

Variance Estimates for Price Changes in the Import and Export Price Indexes January–December 2023

Each month, the International Price Program (IPP) at the Bureau of Labor Statistics (BLS) collects roughly 17,100 prices for a representative sample of goods traded by approximately 3,000 importers and exporters to and from the United States. The prices represent the market basket of imports and exports. The sample of import and export transaction prices is drawn from the complete universe of all items traded during a calendar year as measured by the Census Bureau. Sampling variability results whenever a sample is used rather than the complete universe.

Variance Results

As of 2019, variance calculation is expanded to cover all published import and export price indexes spanning all 12 months for merchandise goods trade sampled items. Variances are not calculated for locality of origin, locality of destination and terms of trade price indexes covering goods, nor for services price indexes. The variance results by year measure the absolute median 1-, 3-, and 12-month percent changes for all published import and export indexes along with the median standard error for those estimates. Tables are broken out by classification system down to the 5-digit level of detail for the Bureau of Economic Analysis (BEA) End-Use Classification System, the 6-digit level of detail for the North American Industrial Classification System (NAICS), and the 4-digit index level of detail for the Harmonized Classification System.

The standard error, the square root of the estimated variance, is a common measure used to derive confidence intervals for percent changes in the import and export price indexes. Confidence intervals can be used to determine if an index change is significantly different from zero.

Take for example the median absolute 1-month percent change of 0.5 percent for All Commodities import prices, as seen in Table 1. The standard error for imports on a 1-month basis was 0.14. So, deriving a confidence interval plus or minus two standard errors from the point estimate, assuming a normal distribution, the true change would most likely be 0.5 percent plus or minus 0.28, or between 0.22 percent and 0.78 percent.

Sources of Error

There are different types of errors introduced when calculating the estimates of average price changes for imports and exports published by the Bureau of Labor Statistics. There are two sources of error: sampling and nonsampling error. Sampling error, reported in the tables of this report, is the error resulting from drawing a *sample* of imported and exported items to and from the United States, rather than using the entire universe of trade.

Nonsampling error can take a number of different forms. One form is misspecification error, which takes place if the universe of data from which the sample is being drawn does not correctly measure the actual population. For import and export prices indexes, this type of error could result if there are mistakes in the trade dollar value statistics measured by the Census Bureau. A second type of nonsampling error is nonresponse error. Each month, a subset of the items sampled by the Bureau of Labor Statistics does not have prices reported. This type of error results if the respondents and nonrespondents do not represent a similar cross section of the total universe. Another form of nonsampling error can be introduced from misreported prices, a possibility regardless of whether deriving the indexes from a sample or from the complete universe of data.

One issue when deriving an estimate from a sample is the potential trade-off between variance and bias. Variance is a measure of how much the estimates derived from numerous samples differ from the true value of the estimate. Bias results if the expected value of the estimate is either higher or lower than the true value of what is being estimated. An estimate could have a high sampling variance and still be unbiased if the expected value of the estimate is equal to the true value. Likewise, an estimate may have small variation over numerous samples, yet be biased if the expected value of the estimate deviates from the true value.

The Bureau of Labor Statistics strives to minimize both sampling and nonsampling error as much as possible. Sampling error is reduced by maintaining as many prices as possible to support an index given resource and company burden constraints. Nonsampling error is reduced by subjecting the data to careful review using automated checks and a staff of professional economists, as well as by employing methods to estimate missing observations.

Sampling in the International Price Program

Trade into and out of the United States is highly regulated and therefore highly documented. This allows the IPP to sample from a fairly complete and detailed frame. U.S. Customs and Border Protection provides the sampling frame for import merchandise, while the export merchandise frame is created from a combination of data collected by the Canada Border Services Agency, for exports to Canada, and from the Census Bureau for exports to the rest of the world.

The import and export merchandise universes are divided into two panels each, with each product-based panel representing approximately half of the trade dollar value for its respective universe. One import and one export panel are sampled each year, resulting in a fully sampled universe every 2 years. Each panel is sampled using a 3-stage sample design. The first stage independently selects establishments within product-based sampling strata using systematic probability proportional to size, where the measure of size is the total trade dollar value for establishments within the sampling stratum. The second stage selects more highly detailed product categories, known as classification groups, within each establishment–stratum combination selected during the first stage using the technique of systematic probability proportional to size with replacement. The final stage of sampling, which results in a unique item to price, occurs in the field and is a random selection technique with the probability of selection proportionate to field-collected trade estimates.

