom mount refrigerators. *Id.* at 28-29. In this case, by contrast, the increase in subject import volume and market share consisted of mattresses packaged as MiBs, which the domestic industry produced throughout the period of investigation. See CR/PR at Tables III-6, Figure IV-3. Furthermore, in *Bottom Mount Refrigerators*, the Commission found "limited competition between subject imported jumbo bottom mount refrigerators and domestically produced non-jumbo bottom mount refrigerators" in part because "purchasers consistently paid a substantial premium for subject imported jumbo bottom mount refrigerators over the most comparable domestically produced models." USITC Pub. 4318 at 22-23 n.170. Consistent with their price premium, the Commission explained that jumbo bottom mount refrigerators differed physically from non-jumbo bottom-mount refrigerators in utilizing "thin wall insulation technology, which permits higher capacity with no increase in exterior dimensions." *Id.* at 15. In this investigation, by contrast, respondents acknowledge that MiBs differ from FPMs primarily in terms of packaging (Hearing Tr. at 214 (Robertson)) and there is no evidence of any price premium commanded by subject imports packaged as MiBs. See CR/PR at Table F-22a and F-22b. Finally, in *Bottom Mount Refrigerators*, the Commission found that "subject imports oversold the domestic like product in a majority of quarterly comparisons at significant margins of overselling," USITC Pub. 4318 at 34, whereas we have found pervasive subject import underselling on the record of this investigation. CR/PR at Table F-22a and F-22b.

²³⁵ Chinese Respondents' Prehearing Brief at 20-22; Chinese Respondents' Posthearing Brief at 7-8.

²³⁶ CR/PR at Table III-6. We are also unpersuaded by respondents' argument that ***, a domestic producer of MiBs, misreported its capacity to package mattresses as MiBs because ***. Chinese Respondents' Responses to Commissioner Questions at 12-13; Domestic Producers' Questionnaire Response of *** at Questions II-3a and III-5. There is no inconsistency. Mattress and non-mattress products may be produced in the same facilities, but with different equipment, machinery, and/or employees. *** reported capacity to produce mattresses is consistent with its reported compression and rolling capacity and overall production capacity for products using the same equipment, machinery, or employees used to produce mattresses. Domestic Producers' Questionnaire Response of *** at Questions II-3a, II-3e, and II-7. The clear implication is that *** produces mattresses using equipment, machinery, and employees dedicated to mattress production, as confirmed by its response that ***, but also made other products in the same facilities. *Id.* at Question II-3g. *** questionnaire response is not unusual in this respect. *** also reported that no other products were produced on the same equipment as mattresses even though *** percent of its sales consisted of

industry's compression and rolling capacity was *** units in interim 2019, up *** percent from *** units in interim 2018.²³⁷ Based on the domestic industry's operations in 2018, the domestic industry could have supplied *** percent of apparent U.S. consumption of MiBs that year but instead supplied only *** percent as subject imports of MiBs increased *** percent compared to 2017.²³⁸ As subject imports captured most of the increase in apparent U.S. consumption of MiBs between 2016 and 2018, the domestic industry was unable to utilize even *** of its compression and rolling capacity during the period of investigation.²³⁹

Respondents' argument that domestic producers' capacity constrained the domestic industry from supplying additional volumes of MiBs also conflicts with the small number of responding purchasers, *** of 57, that reported supply problems specific to domestic

products other than mattresses produced in the same facilities as mattresses. See Domestic Producers' Questionnaire Response of *** at Questions II-3a and III-5. We therefore rely on *** domestic producers' questionnaire response, which a *** official certified as complete and correct.

²³⁷ CR/PR at III-13, Table III-6.

²³⁸ CR/PR at Tables III-6, IV-14. We are also unpersuaded by respondents' argument that the domestic industry's capacity to produce MiBs was constrained by foam production capacity. Chinese Respondents' Responses to Commissioner Questions at 13 (citing Hearing Tr. at 226 (Mowry), 265-66 (Adams)). While most MiBs are foam mattresses, other mattress types can be packaged as MiBs. CR/PR at II-1, Table III-10, Table IV-7. In addition, domestic producers ***, which are vertically integrated foam producers, reported that there was no foam shortage at any point of the period of investigation and that they possessed *** foam capacity. Petitioners' Responses to Staff Questions at 1-55. Specifically, ***. *Id.* ***. *Id.* Consistent with these responses, the vast majority of responding purchasers (31 of 36) reported that domestically produced mattresses were comparable or superior to subject imports with respect to availability and only *** of 57 responding purchasers reported experiencing supply problems with specific domestic producers since January 2016. CR/PR at II-11, Table II-13; Purchasers' Questionnaire Responses of *** at Question III-13.

We also question Ashley's claim that it was unable to secure sufficient quantities of foam from domestic producers for its domestic production of MiBs during the period of investigation. CR/PR at II-11 & n.16; Ashley's Responses to Commissioner Questions, Attachment B at 3, Exhibit 1; Hearing Tr. at 226 (Mowry), 265-66 (Adams). In a confidential declaration, an Ashley official states that Ashley was unable to procure sufficient quantities of foam from domestic suppliers ***. Confidential Declaration of Brian Adams, attached as Exhibit 1 to Ashley's Posthearing Brief. ***. *Id.* at Exhibit 1, para. 6, Exhibit 2 (***). Furthermore, the Ashley official's statement that "****" appears inconsistent with the e-mail correspondence used to support the statement. *Id.* at Exhibit 1, para. 6, Exhibit 2. ***. *Id.* at Exhibit 2. The Ashley official also states, "****" but ***." *Id.* at Exhibit 1, para. 6, Exhibit 2. We do not view this *** as evidence that the domestic industry possessed "insufficient foam capacity" to increase MiB production during the period of investigation, particularly in light of the industry's excess MiB capacity, ***, and Ashley's questionnaire response indicating that ***. Petitioners' Responses to Staff Questions at 1-55; Domestic Producers' Questionnaire Response of Ashley at Question II-3f.

²³⁹ CR/PR at Tables III-6, IV-14. The domestic industry's utilization rate for its compression and rolling capacity increased from *** percent in 2016 to *** percent in 2017 and to *** percent in 2018, and was *** percent in interim 2019, compared to *** percent in interim 2018. *Id.* at Table III-6.

producers during the period of investigation.²⁴⁰ Responding purchasers accounting for *** percent of reported purchases of domestically produced mattresses, including the top two purchasers, ***, reported no supply problems during the period of investigation.²⁴¹ Although Walmart reported ***.²⁴² We recognize that U.S. producers' reported compression and rolling capacity was a fraction of total U.S. apparent consumption of MiBs, but as discussed above, we find that U.S. producers had available capacity to produce MiBs and could have produced significantly more MiBs than they did during the period of investigation.

Furthermore, the domestic industry could have increased its capacity to produce MiBs further during the period of investigation by adding shifts of production workers and equipment, had it been economical to do so. *** reported that they could increase their capacity to produce MiBs by adding shifts.²⁴³ *** reported that they could increase their capacity to produce MiBs by upgrading or adding equipment.²⁴⁴ Given their low rates of capacity utilization during the period of investigation, however, domestic producers of MiBs would have had no economic incentive to implement such measures.

We are also unpersuaded by respondents' argument that the domestic industry was somehow "late to the party" with respect to MiBs.²⁴⁵ The domestic industry has been producing and selling MiBs since 2004 and selling mattresses over the internet since before the period of investigation.²⁴⁶ Tuft & Needle and Brooklyn Bedding sold domestically produced MiBs to Amazon throughout the period of investigation, but saw their ranking in search results and among Amazon's top selling mattresses decline as low-priced subject imports increasingly dominated such rankings during the period.²⁴⁷ ***,²⁴⁸

²⁴⁰ CR/PR at II-11. Of the 15 responding purchasers that reported supply problems during the period of investigation, only five responding purchasers, ***, reported supply problems with domestic producers. See Purchasers' Questionnaire Responses of *** at Question III-17. ***. Purchasers' Questionnaire Response of *** at Question III-17.

²⁴¹ CR/PR at II-11, Table V-25.

²⁴² Importers' Questionnaire Response of Walmart at Question III-15; ***, EDIS Doc No. 689485; ***.

²⁴³ CR/PR at III-13 n.10; Petitioners' Responses to Commissioner Questions at 1-52-54.

²⁴⁴ CR/PR at III-13 n.10; Petitioners' Responses to Commissioner Questions at 1-52-54.

²⁴⁵ Hearing Tr. at 17 (Emerson).

²⁴⁶ Petitioners' Prehearing Brief at 41; Chinese Respondents' Prehearing Brief at Exhibit 18.

²⁴⁷ Hearing Tr. at 50-51 (Merwin), 55 (Swift), 87 (Swift); Declaration of ***, appended as Exhibit 6 to Petitioners' Prehearing Brief. Respondents contend that another factor that contributed to the declining ranking of Tuft & Needle products on Amazon was their declining review scores after "Amazon made some shifts in how they calculate review scores." Hearing Tr. at 235-36 (Douglas).

²⁴⁸ Purchasers' Questionnaire Response of *** at Question III-11.

Contrary to respondents' assertion that importers of MiBs from China are the "Warby Parker" of mattresses, likening them to a start-up that popularized direct-to-consumer sales of eyeglasses,²⁴⁹ respondents' own exhibit indicates that Casper, an online retailer of MiBs, "called itself the Warby Parker of mattresses" when the company was launched in 2014, and Casper purchased only domestically produced mattresses during the period of investigation.²⁵⁰ Indeed, all of the innovative retailers identified by the parties as spearheading the sale of MiBs over the internet, including Casper, Leesa, Tuft & Needle, and Purple, either sourced their MiBs from domestic producers or produced their MiBs domestically during the period of investigation.²⁵¹ By contrast, most purchases of subject imports, *** percent, were made by ***, which are known for offering low prices.²⁵² While importers of mattresses from China may have benefitted indirectly from the marketing efforts of Casper, Leesa, and Tuft & Needle, the domestic producers supplying the innovative online retailers themselves were unable to utilize even *** of their capacity during the period of investigation, and ***.²⁵³

Although we base our impact analysis on the domestic industry as a whole, we find it instructive that domestic producers that exclusively produced and sold MiBs suffered declining operating and net income margins during the period of investigation, despite the *** percent increase in apparent U.S. consumption of MiBs between 2016 and 2018.²⁵⁴ Specifically, their operating income margin declined from *** percent in 2016 to *** percent in 2017 before increasing to *** percent in 2018, a level still *** percentage points lower than in 2016.²⁵⁵

²⁴⁹ Chinese Respondents' Prehearing Brief at 5-6.

²⁵⁰ Chinese Respondents' Prehearing Brief at Exhibit 18; CR/PR at Table V-25.

²⁵¹ See Hearing Tr. at 58 (Anderson), 60 (Swift), 80-81 (Swift), 189 (Douglas), CR/PR at Table V-25.

²⁵² See Chinese Respondents' Posthearing Brief at 11-12; Hearing Tr. at 162 (Douglas), 249-50 (Douglas). We also note that irrespective of demand trends, importers have an economic incentive to import primarily MiBs from China because the smaller size of MiBs relative to FPMs minimizes ocean freight, inland transportation, and warehousing costs. Hearing Tr. at 13 (Alves), 15 (Emerson), 144-46 (Adams), 209 (Mowry).

²⁵³ Hearing Tr. at 24 (Swift), 250 (Malouf); Domestic Producers' Questionnaire of *** at Questions II-2, II-3e, IV-13(a), and IV-24 (***); CR/PR at Table III-6.

²⁵⁴ CR/PR at Table IV-14. Domestic producers that produced and sold only MiBs included ***. Petitioners' Responses to Commissioner Questions at 1-22. Although *** also produced and sold only MiBs, *id.*, we have excluded *** from the domestic industry as a related party. Respondents' own analysis of the financial performance of domestic producers of MiBs, based upon a broader definition of MiB producers, also shows that the operating income margin of such producers declined during the period of investigation, and fell below the operating income margin of domestic producers of FPMs in interim 2019. See Chinese Respondents' Prehearing Brief at 45.

²⁵⁵ Derived from Petitioners' Posthearing Brief at Exhibit 7; Domestic Producer's Questionnaire of *** at Question III-9a.

Their operating income margin was *** percent in interim 2019, compared to *** percent in interim 2018.²⁵⁶ Similarly, the domestic MiB producers' net income margin declined from *** percent in 2016 to *** percent in 2017 before increasing to *** percent in 2018, a level still *** percentage points lower than in 2016.²⁵⁷ Their net income margin was *** percent in interim 2019, compared to *** percent in interim 2018.²⁵⁸ Indeed, domestic MiB producers suffered a greater decline in their operating income margins than the domestic industry as a whole, which is the opposite of what one would expect if a shift in demand toward MiBs explained the deterioration in the industry's performance.²⁵⁹ That domestic producers of MiBs suffered declining financial performance and low capacity utilization rates during a period of strong growth in MiB consumption is further evidence that low-priced subject imports adversely impacted the domestic industry.

We have considered whether there are other factors that may have adversely impacted the domestic industry during the period of investigation to ensure that we are not attributing injury from such other factors to the subject imports. Nonsubject imports never exceeded *** percent of apparent U.S. consumption during the 2016-18 period, although they accounted for *** percent of apparent U.S. consumption in interim 2019, compared to *** percent in interim 2018.²⁶⁰ We find that nonsubject imports did not cause the adverse effects we have attributed to subject imports because nonsubject imports were a minor presence in the U.S. market during the 2016-18 period, when subject imports captured *** percentage points of market share from the domestic industry.²⁶¹ Although nonsubject import market share was higher in interim 2019 relative to interim 2018, it remained far lower than subject import market share. During the interim period, subject imports retained most of the market share captured from domestic producers during the preceding periods and subject import underselling remained pervasive.²⁶²

²⁵⁶ Derived from Petitioners' Posthearing Brief at Exhibit 7; Domestic Producer's Questionnaire of *** at Question III-9a.

²⁵⁷ Derived from Petitioners' Posthearing Brief at Exhibit 7; Domestic Producer's Questionnaire of *** at Question III-9a.

²⁵⁸ Derived from Petitioners' Posthearing Brief at Exhibit 7; Domestic Producer's Questionnaire of *** at Question III-9a.

²⁵⁹ In comparison, the domestic industry's operating income margin declined from *** percent in 2016 to *** percent in 2017 and *** percent in 2018, and was *** percent in interim 2019 compared to *** percent in interim 2018. CR/PR at Table C-4.

²⁶⁰ CR/PR at Table IV-10.

²⁶¹ CR/PR at Tables IV-10, C-4.

²⁶² CR/PR at Tables IV-10, C-4.

In sum, we find that during the period of investigation, the significant increase in subject import volume and market share at the domestic industry's expense and significant subject import underselling, which depressed and suppressed domestic like product prices to a significant degree, adversely impacted the domestic industry.

V. Critical Circumstances

A. Legal Standards and Party Arguments

In its final antidumping determination concerning China, Commerce found that critical circumstances exist with respect to certain subject producers/exporters.²⁶³ 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 {and/or countervailing duty} order{s} to be issued."²⁶⁴ 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."²⁶⁵ 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}."²⁶⁶ 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.

²⁶³ *Mattresses From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 84 Fed. Reg. 56761 (October 23, 2019).

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

²⁶⁵ SAA at 877.

²⁶⁶ *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).

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.²⁶⁷

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.²⁶⁸

B. Parties' Arguments

Petitioners argue that the timing and volume of subject imports were influenced by the government shutdown in late 2018 and early 2019 and support an affirmative critical circumstances determination.²⁶⁹ Subject imports were 18.1 percent higher during the six months after the petition's filing than during the six months before the petition's filing.²⁷⁰ Petitioners argue that these data likely understate the volume of subject imports because the Commission's Dataweb indicates that actual subject import volume in 2018 was far higher than the subject import volume reported by responding importers.²⁷¹ According to the Commission's Dataweb, petitioners claim, imports subject to Commerce's affirmative critical circumstances determination were *** percent higher during the six months after the petition's filing than during the six months before the petition's filing.²⁷² Including the additional imports

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

²⁶⁸ 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).

²⁶⁹ Petitioners' Prehearing Brief at 47.

²⁷⁰ Petitioners' Prehearing Brief at 49-50; Petitioners' Responses to Commissioner Questions at 1-46; CR/PR at Table IV-4.

²⁷¹ Petitioners' Prehearing Brief at 50.

²⁷² Petitioners' Prehearing Brief at 50-52; Petitioners' Responses to Commissioner Questions at 1-47.

during March-May 2019 exempted from duties by the government shutdown, the total volume of subject imports since the filing of the petition was *** units.²⁷³ Petitioners further argue that subject import end-of-period inventories increased from 1,287,484 units in interim 2018 to 1,333,668 units in interim 2019, equivalent to *** percent of apparent U.S. consumption in interim 2019.²⁷⁴ Petitioners argue that these volumes could seriously undermine the remedial effect of any antidumping duty order.²⁷⁵

Respondents argue that the 18.1 percent increase in subject import volume between the six months periods before and after the petition's filing is too small to seriously undermine the remedial effect of any antidumping duty order.²⁷⁶ In past investigations in which the Commission made affirmative critical circumstances determinations, respondents contend, the increase in subject import volume was much larger, ranging from 300 to 650 percent.²⁷⁷ They also note that the Commission has made negative critical circumstances determinations in cases involving much greater increases in subject import volume, ranging from 34.8 percent to 134 percent, than the 18.1 percent increase at issue here.²⁷⁸

²⁷³ Petitioners' Prehearing Brief at 52-53.

²⁷⁴ Petitioners' Prehearing Brief at 53; Petitioners' Responses to Commissioner Questions at 1-47; CR/PR at Tables IV-9, VII-6.

²⁷⁵ Petitioners' Prehearing Brief at 54-55.

²⁷⁶ Classic's Posthearing Brief at 4; Modway and ZMM's Posthearing Brief at 5; Atlantic, Grand Life, Grantec, and Home Furnishings Posthearing Brief at 5.

²⁷⁷ See Classic's Prehearing Brief at 5-6 (citing *Synthetic Indigo from China*, Inv. No. 731-TA-851 (Final), USITC Pub. 3310 (June 2000) at 15 (300 percent increase); *Coumarin from The People's Republic of China*, Inv. No. 731-TA-677 (Final), USITC Pub. 2852 (February 1995) at I-16 (400 percent increase); *Potassium Permanganate From The People's Republic of China*, Inv. No. 731-TA-125, USITC Pub. 1480 (January 1984) at 13 (650 percent increase); see also Modway and ZMM's Prehearing Brief at 4; Dorel's Prehearing Brief at 3-4. We note that the Commission was divided on the issue of critical circumstances in *Coumarin from the People's Republic of China*, USITC Pub. 2852 at I-16-25, with three Commissioners voting in the affirmative and three Commissioners voting in the negative, and also on the issue of whether the tie vote provision applied to critical circumstances determinations. Accordingly, the Commission did not clearly make an affirmative critical circumstances determination in that investigation.

²⁷⁸ See Classic's Prehearing Brief at 4-5 (citing *Carbon and Certain Alloy Steel Wire Rod from Brazil, Canada, Germany, Indonesia, Mexico, Moldova, Trinidad and Tobago, Turkey, and Ukraine*, Inv. Nos. 701-TA-417-421 and 731-TA-953, 954, 956-959, 961, and 962 (Final), USITC Pub. 3546 (October 2002) at 35 (34.8 percent increase); *Certain Hot-Rolled Steel Flat Products from Australia, Brazil, Japan, Korea, the Netherlands, Turkey, and the United Kingdom*, Inv. Nos. 701-TA-545-547 and 731-TA-1291-1297 (Final), USITC Pub. 4638 (September 2016) at 51-52 (40.9 percent increase); *Certain Frozen Fish Fillets from Vietnam*, Inv. No. 731-TA-1012 (Final), USITC Pub. 3617 (August 2003) at 20-22 (86.9 percent increase); *Certain Seamless Carbon and Alloy Standard, Line, and Pressure Pipe from Japan and South Africa*, Inv. Nos. 731-TA-847 and 850 (Final), USITC Pub. 3311 (June 2000) at 21 n.113 (90 percent increase); *Certain Steel Concrete Reinforcing Bars from Belarus, China, Korea, Latvia, and Moldova*, Inv.

Respondents further argue that there was no increase in subject import inventories that could seriously undermine the remedial effect of any antidumping duty order. Subject import end-of-period inventories were only 46,184 units, or 3.6 percent higher in interim 2019 compared to interim 2018, and only 0.23 percentage points higher as a share of apparent U.S. consumption.²⁷⁹ By contrast, respondents note, the Commission made an affirmative critical circumstances determinations in *Honey from Argentina and China* based on a 292 percent increase in end-of-period inventories, as well as a 78.5 percent increase in subject import volume between the periods before and after the petition.²⁸⁰

Finally, respondents argue that there are no other circumstances that would support an affirmative critical circumstances determination. On the contrary, respondents argue that the imposition of tariffs on imports of mattresses from China under section 301, increased imports of mattresses from non-subject sources, and continuing demand growth all reduce the importance of the small increase in subject import volume between the six month periods before and after the petition's filing.²⁸¹ In their view, the increase resulted from the seasonality of mattress sales, which are concentrated during the winter holidays and tax season, rather than from any effort by importers to undermine the remedial effect of the order.²⁸²

C. Analysis

The Commission is not required to analyze the same period that Commerce examined.²⁸³ Unless the industry under investigation involves seasonality or the Commission decides that circumstances warrant otherwise,²⁸⁴ the Commission generally compares six

Nos. 731-TA-873-874 and 877-879 (Final), USITC Pub. 3440 (July 2001) at 14 n.89 (134 percent increase); *see also* Modway and ZMM's Prehearing Brief at 4; Dorel's Prehearing Brief at 6.

²⁷⁹ *See* Ashley's Prehearing Brief at 7-8; Ashley's Posthearing Brief at 6; Classic's Prehearing Brief at 6-8; Classic's Posthearing Brief at 9; Modway and ZMM's Prehearing Brief at 8-9; Atlantic, Grand Life, Grantec, and Home Furnishings Prehearing Brief at 8-9; Modway and ZMM's Posthearing Brief at 7; Atlantic, Grand Life, Grantec, and Home Furnishings Posthearing Brief at 7; Dorel's Prehearing Brief at 7; CR/PR at Table VII-6.

²⁸⁰ *See* Classic's Prehearing Brief at 6-7; Classic's Posthearing Brief at 9-10; *see also* Modway and ZMM's Prehearing Brief at 4; Atlantic, Grand Life, Grantec, and Home Furnishings Prehearing Brief at 4.

²⁸¹ Ashley's Prehearing Brief at 6-11; Classic's Posthearing Brief at 11-12.

²⁸² Ashley's Prehearing Brief at 4-6; Classic's Posthearing Brief at 12.

²⁸³ *Certain Polyester Staple Fiber from China*, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 at 35 (June 2007); *Steel Concrete Reinforcing Bars from Turkey*, Inv. No. 731-TA-745 (Final), USITC Pub. 3034 at 34 (Apr. 1997).

²⁸⁴ The Commission has relied on a shorter comparison period when Commerce's preliminary determination applicable to the country at issue fell within the six-month post-petition period the

months of data gathered from the periods immediately preceding and following the petitions' filing, with the earlier period including the month in which the petitions were filed.²⁸⁵ For our critical circumstances analysis, we have used six month pre- and post-petition periods.

In its final antidumping duty critical circumstances determination, Commerce determined that critical circumstances exist with regard to imports from China of mattresses from all producers and exporters in China except Healthcare Co., Ltd. and Zinus (Xiamen) Inc.²⁸⁶ The volume of mattress imports from China subject to Commerce's final critical circumstances determination increased from *** units for the six-month pre-petition period to *** units for the six-month post-petition period, for an increase of 18.1 percent.²⁸⁷ Although the end-of-period ("EOP") inventories of subject imports were somewhat larger in interim 2019 compared to interim 2018, the volume was *** percent lower in interim 2019 than at the end of 2018, reflecting no build-up of subject import inventories prior to Commerce's preliminary determination in June 2019.²⁸⁸ Although subject import volume increased in the post-petition

Commission typically considers. *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). The Commission may also use different periods when the product is seasonal. See *1,1,1,2--Tetrafluoroethane (R-134a) from China*, Inv. No. 731-TA-1313 (Final), USITC Pub. 4679 at 25 (April 2017) (seasonal product); *Certain Polyester Staple Fiber from China*, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 at 35 (June 2007) (declining to analyze different periods absent seasonality).

²⁸⁵ *Laminated Woven Sacks from China*, Inv. Nos. 701-TA-450 and 731-TA-1122 (Final), USITC Pub. 4025 at 48-50 (July 2008); *Light-Walled Rectangular Pipe from China et al.*, Inv. Nos. 701-TA-459 and 731-TA-1118-20 (Final), USITC Pub. 4024 at 18-19 (July 2008); *Certain Steel Nails from China*, Inv. No. 731-TA-1114 (Final), USITC Pub. 4022 at 28-29 (July 2008); *Polyester Staple Fiber from China*, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 at 35 (June 2007); *Chlorinated Isocyanurates from China and Spain*, Inv. Nos. 731-TA-1082-83 (Final), USITC Pub. 3782 at 35-37 (June 2005); *Alloy Magnesium from China*, Inv. No. 731-TA-1071 (Final), USITC Pub. 4182 at 24 (Sept. 2010); *Stainless Steel Butt-Weld Pipe Fittings from Italy, Malaysia, and the Philippines*, Inv. Nos. 731-TA-865-67 (Final), USITC Pub. 3387 at 13-16 (Jan. 2001); *Certain Warmwater Shrimp and Prawns*, Inv. Nos. 731-TA-1063-68 (Final), USITC Pub. 3748 at 36-37 (Jan. 2005).

²⁸⁶ *Mattresses From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 84 Fed. Reg. 56761 (October 23, 2019).

²⁸⁷ CR/PR at Table IV-4. We note that the highest monthly volume in the post-petition period, in December 2018, may have resulted from seasonal factors. CR/PR at II-14, Table IV-4.

²⁸⁸ CR/PR at Table VII-6. We note that the three to six month shelf life of MiBs would limit the ability of importers to stockpile subject imports in a way that could undermine the remedial effect of the

period, we find that the increased volumes were not of a sufficient magnitude to undermine seriously the remedial effect of the antidumping duty order, particularly in light of the reduced EOP inventories of subject imports in interim 2019.²⁸⁹ Consequently, and in the absence of any other circumstances indicating that the remedial effect of the antidumping duty order will be seriously undermined, we make a negative critical circumstances determination.

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 mattresses from China that are sold in the United States at less than fair value. We also find that critical circumstances do not exist with respect to imports of mattresses from China that are subject to Commerce's affirmative critical circumstances determination.

order. *See* Hearing Tr. at 150 (Adams); *see also* Classic's Prehearing Brief at 6-7; Classic's Posthearing Brief at 9-10; *see also* Modway and ZMM's Prehearing Brief at 4; Atlantic, Grand Life, Grantec, and Home Furnishings Prehearing Brief at 4.

²⁸⁹ We would have reached the same conclusion using the Datawab data preferred by petitioners, showing a *** percent increase in subject import volume between the pre- and postpetition periods. *See* Petitioners' Prehearing Brief at 50-52; Petitioners' Responses to Commissioner Questions at 1-47.

Part I: Introduction

Background

This investigation results from a petition filed with the U.S. Department of Commerce (“Commerce”) and the U.S. International Trade Commission (“USITC” or “Commission”) by Corsicana Mattress Company, Dallas, Texas; Elite Comfort Solutions, Newnan, Georgia; Future Foam Inc., Council Bluffs, Iowa; FXI, Inc., Media, Pennsylvania; Innocor, Inc., Red Bank, New Jersey; Kolcraft Enterprises Inc., Chicago, Illinois; Leggett & Platt, Incorporated, Carthage, Missouri; Serta Simmons Bedding, LLC, Atlanta, Georgia; and Tempur Sealy International, Inc., Lexington, Kentucky, on September 18, 2018, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value (“LTFV”) imports of mattresses¹ from China. The following tabulation provides information relating to the background of this investigation.^{2 3}

Effective date	Action
September 18, 2018	Petition filed with Commerce and the Commission; institution of the Commission’s investigation (83 FR 48332, September 24, 2018)
October 9, 2018	Commerce’s notice of initiation (83 FR 52386, October 17, 2018)
November 2, 2018	Commission’s preliminary determination (83 FR 55910, November 8, 2018)
May 28, 2019	Scheduling of final phase of Commission investigations (84 FR 27657, June 13, 2019)
June 4, 2019	Commerce’s preliminary antidumping determination (84 FR 25732)
October 11, 2019	Commission’s hearing
October 23, 2019	Commerce’s final determination (84 FR 56761)
November 19, 2019	Date for the Commission’s vote
December 9, 2019	Date for the 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 presents a list of witnesses who appeared at the 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, alleged 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

Mattresses are generally used by people for sleeping. The leading U.S. producers of mattresses are ***, while the leading producer of mattresses outside the United States is *** of China. The leading U.S. importer of mattresses from China is ***. Leading importers of mattresses from nonsubject countries include ***. U.S. purchasers of mattresses are firms that purchase domestically produced mattresses and imported mattresses from China and sell them for retail either in brick or mortar establishments or over the internet; leading purchasers include ***, which collectively accounted for *** percent of purchases of subject merchandise from all sources in 2018.

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

Apparent U.S. consumption of mattresses totaled approximately 25.1 million mattresses (\$5.8 billion) in 2018. Currently, 34 firms are known to produce mattresses in the United States.⁶ U.S. producers' U.S. shipments of mattresses totaled 15.6 million mattresses (\$4.4 billion) in 2018, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. importers' U.S. shipments from China totaled 8.2 million mattresses (\$1.3 billion) in 2018 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. importers' U.S. shipments from nonsubject sources totaled *** mattresses (\$***) in 2018 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

Summary data and data sources

A summary of data collected in this investigation is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of 28 firms that accounted for most U.S. production of mattresses during 2018. U.S. imports are based on questionnaire responses of 42 firms that accounted for most U.S. imports from China, according to data submitted in response to the Commission questionnaires and official import statistics.⁷

Previous and related investigations

Mattresses have not been the subject of prior antidumping or countervailing duty investigations, but there have been three antidumping duty investigations of a related product in the United States. Commenced in 2008, antidumping investigations regarding uncovered innerspring units from China, South Africa, and Vietnam resulted in affirmative determinations and the imposition of antidumping orders. Table I-1 presents data on these previous related investigations.

⁶ As discussed in Part III, the Commission received completed responses to its U.S. producers' questionnaire from 29 firms, but there were several other firms that provided incomplete responses to the Commission's U.S. producers' questionnaire. One firm, ***.

⁷ Questionnaire responses represent most U.S. imports from China in 2018 under HTS statistical reporting numbers 9404.21.0010, 9404.21.0013, 9404.29.1005, 9404.29.1013, 9404.29.9085, and 9404.29.9087, which are the primary HTS statistical reporting numbers for the subject merchandise.

Table I-1
Mattresses: Previous and related investigations and reviews

Original Investigations					Commission Reviews ¹	
Product	Inv. No.	Year	Country	Determination	Year	Determination
Uncovered Innerspring Units ²	731-TA-1140	2008	China	Affirmative	2013 / 2019	Affirmative / Ongoing
Uncovered Innerspring Units ³	731-TA-1141	2008	South Africa	Affirmative	2013 / 2019	Affirmative / Ongoing
Uncovered Innerspring Units ³	731-TA-1142	2008	Vietnam	Affirmative	2013 / 2019	Affirmative / Ongoing

¹ *Uncovered Innerspring Units from China, Inv. Nos. 731-TA-1140-1142 (Review)*, USITC Publication 4459, April 2014.

² *Uncovered Innerspring Units from China, Inv. Nos. 731-TA-1140 (Final)*, USITC Publication 4061, February 2009.

³ *Uncovered Innerspring Units from South Africa and Vietnam, Inv. Nos. 731-TA-1141-1142 (Final)*, USITC Publication 4051, December 2008.

Nature and extent of sales at LTFV

On October 23, 2019, Commerce published a notice in the Federal Register of its final determination of sales at LTFV with respect to imports from China.⁸ Commerce's dumping margins are presented in Table I-2.

⁸ 84 FR 56761, October 23, 2019.

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

Exporter	Producer	Final dumping margin (percent)
Healthcare Co., Ltd	Healthcare Co., Ltd	57.03
Zinus Inc./Zinus (Xiamen) Inc./Zinus Zhangzhou Inc.	Zinus Inc./Zinus (Xiamen) Inc./Zinus Zhangzhou Inc.	192.04
Dockter China Limited	Healthcare Co., Ltd	162.76
	Huizhou Lemeijia Household Products Co., Ltd. (a.k.a. Better Zs, Ltd.)	162.76
	Dongguan Beijianing Household Products Co., Ltd. (a.k.a. Better Zs, Ltd.)	162.76
Foshan Chiland Furniture Co., Ltd	Foshan Chiland Furniture Co., Ltd	162.76
Foshan City Jinxingma Furniture Manufacture Co., Ltd	Foshan City Jinxingma Furniture Manufacture Co., Ltd	162.76
Foshan City Kewei Furniture Co., Ltd	Foshan City Kewei Furniture Co., Ltd	162.76
Foshan City Shunde Haozuan Furniture Co., Ltd	Foshan City Shunde Haozuan Furniture Co., Ltd	162.76
Foshan EON Technology Industry Co., Ltd	Foshan EON Technology Industry Co., Ltd	162.76
Foshan Mengruo Household Furniture Co., Ltd	Foshan Mengruo Household Furniture Co., Ltd	162.76
Foshan Qisheng Sponge Co., Ltd	Foshan Qisheng Sponge Co., Ltd	162.76
Foshan Ruixin Non Woven Co., Ltd.	Foshan Ruixin Non Woven Co., Ltd.	162.76
Foshan Suilong Furniture Co. Ltd	Foshan Suilong Furniture Co., Ltd	162.76
Foshan Ziranbao Furniture Co., Ltd	Foshan Ziranbao Furniture Co., Ltd	162.76
Guangdong Diglant Furniture Industrial Co., Ltd	Guangdong Diglant Furniture Industrial Co., Ltd	162.76
Healthcare Sleep Products Limited	Healthcare Co. Ltd	162.76
Hong Kong Gesin Technology Limited	Inno Sports Co., Ltd	162.76
Inno Sports Co., Ltd	Inno Sports Co., Ltd	162.76
Jiangsu Wellcare Household Articles Co., Ltd	Jiangsu Wellcare Household Articles Co., Ltd	162.76
Jiashan Nova Co., Ltd	Jiashan Nova Co., Ltd	162.76

Table continued on next page.

Table I-2—Continued**Mattresses: Commerce’s final weighted-average LTFV margins with respect to imports from China**

Exporter	Producer	Final dumping margin (percent)
Jiaxing Taien Springs Co., Ltd	Jiaxing Taien Springs Co., Ltd	162.76
Jiaxing Visco Foam Co., Ltd	Jiaxing Visco Foam Co., Ltd	162.76
Jinlongheng Furniture Co., Ltd	Jinlongheng Furniture Co., Ltd	162.76
Luen Tai Group (China) Limited	Shenzhen L&T Industrial Co., Ltd	162.76
Luen Tai Global Limited	Shenzen LIT Industrial Co, Ltd	162.76
Man Wah Furniture Manufacturing (Hui Zhou) Co., Ltd., Man Wah (MACAO Commercial Offshore), Ltd. and Man Wah (USA), Inc	Man Wah Household Industry (Huizhou) Co., Ltd	162.76
Ningbo Megafeat Bedding Co., Ltd	Ningbo Megafeat Bedding Co., Ltd	162.76
Ningbo Shuibishen Home Textile Technology Co., Ltd	Ningbo Shuibishen Home Textile Technology Co., Ltd	162.76
Nisco Co., Ltd	Healthcare Co., Ltd	162.76
Quanzhou Hengang Imp. & Exp. Co., Ltd	Quanzhou Hengang Industries Co., Ltd	162.76
Shanghai Glory Home Furnishings Co., Ltd	Shanghai Glory Home Furnishings Co., Ltd	162.76
Sinomax Macao Commercial Offshore Limited	Dongguan Sinohome Limited	162.76
	Sinomax (Zhejiang) Polyurethane Technology Ltd	162.76
Wings Developing Co., Limited	Quanzhou Hengang Industries Co., Ltd	162.76
Xianghe Kaneman Furniture Co., Ltd	Xianghe Kaneman Furniture Co., Ltd	162.76
Xilinmen Furniture Co., Ltd	Xilinmen Furniture Co., Ltd	162.76
Zhejiang Glory Home Furnishings Co., Ltd	Zhejiang Glory Home Furnishings Co., Ltd	162.76
China-wide entity		1,731.75

Source: 84 FR 56761, October 23, 2019.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:⁹

The products covered by this investigation are all types of youth and adult mattresses. The term "mattress" denotes an assembly of materials that at a minimum includes a "core," which provides the main support system of the mattress, and may consist of innersprings, foam, other resilient filling, or a combination of these materials. Mattresses may also contain (1) "upholstery," the material between the core and the top panel of the ticking on a single-sided mattress, or between the core and the top and bottom panel of the ticking on a double-sided mattress; and/or (2) "ticking," the outermost layer of fabric or other material (e.g., vinyl) that encloses the core and any upholstery, also known as a cover.

The scope of this investigation is restricted to only "adult mattresses" and "youth mattresses." "Adult mattresses" have a width exceeding 35 inches, a length exceeding 72 inches, and a depth exceeding 3 inches on a nominal basis. Such mattresses are frequently described as "twin," "extra-long twin," "full," "queen," "king," or "California king" mattresses. "Youth mattresses" have a width exceeding 27 inches, a length exceeding 51 inches, and a depth exceeding 1 inch (crib mattresses have a depth of 6 inches or less from edge to edge) on a nominal basis. Such mattresses are typically described as "crib," "toddler," or "youth" mattresses. All adult and youth mattresses are included regardless of actual size description.

The scope encompasses all types of "innerspring mattresses," "non-innerspring mattresses," and "hybrid mattresses." "Innerspring mattresses" contain innersprings, a series of metal springs joined together in sizes that correspond to the dimensions of mattresses. Mattresses that contain innersprings are referred to as "innerspring mattresses" or "hybrid mattresses." "Hybrid mattresses" contain two or more support systems as the core, such as layers of both memory foam and innerspring units.

⁹ 84 FR 56761, October 23, 2019.

“Non-innerspring mattresses” are those that do not contain any innerspring units. They are generally produced from foams (e.g., polyurethane, memory (viscoelastic), latex foam, gel-infused viscoelastic (gel foam), thermobonded polyester, polyethylene) or other resilient filling.

Mattresses covered by the scope of this investigation may be imported independently, as part of furniture or furniture mechanisms (e.g., convertible sofa bed mattresses, sofa bed mattresses imported with sofa bed mechanisms, corner group mattresses, day-bed mattresses, roll-away bed mattresses, high risers, trundle bed mattresses, crib mattresses), or as part of a set in combination with a “mattress foundation.” “Mattress foundations” are any base or support for a mattress. Mattress foundations are commonly referred to as “foundations,” “boxsprings,” “platforms,” and/or “bases.” Bases can be static, foldable, or adjustable. Only the mattress is covered by the scope if imported as part of furniture, with furniture mechanisms, or as part of a set in combination with a mattress foundation.

Excluded from the scope of this investigation are “futon” mattresses. A “futon” is a bi-fold frame made of wood, metal, or plastic material, or any combination thereof, that functions as both seating furniture (such as a couch, love seat, or sofa) and a bed. A “futon mattress” is a tufted mattress, where the top covering is secured to the bottom with thread that goes completely through the mattress from the top through to the bottom, and it does not contain innersprings or foam. A futon mattress is both the bed and seating surface for the futon.

Also excluded from the scope are airbeds (including inflatable mattresses) and waterbeds, which consist of air- or liquid-filled bladders as the core or main support system of the mattress.

Also excluded is certain multifunctional furniture that is convertible from seating to sleeping, regardless of filler material or components, where that filler material or components are integrated into the design and construction of, and inseparable from, the furniture framing. Such furniture may, and without limitation, be commonly referred to as “convertible sofas,” “sofa beds,” “sofa chaise sleepers,” “futons,” “ottoman sleepers” or a like description.

Further, also excluded from the scope of this investigation are any products covered by the existing antidumping duty order on uncovered innerspring units. See Uncovered Innerspring Units from the People's Republic of China: Notice of Antidumping Duty Order, 74 FR 7661 (February 19, 2009).

Additionally, also excluded from the scope of this investigation are "mattress toppers." A "mattress topper" is a removable bedding accessory that supplements a mattress by providing an additional layer that is placed on top of a mattress. Excluded mattress toppers have a height of four inches or less.

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to this investigation is imported under statistical reporting numbers 9404.21.0010, 9404.21.0013, 9404.29.1005, 9404.29.1013, 9404.29.9085, and 9404.29.9087 of the Harmonized Tariff Schedule of the United States ("HTS"). Products subject to this investigation may also be reported under HTS statistical reporting numbers 9404.21.0095, 9404.29.1095, 9404.29.9095, 9401.40.0000, and 9401.90.5081. The 2018 general rate of duty is 3 percent ad valorem for HTS subheadings 9404.21.00 and 9404.29.10 and 6 percent ad valorem for HTS subheading 9404.29.90. 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

Merchandise classifiable under subheadings 9404.21.00, 9404.29.10, and 9404.29.90 were included among the group of products from China that are subject to an additional duty of 25 percent ad valorem, under HTS subheading 9903.88.03.¹⁰

¹⁰ *HTSUS (2019) Revision 7*, USITC Publication No. 4899, June 2019, pp. 99-III-21 and 99-III-44.

The product

Description and applications

In the industry, the term “mattress” generally means a resilient material or combination of materials generally enclosed by ticking that is intended or promoted for sleeping upon by people. Mattresses generally consist of (1) a core, (2) upholstery material, and (3) ticking. The core provides the main support system of the mattress. The core may consist of innersprings, non-innersprings (e.g., foam), an air or water bladder¹¹, other resilient filling, or a combination of these materials. “Upholstery” refers to the material between the core and the ticking. “Ticking” refers to the cover or the outermost layer of fabric or other material that encloses the core and any upholstery material.

A mattress may be used alone or in combination with other products, such as foundations commonly referred to as box springs, platforms, bases, and/or cribs. Mattresses may be sold independently, as part of furniture (examples are convertible sofa bed mattresses, corner group mattresses, day-bed mattresses, roll-away bed mattresses, high risers, and trundle bed mattresses), or as part of a set in combination with a mattress foundation.

“Adult mattresses” and “youth mattresses” are covered by the scope of this petition. Youth mattresses are generally grouped together in size descriptions that include “crib,” “toddler,” or “youth.”

