

United States International Trade Commission

Remanufactured Goods: An Overview of the U.S. and Global Industries, Markets, and Trade

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CHAPTER 8

Retreaded Tires

Description of Tire Retreading Activities

Tire retreading is a process of applying a new tread to an inspected used or worn tire (“casing”), effectively restoring it to a like-new condition.¹ Retreaded tires are typically used on a wide variety of vehicles, including all types of trucks and buses, heavy construction and agricultural equipment, aircraft, and passenger vehicles. The retreading process consists of several steps, including inspecting and repairing the casing, buffing the worn tread away, and bonding or curing a new tread to the tire body under specific heat, time, and pressure conditions. Retreaded tires produced from used tire casings cost significantly less than new tires. In addition, tires can be retreaded multiple times from a given tire casing, thereby conserving energy and raw materials and providing an environmentally friendlier alternative to the disposal of used tire casings.

Size of Retreading in the United States

Industry Structure

In 2011, approximately 680 firms reportedly produced retreaded truck tires, 18 firms produced off-the-road (OTR) retreaded tires,² five firms produced aircraft retreads, and only four smaller shops produced passenger vehicle retreads.³ Altogether, these retread shops vary in size from small “mom and pop” operations producing 20 or fewer retreaded tires per day to very large shops processing more than 1,000 retreaded tires daily.⁴ In recent years, the U.S. retreaded tire industry has undergone consolidation, resulting in fewer but larger firms led by the “Big Three” multinational tire manufacturers and retreaders—Goodyear (U.S. ownership), Bridgestone (Japanese ownership), and Michelin (French ownership).⁵ Approximately 90 percent of all retreaded tires produced in the United States are estimated to fall under the umbrella of the Big Three tire producers.⁶

¹ Given the common industry acceptance of the terms “retreaded tires” and “casings,” for purposes of this report, remanufactured tires will be referred to as retreaded tires or tire retreads, while cores will be referred to as casings.

² Off-the-road (OTR) tires are typically larger, heavier tires used on construction and agricultural equipment.

³ USITC, hearing transcript, February 28, 2012, 116 and 147 (testimony of Marvin Bozarth, TIA). In the 1950s, there were 12,000 retread plants in the United States, the majority of which performed retreading operations on tires for passenger vehicles. Over time, the cost of equipment and number of molds required to retread multiple sizes of passenger vehicle tires became too prohibitive for all but a few sizes that may date back 10–15 years, resulting in only a handful of passenger vehicle tire retreaders. Nowadays, passenger vehicle tires are typically not designed with retreading in mind.

⁴ Tire Retread & Repair Information Bureau website, <http://www.retread.org> (accessed August 31, 2012); USDOC, Census, *Tire Retreading*, 2007.

⁵ *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 24.

⁶ Industry representative, email message to USITC staff, January 2012.

The Big Three firms operate their own wholly owned retreading operations, as well as myriad downstream licensed franchises that use authorized production equipment and that obtain their rubber-based feedstock materials from the Big Three firms. Firms that retread tires produce few, if any, new tires in the same facilities, although an estimated 85 percent of U.S. tire retreaders also sell new tires.⁷ Goodyear retread operations are organized under the Wingfoot/Goodyear banner (brand), Bridgestone under the Bandag banner, and Michelin under the Michelin banner. Other major U.S. tire retreaders include Marangoni (Italian ownership), which has a widespread dealership network across the United States; Oliver (Michelin); and Continental (German ownership).⁸

Production, Investment, and Employment

U.S. production of retreaded tires is estimated to have increased by 35 percent from \$1.0 billion in 2009 to \$1.4 billion in 2011 (table 8.1). Despite this growth, retreaded tires are estimated to have accounted for only about 3 percent of total sales by U.S. firms within the tires sector during the period (\$48 billion in 2011).⁹ Investment in tire retreading operations is estimated to have increased by about 20 percent from \$20 million in 2009 to \$24 million in 2011. Industry consolidation has reportedly spurred larger investments in U.S. retreading operations, running into the millions of dollars.¹⁰ U.S. employment in tire retreading is estimated to have increased as well, growing 24 percent from about 3,900 in 2009 to 4,900 in 2011.¹¹