Index Calculations

IPP calculates its indexes using a modified Laspeyres formula. Rather than calculate indexes relative to a base period, the IPP indexes are calculated relative to the previous period and are theoretically chained to the reweight period. For this reason, IPP's indexes can be considered chained Laspeyres indexes. Explicitly, the index formula for the modified chained Laspeyres is derived from the classic formula as follows:

$$LTR_t = \left(\frac{\sum_i p_{i,t} q_{i,0}}{\sum_i p_{i,0} q_{i,0}} \right) (100) = \left(\frac{\sum_i \frac{p_{i,t}}{p_{i,0}} p_{i,0} q_{i,0}}{\sum_i p_{i,0} q_{i,0}} \right) (100) = \left(\frac{\sum_i r_{i,t} w_{i,0}}{\sum_i w_{i,0}} \right) (100) = \left(\frac{\sum_i r_{i,t} w_{i,0}}{\sum_i r_{i,t-1} w_{i,0}} \right) \left(\frac{\sum_i r_{i,t-1} w_{i,0}}{\sum_i w_{i,0}} \right) (100) =$$

$$\left(\frac{\sum_i r_{i,t} w_{i,0}}{\sum_i r_{i,t-1} w_{i,0}} \right) (LTR_{t-1}) = (STR_t)(LTR_{t-1}),$$

where

LTR_t = the long term relative of a collection of items at time t ;

$p_{i,t}$ = price of item i at time t ;

$q_{i,0}$ = quantity of item i in base period 0;

$w_{i,0}$ = $p_{i,0} q_{i,0}$, or the total revenue generated by item i in base period 0;

$r_{i,t}$ = $p_{i,t}/p_{i,0}$, or the long term relative of item i in period t ; and

$STR_t = \frac{\sum_i r_{i,t} w_{i,0}}{\sum_i r_{i,t-1} w_{i,0}}$, or the short term relative of a collection of items at time t .

Depending on the level of aggregation, the weights used during index aggregation are either trade dollar-based or probability-based. At the lowest level of aggregation, items are weighted by probability-based weights calculated monthly corresponding to detailed categories within establishments.

These weighted-item price relatives are combined across establishments and aggregated to the lowest level stratum indexes as

$$P_{h,t} = \frac{\sum_k \sum_j \sum_i w_{k,t} w_{j,t} w_{i,t} \left(\frac{p_{i,t}}{p_{i,0}} \right)}{\sum_k \sum_j \sum_i w_{k,t} w_{j,t} w_{i,t}},$$

where

$P_{h,t}$ = the price index for lowest level stratum h , at time t ;

$w_{k,t}$ = the weight of detailed product category k , within stratum h ;

$w_{j,t}$ = the weight of establishment j , within detailed product category k ;

$w_{i,t}$ = the weight of item i , within establishment j and detailed product category k ; and

$\frac{p_{i,t}}{p_{i,0}}$ = the price relative of item i , from period t , to base period 0.

The weights used for these lowest level stratum indexes are derived from sampling frame trade dollar values, divided by the corresponding probabilities of selection determined by the sample design.

At the next level of aggregation, child strata-level indexes are aggregated to their corresponding parent stratum-level indexes. A child stratum index is simply one level of aggregation less than its parent stratum index. The weights used for this aggregation are based on Census Bureau trade dollar values for the base period.

The aggregation formula for these upper index levels is

$$P_{H,t} = \frac{\sum_h w_{h,t} P_{h,t}}{\sum_h w_{h,t}},$$

where

$P_{H,t}$ = the price index at period t , for upper level index H ;

$w_{h,t}$ = the weight at period t , for child index h ; and

$P_{h,t}$ = the price index at period t , for child index h .

Replication and Variance Estimation

A modified bootstrap method, applying rescaled sampling weights, is used to produce 150 replicate index set estimates from 150 simulated item set samples. Item set replicates are constructed according to IPP's 3-stage sample design. At both of the first two stages of sampling, it is possible for a selection to be either a certainty selection (i.e. the probability of selection is greater than the iteratively calculated sampling interval) or a probability selection. The replicate resampling method takes this into consideration by first partitioning the selected items within each sampling stratum m into those items that resulted from certainty establishment selections and those items resulting from probability establishment selections. The item set resulting from establishment certainty selections is further partitioned into two item sets: sampling classification group certainty selections and sampling classification group probability selections. Thus, the set of all sampled items S is the union of these three partitions over all sampling strata m ;

$$S = \bigcup_{m=1}^N S_m = \bigcup_{m=1}^N \left(\bigcup_{p=1}^3 S_{m_p} \right)$$

where N is the number of sampling strata, $p \in \{1,2,3\}$, with $p = 1$ for items selected from probability establishments, $p = 2$ for items selected from probability sampling classification groups within certainty establishments, and $p = 3$ for items selected from certainty sampling classification groups within certainty establishments.