Mattresses are covered by the scope of this petition even if imported without ticking, such as any foam mattresses that are imported without ticking (i.e., the outermost cover). Products covered by this petition include mattresses packed and sold to end users in boxes, such as those marketed as “bed(s)-in-a-box,” “mattress(es)-in-a-box,” and/or “compressed mattress(es).”

¹¹ Airbeds and waterbeds are excluded from the scope of the investigations.

Manufacturing processes

The manufacturing process for all types of mattresses is similar in that it consists of the assembly of components into finished mattresses that are ready for use by the ultimate purchaser.

Innerspring and hybrid mattresses are assembled from various components that differ based on the particular mattress design. Components generally consist of the core (innerspring units, foam (e.g., polyurethane, memory (viscoelastic), latex, or gel), or other resilient fillings or a combination of the same¹²) and the upholstery materials.

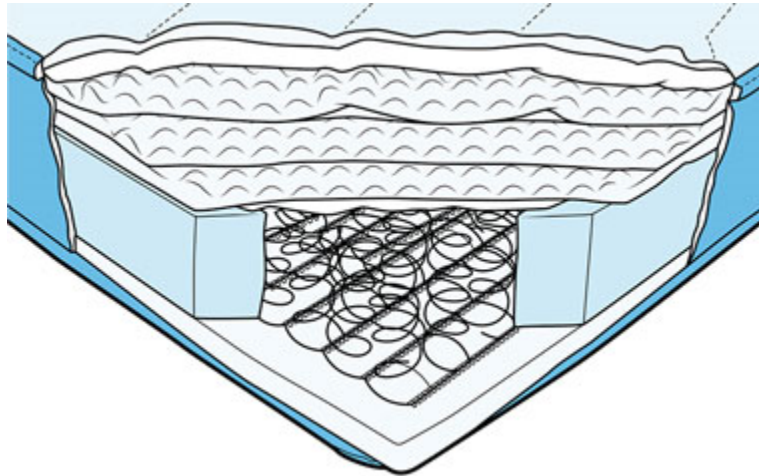
For both innerspring and hybrid mattresses, the innerspring unit may be produced internally or purchased from a supplier. Depending on the particular design, layers of fabric, upholstery, and/or foam are assembled around the core unit as operators “build-up” the mattress on an assembly table or production line. Separately, sewers run quilting machines that produce the ticking (also known as a “cover”), which may include a backing material.¹³ In some instances, the cover is cut into panels for the top, bottom, and sides (also referred to as “borders”) on a panel cutting machine. A flange is sewn to the edge of the cover piece(s) and can be attached using a “hog ring” to the innerspring unit to prevent the cover and filling material from shifting once the border is attached and the mattress is sewn shut. A “tape,” which is a fabric that covers the edge where the top and bottom panels are joined to the border panel, is then sewn around the top and bottom edges of the mattress. In other instances, a simple “zippered” cover is used, which does not require a flange, hog ring, or tape. Both innerspring and hybrid mattresses may be shipped compressed or uncompressed (figure I-1). Manufacturers can package mattresses flat compressed, or package the mattress using a machine that compresses, then rolls the mattress. Mattresses that are compressed and rolled are shipped as mattresses-in-a-box to the end consumer, but flat compressed mattresses are not always shipped to the end consumer in the flat compressed state.¹⁴

¹² This report will refer to these types of mattresses as “innerspring,” “hybrid,” and “foam,” respectively.

¹³ The borders, or vertical sides of the mattress, may be constructed on separate border machines that combine ticking, a backing material, foam and/or other upholstery.

¹⁴ Hearing transcript, p. 27 (Anderson).

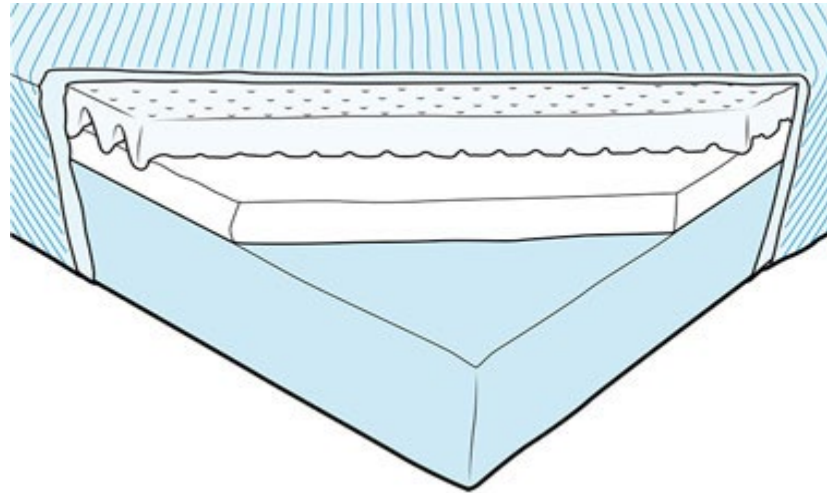
Figure I-1
Mattresses: Innerspring mattress construction



Source: *Mattress Buying Guide: How to Choose the Right Mattress*, Consumer Reports (March 2018), <https://www.consumerreports.org/cro/mattresses/buying-guide/index.htm>, retrieved October 18, 2018.

For foam mattresses, the manufacturing process begins with production of the foam. Foam mattress manufacturers may be vertically integrated (producing both the foam and foam mattress themselves) or they may purchase foam from unaffiliated foam suppliers. During foam production, precursor chemicals are combined based on the specific formulation for the type of foam. For example, polyurethane foam is generally comprised of a polyol (complex alcohol) and isocyanate that are kept in separate storage tanks. These materials are mixed with catalysts and a surfactant and heated, which begins a reaction to form a polyurethane polymer that is combined with carbon dioxide and sprayed or “poured” onto a plastic covered conveyor belt. The reaction generates carbon dioxide gas which causes the material to expand as it moves down the conveyor belt. Once the foam has fully expanded and partially cured, it is cut into large blocks which are allowed to fully cure for up to 72 hours. After product properties are tested and confirmed to meet specifications, the cured blocks are then cut into trimmed rectangular sheets (or plates) of various thicknesses that correspond to finished mattress sizes. The foam mattress may consist of a single slab of foam, but typically consist of multiple layers (plates) that have been bound together. The foam mattress may then be encased in a fabric “sock” and inserted into the cover (i.e., the ticking). The final step is packaging. As with innerspring and hybrid mattresses, foam mattresses may be shipped compressed or uncompressed (figure I-2). For compressed mattresses, U.S. producers’ use capital intensive machines that encloses the foam mattress in plastic, compresses the mattress, then rolls the mattress to be put into a box. A vast majority of U.S. producers’ U.S. shipments of MiBs were foam mattresses, accounting for ***.

Figure I-2
Mattresses: Foam mattress construction

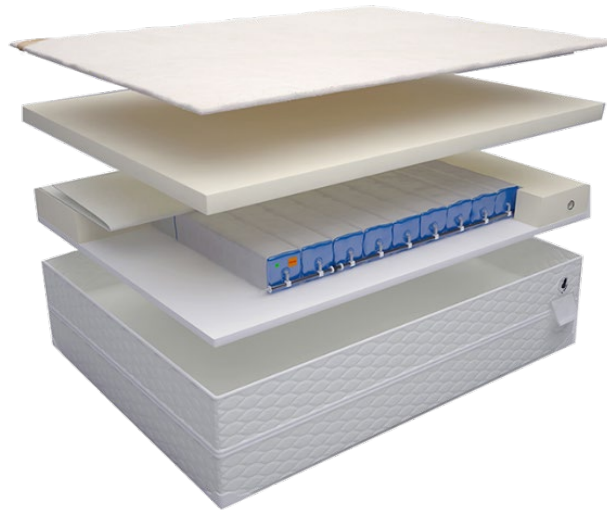


Source: *Mattress Buying Guide: How to Choose the Right Mattress*, Consumer Reports (March 2018), <https://www.consumerreports.org/cro/mattresses/buying-guide/index.htm>, retrieved October 18, 2018.

The manufacturing process for youth mattresses is similar to adult mattresses but can differ slightly by not using flange material to attach the panels to the innerspring. The covers can be pre-sewn with only one open end, and the core and upholstery materials inserted into the cover with the aid of a stuffing machine. The cover opening is then sewn shut (instead of stitching around the entire perimeter of the mattress). Youth mattresses can use vinyl material in addition to cloth materials as the ticking as a barrier to wetness.

The manufacturing process for air-adjustable foam mattresses is distinguished by the inclusion of a layer with an air support system. The top layer can consist of cotton or wool. The second layer varies in density and is made of either memory foam, latex, or polyurethane foam and can come with multiple foam layers. The third layer has the air support system. Most air-adjustable foam mattresses have separate air support systems for each side of the bed that can be manually or electronically adjusted to increase or decrease the amount of air in the system. The air support system is used to adjust the firmness of the mattress based on the support needs of the user. The three layers are housed in an enclosure made of different material depending on the manufacturer and sits on a foundation (figure I-3).

Figure I-3
Mattresses: Air adjustable foam mattress construction



Source: *Adjustable Firmness Mattress Tips Before Buying*, Natural Form, <https://naturalform.com/adjustable-firmness-mattress/>, retrieved September 4, 2019.

Domestic like product issues

In the preliminary phase of this investigation, petitioners argued that the domestic like product should be defined as all mattresses, co-extensive with the scope of the investigation.¹⁵ Respondents agreed with the petitioners' definition of the domestic like product for purposes of the preliminary determination and did not assert arguments to the contrary.¹⁶ In its preliminary determination, the Commission concluded that all mattresses are generally similar in terms of their physical characteristics and uses; channels of distribution; manufacturing facilities, production employees, and, to some extent, production processes and producer and customer perceptions.¹⁷ The Commission further observed that in-scope mattresses generally differ from out-of-scope futons, air mattresses, and waterbeds in terms of physical characteristics; manufacturing facilities, production processes, and employees; channels of distribution; producer and customer perceptions; and price, despite some overlap with respect to uses and interchangeability.¹⁸ Consequently, the Commission defined the domestic like product as all mattresses coextensive with the scope of the investigation.

¹⁵ Petition, p. 14.

¹⁶ Conference transcript, pp. 219-220 (McClain).

¹⁷ *Mattresses from China, Investigation No. 731-TA-1424 (Preliminary)*, USITC Publication 4842, November 2018, p. 11.

¹⁸ *Ibid.*

In the final phase of this investigation, U.S. producers, U.S. importers, and U.S. purchasers were asked to compare in-scope mattresses with out-of-scope air-adjustable foam mattresses based on six factors: physical characteristics and uses; interchangeability; manufacturing facilities, production processes and production employees; channels of distribution; producer and customer perceptions; and price. “Not-at-all comparable” was generally the most selected answer by U.S. producers, U.S. importers, and U.S. purchasers for each of the six factors. Table I-3 presents U.S. producers’, U.S. importers’, and U.S. purchasers’ comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses.¹⁹

Table I-3
Mattresses: U.S. producers’ and U.S. importers comparison of in-scope mattresses and out-of-scope air-adjustable foam mattresses.

Factor	Comparison mattresses vs. air-adjustable foam mattresses			
	Fully	Mostly	Somewhat	Not-at-all
	Count of firms			
U.S. producers.--				
Physical characteristics and uses	1	1	1	8
Interchangeability	1	1	1	8
Channels	1	---	2	7
Manufacturing	1	---	2	5
Perceptions	1	1	2	5
Price	1	1	2	6
U.S. importers.--				
Physical characteristics	1	4	2	8
Interchangeability	2	3	3	7
Channels	4	2	3	5
Manufacturing	1	1	3	7
Perceptions	1	3	3	7
Price	1	1	5	8
U.S. purchasers.--				
Physical characteristics	---	5	5	6
Interchangeability	3	3	5	5
Channels	4	3	4	4
Manufacturing	1	---	5	6
Perceptions	1	4	3	6
Price	1	2	5	5

Compiled from data submitted in response to Commission questionnaires.

¹⁹ U.S. producers’, U.S. importers’, and U.S. purchasers’ narrative comparisons of in-scope mattresses and out-of-scope air mattresses by the like product factors are presented in appendix D.

In its prehearing brief, petitioners argued that the Commission should again define the domestic like product as all mattresses, coextensive with the scope of this investigation, as it did in the preliminary determination.²⁰ The Chinese respondents accept the definition of the domestic like product from the Commission's preliminary determination.²¹ No other party provided comment on the domestic like product definition.

²⁰ Petitioners' prehearing brief, p. 4.

²¹ Chinese respondents' prehearing brief, p. 2, Chinese respondents' posthearing brief, p. 1.

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

U.S. market characteristics

Mattresses are typically sold in the United States in standard sizes, such as king, queen, twin, double, full, or youth (crib), and come in a variety of thicknesses. They can be of the innerspring variety, foam only (i.e., non-innerspring, including standard polyurethane, viscoelastic (“memory foam”), or latex), or a hybrid consisting of innersprings and foam. Innerspring mattresses also typically contain some foam.¹ Most mattresses in the United States are sold individually or as part of a set including a mattress foundation/box spring, but can also be sold as part of a sofa sleeper/sofa bed, roll-away bed, or for specialty markets such as recreational vehicles or trucks. In recent years, including since 2016, the mattress market has seen an increase in the popularity of mattresses sold via e-commerce and the type of product sold over the internet, mattresses-in-a-box (“MiBs”). The large majority of MiB-style mattresses are made of foam only; they are typically compressed and rolled for ease of shipment, and many of them are shipped directly to the consumer. U.S. producers sell the large majority of their product to brick and mortar retailers and online retailers, which then sell them to consumers, while importers sell most mattresses imported from China either directly to consumers in their own brick and mortar stores and/or via their own websites, to third party online retailers for sale over the internet, or to third party brick and mortar retailers.²

Apparent U.S. consumption of mattresses increased during January 2016-June 2019. Overall, apparent U.S. consumption in 2018 was 15.2 percent higher than in 2016, and was 1.0 percent higher in January-June 2019 compared with January-June 2018.

Product and marketing changes

As shown in table II-1, most firms reported that there have been significant changes with respect to the product range, product mix, or marketing of MiB-style mattresses since January 2016, and most importers and purchasers reported that there have also been changes to other direct-to-consumer internet sales. Other responses were more mixed, though importers and purchasers were more likely to report changes with regard to branding and private label programs. Most responding firms reported no significant changes to the allocation

¹ Conference transcript, pp. 34 (Christafides) and 43 (Swanson); hearing transcript, p. 12 (Alves).

² See appendix E for more on the channels of distribution by source, channel, and packaging type.

of floor slots at brick and mortar retail establishments or to the location of mattresses in consumer search results on e-commerce sites.

Table II-1

Mattresses: Firms' responses regarding significant changes to product range, product mix, and marketing in different areas since January 2016, by number of responding firms

Item	U.S. producers		U.S. importers		U.S. purchasers	
	Yes	No	Yes	No	Yes	No
MiBs	15	8	31	6	37	12
Other direct to consumer internet sales	5	12	17	13	26	19
Branding	6	15	20	16	21	25
Private label programs	4	17	20	15	20	27
Floor slots at brick and mortar retailers	7	14	10	24	19	24
Location in consumer search results on e-commerce sites	10	11	13	22	17	24
Other	1	8	1	16	---	16

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

In follow-up questions, U.S. producers, importers, and purchasers were asked specifically if the allocation of floor space for mattresses and/or e-commerce placement (i.e., prominence or ranking on websites) for mattresses had changed since January 2016, as well as what factors determined the selection of mattresses for floor display and rankings yielded by consumer search results on websites. As shown in table II-2, of the firms estimating a change in floor space allocation, U.S. producers were evenly split between reporting that floor space for domestic product had decreased and that it had not changed, but that floor space for mattresses from China had increased. Among importers and purchasers, either a majority or a plurality of firms reported that floor space allocations had not changed for all sources.

Table II-2
Mattresses: Firms' responses regarding changes in floor space allocation since January 2016, by number of responding firms

Item	Increase	No change	Decrease	Fluctuate	Not applicable
U.S. producers:					
United States	1	7	7	---	6
China	8	6	---	---	6
Other sources	2	7	---	---	8
Overall	---	8	1	---	8
Importers:					
United States	3	14	5	1	11
China	3	9	6	1	15
Other sources	2	5	3	---	20
Overall	3	6	4	---	17
Purchasers:					
United States	9	20	7	1	16
China	3	13	7	2	29
Other sources	4	5	1	---	36
Overall	6	11	2	---	27

Note: Producers and importers were asked about overall floor space for mattresses generally. Purchasers were asked about floor space allocations specifically for their firm.

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

For firms that sell mattresses through brick and mortar retail establishments, the most commonly mentioned factors in determining the selection and location of mattresses that are displayed on the floor were profit margin, sales velocity,³ vendor relationships, and customer reviews. Other reported factors that determine floor slot locations included the following: advertising/marketing, brand recognition, comfort, consumer habits, customer demand, delivery logistics, delivery speed, ease of transport, features, innovation/technology, marketability, mattress height, mattress type (specialty foam or hybrid/innerspring), overall attractiveness on showroom floor, overall value, price point, price/value relationship, product availability, product performance, quality, rate of sale, sales performance, service, subsidy programs,⁴ supplier performance, time of year, vendor agreements, and warranties.

³ According to U.S. producer ***, sales velocity is determined by product quality, strong price/value proposition, a high online rating, and retail sales associates' desire to sell a particular product.

⁴ U.S. producer *** reported that selected suppliers pay for in-store display fixtures as well as displacing prior product slots.

As shown in table II-3, most U.S. producers reported that the prominence of domestic mattresses on websites had decreased, while a plurality of importers reported that it had not changed. Most U.S. producers and a plurality of importers reported that the prominence of Chinese mattresses on websites had increased. Either a majority or a plurality of purchasers reported that the prominence of domestic and Chinese mattresses on websites had not changed, but a majority reported an increase in the prominence of e-commerce placement for their mattresses from other sources.

Table II-3
Mattresses: Firms' responses regarding changes in e-commerce placement since January 2016, by number of responding firms

Item	Increase	No change	Decrease	Fluctuate	Not applicable
U.S. producers:					
United States	4	4	7	---	5
China	8	4	---	---	5
Other sources	4	4	---	---	8
Overall	3	4	---	---	8
Importers:					
United States	10	12	1	3	9
China	11	8	4	---	15
Other sources	5	8	---	---	17
Overall	9	5	---	---	15
Purchasers:					
United States	7	16	4	4	20
China	5	10	5	2	29
Other sources	8	3	1	2	32
Overall	7	6	2	2	28

Note: Producers and importers were asked about overall changes in e-commerce placement for mattresses generally. Purchasers were asked about changes in e-commerce placement specifically for their firm.

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

For firms that sell mattresses over the internet, the most commonly mentioned factors that determine the rankings of mattresses yielded by consumer search results included sales velocity, customer reviews, customer traffic trends (i.e., interaction with product detail page and number of clicks), price, and algorithms⁵ that include these and other factors. Other

⁵ According to ***, for an algorithm to give a product a first-page placement, it must have a top star customer rating, strong sales velocity, a “best-in-class” product detail page, and a short and reliable delivery window. According to ***, the primary factors that influence an

(continued...)

reported factors included the following: availability, brand, channel-specific programs, customer demand, delivery speed, in-home trials, inventory, mattress construction, mattress height, new items, number of customer reviews, online advertising, overall value, paid searches, previous user engagement, product page detail, profit margin, promotions, quality, return policy, sales volume, search engine rules, search engine optimization/search engine marketing (“SEO/SEM”) technique,⁶ seller scorecard rating, size of retailer, and traffic.⁷

*** reported that the factors that it considers when choosing what products to feature in search results include actions customers have taken (i.e., how many times the product has been purchased in the past), product attributes, price, quality, and delivery speed. Importer *** reported that the primary online platforms (***) give prominence and ranking to products with high sales rates and excellent customer reviews. It also reported that low pricing plays a major role in high rankings, and that paid advertising helps create higher ranking products. *** several other online retailers also allow customers to use certain filter features, including price, size, thickness, product type, brand, warranty, review rating, and shipping method, which changes the order in which products are presented. Importer *** reported prioritizing sales based on several of the aforementioned factors, including the number of customer reviews, average customer review rating, price, and previous user engagement, as well as historical stock information, delivery guarantees, product order history, a user's previous browse history, device type, location, demographic information, product title, and product description.

U.S. purchasers

The Commission received 58 usable questionnaire responses from firms that had purchased mattresses during 2016-18.^{8 9} The majority of responding purchasers (45 firms) are

(...continued)

algorithm are sales velocity, customer traffic (i.e., interaction with product detail page), content score, customer review average, delivery speed, and seller scorecard rating.

⁶ Several firms, including ***, reported that a product/brand must also invest in advertising on a platform as well as employ a strong search engine optimization/search engine marketing strategy in order to drive traffic to the website.

⁷ U.S. producer *** reported that special advertising platforms can raise the ranking of a particular product at a cost per click.

⁸ Of the 58 responding purchasers, 53 purchased domestically produced mattresses, 37 purchased imports of the subject merchandise from China, and 10 purchased imports of mattresses from other sources.

(continued...)

retailers, with 36 selling through brick and mortar establishments and 26 selling via the internet. Eleven responding purchasers are distributors, and 5 are end users (including 2 hotels, 2 institutions, and 2 other types of end users). One purchaser reported being an RV manufacturer, one is a nonprofit that donates its mattress purchases to clients in need, and one installs mattresses in long-haul trucks. In general, responding U.S. purchasers were located in all regions of the United States, with 16 located in the Midwest, 11 located in the Mountains region, 11 located in the Southeast, 8 from the Northeast region, 7 from the Pacific Coast region, 4 from the Central Southwest, and 1 from Puerto Rico. The largest purchasers/importers of mattresses from all sources during 2016-18 were ***, which were responsible for ** percent of all reported purchases/imports in 2018, respectively.

Channels of distribution

As shown in table II-4, U.S. producers and importers sell both MiBs and flat-packed mattresses (“FPMs”) primarily to the retail market, either to third-party retailers or through their own brick and mortar establishments and/or via their own websites.¹⁰

When purchaser-distributors were asked whether they compete for sales to customers with the manufacturers or importers from which they purchase mattresses, 16 of 38 responding firms reported that they do, whereas 22 reported that they do not. Most of these firms alluded to the omni-channel presence of many U.S. producers and importers, reporting that suppliers often sell not only to purchasers, but also directly to consumers through their own brick and mortar establishments and/or websites, in competition with purchasers.

(...continued)

9 ***. ***. ***.

¹⁰ For more on channels of distribution, including a breakdown of specific retail channel shipments by source and by packaging format, see appendix E.

Table II-4

Mattresses: U.S. producers' and importers' U.S. commercial shipments of MiBs, FPMs, and all mattresses, by sources and channels of distribution, 2016-18, January-June 2018, and January-June 2019

Item	Calendar year			January-June	
	2016	2017	2018	2018	2019
Share of reported shipments (percent)					
U.S. producers' U.S. commercial shipments of MiBs:					
Distributors	***	***	***	***	***
Retail	86.9	83.2	83.0	86.0	83.2
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of MiBs from China:					
Distributors	***	***	***	***	***
Retail	92.8	92.6	93.0	92.4	94.3
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of MiBs from all other countries:					
Distributors	***	***	***	***	***
Retail	***	***	***	***	***
End users	***	***	***	***	***
Share of reported shipments (percent)					
U.S. producers' U.S. commercial shipments of FPMs:					
Distributors	***	***	***	***	***
Retail	88.3	86.8	85.6	85.0	84.2
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of FPMs from China:					
Distributors	***	***	***	***	***
Retail	***	***	***	***	***
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of FPMs from all other countries:					
Distributors	***	***	***	***	***
Retail	***	***	***	***	***
End users	***	***	***	***	***
Share of reported shipments (percent)					
U.S. producers' U.S. commercial shipments of all mattresses:					
Distributors	***	***	***	***	***
Retail	***	***	***	***	***
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of all mattresses from China:					
Distributors	***	***	***	***	***
Retail	***	***	***	***	***
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of all mattresses from all other countries:					
Distributors	***	***	***	***	***
Retail	***	***	***	***	***
End users	***	***	***	***	***

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

Note: Retail includes sales both to unrelated retailers and directly to a supplier's own retail establishment(s).

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

Geographic distribution

U.S. producers and importers both reported selling mattresses to all regions in the contiguous United States (table II-5). For U.S. producers, 35.7 percent of sales were within 100 miles of their production facilities, 59.4 percent were between 101 and 1,000 miles, and 4.9 percent were over 1,000 miles. Importers sold 24.7 percent within 100 miles of their U.S. points of shipment, 61.8 percent between 101 and 1,000 miles, and 13.5 percent over 1,000 miles.

Table II-5
Mattresses: Geographic market areas in the United States served by U.S. producers and importers

Region	U.S. producers	Importers
Northeast	20	35
Midwest	23	36
Southeast	18	37
Central Southwest	19	35
Mountain	22	33
Pacific Coast	18	35
Other	15	25
All regions (except Other)	16	33
Reporting firms	27	40

Note: "Other" refers to 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-6 provides a summary of the supply factors regarding mattresses from producers in the United States and China. Overall capacity and production both decreased for U.S. producers but increased for producers from China.

**Table II-6
Mattresses: Supply factors that affect the ability to increase shipments to the U.S. market**

Country	Capacity (mattresses)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2018 (percent)		Able to shift to alternate products
	2016	2018	2016	2018	2016	2018	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	23,577,198	21,917,176	73.6	71.8	***	***	99.4	0.6	9 of 28
China	5,577,515	8,913,387	80.0	84.3	3.6	4.5	16.1	16.3	4 of 12

Note: Responding U.S. producers accounted for most U.S. production of mattresses in 2018. Responding foreign producer/exporter firms accounted for the majority of U.S. imports of mattresses from China during 2018. 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 mattresses have the ability to respond to changes in demand with moderate changes in the quantity of shipments of U.S.-produced mattresses to the U.S. market.¹¹ The main contributing factors to this degree of responsiveness of supply are the availability of some unused capacity and some ability to shift production from alternate products.¹² Factors mitigating U.S. producers' responsiveness of supply include a limited availability of inventories and almost no ability to shift shipments from alternate markets.

U.S. producers' capacity utilization decreased by 1.8 percentage points between 2016 and 2018, driven by a larger decrease in production (9.3 percent) than capacity (7.0 percent) during this period. Overall capacity and production were both lower in January-June of 2019 compared to January-June 2018 as well, by 2.6 percent and 6.0 percent, respectively. U.S. producers' ratio of inventories to total shipments increased *** during 2016-18 but remained low, ranging from *** to ***. U.S. producers' export shipments were minimal, remaining at less than *** percent during 2016-18. While 9 of 28 responding U.S. producers reported an ability to shift production from alternate products, most of them reported producing mattress toppers

¹¹ Petitioners argue that the U.S. mattress industry has "substantial" capacity to supply the domestic market, including "ample capacity to supply MiB demand," and that the 15 responding U.S. producers "do not reflect total capacity in the United States." Petitioners' prehearing brief, pp. 18-19.

¹² The product firms most reported being able to produce on the same equipment, mattress toppers, is more likely to be a complementary as opposed to a substitute product.

on the same equipment as mattresses, and mattress toppers were not widely listed as a substitute for mattresses.¹³

Subject imports from China

Based on available information, producers of mattresses from China have the ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of mattresses to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of some unused capacity, increased overall capacity, and the ability to shift shipments from alternate markets. Factors mitigating Chinese producers' responsiveness of supply include a limited availability of inventories and limited ability to shift production from alternate products.

Chinese producers' overall capacity increased by 59.8 percent as their total production increased by 68.4 percent between 2016 and 2018, leading to an increase in capacity utilization of 4.3 percentage points during this time. Chinese producers' reported overall production was 13.7 percent lower in January-June of 2019 compared with January-June 2018. Chinese producers' ratio of inventories to total shipments remained relatively low throughout 2016-18, ranging from *** to ***. Chinese producers' home market shipments increased by *** percent from 2016 to 2018, and their shipments to other (non-U.S.) export markets increased by 61.6 percent. Four of 12 responding Chinese producers reported an ability to shift production from alternate products, including mattress toppers and covers, pillows, bases, headboards, and footboards. Nine firms reported production of other products on the same equipment as mattresses, however.

Imports from nonsubject sources

According to official import statistics, the largest nonsubject source of mattresses is Mexico, which accounted for the vast majority of nonsubject imports in 2018.¹⁴ Among responding importers, the most commonly listed nonsubject import sources were Vietnam (13 firms), Thailand (6 firms), Indonesia (5 firms), Cambodia and Malaysia (4 firms each), Serbia and Taiwan (2 firms each).¹⁵ Among the responding importers, nonsubject imports increased by

¹³ Only 2 of 27 U.S. producers reported that there are substitutes for mattresses, and neither listed mattress toppers. For more information on substitute products, see section "Substitutes" later in Part II.

¹⁴ Based on official U.S. import statistics for HTS statistical reporting number 9404.21.0010, 9404.21.0013, 9404.29.1005, 9404.29.1013, 9404.29.9085, and 9404.29.9087, accessed July 17, 2019.

¹⁵ One firm each also listed the following sources: "Europe," Italy, Mexico, Poland, Turkey, and the United Kingdom.

30.6 percent between 2016 and 2018, and were 155.2 percent higher in January-June 2019 compared with January-June 2018. Sixteen of the 23 firms reporting nonsubject imports during January-June 2019 had started importing mattresses in the first or second quarter of 2019.

Supply constraints

Most responding firms reported that they have not experienced supply problems since January 2016, although some U.S. producers (3 of 27), importers (10 of 41), and purchasers (15 of 57) reported that they did experience supply issues. Among U.S. producers, *** reported that it suspended production more frequently due to a drop in sales; *** reported that its purchase order quantities are sometimes greater than its supply; and *** reported that it experienced a one-time shortage because actual sales to a large purchaser exceeded the projected sales. Among importers, almost all firms reported supply shortages and/or demand spikes for Chinese product due to tariffs. Purchasers reported a wide variety of supply constraints, including capacity moving out of China, demand spikes during tax season, higher demand generally, environmental initiatives that reduced the number of qualified suppliers, the bankruptcy of Sears Holdings, capacity constraints and shipment delays among U.S. producers, and an inability or refusal to supply by some U.S. producers. *** Ashley also reported that it experienced “multiple production delays and capacity issues with domestic producers” of the foam it purchases ***.¹⁶

When asked whether the availability of supply had changed from the United States, China, and/or nonsubject countries since January 2016, most purchasers (43 of 56) reported that supply from the United States had not changed, while a majority of purchasers reported that the supply from China (24 of 45 firms) and nonsubject countries (21 of 33 firms) had increased. Five purchasers reported a decrease in the supply of Chinese mattresses due to the imposition of tariffs pursuant to the Section 301 investigation and/or provisional duties pursuant to the antidumping duty investigation. Among the purchasers reporting an increased supply of nonsubject mattresses, several attributed the increase to tariffs on Chinese mattresses.

¹⁶ It stated that ***, and that ***. Ashley’s posthearing brief, Attachment B, p. 3, Exhs. 1 and 2. See also Hearing transcript, p. 266 (Adams).

Impact of Section 301 investigation and tariffs¹⁷

Firms were also asked if the announcement in March 2018 and subsequent imposition of tariffs on mattresses imported from China pursuant to the section 301 investigation concerning China had impacted or would impact their firm's mattress business and/or the U.S. mattress market as a whole. As shown in table II-7, most firms reported that the tariff's announcement and imposition did not change the overall demand or supply of mattresses in the U.S. market. A majority of U.S. producers also reported that it did not change the prices of mattresses or raw material costs. Most importers and purchasers reported that the tariff's announcement and imposition increased the price of mattresses, and most importers reported that it also increased the cost of raw materials.

Table II-7

Mattresses: Firms' responses regarding impact in the U.S. market of the announcement and subsequent imposition of tariffs on mattresses imported from China pursuant to the section 301 investigation concerning China, by number of responding firms

Item	Increase	No change	Decrease	Fluctuate
U.S. producers:				
Impact on demand	2	15	---	3
Impact on supply	3	13	---	4
Impact on prices	3	13	1	3
Impact on raw material costs	7	12	---	2
Importers:				
Impact on demand	2	23	9	4
Impact on supply	6	18	12	2
Impact on prices	26	8	1	4
Impact on raw material costs	17	12	1	6
Purchasers:				
Impact on demand	---	22	1	6
Impact on supply	3	19	4	3
Impact on prices	14	9	1	6
Impact on raw material costs	8	13	2	4

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

New suppliers

Twenty-three of 56 purchasers indicated that new suppliers have entered the U.S. market since January 1, 2016. Several of these purchasers noted an influx of MiB mattress suppliers, in particular. Purchasers specifically named the following firms as new market entrants: Purple (6 firms); Nectar (5 firms); MLilly (4 firms); Casper, Leesa, and Zinus (3 firms each); Healthcare, Malouf, and Saatva (2 firms each); and Avocado, Brooklyn Bedding, Cocoon,

¹⁷ For more on the Section 301 proceeding, please see Part I.

Customatic, Dr. Green, DreamCloud (parent company Resident Home), Dream on Me (crib mattresses), Glideaway Frame Company, Global Trading, High Point, Icon Direct, Level Sleep, Molecule, Sinomax, Smart Flex, Softttx, and Tuft & Needle (1 firm each).

U.S. demand

Based on available information, the overall demand for mattresses is likely to experience small changes in response to changes in price. The main contributing factors are the lack of widely used substitute products. While mattresses make up a moderate-to-large share of the cost of a mattress and foundation set, they typically make up a small-to-moderate share of the cost of products that incorporate mattresses.

End use applications and cost shares

Firms were asked about end-use products or applications for mattresses not sold independently (i.e., sold in combination with other items, such as a mattress foundation, sofa bed, or furniture set), as well as the percent of the total cost of that end-use product or application that is made up of the mattress. The most commonly identified end-use products that incorporate mattresses were sofa sleepers/sleeper beds (11 firms); foundation/box spring and mattress sets (7 firms); upholstery sleepers and adjustable base beds (2 firms each); bedroom furniture sets and folding beds (2 firms each); and metal frame foundation beds, roll-away beds, RV beds, and truck beds (1 firm each). Firms provided the following cost estimates for mattresses:

- Wooden or metal base foundation beds – 20 to 80 percent (average 62 percent)
- Roll-away beds – 48 percent
- Adjustable base beds – 40 to 50 percent (average 45 percent)
- Folding guest beds/Murphy beds – 25 to 30 percent (average 27.5 percent)
- Sofa sleepers/sofa beds – 8 to 50 percent (average 23.4 percent)
- Upholstery sleepers – 15 to 30 percent (average 21.7 percent)
- Bedroom furniture sets – 2 percent
- RV beds – 0.6 percent
- Truck beds – 0.03 to 0.04 percent (average 0.04 percent)

Business cycles and distinct conditions of competition

While most responding firms reported that the market was not subject to business cycles, a substantial number did, including half of responding U.S. producers (13 of 26 firms), 15 of 40 importers, and 18 of 57 purchasers. Most firms reporting the presence of business cycles reported that sales are strongest during tax season, Black Friday, and federal holidays (e.g.,

Memorial Day, Labor Day, Presidents' Day, and Independence Day), when retailers often have sales and promotional events. Several firms reported increased sales during the summer and back-to-school time. Some firms also stated that November and December are the busiest months of the year for online sales due to holiday shopping, while others reported that the winter months are the slowest months of the year. Importer *** suggested that traditional brick and mortar mattress retailers have sales spikes during holiday weekends such as Presidents' Day and Memorial Day, while online sales are highest around November and December due to holiday shopping (e.g., around Black Friday). U.S. producer *** opined that the seasonality in the mattress business has lessened in the past 10 years and business is much more consistent throughout the year than it had been in the past.

Seven of 26 U.S. producers, 5 of 40 importers, and 9 of 57 purchasers indicated that the mattress market was subject to other conditions distinctive to the mattresses market. Most of these firms highlighted the growth of the MiB market and direct-to-consumer sales via e-commerce. *** also noted that the market for childrens' mattresses was subject to birth rates in the United States and Canada; purchaser *** reported that the market was "driven by expansion or contraction of large *** chains;" purchaser *** reported that the market was subject to producer line changes and component cost increases; and purchaser *** reported that purchases have become more concentrated on or around major U.S. holidays.¹⁸

Most responding firms (14 of 22 U.S. producers, 11 of 20 importers, and 18 of 29 purchasers) also reported changes to business cycles or conditions of competition since January 2016, with most of them citing an increase in sales of MiBs and direct-to-consumer sales over the internet. Some firms noted that this style of purchasing has taken market share from brick and mortar retail outlets, and a few firms noted an increase in the number of suppliers of MiBs. Purchaser *** reported that "the majority of the impact" from the shift in market share to online purchases from tech-enabled bed-in-a-box companies "is from U.S.-based companies that purchase from U.S. manufacturers." Importers *** also stated that the increase in mattress sales over the internet has reduced the life cycle of a mattress from 10 years to 8 years.¹⁹

¹⁸ U.S. producer Corsicana noted that Mattress Firm's bankruptcy and associated store closures ***. See also hearing transcript, p. 36 (Fallen).

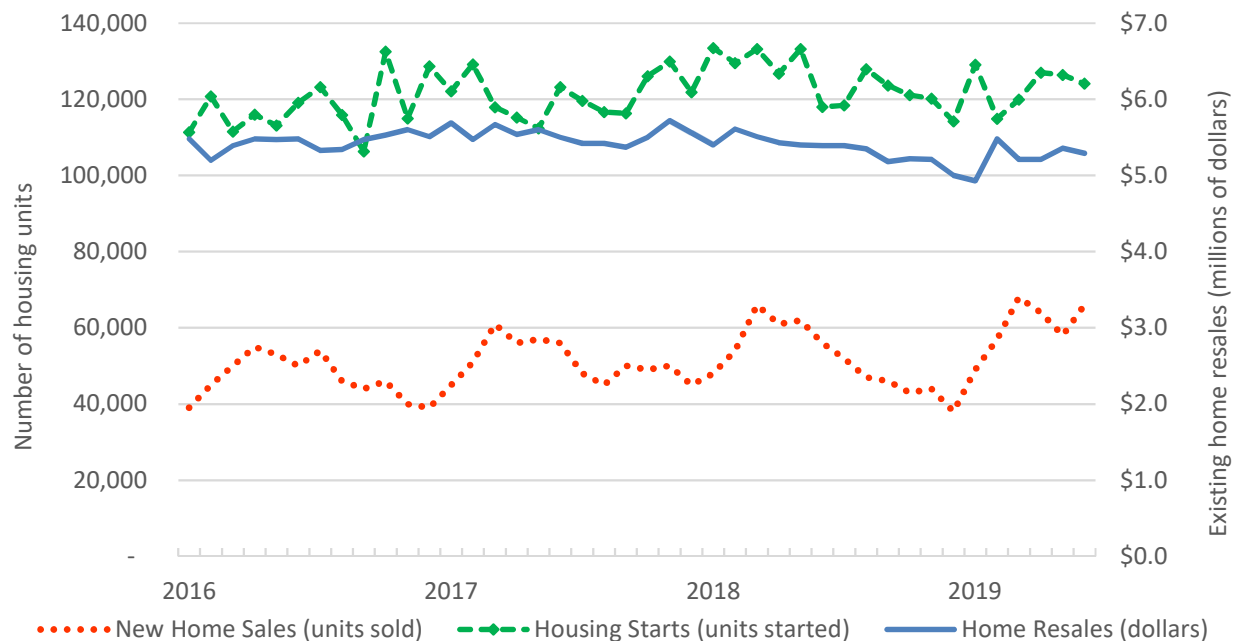
¹⁹ Classic Brands argues that "the growing acceptance of foam mattresses and the introduction of direct to consumer/online sales of mattresses has altered consumers' purchasing behavior and likely hastened {the 10-year average purchase cycle}... particularly for younger consumers." Respondent

(continued...)

Demand trends

Demand for mattresses is driven by housing activity (new home sales, housing starts, and home resales), interest rates, GDP, and consumer sentiment.²⁰ Overall, housing activity decreased between January 2016 and June 2019 (figure II-1). Between January 2016 and December 2018, the total number of new homes sold and the value of home resales in the United States both decreased, by 2.6 and 8.8 percent, respectively, while the number of housing starts increased by 2.5 percent. Between the first half of 2016 and the first half of 2019, the value of home resales decreased by 3.1 percent, while the total number of new homes sold and the number of housing units started both increased by 24.0 and 7.2 percent, respectively.

Figure II-1
Housing activity: Number of new housing units sold (not seasonally adjusted), new privately owned housing units started (seasonally adjusted annual rate, in hundreds), and total existing home resales (in millions of dollars), monthly, January 2016-June 2019



Sources: Census Bureau, Federal Reserve Bank of St. Louis (FRED economic data), and YCharts (via National Association of Realtors), retrieved September 5, 2019.

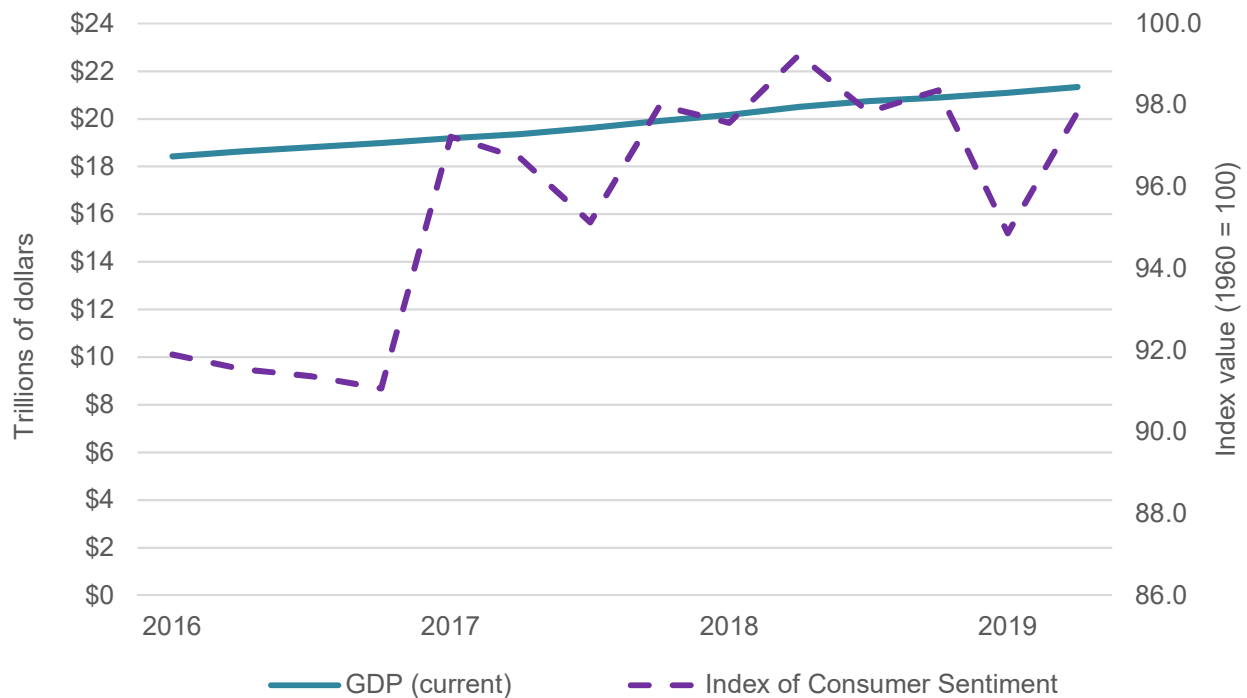
(...continued)

Classic Brands' postconference brief, p. 6. See also Chinese respondents' posthearing brief, Attachment C, p. 4 and Exhibit 3. Petitioners testified that a sudden influx of lower-priced mattresses has not historically been a driver of the speed at which consumers replace mattresses. Hearing transcript, pp. 128 (Swift), 133-134 (Anderson).

