

Transportation Equipment

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Change in 2018 from 2017:

- **U.S. total exports of transportation equipment: Increased by \$12.4 billion (3.8 percent) to \$337.9 billion**
- **U.S. general imports of transportation equipment: Increased by \$24.9 billion (5.7 percent) to \$459.7 billion**

U.S. total exports of transportation equipment totaled \$337.9 billion in 2018, up \$12.4 billion (3.8 percent) from 2017.¹ Canada, Mexico, and China were the top three destinations for U.S. exports of transportation equipment, accounting for a combined total of \$137.5 billion (45 percent of U.S. exports) in 2018 (table TE.1).² Increases in exports in 2018, by value, were due primarily to increased exports of aircraft, spacecraft, and related equipment; construction and mining equipment; and internal combustion engines (table TE.2). Meanwhile, U.S. exports of motor vehicles experienced a decline from 2017 to 2018.

U.S. imports of transportation equipment totaled \$459.7 billion in 2018, an increase of \$24.9 billion (5.7 percent). Mexico, Japan, and Canada were the largest sources for U.S. imports of transportation equipment in 2018, accounting for \$270.3 billion (59 percent) of total imports in the sector (table TE.1).³ Growth in imports, by value, was due primarily to increased imports of motor-vehicle parts; construction and mining equipment; and aircraft engines and gas turbines (table TE.2). Only one product group experienced a decline in imports in 2018—ships, tugs, pleasure boats, and similar vessels. This group includes surface or underwater drilling or production platforms.

¹ Unless otherwise noted, the export data used in this investigation are for domestic exports. For more information on trade terminology, please refer to USITC, “Special Topic: Trade Metrics,” *Shifts in U.S. Merchandise Trade, 2014, 2015*, https://www.usitc.gov/research_and_analysis/trade_shifts_2014/trade_metrics.htm.

² In 2018, U.S. exports of transportation equipment to Canada were \$71.7 billion (24 percent of all exports), exports to Mexico were \$36.7 billion (12.1 percent), and exports to China were \$29.0 billion (10 percent).

³ In 2018, U.S. imports of transportation equipment from Mexico were \$126.9 billion (28 percent of all imports), imports from Japan were \$73.4 billion (16 percent), and imports from Canada were \$70.4 billion (15 percent).

Table TE.1 Transportation equipment: U.S. exports and general imports, by selected trading partners, 2014–18

Country/item	Million \$					Absolute change, 2017 to 2018	% change, 2017 to 2018
	2014	2015	2016	2017	2018		
U.S. exports of domestic merchandise:							
Mexico	35,398	36,625	34,051	34,578	36,747	2,169	6.3
Canada	69,907	66,632	66,075	70,490	71,748	1,258	1.8
Japan	9,893	9,819	10,444	9,052	9,186	134	1.5
China	28,934	27,964	26,948	30,453	28,999	-1,454	-4.8
Germany	13,390	14,079	13,658	14,326	15,762	1,435	10.0
United Kingdom	12,081	12,897	13,937	11,856	14,745	2,889	24.4
South Korea	5,919	7,554	8,114	6,028	6,165	137	2.3
France	8,416	9,300	10,298	11,045	12,791	1,746	15.8
Italy	2,822	3,133	2,258	2,542	3,234	692	27.2
Brazil	6,984	6,016	5,170	6,677	6,918	241	3.6
All Other	112,290	104,049	98,140	94,437	96,939	2,502	2.6
Total domestic exports	306,032	298,069	289,091	291,484	303,233	11,749	4.0
Foreign exports	30,407	29,305	30,915	34,094	34,709	615	1.8
Total U.S. exports (domestic and foreign)	336,439	327,374	320,006	325,578	337,942	12,364	3.8
U.S. general imports:							
Mexico	96,659	104,403	105,197	114,193	126,991	12,797	11.2
Canada	74,542	73,961	73,657	71,871	70,778	-1,093	-1.5
Japan	65,209	66,111	68,644	70,605	72,545	1,940	2.7
China	21,554	23,931	24,232	26,344	30,434	4,090	15.5
Germany	46,180	47,996	39,884	38,963	37,629	-1,334	-3.4
United Kingdom	14,106	14,850	15,437	15,840	18,876	3,036	19.2
South Korea	23,960	27,015	25,305	25,300	24,173	-1,127	-4.5
France	13,891	13,946	12,642	13,760	14,253	493	3.6
Italy	7,896	9,131	8,792	9,967	11,244	1,276	12.8
Brazil	4,254	4,781	5,041	4,676	4,524	-152	-3.3
All other	35,772	40,297	39,482	43,342	48,281	4,939	11.4
Total general imports	404,024	426,421	418,314	434,862	459,727	24,864	5.7