TABLE 8.1 Retreaded tires: Remanufacturing production, investment, and employment, 2009–11

Item	2009	2010	2011	% change, 2009–11
	Thousand \$			
Production	1,038,679	1,188,315	1,399,088	34.7
Investment	19,894	29,109	23,874	20.0
	Full-time workers			
Employment	3,935	4,368	4,880	24.0

Source: USITC staff calculations of weighted responses to the Commission questionnaire.

A rebounding U.S. economy and a relatively short supply of new tires, due in part to increasing transportation demand, helped to raise demand for and production of retreaded tires, especially for the truck, aircraft, and OTR tire segments. In 2011, U.S. tire retreaders operated at near full capacity, limited principally by the availability of used tire casings.¹² Between 2009 and 2011, an estimated 60 percent of U.S. tire retreaders

⁷ USITC staff calculations of weighted responses to the Commission questionnaire.

⁸ *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 24.

⁹ Based on USITC staff calculations of weighted responses to the Commission questionnaire. New passenger car tires account for the majority of U.S. tire sales. However, since passenger car tires are not typically retreaded, retreaded tires account for a significantly higher portion of total U.S. sales of non-passenger tires, which include truck, aircraft, and OTR tires.

¹⁰ USITC, hearing transcript, February 28, 2012, 116 (testimony of Marvin Bozarth, TIA); *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 21–29.

¹¹ The U.S. Census Bureau (Census) also collects statistics on the U.S. retreaded tire industry. According to Census, U.S. shipments of retreaded tires were \$1.1 billion in 2010. In 2007, 5,361 U.S. production workers were employed in 523 retreading establishments. Seventy percent of the retread operations employed fewer than 100 workers, although some larger retread facilities employed 100–250 workers. USDOC, Census, *Tire Retreading (NAICS 326212)*, 2007.

¹² USITC, hearing transcript, February 28, 2012, 113–14 (testimony of Marvin Bozarth, TIA).

expanded production capacity,¹³ and the U.S. retreaded tire industry is anticipated to continue to upgrade and expand retreading operations in response to continued growth of the U.S. economy.¹⁴

U.S. Market for Retreaded Tires

Market Size

The U.S. market for retreaded tires is estimated to have increased by 35 percent from \$1.0 billion in 2009 to \$1.4 billion in 2011 (table 8.2). Both exports and imports of retreaded tires are minimal relative to domestic production. Historically, the United States has experienced a balance between the production and consumption of retreaded tires, and the vast majority of available tire casings are recycled back into downstream retreading operations for domestic consumption.¹⁵

TABLE 8.2 Retreaded tires: U.S. market (apparent consumption) for retreaded tires, 2009–11

Item	2009	2010	2011	% change, 2009–11
	Thousand \$			
Production	1,038,679	1,188,315	1,399,088	34.7
Imports	6,014	8,513	11,446	90.3
Exports	15,904	16,495	18,545	16.6
U.S. apparent consumption	1,028,789	1,180,334	1,391,989	35.3

Sources: Estimates of production based on USITC staff calculations of weighted responses to the Commission questionnaire. Trade data from official statistics of the USDOC for HTS subheadings 4012.11, 4012.12, 4012.13, and 4012.19.

Note: Figures for U.S. apparent consumption are calculated.

U.S. Buyers and Demand Factors

Demand for tires (whether new or retreaded) depends on the general health of the domestic economy and on demand for goods and services. Transportation demand is a major factor in the truck, bus, aviation, and passenger car tire industries, while demand for construction, mining, and agricultural equipment is a driver for the OTR tire segment. Demand for retreaded tires relative to new tires is driven by a number of factors, including competitive quality and cost savings, the availability of casings and end-use applications, and government regulations, including those that encourage or require the use of retreaded tires.¹⁶ Consumers in both the public and private sectors depend on a

¹³ Based on USITC staff calculations of weighted responses to the Commission questionnaire.