²⁰ Petition, pp. 2 and 17.

GDP and consumer sentiment both increased during January 2016-June 2019. Between January 2016 and December 2018, GDP and consumer sentiment grew by 13.4 percent and 6.5 percentage points, respectively (figure II-2). Between the first half of 2016 and the first half of 2019, GDP increased by 14.5 percent while consumer sentiment increased by 4.6 percentage points.

Figure II-2
GDP and consumer sentiment: Current GDP (seasonally adjusted), and index of consumer sentiment (3 month marginal average), quarterly, January 2016-June 2019



Sources: Federal Reserve Bank of St. Louis (FRED economic data), and University of Michigan consumer surveys, retrieved September 5, 2019.

The 30-year fixed average mortgage rate fluctuated during January 2016-June 2019, but was highest during the first and second weeks of November 2018 at 4.94 percent and lowest during the first week of July 2017 at 3.41 percent (figure II-3).

Figure II-3
Interest rates: 30-year fixed rate mortgage average in the United States, weekly, January 7, 2016- August 29, 2019



Source: Federal Reserve Bank of St. Louis (FRED economic data), retrieved September 28, 2018.

Majorities of U.S. producers, importers, and purchasers reported an increase in U.S. demand for foam, hybrid, and rolled and compressed MiBs since January 2016 (table II-8a).²¹ Either a majority or a plurality of firms reported that there has been no change in U.S. demand for flat-shipped compressed FPMs and flat-shipped, not compressed, FPMs since January 2016. While pluralities of importers and purchasers reported that there has been no change in U.S. demand for innerspring mattresses since January 2016, most U.S. producers reported that there has been a decrease in demand for innerspring mattresses.

²¹ The Chinese respondents argue that demand for mattresses does not grow uniformly, and age group, mattress type, and channel of distribution affect purchasing decisions, with young people being “more accepting of foam mattresses and online purchases.” Chinese respondents’ prehearing brief, pp. 4-5. They also argue that “interest in MiBs also drove {the} increase in overall mattress demand in excess of what longstanding participants in the U.S. industry would have expected (2.5 percent annually),” and that “MiBs have actually led consumers to replace their mattresses more often.” Chinese respondents’ posthearing brief, Attachment C, pp. 4-8 and Exhibit 3.

Table II-8a
Mattresses: Firms' responses regarding current demand for mattresses in the United States

Item	Increase	No change	Decrease	Fluctuate
U.S. producers:				
Innerspring	2	5	12	2
Foam	14	3	4	1
Hybrid	15	2	2	2
Rolled and compressed MiBs	15	2	1	---
Flat-shipped compressed FPMs	3	7	---	2
Flat-shipped not compressed FPMs	1	9	5	1
Other	---	1	---	---
Importers:				
Innerspring	7	11	9	8
Foam	25	6	2	5
Hybrid	26	2	1	4
Rolled and compressed MiBs	28	2	1	2
Flat-shipped compressed FPMs	2	8	3	7
Flat-shipped not compressed FPMs	4	8	8	3
Other	---	1	---	---
Purchasers:				
Innerspring	11	16	14	6
Foam	22	13	6	5
Hybrid	28	12	1	4
Rolled and compressed MiBs	34	6	1	5
Flat-shipped compressed FPMs	5	14	1	5
Flat-shipped not compressed FPMs	4	12	9	6
Other	---	3	---	---

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

Firms' responses regarding demand trends outside the United States followed similar patterns. Either a majority or a plurality of U.S. producers and importers reported that demand outside the United States had increased for foam, hybrid, and rolled and compressed MiBs, while a plurality of purchasers reported an increase in demand for rolled and compressed MiBs outside the United States.

When purchasers were asked if the demand for their final products that incorporate mattresses had increased, decreased, fluctuated, or remained unchanged, firms were evenly split, with four affirmative response for each. When asked if this had any effect on their overall demand for mattresses, most firms (11 of 17) reported that it did have an effect.

As shown in table II-8b, firms' responses regarding expected future demand followed similar trends, with demand generally expected to continue to grow for foam, hybrid, and rolled and compressed MiBs.

Table II-8b
Mattresses: Firms' responses regarding future demand for mattresses in the United States

Item	Increase	No change	Decrease	Fluctuate
U.S. producers:				
Innerspring	2	7	10	1
Foam	7	7	4	1
Hybrid	12	4	2	1
Rolled and compressed MiBs	14	3	---	1
Flat-shipped compressed FPMs	3	7	---	1
Flat-shipped not compressed FPMs	1	7	5	1
Other	1	1	---	---
Importers:				
Innerspring	9	11	8	4
Foam	20	10	---	2
Hybrid	23	4	1	2
Rolled and compressed MiBs	25	4	1	2
Flat-shipped compressed FPMs	2	10	4	5
Flat-shipped not compressed FPMs	3	10	5	4
Other	1	3	---	---
Purchasers:				
Innerspring	8	17	14	7
Foam	18	15	6	6
Hybrid	23	9	5	6
Rolled and compressed MiBs	33	7	2	2
Flat-shipped compressed FPMs	5	11	4	5
Flat-shipped not compressed FPMs	3	14	7	4
Other	---	4	---	1

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

Substitute products

Most responding U.S. producers (25 of 27), importers (33 of 36), and purchasers (43 of 48) reported that there are no substitutes for mattresses. Firms that did report substitutes cited air mattresses, futons, water beds, and air adjustable foam mattresses as possible substitutes. Only one firm – importer *** – reported that decreases in the price of permanent air mattresses have put downward pricing pressure on foam, innerspring, and hybrid mattresses.

Substitutability issues

The degree of substitution between domestic and imported mattresses depends upon factors such 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 moderately high degree of substitutability between domestically produced mattresses and mattresses imported from China. For most mattresses, substitutability appears to be quite high. For some

types of mattresses, the level of substitutability may be somewhat moderated, and for customers for whom brand is a driving factor, substitutability may be more limited.

Lead times

U.S. producers reported that 84.6 percent of their commercial shipments were produced-to-order, with a lead time averaging 4 days. The remaining 15.4 percent of their commercial shipments came from inventories, with a lead time averaging 3 days. For responding importers, 77.4 percent came from inventories, with a lead time of 4-5 days, while 15.9 percent were produced-to-order, with a lead time averaging 51 days, and 6.7 percent came from the foreign manufacturer’s inventories, with a lead time averaging 60 days.

Knowledge of country sources

Fifty-two purchasers indicated they had marketing/pricing knowledge of domestic product, 32 of product from China, and 16 of nonsubject countries. The specific nonsubject countries of which purchasers reported knowledge included Vietnam (8 firms); Italy (5 firms); Cambodia, Canada, Malaysia, and Thailand (4 firms each); Indonesia, Germany, and the United Kingdom (2 firms each); and Argentina, Australia, Belgium, Mexico, Poland, Serbia, Taiwan, and Turkey (1 firm each).

As shown in table II-9, pluralities of purchasers reported “always” making purchasing decisions based on the producer but “never” making decisions based on the country of origin. Majorities of purchasers reported that their customers either “sometimes” or “never” make purchasing decisions based on producer or country of origin. Of the 17 (out of 56) purchasers that reported “always” making decisions based the manufacturer,²² firms cited a preference for domestic product, producer capabilities, reputation, history, and rigorous supplier requirements as reasons.

Table II-9
Mattresses: Purchasing decisions based on producer and country of origin

Purchaser/customer decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	17	12	12	15
Purchaser’s customers make decision based on producer	2	7	25	15
Purchaser makes decision based on country	13	2	15	25
Purchaser’s customers make decision based on country	1	6	20	19

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

22 ***

Factors affecting purchasing decisions

The most frequently cited top three factors firms consider in their purchasing decisions for mattresses were price/cost (42 firms), quality (40 firms), and lead time/delivery (18 firms) as shown in table II-10. Quality was the most frequently cited first-most important factor (cited by 24 firms), followed by price/cost (12 firms); price/cost was the most frequently reported second- and third-most important factors (cited by 16 firms and 14 firms, respectively).

Table II-10
Mattresses: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Total
Price/cost	12	16	14	42
Quality	24	14	2	40
Lead time/delivery	3	5	10	18
Availability	1	6	8	15
Range of product line	2	6	1	9
Capacity	5	1	2	8
Overall value	5	2	---	7
Brand	5	---	---	5
Other	6	6	17	29

Note: Other factors include reliability/dependability and service (4 firms each); consumer demand, relationship, and warranty (2 firms each); and compliance, dependability of supply, donations, exclusivity, features, local manufacturer, loyalty, marketability, marketplace distribution, mattress type, meets specifications, product exclusives, product integrity, supplier, supply dependability, and traditional supplier (1 firm each).

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

The majority of purchasers (33 of 58 firms) reported that they “sometimes” purchase the lowest-priced product. Thirteen firms reported that they “usually” purchase the lowest-priced product, while 10 reported that they “never” do, and 2 reported that they “always” do.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 25 factors in their purchasing decisions (table II-11). The factors rated as “very important” by more than half of responding purchasers were factors related to product availability and delivery (i.e., reliability, speed, and terms), quality and consistency, and price. The factors rated as least important included consumer in-home trials, consumer in-store trials, online sales, and direct-to-consumer delivery.²³

²³ Among the largest purchaser/importers, ***, consumer in-home and in-store trials were rated as

(continued...)

Table II-11**Mattresses: Importance of purchase factors, as reported by U.S. purchasers, by factor**

Factor	Very important	Somewhat important	Not important
Availability, overall	54	3	1
Reliability of supply	53	3	1
Product consistency	51	5	1
Delivery time	49	6	1
Quality meets industry standards	49	4	3
Price	48	9	---
Availability of different sizes	46	11	1
Quality exceeds industry standards	41	15	2
Delivery terms	38	16	2
Foam type	30	22	3
Foam density	30	21	5
U.S. transportation costs	28	24	4
Packaging	28	21	7
Technical support/service	27	22	9
Product range	25	28	1
Payment terms	22	27	8
Spring type	22	23	12
Discounts offered	21	23	12
Spring quantity	21	22	14
Consumer online ratings	18	18	19
Minimum quantity requirements	17	18	21
Direct-to-consumer delivery	17	9	30
Online sales	15	12	28
Consumer in-store trials	12	11	32
Consumer in-home trials	5	15	36

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

Supplier certification

Twenty-four of 57 responding purchasers require their suppliers to become certified or qualified to sell mattresses to their firm, while the other 33 purchasers do not. Purchasers reported that the time to qualify a new supplier ranged from 1 to 180 days, and the process and factors involved in qualification were mostly related to safety and environmental standards (such as flame retardant requirements and environmental certifications). Two purchasers reported that domestic and foreign suppliers had failed in their attempts to qualify mattresses, or had lost their approved status since 2016. *** reported that “numerous” firms both in the United States and China presented mattresses that were never certified due to quality test

(...continued)

either “somewhat important” or “not important,” while consumer online ratings were rated as “very important” *** and online sales and direct-to-consumer delivery were rated as ***.

results. *** reported that firms from China (***), as well as *** had failed in their attempts to qualify new product. *** also reported that *** had lost its certification *** and that *** had lost its certification due to “***.”

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2016 (table II-12). For firms that reported purchasing from a particular source, the majority of responding firms reported an increase in their purchases from that source. Among firms that reported purchasing mattresses from China, nearly half of them (16 of 33 firms) reported increasing such purchases, while slightly less than half of the firms that reported purchasing mattresses from domestic sources (23 of 54 firms) reporting increasing such purchases.

Table II-12
Mattresses: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	3	10	23	15	6
China	17	10	16	2	5
Other	27	1	12	1	---
Unknown sources	26	1	3	1	---

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

Reasons reported for increasing purchases from the United States were mostly related to increased demand, with two firms citing the addition of new brands as the reason. For firms that reported decreasing domestic purchases, reasons included an overabundance of suppliers and general market saturation, better selection from other sources, demand that exceeded domestic capacity, lower demand, lower prices for Chinese product, store closures, and transitioning from a self-distribution model to a direct-to-consumer drop-ship model.

For firms that reported increases in purchases of mattresses from China, the reasons included an increase in demand, better quality than other sources, good product availability, the introduction of a new product category, and lower prices. Reasons reported for decreasing purchases of mattresses from China included the provisional antidumping duties, fewer brands and product offerings, and price/quality considerations.

Most responding purchasers (32 of 56 firms) reported that they had changed suppliers since January 1, 2016. Most of these firms reported adding suppliers, with several of them citing the addition of MiB suppliers. Firms also reported changing suppliers due to price. One firm, ***, reported dropping Chinese firms *** and adding Turkish firm *** due to the Section 301 tariffs and potential antidumping duties. When purchasers that did not change suppliers were asked if there were certain legal or practical considerations that prevented them from doing so, the vast majority firms (41 of 43) reported that there were not. For the two firms reporting that there were such considerations, one cited an existing contract as the reason, and the other reported a requirement for Oeko-Tex certification.²⁴

Importance of purchasing domestic product

Most responding purchasers (50 of 57 firms) reported that most or all of their purchases did not require purchasing U.S.-produced product; purchases that had no domestic requirement represented 94.4 percent of purchasers' estimated purchases in 2018. One purchaser reported that domestic product was required by law (for 0.01 percent of purchasers' estimated purchases in 2018), 12 reported it was required by their customers (for 4.7 percent of estimated purchases in 2018), and 6 reported other preferences for domestic product (for 0.9 percent of estimated purchases in 2018). Reasons cited for preferring domestic product included a perception of retailer and consumer preference for domestic product, delivery time (including a "quick ship" program), in-home trials, and return policies.

Most purchasers (36 of 57 firms) reported that they and their customers do not specifically order mattresses from one country in particular over other sources of supply. For the 21 firms that do, the vast majority of them indicated either a firm-level or customer-level preference for domestic product. One firm (***) suggested that some countries have a level of expertise, service, quality, and innovation for MiBs that "might have advantages over other countries, including the United States," but did not name a specific country. Another firm indicated that some customers prefer U.S.-made products, but that most care more about price/value than product origin.

²⁴ The International Association for Research and Testing in the Field of Textile and Leather Ecology ("Oeko-Tex") is a coalition of 18 independent research and testing institutes in Europe and Japan that issues trademarked certificates and labels indicating adherence to certain material and production standards. See <https://www.oeko-tex.com/en/about-us>, retrieved September 6, 2019.

When purchasers were asked if certain types, sizes, or features were only available from certain source countries, most firms (45 of 53) responded that there were not. Of the eight firms that reported that there were types, sizes, or features available only from certain source countries, most reported certain types of product being unavailable or difficult to obtain domestically. Two firms (***) reported that only a few domestic producers have the equipment necessary to manufacture MiB products; one firm reported that certain textiles are only available overseas; one firm reported that Oeko-Tex certified products are not available from domestic producers; one firm reported that Chinese memory foam is of higher quality than U.S. foams; one firm reported that domestic pricing can be prohibitive; and one firm (***) reported that certain proprietary technologies are country-specific, which requires purchasing from the country that has such technology.²⁵ One firm reported that some branded products (such as Tempur) are only available from domestic sources.

Comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing mattresses produced in the United States, China, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 25 factors (table II-13), for which they were asked to rate the importance.

Most purchasers reported that domestic mattresses were comparable to subject and nonsubject mattresses on all factors except delivery time and price. Most firms reported that domestic product was superior to Chinese product with respect to delivery time but inferior to Chinese and nonsubject product with respect to price.²⁶ Most purchasers also reported that Chinese mattresses were comparable to nonsubject mattresses on all factors.

²⁵ *** reported sourcing the vast majority of its mattresses from China.

²⁶ As discussed earlier (table II-11), delivery time was rated as “very important” by 49 of 55 purchasers and price was rated as “very important” by 46 of 55 purchasers.

Table II-13

Mattresses: Purchasers' comparisons between U.S.-produced and imported product, by order of purchasers' responses regarding importance

Factor	U.S. vs. China			U.S. vs. Nonsubject			China vs. Nonsubject		
	S	C	I	S	C	I	S	C	I
Availability, overall	11	20	5	7	12	3	5	9	1
Reliability of supply	12	20	4	8	12	1	3	11	1
Product consistency	7	27	2	3	19	---	2	13	---
Delivery time	18	14	4	10	11	1	4	10	1
Quality meets industry standards	5	31	---	3	19	---	1	14	---
Price	3	12	21	1	8	13	3	11	1
Availability of different sizes	6	28	2	4	16	2	3	12	---
Quality exceeds industry standards	7	29	---	4	17	1	---	14	1
Delivery terms	12	18	5	9	12	1	3	12	---
Foam type	4	28	4	4	16	2	2	13	---
Foam density	4	27	4	3	17	2	1	14	---
U.S. transportation costs	10	20	6	7	12	2	2	11	2
Packaging	2	31	4	2	20	---	1	14	---
Technical support/service	12	19	5	7	13	1	2	12	1
Product range	6	27	3	2	18	2	3	11	1
Payment terms	6	26	4	4	17	1	1	14	---
Spring type	5	30	---	2	20	---	---	15	---
Discounts offered	2	27	7	2	17	3	---	15	---
Spring quantity	5	28	---	3	19	---	1	14	---
Consumer online ratings	5	28	1	4	15	2	2	10	2
Minimum quantity requirements	10	19	5	5	15	2	1	13	1
Direct-to-consumer delivery	7	19	8	5	15	2	2	12	---
Online sales	1	23	10	6	13	3	1	13	---
Consumer in-store trials	7	24	1	3	16	1	---	12	1
Consumer in-home trials	8	20	5	4	14	2	---	12	1

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 mattresses

In order to determine whether U.S.-produced mattresses can generally be used in the same applications as imports from China and nonsubject countries, U.S. producers, importers, and purchasers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. Among U.S. producers and purchasers, the majority of responding firms reported that U.S. and Chinese mattresses can either always or frequently be used interchangeably; most responding importers reported that they can frequently or sometimes be used interchangeably (table II-14).

Table II-14**Mattresses: Interchangeability between mattresses produced in the United States and in other countries, by country pair**

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries: U.S. vs. China	10	8	3	1	7	15	14	1	13	13	8	2
Nonsubject countries comparisons: U.S. vs. nonsubject	9	7	2	---	5	13	14	1	8	10	6	---
China vs. nonsubject	7	6	2	---	5	14	11	1	8	7	6	---

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

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

Firms reported the following limitations to interchangeability: brand and price point; flammability certifications; the tendency for Chinese manufacturers to specialize in foam mattresses “which not all consumers want;” domestic limitations on certain specialty foams; more varied foam technologies from China; the need for product aesthetics and sizes to be altered significantly to match domestic mattresses; manufacturer capabilities; and smaller packaging for imported products.

As can be seen from table II-15, a plurality of purchasers reported that U.S.-produced product “always” met minimum quality specifications, while a plurality of purchasers reported that product from China “usually” met minimum quality specifications. A majority of purchasers also reported that product from nonsubject countries “usually” met minimum quality specifications. Few firms reported that mattresses from these sources only “sometimes” met minimum quality specifications, and only one firm reported that mattresses from China “rarely” or “never” met minimum quality specifications.

Table II-15**Mattresses: Ability to meet minimum quality specifications, by source**

Source	Always	Usually	Sometimes	Rarely or never
United States	26	18	3	---
China	13	15	4	1
Nonsubject countries	4	7	1	---

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

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

In addition, producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of mattresses from the United States, China, or nonsubject countries. In general, U.S. producers were more apt to report that non-price differences were of less significance than importers and purchasers were. When comparing domestic to Chinese product, most U.S. producers reported that differences other than price were either “sometimes” or “never” significant, while most importers and purchasers reported that differences other than price were either “sometimes” or “frequently” significant (table II-16).

Table II-16
Mattresses: Significance of differences other than price between mattresses produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries: U.S. vs. China	4	3	5	9	8	11	12	6	7	14	12	4
Nonsubject countries comparisons: U.S. vs. nonsubject	1	3	6	5	2	12	12	5	3	10	11	1
China vs. nonsubject	2	1	5	5	2	8	13	6	3	7	10	1

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

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

In additional comments, firms reported the following as significant non-price factors: availability; distance between manufacturing plants; higher quality of domestic mattresses compared to Chinese mattresses; inventory holding costs for importers of large amounts of mattresses; larger order quantity requirements for Chinese product; lead times; longer lead times for Chinese product; quality; quality of materials being better from domestic sources; superior capacity and lead time for Chinese producers compared to domestic producers; technical support being better from domestic manufacturers; transportation network and logistics; and a wider range of products for domestic producers compared to producers in China or other nonsubject countries.

Elasticity estimates

No parties commented on elasticities in their prehearing or posthearing briefs.

U.S. supply elasticity

The domestic supply elasticity²⁷ for mattresses measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of mattresses. 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 mattresses. Analysis of these factors above indicates that the U.S. industry has the ability to moderately increase or decrease shipments to the U.S. market; an estimate in the range of 3 to 5 is suggested.

U.S. demand elasticity

The U.S. demand elasticity for mattresses measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of mattresses. 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 mattresses in the production of any downstream products. Based on the available information, the aggregate demand for mattresses is likely to be moderately inelastic; a range of -0.25 to -0.75 is suggested. While there are limited viable substitutes for mattresses, which would indicate a lower level of demand elasticity, the variability of products' life-spans may temper this degree of (in)elasticity.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.²⁸ 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 mattresses and imported mattresses is likely to be in the range of 4 to 6. For MiB or foam mattresses, substitutability appears to be on the high end of the range, while the level of substitutability for innerspring mattresses may be on the lower end of the range.

²⁷ A supply function is not defined in the case of a non-competitive market.

²⁸ 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 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 26 firms that accounted for most U.S. production of mattresses during 2018.

U.S. producers

The Commission issued a U.S. producers' questionnaire to 56 firms based on information contained in the petition and obtained in the preliminary phase of the investigation. Twenty-nine firms provided usable data on their productive operations.¹ Staff believes that these responses represent most U.S. production of mattresses.

Table III-1 lists U.S. producers of mattresses, their production locations, positions on the petition, and shares of total production.

¹ Five firms, *** submitted unusable responses to the Commission's U.S. producers' questionnaire and thus are not incorporated into the report. *** produced ***. One firm, ***. Data on the production and shipments of air-adjustable foam mattresses are presented in appendix C and D.

Table III-1

Mattresses: U.S. producers of mattresses, their position on the petition, location(s) of production, and share of reported production, 2018

Firm	Position on petition	Production location(s)	Share of production (percent)	MiB Shipments	FPM Shipments
Ashley	***	Ecru, MS Verona, MS Advance, NC Colton, CA Saltillo, MS	***	***	***
Blue Bell	***	East Windsor, CT Roseville, MI	***	***	***
Brooklyn Bedding	***	Phoenix AZ	***	***	***
Carpenter	***	Conover, NC Temple, TX Elkhart, IN Riverside, CA Lakeland, FL Fogelsville, PA	***	***	***
Classic	***	Jessup, MD	***	***	***
Corsicana	Petitioner	Corsicana, TX Shelbyville, TN Aurora, IL Glendale, AZ Bartow, FL Winlock, WA	***	***	***
Elite	Petitioner	Americus, GA Newnan, GA Conover, NC Fort Smith, AR Verona, MS Ontario, CA	***	***	***
England	***	New Tazewell, TN	***	***	***
Future Foam	Petitioner	Middleton, WI Dallas, TX Archdale, NC Council Bluffs, IA Fullerton, CA Newton, KS	***	***	***
FXI	Petitioner	Auburn, IN Portland, OR	***	***	***
Holder	***	Kokomo, IN	***	***	***
Innocor	Petitioner	West Chicago, IL Baldwyn, MS	***	***	***
Jeffco	***	Webster, MA Millbury, MA Worcester, MA Millbury #2, MA	***	***	***

Table continued on next page.

Table III-1—Continued

Mattresses: U.S. producers of mattresses, their position on the petition, location(s) of production, and share of reported production, 2018

Firm	Position on petition	Production location(s)	Share of production (percent)	MiB Shipments	FPM Shipments
Joseph Noblit	***	Agawam, MA	***	***	***
Kolcraft	Petitioner	Aberdeen, NC	***	***	***
Leggett	Petitioner	Tupelo, MS	***	***	***
Leisure	***	Boise, ID	***	***	***
Lions	***	Morristown, TN	***	***	***
Lippert	***	Goshen, IN Nampa, ID	***	***	***
MBC	***	Corona, CA	***	***	***
Naturally Beds	***	Phoenix, AZ	***	***	***
Restwell	***	Eden Prairie, MN	***	***	***
Royal-Pedic	Petitioner	Los Angeles, CA	***	***	***
Salt Lake	***	Salt Lake City, UT	***	***	***
Serta	Petitioner	Doraville, GA Phoenix, AZ Aurora, CO Tolleson, AZ Moreno Valley, CA Waipahu, HI Kapolei, HI Puyallup, WA Coxsackie, NY Fredericksburg, VA Hazleton, PA Windsor Locks, CT Jamestown, NY Beloit, WI Monroe, OH Clear Lake, IA Janesville, WI Riviera Beach, FL Cullman, AL Charlotte, NC Trujillo Alto, PR Grovetown, GA Waycross, GA Houston, TX Dallas, TX Shawnee Mission, KS Waycross, GA Grovetown, GA Houston, TX Jamestown, NY Aurora, CO	***	***	***

Table continued on next page.

Table III-1—Continued

Mattresses: U.S. producers of mattresses, their position on the petition, location(s) of production, and share of reported production, 2018

Firm	Position on petition	Production location(s)	Share of production (percent)	MiB Shipments	FPM Shipments
Serta Restokraft	Petitioner	Romulus, MI	***	***	***
Sinomax	***	Nashville, TN Phoenix, AZ	***	***	***
Sleep Number	***	Irmo, SC Salt Lake City, UT Odenton, MD Minneapolis, MN	***	***	***
Tempur Sealy	Petitioner	Phoenix, AZ Richmond, CA Denver, CO Orlando, FL Conyers, GA Plainfield, IL	***	***	***
Producers in support	21	NA	***	12	14
Producers in opposition	2	NA	***	2	1
Producers with no position	6	NA	***	1	6
Total	29	NA	***	15	21

Note: ***. Ashley's posthearing brief, p. 1.

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

Table III-2 presents an overview of U.S. producers' U.S. shipments based on packaging type. Fifteen firms reported U.S. shipments of MiBs during the period of investigation with such shipments representing the majority of all U.S. shipments of nine of those firms.² Twenty-one reported U.S. shipments of FPMs, with such shipments accounting for the majority of all U.S. shipments of 19 of those firms.³ Ten out of 15 firms reported an increase in U.S. shipments of MiBs during 2016-18 while 15 out of 21 firms reported a decrease in U.S. shipments of FPMs during 2016-18.

² *** accounted for the majority of responding U.S. producers' U.S. shipments of MiBs during the period of investigation (**% percent).

³ *** accounted for the majority of responding U.S. producers' U.S. shipments of FPMs during the period of investigation (**% percent).

**Table III-2
Mattresses: Profile of U.S. producers by type of packaging**

Firm	MiB	FPM	All Scope	MiB	FPM	MiB	FPM
	Share of firm's U.S. shipments by type of packaging over POI (percent across)		Quantity of U.S. shipments over POI (units)	Domestic producer's share of U.S. shipments by firm within type of packaging over POI (percent down)		Change in firm's shipments by type of packaging 2016-18 (percent)	
Kolcraft	***	***	***	***	***	***	***
Lippert	***	***	***	***	***	***	***
Blue Bell	***	***	***	***	***	***	***
Serta Restokraft	***	***	***	***	***	***	***
Salt Lake	***	***	***	***	***	***	***
England	***	***	***	***	***	***	***
MBC	***	***	***	***	***	***	***
Restwell	***	***	***	***	***	***	***
Lions	***	***	***	***	***	***	***
Joseph Noblit	***	***	***	***	***	***	***
Leisure	***	***	***	***	***	***	***
Royal-Pedic	***	***	***	***	***	***	***
Holder	***	***	***	***	***	***	***
Serta	***	***	***	***	***	***	***
Corsicana	***	***	***	***	***	***	***
Tempur Sealy	***	***	***	***	***	***	***
Leggett	***	***	***	***	***	***	***
Ashley	***	***	***	***	***	***	***
Carpenter	***	***	***	***	***	***	***
Sinomax	***	***	***	***	***	***	***
Jeffco	***	***	***	***	***	***	***
Elite	***	***	***	***	***	***	***
Innocor	***	***	***	***	***	***	***
Brooklyn Bedding	***	***	***	***	***	***	***
Future Foam	***	***	***	***	***	***	***
FXI	***	***	***	***	***	***	***
Classic	***	***	***	***	***	***	***
Naturally Beds	***	***	***	***	***	***	***

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-4 presents U.S. producers' reported changes in operations since January 1, 2016.⁴ Five firms reported plant openings, 5 reported plant closings, 5 reported relocations, 9 reported expansions, 5 reported acquisitions, 3 reported consolidations, 4 reported prolonged shutdowns or curtailments, 4 reported revised labor agreements, and 3 reported other changes in operations.

Table III-4
Mattresses: U.S. producers' reported changes in operations since January 1, 2016

Plant openings:	
***	***
***	***
***	***
***	***
***	***
Plant closings:	
***	***
***	***
***	***
***	***
***	***
Relocations:	
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

⁴ According to petitioners, 29 domestic producers that did not complete questionnaire responses closed their businesses during 2016-18. Petitioners' posthearing brief, exh. 10.

Table III-4—Continued

Mattresses: U.S. producers' reported changes in operations since January 1, 2016

Expansions:	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
Acquisitions:	
***	***
***	***
***	***
***	***
***	***
Consolidations:	
***	***
***	***
***	***
Prolonged shutdowns or curtailments:	
***	***
***	***
***	***
***	***

Table continued on next page.

Table III-4—Continued

Mattresses: U.S. producers' reported changes in operations since January 1, 2016

Revised labor agreements:	
***	***
***	***
***	***
***	***
Other:	
***	***
***	***
***	***

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

U.S. production, capacity, and capacity utilization

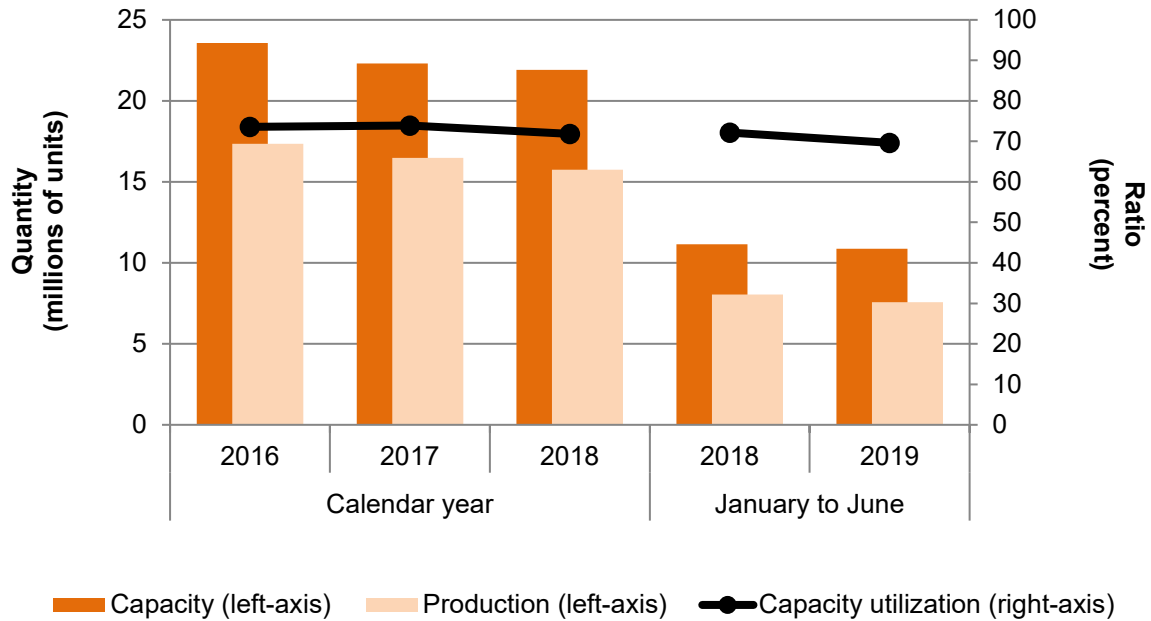
Table III-5 and figure III-1 present responding U.S. producers' production, capacity, and capacity utilization. The top 5 producers accounted for at least 80 percent of production in each full year period during 2016-18.

Table III-5
Mattresses: U.S. producers' capacity, production, and capacity utilization, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Capacity (units)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Capacity: All other firms	5,136,895	5,673,479	6,261,341	3,083,145	3,438,996
Total capacity	23,577,198	22,306,774	21,917,176	11,151,443	10,864,225
	Production (units)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Production: All other firms	2,659,678	3,088,334	3,466,030	1,658,966	1,696,664
Total production	17,351,414	16,487,465	15,742,124	8,051,395	7,564,783
	Capacity utilization (percent)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Utilization: All other firms	51.8	54.4	55.4	53.8	49.3
Average capacity utilization	73.6	73.9	71.8	72.2	69.6
	Share of production (percent)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Share of production: All other firms	15.3	18.7	22.0	20.6	22.4
Share of production	100.0	100.0	100.0	100.0	100.0

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

Figure III-1
Mattresses: U.S. producers' capacity, production, and capacity utilization, 2016-18, January to June 2018, and January to June 2019



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

The collective production capacity for the five largest responding U.S. producers, ***, decreased in each year during 2016-18, ending *** percent lower in 2018 than in 2016. Their production capacity was *** percent lower in January-June (“interim”) 2019 than in interim 2018. These five firms collectively accounted for *** percent of all responding U.S. producers’ annual production capacity in 2018. Overall, responding U.S. producers’ annual production capacity decreased by 5.4 percent from 2016 to 2017 and by 1.7 percent from 2017 to 2018, ending 7.0 percent lower in 2018 than in 2016. It was 2.6 percent lower in interim 2019 than in interim 2018.

Although a majority of U.S. producers (15 out of 28) reported more production capacity in 2018 than in 2016, these firms' increases in production capacity were outweighed by the decreases in production capacity reported by ***.⁵ According to ***, the decrease in its production capacity was due to ***.⁶ The decrease in *** production capacity was attributed to ***.⁷

Production for *** decreased by *** percent from 2016 to 2018 and was *** percent lower in interim 2019 than in interim 2018. These firms collectively accounted for *** percent of all responding U.S. producers' production in 2018. Overall, responding U.S. producers' production decreased in each year during 2016-18, ending 9.3 percent lower in 2018 than in 2016. It was 6.0 percent lower in interim 2019 than in interim 2018. Fifteen out of the 28 responding U.S. producers of mattresses reported lower production in 2018 than in 2016.⁸

U.S. producers' average capacity utilization decreased from 73.6 percent in 2016 to 71.8 percent in 2018. It was 69.6 percent in interim 2019, compared with 72.2 percent in interim 2018. Although most U.S. producers reported higher capacity utilization in 2018 than in 2016, the overall decrease in the U.S. producers' average capacity utilization during 2016-18 was in large part attributable to *** operations. *** capacity utilization decreased from *** percent in 2016 to *** percent in 2018 as its production decreased by *** percent while its production capacity increased ***.⁹

⁵ *** accounted for *** percent of the total decrease in production capacity during 2016-18.

⁶ As presented in table III-2, Serta ***. It also ***. Petitioners' responses to staff's July 30, 2019 Questions, p. 4.

⁷ As presented in table III-2, Kolcraft reported ***. Petitioners' responses to staff's July 30, 2019 questions, p. 3.

⁸ *** accounted for the *** of the decrease during this period (**% percent in each year).

⁹ Although ***. Petitioners' responses to ITC investigator's July 30, 2019 questions, p. 4.

U.S. producers' compression and rolling capacity

Table III-6 presents responding U.S. producers' compression without rolling and compression and rolling capacity. Responding U.S. producers' compression and rolling capacity increased by 33.1 percent from 2016 to 2018 and was 57.4 percent higher in interim 2019 than in interim 2018.¹⁰ Compression without rolling capacity largely mirrored compression and rolling capacity during 2016-18 and in both interim periods.¹¹

¹⁰ Petitioners state that they can increase their MiB production capacity by increasing production shifts and making additional investments as needed. Specifically, ***, ***, ***, ***, ***, ***, ***, ***, ***, ***, ***. Petitioners' posthearing brief, exh. 1, pp. 52-54.

¹¹ Petitioners note that while compression packing and roll packing can be done on separate machines, most U.S. producers use all-in-one machines that compress, roll, or compress and roll mattresses on the same line. Petitioners' posthearing brief, exh. 1, p. 54. Respondent Ashley notes that ***. Email from ***, October 18, 2019. Consequently, nearly all of the 14 responding U.S. producers reported the same quantity for compression capacity and rolling capacity, as they do not parse out compression capacity from rolling capacity.

Table III-6
Mattresses: U.S. producers' compression and rolling and compression without rolling production and capacity, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
Compression and rolling (MiB):					
Capacity	***	***	***	***	***
Production	***	***	***	***	***
	Ratio (percent)				
Capacity utilization	***	***	***	***	***
	Quantity (units)				
Compression without rolling:					
Capacity	***	***	***	***	***
Production	***	***	***	***	***
	Ratio (percent)				
Capacity utilization	***	***	***	***	***

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.

Alternative products

As shown in table III-7, mattresses accounted for the vast majority of total production on shared equipment in each full year during 2016-18 and in interim 2019 (96.3 percent, 95.7 percent, 92.3 percent, and 92.5 percent in 2016, 2017, 2018, and interim 2019, respectively). In addition, nine firms produced out-of-scope merchandise on the same machinery used to produce mattresses in each year during 2016-18. These U.S. producers also produced *** on shared equipment.

Table III-7

Mattresses: U.S. producers' overall plant capacity and production on the same equipment as the subject product, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
Overall capacity	24,306,145	23,118,227	23,194,521	11,673,299	11,682,087
Product:					
Mattresses	17,351,414	16,487,465	15,742,124	8,051,395	7,564,783
Mattress toppers	***	***	***	***	***
Other products	***	***	***	***	***
Out-of-scope products	674,865	745,576	1,320,067	550,582	609,841
Total production on same machinery	18,026,279	17,233,041	17,062,191	8,601,977	8,174,624
	Ratios and shares (percent)				
Overall capacity utilization	74.2	74.5	73.6	73.7	70.0
Share of production:					
Mattresses	96.3	95.7	92.3	93.6	92.5
Mattress toppers	***	***	***	***	***
Other products	***	***	***	***	***
Out-of-scope production	3.7	4.3	7.7	6.4	7.5
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-8 presents U.S. producers' U.S. shipments, export shipments, and total shipments. By quantity and value, U.S. shipments accounted for *** percent of U.S. producers' total shipments in each year during 2016-18 and in interim 2019. The quantity of U.S. producers' U.S. shipments decreased by 3.9 percent from 2016 to 2017 and by 5.6 percent from 2017 to 2018, ending 9.3 percent lower in 2018 than in 2016. It was 6.1 percent lower in interim 2019 than in interim 2018. Among the 27 firms that reported U.S. shipments of mattresses in each year during 2016-18, 15 firms reported lower U.S. shipments in 2018 than in 2016.¹² Twenty-seven firms reported U.S. shipments in interim 2018 and interim 2019, with 12 of those firms reporting lower shipments in interim 2019 than in interim 2018.¹³

¹² *** , collectively accounted for the vast majority of the net decrease in U.S. shipments during 2016-18 (***) percent).

¹³ The difference in the quantity of U.S. shipments between interim 2018 and interim 2019 is largely attributable to ***, whose U.S. shipments were *** mattresses lower in interim 2019 than in interim 2018.

Table III-8
Mattresses: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2016-18,
January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. shipments	17,152,616	16,479,432	15,560,415	8,019,436	7,529,303
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipments	4,430,680	4,517,380	4,378,807	2,185,785	2,107,518
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. shipments	258	274	281	273	280
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of value (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

Fluctuating year to year, the value of U.S. shipments of mattresses increased by 2.0 percent from 2016 to 2017, but then decreased by 3.1 percent from 2017 to 2018, ending 1.2 percent lower in 2018 than in 2016. It was 3.6 percent lower in interim 2019 than interim 2018. Although 17 of the 27 firms that produced mattresses in each year during 2016-18 reported higher values of U.S. shipments in 2018 than in 2016, these firms' increases were outweighed by the decrease in the values of *** U.S. shipments.¹⁴

¹⁴ *** collectively accounted for *** of the total decrease in the value of U.S. shipments during 2016-18 (** percent).

The average unit value of U.S. producers' U.S. shipments increased from \$258 per mattress in 2016 to \$274 per mattress in 2017 and to \$281 per mattress in 2018.¹⁵ It was \$280 per mattress in interim 2019, compared with \$273 per mattress in interim 2018. While the majority of the responding U.S. producers reported unit values between \$200 and \$500 per mattress, there was some variance in the unit values reported by responding U.S. producers. Three firms reported a unit value of over \$1,000 per mattress in at least one year during 2016-18 and interim 2019, while four firms reported a unit value of under \$100 per mattress in each year during 2016-18 and interim 2019. Kolcraft, which ***, specializes in producing youth mattresses while Royal-Pedic, which specializes in the production of high-end, custom mattresses reported ***.¹⁶ Furthermore, Elite, Future Foam, FXI, and Innocor specialize in the production of foam mattresses while Serta and Tempur Sealy concentrate on innerspring mattresses.¹⁷ As discussed below, there is some variance in the unit value for the U.S. shipments of the various types of mattresses.

