

Machinery

Table MT.1 Machinery: U.S. general imports by select trading partners, 2018–22

Value in millions of dollars; share of total imports in percentages.

Import source	2018	2019	2020	2021	2022
China (million \$)	59,242	50,253	49,537	58,081	59,435
Mexico (million \$)	33,316	34,568	33,544	41,046	48,215
Germany (million \$)	20,861	20,219	18,872	21,830	24,111
Japan (million \$)	18,887	20,589	17,604	20,858	23,891
Canada (million \$)	14,495	14,936	13,455	15,713	18,570
South Korea (million \$)	8,230	8,380	9,059	11,211	13,092
Italy (million \$)	8,401	8,792	8,030	10,331	11,292
Taiwan (million \$)	5,121	5,352	5,658	7,113	8,555
All other sources (million \$)	45,153	48,894	48,411	61,607	73,691
Total (million \$)	213,704	211,982	204,170	247,791	280,851
China (%)	27.7	23.7	24.3	23.4	21.2
Mexico (%)	15.6	16.3	16.4	16.6	17.2
Germany (%)	9.8	9.5	9.2	8.8	8.6
Japan (%)	8.8	9.7	8.6	8.4	8.5
Canada (%)	6.8	7.0	6.6	6.3	6.6
South Korea (%)	3.9	4.0	4.4	4.5	4.7
Italy (%)	3.9	4.1	3.9	4.2	4.0
Taiwan (%)	2.4	2.5	2.8	2.9	3.0
All other sources (%)	21.1	23.1	23.7	24.9	26.2
Total (%)	100.0	100.0	100.0	100.0	100.0

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: 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.

Shifts in U.S. Merchandise Trade, 2022

Table MT.2 Machinery: U.S. domestic exports by select trading partners and re-exports, 2018–22

Value in millions of dollars; share of total in percentages.

Destination market	2018	2019	2020	2021	2022
Canada (million \$)	22,968	22,723	19,935	23,091	26,143
Mexico (million \$)	18,205	17,275	14,309	16,683	19,680
China (million \$)	11,268	10,575	11,352	13,911	12,175
South Korea (million \$)	7,058	5,616	7,221	9,533	8,617
Taiwan (million \$)	4,281	5,430	5,247	6,949	7,956
Germany (million \$)	4,536	4,089	3,908	4,637	5,047
Japan (million \$)	5,924	4,763	5,050	4,588	4,881
All other destination markets (million \$)	46,644	45,418	39,773	43,874	50,115
Re-exports (million \$)	22,576	21,716	20,286	24,542	28,900
U.S. total exports (million \$)	143,461	137,606	127,082	147,807	163,512
Canada (%)	16.0	16.5	15.7	15.6	16.0
Mexico (%)	12.7	12.6	11.3	11.3	12.0
China (%)	7.9	7.7	8.9	9.4	7.4
South Korea (%)	4.9	4.1	5.7	6.4	5.3
Taiwan (%)	3.0	3.9	4.1	4.7	4.9
Germany (%)	3.2	3.0	3.1	3.1	3.1
Japan (%)	4.1	3.5	4.0	3.1	3.0
All other destination markets (%)	32.5	33.0	31.3	29.7	30.6
Re-exports (%)	15.7	15.8	16.0	16.6	17.7
U.S. total exports (%)	100.0	100.0	100.0	100.0	100.0

Source: USITC DataWeb/Census, accessed February 16, 2023.

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

Table MT.3 Machinery: Rank of top U.S. general import source, 2018–22

Import source	2018	2019	2020	2021	2022
China	1	1	1	1	1
Mexico	2	2	2	2	2
Germany	3	4	3	3	3
Japan	4	3	4	4	4
Canada	5	5	5	5	5
South Korea	7	7	6	6	6
Italy	6	6	7	7	7
Taiwan	8	8	8	9	8
Vietnam	21	18	9	8	9
Thailand	14	14	11	10	10
India	12	12	13	12	11

Source: USITC DataWeb/Census, accessed February 16, 2023.