¹⁴ *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 21–29.

¹⁵ Passenger car tires are typically not retreaded. Passenger car tires account for the vast majority of tires recycled for purposes other than retreading. Approximately 75 percent of spent passenger car tires are used for fuel and grounded rubber applications, while about 15 percent go to land disposal. Rubber Manufacturers Association, “U.S. Scrap Tire Management Summary 2005–2009,” October 2011.

¹⁶ For instance, Federal Executive Order 13149 (65 Fed. Reg. 24607 (April 21, 2000)) mandated the use of retreaded tires on certain government vehicles. Regulations established by the U.S. Environmental Protection Agency (40 C.F.R. Part 253) require that all federal, state, and local government agencies and contractors that use federal funds purchase retreaded tires or tire retreading services to the maximum extent practicable.

reliable supply of competitively priced retreaded tires, which are generally equal in quality to new tires, but cost only about one-half as much.¹⁷

Before the 2008–09 economic recession, buoyant U.S. demand for goods and services and transportation services contributed to \$1.6 billion in retreaded tire shipments in 2007.¹⁸ Following the recession, there was a gradual recovery in the U.S. economy, leading to increased transportation demand and U.S. shipments of retreaded tires. In 2010 and 2011, increasing demand for retreaded tires in the trucking, OTR, aviation, and agricultural sectors reportedly led to a shortage of used tire casings.¹⁹ During the same time period, domestic shortages in new replacement tires for trucks, coupled with global supply shortages of both casings and new tires, reportedly pushed up demand for retreaded tires, prompting some tire retreaders to ask truck fleets to extend their retreading cycle—the number of times a worn casing could be recycled—to higher limits.²⁰ (Many commercial trucking fleets plan their new tire purchases with the intention of having their worn casings retreaded two or more times as a routine part of their tire budgets.)²¹

The tractor-trailer (18-wheeler semi-rig) market is reported to be the largest consumer of retreaded tires in the United States, although the OTR and aviation sectors are also reportedly large.²² In 2011, retreaded tires accounted for 47 percent of U.S. truck tire consumption (new and retreaded). Bridgestone (Bandag), Goodyear, and Michelin collectively accounted for 93 percent of the retreaded truck tire market that year.²³ Despite a shortage of truck tire casings in 2011, U.S. tire retreaders reportedly produced 15.5 million retreaded truck tires, 7 percent more than in 2010. The average reported price of a retreaded truck tire, including the cost of the casing, was \$248, or 60 percent of the cost of a new truck tire (\$416).²⁴ By using retreaded tires instead of new tires, the truck industry reportedly saves more than \$3 billion annually.²⁵

OTR tires are typically larger, heavier tires used on construction, mining, and agricultural equipment. These tires, by virtue of their size and their rubber, steel, and other materials content, are more expensive to produce than typical truck or bus retreads; they are priced accordingly as specialty retreads. Retreaded OTR tires are usually produced in low volumes by specialty shops, and command a price premium compared with other types of retreaded tires. Still, large OTR tire retreads, such as for earth-movers, may cost less than one-third as much as a comparable new OTR tire.²⁶

¹⁷ *Modern Tire Dealer*, “Everyone Scrambles for Usable Truck Tires,” January 2012, 42.

¹⁸ USDOC, Census Bureau, *Tire Retreading*, 2007.

¹⁹ Ulrich, “A Case for Casings,” April 2011, 21; USITC hearing transcript, February 28, 2012, 112–114 (testimony of Marvin Bozarth, TIA); *Modern Tire Dealer*, “Everyone Scrambles for Usable Truck Tires,” January 2012, 42.

²⁰ Bridgestone Bandag Tire Solutions, “Bridgestone Bandag Tire Solutions Announces Campaign,” March 21, 2011.