Seven firms reported export shipments in each year during 2016-18.¹⁸ U.S. producers' export shipments, by quantity and value, accounted for *** percent of U.S. producers' total shipments in each year during 2016-18 and interim 2019. The quantity of export decreased by *** percent from 2016 to 2017, but then increased by *** percent from 2017 to 2018, ending *** percent lower in 2018 than in 2016. It was *** percent higher in interim 2019 than in interim 2018. These firms exported to Canada, Australia, Belize, China, Columbia, Mexico, and South Korea.

¹⁵ The increase in the average unit value of U.S. shipments is a result of the increase in the quantity of U.S. shipments of the higher value foam and hybrid mattresses and the decrease in the quantity of U.S. shipments of the lower value innerspring mattresses.

¹⁶ Royal-Pedic, Company History and Overview, <https://royalpedic.com/About.asp>, accessed August 14, 2019.

¹⁷ Conference transcript, pp. 24, 33, and 37 (Anderson, Chrisafides, and Koltun); Petitioners' postconference brief, responses to staff questions, p. 3.

¹⁸ *** collectively accounted for over *** percent of export shipments in each year during 2016-18 and *** percent in interim 2019.

The value of U.S. producers' export shipments decreased by *** percent from 2016 to 2017, but then increased by *** percent from 2017 to 2018, ending *** percent lower in 2018 than in 2016. It was *** percent higher in interim 2019 than in interim 2018. The average unit value of U.S. producers' export shipments was higher than their U.S. shipments, and increased from \$*** per mattress in 2016 to \$*** per mattress in 2017 and to \$*** per mattress in 2018. It was \$*** per mattress in interim 2019, compared with \$*** per mattress in interim 2018.

U.S. producers' U.S. shipments by mattress type

Table III-9 presents data on U.S. producers' U.S. shipments by mattress type.¹⁹ The majority of responding U.S. producers (20 of 28 firms) reported U.S. shipments of multiple types of mattresses.²⁰ Innerspring mattresses represented the largest share of U.S. producers' U.S. shipments during 2016-18 and in interim 2019, but accounted for a declining share of such shipments during the period (66.5 percent in 2016, 61.1 percent in 2017, 56.8 percent in 2018, and 54.0 percent in interim 2019). Foam mattresses represented the next largest share of U.S. shipments and increased their share of such shipments during the period (27.3 percent in 2016, 31.7 percent in 2017, 34.6 percent in 2018, and 36.1 percent in interim 2019). All other types of mattresses collectively accounted for *** percent of all U.S. shipments in each year during 2016-18 and in interim 2019.

The quantity of U.S. producers' U.S. shipments of innerspring mattresses decreased by 11.8 percent from 2016 to 2017 and by 12.3 percent from 2017 to 2018, ending 22.6 percent lower in 2018 than in 2016. Eighteen firms reported U.S. shipments of innerspring mattresses in each year during 2016-18, with 15 of those firms reporting fewer shipments in 2018 than in 2016.²¹ U.S. producers' U.S. shipments of innerspring mattresses were 12.4 percent lower in interim 2019 than in interim 2018.

¹⁹ For purposes of this investigation, innerspring mattresses refer to mattresses that contain innersprings (and were reported as innerspring mattresses), foam mattresses are mattresses that do not contain any innerspring units, and hybrid mattresses contain two or more support systems such as layers of both memory foam and innerspring units (and were reported as hybrid mattresses).

²⁰ *** only shipped foam mattresses while *** only shipped innerspring mattresses.

²¹ The decrease in responding U.S. producers' U.S. shipments of innerspring mattresses is largely driven by ***, which collectively accounted for *** percent of the total decrease during 2016-18.

Table III-9
Mattresses: U.S. producers' U.S. shipments, by product type, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Quantity (units)					
U.S. shipments.-- Innerspring	11,406,741	10,064,945	8,831,022	4,640,485	4,063,508
Foam	4,676,027	5,221,524	5,376,637	2,723,608	2,717,966
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	17,152,616	16,479,432	15,560,415	8,019,436	7,529,303
Value (1,000 dollars)					
U.S. shipments.-- Innerspring	2,420,862	2,317,897	2,109,287	1,074,465	986,555
Foam	1,410,536	1,591,522	1,520,303	765,900	725,467
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	4,430,679	4,517,380	4,374,583	2,185,785	2,104,536
Unit value (dollars per unit)					
U.S. shipments.-- Innerspring	212	230	239	232	243
Foam	302	305	283	281	267
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	258	274	281	273	280
Share of quantity (percent)					
U.S. shipments.-- Innerspring	66.5	61.1	56.8	57.9	54.0
Foam	27.3	31.7	34.6	34.0	36.1
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0
Share of value (percent)					
U.S. shipments.-- Innerspring	54.6	51.3	48.2	49.2	46.9
Foam	31.8	35.2	34.8	35.0	34.5
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	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.

Conversely, U.S. producers' U.S. shipments of foam mattresses, by quantity, increased by 11.7 percent from 2016 to 2017 and by 3.0 percent from 2017 to 2018, ending 15.0 percent higher in 2018 than in 2016. Twenty-four firms reported U.S. shipments of foam mattresses in each year during 2016-18, with ten of those firms reporting more shipments in 2018 than 2016. Although the majority of responding U.S. producers' reported lower U.S. shipments of foam mattresses in 2018 than in 2016, these firms' decreases were outweighed by the increase in *** U.S. shipments.²² U.S. producers' U.S. shipments of foam mattresses were 0.2 percent lower in interim 2019 than in interim 2018.

U.S. shipments of hybrid mattresses, by quantity, increased by *** percent from 2016 to 2018. Fourteen firms reported U.S. shipments of hybrid mattresses in each year during 2016-18, with seven firms reporting more shipments in 2018 than in 2016. The quantity U.S. shipments of hybrid mattresses were *** percent higher in interim 2019 than in interim 2018. The quantity of U.S. shipments of all other mattresses fluctuated year to year, increasing by *** percent from 2016 to 2017, but then decreasing by *** percent from 2017 to 2018, ending *** percent higher in 2018 than in 2016. It was *** percent higher in interim 2019 than in interim 2018. U.S. producer *** accounted for *** U.S. shipments of all other types of mattresses.²³

The value of U.S. producers' U.S. shipments of innerspring mattresses decreased by 12.9 percent from 2016 to 2018, and was 8.2 percent lower in interim 2019 than in interim 2018. Conversely, the value of U.S. producers' U.S. shipments of foam mattresses increased irregularly by 7.8 percent from 2016 to 2018 and was 5.3 percent lower in interim 2019 than in interim 2018. The value of U.S. shipments of hybrid mattresses increased by *** percent from 2016 to 2018 and was *** percent higher in interim 2019 than in interim 2018. The value of U.S. shipments of all other types of mattresses increased irregularly by *** percent from 2016 to 2018, but was *** percent lower in interim 2019 than in interim 2018.

²² *** U.S. shipments of foam mattresses increased by a combined *** mattresses from 2016 to 2018, which was *** percent higher than the decrease in U.S. shipments reported by the other 17 firms that reported U.S. shipments of foam mattresses throughout 2016-18.

²³ ***.

The unit value of U.S. producers' U.S. shipments of innerspring mattresses increased from \$212 per mattress in 2016 to \$230 per mattress in 2017, and to \$239 per mattress in 2018. It was \$243 per mattress in interim 2019, compared with \$232 per mattress in interim 2018. The unit value of U.S. shipments of foam mattresses was higher than innerspring mattresses in each year during 2016-18 and in interim 2019. However, after increasing from \$302 per mattress in 2016 to \$305 per mattress in 2017, the unit value of U.S. shipments of foam mattresses decreased to \$283 per mattress in 2018. It was \$267 per mattress in interim 2019, compared with \$281 per mattress in interim 2018.

After decreasing from \$*** per mattress in 2016 to \$*** per mattress in 2017, the unit value of U.S. shipments of hybrid mattresses increased to \$*** per mattress in 2018. It was \$*** per mattress in interim 2019, compared with \$*** per mattress in interim 2018. The unit value of U.S. shipments of hybrid mattresses was *** the unit value of U.S. shipments of innerspring mattresses in each year during 2016-18 and in interim 2019. It was also *** percent, *** percent, *** percent, and *** percent higher than U.S. shipments of foam mattresses in 2016, 2017, 2018 and interim 2019, respectively. The unit value of U.S. shipments of all other types of mattresses was lower than the unit value of U.S. shipments of innerspring mattresses, foam, and hybrid mattresses throughout 2016-18 and in interim 2019.

U.S. producers' U.S. shipments of MiBs

Table III-10 presents data on U.S. producers' U.S. shipments of MiBs by product type. By quantity, MiBs accounted for a small, but increasing, share of U.S. producers' U.S. shipments during 2016-18 (6.3 percent in 2016, 9.7 percent in 2017, 12.6 percent in 2018, and 17.0 percent in interim 2019, compared with 11.0 percent in interim 2018). The quantity of U.S. producers' U.S. shipments of MiBs increased by 81.5 percent from 2016 to 2018, with increases in each calendar year. It was 45.2 percent higher in interim 2019 than in interim 2018.

Table III-10
Mattresses: U.S. producers' U.S. shipments of MiBs, by product type, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Quantity (units)					
U.S. shipments: MiBs-- Innerspring	***	***	***	***	***
Foam	***	***	***	***	***
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	1,080,338	1,596,858	1,960,829	881,916	1,280,294
Value (1,000 dollars)					
U.S. shipments: MiBs-- Innerspring	***	***	***	***	***
Foam	***	***	***	***	***
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	303,609	467,353	579,217	267,824	329,220
Unit value (dollars per unit)					
U.S. shipments: MiBs-- Innerspring	***	***	***	***	***
Foam	***	***	***	***	***
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	281	293	295	304	257
Share of quantity (percent)					
U.S. shipments: MiBs-- Innerspring	***	***	***	***	***
Foam	***	***	***	***	***
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0
Share of value (percent)					
U.S. shipments: MiBs-- Innerspring	***	***	***	***	***
Foam	***	***	***	***	***
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0

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

The increase in the quantity of U.S. shipments of all MiBs during 2016-18 and over the interim period largely mirrored the increase in the quantity of U.S. shipments of foam MiBs, which accounted for most U.S. shipments of all MiBs during the period. Twelve firms reported U.S. shipments of MiBs in each calendar year, with nine of those firms reporting higher U.S. shipments of MiBs in 2018 than in 2016.²⁴ Fourteen firms reported such shipments in both interim periods, with ten of those firms reporting higher shipments in interim 2019 than in interim 2018.

The value of U.S. producers' U.S. shipments of MiBs increased by 53.9 percent from 2016 to 2017 and by 23.9 percent from 2017 to 2018, ending 90.8 percent higher in 2018 than in 2016. It was 22.9 percent higher in interim 2019 than in interim 2018. As with the change in the quantity of U.S. shipments of MiBs, the change in the value of U.S. MiB shipments largely reflects the increase in value of U.S. shipments of foam MiBs.

The unit value of U.S. producers' U.S. shipments of innerspring MiBs increased from \$*** per mattress in 2016 to \$*** per mattress in 2017, but then decreased to \$*** per mattress in 2018. It was \$*** per mattress in interim 2019, compared with \$*** per mattress in interim 2018.²⁵ The unit value of U.S. shipments of foam MiBs was higher than the unit value of innerspring MiBs in each calendar year during 2016-18 and in interim 2019. The unit value of U.S. shipments of foam MiBs increased from \$*** per mattress in 2016 to \$*** per mattress in 2017, but then decreased to \$*** per mattress in 2018. It was \$*** per mattress in interim 2019, compared with \$*** per mattress in interim 2018. The unit value of U.S. shipments of hybrid MiBs increased from \$*** per mattress in 2016 to \$*** per mattress in 2017 and to \$*** per mattress in 2018. It was \$*** per mattress in interim 2019, compared with \$*** per mattress in interim 2018.²⁶

²⁴ *** accounted for the vast majority of the increase in U.S. shipments of MiBs during 2016-18 (** percent).

²⁵ The difference in the unit value of U.S. shipments of innerspring MiBs between the interim periods can largely be attributed to **. The unit value of *** U.S. shipments of innerspring MiBs was \$*** per mattress in interim 2019, compared with \$*** per mattress in interim 2018. According to **. Email from **, September 18, 2019.

²⁶ The difference in unit value of U.S. shipments hybrid MiBs between the interim periods can largely be attributed to **, which reported U.S. shipments of *** mattresses at \$*** per mattress, **.

U.S. producers' U.S. shipments of FPMs

Table III-11 presents data on U.S producers' U.S. shipments of FPMs, by product type.

Table III-11

Mattresses: U.S. producers' U.S. shipments of FPMs, by product type, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Quantity (units)					
U.S. shipments: FPMs-- Innerspring	11,394,751	10,053,516	8,815,662	4,634,764	4,044,335
Foam	3,657,722	3,760,296	3,621,868	1,926,491	1,703,037
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	16,072,278	14,882,574	13,599,586	7,137,520	6,249,009
Value (1,000 dollars)					
U.S. shipments: FPMs-- Innerspring	2,418,739	2,315,744	2,106,515	1,073,319	983,788
Foam	1,123,508	1,162,497	1,007,903	526,074	464,095
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	4,127,070	4,050,027	3,795,366	1,917,961	1,775,316
Unit value (dollars per unit)					
U.S. shipments: FPMs-- Innerspring	212	230	239	232	243
Foam	307	309	278	273	273
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	257	272	279	269	284
Share of quantity (percent)					
U.S. shipments: FPMs-- Innerspring	70.9	67.6	64.8	64.9	64.7
Foam	22.8	25.3	26.6	27.0	27.3
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0
Share of value (percent)					
U.S. shipments: FPMs-- Innerspring	58.6	57.2	55.5	56.0	55.4
Foam	27.2	28.7	26.6	27.4	26.1
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	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.

Despite the increase in the quantity of U.S. shipments of MiBs, FPMs continued to account for the vast majority of all U.S. producers' U.S. shipments of mattresses, by quantity, during 2016-18 and in interim 2019 (93.7 percent in 2016, 90.3 percent in 2017, 87.4 percent in 2018, and 83.0 percent in interim 2019). However, U.S. shipments of FPMs decreased by 7.4 percent from 2016 to 2017 and by 8.6 percent from 2017 to 2018, ending 15.4 percent lower in 2018 than in 2016. Twenty firms reported U.S. shipments of FPMs in each year during 2016-18, with 15 of the 20 reporting fewer shipments in 2018 than in 2016.²⁷ U.S. shipments of FPMs were 12.4 percent lower in interim 2019 than in interim 2018. Twenty firms reported U.S. shipments of FPMs in interim 2018 and in interim 2019, with 13 firms reporting fewer shipments in interim 2019 than in interim 2018.

By quantity, innerspring FPMs accounted for the largest, but a decreasing, share of all U.S. producers' U.S. shipments of FPMs in each calendar year (70.9 percent in 2016, 67.6 percent in 2017, and 64.8 percent in 2018). Foam FPMs accounted for the next largest, and an increasing, share of all U.S. shipments of FPMs in each calendar year (22.8 percent in 2016, 25.3 percent in 2017, and 26.6 percent in 2018). The quantity of U.S. shipments of innerspring FPMs decreased in each year during 2016-18, ending 22.6 percent lower in 2018 than in 2016. It was 12.7 percent lower in interim 2019 than in interim 2018. By quantity, U.S. shipments of foam FPMs, decreased irregularly by 1.0 percent from 2016 to 2018, and were 11.6 percent lower in interim 2019 than in interim 2018. Despite increasing during 2016-18, the quantity of U.S. shipments of hybrid and other FPMs collectively accounted for *** percent of all U.S. shipments of FPMs. Collectively, U.S. shipments of hybrid and other types of FPM mattresses accounted for *** percent of U.S. shipments of all FPMs, by quantity, in interim 2019.

The value of U.S. producers' U.S. shipments of FPMs decreased by 8.0 percent from 2016 to 2018 and was 7.4 percent lower in interim 2019 than in interim 2018. The value of U.S. shipments of innerspring and foam FPMs decreased by 12.9 percent and 10.3 percent, respectively, from 2016 to 2018, and were 8.3 percent and 11.8 percent lower, respectively, in interim 2019 than in interim 2018. Conversely, the value of U.S. shipments of hybrid FPMs increased irregularly by *** percent from 2016 to 2018 and was *** percent higher in interim 2019 than in interim 2018.

²⁷ *** collectively accounted for the vast majority of the decrease in U.S. shipments of FPMs during 2016-18 (*** percent).

The unit value of U.S. producers' U.S. shipments of innerspring FPMs increased from \$212 per mattress in 2016 to \$239 per mattress in 2018 and was \$243 per mattress in interim 2019. Despite decreasing irregularly from \$307 per mattress in 2016 to \$278 per mattress in 2018, the unit value of U.S. shipments of foam FPMs was higher than the unit value of innerspring FPMs in each calendar year during 2016-18 and in interim 2019. The unit value of U.S. shipments of hybrid FPMs was *** the unit value of U.S. shipments of innerspring FPMs and *** than the unit value of U.S. shipments of foam FPMs in each calendar year and in both interim periods. It increased irregularly from \$*** per mattress in 2016 to \$*** per mattress in 2018. Overall, the average unit value of U.S. shipments of FPMs was lower than the average unit value of U.S. shipments of MiBs in 2016, 2017, and 2018, but was higher in interim 2019.

Figures III-2 and III-3 present data on U.S. producers' U.S. shipments of mattresses of MiBs and FPMs.

Figure III-2
Mattresses: U.S. producers' U.S. shipments of MiBs and FPMs, 2016-18, January to June 2018, and January to June 2019

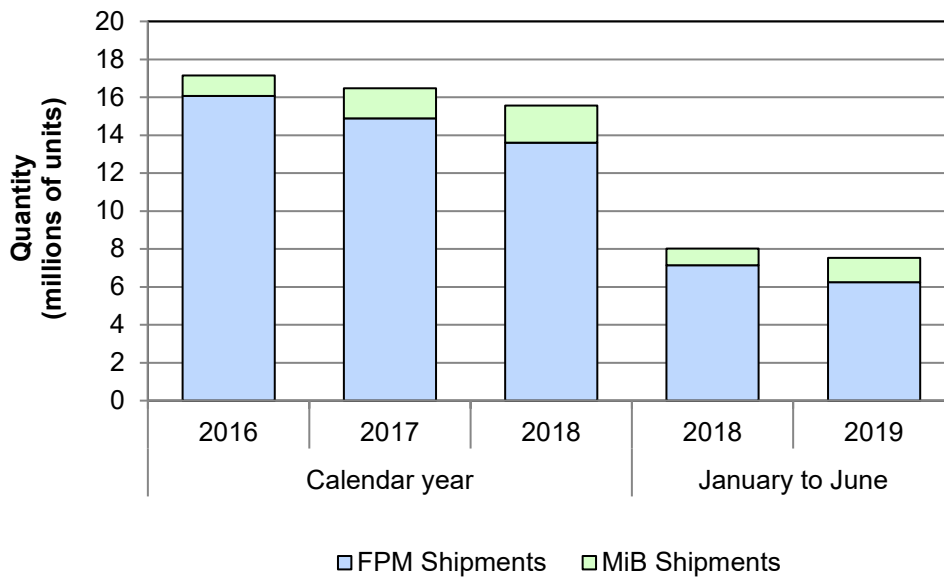


Figure III-3
Mattresses: U.S. producers' U.S. shipments of MiBs and FPMs, shares of quantity by product type and packaging, 2018

* * * * *

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

U.S. producers' U.S. shipments of mattresses by size

Table III-12 presents data on U.S. producers' U.S. shipments of mattresses by size. The vast majority of U.S. producers' U.S. shipments were adult mattresses, which accounted for *** percent, *** percent, *** percent, and *** percent of U.S. shipments of all mattresses in 2016, 2017, 2018, and interim 2019, respectively, on a quantity basis. U.S. shipments of adult-sized mattresses and youth-sized mattresses, by quantity, decreased by *** percent and *** percent, respectively, from 2016 to 2018, and were *** percent and *** percent lower, respectively, in interim 2019 than in interim 2018. Twenty-two firms reported U.S. shipments of adult-sized mattresses in each year during 2016-18 while only two firms reported U.S. shipments of youth-sized mattresses. *** accounted for *** U.S. shipments of youth-size mattresses during 2016-18 and in interim 2019.²⁸

²⁸ The vast majority (*** percent) of *** U.S. shipments throughout 2016-18 and in interim 2019 was innerspring mattresses.

Table III-12

Mattresses: U.S. producers' U.S. shipments by product size, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Quantity (units)					
U.S. shipments.-- Adult	***	***	***	***	***
Youth	***	***	***	***	***
All product sizes	***	***	***	***	***
Value (1,000 dollars)					
U.S. shipments.-- Adult	***	***	***	***	***
Youth	***	***	***	***	***
All product sizes	***	***	***	***	***
Unit value (dollars per unit)					
U.S. shipments.-- Adult	***	***	***	***	***
Youth	***	***	***	***	***
All product sizes	***	***	***	***	***
Share of quantity (percent)					
U.S. shipments.-- Adult	***	***	***	***	***
Youth	***	***	***	***	***
All product sizes	***	***	***	***	***
Share of value (percent)					
U.S. shipments.-- Adult	***	***	***	***	***
Youth	***	***	***	***	***
All product sizes	***	***	***	***	***

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

The value of U.S. shipments of both adult-sized and youth-sized mattresses decreased by *** percent and *** percent, respectively, from 2016 to 2018, and was *** percent and *** percent lower, respectively, in interim 2019 than in interim 2018. The unit value of U.S. shipments of adult-sized mattresses was *** greater than the unit value of U.S. shipments of youth-sized mattresses in each calendar year and in both interim periods. The unit value of U.S. shipments of adult-sized mattresses increased from \$*** per mattress in 2016 to \$*** per mattress in 2018 while the unit value of U.S. shipments of youth-sized mattresses decreased from \$*** per mattress in 2016 and 2017 to \$*** per mattress in 2018. The unit value of U.S. shipments of adult-sized mattresses and youth sized-mattresses were \$*** per mattress and \$*** per mattress, respectively, in interim 2019, compared with \$*** per mattress and \$*** per mattress, respectively in interim 2018.

U.S. producers' inventories

Table III-13 presents U.S. producers' end-of-period inventories and the ratio of their inventories to production, U.S. shipments, and total shipments. Fluctuating year to year, U.S. producers' end-of-period inventories decreased by 14.9 percent from 2016 to 2017, but then increased by 32.3 percent from 2017 to 2018, ending 12.6 percent higher in 2018 than in 2016. It was 30.2 percent higher in interim 2019 than in interim 2018. The ratios of U.S. producers' end-of-period inventories to their U.S. production ranged from 2.1 percent in 2017 to 2.9 percent in 2018 and were each 2.2 percent and 3.0 percent, respectively, in interim 2018 and interim 2019.

Table III-13
Mattresses: U.S. producers' inventories, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. producers' end-of-period inventories	404,419	343,967	455,235	349,389	454,781
	Ratio (percent)				
Ratio of inventories to-- U.S. production	2.3	2.1	2.9	2.2	3.0
U.S. shipments	2.4	2.1	2.9	2.2	3.0
Total shipments	***	***	***	***	***

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

U.S. producers' imports and purchases

Table III-14 presents data for U.S. producers' U.S. imports of mattresses as well as their reasons for importing. Four U.S. producers imported mattresses from China during 2016-18. The ratios of *** imports from China to U.S. production increased by *** percentage points from 2016 to 2018, but the ratio was lower in interim 2019 than in interim 2018 as it reported fewer imports from China. The ratio of *** imports from China to its U.S. production peaked at *** percent in 2018 as its U.S. production decreased while its U.S. imports *** during 2016-18. It maintained a similar level in interim 2019. The ratio of *** imports from China to its U.S. production decreased from *** percent in 2016 to *** percent in 2018 as the increase in its U.S. production outpaced the increase in its U.S. imports from China. The ratio of *** U.S. imports from China to its U.S. production was lower in interim 2019 than in interim 2018. The ratio of *** imports from China to its U.S. production decreased by *** percentage points from 2017 to 2018 as its imports from China decreased. ***.

Table III-14
Mattresses: U.S. producers' imports from China, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
Ashley's U.S. production	***	***	***	***	***
U.S. imports from China	***	***	***	***	***
	Ratio (percent)				
Ratio to U.S. production of imports from China	***	***	***	***	***
	Narrative				
Reason for importing	***				
	Quantity (units)				
Classic's U.S. production	***	***	***	***	***
U.S. imports from China	***	***	***	***	***
	Ratio (percent)				
Ratio to U.S. production of imports from China	***	***	***	***	***
	Narrative				
Reason for importing	***				
	Quantity (units)				
Leggett & Platt's U.S. production	***	***	***	***	***
U.S. imports from China	***	***	***	***	***
	Ratio (percent)				
Ratio to U.S. production of imports from China	***	***	***	***	***
	Narrative				
Reason for importing	***				
	Quantity (units)				
Sinomax's U.S. production	***	***	***	***	***
U.S. imports from China	***	***	***	***	***
	Ratio (percent)				
Ratio to U.S. production of imports from China	***	***	***	***	***
	Narrative				
Reason for importing	***				

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

Table III-15 presents U.S. producers' purchases from importers and domestic producers/distributors. Six firms reported such purchases during the period of investigation.

Table III-15
Mattresses: U.S. producers' purchases from importers and domestic producers, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
Ashley U.S. production	***	***	***	***	***
Purchases from domestic producers	***	***	***	***	***
	Narrative				
Purchased from producers/distributors	***				
	Quantity (units)				
England U.S. production	***	***	***	***	***
Purchases from domestic producers	***	***	***	***	***
	Narrative				
Purchased from producers/distributors	***				
	Quantity (units)				
Lippert U.S. production	***	***	***	***	***
Purchases from domestic producers	***	***	***	***	***
	Narrative				
Purchased from producers/distributors	***				
	Quantity (units)				
Royal-Pedic U.S. production	***	***	***	***	***
Purchases from domestic producers	***	***	***	***	***
	Narrative				
Purchased from producers/distributors	***				
	Quantity (units)				
Serta U.S. production	***	***	***	***	***
Purchases from importers	***	***	***	***	***
Purchases from domestic producers	***	***	***	***	***
	Narrative				
Purchased from importers	***				
Purchased from producers/distributors	***				
	Quantity (units)				
Tempur Sealy U.S. production	***	***	***	***	***
Purchases from domestic producers	***	***	***	***	***
	Narrative				
Purchased from producers/distributors	***				

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

U.S. employment, wages, and productivity

Table III-16 presents U.S. producers' employment-related data during 2016-18 and in interim 2018 and interim 2019. The number of production related workers ("PRWs") decreased irregularly by 2.2 percent from 2016-18 and was 7.4 percent lower in interim 2019 than in interim 2018. Out of 28 responding U.S. producers, 10 producers reported fewer PRWs in 2018 than in 2016 and 7 producers reported no change in the number of PRWs between 2016 and 2018. After decreasing by 3.4 percent from 2016 to 2017, productivity increased by 2.3 percent from 2017 to 2018, ending 1.2 percent lower in 2018 than in 2016. It was 7.1 percent lower in interim 2019 than in interim 2018. Unit labor costs increased irregularly by 5.9 percent from 2016 to 2018 and were 6.9 percent higher in interim 2019 than in interim 2018.

Table III-16

Mattresses: U.S. producers' employment related data, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	10,672	11,028	10,432	10,494	9,718
Total hours worked (1,000 hours)	22,178	21,812	20,364	9,982	10,094
Hours worked per PRW (hours)	2,078	1,978	1,952	951	1,039
Wages paid (\$1,000)	441,567	445,368	424,211	208,937	209,915
Hourly wages (dollars per hour)	\$19.91	\$20.42	\$20.83	\$20.93	\$20.80
Productivity (units per 1,000 hours)	782.4	755.9	773.0	806.6	749.4
Unit labor costs (dollars per unit)	\$25.45	\$27.01	\$26.95	\$25.95	\$27.75

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

In the final phase of this investigation, the Commission issued importers' questionnaires to 48 firms believed to be importers of subject mattresses, as well as to all known U.S. producers of mattresses.¹ Usable questionnaire responses were received from 42 companies, representing the majority of U.S. imports from China in 2018 under HTS subheadings 9404.21.00, 9404.29.10, and 9404.29.90. Table IV-1 lists all responding U.S. importers of mattresses from China and other sources, their locations, and their shares of U.S. imports, in 2018.

¹ The Commission issued questionnaires to those firms that provided a response to the Commission's questionnaire in the preliminary phase investigation as well as any firms that accounted for at least one percent of total imports under HTS subheadings 9404.21.00, 9404.29.10, and 9404.29.90.

**Table IV-1
Mattresses: U.S. importers by source, 2018**

Firm	Headquarters	Share of imports by source (percent)			Type of shipments	
		China	Nonsubject sources	All import sources	MiB	FPM
Amazon	Seattle, WA	***	***	***	***	***
American Furniture	Englewood, CO	***	***	***	***	***
American Signature	Columbus, OH	***	***	***	***	***
Art Van	Warren, MI	***	***	***	***	***
Ashley Furniture	Arcadia, WI	***	***	***	***	***
Atlantic	South Deerfield, MA	***	***	***	***	***
Bed Boss	Chattanooga, TN	***	***	***	***	***
Best Price	San Leandro, CA	***	***	***	***	***
Big Lots	Columbus, OH	***	***	***	***	***
Bob's Discount	Manchester, CT	***	***	***	***	***
Boyd	Maryland Heights, MO	***	***	***	***	***
China Beds	Knoxville, TN	***	***	***	***	***
Classic	Jessup, MD	***	***	***	***	***
Costco	Issaquah, WA	***	***	***	***	***
CVB	Logan, UT	***	***	***	***	***
Desert	Las Vegas, NV	***	***	***	***	***
Dickson	Houston, TX	***	***	***	***	***
Dorel Home	Wright City, MO	***	***	***	***	***
Dura Global	Camas, WA	***	***	***	***	***
Furinno	Houston, TX	***	***	***	***	***
Grandlife	Carlstadt, NJ	***	***	***	***	***
Home Furnishings	Hermitage, TN	***	***	***	***	***
IKEA	Pratteln, BL	***	***	***	***	***
Keetsa	San Francisco, CA	***	***	***	***	***
Kittrich	Pomona, CA	***	***	***	***	***
Klaussner	Asheboro, NC	***	***	***	***	***
Leggett & Platt	Carthage, MO	***	***	***	***	***
Modway	Hightstown, NJ	***	***	***	***	***
Natuzzi	Bari-Italy,	***	***	***	***	***
RTG Furniture	Seffner, FL	***	***	***	***	***
Sarton	Carolina, PR	***	***	***	***	***
Sinomax	Houston, TX	***	***	***	***	***
Soft-tex	Waterford, NY	***	***	***	***	***
Solstice	Columbus, OH	***	***	***	***	***
South Bay	Rancho Cucamonga, CA	***	***	***	***	***
Synergy Home	Ripley, MS	***	***	***	***	***
Target	Minneapolis, MN	***	***	***	***	***
Walmart	Bentonville, AR	***	***	***	***	***
Wayfair	Boston, MA	***	***	***	***	***
Williams-Sonoma	San Francisco, CA	***	***	***	***	***
Zinus	Tracy, CA	***	***	***	***	***
ZMM	Brooklyn, NY	***	***	***	***	***
Total		***	***	***	35	9

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 IV-2 presents an overview of U.S. importers' U.S. shipments from China based on packaging type. Thirty-six firms reported U.S. shipments of MiBs during the period of investigation with such shipments representing all U.S. shipments for 29 of those firms.² Twelve firms reported U.S. shipments of FPMs with U.S. shipments of FPMs accounting for all U.S. shipments for five of those firms.³ Nineteen out of 36 firms reported an increase in U.S. shipments of MiBs during 2016-18 while four of eleven firms reported a decrease in U.S. shipments of FPMs.

Table IV-2
Mattresses: Profile of U.S. importers from China by type of packaging

Firm	MiB	FPM	All Scope	MiB	FPM	MiB	FPM
	Share of firm's U.S. shipments from China by type of packaging over POI (percent across)		Quantity of US shipments from China over POI (units)	Importer's share of U.S. shipments from China by firm within type of packaging over POI (percent down)		Change in firm's shipments from China by type of packaging 2016-18 (percent)	
Leggett & Platt	***	***	***	***	***	***	***
Home Furnishings	***	***	***	***	***	***	***
Synergy Home	***	***	***	***	***	***	***
Natuzzi	***	***	***	***	***	***	***
Target	***	***	***	***	***	***	***
American Signature	***	***	***	***	***	***	***
Williams-Sonoma	***	***	***	***	***	***	***
Costco	***	***	***	***	***	***	***
Boyd	***	***	***	***	***	***	***
Ashley Furniture	***	***	***	***	***	***	***
Walmart	***	***	***	***	***	***	***
IKEA	***	***	***	***	***	***	***
Amazon	***	***	***	***	***	***	***
Classic	***	***	***	***	***	***	***
Zinus	***	***	***	***	***	***	***
CVB	***	***	***	***	***	***	***
Dorel Home	***	***	***	***	***	***	***
Sinomax	***	***	***	***	***	***	***

Table continued on next page.

² *** accounted for the majority of responding U.S. producers' U.S. shipments of MiBs during the period of investigation (**% percent).

³ *** accounted for the majority of responding U.S. producers' U.S. shipments of FPMs during the period of investigation (**% percent).

Table IV-2—Continued
Mattresses: Profile of U.S. importers from China by type of packaging

Firm	MiB	FPM	All Scope	MiB	FPM	MiB	FPM
	Share of firm's US shipments from China by type of packaging over POI (percent across)		Quantity of US shipments from China over POI (units)	Importer's share of US shipments from China by firm within type of packaging over POI (percent down)		Change in firm's shipments from China by type of packaging 2016-18 (percent)	
Best Price	***	***	***	***	***	***	***
Big Lots	***	***	***	***	***	***	***
Grandlife	***	***	***	***	***	***	***
Modway	***	***	***	***	***	***	***
Bed Boss	***	***	***	***	***	***	***
American Furniture	***	***	***	***	***	***	***
Wayfair	***	***	***	***	***	***	***
Soft-tex	***	***	***	***	***	***	***
Desert	***	***	***	***	***	***	***
South Bay	***	***	***	***	***	***	***
China Beds	***	***	***	***	***	***	***
Furinno	***	***	***	***	***	***	***
ZMM	***	***	***	***	***	***	***
Klaussner	***	***	***	***	***	***	***
Kittrich	***	***	***	***	***	***	***
Dura Global	***	***	***	***	***	***	***
Art Van	***	***	***	***	***	***	***
Solstice	***	***	***	***	***	***	***
Keetsa	***	***	***	***	***	***	***
Atlantic	***	***	***	***	***	***	***
Dickson	***	***	***	***	***	***	***
RTG Furniture	***	***	***	***	***	***	***
Bob's Discount	***	***	***	***	***	***	***

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-3 and figure IV-1 present data for U.S. imports of mattresses from China and all other sources.

Table IV-3
Mattresses: U.S. imports by source, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Quantity (units)					
U.S. imports from.-- China	3,842,761	7,247,047	8,385,881	3,252,048	2,886,583
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Value (1,000 dollars)					
U.S. imports from.-- China	414,080	795,445	918,234	361,837	324,141
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Unit value (dollars per unit)					
U.S. imports from.-- China	108	110	109	111	112
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Share of quantity (percent)					
U.S. imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Share of value (percent)					
U.S. imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Ratio to U.S. production					
U.S. imports from.-- China	22.1	44.0	53.3	40.4	38.2
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Figure IV-1

Mattresses: U.S. imports by source, 2016-18, January to June 2018, and January to June 2019

* * * * *

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

Imports from China, by quantity, accounted for the majority of imports of mattresses from all sources during 2016-18 and in January-June (“interim”) 2019 (***) percent in 2016, *** percent in 2017, *** percent in 2018, and *** percent in interim 2019). The quantity of U.S. imports from China increased by 88.6 percent from 2016 to 2017, and by 15.7 percent from 2017 to 2018, ending 118.2 percent higher in 2018 than in 2016. Among the 34 firms that imported mattresses in each year during 2016-18, all but 8 reported more imports in 2018 than in 2016.⁴ However, U.S. imports from China were 11.2 percent lower in interim 2019 than in interim 2018. Thirty-four firms imported mattresses from China in interim 2019 and interim 2018, with 23 of those firms reporting fewer imports in interim 2019 than interim 2018. The value of U.S. imports from China increased by 92.1 percent from 2016 to 2017 and by 15.4 percent from 2017 to 2018, ending 121.8 percent higher in 2018 than in 2016. However, it was 10.4 percent lower in interim 2019 than in interim 2018.

⁴ *** accounted for the majority of the increase in U.S. imports from China during this period (***) percent).

The unit value of U.S. imports from China was relatively constant during 2016-18 (\$108 per mattress in 2016, \$110 per mattress in 2017, and \$109 per mattress in 2018). There was some variance in the unit values reported by different responding U.S. importers, however. Among the 34 firms that imported mattresses in each year during 2016-18, 12 firms reported unit values under \$100 per mattress, 15 firms reported unit values between \$100 per mattress and \$200 per mattress, and 7 firms reported unit values between \$200 and \$400 per mattress. No firm's imports from China had a unit value of over \$400 per mattress in any year during 2016-18 or in interim 2019. The variance in the unit values of firms' imports can be attributed, in part, to product mix. U.S. importers handle a wide assortment of mattress products which may differ in value.

Imports from nonsubject sources, by quantity, accounted for *** percent, *** percent, and *** percent of all imports in 2016, 2017, and 2018, respectively. The nonsubject import share of all imports was higher in interim 2019 (*** percent) than in interim 2018 (*** percent). Imports from nonsubject sources increased by *** percent from 2016 to 2017 and by *** percent from 2017 to 2018, ending *** percent higher in 2018 than in 2016. It *** in interim 2019 than in interim 2018. Seven firms imported mattresses from nonsubject sources in full-year 2018, but 23 firms reported imports from nonsubject sources in interim 2019. Mexico is the largest source of mattresses imported from nonsubject countries followed by Canada, Taiwan, and Hong Kong.

The value of imports from nonsubject sources decreased by *** percent from 2016 to 2017, but then increased by *** percent from 2017 to 2018, ending *** percent higher in 2018 than in 2016. The value of imports from nonsubject sources was *** greater in interim 2019 than in interim 2018. The average unit value of imports from nonsubject sources was less than the average unit value of imports from China in each year during 2016-18 and in interim 2019.

Critical circumstances

On June 4, 2019, Commerce issued its preliminary determination that “critical circumstances” exist with regard to imports from China of mattresses from all producers and exporters in China, except Healthcare Co., Ltd. and Zinus (Xiamen) Inc.⁵ In this investigation, if both Commerce and the Commission make affirmative final critical circumstances determinations, certain subject imports may be subject to antidumping duties retroactive by 90 days from June 4, 2019, the effective date of Commerce’s preliminary affirmative LTFV determination. Table IV-4 and figure IV-2 present this data.

Table IV-4
Mattresses: U.S. imports subject to Commerce’s final AD critical circumstances determinations, March 2018 to February 2019

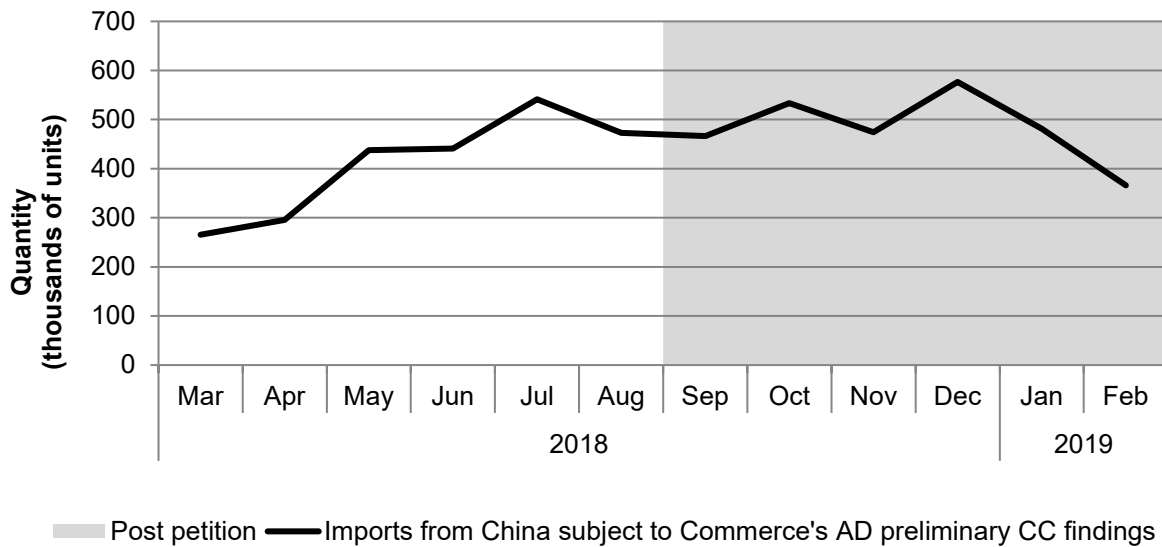
Period	Actual monthly quantity (units)	Outwardly cumulative subtotals (units)	Percentage change from comparable period (percent)
2018.--			
March	265,511	2,453,873	
April	295,808	2,188,362	
May	437,723	1,892,554	
June	440,740	1,454,831	
July	541,340	1,014,091	
August	472,751	472,751	
Petition file date: September 18, 2018			
September	466,389	466,389	(1.3)
October	533,468	999,857	(1.4)
November	474,311	1,474,168	1.3
December	576,677	2,050,845	8.4
2019.--			
January	481,369	2,532,214	15.7
February	365,785	2,897,999	18.1

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

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

⁵ *Mattresses From the People's Republic of China: Preliminary Determination of Sales at Less-Than-Fair-Value, Postponement of Final Determination and Affirmative Preliminary Determination of Critical Circumstances*, 84 FR 25732, June 4, 2019, 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.

Figure IV-2
Mattresses: U.S. imports from China subject to Commerce’s preliminary AD critical circumstances findings, March 2018 to February 2019



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

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 By quantity, imports from China accounted for *** percent of total imports of mattresses during the most recent 12-month

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)).

period (September 2017-August 2018). Table IV-5 presents the share of total U.S. imports, by quantity, attributable to China during the most recent 12-month period.