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Import values are based on U.S. customs value; export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data. The countries are sorted by those with the largest total U.S. trade (U.S. general imports plus U.S. domestic exports) in these products in the most recent year.

Motor vehicles, certain motor-vehicle parts, and internal combustion piston engines were three of the top four product groups in terms of U.S. exports by value to each of the top destination countries: Canada, Mexico, and China.⁴ These product groups represent important export industries, given the United States' large automotive industry sector, which ranked second, behind China, in global production in 2018.⁵ In addition to shared borders, which lower trade costs, the size of automotive trade

⁴ The remaining product group, by value, among the top four categories of U.S. transportation goods exported to Canada, Mexico, and China in 2018 was aircraft, spacecraft, and related equipment.

⁵ OICA, "2018 Production Statistics" (accessed May 30, 2019).

between United States, Canada, and Mexico largely stems from the North American Free Trade Agreement and its requirement for automobiles to be produced with 62.5 percent North American content to qualify for duty-free treatment.⁶ China is the world's largest automotive producer, making it a primary destination for U.S. exports of certain motor-vehicle parts.⁷ Similarly, China is also the world's largest automotive consumer, making it a primary destination for U.S. exports of motor vehicles.⁸

In 2018, U.S. transportation equipment exports to Canada and Mexico rose \$1.3 billion and \$2.2 billion (1.8 percent and 6.3 percent), respectively. Increasing exports of aircraft, spacecraft, and related equipment (up \$687 million or 10 percent) and motor vehicles (up \$424 million or 1 percent) were responsible for the overall growth in transportation equipment exports to Canada. Increasing exports of internal combustion engines (up \$1.1 billion or 16 percent) and certain motor-vehicle parts (up \$544 million or 4 percent) were responsible for the growth in transportation exports to Mexico. U.S. transportation exports to China decreased \$1.5 billion (4.8 percent) in 2018, in part due to declining motor vehicle exports (down \$3.6 billion or 35 percent).

The majority of U.S. imports from top U.S. import suppliers in this category—Mexico, Japan, and Canada—consisted of motor vehicles and certain motor-vehicle parts.⁹ Imports from Mexico and Canada reflect the interconnected nature of the North American automotive industry. Japan was the world's third-largest producer of motor vehicles in 2018, and 30 percent of Japanese-branded vehicles purchased in the United States were imported from Japan.¹⁰

U.S. imports of transportation equipment in 2018 increased from two of these leading countries—Mexico (\$12.8 billion or 11.2 percent) and Japan (\$1.9 billion or 2.7 percent)—but decreased from Canada (down \$1.1 billion or 1.5 percent) (table TE.1). Increasing imports from Mexico of motor vehicles (up \$7.0 billion or 12 percent) and certain motor-vehicle parts (\$3.0 billion, 8 percent) accounted for more than three-quarters of the total growth in transportation equipment imports in 2018. Imports from Japan of construction and mining equipment (up \$800 million, 21 percent) and motor vehicles (\$640 million, 2 percent) showed the largest increases in 2018. These two product groups contributed to more than half of the total increase in transportation equipment imports from Japan. Motor vehicles is the only transportation equipment product group for which imports from Canada decreased in 2018. Motor vehicle imports from Canada fell \$3.5 billion (8 percent), more than three times the total decrease in transportation equipment imports from Canada. A decline in vehicle production in Canada, which fell 8 percent in 2018, partially explains the decrease in U.S. vehicle imports from Canada.¹¹

⁶ Center for Automotive Research, "Meet the New NAFTA," October 16, 2018.