²¹ USITC, hearing transcript, February 28, 2012, 121 (testimony of David Stevens, TRIB).

²² *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 24.

²³ *Modern Tire Dealer*, “Everyone Scrambles for Usable Truck Tires,” January 2012, 42. Bridgestone (Bandag) accounted for about 42 percent of the truck tire retread market; Goodyear, 28 percent; Michelin, 23 percent; Marangoni, 4 percent; and others, 3 percent.

²⁴ *Modern Tire Dealer*, “2011 Was a Great Year for Retreading,” January 17, 2012.

²⁵ Industry representative, telephone interview by USITC staff, August 15, 2012.

²⁶ USITC, hearing transcript, February 28, 2012, 114 (testimony of Marvin Bozarth, TIA).

All commercial airlines, as well as the military, rely on retreaded aircraft tires. In fact, about 80 percent of all aircraft tires now in service in the United States are retreaded. By using retreaded tires, the commercial and military aircraft sectors reportedly save more than \$100 million annually.²⁷ The Big Three tire producers and Desser Aircraft Tire, an independent producer, are the principal aviation retread manufacturers in the United States.²⁸

U.S. Sellers and Supply Factors

Retreaded tires are sold, serviced, and warrantied in essentially the same way as new tires.²⁹ Direct retail sales are estimated to account for 70 percent of retreaded tire sales, while sales to wholesalers account for the remainder.³⁰ Typically, large commercial trucking and bus fleets, aviation firms, OTR operations, and federal agencies negotiate contracts with the downstream distributors of retread operations to handle the supply, replacement, repair, and recycling of retreaded tires. As noted earlier, the majority of retread tire distributors are wholly owned or linked through franchise agreements to the major U.S. retreaders.³¹

The major U.S. commercial truck tire producers typically guarantee retread customers that spent tire casings can be retreaded up to three times, and tire retreaders offer additional economic incentives, such as warranties, if their particular tire brands are used.³² Additionally, retread distributors provide warranties on retreaded tires based on mileage, time on the road, and tread wear, among other considerations.³³

In spite of a shortage of tire casings in 2011, several U.S. retreaders, including the Big Three tire producers, Marangoni, Continental, and other downstream dealer franchises and independent retreaders, continued to expand production capacity at existing plants and planned new plant expansions to keep pace with increasing demand.³⁴ In January 2012, for example, Marangoni announced a \$10 million expansion project at its tread rubber facility at Madison, TN, to provide retread stock to its multi-state retreading dealers.³⁵ The Big Three tire producers also announced expansion plans, as did H&H Industries Inc. (Oak Hill, OH), one of the largest independent OTR tire retreaders in the country, which planned to increase its export business.³⁶ Continental opened a new tread rubber plant in Mexico, and franchised an expanding retread operation in the United

²⁷ USITC, hearing transcript, February 28, 2012, 112–13 (testimony of Marvin Bozarth, TIA); TIA and TRIB, “Understanding Retreading,” 2009.

²⁸ TRIB website, <http://www.retread.org> (accessed 2011-2012).

²⁹ USITC hearing transcript, February 28, 2012, 115 (testimony of Marvin Bozarth, TIA).

³⁰ Industry representative, email message to USITC staff, November 29, 2011.

³¹ *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 24.

³² USITC, hearing transcript, February 28, 2012, 121 (testimony of David Stevens, TRIB).

³³ USITC, hearing transcript, February 28, 2012, 115 (testimony of Marvin Bozarth, TIA).

³⁴ *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 24; “Prepping for Growth,” April 2012, 34.

³⁵ Marangoni Tread North America, “Marangoni Expands North American Operations,” August 31, 2011.

³⁶ *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 21–30.