Table IV-5
Mattresses: U.S. imports in the twelve-month period preceding the filing of the petitions, September 2017 through August 2018

Item	September 2017 through August 2018	
	Quantity (units)	Share (percent)
U.S. imports from.-- China	7,515,170	***
Nonsubject sources	***	***
All import sources	***	***

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

U.S. importers' U.S. shipments by mattress type

Table IV-6 presents data on U.S. importers' U.S. shipments by mattress type. Foam mattresses accounted for the largest share of total U.S. shipments from China during 2016-18 and in interim 2019 (60.5 percent in 2016, 67.0 percent in 2017, 66.6 percent in 2018, and 62.7 percent in interim 2019). Innerspring mattresses accounted for the next largest share in 2016, 2017, and in interim 2019 (33.4 percent in 2016, 23.6 percent in 2017, and 22.0 percent in interim 2019). Hybrid mattresses accounted for the third largest share of total U.S. shipments from China. By 2018, however, the quantity of hybrid mattresses *** that of innerspring mattresses, and *** the value of innerspring mattresses. All other types of mattresses accounted for no more than *** percent of total U.S. shipments from China throughout 2016-18 and in interim 2019.

Table IV-6
Mattresses: U.S. importers' U.S. shipments of subject U.S. imports, by product type, 2016-18,
January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Quantity (units)					
U.S. shipments:					
Innerspring	1,222,010	1,467,534	1,357,013	737,279	765,415
Foam	2,209,379	4,171,516	5,467,861	2,280,116	2,184,827
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	3,654,001	6,225,331	8,208,048	3,740,041	3,484,685
Value (1,000 dollars)					
U.S. shipments:					
Innerspring	135,770	162,362	187,383	79,552	81,147
Foam	343,067	598,359	860,063	369,098	361,609
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	516,689	846,700	1,274,254	562,530	531,842
Unit value (dollars per unit)					
U.S. shipments:					
Innerspring	111	111	138	108	106
Foam	155	143	157	162	166
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	141	136	155	150	153
Share of quantity (percent)					
U.S. shipments:					
Innerspring	33.4	23.6	16.5	19.7	22.0
Foam	60.5	67.0	66.6	61.0	62.7
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0
Share of value (percent)					
U.S. shipments:					
Innerspring	26.3	19.2	14.7	14.1	15.3
Foam	66.4	70.7	67.5	65.6	68.0
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0

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

U.S. shipments of innerspring mattresses imported from China, by quantity, increased by 20.1 percent from 2016 to 2017, but then decreased by 7.5 percent from 2017 to 2018, ending 11.0 percent higher in 2018 than in 2016. Sixteen firms reported U.S. shipments of innerspring mattresses imported from China in each year during 2016-18. By quantity, U.S. shipments of innerspring mattresses imported from China were 3.8 percent higher in interim 2019 than in interim 2018. Twenty firms reported U.S. shipments of innerspring mattresses imported from China in interim 2018 and interim 2019, with 8 firms reporting more shipments in interim 2019 than in interim 2018.⁸

The quantity of U.S. shipments of foam mattresses imported from China more than doubled from 2016 to 2018, with the majority of the increase occurring from 2016 to 2017. Thirty-one firms reported U.S. shipments of foam mattresses imported from China throughout 2016-18, with 22 firms reporting more shipments in 2018 than in 2016.⁹ However, the quantity of U.S. shipments of foam mattresses imported from China was 4.2 percent lower in interim 2019 than in interim 2018. Thirty-six firms reported U.S. shipments of foam mattresses imported from China in interim 2018 and interim 2019, with 21 firms reporting fewer shipments in interim 2019 than in interim 2018.

The quantity of U.S. shipments of hybrid mattresses imported from China increased *** from 2016 to 2018, with the majority of the increase occurring from 2017 to 2018. Twelve of the 13 firms that reported U.S. shipments of hybrid mattresses imported from China throughout 2016-18 had more shipments in 2018 than in 2016.¹⁰ However, U.S. shipments of hybrid mattresses imported from China were *** percent lower in interim 2019 than in interim 2018. Although a majority of firms (9 out of 14) reported more shipments in interim 2019 than in interim 2018, the lower quantity of *** outweighed the higher quantity of shipments reported by those nine firms.

⁸ The difference in the quantity of U.S. shipments of hybrid mattresses imported from China between the interim periods can largely be attributed to ***, whose U.S. shipments of hybrid mattresses imported from China were *** mattresses higher in interim 2019 than in interim 2018.

⁹ *** accounted for the majority of the total increase in U.S. shipments of foam mattresses imported from China during 2016-18 (**% percent).

¹⁰ *** accounted for the vast majority of the total increase during 2016-18 at *** percent.

U.S. shipments of all other types of mattresses imported from China, by quantity, increased by *** percent from 2016 to 2017, but then decreased by *** percent from 2017 to 2018, ending *** percent lower in 2018 than in 2016. Six firms reported U.S. shipments of other types of mattresses imported from China in 2016 and 2017 while four reported such shipments in 2018.¹¹ The quantity of U.S. shipments of other types of mattresses from China was *** percent higher in interim 2019 than in interim 2018, but still accounted for less than *** of shipments of subject imports.

The value of U.S. shipments of innerspring mattresses imported from China increased by 38.0 percent from 2016 to 2018, with the majority of the increase occurring from 2016 to 2017. It was 2.0 percent higher in interim 2019 than in interim 2018. U.S. importers' U.S. shipments of foam mattresses imported from China, by value, more than doubled from 2016 to 2018, with the majority of the increase occurring from 2016 to 2017. However, it was 2.0 percent lower in interim 2019 than in interim 2018. The value of U.S. shipments of hybrid mattresses imported from China increased *** from 2016 to 2018. However, it was *** percent lower in interim 2019 than in interim 2018. The value of U.S. shipments of all other types of mattresses imported from China decreased irregularly by *** percent from 2016 to 2018. It was *** percent lower in interim 2019 than in interim 2018.

After remaining at \$111 per mattress in 2016 and 2017, the unit value of U.S. shipments of innerspring mattresses imported from China increased to \$138 per mattress in 2018. However, it was \$106 per mattress in interim 2019, compared with \$108 per mattress in interim 2019. The unit value of U.S. shipments of foam mattresses imported from China was greater than in the unit value of U.S. shipments of innerspring mattresses imported from China in each year during 2016-18, and in both interim periods. It decreased from \$155 per mattress in 2016 to \$143 per mattress in 2017, but then increased to \$157 per mattress in 2018. The unit value of U.S. shipments of foam mattresses imported from China was \$166 per mattress in interim 2019, compared with \$162 per mattress in interim 2018.

Despite decreasing from \$*** per mattress in 2016 to \$*** per mattress in 2018, the unit value of U.S. shipments of hybrid mattresses imported from China remained higher than the unit values of U.S. shipments of innerspring and foam mattresses imported from China during this period. It was \$*** per mattress in interim 2019, compared with \$*** per mattress in interim 2018. The unit value of U.S. shipments of all other types of mattresses

¹¹ *** accounted for the vast majority of U.S. shipments of other types of mattresses from China in 2016 and 2018 while those two firms and *** accounted for the majority of such shipments in 2017.

imported from China was higher than the U.S. shipments of innerspring mattresses imported from China in 2016 and 2017, but was lower than the unit value of U.S. shipments of foam mattresses and hybrid mattresses imported from China in those years. It was lower than U.S. shipments of innerspring, foam, and hybrid mattresses imported from China in 2018.

U.S. importers' U.S. shipments of MiBs

Table IV-7 presents data on U.S. importers' U.S. shipments of MiBs imported from China. MiBs accounted for the majority of U.S. importers U.S. shipments from China, by quantity, during 2016-18 and in interim 2019 (82.4 percent in 2016, 75.9 percent in 2017, 95.7 percent in 2018, and 96.6 percent in interim 2019). The quantity of U.S. shipments of MiBs imported from China increased by 56.9 percent from 2016 to 2017 and by 66.3 percent from 2017 to 2018, ending 161.0 percent higher in 2018 than in 2016. Twenty-seven firms reported U.S. shipments of MiBs from China throughout 2016-18, with 19 firms reporting more shipments in 2018 than in 2016.¹² However, U.S. shipments of MiBs imported from China, by quantity, were 5.3 percent lower in interim 2019 than in interim 2018. Thirty-two firms reported U.S. shipments of MiBs imported from China in interim 2018 and interim 2019, with seventeen firms reporting fewer shipments in interim 2019 than in interim 2018.¹³

The majority of U.S. shipments of MiBs imported from China, by quantity, were foam mattresses, which increased as a share of total MiB shipments from 60.5 percent in 2016 to 67.5 percent in 2018, but were 62.9 percent of total MiB shipments in interim 2019. Innerspring mattresses accounted for the *** of U.S. shipments of MiBs imported from China, by quantity, in 2016 (34.5 percent) and 2017 (25.2 percent), as well as in interim 2019 (22.1 percent). It accounted for the *** of U.S. shipments of MiBs imported from China in 2018 (15.6 percent). Hybrid mattresses accounted for the *** of total U.S. shipments of MiBs imported from China in 2018 (***) percent) and the *** in 2016, 2017, and interim 2019. U.S. shipments of other types of MiBs imported from China accounted for *** percent of total MiB shipments during 2016-18 and for *** percent in interim 2019.

¹² *** collectively accounted for most of the increase from 2016 to 2018 (***) percent). The increase in the U.S. shipments of MiBs from China largely reflects the increase in the U.S. shipments of foam MiBs from China.

¹³ The difference in U.S. shipments of MiBs imported from China between the interim periods can be attributed to ***, whose U.S. shipments of MiBs imported from China were *** lower, respectively, in interim 2019 than in interim 2018.

Table IV-7
Mattresses: U.S. importers' U.S. shipments of MiBs from China, by product type, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. shipments: MiBs China.-- Innerspring	1,037,491	1,189,482	1,223,236	646,094	743,890
Foam	1,822,819	3,033,334	5,301,537	2,209,542	2,118,036
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	3,011,065	4,724,857	7,859,083	3,555,093	3,366,107
	Value (1,000 dollars)				
U.S. shipments: MiBs China.-- Innerspring	106,049	127,116	161,867	65,690	74,792
Foam	297,389	485,945	819,882	356,073	347,574
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	432,035	686,953	1,202,488	532,832	508,050
	Unit value (dollars per unit)				
U.S. shipments: MiBs China.-- Innerspring	102	107	132	102	101
Foam	163	160	155	161	164
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	143	145	153	150	151
	Share of quantity (percent)				
U.S. shipments: MiBs China.-- Innerspring	34.5	25.2	15.6	18.2	22.1
Foam	60.5	64.2	67.5	62.2	62.9
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipments: MiBs China.-- Innerspring	24.5	18.5	13.5	12.3	14.7
Foam	68.8	70.7	68.2	66.8	68.4
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0

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

The quantity of U.S. shipments of innerspring, foam, and hybrid MiBs imported from China increased by 17.9 percent, 190.8 percent, and *** percent, respectively, from 2016 to 2018. Concurrently, the quantity of U.S. shipments of other types of MiBs imported from China decreased by *** percent during 2016-18. The quantity of U.S. shipments of innerspring and other types of MiBs imported from China were higher in interim 2019 than in interim 2018 by 15.1 percent and *** percent, respectively, although the quantity of U.S. shipments of other types of MiBs imported from China was still lower than the U.S. shipments of innerspring, foam, and hybrid MiBs imported from China. The quantity of U.S. shipments of foam and hybrid MiBs imported from China were lower in interim 2019 than in interim 2018 by 4.1 percent and *** percent, respectively.

The value of U.S. importers' U.S. shipments of MiBs imported from China increased by 59.0 percent from 2016 to 2017 and by 75.0 percent from 2017 to 2018, ending 178.3 percent higher in 2018 than in 2016. However, it was 4.7 percent lower in interim 2019 than in interim 2018. The value of U.S. shipments of innerspring, foam, and hybrid MiBs imported from China increased by 52.6 percent, 175.7 percent, and *** percent, respectively, from 2016 to 2018. The value of U.S. shipments of other MiBs imported from China decreased by *** percent from 2016 to 2018. The value of U.S. shipments of innerspring MiBs imported from China was 13.9 percent higher in interim 2019 than in interim 2018. In contrast, the value of U.S. shipments of foam, hybrid, and other MiBs imported from China were 2.4 percent, *** percent, and *** percent lower, respectively, in interim 2019 than in interim 2018.

The unit value of U.S. shipments of innerspring MiBs imported from China increased from \$102 per mattress in 2016 to \$132 per mattress in 2018 and was \$101 per mattress in interim 2019, compared with \$102 per mattress in interim 2018. The unit value of U.S. importers' U.S. shipments of foam MiBs imported from China was greater than the unit value of U.S. shipments of innerspring MiBs imported from China in each year during 2016-18, despite decreasing from \$163 per mattress in 2016 to \$155 per mattress in 2018. It was \$164 per mattress in interim 2019, compared with \$161 per mattress in interim 2018. The unit value of U.S. shipments of hybrid MiBs imported from China was greater than the unit value of U.S. shipments of foam mattresses imported from China in ***, but was lower in ***. However, it remained higher than the unit value of U.S. shipments of innerspring MiBs imported from China ***. Overall, the unit value of all U.S. shipments of MiBs imported from China increased from \$143 per mattress in 2016 to \$153 per mattress in 2018. It was \$151 per mattress in interim 2019, compared with \$150 per mattress in interim 2018.

U.S. importers' U.S. shipments of FPMs

Table IV-8 presents data on U.S. importers' U.S. shipments of FPMs imported from China. U.S. importers' U.S. shipments of FPMs imported from China accounted for a minority of U.S. importers total U.S. shipments from China, by quantity, during 2016-18 and in interim 2019 (17.6 percent in 2016, 24.1 percent in 2017, 4.3 percent in 2018, and 3.4 percent in interim 2019).¹⁴ Fluctuating year to year, the quantity of U.S. shipments of FPMs imported from China increased by 133.4 percent from 2016 to 2017, but then decreased by 76.7 percent from 2017 to 2018, ending 45.7 percent lower in 2018 than in 2016.¹⁵ Eight firms reported U.S. shipments of FPMs imported from China in each year during 2016-18, with four firms reporting fewer shipments in 2018 than in 2016.¹⁶ U.S. shipments of FPMs imported from China were 35.9 percent lower in interim 2019 than in interim 2018. Eight firms reported U.S. shipments of FPMs imported in both interim 2018 and interim 2019, with six of the eight firms reporting fewer shipments in interim 2019 than in interim 2018.¹⁷ The value of U.S. shipments of FPMs imported from China increased by 88.7 percent from 2016 to 2017, but then decreased by 55.1 percent from 2017 to 2018, ending 15.2 percent lower in 2018 than in 2016. In addition, it was 19.9 percent lower in interim 2019 than in interim 2018.

¹⁴ The shift in MiBs' and FPMs' shares of total U.S. shipments of imports from China between 2017 and 2018 can largely be attributed to the change in *** U.S. shipments. ***. *** accounted for *** percent of the increase in responding U.S. importers' U.S. shipments of MiBs imported from China between 2017 and 2018. Concurrently, ***. It accounted for *** percent of the total decrease in responding U.S. importers' U.S. shipments of FPMs imported from China between 2017 and 2018.

¹⁵ The year-to-year fluctuation in the quantity of U.S. shipments of FPMs imported from China is largely a reflection of the change in the quantity of U.S. shipments of foam FPMs imported from China.

¹⁶ *** accounted for the vast majority of the decrease in U.S. shipments of FPMs imported from China during 2016-18 ***.

¹⁷ The difference in U.S. shipments of FPMs imported from China between the interim periods can largely be attributed to ***, whose U.S. shipments of FPMs imported from China were *** mattresses lower in interim 2019 than in interim 2018.

Table IV-8
Mattresses: U.S. importers U.S. shipments of FPMs from China, by product type, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. shipments: FPMs from China.-- Innerspring	184,519	278,052	133,777	91,185	21,525
Foam	386,560	1,138,182	166,324	70,574	66,791
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	642,936	1,500,474	348,965	184,948	118,578
	Value (1,000 dollars)				
U.S. shipments: FPMs from China.-- Innerspring	29,721	35,246	25,516	13,862	6,355
Foam	45,678	112,414	40,181	13,025	14,035
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	84,654	159,747	71,766	29,698	23,792
	Unit value (dollars per unit)				
U.S. shipments: FPMs from China.-- Innerspring	161	127	191	152	295
Foam	118	99	242	185	210
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	132	106	206	161	201
	Share of quantity (percent)				
U.S. shipments: FPMs from China.-- Innerspring	28.7	18.5	38.3	49.3	18.2
Foam	60.1	75.9	47.7	38.2	56.3
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipments: FPMs from China.-- Innerspring	35.1	22.1	35.6	46.7	26.7
Foam	54.0	70.4	56.0	43.9	59.0
Hybrid	***	***	***	***	***
Other	***	***	***	***	***
All product types	100.0	100.0	100.0	100.0	100.0

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

By quantity, foam mattresses accounted for the largest share of U.S. shipments of FPMs imported from China during 2016-18 and in interim 2019 (60.1 percent in 2016, 75.9 percent in 2017, 47.7 percent in 2018, and 56.3 percent in interim 2019). Innerspring mattresses accounted for the next largest share during 2016-18 and in interim 2019 (28.7 percent in 2016, 18.5 percent in 2017, 38.3 percent in 2018, and 18.2 percent in interim 2019). Hybrid MiBs accounted for the third largest share in 2017, but the smallest share in 2016, 2018, and interim 2019. All other types accounted for the third largest share in 2016, 2018, and interim 2019, but the smallest share in 2017.

The quantity of U.S. shipments of innerspring, foam, hybrid, and all other types of FPMs imported from China decreased by 27.5 percent, 57.0 percent, *** percent, and *** percent, respectively, from 2016 to 2018. U.S. shipments of innerspring, foam, and other types of FPMs imported from China, by quantity, were lower in interim 2019 than in interim 2018 by 76.4 percent, 5.4 percent, and *** percent, respectively. However, the quantity of U.S. shipments of hybrid FPMs imported from China was *** greater in interim 2019 than in interim 2018.

The value of U.S. shipments of innerspring, foam, hybrid, and all other types of FPMs imported from China decreased by 14.1 percent, 12.0 percent, *** percent, and *** percent, respectively, from 2016 to 2018. The value of U.S. shipments of innerspring and other FPMs imported from China were 54.2 percent and *** percent lower, respectively, in interim 2019 than in interim 2018. On the other hand, the value of U.S. shipments of foam and hybrid FPMs imported from China were 7.8 percent and *** percent higher, respectively, in interim 2019 than in interim 2018.

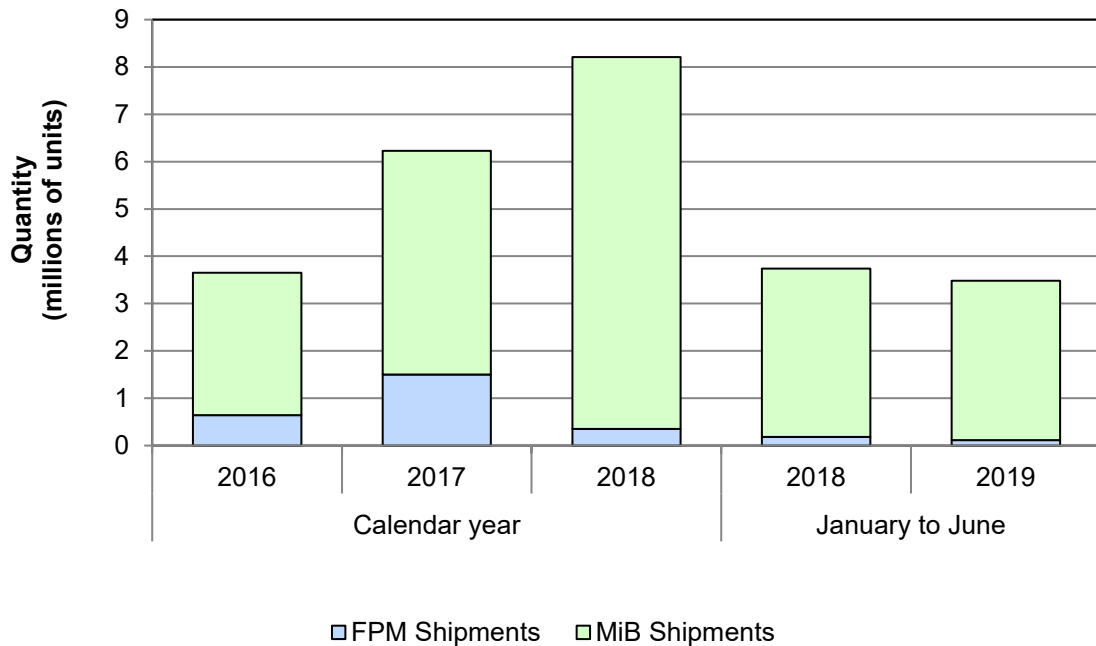
The unit value of U.S. shipments of innerspring FPMs imported from China was higher than the unit value of U.S. shipments of foam FPMs imported from China in 2016 and 2017, but was lower in 2018 despite increasing from \$161 per mattress in 2016 to \$191 per mattress in 2018. However, it was higher than the unit value of U.S. shipments of foam FPMs imported from China in interim 2019. The unit value of U.S. shipments of foam FPMs imported from China increased irregularly from \$118 per mattress in 2016 to \$242 per mattress in 2018 and was \$210 per mattress in interim 2019, compared with \$185 per mattress in interim 2018.¹⁸ The unit value of U.S. shipments of hybrid FPMs imported from China was higher than the unit

¹⁸ The year-to-year fluctuation in the unit value of U.S. shipments of foam FPMs imported from China can largely be attributed to ***. The unit value of *** U.S. shipments of foam FPMs imported from China was \$*** per mattress in 2017.

value of U.S. shipments of foam MiBs imported from China in ***. It was lower than the unit value of U.S. shipments of innerspring FPMs imported from China in ***, but was higher in ***. The unit value of U.S. shipments of all other FPMs imported from China was lower than the unit values of U.S. shipments of innerspring and hybrid FPMs imported from China in ***, but was higher than the unit values of U.S. shipments of foam FPMs imported from China in ***. Overall, the unit value of all U.S. shipments of FPMs imported from China increased from \$132 per mattress in 2016 to \$206 per mattress in 2018. It was \$201 per mattress in interim 2019, compared with \$161 per mattress in interim 2018.

Figures IV-3 and IV-4 present data on U.S. importers' U.S. shipments of MiBs and FPMs imported from China.

Figure IV-3
Mattresses: U.S. importers' U.S. shipments of MiBs and FPMs, 2016-18, January to June 2018, and January to June 2019



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

Figure IV-4
Mattresses: U.S. importers' U.S. shipments of MiBs and FPMs, by product type and packaging, 2018

* * * * *

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

U.S. importers' U.S. shipments of mattresses by size

Table IV-9 presents data on U.S. importers' U.S. shipments of mattresses by size. The vast majority of U.S. shipments of mattresses from China were adult-sized mattresses, which accounted for over 97 percent of total U.S. shipments throughout 2016-18 and in interim 2019. U.S. shipments of adult-sized mattresses from China, by quantity, more than doubled from 2016 to 2018, but were 6.7 percent lower in interim 2019 than in interim 2018.¹⁹ The quantity of U.S. shipments of youth-sized mattresses from China fluctuated year to year, increasing by 21.8 percent from 2016 to 2017, but then decreasing by 12.4 percent from 2017 to 2018, ending 6.6 percent higher in 2018 than in 2016. It was 19.6 percent lower in interim 2019 than in interim 2018. Thirty-three firms reported U.S. shipments of adult-sized mattresses from China in each year during 2016-18, with 22 of those firms reporting more shipments in 2018

¹⁹ *** accounted for the majority of the increase from 2016 to 2018 (**% percent).

than in 2016. Five firms reported U.S. shipments of youth-sized mattresses from China throughout 2016-18, with three of those firms reporting more shipments in 2018 than in 2016.²⁰

Table IV-9
Mattresses: U.S. importers U.S. shipments of imports from China, by product size, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. shipments: China.--					
Adult	3,577,625	6,132,310	8,126,609	3,697,038	3,450,127
Youth	76,376	93,021	81,440	43,003	34,558
All product sizes	3,654,001	6,225,331	8,208,049	3,740,041	3,484,685
	Value (1,000 dollars)				
U.S. shipments: China.--					
Adult	512,936	842,332	1,270,995	560,228	530,172
Youth	3,752	4,368	3,257	2,302	1,669
All product sizes	516,688	846,700	1,274,252	562,530	531,841
	Unit value (dollars per unit)				
U.S. shipments: China.--					
Adult	143	137	156	152	154
Youth	49	47	40	54	48
All product sizes	141	136	155	150	153
	Share of quantity (percent)				
U.S. shipments: China.--					
Adult	97.9	98.5	99.0	98.9	99.0
Youth	2.1	1.5	1.0	1.1	1.0
All product sizes	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipments: China.--					
Adult	99.3	99.5	99.7	99.6	99.7
Youth	0.7	0.5	0.3	0.4	0.3
All product sizes	100.0	100.0	100.0	100.0	100.0

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

²⁰ The change in the quantity of U.S. shipments of youth-sized mattresses largely mirrors the change in *** shipments as these firms accounted for the vast majority of U.S. shipments of youth-sized mattresses imported from China (***) percent).

The value of U.S. shipments of adult-sized mattresses from China more than doubled from 2016 to 2018, but was 5.4 percent lower in interim 2019 than in interim 2018. U.S. shipments of youth-sized mattresses from China, by value, decreased irregularly by 13.2 percent from 2016 to 2018. The unit value of U.S. shipments of adult-sized mattresses from China was several times greater than the unit value of U.S. shipments of youth-sized mattresses from China.

Apparent U.S. consumption and market shares

Table IV-10 and figure IV-5 present data on apparent U.S. consumption and U.S. market shares for mattresses. Apparent U.S. consumption increased by 9.3 percent from 2016 to 2017 and by 5.4 percent from 2017 to 2018, ending 15.2 percent higher in 2018 than in 2016.²¹ It was 1.0 percent higher in interim 2019 than in interim 2018 as well. The increase in apparent U.S. consumption during 2016-18 was a reflection of U.S. importers' increased U.S. shipments of mattresses from China which *** during the period. The higher level of apparent U.S. consumption in interim 2019 compared with interim 2018 was a reflection of U.S. importers' U.S. shipments of mattresses from nonsubject sources, which were *** greater in interim 2019 than in interim 2018. During 2016-18, the change in the value of apparent U.S. consumption largely mirrored the change in the quantity of apparent U.S. consumption, increasing by 15.0 percent. It was 0.9 percent higher in interim 2019 than in interim 2018.

²¹ According to petitioners and the Chinese respondents, demand for mattresses can be influenced by GDP, consumer sentiment, and the housing market. Petitioners' prehearing brief, p. 16 and Chinese respondents' prehearing brief, p. 4.

Table IV-10

Mattresses: Apparent U.S. consumption and market shares, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. producers' U.S. shipments	17,152,616	16,479,432	15,560,415	8,019,436	7,529,303
U.S. importers' U.S. shipments from.- China	3,654,001	6,225,331	8,208,049	3,740,041	3,484,685
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	4,430,680	4,517,380	4,378,807	2,185,785	2,107,518
U.S. importers' U.S. shipments from.- China	516,689	846,701	1,274,255	562,530	531,840
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
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	***	***	***	***	***
	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.

Figure IV-5

Mattresses: Apparent U.S. consumption, 2016-18, January to June 2018, and January to June 2019

* * * * *

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

U.S. producers' market share, by quantity, decreased from *** percent in 2016 to *** percent in 2018 and was *** percent in interim 2019, compared with *** percent in interim 2018.²² Conversely, the market share of imports from China increased from *** percent in 2016 to *** percent in 2018, and was *** percent in interim 2019 compared with *** percent in interim 2018. The market share of nonsubject imports increased from *** percent in 2016 to *** percent in 2018, and was *** percent in interim 2019 compared with *** percent in interim 2018.

²² The decrease in U.S. producers' market share during 2016-18 largely reflects decreased U.S. shipments by ***. See Part III for additional information on responding U.S. producers' operations.

Apparent U.S. consumption and market shares of innerspring mattresses

Table IV-11 presents data on apparent U.S. consumption and market shares of innerspring mattresses based on quantity.

Table IV-11
Mattresses: Apparent U.S. consumption and market shares for innerspring mattresses, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. producers' U.S. shipments	11,406,741	10,064,945	8,831,022	4,640,485	4,063,508
U.S. importers' U.S. shipments from.- China	1,222,010	1,467,534	1,357,013	737,279	765,415
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***

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

Apparent U.S. consumption of innerspring mattresses decreased by *** percent and was *** percent lower in interim 2019 than in interim 2018. The overall decrease in apparent U.S. consumption of innerspring mattresses during 2016-18 was smaller than the decrease in U.S. producers' U.S. shipments, as U.S. importers' U.S. shipments of innerspring mattresses from China and nonsubject sources increased.

As a result, U.S. producers' market share of innerspring mattresses decreased from *** percent in 2016 to *** percent in 2018 while the market share of imports from China increased from *** percent to *** percent. U.S. producers' market share was *** percent in interim 2019, compared with *** percent in interim 2018. The market share of imports from China was *** percent in interim 2019, compared with *** percent in interim 2018. The market share of imports from nonsubject sources increased from *** percent in 2016 to *** percent in 2018. It was *** percent in interim 2019, compared with *** percent in interim 2018.

Apparent U.S. consumption and market shares of foam mattresses

Table IV-12 presents data on apparent U.S. consumption and market share of foam mattresses based on quantity.

Table IV-12

Mattresses: Apparent U.S. consumption and market shares for foam mattresses, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. producers' U.S. shipments	4,676,027	5,221,524	5,376,637	2,723,608	2,717,966
U.S. importers' U.S. shipments from.- China	2,209,379	4,171,516	5,467,861	2,280,116	2,184,827
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***

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

Apparent U.S. consumption of foam mattresses increased by *** percent and was *** percent higher in interim 2019 than in interim 2018. The increase in apparent U.S. consumption of foam mattresses during 2016-18 was a reflection of the increase in U.S. importers' U.S. shipments from China, which was larger than the increase in U.S. producers' U.S. shipments on an absolute and percentage basis.

U.S. producers' market share of foam mattresses decreased from *** percent in 2016 to *** percent in 2018 while the market share of imports from China increased from *** percent to *** percent. The market shares of U.S. producers' U.S. shipments and U.S. imports from China were *** percentage points and *** percentage points lower in interim 2019 than in interim 2018. The market share of imports from nonsubject sources decreased from *** percent to *** percent during 2016-18. It was *** percent in interim 2019, compared with *** percent in interim 2018.

Apparent U.S. consumption and market shares of hybrid mattresses

Table IV-13 presents data on apparent U.S. consumption and market shares of hybrid mattresses based on quantity. Apparent U.S. consumption of hybrid mattresses increased by *** percent from 2016 to 2018, with the majority of the increase occurring from 2017 to 2018. It was *** percent higher in interim 2019 than in interim 2018. The increase in apparent U.S. consumption from 2016 to 2018 was primarily a reflection of the increase in U.S. importers' U.S. shipments from China, which was larger than the increase in U.S. producers' U.S. shipments on both an absolute and percentage basis.

Consequently, the market share for U.S. producers decreased from *** percent in 2016 to *** percent in 2018 while the market share for imports from China increased from *** percent to *** percent. The market share for imports from China was *** percent in interim 2019, compared with *** percent in interim 2018, and the market share for U.S. producers was *** percent in interim 2019, compared with *** percent in interim 2018. The market share for nonsubject imports was *** percent in interim 2019, compared with *** percent in interim 2018. During 2016-18, the market share for imports from nonsubject sources increased irregularly from *** percent to *** percent.

Table IV-13

Mattresses: Apparent U.S. consumption and market shares for hybrid mattresses, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***

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

Apparent U.S. consumption and market shares of MiBs

Table IV-14 presents data on apparent U.S. consumption and market share of MiBs based on quantity. Apparent U.S. consumption of MiBs *** from 2016 to 2018 and was *** percent higher in interim 2019 than in interim 2018. The increase in apparent U.S. consumption of MiBs was largely a reflection of the *** mattress increase in U.S. importers' U.S. shipments from China, which was greater than the increase in U.S. producers' U.S. shipments on both an absolute volume and percentage basis. U.S. importers' U.S. shipments of mattresses imported from China were lower in interim 2018 than in interim 2019. Consequently, the higher level of apparent U.S. consumption in interim 2019 compared with interim 2018 was reflective of U.S. producers' U.S. shipments and U.S. importers' U.S. shipments from nonsubject sources, which were both higher in interim 2019 than in interim 2018.

Table IV-14
Mattresses: Apparent U.S. consumption and market shares for MiBs, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. producers' U.S. shipments	1,080,338	1,596,858	1,960,829	881,916	1,280,294
U.S. importers' U.S. shipments from.-- China	3,011,065	4,724,857	7,859,083	3,555,093	3,366,107
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***

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

U.S. producers' market share of MiBs was *** percent in 2016 and 2017, but then decreased to *** percent in 2018. It was *** percent in interim 2019, compared with *** percent in interim 2018. Conversely, the market share of imports from China increased in each year from *** percent in 2016 to *** percent in 2018, and was *** percent in interim 2019, compared with *** percent in interim 2018. The market share of nonsubject imports decreased from *** percent in 2016 to *** percent in 2018, and was *** percent in interim 2019, compared with *** percent in interim 2018.

Apparent U.S. consumption and market shares of FPMs

Table IV-15 presents data on apparent U.S. consumption and market share of FPMs based on quantity. Apparent U.S. consumption of FPMs decreased by *** percent between 2016 and 2018; the majority of the decrease occurred from 2017 to 2018. It was *** percent lower in interim 2019 than in interim 2018. The decrease in apparent U.S. consumption was a reflection of U.S. producers' U.S. shipments, which decreased by nearly 2.5 million mattresses from 2016 to 2018. Although the decrease in U.S. producers' U.S. shipments was larger than the decrease in U.S. importers' U.S. shipments in terms of absolute volume, it was smaller on a percentage basis.

U.S. producers' market share of FPMs increased slightly during 2016-18 while the market share of imports from China decreased from *** percent in 2016 to *** percent in 2018. The market share for U.S. producers was *** percent in interim 2019, compared with *** percent in interim 2018 while the market share for imports from China was *** percent in interim 2019, compared with *** percent in interim 2018. The market share of imports from nonsubject sources increased from *** percent in 2016 to *** percent in 2018 as U.S. importers' U.S. shipments from nonsubject sources increased by *** percent during 2016-18. The market share of imports from nonsubject sources was *** percent in interim 2019, compared with *** percent in interim 2018.

Table IV-15
Mattresses: Apparent U.S. consumption and market shares for FPMs, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
U.S. producers' U.S. shipments	16,072,278	14,882,574	13,599,586	7,137,520	6,249,009
U.S. importers' U.S. shipments from.- China	642,936	1,500,474	348,965	184,948	118,578
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers combined	***	***	***	***	***

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

Part V: Pricing data

Factors affecting prices

Raw material costs

The major raw materials used in the production of mattresses vary depending on the type of mattress being produced. Innerspring and hybrid mattresses use springs of iron or steel, usually made of wire rod, while foam mattresses do not. Most of these mattress types typically use some foam in various thicknesses, densities, and in various amounts. The three primary types of foam used are polyurethane, viscoelastic (i.e., “memory foam”), and latex.

Overall, the price of wire rod increased between January 2016 and June 2019. During that time, the price of wire rod fluctuated initially in 2016, and then increased through early-mid 2018, and stayed relatively flat until the beginning of 2019, at which point it decreased (figure V-1).

Figure V-1
Steel wire rod: Price of low carbon industrial quality steel wire rod, f.o.b. mill, Avg-Mid, monthly, January 2016-September 2019

* * * * *

Source: ***, retrieved October 24, 2019.

The producers' price indices for iron and steel scrap show a similar trend (figure V-2). The price of iron and steel scrap was at its lowest in January 2016 and highest in April 2018, and has been decreasing since then.

Figure V-2
Raw materials: Iron and steel scrap, producer price index, monthly, not seasonally adjusted, January 2016-September 2019



Source: Federal Reserve Economic Data, <https://fred.stlouisfed.org>, retrieved October 23, 2019.

The primary chemical materials used in the production of the foam for use in mattresses are polyol polyether (“polyether foam”), isocyanates MDI (“MDI”), and isocyanates TDI (“TDI”).¹ Generally speaking, the prices of these inputs followed similar trends throughout January 2016-

¹ Polyether polyols are used in applications such as “flexible foam for bedding mattresses and upholstered furniture, multiple automotive and transportation applications from car seats to dashboards, rigid board stock in roofing, spray foam insulation in walls of buildings, homes and refrigerators, plus many types of adhesives and sealants.” See *AGC website, Polyether Polyol Applications*, <https://www.agcchem.com/products/specialty-materials/polyols-for-polyurethanes>, retrieved September 6, 2019.

Methylene diphenyl diisocyanate (MDI) and toluene diisocyanate (TDI) are part of a “family of chemical building blocks mainly used to make polyurethane products, such as rigid and flexible foams, coatings, adhesives, sealants and elastomers.” See *American Chemistry Council website, Diisocyanates Explained*, <https://dii.americanchemistry.com/Diisocyanates-Explained/>, retrieved September 6, 2019.

August 2019. Prices increased for these inputs from early 2016 to mid-2018, but have decreased since mid- to late-2018 (figure V-3). The price of polyether foam fluctuated the least, while the price of TDI fluctuated the most.

Figure V-3
Raw materials: Prices of polyols polyether flexible foam (slabstock), isocyanates MDI (polymeric/crude), and isocyanates TDI (80:20), weekly, January 2016-September 2019

* * * * *

Source: ***, retrieved October 23, 2019.

The vast majority of responding U.S. producers reported that raw material prices for innersprings and foam had increased since January 2016, and over half of responding U.S. producers reported that prices for raw materials for upholstery and other raw materials had increased as well. Seven U.S. producers reported that they adjusted to increased raw material costs by raising the prices of their mattresses, although some U.S. producers added that despite these price increases, they were still absorbing most of the increased cost. Four U.S. producers reported that they were unable to adjust their mattress prices due to competition from imports. Similarly, the majority of responding importers reported increased raw material costs for innersprings (16 of 30 firms) and foam (22 of 34 firms). Ten responding importers reported that they have increased their sales prices of mattresses in response to increased raw material costs. Two importers reported absorbing these increased costs. Importers' responses were

mixed with respect to price trends for upholstery and other raw materials, but no importers reported decreased raw material costs for these inputs.

Almost half of responding U.S. purchasers (28 of 57 firms) reported that they were familiar with the prices of raw materials used to manufacture mattresses. Nineteen of 31 purchasers reported that these prices have affected their negotiations and contracts for their mattress purchases. Multiple purchasers reported that knowledge of raw material prices are important during negotiations, and many purchasers indicated that mattress prices have increased due to increased raw material costs. Purchaser *** reported that it has experienced multiple price increases and that new products were downgraded in quality in order to maintain retail price points. Purchaser *** reported that the rising costs of polyether foam require long-term agreements and a controlled method for cost increases. Purchaser *** reported that while raw material costs have increased, its vendors have not changed prices and are absorbing these additional costs.

Most responding U.S. producers (12 of 21 firms) reported that the announcement and subsequent imposition of tariffs pursuant to the Section 301 investigation did not affect the prices of raw materials. In contrast, about half of responding importers (17 of 35 firms) reported increased raw material costs due to the Section 301 investigation.

Transportation costs to the U.S. market

Transportation costs for mattresses shipped from China to the United States averaged 6.7 percent during 2018. These estimates were derived from official import data and represent the transportation and other charges relative to the value of imports.²

U.S. inland transportation costs

Most responding U.S. producers (19 of 26 firms) and importers (31 of 39 firms) reported that they typically arrange transportation to their customers. U.S. producers reported that their U.S. inland transportation costs ranged from 1 to 12 percent, while most responding importers

² The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2018 and then dividing by the customs value based on the HTS statistical reporting numbers 9404.21.0010, 9404.21.0013, 9404.29.1005, 9404.29.1013, 9404.29.9085, and 9404.29.9087, accessed July 17, 2019.

(14 of 28) reported costs of 1 to 5 percent.³ Ten importers reported transportation costs between 10 and 25 percent.

Pricing practices

Pricing methods

U.S. producers and importers reported using a variety of price setting methods, including transaction-by-transaction negotiations, contracts, price lists, and other methods.⁴ As presented in table V-1, U.S. producers and importers sell primarily based on set price lists and transaction-by-transaction negotiations.

Table V-1

Mattresses: U.S. producers' and importers' reported price setting methods, by number of responding firms

Method	U.S. producers	Importers
Transaction-by-transaction	11	12
Contract	7	3
Set price list	17	19
Other	3	12
Responding firms	27	40

Note: The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

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

U.S. producers reported selling nearly half of their mattresses on the spot market, with most of their remaining shipments being sold through annual and long-term contracts (table V-2). U.S. importers reported that most of their mattresses are sold on the spot market, with about one-third of their shipments being sold through short-term contracts.

³ Four U.S. producers and one importer reported cost shares of 100 percent. These responses are likely due to a misinterpretation of the question, and are excluded from this analysis.

⁴ U.S. producer *** reported that although it has standard price lists ***.

Table V-2
Mattresses: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2018

Type of sale	U.S. producers	Importers
Long-term contracts	17.5	0.2
Annual contract	28.7	6.6
Short-term contracts	4.6	32.2
Spot sales	49.2	61.0
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.

U.S. producers and importers reported short-term contracts ranging from 30 days to 6 months, and U.S. producers reported long-term contracts lasting for two to three years. Most U.S. producers and importers reported that their contracts are not indexed to raw materials and that they generally fix prices. The majority of U.S. producers and importers do not allow for price renegotiations in their short-term contracts, but all five responding U.S. producers and most responding importers (3 of 5) reported that they do allow for price renegotiations in their annual contracts.

Twenty-seven purchasers reported that they purchase mattresses on a weekly basis and 21 purchasers reported purchasing on a daily basis. Five purchasers reported buying mattresses monthly, three purchasers reported buying quarterly, and one reported buying annually. Purchasers *** reported that they purchase directly based on consumer orders. Purchaser *** reported that it purchases ***. The large majority of purchasers (53 of 58 firms) reported that their purchasing frequency had not changed since 2016. Three purchasers reported that their purchasing frequency had changed due to increasing sales. Purchaser *** reported that while its purchasing frequency of mattresses in the aftermarket had not changed, ***. Purchaser *** reported that its purchases of ***. Purchaser *** reported that it experiences peaks and valleys in its purchases. Most purchasers (32 of 51) contact one to five suppliers before making a purchase.

Sales terms and discounts

Thirteen U.S. producers reported quoting prices on a delivered basis and 15 producers reported quoting on an f.o.b. basis. In contrast, most importers typically quote prices on an f.o.b. basis.