⁷ Nelson and Goon, "Industry Surveys, Automobiles," April 2019, 4.

⁸ Nelson and Goon, "Industry Surveys, Automobiles," April 2019, 4.

⁹ In 2018, motor vehicles and certain motor-vehicle parts accounted for 82 percent of transportation equipment imports from Mexico, 70 percent of imports from Japan, and 75 percent of imports from Canada.

¹⁰ The majority of Japanese-branded vehicles purchased in the United States were U.S.-produced. OICA, "2018 Production Statistics" (accessed May 30, 2019); JAMA, "Japanese Brand Automobile and Motorcycle Trends" (accessed June 27, 2019).

¹¹ OICA, "2018 Production Statistics" (accessed May 30, 2019); Government of Canada, "Canadian Automotive Industry," January 1, 2019.

U.S. Exports

The U.S. transportation equipment product groups that experienced the largest gains in exports in 2018, by value, were aircraft, spacecraft, and related equipment (\$8.0 billion or 6.9 percent); construction and mining equipment (\$2.1 billion or 18.4 percent); and internal combustion engines (\$1.4 billion or 7.0 percent) (table TE.2).¹² The product group with the largest decline in exports by value was motor vehicles (\$1.2 billion or 1.8 percent). The major factors influencing U.S. exports in 2018 were increased demand for fuel-efficient aircraft, increased infrastructure spending from major trading partners, and higher levels of vehicle production in Mexico, which boosted demand for U.S.-produced vehicle parts.

U.S. exports of aircraft, spacecraft, and related equipment (the largest transportation equipment product group, by value) rose 6.9 percent, from \$115.7 billion in 2017 to \$123.7 billion in 2018 (table TE.2). This rise follows the 2017 decline in exports (\$4.7 billion or 4 percent) and was largely attributed to customer demand for more fuel-efficient aircraft and increasing passenger demand for air travel.¹³ Export increases to China (up \$2.0 billion or 13 percent), France (\$1.7 billion, 17 percent), the United Kingdom (\$2.4 billion, 31 percent), and Germany (\$1.6 billion, 27 percent)—the United States' four largest trading partners for this product group—accounted for almost the entirety of the \$8.0 billion increase in U.S. exports. Boeing, the United States' largest manufacturing exporter, saw an increase in the value of its aircraft exports to China (up an estimated \$4.1 billion), the United Kingdom (up an estimated \$2.8 billion), and France (up an estimated \$559 million) between 2017 and 2018, which explains part of the increase in U.S. exports of aircraft, spacecraft, and related equipment to these countries.¹⁴ These countries are also major aircraft manufacturers, making them logical markets for U.S. exports of aircraft parts.¹⁵ For example, U.S. exports of aircraft parts to Germany nearly doubled in 2018, from \$207 million to \$413 million.¹⁶

¹² The internal combustion piston engines product group does not include aircraft engines.

¹³ Lineberger, "2019 Global Aerospace and Defense Industry Outlook," 2018, 3; Boeing, "Commercial Market Outlook 2019–2038," 2019, 4.

¹⁴ USITC estimates. Boeing, "Orders and Deliveries" (accessed June 6, 2019); Boeing, "Current Price" (accessed June 6, 2019). Boeing delivered 806 aircraft in 2018, 6 percent more than the 763 delivered in 2017. Boeing, "Boeing Sets New Airplane Delivery Records," January 8, 2019.

¹⁵ Airbus, the largest European aircraft manufacturer, has manufacturing facilities in Germany, France, and the United Kingdom. China also manufactures aircraft through its state-owned Commercial Aircraft Corporation of China. Airbus, "Production" (accessed on June 27, 2019).