States.³⁷ In addition, certain retreaders have opted to switch to producing other brand-name retreaded tires, reflecting the intense competition among domestic producers.³⁸

Estimates of Trade in Retreaded Tires and Casings

U.S. and Global Trade in Retreaded Tires

U.S. Trade in Retreaded Tires

The United States is a small net exporter of retreaded tires. Between 2009 and 2011, U.S. exports of retreaded tires increased by about 17 percent to \$18.5 million (table 8.3),³⁹ but accounted for less than 1 percent of total tire exports (new and retreaded) (\$5.1 billion in 2011).⁴⁰ Canada and Mexico accounted for 36 percent of U.S. exports of retreaded tires in 2011. FTA partners together accounted for 52 percent (\$9.6 million) of total U.S. exports of retreaded tires in 2011, down from 58 percent (\$9.2 million) in 2009 (table 8.4).

TABLE 8.3 Retreaded tires: U.S. exports of retreaded tires by leading destination, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
Thousand \$				
Mexico	3,929	3,697	4,353	10.8
Canada	3,942	3,642	2,255	-42.8
Vietnam	1,981	3,299	1,809	-8.7
South Africa	210	298	1,701	710.0
EU	1,697	654	1,315	-22.5
Guatemala	293	413	1,044	256.3
All other countries or markets	3,853	4,492	6,068	57.5
Total	15,904	16,495	18,545	16.6

Source: Official statistics of the USDOC, HTS subheadings 4012.11, 4012.12, 4012.13 and 4012.19.

Note: Totals may not sum due to rounding.

³⁷ Continental, “Shipments Begin from Continental’s Flat Tread Production Facility in Mexico,” May 26, 2011; “First ContiLifeCycle Dealership Opens in U.S.,” September 23, 2011.

³⁸ *Modern Tire Dealer*, “The Top 100 Retreaders in the U.S.,” April 2011, 21–30.

³⁹ In 2011, retreaded truck and bus tires accounted for about 43 percent of total U.S. retreaded tire exports; OTR construction and agricultural retreads, 39 percent; and passenger vehicle retreads, 18 percent.

⁴⁰ Official statistics of the USDOC for NAICS (2007) codes 326211 and 326212.

TABLE 8.4 Retreaded tires: U.S. exports of retreaded tires to FTA partners, 2009–11

FTA partner	2009	2010	2011	% change, 2009–11
Thousand \$				
Mexico	3,929	3,697	4,353	10.8
CAFTA-DR ^a	1,007	1,213	2,679	166.0
Canada	3,942	3,642	2,255	-42.8
Australia	130	236	150	15.4
Israel	0	66	109	n/a
Singapore	16	6	66	312.5
Chile	119	281	28	-76.5
Other FTA partners ^b	12	63	0	n/a
Total	9,155	9,204	9,641	5.3

Source: Official statistics of the USDOC, HTS subheadings 4012.11, 4012.12, 4012.13 and 4012.19.

Note: Totals may not sum due to rounding. N/a = not applicable.

^aDominican Republic-Central America-United States Free Trade Agreement partners.

^bJordan, Morocco, and Peru.

Partner countries to the North America Free Trade Agreement (NAFTA) and the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR) accounted for practically all of U.S. retreaded tire exports to FTA partner countries.

Between 2009 and 2011, U.S. imports of retreaded tires jumped by 90 percent to \$11.4 billion, primarily from Canada (table 8.5), but accounted for less than 1 percent of total tire imports (new and retreaded) during the same period (\$13.2 billion in 2011).⁴¹

TABLE 8.5 Retreaded tires: U.S. imports of retreaded tires by leading source, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
Thousand \$				
Canada	3,389	4,802	7,612	124.6
EU	613	1,041	1,327	116.5
Korea	161	218	1,064	560.9
China	365	1,335	561	53.7
Mexico	8	127	378	4,625.0
Colombia	0	62	217	n/a
Israel	5	47	114	2,180.0
All other countries or markets	1,474	882	171	-88.4
Total	6,015	8,514	11,444	90.3

Source: Official statistics of the USDOC, HTS subheadings 4012.11, 4012.12, 4012.13 and 4012.19.

Note: Totals may not sum due to rounding. N/a = not applicable.