Pluralities of U.S. producers and importers reported having no specific discount policy. Among those that did report offering discounts, 10 of 26 responding U.S. producers and 3 of 40 responding importers reported offering total volume discounts, 3 U.S. producers and 5 importers offer quantity discounts, 2 U.S. producers and 3 importers reported offering discounts on mattress sets,⁵ and 7 U.S. producers and 16 importers reported offering other types of discounts. U.S. producers reported offering discounts for members of certain mattress forums (*** percent), discounts for early payment (*** percent), as well as discounts on cooperative advertising, dealer relations, floor samples, in-store and online promotional events, new store subsidies, payment terms, promotional materials support, purchases over a specified dollar amount, and return allowances. One U.S. producer reported offering incentive programs and discounts on a customer-by-customer basis. Importers reported also offering discounts based on early payment, end of season markdowns, inventory position, promotional events, and stock clearance. Two importers reported offering coupons for online purchases, and one offers discounts on floor models. One importer reported that it offers different price lists for different sales channels, while another offers discounts on mattress sets for certain retail channels only. One importer also reported offering discounts on based on its competitors' prices, and two reported offering discounts on a case-by-case basis.

Price leadership

Purchasers reported numerous price leaders in the mattress market. The most commonly named firms were Serta (named by 9 firms) and Tempur (named by 7 firms). In describing how these firms exhibited price leadership, most firms pointed to their comparatively high market share and brand awareness. Purchasers also named the following firms as price leaders: Corsicana (4 firms); Mattress Firm (3 firms); Amazon, Casper, Leggett & Platt, Walmart, and Zinus (2 firms each); and Big Lots, Blue Ridge Products, iComfort, Lions Volunteer Blind Industries, Lippert, Lucid, Malouf, and Stearns & Foster (1 firm each).

⁵ Mattress sets were defined as mattress foundations and/or furniture sets (such as convertible sofa beds, corner groups, day-beds, roll-away beds, high risers, trundle beds, and/or cribs).

Price 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 mattresses products shipped to unrelated U.S. customers during January 2016-June 2019 and sold either as a MiBs or FPM:⁶

Product 1--Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

Product 2--Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

Product 3--Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

Product 4--Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

Product 5--Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

⁶ Respondents argue that the pricing products as identified are too broadly defined, and that “price disparity within these product categories could still be extremely wide.” Hearing transcript, pp. 157-158 (Robertson), 172-173 (Dougan), 206 (Grodin), and 283 (Emerson); Chinese respondents’ posthearing brief, pp. 10-11, Attachment C, pp. 16-18, Exhibits 2, 3. At Chinese respondents’ request, staff amended the pricing product descriptions in the final phase investigation to incorporate an additional mattress height, foam density parameters, and collected pricing information separately for MiB and FPM (non-MiB) channels. Respondents’ comments on the draft questionnaires did not include a request to include descriptions of covering (or “ticking”). See Chinese Respondents’ comments on draft questionnaires, pp. 6-10; EDIS document number 691765. At the hearing, counsel for Chinese Respondents testified that “{w}e did provide comments and they were largely accepted on the pricing products, just to be clear.” Hearing transcript, p. 283 (Emerson).

Twelve U.S. producers and 22 importers provided usable pricing data for sales of MiB products 1-5, and 12 U.S. producers and 2 importers provided usable pricing data for sales of FPM products 1-5, although not all firms reported pricing for all products for all quarters.^{7 8} Pricing data reported by these firms accounted for approximately 31.3 percent of U.S. producers' U.S. commercial shipments of MiB and FPM mattresses and 32.8 percent of U.S. commercial shipments of subject imported MiB and FPM mattresses from China in 2018.⁹

Price data for products 1-5 for MiBs are presented in tables V-3 to V-7 and figures V-4 to V-8. Price data for products 1-5 for FPMs are presented in tables V-8 to V-12 and figures V-9 to V-13.¹⁰

⁷ Per-unit pricing 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.

⁸ ***. Accordingly, these data have not been included in this pricing analysis.

⁹ Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. commercial shipments of MiBs and *** percent of importers' U.S. commercial shipments of MiBs from China in 2018. Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. commercial shipments of FPMs and *** percent of importers' U.S. commercial shipments of FPMs from China in 2018.

¹⁰ For pricing data excluding ***, see Appendix F.

Table V-3

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	139	7,021	***
April-June	***	***	131	7,873	***
July-September	***	***	131	11,582	***
October-December	***	***	122	11,991	***
2017:					
January-March	***	***	123	13,929	***
April-June	***	***	108	16,604	***
July-September	***	***	105	21,291	***
October-December	***	***	103	14,102	***
2018:					
January-March	***	***	85	19,685	***
April-June	***	***	96	29,975	***
July-September	***	***	96	27,274	***
October-December	***	***	101	26,718	***
2019:					
January-March	***	***	102	18,940	***
April-June	***	***	100	31,356	***

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-4

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	161	28,768	***
April-June	***	***	156	24,861	***
July-September	***	***	153	28,777	***
October-December	***	***	151	32,405	***
2017:					
January-March	***	***	149	31,922	***
April-June	***	***	145	41,112	***
July-September	***	***	148	39,458	***
October-December	***	***	146	47,719	***
2018:					
January-March	***	***	***	***	***
April-June	***	***	149	108,667	***
July-September	***	***	142	134,067	***
October-December	***	***	151	120,278	***
2019:					
January-March	***	***	149	70,767	***
April-June	***	***	159	72,292	***

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-5

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	243	46,326	***
April-June	***	***	224	45,934	***
July-September	***	***	215	42,613	***
October-December	***	***	212	68,510	***
2017:					
January-March	***	***	216	76,161	***
April-June	***	***	213	104,305	***
July-September	***	***	216	73,910	***
October-December	***	***	209	98,621	***
2018:					
January-March	***	***	224	94,694	***
April-June	***	***	233	137,512	***
July-September	***	***	220	122,778	***
October-December	***	***	226	135,403	***
2019:					
January-March	***	***	217	83,439	***
April-June	***	***	224	82,288	***

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-6

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	114	6,113	***
April-June	***	***	129	4,925	***
July-September	***	***	126	6,376	***
October-December	***	***	126	8,161	***
2017:					
January-March	***	***	119	8,615	***
April-June	***	***	119	10,871	***
July-September	***	***	122	10,673	***
October-December	***	***	121	11,541	***
2018:					
January-March	***	***	119	14,725	***
April-June	***	***	122	24,296	***
July-September	***	***	117	18,789	***
October-December	***	***	112	15,079	***
2019:					
January-March	***	***	***	***	***
April-June	---	---	112	24,685	---

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table V-7

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	***	***	***
April-June	***	***	206	11,475	***
July-September	***	***	203	16,285	***
October-December	***	***	196	21,316	***
2017:					
January-March	***	***	194	17,361	***
April-June	***	***	190	21,195	***
July-September	***	***	188	24,775	***
October-December	***	***	194	34,960	***
2018:					
January-March	***	***	204	48,839	***
April-June	***	***	195	78,116	***
July-September	***	***	190	105,397	***
October-December	***	***	196	98,187	***
2019:					
January-March	***	***	201	43,062	***
April-June	***	***	189	49,938	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Table V-8

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	---	---	---	---	---
April-June	***	***	---	---	---
July-September	***	***	---	---	---
October-December	***	***	***	***	***
2017:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2018:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2019:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-9**FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	265	20,468	---	---	---
April-June	259	20,442	---	---	---
July-September	268	21,500	---	---	---
October-December	262	17,139	---	---	---
2017:					
January-March	252	14,416	---	---	---
April-June	243	20,139	---	---	---
July-September	228	19,376	---	---	---
October-December	238	18,112	---	---	---
2018:					
January-March	240	16,154	---	---	---
April-June	244	14,824	---	---	---
July-September	246	14,866	---	---	---
October-December	257	12,706	---	---	---
2019:					
January-March	239	10,479	---	---	---
April-June	238	11,326	---	---	---

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-10

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	461	64,458	---	---	---
April-June	529	77,311	---	---	---
July-September	531	71,167	---	---	---
October-December	530	55,582	---	---	---
2017:					
January-March	510	53,058	---	---	---
April-June	507	75,167	---	---	---
July-September	524	73,433	---	---	---
October-December	508	66,550	---	---	---
2018:					
January-March	413	68,731	---	---	---
April-June	509	78,694	---	---	---
July-September	588	77,608	---	---	---
October-December	585	64,506	---	---	---
2019:					
January-March	579	58,872	---	---	---
April-June	593	56,087	---	---	---

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-11

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	122	380,223	***	***	***
April-June	126	331,181	***	***	***
July-September	123	328,275	***	***	***
October-December	124	312,438	***	***	***
2017:					
January-March	117	301,801	***	***	***
April-June	117	282,956	***	***	***
July-September	115	281,414	***	***	***
October-December	123	268,971	***	***	***
2018:					
January-March	123	266,070	***	***	***
April-June	131	245,801	***	***	***
July-September	125	259,426	***	***	***
October-December	133	207,146	***	***	***
2019:					
January-March	123	208,419	***	***	***
April-June	122	195,678	***	***	***

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table V-12

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 and margins of underselling/(overselling), by quarter, January 2016-June 2019

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2017:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2018:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2019:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Figure V-4
MiBs: Weighted-average prices and quantities of domestic and imported product 1, by quarter, January 2016-June 2019

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-5
MiBs: Weighted-average prices and quantities of domestic and imported product 2, by quarter, January 2016-June 2019

* * * * *

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-6
MiBs: Weighted-average prices and quantities of domestic and imported product 3, by quarter, January 2016-June 2019

* * * * *

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-7
MiBs: Weighted-average prices and quantities of domestic and imported product 4, by quarter, January 2016-June 2019

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure V-8
MiBs: Weighted-average prices and quantities of domestic and imported product 5, by quarter, January 2016-June 2019

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

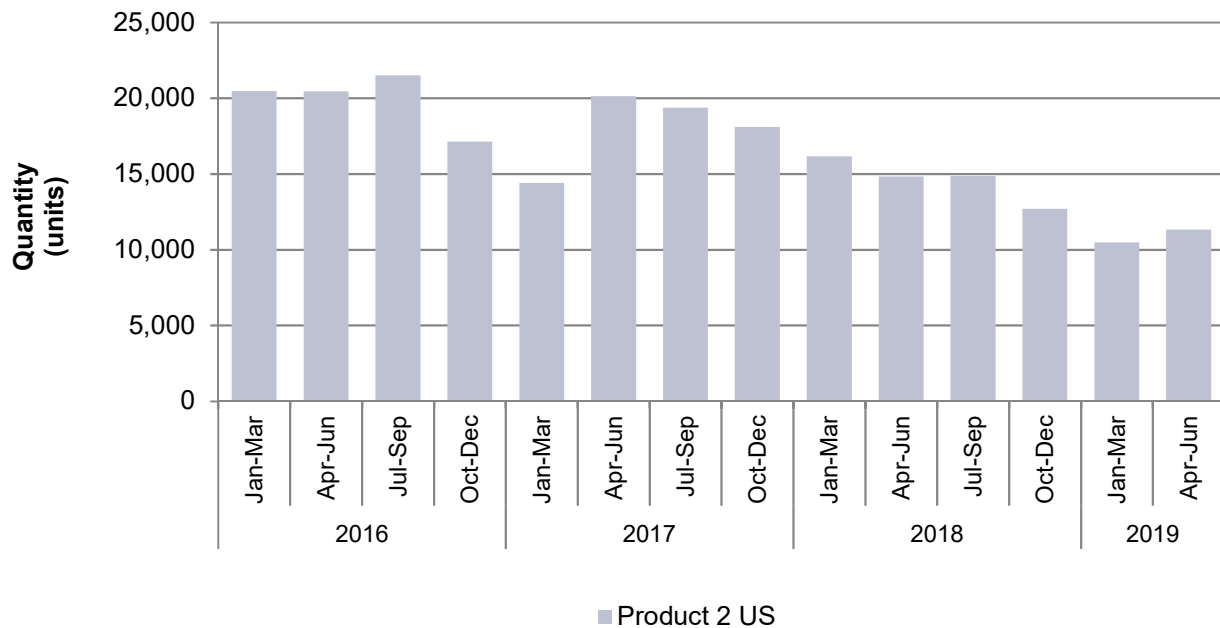
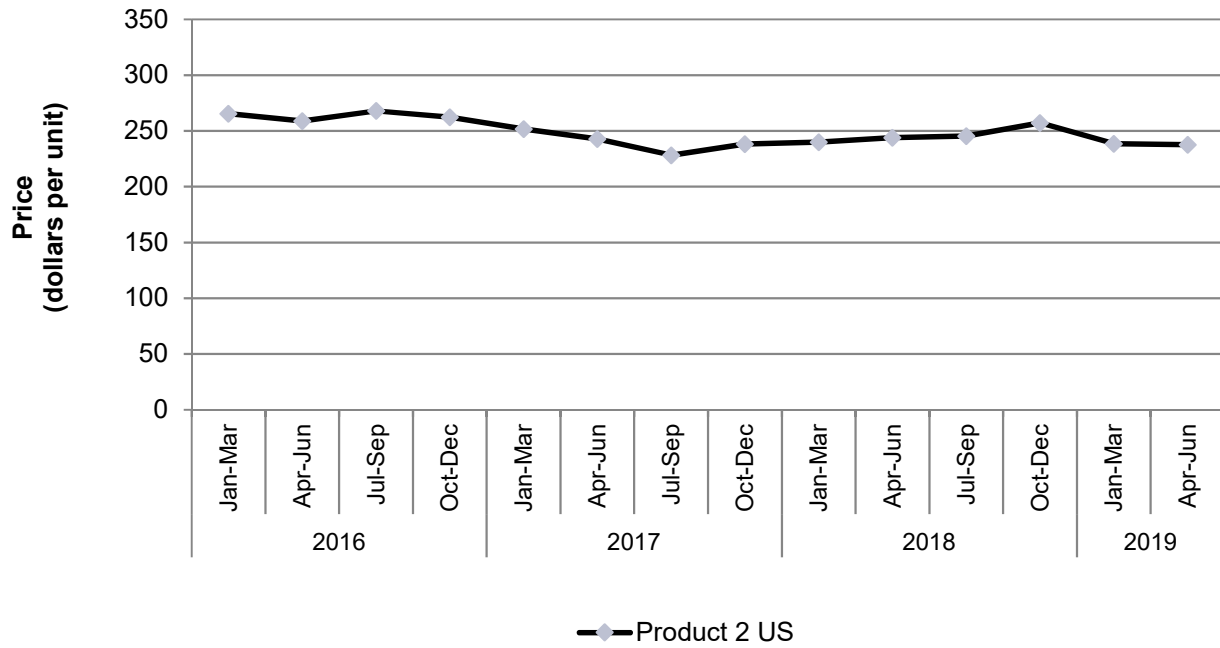
Figure V-9
FPMs: Weighted-average prices and quantities of domestic and imported product 1, by quarter, January 2016-June 2019

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

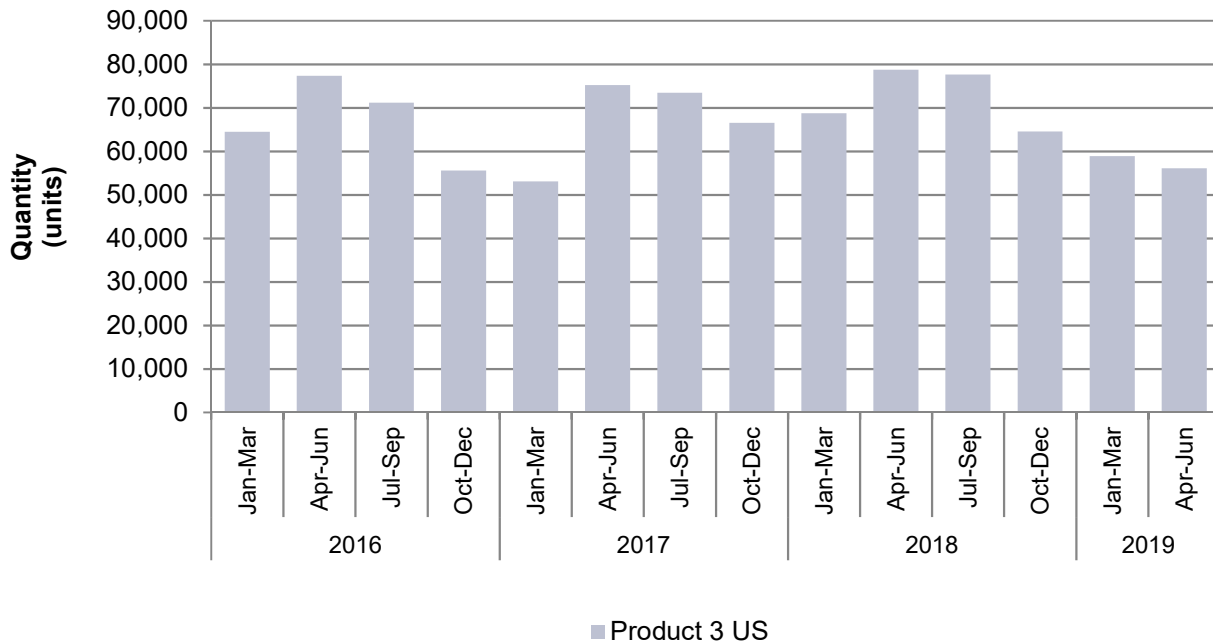
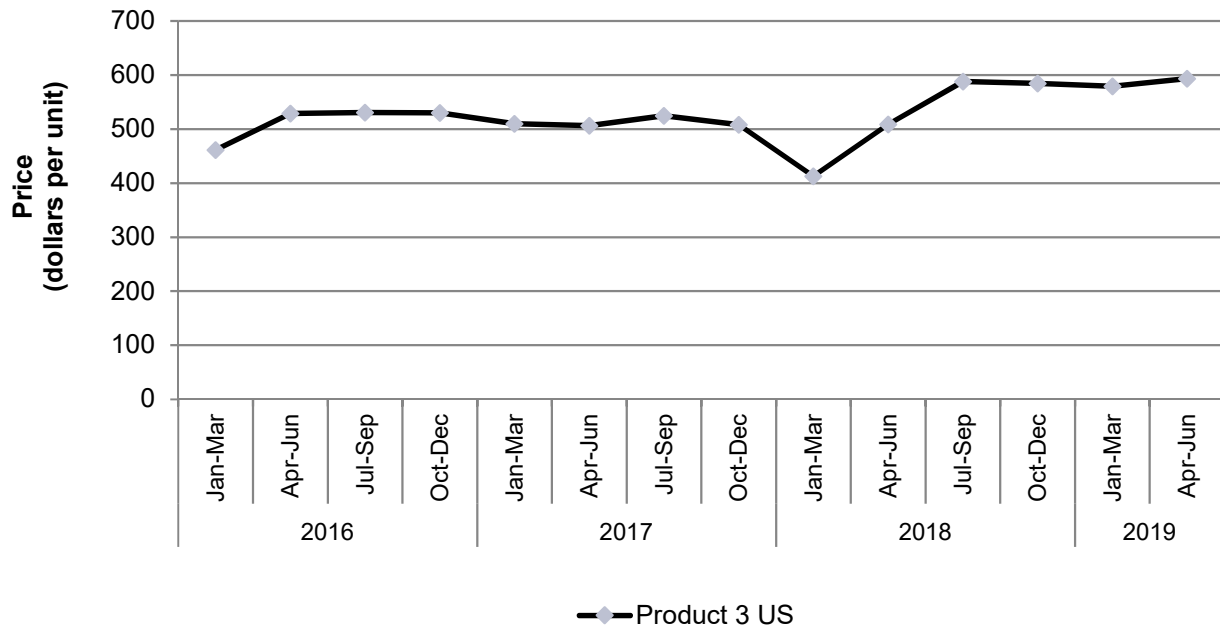
Figure V-10
FPMs: Weighted-average prices and quantities of domestic product 2, by quarter, January 2016- June 2019



Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-11
FPMs: Weighted-average prices and quantities of domestic product 3, by quarter, January 2016- June 2019



Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-12
FPMs: Weighted-average prices and quantities of domestic and imported product 4, by quarter, January 2016-June 2019

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure V-13
FPMs: Weighted-average prices and quantities of domestic and imported product 5, by quarter, January 2016-June 2019

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Import purchase cost data

Sixteen importers provided usable purchase cost data for products 1-5 for MiBs and one importer provided usable purchase cost data for products 1-5 for FPMs imported from China for their internal use, repackaging, or retail sales, although not all firms reported cost data for all products for all quarters. Import purchase cost data reported by these firms accounted for approximately 10.4 percent of importers' reported imports from China in 2018.¹¹ Import purchase cost data for MiB products 1-5 are presented in tables V-13 to V-17 and figures V-14 to V-18. Import purchase cost data for FPM products 1-5 are presented in tables V-18 to V-22 and figures V-19 to V-23.

In addition to the import purchase cost data, firms were asked to estimate a variety of costs associated with their imports for internal use, including inland transportation costs, logistical or supply chain management costs, warehousing/inventory carrying costs, and insurance costs. Firms reported estimates (as a share of landed duty-paid value) for the following factors: inland transportation costs, 1 to 10 percent (for an average of 2.8 percent);¹² logistical or supply chain costs, "far less than 1 percent" to 35 percent (for an average of approximately 8 percent); warehousing/inventory carrying costs, 3 to 55 percent (for an average of 11.8 percent); and insurance costs, 1.2 to 10 percent (for an average of 3.7 percent).

When asked to which source(s) they compare costs in determining their additional transaction costs of importing mattresses themselves, 3 importers reported that they compare import purchase costs to other importers' prices, 2 reported comparing these costs to U.S. producers' prices, 4 reported that they compare these costs to both U.S. producers' and other importers' prices, but most firms (10) do not compare to either. When firms were asked whether they also purchase mattresses from a U.S. producer, half of the responding importers (12 of 24 firms) reported that they do, while the other half reported that they do not.

¹¹ Import purchase cost data for the 16 firms reporting purchase cost data for MiB products 1-5 accounted for approximately *** percent of importers' reported imports from China in 2018. Import purchase cost data for the sole firm reporting purchase cost data for FPM products 1-5 accounted for approximately *** percent of importers' reported imports from China in 2018.

¹² One firm reported an inland transportation cost of 70 percent. This was likely due to a misunderstanding of the question, and so is not included in the average.

Table V-13

MiBs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 1, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	110	4,945
April-June	***	***	99	8,034
July-September	***	***	94	10,682
October-December	***	***	95	13,951
2017:				
January-March	***	***	94	6,711
April-June	***	***	98	12,835
July-September	***	***	95	12,269
October-December	***	***	86	16,942
2018:				
January-March	***	***	101	50,926
April-June	***	***	112	27,413
July-September	***	***	***	***
October-December	***	***	97	11,234
2019:				
January-March	***	***	***	***
April-June	***	***	82	896

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-14

MiBs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 2, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	143	12,748
April-June	***	***	132	9,845
July-September	***	***	136	20,057
October-December	***	***	132	23,743
2017:				
January-March	***	***	***	***
April-June	***	***	135	31,046
July-September	***	***	130	40,982
October-December	***	***	127	63,180
2018:				
January-March	***	***	121	69,330
April-June	***	***	133	44,273
July-September	***	***	111	11,432
October-December	***	***	111	24,522
2019:				
January-March	***	***	115	10,843
April-June	***	***	123	2,620

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-15

MiBs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 3, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	180	21,987
April-June	***	***	156	26,260
July-September	***	***	153	19,298
October-December	***	***	156	40,670
2017:				
January-March	***	***	160	41,083
April-June	***	***	158	54,610
July-September	***	***	167	31,064
October-December	***	***	158	75,236
2018:				
January-March	***	***	165	84,743
April-June	***	***	170	120,379
July-September	***	***	155	73,370
October-December	***	***	166	158,508
2019:				
January-March	***	***	168	65,308
April-June	***	***	152	12,435

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-16

MiBs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 4, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	128	9,845
April-June	***	***	***	***
July-September	***	***	122	12,034
October-December	***	***	110	10,588
2017:				
January-March	***	***	104	8,705
April-June	***	***	105	8,778
July-September	***	***	109	9,165
October-December	***	***	***	***
2018:				
January-March	***	***	109	18,431
April-June	***	***	104	5,361
July-September	***	***	90	1,424
October-December	***	***	91	3,735
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table V-17

MiBs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 5, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	171	7,322
April-June	***	***	162	5,798
July-September	***	***	162	5,763
October-December	***	***	150	13,667
2017:				
January-March	***	***	142	14,541
April-June	***	***	145	13,562
July-September	***	***	145	14,655
October-December	***	***	149	43,080
2018:				
January-March	***	***	150	31,535
April-June	***	***	149	27,018
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Table V-18

FPMs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 1, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	---	---	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2017:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2018:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-19

FPMs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 2, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	265	20,468	***	***
April-June	259	20,442	***	***
July-September	268	21,500	***	***
October-December	262	17,139	***	***
2017:				
January-March	252	14,416	***	***
April-June	243	20,139	***	***
July-September	228	19,376	***	***
October-December	238	18,112	***	***
2018:				
January-March	240	16,154	***	***
April-June	244	14,824	***	***
July-September	246	14,866	***	***
October-December	257	12,706	***	***
2019:				
January-March	239	10,479	***	***
April-June	238	11,326	***	***

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-20

FPMs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 3, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	461	64,458	***	***
April-June	529	77,311	***	***
July-September	531	71,167	***	***
October-December	530	55,582	***	***
2017:				
January-March	510	53,058	***	***
April-June	507	75,167	***	***
July-September	524	73,433	***	***
October-December	508	66,550	***	***
2018:				
January-March	413	68,731	***	***
April-June	509	78,694	***	***
July-September	588	77,608	***	***
October-December	585	64,506	***	***
2019:				
January-March	579	58,872	***	***
April-June	593	56,087	***	***

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table V-21
FPMs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 4, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	122	380,223	***	***
April-June	126	331,181	***	***
July-September	123	328,275	***	***
October-December	124	312,438	***	***
2017:				
January-March	117	301,801	***	***
April-June	117	282,956	***	***
July-September	115	281,414	***	***
October-December	123	268,971	***	***
2018:				
January-March	123	266,070	---	---
April-June	131	245,801	---	---
July-September	125	259,426	***	***
October-December	133	207,146	***	***
2019:				
January-March	123	208,419	***	***
April-June	122	195,678	***	***

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table V-22

FPMs: Weighted-average f.o.b. prices and quantities of domestic and landed duty-paid (LDP) costs of imported product 5, by quarter, January 2016-June 2019

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2017:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2018:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Figure V-14

MiBs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 1, by quarter, January 2016-June 2019

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-15

MiBs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 2, by quarter, January 2016-June 2019

* * * * *

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-16

MiBs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 3, by quarter, January 2016-June 2019

* * * * *

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-17

MiBs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 4, by quarter, January 2016-June 2019

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure V-18

MiBs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 5, by quarter, January 2016-June 2019

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Figure V-19

FPMs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 1, by quarter, January 2016-June 2019

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-20

FPMs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 2, by quarter, January 2016-June 2019

* * * * *

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-21

FPMs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 3, by quarter, January 2016-June 2019

* * * * *

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure V-22

FPMs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 4, by quarter, January 2016-June 2019

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure V-23

FPMs: Weighted-average prices and quantities of domestic and landed duty-paid costs of imported product 5, by quarter, January 2016-June 2019

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

In general, firms stated that the benefits of importing mattresses for their internal use, repackaging, or retail sales included the following: availability of product, compression and packaging technology, openness to innovation, and reduced costs (3 firms each); better and/or more control over specifications, greater capacity for MiB products, greater capacity overall, higher quality, and more product options/wider selection (2 firms each); and better communication, better payment conditions/terms, environmental friendliness, freight cost savings, inventory management, lead time consistency, relationships, supply chain control, supply chain diversity, supply chain efficiency, and technical capabilities (1 firm each). Firms estimated that the margin saved by directly importing mattresses ranged from 0.3 to 25.0 percent (averaging 11.3 percent).

Price trends

In general, prices decreased for most products during January 2016-June 2019. Tables V-23a and V-23b summarize the price trends, by country, by product type, and by pricing product. As shown in table V-23a, domestic prices for all MiB products decreased; price decreases ranged from 0.4 percent (product ***) to 37.4 percent (products ***) over the period of investigation. Import prices for all MiB products also decreased; price decreases for imported MiB products ranged from 1.1 percent (product ***) to 28.1 percent (product ***) during January 2016-June 2019. Similarly, import purchase costs decreased for MiB products for all five pricing products; import purchase cost decreases ranged from *** percent (product ***) to *** percent (product ***)

Table V-23a

MiBs: Number of quarters containing observations, low price, high price, and change in price over period, by product and source, January 2016-June 2019

Item	Number of quarters	Low price (per mattress)	High price (per mattress)	Change in price (percent) ¹
MiB Product 1				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 2				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 3				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 4				
United States (price)	13	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 5				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***

Note: 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.

As shown in table V-23b, domestic prices for FPM products *** decreased by ***, while domestic prices for FPM products *** increased by ***. Import prices for FPM products *** decreased by *** while import prices for FPM product *** increased by *** percent. No import price data was reported for FPM products 2 or 3. Import purchase costs for all FPM products also decreased for all five pricing products; import purchase cost decreases ranged from *** percent (product ***) to *** percent (product ***)).

Table V-23b**FPMs: Number of quarters containing observations, low price, high price, and change in price over period, by product and source, January 2016 through June 2019**

Item	Number of quarters	Low price (per mattress)	High price (per mattress)	Change in price (percent) ¹
FPM Product 1				
United States (price)	13	***	***	***
China (price)	11	***	***	***
China (cost)	14	***	***	***
FPM Product 2				
United States (price)	14	***	***	***
China (price)	---	---	---	---
China (cost)	14	***	***	***
FPM Product 3				
United States (price)	14	***	***	***
China (price)	---	---	---	---
China (cost)	14	***	***	***
FPM Product 4				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	12	***	***	***
FPM Product 5				
United States (price)	14	***	***	***
China (price)	12	***	***	***
China (cost)	14	***	***	***

Note: 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.

Price comparisons

As shown in tables V-24a and V-24b, prices for MiB products imported from China were below those for U.S.-produced product in the majority of instances (61 of 69 quarters) (2.9 million mattresses); margins of underselling ranged from 0.1 to 54.7 percent, for an average of 30.4 percent. In the remaining 8 instances (202,141 mattresses), prices for MiB products imported from China were between 3.8 and 18.3 percent above prices for the domestic product. Prices for FPM products imported from China were below those for U.S.-produced product in all 37 instances (158,472 mattresses); margins of underselling ranged from 5.8 to 58.8 percent, for an average of 35.2 percent. There were no instances of overselling for FPM products.

Table V-24a

Mattresses: Instances of underselling and the range and average of margins, by product type and by pricing product, January 2016-June 2019

Source	Underselling				
	Number of quarters	Quantity ¹ (units)	Average margin (percent)	Margin range (percent)	
				Min	Max
MiB:					
Product 1	8	***	***	***	***
Product 2	14	***	***	***	***
Product 3	14	***	***	***	***
Product 4	13	***	***	***	***
Product 5	12	***	***	***	***
Subtotal, underselling MiB	61	2,908,672	30.4	0.1	54.7
FPM:					
Product 1	11	***	***	***	***
Product 2	---	---	---	---	---
Product 3	---	---	---	---	---
Product 4	14	***	***	***	***
Product 5	12	***	***	***	***
Subtotal, underselling FPM	37	158,472	35.2	5.8	58.8
Total, underselling, all product types	98	3,067,144	32.2	0.1	58.8

Note: 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.

Table V-24b

Mattresses: Instances of overselling and the range and average of margins, by product type and by pricing product, January 2016-June 2019

Source	Overselling				
	Number of quarters	Quantity ¹ (units)	Average margin (percent)	Margin range (percent)	
				Min	Max
MiB:					
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Product 5	***	***	***	***	***
Subtotal, overselling MiB	8	202,141	(9.6)	(3.8)	(18.3)
FPM:					
Product 1	---	---	---	---	---
Product 2	---	---	---	---	---
Product 3	---	---	---	---	---
Product 4	---	---	---	---	---
Product 5	---	---	---	---	---
Subtotal, overselling FPM	---	---	---	---	---
Total, overselling, all product types	8	202,141	(9.6)	(3.8)	(18.3)

Note: 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.

Lost sales and lost revenue

In the preliminary phase of the investigation, the Commission requested that U.S. producers of mattresses report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of mattresses from China during January 2015-June 2018. Five U.S. producers (***) submitted lost sales and lost revenue allegations. The five responding U.S. producers identified 14 firms with which they lost sales or revenue (15 consisting of lost sales allegations only, and 2 consisting of both lost sales and lost revenue allegations). In the final phase of the investigation, 10 of the 25 responding U.S. producers reported that they had to reduce prices and 8 of 23 reported that they had to roll back announced price increases. A majority of responding U.S. producers (14 of 26 firms) reported that they had lost sales.

In the final phase of this investigation, staff contacted 92 purchasers and received responses from 58 purchasers.¹³ Responding purchasers reported purchasing 79.4 million mattresses during 2016-18 (table V-25). Of the 57 responding purchasers, 21 reported that they had purchased imported mattresses from China instead of U.S.-produced product since 2016 (36 reported that they had not). Seventeen of 22 responding purchasers reported that subject import prices were lower than prices of U.S.-produced product (5 reported that they were not), and 15 of 24 purchasers reported that price was not a primary reason for the decision to purchase imported product rather than U.S.-produced product (9 reported that it was). Eight purchasers estimated the quantity of mattresses from China purchased instead of domestic product; quantities ranged from *** mattresses to *** mattresses, for a total of 655,838 mattresses (table V-26).¹⁴

Purchasers identified several non-price reasons for purchasing imported rather than U.S.-produced product, including the following: a combination of high quality and model variety; better quality for the money; fewer domestic manufacturers that do not have the same level of overall quality; a better combination of quality, service, lead times, and capacity; a combination of factors (including quality, price, warranty, and delivery time) that contributes to better overall value; the ability to provide MiBs to clearance centers; greater variety and better availability; the ability to produce to specification; Chinese capacity to produce foam mattresses that domestic producers do not have (and conversely domestic capacity to produce

¹³ All 11 purchasers that submitted lost sales/lost revenue survey responses in the preliminary phase submitted purchaser questionnaire responses in the final phase.

¹⁴ Purchasers *** accounted for more than 90 percent of the total.

Part VI: Financial experience of U.S. producers

Background

Twenty-six U.S. producers provided usable financial data.¹ Most of the reporting producers have a fiscal year that ends on December 31 and reported on the basis of GAAP; others reported on a tax or cash basis.² Net sales consisted primarily of commercial sales; however, three producers reported internal consumption and one reported transfers to related firms.³ These non-commercial sales combined accounted for less than *** percent of total net sales by value in 2018. Non-commercial sales are included but not presented separately in this section of the report. ***, accounted for approximately *** percent of total reported sales by quantity and *** percent by value in 2018.⁴

Six U.S. producers reported purchasing inputs from related suppliers:

¹ *** submitted incomplete U.S. producer questionnaires in the financial section and their partial responses are not included in the aggregated financial data. These two companies accounted for *** percent of production in 2018 (see table III-1). A third company *** does not produce the in-scope product and its data regarding out-of-scope air foam mattresses are presented in appendix C and D.

² Small differences exist between the trade and financial sections of the Commission's questionnaire due to timing differences and the data of *** included in the trade section. Except as noted, responding firms had a fiscal year ending on or about December 31. Responding producers included in the financial data are: Ashley, Blue Bell, Carpenter, Classic, Corsicana, Elite, England ***, Future Foam ***, FXI, Holder, Innocor, Jeffco, Kolcraft, Leggett, Leisure, Lions ***, Lippert, MBC ***, Naturally Beds, Royal-Pedic, Salt Lake, Serta Simmons (also referred to as "Serta" or "SSB"), Serta Restokraft, Sinomax, and Tempur Sealy.

Commission staff conducted a verification of Serta Simmons's U.S. producer questionnaire response.

***. Staff verification report, Serta Simmons, November 5, 2019.

³ Three companies *** accounted for all of the internal consumption reported and one company, ***, accounted for all of the transfers reported from January 2016 to June 2019.

⁴ Financial data for the domestic industry excluding *** are presented in appendix G.

***.⁵ All five companies confirmed that these inputs were reported in a manner consistent with each firm's own accounting books and records.

Operations on mattresses

Table VI-1 presents aggregated data on U.S. producers' operations in relation to mattresses over the period examined. Table VI-2 shows the changes in average unit values of sales and costs. Figures VI-1 and VI-2 show the share of net sales quantity and value in 2018 of responding U.S. producers. Table VI-3 presents selected company-specific financial data.^{6 7}

⁵ All five producers reported valuing the purchases from related suppliers at fair market value or at transfer prices similar to fair market value. ***. U.S. producer questionnaires, III-6, III-7, and III-8.

⁶ Leggett acquired Elite on January 16, 2019 for \$1.25 billion as part of a new "Specialty Foam" segment of Leggett's operations. ***. Leggett's 2018 Form 10-K, pp. 3 and 31 (as filed).

⁷ Serta Simmons to merge with Tuft & Needle, <https://www.cnbc.com/2018/08/21/serta-simmons-to-merge-with-tuft--needle.html>, retrieved September 3, 2019; and, Tuft & Needle's webpage, <https://www.tuftandneedle.com/about/story/>, retrieved September 11, 2019. Serta Simmons ***.

Table VI-1

Mattresses: Results of operations of U.S. producers, 2016-18, January to June 2018 and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
Total net sales	17,037,382	16,347,365	15,406,266	7,947,651	7,438,133
	Value (1,000 dollars)				
Total net sales	4,414,978	4,493,889	4,348,568	2,171,934	2,085,346
Cost of goods sold.--					
Raw materials	1,950,292	2,022,208	2,055,543	1,021,360	977,612
Direct labor	299,617	301,279	274,053	138,221	131,983
Other factory costs	268,235	263,553	260,700	130,563	136,054
Total COGS	2,518,144	2,587,040	2,590,296	1,290,144	1,245,649
Gross profit	1,896,834	1,906,849	1,758,272	881,790	839,697
SG&A expense	1,154,009	1,214,765	1,134,688	584,537	564,015
Operating income or (loss)	742,825	692,084	623,584	297,253	275,682
Interest expense	***	***	***	***	***
All other expenses	***	***	***	***	***
All other income	***	***	***	***	***
Net income or (loss)	418,802	407,540	289,886	140,783	103,640
Depreciation/amortization	155,398	178,490	185,179	106,449	101,723
Cash flow	574,200	586,030	475,065	247,232	205,363
	Ratio to net sales (percent)				
Cost of goods sold.--					
Raw materials	44.2	45.0	47.3	47.0	46.9
Direct labor	6.8	6.7	6.3	6.4	6.3
Other factory costs	6.1	5.9	6.0	6.0	6.5
Average COGS	57.0	57.6	59.6	59.4	59.7
Gross profit	43.0	42.4	40.4	40.6	40.3
SG&A expense	26.1	27.0	26.1	26.9	27.0
Operating income or (loss)	16.8	15.4	14.3	13.7	13.2
Net income or (loss)	9.5	9.1	6.7	6.5	5.0

Table continued on next page.

Table VI-1—Continued

Mattresses: Results of operations of U.S. producers, 2016-18, January to June 2018 and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Ratio to total COGS (percent)				
Cost of goods sold.-- Raw materials	77.4	78.2	79.4	79.2	78.5
Direct labor	11.9	11.6	10.6	10.7	10.6
Other factory costs	10.7	10.2	10.1	10.1	10.9
Average COGS	100.0	100.0	100.0	100.0	100.0
	Unit value (dollars per unit)				
Total net sales	259	275	282	273	280
Cost of goods sold.-- Raw materials	114	124	133	129	131
Direct labor	18	18	18	17	18
Other factory costs	16	16	17	16	18
Average COGS	148	158	168	162	167
Gross profit	111	117	114	111	113
SG&A expense	68	74	74	74	76
Operating income or (loss)	44	42	40	37	37
Net income or (loss)	25	25	19	18	14
	Number of firms reporting				
Operating losses	1	3	1	2	3
Net losses	3	4	3	5	9
Data	25	26	26	26	25

Note: One company, ***, did not start operations until 2017 and one company, ***, reported no production, shipments, or sales in January-June 2019.

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

Table VI-2**Mattresses: Changes in average unit values between fiscal years and partial year periods**

Item	Between fiscal years			Between partial year period
	2016-18	2016-17	2017-18	2018-19
	Change in AUVs (dollars per unit)			
Total net sales	23.12	15.77	7.36	7.08
Cost of goods sold.--				
Raw materials	18.95	9.23	9.72	2.92
Direct labor	0.20	0.84	(0.64)	0.35
Other factory costs	1.18	0.38	0.80	1.86
Average COGS	20.33	10.45	9.88	5.14
Gross profit	2.79	5.31	(2.52)	1.94
SG&A expense	5.92	6.58	(0.66)	2.28
Operating income or (loss)	(3.12)	(1.26)	(1.86)	(0.34)
Net income or (loss)	(5.77)	0.35	(6.11)	(3.78)

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

Figure VI-1
Mattresses: U.S. producers' share of total net sales quantity, 2018

* * * * *

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

Figure VI-2
Mattresses: U.S. producers' share of total net sales value, 2018

* * * * *

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

Table VI-3

Mattresses: Select results of operations of U.S. producers, by company, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Total net sales (units)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	2,436,193	2,842,944	3,149,151	1,541,465	1,597,080
Total net sales quantity	17,037,382	16,347,365	15,406,266	7,947,651	7,438,133
	Total net sales (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	524,473	679,327	825,627	398,941	381,058
Total net sales value	4,414,978	4,493,889	4,348,568	2,171,934	2,085,346
	Cost of goods sold (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	355,993	502,141	619,492	299,050	299,196
Total COGS	2,518,144	2,587,040	2,590,296	1,290,144	1,245,649

Table continued on next page.

Table VI-3—Continued

Mattresses: Select results of operations of U.S. producers, by company, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Gross profit or (loss) (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	168,480	177,186	206,135	99,891	81,862
Total gross profit or (loss)	1,896,834	1,906,849	1,758,272	881,790	839,697
	SG&A expenses (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	76,130	83,096	89,938	45,021	45,389
Total SG&A expenses	1,154,009	1,214,765	1,134,688	584,537	564,015
	Operating income or (loss) (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	92,350	94,090	116,197	54,870	36,473
Total operating income or (loss)	742,825	692,084	623,584	297,253	275,682

Table continued on next page.