Each bootstrap sampling, b , selects $n_{m_p}^b$ units within each partition of each sampling stratum as follows:

$$n_{m_p}^b = \begin{cases} n_{m_p} - 1 & n_{m_p} > 1 \\ 1 & n_{m_p} = 1 \end{cases},$$

where $n_{m_p}^b$ is the number of units originally sampled in partition p of sampling stratum m .

Bootstrap item weights are then calculated as

$$w_{m_p,j,i}^b = \begin{cases} w_{m_p,j,i} \left(\frac{n_{m_p}^b + 1}{n_{m_p}^b} \right) d_{m_p,j}^b & \text{for } n_{m_p} > 1 \\ w_{m_p,j,i} & \text{for } n_{m_p} = 1 \end{cases}$$

where

$w_{m_p,j,i}^b$ = the b^{th} replicate item weight for item i , within establishment j and sampling stratum partition m_p ;
 $w_{m_p,j,i}$ = the standard item weight for item i , within establishment j and sampling stratum partition m_p ; and
 $d_{m_p,j}^b$ = the number of times establishment j , within partition p of sampling stratum m , is selected in bootstrap sample b .

In the rare instances that $n_{m_p} = 1$, a simple random sample of items within that establishment is selected. If only one item exists under this establishment singleton, that item is chosen with certainty.

For each of the 150 bootstrap samples, chained indexes of the desired length are calculated at all levels of aggregation using these modified item weights, original probabilities of selection, trade dollar values, and collected price data. For variance estimates, the variance is calculated across replicate percent change values for all published indexes as $v_B = \frac{1}{150} \sum_{b=1}^{150} (\hat{\theta}_b - \hat{\theta})^2$ where $\hat{\theta}$ is the full sample estimate.

Table Contents

Tables 1 through 6 below present the absolute median percent change over the year for a given published index within the product and industry classifications used to publish official import and export price indexes, as well as the standard error of that estimate. Tables 1 and 2 present the BEA End-Use Classification System product categories, Tables 3 and 4 present the NAICS industry categories, and Tables 5 and 6 present the Harmonized Classification System product categories. The first column displays a text description of the category. The second column displays the code used to query the BLS database (<https://data.bls.gov/PDQWeb/ei>). The next six columns record the absolute median percent change and standard error of the 1-month, 3-month, and 12-month price changes. The last column displays the percentage of non-sampled trade value within each index. This figure represents the proportion of the index that is supported by pricing data from alternative sources and thus does not contribute to the variance in the index estimate that is due to sampling.

Table 1. Variances for U.S. import price indexes for categories of goods: January 2023–December 2023