⁴¹ Official statistics of the USDOC for NAICS (2007) codes 326211 and 326212.

Global Trade in Retreaded Tires

Global exports of retreaded tires reached \$253 million in 2011, up from \$187 million in 2009 (table 8.6). The EU accounted for almost one-half of global exports in 2011. In contrast, the United States accounted for less than 10 percent. Russia is the largest importer of retreaded tires, accounting for 12 percent of global imports in 2011 (table 8.7). The United States accounted for 7 percent of global imports of retreaded tires in 2011.

TABLE 8.6 Retreaded tires: Global exports of retreaded tires by leading exporters, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
Thousand \$				
EU	91,608	108,817	123,387	34.7
Thailand	16,013	19,497	21,583	34.8
Hong Kong	14,265	21,437	21,206	48.7
South Korea	11,129	13,813	20,694	85.9
United States	15,341	17,085	18,909	23.3
China	6,179	10,961	13,592	120.0
Canada	5,586	6,805	8,669	55.2
Malaysia	2,875	2,815	3,837	33.5
Australia	1,515	1,554	3,165	108.9
Singapore	1,496	964	2,684	79.4
All other countries or markets	20,650	16,089	15,552	-24.7
Total	186,657	219,838	253,278	35.7

Source: GTIS, Harmonized Commodity Description and Coding System (HS) subheadings 4012.11, 4012.12, 4012.12 and 4012.19.

Note: Totals may not sum due to rounding.

TABLE 8.7 Retreaded tires: Global imports of retreaded tires by leading importers, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
Thousand \$				
Russia	8,397	13,075	17,877	112.9
Switzerland	13,441	14,622	17,474	30.0
EU	8,735	11,026	13,915	59.3
United States	6,013	8,513	11,444	90.3
Singapore	5,403	5,579	9,405	74.1
Mexico	8,448	8,019	8,840	4.6
Malaysia	5,526	5,543	6,759	22.3
Canada	5,349	7,124	5,519	3.2
Ukraine	2,134	6,272	5,506	158.0
Norway	3,013	3,585	5,447	80.8
All other countries or markets	37,529	42,531	52,343	39.5
Total	103,989	125,890	154,528	48.6

Source: GTIS, HS subheadings 4012.11, 4012.12, 4012.13 and 4012.19.

Note: Totals may not sum due to rounding.

U.S. and Global Trade in Tire Casings

U.S. Trade in Tire Casings

Between 2009 and 2011, U.S. exports of tire casings increased 34 percent to \$39.3 million (table 8.8). U.S. imports of tire casings increased by 80 percent to \$43.9 million during the same period (table 8.9), probably due to the shortage of domestic truck and OTR tire casings noted previously. Japan and the EU supplied 65 percent of U.S. imports of tire casings in 2011, likely reflecting the cross-border trade flows of Bridgestone, Goodyear, and Michelin, three major retreaded tire producers in the U.S. market.

TABLE 8.8 Retreaded tires: U.S. exports of used pneumatic tires (including tire casings)^a by leading destination, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
Thousand \$				
Mexico	11,617	12,541	13,868	19.4
Guatemala	2,777	3,629	4,471	61.0
Vietnam	222	211	4,401	1,882.4
Canada	2,241	2,343	2,957	32.0
Honduras	1,035	1,194	1,810	74.9
Dominican Republic	954	1,326	1,352	41.7
EU	5,792	5,094	1,293	-77.7
All other countries or markets	4620	6656	9135	97.7
Total	29,258	32,994	39,287	34.3

Source: Official statistics of the USDOC, HTS subheadings 4012.20.

Note: Totals may not sum due to rounding.

^aUsed pneumatic tires is a basket category that includes tire casings suitable for retreading as well as other used tires that may not be suitable for retreading. U.S. totals may be different from those shown in table 8.10 (global exports of used pneumatic tires), due to differences in reporting or to data suppression to safeguard CBI.