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

Table MT.4 Machinery: Rank of top U.S. domestic export market, 2018–22

Destination market	2018	2019	2020	2021	2022
Canada	1	1	1	1	1
Mexico	2	2	2	2	2
China	3	3	3	3	3
South Korea	4	4	4	4	4
Taiwan	7	5	5	5	5
Germany	6	7	7	6	6
Japan	5	6	6	7	7
Singapore	9	9	8	8	8
United Kingdom	8	8	9	9	9
Australia	11	10	10	10	10
Netherlands	10	11	11	11	11

Source: USITC DataWeb/Census, accessed February 16, 2023.

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

Table MT.5 Machinery: U.S. domestic exports by select trading partners and re-exports, 2018–22

In millions of dollars.

Destination market	2018	2019	2020	2021	2022
Canada	22,968	22,723	19,935	23,091	26,143
Mexico	18,205	17,275	14,309	16,683	19,680
China	11,268	10,575	11,352	13,911	12,175
South Korea	7,058	5,616	7,221	9,533	8,617
Taiwan	4,281	5,430	5,247	6,949	7,956
Germany	4,536	4,089	3,908	4,637	5,047
Japan	5,924	4,763	5,050	4,588	4,881
Singapore	3,698	3,250	3,254	4,203	4,766
United Kingdom	3,854	3,867	3,245	3,428	3,560
Australia	2,538	2,555	2,515	2,847	3,524
Netherlands	2,590	2,492	2,472	2,826	3,179
Brazil	2,219	2,276	1,879	2,253	2,755
France	2,206	2,249	2,029	2,255	2,669
Belgium	1,751	1,906	1,484	1,838	1,847
Malaysia	1,005	983	992	1,127	1,628
All other destination markets	26,782	25,841	21,902	23,099	26,187
U.S. domestic exports	120,885	115,890	106,796	123,265	134,612
Re-exports	22,576	21,716	20,286	24,542	28,900
U.S. total exports	143,461	137,606	127,082	147,807	163,512

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data.

Table MT.6 Machinery: Dollar changes in U.S. domestic exports by select trading partners and re-exports, 2018–22

In millions of dollars.

Destination market	2018–19	2019–20	2020–21	2021–22	2018–22
Canada	-245	-2,788	3,156	3,052	3,175
Mexico	-930	-2,966	2,374	2,997	1,474
China	-693	777	2,559	-1,736	907
South Korea	-1,442	1,605	2,311	-915	1,559
Taiwan	1,149	-182	1,701	1,007	3,675
Germany	-447	-181	729	410	510
Japan	-1,161	287	-462	293	-1,044
Singapore	-448	5	948	563	1,067
United Kingdom	13	-622	183	132	-294
Australia	17	-39	331	677	986
Netherlands	-98	-20	354	353	588
Brazil	57	-397	374	503	537
France	43	-220	225	414	463
Belgium	155	-422	354	9	96
Malaysia	-22	9	135	501	623
All other destination markets	-942	-3,938	1,196	3,089	-595
U.S. domestic exports	-4,995	-9,094	16,469	11,347	13,727
Re-exports	-860	-1,431	4,257	4,357	6,323
U.S. total exports	-5,855	-10,524	20,726	15,705	20,051

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data.

Table MT.7 Machinery: Percentage changes in U.S. domestic exports by select trading partners and re-exports, 2018–22

In percentages.

Destination market	2018–19	2019–20	2020–21	2021–22	2018–22
Canada	-1.1	-12.3	15.8	13.2	13.8
Mexico	-5.1	-17.2	16.6	18.0	8.1
China	-6.2	7.4	22.5	-12.5	8.0
South Korea	-20.4	28.6	32.0	-9.6	22.1
Taiwan	26.8	-3.4	32.4	14.5	85.8
Germany	-9.9	-4.4	18.7	8.8	11.3
Japan	-19.6	6.0	-9.2	6.4	-17.6
Singapore	-12.1	0.1	29.1	13.4	28.9
United Kingdom	0.3	-16.1	5.6	3.9	-7.6
Australia	0.7	-1.5	13.2	23.8	38.8
Netherlands	-3.8	-0.8	14.3	12.5	22.7
Brazil	2.6	-17.5	19.9	22.3	24.2
France	1.9	-9.8	11.1	18.4	21.0
Belgium	8.9	-22.1	23.8	0.5	5.5
Malaysia	-2.2	0.9	13.6	44.4	62.0
All other destination markets	-3.5	-15.2	5.5	13.4	-2.2
U.S. domestic exports	-4.1	-7.8	15.4	9.2	11.4
Re-exports	-3.8	-6.6	21.0	17.8	28.0
U.S. total exports	-4.1	-7.6	16.3	10.6	14.0