¹⁶ USITC DataWeb/USDOC, total exports of HTS 8803, covering parts of balloons and dirigibles; gliders, hang gliders and other non-powered aircraft; other aircraft (for example, helicopters, airplanes); and spacecraft (including satellites) and suborbital and spacecraft launch vehicles (accessed August 22, 2019).

Table TE.2 Transportation equipment: Leading changes in U.S. exports and imports, 2014–18

Industry/commodity group (USITC code)	Million \$					Absolute change, 2017 to 2018	% change, 2017 to 2018
	2014	2015	2016	2017	2018		
U.S. domestic exports:							
Increases:							
Aircraft, spacecraft, and related equipment (TE013)	113,744	118,944	120,491	115,717	123,710	7,993	6.9
Construction and mining equipment (TE004)	20,361	15,392	10,343	11,631	13,766	2,135	18.4
Internal combustion piston engines, other than for aircraft (TE002)	20,226	18,040	16,915	19,659	21,030	1,371	7.0
Decreases:							
Motor vehicles (TE009)	73,703	67,362	66,651	68,495	67,271	-1,224	-1.8
All other	77,998	78,331	74,692	75,982	77,456	1,474	1.9
Total	306,032	298,069	289,091	291,484	303,233	11,749	4.0
U.S. general imports:							
Increases:							
Certain motor-vehicle parts (TE010)	82,106	86,139	85,865	85,225	91,166	5,941	7.0
Construction and mining equipment (TE004)	15,401	14,881	12,655	14,530	18,301	3,770	25.9
Aircraft engines and gas turbines (TE001)	21,680	22,428	21,914	23,629	26,569	2,940	12.4
Decreases:							
Ships, tugs, pleasure boats, and similar vessels (TE014)	1,561	2,813	2,077	2,577	2,250	-327	-12.7
All other	283,275	300,160	295,803	308,901	321,442	12,540	4.1
Total	404,024	426,421	418,314	434,862	459,727	24,864	5.7

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Import values are based on U.S. customs value; export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data.

U.S. exports of construction and mining equipment experienced the second-largest increase in 2018, attributed to nationally funded infrastructure investment projects abroad and fourth-quarter increases in oil and gas capital expenditures.¹⁷ Exports increased 18.4 percent, from \$11.6 billion in 2017 to \$13.8 billion in 2018 (table TE.2). Canada was the largest recipient of U.S. construction and mining equipment with \$4.0 billion in exports, followed by Mexico (\$1.3 billion) and Australia (\$1.2 billion). U.S. exports of qualifying construction and mining equipment generally enter Canada, Mexico, and Australia

¹⁷ U.S. exports of aircraft, spacecraft, and related equipment surpassed construction and mining equipment exports in terms of their value increase (\$8.0 billion versus \$2.1 billion). U.S. exports of ships, tugs, pleasure boats, and similar vessels surpassed construction and mining equipment exports in terms of their percentage increase in volume (31 percent versus 18 percent). Capital expenditures from national oil and independent companies increased \$61.5 billion in the fourth quarter of 2018. Ati, Brinkman, and Peacock, "OFSE Quarterly: Oil Price Slump Slows Recovery," March 2019.

duty free under trade agreements between United States and these countries.¹⁸ Exports to Canada and Mexico increased \$414 million (12 percent) and \$81 million (7 percent), respectively. Australia saw the largest increase in U.S. construction and mining equipment exports in terms of value (up \$517 million or 72 percent).

As noted above, large foreign infrastructure investments appear to have played an important role in increasing U.S. exports in this product group. For example, in 2016 the Canadian government created the Investing in Canada Plan, which is expected to provide over \$180 billion in infrastructure funding over the next 12 years.¹⁹ The Canadian government committed to investing over \$25.4 billion in infrastructure in 2018,²⁰ and nonresidential construction projects in Canada experienced increases over the past year, including transportation infrastructure and manufacturing facilities.²¹ While Canada produces certain types of construction equipment domestically, it imports most of its construction equipment from the United States and Japan.²² Mexico and Australia also have multiyear infrastructure investment plans that led to increased U.S. exports of construction and mining equipment to those countries in 2018.²³