TABLE 8.9 Retreaded tires: U.S. imports of used pneumatic tires (including tire casings)^a by leading source, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
Thousand \$				
Japan	9,988	12,888	17,347	73.7
EU	9,541	8,962	11,276	18.2
Canada	1,861	2,947	5,627	202.4
Korea	303	965	2,466	713.9
Thailand	1,210	884	2,145	77.3
China	736	1,143	1,812	146.2
Australia	72	233	1,543	2,043.1
All other countries or markets	719	1,150	1,643	128.5
Total	24,430	29,172	43,859	79.5

Source: Official statistics of the USDOC, HTS subheading 4012.20.

Note: Totals may not sum due to rounding.

^aUsed pneumatic tires is a basket category that includes tire casings suitable for retreading as well as other used tires that may not be suitable for retreading. U.S. totals may be different from those shown in table 8.11 (global imports of used pneumatic tires) due to differences in reporting or to data suppression to safeguard CBI.

Global Trade in Tire Casings

Between 2009 and 2011, global exports of tire casings increased by 27 percent to \$383.5 million (table 8.10). Japan and the EU collectively accounted for over two-thirds of global exports. In contrast, the United States was the largest importer of tire casings, although it never accounted for more than 15 percent of global imports of casings during the period (table 8.11).

TABLE 8.10 Retreaded tires: Global exports of used pneumatic tires (including tire casings)^a by leading exporters, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
	Thousand \$			
Japan	117,668	129,352	154,200	31.0
EU	89,323	92,866	105,118	17.7
United States	31,090	35,350	44,186	42.1
Canada	6,912	10,191	16,011	131.6
Switzerland	10,945	12,050	15,175	38.6
Hong Kong	6,297	11,412	9,014	43.1
Korea	3,308	3,486	7,148	116.1
Thailand	3,602	2,765	5,670	57.4
Singapore	4,515	5,346	4,425	-2.0
Australia	5,476	5,001	3,808	-30.5
All other countries or markets	22,358	19,020	18,722	-16.3
Total	301,494	326,839	383,477	27.2

Source: GTIS, HS subheading 4012.20.

Note: Totals may not sum due to rounding.

^aUsed pneumatic tires is a basket category that includes tire casings suitable for retreading as well as other used tires that are not suitable for retreading.

TABLE 8.11 Retreaded tires: Global imports of used pneumatic tires (including tire casings)^a by leading importers, 2009–11

Country or market	2009	2010	2011	% change, 2009–11
	Thousand \$			
United States	24,543	29,171	43,869	78.7
EU	35,671	34,785	38,086	6.8
Mexico	20,049	22,530	27,994	39.6
Thailand	21,702	25,908	24,679	13.7
Ghana	^(b)	12,759	16,738	n/a
Guatemala	8,360	11,493	15,076	80.3
South Africa	8,226	9,467	12,968	57.6
Georgia	^(b)	10,588	12,157	n/a
Hong Kong	13,410	11,833	12,056	-10.1
Korea	4,889	7,851	10,488	114.5
All other countries or markets	75,366	78,805	85,480	13.4
Total	212,216	255,190	299,591	41.2

Source: GTIS, HS subheading 4012.20.

Note: Totals may not sum due to rounding. N/a = not applicable.

^aUsed pneumatic tires is a basket category that includes tire casings suitable for retreading as well as other used tires that may not be suitable for retreading.

^bNone reported.

FDI in the Retreaded Tires Sector

No figures were available for inbound FDI in tire retreading activities in the United States and associated employment, as well as for U.S. investment in foreign tire retreading activities.⁴² However, as previously noted, multinational tire manufacturers and retreaders with foreign ownership play a prominent role in the U.S. retreaded tire industry, and these firms likely account for a substantial amount of inbound FDI and employment in U.S. retreading activities. Leading sources of inbound FDI likely include Japan (home of Bridgestone), France (Michelin), Italy (Marangoni), and Germany (Continental). Likewise, U.S.-based tire retreader Goodyear operates tire retreading facilities in Europe, Latin America, and the Asia-Pacific, and likely accounts for a substantial amount of outbound FDI for foreign retreading activities in those destinations.⁴³

⁴² Respondents to the Commission questionnaire did not provide enough usable data to estimate inbound or outbound FDI in tire retreading activities.