Table VI-3—Continued

Mattresses: Select results of operations of U.S. producers, by company, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year				January to June
	2016	2017	2018	2018	2019
	Net income or (loss) (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	75,334	86,463	102,308	47,233	20,917
Total net income or (loss)	418,802	407,540	289,886	140,783	103,640
	COGS to net sales ratio (percent)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	67.9	73.9	75.0	75.0	78.5
Average COGS to net sales ratio	57.0	57.6	59.6	59.4	59.7
	Gross profit or (loss) to net sales ratio (percent)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	32.1	26.1	25.0	25.0	21.5
Average gross profit or (loss) to net sales ratio	43.0	42.4	40.4	40.6	40.3

Table continued on next page.

Table VI-3—Continued

Mattresses: Select results of operations of U.S. producers, by company, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	SG&A expense to net sales ratio (percent)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	14.5	12.2	10.9	11.3	11.9
Average SG&A expense to net sales ratio	26.1	27.0	26.1	26.9	27.0
	Operating income or (loss) to net sales ratio (percent)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	17.6	13.9	14.1	13.8	9.6
Average operating income or (loss) to net sales ratio	16.8	15.4	14.3	13.7	13.2
	Net income or (loss) to net sales ratio (percent)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	14.4	12.7	12.4	11.8	5.5
Average net income or (loss) to net sales ratio	9.5	9.1	6.7	6.5	5.0

Table continued on next page.

Table VI-3—Continued

Mattresses: Select results of operations of U.S. producers, by company, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Unit net sales value (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	215	239	262	259	239
Average unit net sales value	259	275	282	273	280
	Unit raw materials (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	117	141	154	153	141
Average unit raw materials	114	124	133	129	131
	Unit direct labor (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	13	16	18	17	18
Average unit direct labor	18	18	18	17	18

Table continued on next page.

Table VI-3—Continued

Mattresses: Select results of operations of U.S. producers, by company, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Unit other factory costs (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	17	20	25	24	28
Average unit other factory costs	16	16	17	16	18
	Unit COGS (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	146	177	197	194	187
Average unit COGS	148	158	168	162	167
	Unit gross profit or (loss) (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	69	62	65	65	51
Average unit gross profit or (loss)	111	117	114	111	113

Table continued on next page.

Table VI-3—Continued

Mattresses: Select results of operations of U.S. producers, by company, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Unit SG&A expenses (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	31	29	29	29	28
Average unit SG&A expense	68	74	74	74	76
	Unit operating income or (loss) (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	38	33	37	36	23
Average unit operating income or (loss)	44	42	40	37	37
	Unit net income or (loss) (dollars per unit)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	31	30	32	31	13
Average unit net income or (loss)	25	25	19	18	14

Note: ***.

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

Net sales

Total net sales value increased from 2016 to 2017 but declined from 2017 to 2018, resulting in a decline of 1.5 percent by value from 2016 to 2018. The increase in value from 2016 to 2017 was due to higher unit sales values even as net sales quantity declined consistently from 2016 to 2018 by 9.6 percent. Both total net sales value and quantity were lower in January-June 2019 (“interim 2019”) than in January-June 2018 (“interim 2018”) while unit sales values were higher. As depicted in table VI-3, four firms (***) accounted for most of the decline in net sales quantity and value from 2016 to 2018 while several smaller firms (***) reported net sales quantity and value increases over the same period.⁸ As shown in table VI-3, average unit sales values ranged from \$259 to \$282 from 2016 to 2018, with ***. The lowest unit sales values were reported by U.S. producers that shipped mattresses in smaller dimensions, by size and thickness. *** consistently reported ***, ranging from \$*** to \$*** per mattress, and primarily sold *** mattresses.⁹ ***’s unit sales values were the ***, ranging from \$*** to \$*** per mattress.¹⁰

⁸ Tempur Sealy International, Inc. (“TSI”)’s consolidated financial statements (which include out-of-scope products and its international operations), stated that Mattress Firm represented 21.7 percent and 3.5 percent of net sales in North America in 2016 and 2017, respectively. Excluding sales to Mattress Firm, Tempur Sealy’s consolidated financial statement for its North America segment reported increases in net sales when comparing 2017 to 2016 and 2018 to 2017. On April 3, 2017, Mattress Firm terminated its contract with Tempur Sealy. The parties have been subject to ongoing litigation since 2017, with Mattress Firm filing a suit against Tempur Sealy in the District Court of Harris County, Texas, in March 2017, and Tempur Sealy filing a suit against Mattress Firm in U.S. District Court for the Southern District of Texas, Houston Division in April 2017. Both legal actions are related to trademark infringement, unfair competition, trademark dilution, and contract and payment issues. Effective February 11, 2019, these legal actions were settled, with full mutual releases of all claims. Tempur Sealy’s 2018 Form 10-K, pp. 26, 31, 39, 62, 85, and 91 (as filed).

⁹ As presented earlier on page III-22 and in table III-10, *** specializes in *** mattresses and accounted for *** of the U.S. shipments of youth-size mattresses from 2016 to 2018 and in interim 2019.

¹⁰ ***. Mattresses used in RVs are customized by each RV manufacturer and typically smaller and lighter than mattresses used in stationary locations. ***; *Ultimate Guide to Buying a Replacement RV Mattress*, <https://www.mattressinsider.com/replacement-rv-mattress.html>, retrieved September 11, 2019; and, *RV Mattress Sizes & Dimensions*, https://www.trails.com/facts_41482_rv-mattress-sizes-dimensions.html, retrieved September 11, 2019.

Cost of goods sold and gross profit or (loss)

Total cost of good sold (“COGS”) increased by 2.9 percent from 2016 to 2018 but was lower in interim 2019 than in interim 2018.¹¹ As shown in table VI-3, *** of the largest producers *** reported declining total COGS from 2016 to 2018, although *** reported increasing unit COGS during the period.¹² The overall increase in COGS for mattress producers was driven by 17 smaller producers such as *** which experienced large increases in net sales from 2016 to 2018, and increasing unit COGS.¹³ As a ratio to net sales, COGS increased from 57.0 percent in 2016 to 59.6 percent in 2018 and was higher in interim 2019 than in interim 2018.

As shown in table VI-1, raw materials represent the single largest component of total COGS, and ranged from 77.4 percent in 2016 to 79.4 percent of total COGS in 2018. Per-unit raw material costs increased each year from \$114 per mattress in 2016 to \$133 per mattress in 2018 and was higher in interim 2019 than in interim 2018. Table VI-4 presents details on raw material inputs as a share of total raw material costs for responding U.S. producers. Foam and other resilient materials accounted for the largest share of total raw material costs in 2018.

¹¹ Aggregated, U.S. producers’ fixed costs for COGS was approximately 9 percent of total COGS from 2016 to 2018 and included cost items mostly in other factory costs (e.g., depreciation, plant overhead, utilities, and plant supervisors). Variable costs made up the remaining 91 percent of COGS and primarily consisted of raw materials. U.S. producer questionnaires, III-9e.

¹² *** reported a non-recurring charge of \$*** included in COGS in 2018 ***. ***’s U.S. producer questionnaire, III-10.

¹³ ***. Elite produces “proprietary foam mattresses” ***. Leggett’s 2018 Form 10-K, pp. 3 and 31 (as filed) ***.

Table VI-4
Mattresses: Raw material costs, 2018

Raw materials	Value (1,000 dollars)	Unit value (dollars per unit)	Share of value (percent)
Foam or other resilient materials	832,631	54	40.6
Upholstery and ticking	514,952	33	25.1
Innersprings	357,865	23	17.4
Other material inputs	217,096	14	10.6
Chemicals and other additives	130,417	8	6.4
Total, raw materials	2,052,961	133	100.0

Note: Two small producers, ***, did not provide the Commission with detailed breakouts of their raw material costs but did provide the Commission with their total raw material costs. Therefore, the total raw materials costs for domestic producers in tables VI-1, VI-3, and C-1 do not reconcile with this table by \$***.

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

As a share of total COGS, direct labor costs ranged from 10.6 percent in 2018 and interim 2019 to 11.9 percent in 2016, while other factory costs ranged from 10.1 percent in 2018 to 10.9 percent in interim 2019. Per-unit values for direct labor and other factory costs each moved within a narrow range of \$16 to \$18 during the reporting period.

As shown in table VI-3, average raw material costs, direct labor, and other factory costs varied greatly from company to company. These cost differences reflect underlying differences in input costs (e.g., foam, upholstery, innersprings, and chemicals) and product mix (e.g., recreation vehicle sizes, sofa beds, child, twin, full, queen, and/or king), and variations in manufacturing processes, as well as customer requirements.

Table VI-1 shows that producers' aggregate gross profit increased slightly from \$1.897 billion in 2016 to \$1.907 billion in 2017 before declining to \$1.758 billion in 2018. Gross profit was lower in interim 2019 than in interim 2018.

Selling, general, and administrative expenses and operating income or (loss)

As shown in table VI-1, the U.S. industry's selling, general, and administrative ("SG&A") expense ratios (i.e., total SG&A expenses divided by net sales) remained fairly constant, ranging from 26.1 percent to 27.0 percent from 2016 to 2018, and was slightly higher in interim 2019 than in interim 2018.¹⁴ ¹⁵ From 2016 to 2018, selling expenses ranged from 16.3 percent to 17.9 percent as a ratio to net sales while general and administrative expenses ranged from 9.1 percent to 9.8 percent.¹⁶ As shown in table VI-3, *** SG&A expense ratio ranged from *** percent to *** from 2016 to 2018 and accounted for over *** of the total SG&A reported by mattress producers. Other companies' SG&A expense ratios fluctuated dramatically from 2016 to 2018, with a high of *** to a low of ***. On a per-unit basis, SG&A increased from \$68 in 2016 to \$74 in 2017 and 2018 for producers as a whole. Per-unit SG&A expenses were higher in interim 2019 than in interim 2018.

Operating income declined from \$742.8 million in 2016 to \$692.1 million in 2017 and further to \$623.6 million in 2018. Aggregated for the industry, operating margins (i.e., operating income as a share of net sales) also declined, from 16.8 percent in 2016 to 14.3 percent in 2018. Both the industry's operating income and its operating margin were lower in interim 2019 than in interim 2018.

¹⁴ ***. *** U.S. producer questionnaire, II-18 and ***.

¹⁵ Aggregated, U.S. producers' fixed costs for SG&A was approximately 48 percent of total SG&A from 2016 to 2018 and included marketing/advertising, technology, logistics, insurance, depreciation, rent, salaries and benefits of office personnel. Variable costs make up the remaining 52 percent of SG&A and included sales commissions, advertising, logistics, bank fees, travel, supplies, and allowances for bad debt. U.S. producer questionnaires, III-9e.

¹⁶ *** reported a non-recurring charge of \$*** in its 2018 SG&A expenses as a result of bad debt write-off from uncollectable account receivables. ***'s U.S. producer questionnaire, III-10 and Counsel to ***, email to USITC staff, October 17, 2019.

Other expenses and net income or (loss)

Interest expense and other expense were two major cost categories for reporting firms. ***.¹⁷ Other income ***. Interest and other expenses, and other income all increased irregularly from 2016 to 2018. Interest and other expenses were higher while other income was lower in interim 2019 than in interim 2018.

Similar to operating income, net income declined each year from 2016 to 2018 and was lower in interim 2019 than in interim 2018. Depreciation and amortization rose steadily from 2016 to 2018, but was lower in interim 2019 than in interim 2018. Cash flow fluctuated, increasing from 2016 to 2017 before decreasing in 2018 to its lowest level for the calendar year periods; cash flow was lower in interim 2019 than in interim 2018.

Variance analysis

A variance analysis is most useful for products that do not have substantial changes in product mix over the period investigated and the methodology is most sensitive at the plant or firm level, rather than the aggregated industry level. Because of the wide variation in product mix and unit values between firms in this proceeding, a variance analysis is not presented.

¹⁷ *** reported non-recurring income of \$*** included in other income for 2017 from ***. *** U.S. producer questionnaires, III-10 and counsel to ***, emails to USITC staff, August 8, 2019 and October 17, 2019.

Capital expenditures and research and development expenses

Table VI-5 presents capital expenditures and research and development (“R&D”) expenses by firm.¹⁸ Table VI-6 provides the firms’ narrative responses regarding the nature and focus of their capital expenditures and R&D expenses. Aggregated capital expenditures declined by 16.7 percent from 2016 to 2018. ***.¹⁹ Other producers reported capital expenses for new foam production lines, packing improvements, and equipment purchases and maintenance.^{20 21}

¹⁸ ***.

¹⁹ *** email to USITC staff, October 17, 2019. In its 2018 Form 10-K filed with the SEC, Tempur Sealy stated that capital expenditures in 2019 are expected to be at similar levels as 2018 and will include investments in its “U.S. enterprise resource planning projects, domestic manufacturing facilities, other information technology and {Tempur Sealy’s} company-owned retail stores.” 2018 Form 10-K, p. 37 (as filed).

²⁰ ***.

²¹ ***.

Table VI-5

Mattresses: Capital expenditures and research and development expenses for U.S. producers, by firm, 2016-18, January to June 2018, and January to June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Capital expenditures (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	24,915	26,046	15,965	7,318	4,416
Total capital expenditures	92,797	91,705	77,164	40,801	32,875
	R&D expenses (1,000 dollars)				
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All other firms	1,919	3,756	4,882	2,430	3,133
Total R&D expenses	38,150	32,385	34,176	17,655	15,567

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

Assets and return on assets

Table VI-7 presents data on the U.S. producers' total assets and their return on assets ("ROA").²² Total assets utilized by U.S. producers fluctuated, resulting in a slight increase of 1.4 percent from 2016 to 2018 while ROA declined. ***.²³ ***.²⁴ *** reported unusually high ROA of *** from 2016 to 2018.²⁵

²² The return on assets 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.

²³ ***.

²⁴ ***.

²⁵ ***. *** U.S. producer questionnaire, II-9b and III-5 and ***.

Table VI-7
Mattresses: U.S. producers' total assets and return on assets, 2016-2018

Firm	Fiscal years		
	2016	2017	2018
	Total net assets (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	126,896	157,291	159,057
Total net assets	1,464,005	1,549,598	1,484,573
	Operating ROA (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	72.8	59.8	73.1
Average operating ROA	50.7	44.7	42.0

Note: ***.

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

Capital and investment

The Commission requested that U.S. producers of mattresses describe any actual or potential negative effects of imports of mattresses from China on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-8 tabulates the responses of the responding U.S. producers on their mattresses operations and includes the responses of two companies *** that did not provide usable financial data. Appendix H presents the detailed narrative responses of U.S. producers *** regarding actual and anticipated negative effects of subject imports on their mattresses operations.

Table VI-8
Mattresses: Actual and anticipated negative effects of imports on investment and growth and development

Item	No	Yes
Negative effects on investment	12	16
Cancellation, postponement, or rejection of expansion projects		4
Denial or rejection of investment proposal		1
Reduction in the size of capital investments		4
Return on specific investments negatively impacted		10
Other		5
Negative effects on growth and development	14	14
Rejection of bank loans		0
Lowering of credit rating		2
Problem related to the issue of stocks or bonds		0
Ability to service debt		3
Other		13
Anticipated negative effects of imports	10	18

Note: The responses of *** are included in the table above.

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 factors¹--

- (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 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 53 firms believed to produce and/or export mattresses from China.³ Usable responses to the Commission's questionnaire were received from 13 firms. These firms' exports to the United States accounted for approximately 59.7 percent of U.S. imports of mattresses from China in 2018. According to estimates requested of the responding producers in China, the production of mattresses in China reported in the questionnaires accounted for *** percent of overall production of mattresses in China in 2018. Table VII-1 presents information on the mattress operations of the responding producers and exporters in China.

Table VII-1
Mattresses: Summary data for producers in China, 2018

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)
DeRucci	***	***	***	***	***	***
Diglant	***	***	***	***	***	***
Glory Home	***	***	***	***	***	***
Grantec	***	***	***	***	***	***
Healthcare	***	***	***	***	***	***
Hengang	***	***	***	***	***	***
Inno	***	***	***	***	***	***
Jinlongheng	***	***	***	***	***	***
Lemeijia	***	***	***	***	***	***
Shuibishen	***	***	***	***	***	***
Sinomax	***	***	***	***	***	***
Wellcare	***	***	***	***	***	***
Zinus	***	***	***	***	***	***
Total	7,510,338	100.0	5,002,938	100.0	7,392,378	67.7

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.

Changes in operations

As presented in table VII-2 producers in China reported several operational and organizational changes since January 1, 2016: 8 firms reported plant openings, 5 firms reported relocations, 7 firms reported expansions, and 1 firm reported a prolonged curtailment.⁴

**Table VII-2
Mattresses: Chinese producers' reported changes in operations since January 1, 2016**

Item / Firm	Reported changed in operations
Plant openings:	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
Relocations:	
***	***
***	***
***	***
***	***
***	***
Expansions:	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
Prolonged shutdowns or curtailments:	
***	***

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

⁴ According to petitioners, Healthcare signed letters of intent to purchase retailer Mor Furniture for Less and Mattress One's Texas retail operations out of bankruptcy. ***. Hearing transcript, p. 12 (Alves) and Petitioners' posthearing brief, exh. 1, p. 9.

Operations on mattresses

Table VII-3 presents information on the mattress operations of the responding producers and exporters in China.

Table VII-3
Mattresses: Data on the industry in China, 2016-18, January to June 2018 and January to June 2019, and projected calendar years 2019 and 2020

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2016	2017	2018	2018	2019	2019	2020
	Quantity (units)						
Capacity	5,577,515	8,413,312	8,913,387	4,207,376	4,388,227	6,191,503	5,516,862
Production	4,460,753	7,012,741	7,510,338	3,213,930	2,772,052	5,152,837	4,551,000
End-of-period inventories	157,988	214,498	333,128	247,932	176,318	196,953	199,836
Shipments:							
Home market shipments:							
Internal consumption/transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	795,369	1,049,425	1,187,834	509,960	600,325	1,488,296	1,710,234
Export shipments to:							
United States	2,852,652	4,900,970	5,002,938	2,144,886	1,505,419	2,108,989	457,115
All other markets	743,606	1,006,266	1,201,606	530,879	826,187	1,654,026	2,382,858
Total exports	3,596,258	5,907,236	6,204,544	2,675,765	2,331,606	3,763,015	2,839,973
Total shipments	4,391,627	6,956,661	7,392,378	3,185,725	2,931,931	5,251,311	4,550,207
	Ratios and shares (percent)						
Capacity utilization	80.0	83.4	84.3	76.4	63.2	83.2	82.5
Inventories/production	3.5	3.1	4.4	3.9	3.2	3.8	4.4
Inventories/total shipments	3.6	3.1	4.5	3.9	3.0	3.8	4.4
Share of shipments:							
Home market shipments:							
Internal consumption/transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	18.1	15.1	16.1	16.0	20.5	28.3	37.6
Export shipments to:							
United States	65.0	70.5	67.7	67.3	51.3	40.2	10.0
All other markets	16.9	14.5	16.3	16.7	28.2	31.5	52.4
Total exports	81.9	84.9	83.9	84.0	79.5	71.7	62.4
Total shipments	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

Responding foreign producers' annual production capacity in China increased by 59.8 percent from 2016 to 2018, with the majority of the increase occurring between 2016 and 2017. It was 4.3 percent higher in interim 2019 than in interim 2018. Among the 11 firms that produced mattresses in each year during 2016-18, 10 firms reported higher production capacity in 2018 than in 2016, and one firm did not report any change in its production capacity.⁵ Three firms reported higher production capacity in interim 2019 than in interim 2018 while nine firms reported either the same or lower production capacity in China in interim 2019 compared with interim 2018. Responding producers' production capacity in China is projected to be 30.5 percent lower in full-year 2019 than in 2018 and 10.9 percent lower in 2020 than in 2019.

The responding foreign producers' production in China increased by 68.4 percent from 2016 to 2018, with the majority of the increase occurring from 2016 to 2017. However, their production in China was 13.7 percent lower in interim 2019 than in interim 2018. Among the 11 firms that produced mattresses in each year during 2016-18, 10 firms reported higher production in 2018 than in 2016.⁶ However, 10 firms reported lower production in interim 2019 compared with interim 2018. Production is projected to be 31.4 percent lower in 2019 than in 2018 and 11.7 percent lower in 2020 than in 2019.

Responding foreign producers' capacity utilization increased from 80.0 percent in 2016 to 83.4 percent in 2017, and to 84.3 percent in 2018. Their capacity utilization was 63.2 percent in interim 2019, compared with 76.4 percent in interim 2018. Among the 11 firms that produced mattresses in China in each calendar year during 2016-18, seven reported higher capacity utilization in 2018 than in 2016. Ten out of twelve firms reported lower capacity utilization in interim 2019 than in interim 2018, however. Responding producers' capacity utilization in China is projected to be 83.2 percent for full-year 2019 and 82.5 percent in 2020.

Responding foreign producers' home market shipments in China increased by 49.3 percent from 2016 to 2018, with the majority of the increase occurring between 2016 and 2017. In addition, they were 17.7 percent higher in interim 2019 than in interim 2018. Ten firms reported home market shipments in each year during 2016-18, with nine of those firms reporting a greater quantity of shipments in 2018 than in 2016.⁷ Eleven firms reported home

⁵ Three firms, ***, accounted for *** percent of the total increase in responding producers' production capacity in China during 2016-18.

⁶ Three firms, ***, accounted for *** of the total increase in production during 2016-18.

⁷ Two firms, ***, accounted for *** percent of the total increase in home market shipments during 2016-18.

market shipments in interim 2018 and in interim 2019, with nine of those firms reporting greater shipments in interim 2019 than in interim 2018. Although home market shipments increased in absolute terms, home market shipments as a share of total shipments decreased from 18.1 percent in 2016 to 16.1 percent in 2018. Home market shipments are projected to be 25.3 percent higher in 2019 than in 2018 and 14.9 percent higher in 2020 than in 2019.

Responding foreign producers' export shipments accounted for the majority of their total shipments during 2016-18 and most of their exports went to the United States (79.3 percent of total exports in 2016, 83.0 percent in 2017, and 80.6 percent in 2018). Export shipments to the United States accounted for 64.6 percent of total exports in interim 2019, compared with 80.2 percent in interim 2018. Export shipments to the United States increased by 75.4 percent between 2016 and 2018, with most of the increase occurring from 2016 to 2017. However, Chinese producers' export shipments to the United States were 29.8 percent lower in interim 2019 than in interim 2018. Eleven firms exported mattresses to the United States in each calendar year, with nine of those firms reporting a greater quantity of exports to the United States in 2018 than in 2016.⁸ Among the 12 firms that exported mattresses to the United States in interim 2018 and interim 2019, 10 reported lower exports to the United States in the later interim period. Exports to the United States are projected to be 57.8 percent lower in 2019 than in 2018 and 78.3 percent lower in 2020 than in 2019.

Alternative products

As shown in table VII-4, responding Chinese producers' production capacity and production of mattresses and other products using shared equipment increased in 2016-18. Mattresses accounted for the largest share of total production using shared equipment in 2017, 2018 and in interim 2019. Mattress toppers accounted for the smallest share of total production using shared equipment during 2016-18 and in interim 2019. Other products accounted for the largest share of total production in 2016, and for the second largest share in 2017, 2018, and interim 2019. Seven firms reported production of other products using shared equipment. In addition to mattress toppers, these firms reported producing pillows, covers, bed frames, and quilts. Responding foreign producers cited *** as constraints to switching production.

⁸ *** accounted for the vast majority of the increase in export shipments to the United States during 2016-18.

Table VII-4**Mattresses: Overall capacity and production on the same equipment as in-scope products by producers in China, 2016-18, January to June 2018 and January to June 2019**

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
Overall capacity	14,270,144	16,458,884	17,903,364	8,386,137	8,654,333
Product:					
Mattresses	4,460,753	7,012,741	7,510,338	3,213,930	2,772,052
Mattress toppers	2,921,308	3,104,244	2,817,025	1,314,195	1,540,865
Other products	4,681,985	4,778,469	5,046,967	2,662,553	2,649,611
Out-of-scope products	7,603,293	7,882,713	7,863,992	3,976,748	4,190,476
Total production on same machinery	12,064,046	14,895,454	15,374,330	7,190,678	6,962,528
	Ratios and shares (percent)				
Overall capacity utilization	84.5	90.5	85.9	85.7	80.5
Share of production:					
Mattresses	37.0	47.1	48.8	44.7	39.8
Mattress toppers	24.2	20.8	18.3	18.3	22.1
Other products	38.8	32.1	32.8	37.0	38.1
Out-of-scope products	63.0	52.9	51.2	55.3	60.2
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.

Exports

Table VII-5 presents data for exports of articles of bedding, which includes mattresses, from China in descending order of quantity for 2018.⁹ The leading export markets for articles of bedding from China in 2018, by quantity, were the United States, Japan, and Qatar, accounting for 33.1 percent, 20.6 percent, and 8.5 percent, respectively.

⁹ GTA data for HTS subheadings 9404.21 and 9404.29 includes products that are outside the scope of these investigations. Consequently, the Chinese export data presented in table VII-5 are overstated.

Table VII-5
Articles of bedding: Exports from China by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (units)		
United States	22,853,108	26,852,188	27,874,795
Japan	16,137,966	14,826,945	17,394,938
Qatar	6,839	2,809,824	7,207,596
United Kingdom	5,702,729	5,791,491	6,137,427
Canada	2,129,143	2,282,553	2,207,274
Australia	1,802,220	1,828,701	1,897,892
Germany	2,935,607	1,984,202	1,808,945
Korea	2,636,102	1,907,454	1,756,715
Bangladesh	29,942	43,948	1,576,630
All other destination markets	17,442,729	21,503,462	16,459,064
Total exports	71,676,385	79,830,768	84,321,276
	Value (1,000 dollars)		
United States	440,811	667,085	757,060
Japan	175,646	154,156	159,669
Qatar	185	584	1,409
United Kingdom	34,522	33,297	34,447
Canada	20,317	24,340	35,880
Australia	60,369	60,743	69,903
Germany	11,843	13,180	11,327
Korea	40,097	28,700	33,743
Bangladesh	148	432	334
All other destination markets	222,522	244,995	287,956
Total exports	1,006,460	1,227,511	1,391,727

Table continued on next page.

Table VII-5–Continued
Articles of bedding: Exports from China by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per unit)		
United States	19.29	24.84	27.16
Japan	10.88	10.40	9.18
Qatar	27.01	0.21	0.20
United Kingdom	6.05	5.75	5.61
Canada	9.54	10.66	16.26
Australia	33.50	33.22	36.83
Germany	4.03	6.64	6.26
Korea	15.21	15.05	19.21
Bangladesh	4.93	9.83	0.21
All other destination markets	12.76	11.39	17.50
Total exports	14.04	15.38	16.51
	Share of quantity (percent)		
United States	31.9	33.6	33.1
Japan	22.5	18.6	20.6
Qatar	0.0	3.5	8.5
United Kingdom	8.0	7.3	7.3
Canada	3.0	2.9	2.6
Australia	2.5	2.3	2.3
Germany	4.1	2.5	2.1
Korea	3.7	2.4	2.1
Bangladesh	0.0	0.1	1.9
All other destination markets	24.3	26.9	19.5
Total exports	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: Official export statistics under HS subheadings 9404.21 and 9404.29 as reported by China Customs in the Global Trade Atlas database, accessed July 16, 2019.

U.S. inventories of imported merchandise

Table VII-6 presents data on U.S. importers’ reported end-of-period inventories of mattresses. U.S. importers’ end-of-period inventories of imports from China increased by 146.6 percent from 2016 to 2018, with the majority of the increase occurring from 2016 to 2017. It was 3.6 percent higher in interim 2019 than in interim 2018. Thirty firms held inventories at the end of each year during 2016-18, with 23 firms reporting higher inventories at the end of 2018 than at the end of 2016.¹⁰

¹⁰ *** accounted for the majority of the increase in end-of-period inventories during 2016-18 (***) percent).

Table VII-6

Mattresses: U.S. importers' end-of-period inventories of imports by source, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Inventories (units); Ratios (percent)				
Imports from China: Inventories	784,418	1,796,421	1,934,131	1,287,484	1,333,668
Ratio to U.S. imports	20.4	24.8	23.1	19.8	23.1
Ratio to U.S. shipments of imports	21.5	28.9	23.6	17.2	19.1
Ratio to total shipments of imports	21.4	28.8	23.5	17.1	19.1
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 that importers indicate whether they had arranged for the importation of mattresses from China after June 30, 2019. Nonsubject sources accounted for *** arranged imports. ***, which collectively accounted for the vast majority of arranged imports for the second half of 2018, did not report any arranged imports from China for the second half of 2019. Each firm arranged imports from nonsubject sources.¹¹ Table VII-7 presents data for quantities of mattresses arranged for U.S. importation after June 30, 2019.

¹¹ *** arranged imports of mattresses from Cambodia, Croatia, Indonesia, Malaysia, Thailand, Turkey, and Vietnam *** arranged imports from Indonesia.

Table VII-7
Mattresses: Arranged imports, July 2019 through June 2020

Item	Period				Total
	Jul-Sept 2019	Oct-Dec 2019	Jan-Mar 2020	Apr-Jun 2020	
	Quantity (units)				
Arranged U.S. imports from.-- China	***	***	***	***	***
Nonsubject 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 trade remedy actions on mattresses from China in third-country markets.

Information on nonsubject countries

Table VII-8 reports data on global exports of bedding products. China's share of global exports of bedding products by value accounted for the largest share, 27.7 percent, in 2018. Poland's share of global exports, by value, was the second largest, 16.3 percent, followed by Belgium at 4.5 percent. The total value of global exports of bedding products increased by 22.5 percent from 2016 to 2018.

Table VII-8
Articles of bedding: Global exports by exporter, 2016-18

Exporter	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
United States	161,757	175,705	199,526
China	1,006,460	1,227,511	1,391,727
Poland	635,910	744,874	820,245
Belgium	178,118	204,884	223,795
Denmark	209,303	218,589	217,765
Italy	172,692	177,590	191,344
Germany	141,508	156,897	172,968
Mexico	140,477	144,262	157,187
Netherlands	165,727	176,775	153,003
Portugal	121,777	134,417	138,132
Turkey	64,368	83,557	104,261
Spain	67,247	58,097	100,463
All other exporters	1,033,269	1,130,746	1,150,679
Total	4,098,615	4,633,905	5,021,094
	Share of value (percent)		
United States	3.9	3.8	4.0
China	24.6	26.5	27.7
Poland	15.5	16.1	16.3
Belgium	4.3	4.4	4.5
Denmark	5.1	4.7	4.3
Italy	4.2	3.8	3.8
Germany	3.5	3.4	3.4
Mexico	3.4	3.1	3.1
Netherlands	4.0	3.8	3.0
Portugal	3.0	2.9	2.8
Turkey	1.6	1.8	2.1
Spain	1.6	1.3	2.0
All other exporters	25.2	24.4	22.9
Total	100.0	100.0	100.0

Source: Official export statistics under HS subheadings 9404.21 and 9404.29 reported by various national statistical authorities in the Global Trade Atlas database, accessed September 4, 2019.

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
83 FR 48332, September 24, 2018	<i>Mattresses From China; Institution of Antidumping Duty Investigation and Scheduling of Preliminary Phase Investigation</i>	https://www.gpo.gov/fdsys/pkg/FR-2018-09-24/pdf/2018-20655.pdf
83 FR 52386, October 17, 2018	<i>Mattresses From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation</i>	https://www.gpo.gov/fdsys/pkg/FR-2018-10-17/pdf/2018-22577.pdf
83 FR 55910, November 8, 2018	<i>Mattresses From China</i>	https://www.gpo.gov/fdsys/pkg/FR-2018-11-08/pdf/2018-24396.pdf
84 FR 25732, June 4, 2019	<i>Mattresses From the People's Republic of China: Preliminary Determination of Sales at Less- Than-Fair-Value, Postponement of Final Determination and Affirmative Preliminary Determination of Critical Circumstances</i>	https://www.govinfo.gov/content/pkg/FR-2019-06-04/pdf/2019-11577.pdf
84 FR 27657, June 13, 2019	<i>Mattresses From China; Scheduling of the Final Phase of an Antidumping Duty Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2019-06-13/pdf/2019-12434.pdf
84 FR 32867, July 10, 2019	<i>Mattresses From the People's Republic of China: Amended Preliminary Determination of Sales at Less Than Fair Value</i>	https://www.govinfo.gov/content/pkg/FR-2019-07-10/pdf/2019-14689.pdf
84 FR 34408, July 18, 2019	<i>Mattresses From China; Revised Schedule for the Subject Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2019-07-18/pdf/2019-15217.pdf
84 FR 46757, September 5, 2019	<i>Mattresses From China; Revised Schedule for the Subject Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2019-09-05/pdf/2019-19152.pdf

Citation	Title	Link
84 FR 56761, October 23, 2019	<i>Mattresses From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part</i>	https://www.govinfo.gov/content/pkg/FR-2019-10-23/pdf/2019-23107.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

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

Subject: Mattresses from China
Inv. No.: 731-TA-1424 (Final)
Date and Time: October 11, 2019 - 9:30 a.m.

Sessions were held in connection with this investigation in the Main Hearing Room (Room 101), 500 E Street, SW., Washington, DC.

OPENING REMARKS:

Petitioner (**Mary Jane Alves**, Cassidy Levy Kent (USA) LLP)
Respondents (**Eric C. Emerson**, Steptoe & Johnson LLP)

In Support of the Imposition of Antidumping Duty Order:

Cassidy Levy Kent (USA) LLP
Washington, DC
on behalf of

Corsicana Mattress Company; Elite Comfort Solutions
Future Foam Inc.; FXI, Inc.; Innocor, Inc.; Kolcraft Enterprises Inc.
Leggett & Platt, Incorporated; Serta Simmons Bedding, LLC and
Tempur Sealy International, Inc.
(collectively "Mattress Petitioners")

Richard Anderson, Executive Vice President and President,
North America, Tempur Sealy International

Joseph M. Kamer, Senior Vice President, General Counsel and Secretary,
Tempur Sealy International

Dave Swift, Chairman and Chief Executive Officer,
Serta Simmons Bedding, LLC

Clara DeQuick, Vice President, Associate General Counsel,
Serta Simmons Bedding, LLC

Terry Malone, Senior Vice President - Finance,
Serta Simmons Bedding, LLC

**In Support of the Imposition of
Antidumping Order (continued):**

Eric Rhea, Vice President, President - Bedding Group,
Leggett & Platt, Incorporated

Amy DeArmond, Director, Government Affairs,
Leggett & Platt, Incorporated

Christos Chrisafides, Chief Executive Officer, Elite Comfort Solutions

Stuart Fallen, Vice President, Corsicana Bedding, LLC

Thomas Koltun, President, Kolcraft Enterprises Inc.

Travis Thigpen, Vice President of Sales – Online and Direct to Retail,
FXI Inc.

Michael Potochar, Procurement Director, Innocor, Inc.

Deirdre Maloney, Senior International Trade Advisor, Cassidy Levy Kent (USA) LLP

Yohai Baisburd)
Mary Jane Alves) – OF COUNSEL
Ulrika K. Swanson)

INTERESTED PARTY IN SUPPORT:

Brooklyn Bedding, Inc.
Phoenix, AZ

John Merwin, Chief Executive Officer

**In Opposition to the Imposition of
Antidumping Duty Order:**

Wilmer Cutler Pickering Hale and Dorr LLP
Washington, DC
on behalf of

Classic Brands, LLC

Patrick J. McLain)
) – OF COUNSEL
Stephanie E. Hartmann)

**In Opposition to the Imposition of
Antidumping Duty Order (continued):**

Mowry & Grimson, PLLC
Washington, DC
on behalf of

Ashley Furniture Industries, Inc.

Brian Adams, Vice President, Procurement,
International Sourcing Operations, Regulatory Affairs,
Ashley Furniture Industries, Inc.

Kristin H. Mowry)
) – OF COUNSEL
James C. Beaty)

Steptoe & Johnson LLP
Washington, DC
on behalf of

Quanzhou Hen Ang Industrial and Trade Co., Ltd
Zhejiang Glory Home Furnishings Co., Ltd.
Guangdong Diglant Furniture Industrial Co., Ltd.
Ningbo Shuibishen Home Textile Technology Co., Ltd.
Jiangsu Wellcare Home Furnishing Products Co., Ltd.
Jinlongheng Furniture Co, Ltd.
Inno-Sports Co., Ltd.
Healthcare Co., Ltd. and China Beds Direct
Sinomax Macao Commercial Offshore Limited and Sinomax USA, Inc.
Better Zs Co., Ltd.
(collectively “The Mattress Suppliers Group”)

Samuel Malouf, Chief Executive Officer, Malouf

Jeffrey Steed, Chief Legal Officer, Malouf

Kyle Robertson, Product Development Director, Malouf

Michael Douglas, Vice President, Sales, Malouf

Steven Douglas, Director, Online, Malouf

Jordan Haws, Director, Supply Chain, Malouf

James P. Dougan, Vice President, Economic Consulting Services

**In Opposition to the Imposition of
Antidumping Duty Order (continued):**

Cara Groden, Senior Economist, Economic Consulting Services

Eric C. Emerson)
Thomas J. Trendl)
) – OF COUNSEL
Henry Cao)
Marcia Pulcherio)

REBUTTAL/CLOSING REMARKS:

Petitioner (**Yohai Baisburd**, Cassidy Levy Kent (USA) LLP)
Respondents (**Eric C. Emerson**, Steptoe & Johnson LLP)

-END-

APPENDIX C
SUMMARY DATA

Coextensive

Table C-1

Mattresses: Summary data concerning the U.S. market, 2016-18, January to June 2018 and January to June 2019

(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		Calendar year			Jan-Jun
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
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.....	3,654,001	6,225,331	8,208,049	3,740,041	3,484,685	▲124.6	▲70.4	▲31.8	▼(6.8)
Value.....	516,689	846,701	1,274,255	562,530	531,840	▲146.6	▲63.9	▲50.5	▼(5.5)
Unit value.....	\$141	\$136	\$155	\$150	\$153	▲9.8	▼(3.8)	▲14.1	▲1.5
Ending inventory quantity.....	784,418	1,796,421	1,934,131	1,287,484	1,333,668	▲146.6	▲129.0	▲7.7	▲3.6
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.....	23,577,198	22,306,774	21,917,176	11,151,443	10,864,225	▼(7.0)	▼(5.4)	▼(1.7)	▼(2.6)
Production quantity.....	17,351,414	16,487,465	15,742,124	8,051,395	7,564,783	▼(9.3)	▼(5.0)	▼(4.5)	▼(6.0)
Capacity utilization (fn1).....	73.6	73.9	71.8	72.2	69.6	▼(1.8)	▲0.3	▼(2.1)	▼(2.6)
U.S. shipments:									
Quantity.....	17,152,616	16,479,432	15,560,415	8,019,436	7,529,303	▼(9.3)	▼(3.9)	▼(5.6)	▼(6.1)
Value.....	4,430,680	4,517,380	4,378,807	2,185,785	2,107,518	▼(1.2)	▲2.0	▼(3.1)	▼(3.6)
Unit value.....	\$258	\$274	\$281	\$273	\$280	▲8.9	▲6.1	▲2.7	▲2.7
Channel: Distribution (fn1).....	2.7	3.4	3.6	3.3	4.0	▲1.0	▲0.7	▲0.2	▲0.7
Channel: Retail (fn1).....	88.2	86.4	85.3	85.1	84.0	▼(3.0)	▼(1.8)	▼(1.1)	▼(1.1)
Channel: End user (fn1).....	9.1	10.2	11.1	11.6	12.0	▲2.0	▲1.1	▲0.9	▲0.4
Export shipments:									
Quantity.....	***	***	***	***	***	▼***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	404,419	343,967	455,235	349,389	454,781	▲12.6	▼(14.9)	▲32.3	▲30.2
Inventories/total shipments (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▲***
Production workers.....	10,672	11,028	10,432	10,494	9,718	▼(2.2)	▲3.3	▼(5.4)	▼(7.4)
Hours worked (1,000s).....	22,178	21,812	20,364	9,982	10,094	▼(8.2)	▼(1.7)	▼(6.6)	▲1.1
Wages paid (\$1,000).....	441,567	445,368	424,211	208,937	209,915	▼(3.9)	▲0.9	▼(4.8)	▲0.5
Hourly wages (dollars per hour).....	\$19.91	\$20.42	\$20.83	\$20.93	\$20.80	▲4.6	▲2.6	▲2.0	▼(0.6)
Productivity (units per 1,000 hours).....	782.4	755.9	773.0	806.6	749.4	▼(1.2)	▼(3.4)	▲2.3	▼(7.1)
Unit labor costs.....	\$25.45	\$27.01	\$26.95	\$25.95	\$27.75	▲5.9	▲6.1	▼(0.2)	▲6.9

Table continued on next page.

Table C-1---Continued

Mattresses: Summary data concerning the U.S. market, 2016-18, January to June 2018 and January to June 2019

(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		2018	January to June		Calendar year			Jan-Jun 2018-19
	2016	2017		2018	2018	2019	2016-18	2016-17	
U.S. producers*:									
Net sales:									
Quantity.....	17,037,382	16,347,365	15,406,266	7,947,651	7,438,133	▼(9.6)	▼(4.1)	▼(5.8)	▼(6.4)
Value.....	4,414,978	4,493,889	4,348,568	2,171,934	2,085,346	▼(1.5)	▲1.8	▼(3.2)	▼(4.0)
Unit value.....	\$259	\$275	\$282	\$273	\$280	▲8.9	▲6.1	▲2.7	▲2.6
Cost of goods sold (COGS).....	2,518,144	2,587,040	2,590,296	1,290,144	1,245,649	▲2.9	▲2.7	▲0.1	▼(3.4)
Gross profit or (loss) (fn2).....	1,896,834	1,906,849	1,758,272	881,790	839,697	▼(7.3)	▲0.5	▼(7.8)	▼(4.8)
SG&A expenses.....	1,154,009	1,214,765	1,134,688	584,537	564,015	▼(1.7)	▲5.3	▼(6.6)	▼(3.5)
Operating income or (loss) (fn2).....	742,825	692,084	623,584	297,253	275,682	▼(16.1)	▼(6.8)	▼(9.9)	▼(7.3)
Net income or (loss) (fn2).....	418,802	407,540	289,886	140,783	103,640	▼(30.8)	▼(2.7)	▼(28.9)	▼(26.4)
Capital expenditures.....	92,797	91,705	77,164	40,801	32,875	▼(16.8)	▼(1.2)	▼(15.9)	▼(19.4)
Unit COGS.....	\$148	\$158	\$168	\$162	\$167	▲13.8	▲7.1	▲6.2	▲3.2
Unit SG&A expenses.....	\$68	\$74	\$74	\$74	\$76	▲8.7	▲9.7	▼(0.9)	▲3.1
Unit operating income or (loss) (fn2).....	\$44	\$42	\$40	\$37	\$37	▼(7.2)	▼(2.9)	▼(4.4)	▼(0.9)
Unit net income or (loss) (fn2).....	\$25	\$25	\$19	\$18	\$14	▼(23.5)	▲1.4	▼(24.5)	▼(21.3)
COGS/sales (fn1).....	57.0	57.6	59.6	59.4	59.7	▲4.4	▲0.9	▲3.5	▲0.6
Operating income or (loss)/sales (fn1)....	16.8	15.4	14.3	13.7	13.2	▼(14.8)	▼(8.5)	▼(6.9)	▼(3.4)
Net income or (loss)/sales (fn1).....	9.5	9.1	6.7	6.5	5.0	▼(29.7)	▼(4.4)	▼(26.5)	▼(23.3)

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

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.