U.S. exports of internal combustion piston engines grew \$1.4 billion (7.0 percent) from 2017 to 2018, an increase largely attributed to rising vehicle production in Mexico (table TE.2). Mexico was the largest recipient of U.S. exports for the product group and is responsible for \$1.1 billion of the increased exports, as exports to Mexico rose 16 percent, from \$6.8 billion in 2017 to \$7.9 billion in 2018. Canada is the second-largest recipient of U.S. exports of these products, and, together with Mexico, accounted for two-thirds of all U.S. exports of internal combustion piston engines.²⁴ Exports to Canada, however, fell in 2018 by \$446 million (7 percent). Exports of engines to Mexico likely grew due to its increase in vehicle production in 2018, while decreasing vehicle production in Canada may have depressed U.S. exports of engines to Canada.²⁵

U.S. exports of motor vehicles fell \$1.2 billion (1.8 percent) from \$68.5 billion in 2017 to \$67.3 billion in 2018—the largest annual decrease in exports by value of any transportation equipment product group (table TE.2). Canada was the largest recipient of U.S. motor vehicles in 2018, accounting for \$29.0 billion (43 percent) of U.S. exports, followed by China (\$6.6 billion or 10 percent). As exports to Canada increased in 2018, decreasing exports to China were largely responsible for the overall decline in motor vehicle exports. U.S. motor vehicle exports to China dropped \$3.6 billion (35 percent) in 2018, nearly three times the total decrease in motor vehicle exports. This decline is due, at least in part, to three factors: a decline in total motor vehicle sales in China during 2018, an increase in sales taxes for

¹⁸ The United States, Mexico, and Canada are parties to the North American Free Trade Agreement. The United States and Australia are parties to the United States-Australia Free Trade Agreement.

¹⁹ Government of Canada, “About the Investing in Canada Plan,” May 9, 2019.

²⁰ USDOC, ITA, Export.gov, “Canada—Architecture and Construction,” December 14, 2018.

²¹ Samp, “2018 U.S. and Canadian Construction Performances in Review,” February 7, 2019.

²² USDOC, ITA, Export.gov, “Canada—Architecture and Construction,” December 14, 2018.

²³ USDOC, ITA, “Infrastructure—Mexico” (accessed June 6, 2019); Government of Australia, “Australian Infrastructure Plan” (accessed June 6, 2019).

²⁴ In 2017, the majority of U.S. exports of core automotive parts (of which engines account for over half) went to Canada and Mexico. USITC, *United States-Mexico-Canada Agreement: Likely Impact*, 2019, 72.

²⁵ OICA, “2017 Production Statistics” (accessed May 30, 2019); OICA, “2018 Production Statistics” (accessed May 30, 2019).

automobiles (from 5 percent to 10 percent), and, reportedly, trade actions by the Chinese government.²⁶ (For more information, see this report’s final chapter—Special Topic: Section 232 and 301 Trade Actions in 2018.)

U.S. Imports

U.S. imports of transportation equipment rose \$24.9 billion (5.7 percent) in 2018, totaling \$459.7 billion (table TE.2). This increase also represented a 50 percent increase over the previous year’s gains (\$16.5 billion or 4.0 percent). The transportation equipment product groups with the largest increases in U.S. imports, by value, were certain motor-vehicle parts (\$5.9 billion or 7.0 percent), construction and mining equipment (\$3.8 billion or 25.9 percent), and aircraft engines and gas turbines (\$2.9 billion or 12.4 percent). The only transportation equipment product group to experience a decline in imports in 2018 was ships, tugs, pleasure boats, and similar vessels (down \$327 million or 12.7 percent).²⁷ The major trend influencing transportation equipment imports in 2018 was increased domestic vehicle and aircraft production using foreign parts.