⁴³ Goodyear, *10-K Annual Report*, 2011, 19.

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APPENDIX C
Hearing Participants

ORGANIZATION AND WITNESS:

Panel 2:

Detroit Diesel Remanufacturing LLC
Detroit, MI

Brian A. Lewallen, Operations Director

Cummins Inc.
Washington, DC

Allen W. Pierce, General Manager, New and Recon
Parts Manufacturing

John Deere Reman
Springfield, MO

Donald R. Flatau, General Manager, Global Reman,
Operations & Marketing

MacKay & Company
Lombard, IL

David Fulghum, Vice President

Tire Industry Association (“TIA”)
Bowie, MD

Marvin Bozarth, Senior Technical Consultant

Tire Retread & Repair Information Bureau (“TRIB”)
Falls Church, VA

David Stevens, Managing Director

International Imaging Technology Council (“IITC”)
Las Vegas, NV

Tricia Judge, Executive Director

APPENDIX D

Positions of Interested Parties

companies, and independent operators. Mr. Bozarth said that retreaded tires are serviced and warranted in basically the same way as new tires. Mr. Bozarth stated that tires frequently need repair for such things as nail holes and small chips, and thus tire repair has become an important part of the tire retreading industry. He noted that when tires can no longer be retreaded, they can be recycled into numerous types of other products, such as rubber mats and landscaping items.

Finally, Mr. Bozarth said that in the United States, tire retread plants are large multimillion-dollar investments. He said that in 2011 there were about 700 of these plants, with 18 of them producing large off-road tires, 5 producing aircraft retread tires, 4 producing passenger car retreads, and 680 producing truck retreads. Mr. Bozarth noted that many of these plants produce more than one type of retreaded tires. He stated that in 2011, 15.5 million truck retreads were produced in the United States.

Tire Retread & Repair Information Bureau (TRIB)²⁷

In written and oral testimony to the Commission, Mr. David Stevens, managing director of TRIB, stated that TRIB is a trade association founded in 1974 with a mission to promote and defend tire retreading and tire repairing on a global basis. Mr. Stevens said that TRIB has more than 500 members, most of which are in the United States. Mr. Stevens noted that in addition to the cost savings of retreaded tires, the tire retread industry provides large environmental benefits. He said that retreading conserves oil—in 2011 the retreading of truck tires alone saved more than 232 million gallons of oil. Mr. Stevens said that retreading also provides significant savings in raw materials such as steel, natural rubber, and carbon black that are used in the production process. Mr. Stevens stated that retreading extends the life of tires and keeps millions of tires out of tire piles and landfills. Mr. Stevens also noted that the federal government supports the use of retreaded tires on government vehicles where appropriate.

Moreover, Mr. Stevens stated that many state and federal studies have dispelled the myth that pieces of tire rubber commonly seen on the side of the road are from retreaded tires. Mr. Stevens noted in fact that these studies have determined that such tire fragments were from new and retreaded tires in equal proportion to their service on the roads and had virtually nothing to do with the processes used in the production of new tires or the retreading of tires. He stated that the two primary causes of tire damage identified were hitting something on the road and excessive heat on the tire.

Finally, Mr. Stevens said that retreaded tires are as safe, reliable, and long-lasting as new tires. He stated that the retreading industry continually strives to improve the quality of retreaded tires with advanced casing inspection technology, the use of shearography and X-ray machines, and the constant refinement and testing of rubber compounds and tread designs to provide better fuel economy and tread wear.

²⁷ USITC, hearing transcript, February 28, 2012, 117–122; TRIB, written submission to the USITC, February 28, 2012. For more information about TRIB, see <http://www.retread.org>.