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data.

Table MT.8 Machinery: Top 10 U.S. domestic export markets, 2018–22

Rank	2018	2019	2020	2021	2022
1	Canada	Canada	Canada	Canada	Canada
2	Mexico	Mexico	Mexico	Mexico	Mexico
3	China	China	China	China	China
4	South Korea	South Korea	South Korea	South Korea	South Korea
5	Japan	Taiwan	Taiwan	Taiwan	Taiwan
6	Germany	Japan	Japan	Germany	Germany
7	Taiwan	Germany	Germany	Japan	Japan
8	United Kingdom	United Kingdom	Singapore	Singapore	Singapore
9	Singapore	Singapore	United Kingdom	United Kingdom	United Kingdom
10	Netherlands	Australia	Australia	Australia	Australia

Source: USITC DataWeb/Census, accessed February 16, 2023.

Table MT.9 Machinery: Changes in rank of the top 10 U.S. domestic export markets, 2018–22

Each numeral = the number of positions gained or lost in rank.

Destination market	2018–19	2019–20	2020–21	2021–22	2018–22
Canada	0	0	0	0	0
Mexico	0	0	0	0	0
China	0	0	0	0	0
South Korea	0	0	0	0	0
Taiwan	2	0	0	0	2
Germany	-1	0	1	0	0
Japan	-1	0	-1	0	-2
Singapore	0	1	0	0	1
United Kingdom	0	-1	0	0	-1
Australia	1	0	0	0	1

Source: USITC DataWeb/Census, accessed February 16, 2023.

Table MT.10 Machinery: Leading changes in U.S. domestic exports, 2018–22

In millions of dollars and percentages.

Product group (digest)	2018 (million \$)	2019 (million \$)	2020 (million \$)	2021 (million \$)	2022 (million \$)	Absolute	Percentage
						change, 2021–22 (million \$)	change 2021–22 (%)
Farm and garden machinery and equipment	10,226	9,527	7,960	9,853	12,346	2,493	25.3
Centrifuges and filtering and purifying equipment	8,052	8,130	7,667	8,740	10,072	1,332	15.2
Nonautomotive insulated electrical wire and related products	5,478	5,380	4,738	5,577	6,559	982	17.6
Taps, cocks, valves, and similar devices	10,250	9,955	8,768	9,344	10,285	941	10.1
Household appliances, including commercial applications	7,717	7,549	6,424	7,068	7,889	821	11.6
Air-conditioning equipment and parts	7,974	7,581	6,681	6,966	7,745	779	11.2
Pumps for liquids	6,052	5,891	5,009	5,368	5,997	629	11.7
Semiconductor manufacturing equipment and robotics	22,656	19,697	23,045	29,701	30,262	561	1.9
Industrial thermal-processing equipment and furnaces	3,808	3,984	3,449	3,561	4,061	501	14.1
Electrical transformers, static converters, and inductors	3,414	3,276	3,031	3,221	3,712	491	15.2
Mechanical power transmission equipment	3,216	3,339	2,777	3,274	3,746	472	14.4
Molds and molding machinery	1,973	1,719	1,537	1,638	1,815	177	10.8
Metal-forming machine tools	1,061	980	785	907	1,083	175	19.3
Industrial food-processing and related machinery	1,093	1,107	958	1,025	1,193	169	16.5
Boilers, turbines, and related machinery	912	1,069	912	954	1,118	164	17.2
Electric motors, generators, and related equipment	6,046	6,440	6,026	6,521	6,625	104	1.6
Mineral-processing machinery	954	946	778	834	919	85	10.2
Machine tool accessories	509	422	306	373	452	79	21.3
Metal-cutting machine tools	2,151	1,866	1,409	1,794	1,860	66	3.7
Pulp, paper, and paperboard machinery	766	790	654	678	743	66	9.7
Printing and related machinery	1,201	1,109	872	944	1,004	60	6.4
Metal-rolling mills	229	275	195	157	217	60	38.1
Non-metalworking machine tools	883	691	696	769	811	42	5.4
Miscellaneous machinery	10,287	10,509	8,954	10,266	10,301	35	0.3
Welding and soldering equipment	1,008	984	739	900	933	33	3.7
Nonelectrically powered hand tools	645	514	450	531	550	19	3.5
Portable electric hand tools	231	223	244	313	320	6	2.0
Scales and weighing machinery	207	204	171	188	192	5	2.6