Expansion data

Table C-2

Air-adjustable foam mattresses: Summary data concerning the U.S. market, 2016-18, January to June 2018 and January to June 2019

(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		2018	January to June		Calendar year			Jan-Jun 2018-19
	2016	2017		2018	2019	2016-18	2016-17	2017-18	
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Importers' share (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▼***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Importers' share (fn1).....	***	***	***	***	***	▲***	▲***	▲***	▼***
U.S. imports from:									
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.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Channel: Distribution (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Channel: Retail (fn1).....	***	***	***	***	***	▲***	▲***	▲***	▼***
Channel: End user (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
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.....	***	***	***	***	***	▼***	▼***	▼***	▼***
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).....	***	***	***	***	***	▲***	▲***	▼***	▲***
Capital expenditures.....	***	***	***	***	***	▼***	▲***	▼***	▼***
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).....	***	***	***	***	***	▲***	▲***	▼***	▲***

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

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.

Expanded like product

Table C-3

Mattresses and air-adjustable foam mattresses: Summary data concerning the U.S. market, 2016-18, January to June 2018 and January to June 2019
(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		2018	January to June		Calendar year			Jan-Jun 2018-19
	2016	2017		2018	2019	2016-18	2016-17	2017-18	
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Importers' share (fn1):									
China mattresses.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources mattresses.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All import sources mattresses.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Expansion merchandise.....	***	***	***	***	***	▼***	▼***	▲***	▼***
All merchandise.....	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Importers' share (fn1):									
China.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All import sources mattresses.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Expansion merchandise.....	***	***	***	***	***	▲***	▲***	▲***	▼***
All merchandise.....	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. importers' U.S. shipments of imports from--									
China mattresses:									
Quantity.....	3,654,001	6,225,331	8,208,049	3,740,041	3,484,685	▲124.6	▲70.4	▲31.8	▼(6.8)
Value.....	516,689	846,701	1,274,255	562,530	531,840	▲146.6	▲63.9	▲50.5	▼(5.5)
Unit value.....	\$141	\$136	\$155	\$150	\$153	▲9.8	▼(3.8)	▲14.1	▲1.5
Ending inventory quantity.....	784,418	1,796,421	1,934,131	1,287,484	1,333,668	▲146.6	▲129.0	▲7.7	▲3.6
Nonsubject sources mattresses:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All import sources mattresses:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Expansion merchandise:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
All merchandise:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***

Table continued on next page.

Table C-3---Continued

Mattresses and air-adjustable foam mattresses: Summary data concerning the U.S. market, 2016-18, January to June 2018 and January to June 2019
 (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		2018	January to June		Calendar year			Jan-Jun	
	2016	2017		2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. producers*:										
Average capacity quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	▼***
Production quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	▼***
Capacity utilization (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▼***	▼***
U.S. shipments:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	▼***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▼***	▼***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***	▲***
Channel: Distribution (fn1).....	***	***	***	***	***	▲***	▲***	▲***	▲***	▲***
Channel: Retail (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***	▼***
Channel: End user (fn1).....	***	***	***	***	***	▲***	▲***	▲***	▲***	▲***
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.....	***	***	***	***	***	▲***	▲***	▼***	▲***	▲***
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).....	***	***	***	***	***	▼***	▲***	▼***	▼***	▼***
Capital expenditures.....	***	***	***	***	***	▼***	▲***	▼***	▼***	▼***
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).....	***	***	***	***	***	▼***	▼***	▼***	▼***	▼***

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

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.

Related party exclusion

Table C-4

Mattresses: Summary of data concerning the U.S. market excluding three U.S. producers *, 2016-18, January to June 2018 and January to June 2019**

(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		Calendar year			Jan-Jun
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All producers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Importers' share (fn1):									
China.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▼***	▲***	▼***
All producers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Importers' share (fn1):									
China.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. importers' U.S. shipments of imports from--									
China:									
Quantity.....	3,654,001	6,225,331	8,208,049	3,740,041	3,484,685	▲124.6	▲70.4	▲31.8	▼(6.8)
Value.....	516,689	846,701	1,274,255	562,530	531,840	▲146.6	▲63.9	▲50.5	▼(5.5)
Unit value.....	\$141	\$136	\$155	\$150	\$153	▲9.8	▼(3.8)	▲14.1	▲1.5
Ending inventory quantity.....	784,418	1,796,421	1,934,131	1,287,484	1,333,668	▲146.6	▲129.0	▲7.7	▲3.6
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.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Channel: Distribution.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Channel: Retail.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Channel: End user.....	***	***	***	***	***	▲***	▲***	▲***	▲***
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-4---Continued

Mattresses: Summary of data concerning the U.S. market excluding three U.S. producers *, 2016-18, January to June 2018 and January to June 2019**

(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		Calendar year			Jan-Jun
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. producers':									
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).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Capital expenditures.....	***	***	***	***	***	▼***	▲***	▼***	▼***
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).....	***	***	***	***	***	▼***	▼***	▼***	▼***

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

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

**DATA AND NARRATIVE RESPONSES REGARDING AIR-ADJUSTABLE FOAM
MATTRESSES**

Table D-1

Mattresses: U.S. producers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Producers: Physical characteristics	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table D-1—Continued

Mattresses: U.S. producers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Producers: Interchangeability	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
U.S. Producers: Channels	
***	***
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table D-1—Continued

Mattresses: U.S. producers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Producers: Channels	
***	***
***	***
U.S. Producers: Manufacturing	
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table D-1—Continued

Mattresses: U.S. producers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Producers: Manufacturing	
***	***
***	***
***	***
U.S. Producers: Perceptions	
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table D-1—Continued

Mattresses: U.S. producers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Producers: Perceptions	
***	***
***	***
U.S. Producers: Price	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

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

Table D-2

Mattresses: U.S. importers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Importers: Physical characteristics	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
U.S. Importers: Interchangeability	
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table D-2—Continued

Mattresses: U.S. importers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Importers: Interchangeability	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
U.S. Importers: Channels	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
U.S. Importers: Manufacturing	
***	***
***	***
***	***

Table continued on next page.

Table D-2—Continued

Mattresses: U.S. importers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Importers: Manufacturing	
***	***
***	***
***	***
***	***
***	***
***	***
U.S. Importers: Perceptions	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table D-2—Continued
Mattresses: U.S. importers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

U.S. Importers: Price	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

Source: Compiled from data compiled in response to Commission questionnaire.

Table D-3

Mattresses: U.S. purchasers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Purchasers: Physical characteristics	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
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***	***
***	***
***	***
***	***
***	***
***	***
U.S. Purchasers: Interchangeability	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
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***	***
***	***

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Table D-3—Continued
Mattresses: U.S. purchasers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Purchasers: Channels	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
U.S. Purchasers: Manufacturing	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table D-3—Continued

Mattresses: U.S. purchasers' comparisons of in-scope mattresses and out-of-scope air-adjustable foam mattresses by the like product factors

Item/Firm	Narrative
U.S. Purchasers: Perceptions	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
U.S. Purchasers: Price	
***	***
***	***
***	***
***	***
***	***
***	***
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***	***
***	***
***	***
***	***
***	***
***	***
***	***

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

Table D-4

Mattresses: U.S. producers' U.S. shipments of out-of-scope air-adjustable foam mattresses by channel of distribution, 2016-18, January to June 2018, and January to June 2019

Shipment source and type	Product type	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Quantity (units)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	Air Foam	***	***	***	***	***
Direct to consumer/internet	Air Foam	***	***	***	***	***
Omni-channel	Air Foam	***	***	***	***	***
Subtotal, own retail shipments	Air Foam	***	***	***	***	***
True internal consumption:	Air Foam	***	***	***	***	***
Commercial shipments:						
To distributors	Air Foam	***	***	***	***	***
To retailers:						
Brick and mortar stores	Air Foam	***	***	***	***	***
Direct to consumer/internet	Air Foam	***	***	***	***	***
Omni-channel	Air Foam	***	***	***	***	***
To hotels and other hospitality agents	Air Foam	***	***	***	***	***
To other end users	Air Foam	***	***	***	***	***
Subtotal, commercial shipments	Air Foam	***	***	***	***	***
Summary by channel:						
To distributors	Air Foam	***	***	***	***	***
To retailers	Air Foam	***	***	***	***	***
To end users	Air Foam	***	***	***	***	***
U.S. producers' U.S. shipments	Air Foam	***	***	***	***	***

Table continued on next page.

Table D-4—Continued

Mattresses: U.S. producers' U.S. shipments of out-of-scope air-adjustable foam mattresses by channel of distribution, 2016-18, January to June 2018, and January to June 2019

Shipment source and type	Product type	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of source and type within specified product type (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	Air Foam	***	***	***	***	***
Direct to consumer/internet	Air Foam	***	***	***	***	***
Omni-channel	Air Foam	***	***	***	***	***
Subtotal, own retail shipments	Air Foam	***	***	***	***	***
True internal consumption:	Air Foam	***	***	***	***	***
Commercial shipments:						
To distributors	Air Foam	***	***	***	***	***
To retailers:						
Brick and mortar stores	Air Foam	***	***	***	***	***
Direct to consumer/internet	Air Foam	***	***	***	***	***
Omni-channel	Air Foam	***	***	***	***	***
To hotels and other hospitality agents	Air Foam	***	***	***	***	***
To other end users	Air Foam	***	***	***	***	***
Subtotal, commercial shipments	Air Foam	***	***	***	***	***
Summary by channel:						
To distributors	Air Foam	***	***	***	***	***
To retailers	Air Foam	***	***	***	***	***
To end users	Air Foam	***	***	***	***	***
U.S. producers' U.S. shipments	Air Foam	***	***	***	***	***

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

APPENDIX E

CHANNELS OF DISTRIBUTION BY PACKAGING FORMAT

Table E-1

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Quantity (units)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. producers' U.S. shipments	MiB	1,080,338	1,596,858	1,960,829	881,916	1,280,293

Table continued on next page.

Table E-1—Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Quantity (units)				
U.S. producers' U.S. shipments--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. producers' U.S. shipments	FPM	16,072,278	14,882,574	13,599,586	7,137,520	6,249,010

Table continued on next page.

Table E-1–Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Quantity (units)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
Subtotal, own retail shipments	All	***	***	***	***	***
True internal consumption	All	***	***	***	***	***
Commercial shipments:						
To distributors	All	***	***	***	***	***
To retailers:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
To hotels and other hospitality agents	All	***	***	***	***	***
To other end users	All	***	***	***	***	***
Subtotal, commercial shipments	All	***	***	***	***	***
Summary by channel:						
To distributors	All	***	***	***	***	***
To retailers	All	***	***	***	***	***
To end users	All	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
U.S. producers' U.S. shipments	All	17,152,616	16,479,432	15,560,415	8,019,436	7,529,303

Table continued on next page.

Table E-1—Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of source and channel within specified packaging format (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. producers' U.S. shipments	MiB	100.0	100.0	100.0	100.0	100.0

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Table E-1—Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of source and channel within specified packaging format (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. producers' U.S. shipments	FPM	100.0	100.0	100.0	100.0	100.0

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Table E-1–Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of source and channel within specified packaging format (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
Subtotal, own retail shipments	All	***	***	***	***	***
True internal consumption	All	***	***	***	***	***
Commercial shipments:						
To distributors	All	***	***	***	***	***
To retailers:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
To hotels and other hospitality agents	All	***	***	***	***	***
To other end users	All	***	***	***	***	***
Subtotal, commercial shipments	All	***	***	***	***	***
Summary by channel:						
To distributors	All	***	***	***	***	***
To retailers	All	***	***	***	***	***
To end users	All	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
U.S. producers' U.S. shipments	All	100.0	100.0	100.0	100.0	100.0

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Table E-1--Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of format within specified shipment source and channel (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. producers' U.S. shipments	MiB	6.3	9.7	12.6	11.0	17.0

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Table E-1–Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of format within specified shipment source and channel (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. producers' U.S. shipments	FPM	***	***	***	***	***

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Table E-1–Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. producers' U.S. shipments	MiB	***	***	***	***	***

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Table E-1—Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments.--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. producers' U.S. shipments	FPM	***	***	***	***	***

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Table E-1--Continued

Mattresses: U.S. producers' U.S. shipments by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments--						
Own retail shipments:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
Subtotal, own retail shipments	All	***	***	***	***	***
True internal consumption	All	***	***	***	***	***
Commercial shipments:						
To distributors	All	***	***	***	***	***
To retailers:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
To hotels and other hospitality agents	All	***	***	***	***	***
To other end users	All	***	***	***	***	***
Subtotal, commercial shipments	All	***	***	***	***	***
Summary by channel:						
To distributors	All	***	***	***	***	***
To retailers	All	***	***	***	***	***
To end users	All	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
U.S. producers' U.S. shipments	All	***	***	***	***	***

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

Note.--The first share section entitled "Share of source and channel within specified packaging format (percent)" is the share of the channel (for example to distributors) out of the total for the source and packaging format. For example: If U.S. producers shipped 100 FPMs to distributors out of a total of 500 FPMs, the share of source and channel within the specified packaging format for the U.S. producers' shipments to distributors would be 20 percent.

Note.--The second share section entitled "Share of format within specified shipment source and channel (percent)" is the share of the format (for example MiBs) out of all in-scope mattresses within the listed channel. For example: If U.S. producers' shipped 100 MiBs to distributors out of a total of 200 units of all products (MiBs and FPMs) to distributors, the share of the format within the specified shipment source and channel for U.S. producers would be 50 percent.

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

Table E-2

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Quantity (units)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. importers' U.S. shipments: China	MiB	3,011,065	4,724,857	7,859,085	3,555,488	3,366,108

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Quantity (units)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. importers' U.S. shipments: China	FPM	642,936	1,500,474	348,964	184,553	118,577

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Quantity (units)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
Subtotal, own retail shipments	All	***	***	***	***	***
True internal consumption	All	***	***	***	***	***
Commercial shipments:						
To distributors	All	***	***	***	***	***
To retailers:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
To hotels and other hospitality agents	All	***	***	***	***	***
To other end users	All	***	***	***	***	***
Subtotal, commercial shipments	All	***	***	***	***	***
Summary by channel:						
To distributors	All	***	***	***	***	***
To retailers	All	***	***	***	***	***
To end users	All	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
U.S. importers' U.S. shipments: China	All	3,654,001	6,225,331	8,208,049	3,740,041	3,484,685

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of source and channel within specified packaging format (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. importers' U.S. shipments: China	MiB	100.0	100.0	100.0	100.0	100.0

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of source and channel within specified packaging format (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. importers' U.S. shipments: China	FPM	100.0	100.0	100.0	100.0	100.0

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of source and channel within specified packaging format (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
Subtotal, own retail shipments	All	***	***	***	***	***
True internal consumption	All	***	***	***	***	***
Commercial shipments:						
To distributors	All	***	***	***	***	***
To retailers:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
To hotels and other hospitality agents	All	***	***	***	***	***
To other end users	All	***	***	***	***	***
Subtotal, commercial shipments	All	***	***	***	***	***
Summary by channel:						
To distributors	All	***	***	***	***	***
To retailers	All	***	***	***	***	***
To end users	All	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
U.S. importers' U.S. shipments: China	All	100.0	100.0	100.0	100.0	100.0

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of format within specified shipment source and channel (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. importers' U.S. shipments: China	MiB	82.4	75.9	95.7	95.1	96.6

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Share of format within specified shipment source and channel (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. importers' U.S. shipments: China	FPM	17.6	24.1	4.3	4.9	3.4

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Ratio to overall apparent consumption (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
Subtotal, own retail shipments	MiB	***	***	***	***	***
True internal consumption	MiB	***	***	***	***	***
Commercial shipments:						
To distributors	MiB	***	***	***	***	***
To retailers:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
To hotels and other hospitality agents	MiB	***	***	***	***	***
To other end users	MiB	***	***	***	***	***
Subtotal, commercial shipments	MiB	***	***	***	***	***
Summary by channel:						
To distributors	MiB	***	***	***	***	***
To retailers	MiB	***	***	***	***	***
To end users	MiB	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	MiB	***	***	***	***	***
Direct to consumer/internet	MiB	***	***	***	***	***
Omni-channel	MiB	***	***	***	***	***
U.S. importers' U.S. shipments: China	MiB	***	***	***	***	***

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Ratio to overall apparent consumption (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
Subtotal, own retail shipments	FPM	***	***	***	***	***
True internal consumption	FPM	***	***	***	***	***
Commercial shipments:						
To distributors	FPM	***	***	***	***	***
To retailers:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
To hotels and other hospitality agents	FPM	***	***	***	***	***
To other end users	FPM	***	***	***	***	***
Subtotal, commercial shipments	FPM	***	***	***	***	***
Summary by channel:						
To distributors	FPM	***	***	***	***	***
To retailers	FPM	***	***	***	***	***
To end users	FPM	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	FPM	***	***	***	***	***
Direct to consumer/internet	FPM	***	***	***	***	***
Omni-channel	FPM	***	***	***	***	***
U.S. importers' U.S. shipments: China	FPM	***	***	***	***	***

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Table E-2—Continued

Mattresses: U.S. importers' U.S. shipments of imports from China by packaging format and channel of distribution, 2016-18, January to June 2018 and January to June 2019

Shipment source and channel	Format	Calendar year			January to June	
		2016	2017	2018	2018	2019
		Ratio to overall apparent consumption (percent)				
U.S. importers' U.S. shipments: China.--						
Own retail shipments:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
Subtotal, own retail shipments	All	***	***	***	***	***
True internal consumption	All	***	***	***	***	***
Commercial shipments:						
To distributors	All	***	***	***	***	***
To retailers:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
To hotels and other hospitality agents	All	***	***	***	***	***
To other end users	All	***	***	***	***	***
Subtotal, commercial shipments	All	***	***	***	***	***
Summary by channel:						
To distributors	All	***	***	***	***	***
To retailers	All	***	***	***	***	***
To end users	All	***	***	***	***	***
Summary within retail channel:						
Brick and mortar stores	All	***	***	***	***	***
Direct to consumer/internet	All	***	***	***	***	***
Omni-channel	All	***	***	***	***	***
U.S. importers' U.S. shipments: China	All	***	***	***	***	***

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

Note.--The first share section entitled "Share of source and channel within specified packaging format (percent)" is the share of the channel (for example to distributors) out of the total for the source and packaging format. For example: If U.S. importers shipped 100 FPMs to distributors out of a total of 500 FPMs, the share of source and channel within the specified packaging format for the U.S. importers' shipments to distributors would be 20 percent.

Note.--The second share section entitled "Share of format within specified shipment source and channel (percent)" is the share of the format (for example MiBs) out of all in-scope mattresses within the listed channel. For example: If U.S. importers' shipped 100 MiBs to distributors out of a total of 200 units of all products (MiBs and FPMs) to distributors, the share of the format within the specified shipment source and channel for U.S. importers would be 50 percent.

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

APPENDIX F

**PRICE DATA EXCLUDING THREE U.S. PRODUCERS
(***)**

Excluding price data provided by U.S. producers ***, 9 U.S. producers and 22 importers provided usable pricing data for sales of MiB products 1-5, and 9 U.S. producers and 2 importers provided usable pricing data for sales of FPM products 1-5, although not all firms reported pricing for all products for all quarters.^{1 2} Pricing data reported by these firms accounted for approximately 31.7 percent of U.S. producers' U.S. commercial shipments of MiB and FPM mattresses and 32.8 percent of U.S. commercial shipments of subject imports of MiB and FPM mattresses from China in 2018.³

Price data for products 1-5 for MiBs are presented in tables F-1 to F-5 and figures F-1 to F-5. Price data for products 1-5 for FPMs are presented in tables F-6 to F-10 and figures F-6 to F-10.

¹ Per-unit pricing 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.

² ***. Accordingly, these data have not been included in this pricing analysis.

³ Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. commercial shipments of MiBs (excluding ***) and *** percent of importers' U.S. commercial shipments of MiBs from China in 2018. Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. commercial shipments of FPMs (excluding ***) and *** percent of importers' U.S. commercial shipments of FPMs from China in 2018.

Table F-1

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	139	7,021	***
April-June	***	***	131	7,873	***
July-September	***	***	131	11,582	***
October-December	***	***	122	11,991	***
2017:					
January-March	***	***	123	13,929	***
April-June	***	***	108	16,604	***
July-September	***	***	105	21,291	***
October-December	***	***	103	14,102	***
2018:					
January-March	***	***	85	19,685	***
April-June	***	***	96	29,975	***
July-September	***	***	96	27,274	***
October-December	***	***	101	26,718	***
2019:					
January-March	***	***	102	18,940	***
April-June	***	***	100	31,356	***

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-2

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	161	28,768	***
April-June	***	***	156	24,861	***
July-September	***	***	153	28,777	***
October-December	***	***	151	32,405	***
2017:					
January-March	***	***	149	31,922	***
April-June	***	***	145	41,112	***
July-September	***	***	148	39,458	***
October-December	***	***	146	47,719	***
2018:					
January-March	***	***	***	***	***
April-June	***	***	149	108,667	***
July-September	***	***	142	134,067	***
October-December	***	***	151	120,278	***
2019:					
January-March	***	***	149	70,767	***
April-June	***	***	159	72,292	***

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-3

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	243	46,326	***
April-June	***	***	224	45,934	***
July-September	***	***	215	42,613	***
October-December	***	***	212	68,510	***
2017:					
January-March	***	***	216	76,161	***
April-June	***	***	213	104,305	***
July-September	***	***	216	73,910	***
October-December	***	***	209	98,621	***
2018:					
January-March	***	***	224	94,694	***
April-June	***	***	233	137,512	***
July-September	***	***	220	122,778	***
October-December	***	***	226	135,403	***
2019:					
January-March	***	***	217	83,439	***
April-June	***	***	224	82,288	***

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-4

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	114	6,113	***
April-June	***	***	129	4,925	***
July-September	***	***	126	6,376	***
October-December	***	***	126	8,161	***
2017:					
January-March	***	***	119	8,615	***
April-June	***	***	119	10,871	***
July-September	***	***	122	10,673	***
October-December	***	***	121	11,541	***
2018:					
January-March	***	***	119	14,725	***
April-June	***	***	122	24,296	***
July-September	***	***	117	18,789	***
October-December	***	***	112	15,079	***
2019:					
January-March	***	***	***	***	***
April-June	---	---	112	24,685	---

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table F-5

MiBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	***	***	***
April-June	***	***	206	11,475	***
July-September	***	***	203	16,285	***
October-December	***	***	196	21,316	***
2017:					
January-March	***	***	194	17,361	***
April-June	***	***	190	21,195	***
July-September	***	***	188	24,775	***
October-December	***	***	194	34,960	***
2018:					
January-March	***	***	204	48,839	***
April-June	***	***	195	78,116	***
July-September	***	***	190	105,397	***
October-December	***	***	196	98,187	***
2019:					
January-March	***	***	201	43,062	***
April-June	***	***	189	49,938	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Table F-6

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	---	---	---	---	---
April-June	***	***	---	---	***
July-September	***	***	---	---	***
October-December	***	***	***	***	***
2017:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2018:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2019:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-7

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---
July-September	***	***	---	---	---
October-December	***	***	---	---	---
2017:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---
July-September	***	***	---	---	---
October-December	***	***	---	---	---
2018:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---
July-September	***	***	---	---	---
October-December	***	***	---	---	---
2019:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-8

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---
July-September	***	***	---	---	---
October-December	***	***	---	---	---
2017:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---
July-September	***	***	---	---	---
October-December	***	***	---	---	---
2018:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---
July-September	***	***	---	---	---
October-December	***	***	---	---	---
2019:					
January-March	***	***	---	---	---
April-June	***	***	---	---	---

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-9

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2017:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2018:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2019:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table F-10

FPMs: Weighted-average f.o.b. prices and quantities of domestic and imported product 5¹ excluding three U.S. producers (*) and margins of underselling/(overselling), by quarter, January 2016-June 2019**

Period	United States		China		
	Price (per unit)	Quantity (units)	Price (per unit)	Quantity (units)	Margin (percent)
2016:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2017:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2018:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***
July-September	***	***	***	***	***
October-December	***	***	***	***	***
2019:					
January-March	***	***	***	***	***
April-June	***	***	***	***	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Figure F-1
MiBs: Weighted-average prices and quantities of domestic and imported product 1 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-2

MiBs: Weighted-average prices and quantities of domestic and imported product 2 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-3
MiBs: Weighted-average prices and quantities of domestic and imported product 3 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-4

MiBs: Weighted-average prices and quantities of domestic and imported product 4 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure F-5
MiBs: Weighted-average prices and quantities of domestic and imported product 5 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Figure F-6
FPMs: Weighted-average prices and quantities of domestic and imported product 1 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-7
FPMs: Weighted-average prices and quantities of domestic product 2 excluding three U.S. producers (*) , by quarter, January 2016-June 2019**

* * * * *

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-8
FPMs: Weighted-average prices and quantities of domestic product 3 excluding three U.S. producers (*) , by quarter, January 2016-June 2019**

* * * * *

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-9
FPMs: Weighted-average prices and quantities of domestic and imported product 4 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure F-10

FPMs: Weighted-average prices and quantities of domestic and imported product 5 excluding three U.S. producers (), by quarter, January 2016-June 2019**

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Import purchase cost data

Sixteen importers provided usable purchase cost data for products 1-5 for MiBs and one importer provided usable purchase cost data for products 1-5 for FPMs imported from China for their internal use, repackaging, or retail sales, although not all firms reported cost data for all products for all quarters. Import purchase cost data reported by these firms accounted for approximately 10.4 percent of importers' imports from China in 2018.⁴ Import purchase cost data for MiB products 1-5 are presented in tables F-11 to F-15 and figures F-11 to F-15 alongside U.S. producers' price data for MiB products 1-5. Import purchase cost data for FPM products 1-5 are presented in tables F-16 to F-20 and figures F-16 to F-20 alongside U.S. producers' price data for FPM products 1-5.

In addition to the import purchase cost data, firms were asked to estimate a variety of costs associated with their imports for internal use, including inland transportation costs, logistical or supply chain management costs, warehousing/inventory carrying costs, and insurance costs. Firms reported estimates (as a share of landed duty-paid value) for the following factors: inland transportation costs, 1 to 10 percent (for an average of 2.8 percent);⁵ logistical or supply chain costs, "far less than 1 percent" to 35 percent (for an average of approximately 8 percent); warehousing/inventory carrying costs, 3 to 55 percent (for an average of 11.8 percent); and insurance costs, 1.2 to 10 percent (for an average of 3.7 percent).

When asked to which source(s) they compare costs in determining their additional transaction costs of importing mattresses themselves, 3 importers reported that they compare import purchase costs to other importers' prices, 2 reported comparing these costs to U.S. producers' prices, 4 reported that they compare these costs to both U.S. producers' and other importers' prices, and most (10) firms do not compare to either. When firms were asked whether they also purchase mattresses from a U.S. producer, half of the responding importers (12 of 24 firms) reported that they do, while the other half reported that they do not.

⁴ Import purchase cost data for the 16 firms reporting purchase cost data for MiB products 1-5 accounted for approximately *** percent of importers' imports from China in 2018. Import purchase cost data for the sole firm reporting purchase cost data for FPM products 1-5 accounted for approximately *** percent of importers' imports from China in 2018.

⁵ One firm reported an inland transportation cost of 70 percent. This was likely due to a misunderstanding of the question, and so is not included in the average.

Table F-11

MiBs: Weighted-average f.o.b. prices and quantities of domestic product 1 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 1, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	110	4,945
April-June	***	***	99	8,034
July-September	***	***	94	10,682
October-December	***	***	95	13,951
2017:				
January-March	***	***	94	6,711
April-June	***	***	98	12,835
July-September	***	***	95	12,269
October-December	***	***	86	16,942
2018:				
January-March	***	***	101	50,926
April-June	***	***	112	27,413
July-September	***	***	***	***
October-December	***	***	97	11,234
2019:				
January-March	***	***	***	***
April-June	***	***	82	896

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-12

MiBs: Weighted-average f.o.b. prices and quantities of domestic product 2 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 2, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	143	12,748
April-June	***	***	132	9,845
July-September	***	***	136	20,057
October-December	***	***	132	23,743
2017:				
January-March	***	***	***	***
April-June	***	***	135	31,046
July-September	***	***	130	40,982
October-December	***	***	127	63,180
2018:				
January-March	***	***	121	69,330
April-June	***	***	133	44,273
July-September	***	***	111	11,432
October-December	***	***	111	24,522
2019:				
January-March	***	***	115	10,843
April-June	***	***	123	2,620

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-13

MiBs: Weighted-average f.o.b. prices and quantities of domestic product 3 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 3, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	180	21,987
April-June	***	***	156	26,260
July-September	***	***	153	19,298
October-December	***	***	156	40,670
2017:				
January-March	***	***	160	41,083
April-June	***	***	158	54,610
July-September	***	***	167	31,064
October-December	***	***	158	75,236
2018:				
January-March	***	***	165	84,743
April-June	***	***	170	120,379
July-September	***	***	155	73,370
October-December	***	***	166	158,508
2019:				
January-March	***	***	168	65,308
April-June	***	***	152	12,435

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-14

MiBs: Weighted-average f.o.b. prices and quantities of domestic product 4 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 4, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	128	9,845
April-June	***	***	***	***
July-September	***	***	122	12,034
October-December	***	***	110	10,588
2017:				
January-March	***	***	104	8,705
April-June	***	***	105	8,778
July-September	***	***	109	9,165
October-December	***	***	***	***
2018:				
January-March	***	***	109	18,431
April-June	***	***	104	5,361
July-September	***	***	90	1,424
October-December	***	***	91	3,735
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table F-15

MiBs: Weighted-average f.o.b. prices and quantities of domestic product 5 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 5, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	171	7,322
April-June	***	***	162	5,798
July-September	***	***	162	5,763
October-December	***	***	150	13,667
2017:				
January-March	***	***	142	14,541
April-June	***	***	145	13,562
July-September	***	***	145	14,655
October-December	***	***	149	43,080
2018:				
January-March	***	***	150	31,535
April-June	***	***	149	27,018
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Table F-16

FPMs: Weighted-average f.o.b. prices and quantities of domestic product 1 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 1, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	---	---	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2017:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2018:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-17

FPMs: Weighted-average f.o.b. prices and quantities of domestic product 2 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 2, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2017:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2018:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-18

FPMs: Weighted-average f.o.b. prices and quantities of domestic product 3 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 3, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2017:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2018:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Table F-19

FPMs: Weighted-average f.o.b. prices and quantities of domestic product 4 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 4, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2017:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2018:				
January-March	***	***	---	---
April-June	***	***	---	---
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Table F-20

FPMs: Weighted-average f.o.b. prices and quantities of domestic product 5 excluding three U.S. producers (*) and landed duty-paid (LDP) costs of imported product 5, by quarter, January 2016-June 2019**

Period	United States (price)		China (cost)	
	Price (dollars per unit)	Quantity (units)	Unit LDP value (dollars per unit)	Quantity (units)
2016:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2017:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2018:				
January-March	***	***	***	***
April-June	***	***	***	***
July-September	***	***	***	***
October-December	***	***	***	***
2019:				
January-March	***	***	***	***
April-June	***	***	***	***

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Figure F-11

MiBs: Weighted-average prices and quantities of domestic product 1 excluding three U.S. producers (*) and landed duty-paid costs of imported product 1, by quarter, January 2016-June 2019**

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-12

MiBs: Weighted-average prices and quantities of domestic product 2 excluding three U.S. producers (*) and landed duty-paid costs of imported product 2, by quarter, January 2016-June 2019**

* * * * *

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-13

MiBs: Weighted-average prices and quantities of domestic product 3 excluding three U.S. producers (*) and landed duty-paid costs of imported product 3, by quarter, January 2016-June 2019**

* * * * *

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-14

MiBs: Weighted-average prices and quantities of domestic product 4 excluding three U.S. producers (*) and landed duty-paid costs of imported product 4, by quarter, January 2016-June 2019**

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure F-15

MiBs: Weighted-average prices and quantities of domestic product 5 excluding three U.S. producers (*) and landed duty-paid costs of imported product 5, by quarter, January 2016-June 2019**

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

Figure F-16

FPMs: Weighted-average prices and quantities of domestic product 1 excluding three U.S. producers (*) and landed duty-paid costs of imported product 1, by quarter, January 2016-June 2019**

* * * * *

Product 1: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 8.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-17

FPMs: Weighted-average prices and quantities of domestic product 2 excluding three U.S. producers (*) and landed duty-paid costs of imported product 2, by quarter, January 2016-June 2019**

* * * * *

Product 2: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 8.0 inches but less than 10.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-18

FPMs: Weighted-average prices and quantities of domestic product 3 excluding three U.S. producers (*) and landed duty-paid costs of imported product 3, by quarter, January 2016-June 2019**

* * * * *

Product 3: Memory foam mattress (without any innersprings), queen size, height (edge to edge) greater than or equal to 10.0 inches but less than or equal to 12.0 inches, foam density in a top/comfort layer of greater than or equal to 2 pounds per cubic foot but less than or equal to 5 pounds per cubic foot.

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

Figure F-19

FPMs: Weighted-average prices and quantities of domestic product 4 excluding three U.S. producers (*) and landed duty-paid costs of imported product 4, by quarter, January 2016-June 2019**

* * * * *

Product 4: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 6.0 inches but less than 9.0 inches.

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

Figure F-20

FPMs: Weighted-average prices and quantities of domestic product 5 excluding three U.S. producers (*) and landed duty-paid costs of imported product 5, by quarter, January 2016-June 2019**

* * * * *

Product 5: Innerspring mattress (including mattresses with multiple cores and/or foam in addition to the innerspring), queen size, height (edge to edge) greater than or equal to 9.0 inches but less than or equal to 12.0 inches.

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

In general, firms stated that the benefits of importing mattresses for their internal use, repackaging, or retail sales included the following: availability of product, compression and packaging technology, openness to innovation, and reduced costs (3 firms each); better and/or more control over specifications, greater capacity for MiB products, greater capacity overall, higher quality, and more product options/wider selection (2 firms each); and better communication, better payment conditions/terms, environmental friendliness, freight cost savings, inventory management, lead time consistency, relationships, supply chain control, supply chain diversity, supply chain efficiency, and technical capabilities (1 firm each). Firms estimated that the margin saved by directly importing mattresses ranged from 0.3 to 25.0 percent (for an average of 11.3 percent).

Price trends

In general, prices decreased for most products during January 2016-June 2019. Tables F-21a and F-21b summarize the price trends, by country, by product type, and by pricing product. As shown in table F-21a, domestic prices for MiB products decreased for products ***; price decreases ranged from 11.3 percent (for product ***) to 44.1 percent (for product ***) during January 2016-June 2019. Import prices for all MiB products also decreased; price decreases for imported MiB products ranged from 1.1 percent (for product ***) to 28.1 percent (for product ***) during January 2016-June 2019. Similarly, import purchase costs decreased for MiB products for all five pricing products; import purchase cost decreases ranged from *** percent (for product ***) to *** percent (for product ***)

Table F-21a

MiBs: Number of quarters containing observations, low price, high price, and change in price over period (excluding three U.S. producers (*)), by product and source, January 2016-June 2019**

Item	Number of quarters	Low price (per mattress)	High price (per mattress)	Change in price ¹ (percent)
MiB Product 1				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 2				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 3				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 4				
United States (price)	5	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***
MiB Product 5				
United States (price)	12	***	***	***
China (price)	14	***	***	***
China (cost)	14	***	***	***

Note: 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.

As shown in table F-21b, domestic prices for FPM products *** decreased by ***, while domestic prices for FPM products *** increased by ***. Import prices for FPM products *** decreased by *** while import prices for FPM product *** increased by *** percent. No import price data was reported for FPM products 2 or 3. Import purchase costs for all FPM products also decreased for all five pricing products; import purchase cost decreases ranged from *** percent (for product ***) to *** percent (for product ***)).

Table F-21b

FPMs: Number of quarters containing observations, low price, high price, and change in price over period (excluding three U.S. producers (*)), by product and source, January 2016 through June 2019**

Item	Number of quarters	Low price (per mattress)	High price (per mattress)	Change in price (percent)
FPM Product 1				
United States (price)	13	***	***	***
China (price)	11	***	***	***
China (cost)	14	***	***	***
FPM Product 2				
United States (price)	14	***	***	***
China (price)	---	---	---	---
China (cost)	14	***	***	***
FPM Product 3				
United States (price)	14	***	***	***
China (price)	---	---	---	---
China (cost)	14	***	***	***
FPM Product 4				
United States (price)	14	***	***	***
China (price)	14	***	***	***
China (cost)	12	***	***	***
FPM Product 5				
United States (price)	14	***	***	***
China (price)	12	***	***	***
China (cost)	14	***	***	***

Note: 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.

Price comparisons

As shown in tables F-22a and F-22b, prices for MiB products imported from China were below those for U.S.-produced product in the majority of instances (53 of 59 quarters) (2.9 million mattresses); margins of underselling ranged from 0.1 to 57.4 percent, for an average of 30.9 percent. In the remaining 6 instances (109,141 mattresses), prices for product from China were between 3.8 and 18.3 percent above prices for the domestic product, for an average of 10.3 percent. Prices for FPM products imported from China were below those for U.S.-produced product in all 37 instances (158,472 mattresses); margins of underselling ranged from 5.8 to 58.8 percent, for an average of 35.2 percent. There were no instances of overselling for FPM products.

Table F-22a

Mattresses: Instances of underselling and the range and average of margins (excluding three U.S. producers (*)), by product type and by pricing product, January 2016-June 2019**

Source	Underselling				
	Number of quarters	Quantity (mattresses)	Average margin (percent)	Margin range (percent)	
				Min	Max
MiB:					
Product 1	8	***	***	***	***
Product 2	14	***	***	***	***
Product 3	14	***	***	***	***
Product 4	5	***	***	***	***
Product 5	12	***	***	***	***
Subtotal, underselling MiB	53	2,907,307	30.9	0.1	57.4
FPM:					
Product 1	11	***	***	***	***
Product 2	---	---	---	---	---
Product 3	---	---	---	---	---
Product 4	14	***	***	***	***
Product 5	12	***	***	***	***
Subtotal, underselling FPM	37	158,472	35.2	5.8	58.8
Total, underselling, all product types	90	3,065,779	32.7	0.1	58.8

Note: 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.

Table F-22b

Mattresses: Instances of overselling and the range and average of margins (excluding three U.S. producers (*)), by product type and by pricing product, January 2016-June 2019**

Source	Overselling				
	Number of quarters	Quantity (mattresses)	Average margin (percent)	Margin range (percent)	
				Min	Max
MiB:					
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Product 5	***	***	***	***	***
Subtotal, overselling MiB	6	109,141	(10.3)	(3.8)	(18.3)
FPM:					
Product 1	---	---	---	---	---
Product 2	---	---	---	---	---
Product 3	---	---	---	---	---
Product 4	---	---	---	---	---
Product 5	---	---	---	---	---
Subtotal, overselling FPM	---	---	---	---	---
Total, overselling, all product types	6	109,141	(10.3)	(3.8)	(18.3)

Note: 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.

APPENDIX G

**FINANCIAL DATA EXCLUDING THREE U.S. PRODUCERS
(***)**

Table G-1

Mattresses: Results of overall operations of U.S. producers excluding three U.S. producers *, 2016-18, January to June 2018 and January to June 2019**

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Quantity (units)				
Total net sales	***	***	***	***	***
	Value (1,000 dollars)				
Total net sales	***	***	***	***	***
Cost of goods sold.--					
Raw materials	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Total COGS	***	***	***	***	***
Gross profit	***	***	***	***	***
SG&A expense	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***
Interest expense	***	***	***	***	***
All other expenses	***	***	***	***	***
All other income	***	***	***	***	***
Net income or (loss)	***	***	***	***	***
Depreciation/amortization	***	***	***	***	***
Cash flow	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold.--					
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 G-1—Continued

Mattresses: Results of overall operations of U.S. producers excluding three U.S. producers *, 2016-18, January to June 2018 and January to June 2019**

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Ratio to total COGS (percent)				
Cost of goods sold.--					
Raw materials	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Average COGS	***	***	***	***	***
	Unit value (dollars per unit)				
Total net sales	***	***	***	***	***
Cost of goods sold.--					
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 G-2

Mattresses: Changes in AUVs excluding three U.S. producers *, between fiscal years and between partial year periods**

Item	Between fiscal years			Between partial year period
	2016-18	2016-17	2017-18	2018-19
	Change in AUVs (dollars per unit)			
Total net sales	***	***	***	***
Cost of goods sold.--				
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.

APPENDIX H

**U.S. PRODUCERS' NARRATIVE RESPONSES ON THE
NEGATIVE EFFECTS OF SUBJECT IMPORTS**

Table H-1

Mattresses: Narrative responses relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

Item / Firm	Narrative
Cancellation, postponement, or rejection of expansion projects:	
***	***
***	***
***	***
***	***
Denial or rejection of investment proposal:	
***	***
Reduction in the size of capital investments:	
***	***
***	***
***	***
***	***
Return on specific investments negatively impacted:	
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table H-1—Continued

Mattresses: Narrative responses relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

Item / Firm	Narrative
***	***
***	***
***	***
***	***
Other negative effects on investments:	
***	***
***	***
***	***
***	***
***	***
Lowering of credit rating:	
***	***
***	***

Table continued on next page.

Table H-1—Continued

Mattresses: Narrative responses relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

Item / Firm	Narrative
Ability to service debt:	
***	***
***	***
***	***
Other effects on growth and development:	
***	***
***	***
***	***

Table continued on next page.

Table H-1—Continued

Mattresses: Narrative responses relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

Item / Firm	Narrative
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
Anticipated effects of imports:	
***	***
***	***
***	***
***	***

Table continued on next page.

Table H-1—Continued

Mattresses: Narrative responses relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

Item / Firm	Narrative
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

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