Description	End Use	1-month median absolute percent change	1-month median standard error	3-month median absolute percent change	3-month median standard error	12-month median absolute percent change	12-month median standard error	Percent Non- Sampled Trade Value ^[1]
All commodities	R	0.5	0.14	0.7	0.2	2.6	0.39	9%
All imports excluding fuels (Dec. 2001=100)	REXFUELS	0.2	0.12	0.4	0.16	0.9	0.45	3%
Foods, feeds, & beverages	R0	0.8	0.86	1.6	1.28	2.3	1.81	0%
Agricultural foods, feeds & beverages, excluding distilled beverages	R00	0.7	1.08	1.9	1.64	4	2.28	0%
Green coffee, cocoa beans, sugar	R000	0.9	0.85	1.9	1.9	1.9	2.88	0%
Green coffee	R00000	1.7	1	2.7	2.53	6.2	3.59	0%
Other agricultural foods	R001	0.6	1.19	2.1	1.81	4.4	2.54	0%
Meat, poultry & other edible animal products	R00100	1.9	0.98	5.8	1.82	4.8	3.04	0%
Fruit and fruit preparations including frozen juices	R00120	1.5	4.73	8.2	7.12	5.5	10.89	0%
Vegetables and vegetable preparations	R00130	2.7	4.45	5.1	6.1	16.6	10.73	0%
Food oils & oilseeds	R00150	1.3	1.87	3.2	3.25	9.3	4.98	0%
Bakery & confectionery products	R00160	0.2	0.31	0.6	0.54	11.1	2.61	0%
Other animal & vegetable preparations & products	R00180	0.6	0.47	1.5	0.95	3.2	3.07	0%
Wine, beer, & related products	R00190	0.2	0.23	0.5	0.46	3.8	0.62	0%
Feedstuff and foodgrains	R002	2.4	2.48	3.8	4.85	3.9	9.75	0%
Nonagricultural foods (fish, distilled beverages)	R01	1.3	0.45	2.5	0.82	5.1	1.85	0%
Fish & shellfish	R01000	1.8	0.66	3.1	1.18	8.3	2.29	0%
Distilled alcoholic beverages	R01010	0.1	0.12	0.7	0.54	3.9	0.95	0%
Industrial supplies & materials	R1	2	0.44	3	0.51	11	0.78	32%
Industrial supplies & materials excluding fuels (Dec. 2001=100)	R1EXFUEL	0.5	0.37	1.6	0.5	7.6	1.3	14%
Fuels & lubricants	R10	4.9	0.97	10.9	1.22	17.3	1	67%
Petroleum & petroleum products	R100	5.2	0.97	10.3	0.92	14.9	1.08	72%
Crude petroleum	R10000	3.4	n.a.	9	n.a.	15.9	n.a.	100%
Fuel oil	R10010	7.5	4.67	14.5	4.48	24.5	4.99	32%
Other petroleum products	R10020	3.6	2.39	4	2.63	14.8	2.82	14%
Fuels, n.e.s.–coals & gas	R101	9.4	2.47	16.8	3.71	46.4	3.8	0%
Natural gas	R10110	13.5	3.18	24.6	3.87	53.7	3.8	0%
Paper & paper base stocks	R11	1.8	0.94	2.9	2.42	7.1	3.34	0%
Materials associated with nondurable supplies & materials	R12	0.6	0.64	2.7	0.87	9.9	1.4	0%
Agricultural products used for industrial supplies and materials	R120	1.1	1.01	2.6	1.84	4.9	3.5	0%
Other agricultural products (tobacco, waxes, nonfood oils)	R12070	1.1	1.31	3.1	2.05	7.5	4.96	0%
Textile supplies & related materials	R121	0.2	0.36	1	1.23	3.4	2.66	0%
Chemicals, excluding medicinals	R125	0.6	0.79	3.4	1.16	12.7	1.77	0%
Plastic materials	R12500	1.2	1.54	2.6	2.6	12.5	3.18	0%
Fertilizers, pesticides & insecticides	R12510	3.5	2.84	9.1	4.6	36.9	4.17	0%
Industrial inorganic chemicals	R12530	0.6	0.43	1.2	1.97	3.9	3.71	0%
Industrial organic chemicals	R12540	0.8	0.81	2	1.64	5.8	3.14	0%
Other chemicals (coloring agents)	R12550	0.6	0.45	1.7	0.94	2.3	2.6	0%
Selected building materials	R13	0.8	0.54	1.8	0.91	12.4	2.97	1%
Lumber and other unfinished building materials	R130	2	0.81	3.4	1.08	18.9	3.79	0%
Stone, sand, cement and lime	R13020	0.2	0.24	0.3	0.51	1.2	2.6	0%
Nontextile floor & wall coverings	R13120	0.6	0.36	2	0.58	4.6	1.54	0%
Unfinished metals related to durable goods	R14	1.2	0.45	2.8	1.02	10.2	1.9	50%
Steelmaking & ferroalloying materials	R140	3.1	2.18	7.5	4.76	15.9	7.64	0%
Major nonferrous metals-crude	R142	2.2	0.33	3.9	0.61	10.7	1.64	73%
Bauxite, alumina, aluminum, and products thereof	R14200	1.5	0.21	3.5	0.63	10.4	2.13	65%
Copper	R14220	2.9	0	6.1	0	8.7	0	87%
Nickel	R14240	7.1	0.06	16.2	0.44	26.1	1.13	66%
Tin	R14250	4.2	0	7.4	0	30.4	0	92%
Zinc	R14260	5	0.02	4.3	0.06	22.2	0.06	91%
Nonmonetary gold	R14270	3	0	5.2	0	7.3	0	96%