Product group (digest)	2018	2019	2020	2021	2022	Absolute change, 2021–22	Percentage change 2021–22
	(million \$)	(million \$)	(million \$)	(million \$)	(million \$)	(million \$)	(%)
Wrapping, packaging, and can-sealing machinery	842	791	822	877	881	4	0.5
Textile machinery	601	546	421	534	536	2	0.3
Electric lamps (bulbs) and portable electric lights	445	396	316	389	385	-4	-1.2
Total	120,885	115,890	106,796	123,265	134,612	11,347	9.2

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Export values are based on free along ship value, U.S. port of export. Calculations are based on unrounded data. Industry sectors are further divided into digests. Each USITC sector digest encompasses various 8-digit subheadings in the Harmonized Tariff Schedule of the United States (HTS). The USITC maintains and publishes the HTS, which sets out the tariff rates and statistical categories for all merchandise imported into the United States. The U.S. Census Bureau (Census) collects and compiles export statistics of approximately 8,000 commodity classifications (10-digit classification codes) in Schedule B: Statistical Classification of Domestic and Foreign Commodities Exported from the United States. Schedule B classification codes are concurred to HTS 10-digit statistical reporting numbers according to USITC estimates; therefore, the classification codes for exports are presented using HTS 8-digit subheadings for imports.

Table MT.11 Machinery: U.S. general imports by select trading partners, 2018–22

In millions of dollars.

Import source	2018	2019	2020	2021	2022
China	59,242	50,253	49,537	58,081	59,435
Mexico	33,316	34,568	33,544	41,046	48,215
Germany	20,861	20,219	18,872	21,830	24,111
Japan	18,887	20,589	17,604	20,858	23,891
Canada	14,495	14,936	13,455	15,713	18,570
South Korea	8,230	8,380	9,059	11,211	13,092
Italy	8,401	8,792	8,030	10,331	11,292
Taiwan	5,121	5,352	5,658	7,113	8,555
Vietnam	1,303	1,927	4,403	7,214	7,859
Thailand	2,548	2,994	3,733	5,307	6,696
India	3,191	3,312	3,299	4,410	6,465
United Kingdom	4,227	4,610	3,982	4,627	5,240
Malaysia	2,053	2,211	2,672	3,454	4,131
Switzerland	3,150	3,304	3,065	3,590	3,860
Netherlands	3,925	4,164	3,369	3,322	3,573
All other sources	24,756	26,371	23,888	29,683	35,867
Total	213,704	211,982	204,170	247,791	280,851

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on customs value. Calculations are based on unrounded data.

Shifts in U.S. Merchandise Trade, 2022

Table MT.12 Machinery: Dollar changes in U.S. general imports by select trading partners, 2018–22

In millions of dollars.