The certain motor-vehicle parts product group experienced the largest import increase of any transportation equipment product group in 2018. U.S. imports of these products increased \$5.9 billion (7.0 percent), from \$85.2 billion in 2017 to \$91.2 billion in 2018 (table TE.2). Mexico was the source of \$39.2 billion (43 percent) of these imports in 2018, followed by China (\$12.5 billion or 14 percent) and Canada (\$10.4 billion or 11 percent). U.S. imports of these goods increased from all three of these countries: those from Mexico increased by \$3.0 billion (8 percent); from China, by \$1.5 billion (14 percent); and from Canada, by \$721 million (7 percent).

The United States produced 124,000 more vehicles in 2018 than in 2017, explaining some of the increase in imports of certain motor-vehicle parts.²⁸ In addition, sources suggest U.S. section 232 tariffs on steel affected some U.S. automotive parts suppliers in 2018.²⁹ The tariffs pushed up prices for steel in the U.S. market, which caused some parts suppliers to source certain steel-intensive intermediate parts from other countries.³⁰ Some U.S. manufacturers were able to import these steel-intensive parts as finished products, avoiding the section 232 tariffs on steel. Furthermore, U.S. manufacturers were also

²⁶ Motor vehicle sales in China fell 2.8 percent in 2018, the first annual decrease in almost three decades. Nelson and Goon, “Industry Surveys, Automobiles,” April 2019, 12.

²⁷ Declining U.S. imports of floating or submersible drilling or production platforms (HTS 8905.20.00) from South Korea are responsible for 98 percent of this decrease. USITC DataWeb/USDOC, HTS subheading 8905.20.00 (accessed March 13, 2019).

²⁸ OICA, “2017 Production Statistics” (accessed May 30, 2019); OICA, “2018 Production Statistics” (accessed May 30, 2019). For example, one motor-vehicle part that experienced a large increase in U.S. imports in 2018 was wiring sets (HTS 8544.30.00) from Mexico, which grew \$1.1 billion in 2017–18. Mexico produces 70 percent of these wiring sets for vehicles produced in the United States and has continued to increase production capacity for these parts. Furthermore, the unit price of these wiring sets from Mexico increased 5 percent in 2018, explaining some of the value increase in imports. USITC DataWeb/USDOC HS8544.30.00 (accessed on March 13, 2019); Isidore, “Why Mexico Is So Important,” May 31, 2019; *Mexico News Daily*, “German Manufacturer Opens Its Fifth Plant,” December 1, 2017; IHS Markit, Global Trade Atlas database, unit price of Mexican exports to the United States for HS 8544.30 (accessed on July 18, 2019).

²⁹ Carey, “Trump Tariffs Force Tough Choices,” January 17, 2019.

³⁰ Carey, “Trump Tariffs Force Tough Choices,” January 17, 2019; Dwyer, “Auto Parts Manufacturers Are Hurt by Tariffs,” June 13, 2018.

able to source automotive parts from foreign that were, in turn, able to produce these parts with relatively less expensive steel.³¹ (For a discussion of trade shifts in the steel industry, see the Minerals and Metals chapter; for more information on tariff actions, see the Section 232 and 301 Trade Actions in 2018 chapter).³²

U.S. imports of construction and mining equipment increased \$3.8 billion (25.9 percent)—the second-highest percentage gain in transportation equipment. These imports grew from \$14.5 billion in 2017 to \$18.3 billion in 2018 (table TE.2). Japan (\$4.7 billion), Germany (\$2.4 billion), and China (\$2.0 billion) were the three largest sources of U.S. imports of construction and mining equipment, accounting for just under half of all transportation equipment imports in 2018. The United States increased its imports from each of these countries in 2018: imports from Japan rose by \$800 million (up 21 percent), while imports from Germany rose by \$403 million (20 percent) and those from China by \$477 million (32 percent).³³

The growth in U.S. pipeline projects in 2018, coupled with lower domestic shipments of oil and gas machinery, partially explains why U.S. imports in this product group increased.³⁴ (For a discussion of trade shifts in the energy sector, see the Energy-related Products chapter.) Additionally, since about 10 percent of the cost of manufacturing construction equipment comes from steel inputs, U.S. construction equipment manufacturers have reportedly faced higher costs in light of section 232 tariffs on steel that resulted in companies raising prices and losing sales.³⁵