Import source	2018–19	2019–20	2020–21	2021–22	2018–22
China	-8,989	-716	8,545	1,353	193
Mexico	1,252	-1,023	7,502	7,169	14,899
Germany	-641	-1,347	2,957	2,281	3,250
Japan	1,702	-2,985	3,254	3,033	5,004
Canada	441	-1,481	2,259	2,856	4,075
South Korea	150	679	2,152	1,880	4,861
Italy	392	-763	2,301	961	2,891
Taiwan	231	306	1,456	1,442	3,434
Vietnam	624	2,476	2,811	645	6,556
Thailand	446	739	1,574	1,389	4,148
India	122	-13	1,111	2,054	3,274
United Kingdom	383	-628	645	612	1,012
Malaysia	158	461	782	677	2,078
Switzerland	154	-239	524	271	711
Netherlands	240	-796	-46	251	-351
All other sources	1,615	-2,483	5,795	6,184	11,111
Total	-1,722	-7,813	43,621	33,060	67,147

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on customs value. Calculations are based on unrounded data.

Table MT.13 Machinery: Percentage changes in U.S. general imports by select trading partners, 2018–22

In percentages.

Import source	2018–19	2019–20	2020–21	2021–22	2018–22
China	-15.2	-1.4	17.2	2.3	0.3
Mexico	3.8	-3.0	22.4	17.5	44.7
Germany	-3.1	-6.7	15.7	10.5	15.6
Japan	9.0	-14.5	18.5	14.5	26.5
Canada	3.0	-9.9	16.8	18.2	28.1
South Korea	1.8	8.1	23.8	16.8	59.1
Italy	4.7	-8.7	28.7	9.3	34.4
Taiwan	4.5	5.7	25.7	20.3	67.1
Vietnam	47.9	128.5	63.8	8.9	503.0
Thailand	17.5	24.7	42.2	26.2	162.8
India	3.8	-0.4	33.7	46.6	102.6
United Kingdom	9.1	-13.6	16.2	13.2	23.9
Malaysia	7.7	20.8	29.3	19.6	101.2
Switzerland	4.9	-7.2	17.1	7.5	22.6
Netherlands	6.1	-19.1	-1.4	7.6	-9.0
All other sources	6.5	-9.4	24.3	20.8	44.9
Total	-0.8	-3.7	21.4	13.3	31.4

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on customs value. Calculations are based on unrounded data.

Table MT.14 Machinery: Top 10 U.S. general import sources, 2018–22

Rank	2018	2019	2020	2021	2022
1	China	China	China	China	China
2	Mexico	Mexico	Mexico	Mexico	Mexico
3	Germany	Japan	Germany	Germany	Germany
4	Japan	Germany	Japan	Japan	Japan
5	Canada	Canada	Canada	Canada	Canada
6	Italy	Italy	South Korea	South Korea	South Korea
7	South Korea	South Korea	Italy	Italy	Italy
8	Taiwan	Taiwan	Taiwan	Vietnam	Taiwan
9	United Kingdom	United Kingdom	Vietnam	Taiwan	Vietnam
10	Netherlands	Netherlands	United Kingdom	Thailand	Thailand

Source: USITC DataWeb/Census, accessed February 16, 2023.

Table MT.15 Machinery: Changes in rank of the top 10 U.S. general import sources, 2018–22

Each numeral = the number of positions gained or lost in rank.

Import source	2018–19	2019–20	2020–21	2021–22	2018–22
China	0	0	0	0	0
Mexico	0	0	0	0	0
Germany	-1	1	0	0	0
Japan	1	-1	0	0	0
Canada	0	0	0	0	0
South Korea	0	1	0	0	1
Italy	0	-1	0	0	-1
Taiwan	0	0	-1	1	0
Vietnam	3	9	1	-1	12
Thailand	0	3	1	0	4

Source: USITC DataWeb/Census, accessed February 16, 2023.

Shifts in U.S. Merchandise Trade, 2022

Table MT.16 Machinery: Leading changes in U.S. general imports, 2018–22

In millions of dollars and percentages.

Product group (digest)	2018 (million \$)	2019 (million \$)	2020 (million \$)	2021 (million \$)	2022 (million \$)	Absolute	Percentage
						change, 2021–22 (million \$)	change 2021–22 (%)
Mineral-processing machinery	1,428	1,400	1,259	1,494	6,194	4,699	314.4
Air-conditioning equipment and parts	20,620	20,554	19,501	24,322	28,377	4,055	16.7
Electrical transformers, static converters, and inductors	12,469	12,613	13,548	16,089	20,087	3,997	24.8
Farm and garden machinery and equipment	9,201	9,461	9,350	12,675	16,664	3,989	31.5
Miscellaneous machinery	15,897	15,552	15,514	18,718	21,518	2,800	15.0
Electric motors, generators, and related equipment	15,556	15,127	14,750	17,347	20,063	2,717	15.7
Taps, cocks, valves, and similar devices	16,144	15,045	12,751	15,101	17,473	2,372	15.7
Nonautomotive insulated electrical wire and related products	9,669	9,087	9,082	11,611	13,879	2,269	19.5
Household appliances, including commercial applications	29,465	29,086	31,298	39,201	40,467	1,266	3.2
Pumps for liquids	8,578	8,286	7,158	8,391	9,646	1,255	15.0
Industrial thermal-processing equipment and furnaces	5,899	6,290	5,376	6,081	7,196	1,116	18.3
Metal-cutting machine tools	5,461	5,234	3,770	4,365	5,278	913	20.9
Centrifuges and filtering and purifying equipment	7,592	7,855	8,829	10,698	11,365	667	6.2
Mechanical power transmission equipment	6,363	6,461	5,289	6,463	7,017	554	8.6
Semiconductor manufacturing equipment and robotics	16,470	18,061	15,608	17,860	18,149	289	1.6
Printing and related machinery	1,494	1,515	1,153	1,320	1,518	198	15.0
Metal-forming machine tools	1,905	1,758	1,564	1,750	1,931	181	10.4
Industrial food-processing and related machinery	1,628	1,640	1,533	2,066	2,243	177	8.6
Machine tool accessories	1,205	1,265	1,092	1,324	1,499	175	13.3
Non-metalworking machine tools	2,330	2,324	2,159	2,730	2,881	151	5.5
Molds and molding machinery	5,161	4,732	4,365	4,848	4,982	134	2.8
Textile machinery	1,576	1,373	1,240	1,533	1,667	134	8.8
Boilers, turbines, and related machinery	1,249	957	1,027	950	1,035	85	8.9
Metal-rolling mills	470	602	571	586	670	84	14.3
Welding and soldering equipment	1,744	1,623	1,666	1,870	1,933	64	3.4
Scales and weighing machinery	752	671	677	827	843	16	1.9
Wrapping, packaging, and can-sealing machinery	3,280	3,420	3,716	4,339	4,273	-66	-1.5
Electric lamps (bulbs) and portable electric lights	2,019	1,779	1,652	2,050	1,904	-145	-7.1

Product group (digest)	2018 (million \$)	2019 (million \$)	2020 (million \$)	2021 (million \$)	2022 (million \$)	Absolute	Percentage
						change, 2021–22 (million \$)	change 2021–22 (%)
Nonelectrically powered hand tools	1,702	1,534	1,542	1,890	1,683	-208	-11.0
Pulp, paper, and paperboard machinery	1,858	2,054	1,765	2,255	2,000	-255	-11.3
Portable electric hand tools	4,521	4,624	5,368	7,038	6,414	-624	-8.9
Total	213,704	211,982	204,170	247,791	280,851	33,060	13.3

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on U.S. customs value. Calculations are based on unrounded data. Industry sectors are further divided into digests. Each USITC sector digest encompasses various 8-digit subheadings in the Harmonized Tariff Schedule of the United States (HTS). The USITC maintains and publishes the HTS, which sets out the tariff rates and statistical categories for all merchandise imported into the United States. The U.S. Census Bureau (Census) collects and compiles export statistics of approximately 8,000 commodity classifications (10-digit classification codes) in Schedule B: Statistical Classification of Domestic and Foreign Commodities Exported from the United States. Schedule B classification codes are concorded to HTS 10-digit statistical reporting numbers according to USITC estimates; therefore, the classification codes for exports are presented using HTS 8-digit subheadings for imports.