Aircraft engines and gas turbines experienced the third-largest increase in terms of value for U.S. imports. Imports rose \$2.9 billion (12.4 percent) from \$23.6 billion in 2017 to \$26.6 billion in 2018, attributed mainly to expanded U.S. aircraft production (table TE.2). France (from which imports rose \$5.9 billion), Canada (\$4.2 billion), the United Kingdom (\$2.6 billion), and Germany (\$2.5 billion) were the largest sources for U.S. imports of aircraft engines and gas turbines in 2018. Imports from the United Kingdom and Canada increased the most in terms of value, by \$862 million (51 percent) and \$577 million (16 percent), respectively. Both France and the United Kingdom are home to aircraft engine manufacturers that supply engines to Boeing, the world's largest aerospace manufacturer. Boeing increased production in 2018 and accounted for a substantial share of the U.S. imports of aircrafts engines and gas turbines.³⁶

³¹ Carey, "Trump Tariffs Force Tough Choices," January 17, 2019.

³² Carey, "Trump Tariffs Force Tough Choices," January 17, 2019.

³³ Each of these countries is home to at least one top 10 construction equipment manufacturer. Komatsu and Hitachi Construction Equipment are based in Japan; Liebherr is based in Germany; and Sany and Zoomlion are based in China. Ayemba, "Top 10 World's Construction Equipment Manufacturers," March 19, 2019.

³⁴ Samp, "2018 U.S. and Canadian Construction Performances in Review," February 7, 2019; Census, "Manufacturer's Shipments, Inventories, and Order" (M3 Survey, A33DVS) (accessed July 22, 2019).

³⁵ Rubenstone, "Equipment Makers Prepare for Tariff Fight," August 22, 2018; Aeppel, "U.S. Heavy Equipment Makers Feeling Pain from Tariffs," March 18, 2019.

³⁶ Boeing uses CFM International Leading Edge Aviation Propulsion (LEAP) engines for its Boeing 737 Max series of aircraft, whose production increased in 2018. CFM International is a joint venture between GE Aviation and Safran Aircraft Engines, which is headquartered in France. GE Aviation and Safran Aircraft Engines share production of the LEAP engines. Rolls-Royce produces aircraft engines used by Boeing, including the Trent 1000 for the Boeing 787 Dreamliner, and is headquartered in the United Kingdom. Boeing, "Boeing Sets New Airplane Delivery Records," January 8, 2019; Safran, "A Technological LEAP Forward" (accessed June 27, 2019); MRO Network, "CFM Confirms

Ships, tugs, pleasure boats, and similar vessels was the only product group with declining imports in 2018. Imports decreased \$327 million (12.7 percent), from \$2.6 billion in 2017 to \$2.2 billion in 2018. South Korea fell from being the third-largest source of U.S. imports of products in this group in 2017 to the 36th-largest source in 2018. U.S. imports from South Korea declined \$322 million, accounting for 98 percent of the overall decline in imports of ships, tugs, pleasure boats, and similar vessels. This decline was attributed to the fact that U.S. imports of South Korean floating or submersible drilling or production platforms³⁷ fell from \$321 million in 2017 to zero in 2018.³⁸

Initial LEAP-1A and LEAP-1B Assembly Allocation,” May 13, 2016; Rolls-Royce, “Trent 1000” (accessed on June 27, 2019).

³⁷ This product group includes floating production storage and offloading units, which allow development of oil and gas reserves in deeper water and can cost over \$700 million per unit. Purchases of these goods tend to fluctuate from year to year. USITC DataWeb/USDOC, HS 8905.20.00 (accessed March 13, 2019); FPSO World Fleet, “FPSO Info” (accessed June 28, 2019).

³⁸ USITC DataWeb/USDOC, imports for consumption of HTS 8905.20.00 (accessed June 4, 2019).

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