Table 1. Variances for U.S. import price indexes for categories of goods: January 2023–December 2023								
Other precious metals	R14280	3.2	0.38	7	1.01	28.9	1.53	70%
Finished metals related to durable goods	R15	0.5	0.58	1	1.04	1.6	3.55	0%
Iron & steel products, except advanced manufacturing	R150	1.1	1.15	1.9	3.49	7.8	6.44	0%
Iron & steel advanced manufacturing	R151	0.5	0.64	1.8	1.35	7.4	3.69	0%
Nonmetals related to durable goods	R16	0.5	0.37	1.7	0.72	3.6	1.7	0%
Finished nonmetals (boxes, belting, glass, etc.)	R161	0.3	0.36	0.9	0.73	1	1.49	0%
Other finished nonmetals (boxes, belting, glass, etc.)	R16120	0.3	0.36	0.8	0.73	0.9	1.5	0%
Capital goods	R2	0.1	0.17	0.3	0.25	0.7	0.73	1%
Electric generating equipment	R20	0.1	0.32	0.2	0.83	0.6	1.69	0%
Generators, transformers & access equipment	R20000	0.1	0.24	0.3	0.48	2.7	1.21	0%
Electric apparatus & parts, n.e.s.	R20005	0.2	0.44	0.4	1.13	0.7	2.52	0%
Nonelectrical machinery	R21	0.1	0.2	0.3	0.33	0.4	1.06	1%
Oil drilling, mining, and construction machinery and equipment	R210	0.8	0.51	2.1	1.17	4.4	4.22	0%
Excavating, paving & construction machinery	R21030	0.1	0.18	1.3	0.88	5.2	1.99	0%
Industrial and service machinery	R211	0.2	0.1	0.2	0.21	2.8	0.57	2%
Industrial engines, pumps, & compressors	R21100	0.4	0.27	1.3	0.62	4.1	1.76	0%
Food & tobacco processing machines ^[2]	R21110	0.7	0.56	.	.	.	.	0%
Metal working machine tools and rolling mills	R21120	0.2	0.27	0.9	0.61	3.1	1.73	2%
Measuring, testing & control instruments	R21160	0.3	0.25	0.4	0.66	4	1.34	0%
Materials handling equipment	R21170	0.2	0.38	0.5	0.95	1.8	1.56	4%
Other industrial machines	R21180	0.2	0.18	0.4	0.43	1.8	1.59	0%
Photo & other service industry machinery	R21190	0.1	0.16	0.2	0.38	0.7	1.11	0%
Agricultural machinery and equipment	R212	0.2	0.14	0.8	0.35	3	1.19	0%
Computers, peripherals and semiconductors	R213	0.3	0.45	0.8	0.69	2.6	2.22	0%
Computers	R21300	0.2	0.76	0.4	0.83	1.2	5.44	0%
Computer accessories, peripherals, and parts	R21301	0.3	0.51	1.6	1.12	8.6	2.46	0%
Semiconductors	R21320	0.2	0.37	0.7	0.85	1	1.4	0%
Telecommunications equipment	R214	0.1	0.07	0.1	0.24	0.3	0.51	0%
Business machinery and equipment, except computers	R215	0.6	0.29	1.2	0.86	9.1	1.84	0%
Scientific and medical machinery	R216	0.2	0.24	0.8	0.43	1.3	1.38	0%
Laboratory testing and control instruments	R21600	0.3	0.42	1.1	1.1	4.7	5.97	0%
Other scientific, medical, and hospital equipment	R21610	0.2	0.22	0.6	0.46	1.6	1.15	0%
Transportation equipment excluding motor vehicles (Dec. 2001=100)	R22	0.3	0.14	1	0.39	6.4	1.08	3%
Civilian aircraft, engines, and parts	R220	0.4	0.14	1	0.41	5.8	1.12	0%
Civilian aircraft, complete ^[2]	R22000	0.1	0.07	.	.	.	.	0%
Parts for civilian aircraft	R22010	0.2	0.21	0.6	0.57	5	1.48	0%
Engines for civilian aircraft	R22020	0.5	0.27	2	0.66	7.6	2.1	0%
Automotive vehicles, parts & engines	R3	0.1	0.11	0.4	0.24	1.9	0.42	0%
Passenger cars, new and used	R300	0	0.04	0.5	0.29	2	0.63	0%
Vehicles designed to transport goods ^[2]	R301	0.1	0.03	.	.	.	.	0%
Parts, engines, bodies and chassis	R302	0.1	0.21	0.2	0.43	1.1	0.89	0%
Engines and engine parts for automotive vehicles (Dec. 2004=100)	R30200	0.2	0.15	0.4	0.79	0.9	1.32	0%
Automotive tires & tubes	R30220	0.4	0.17	0.5	0.38	6	2.57	0%
Non-engine parts & accessories	R30230	0.1	0.27	0.2	0.49	0.6	0.97	0%
Consumer goods, excluding automobiles	R4	0.1	0.1	0.3	0.2	0.3	0.47	3%
Nondurables, manufactured	R40	0.1	0.08	0.3	0.17	0.3	0.51	0%
Apparel, footwear, and household goods	R400	0.1	0.13	0.1	0.28	0.7	0.6	0%
Cotton apparel and household goods	R40000	0.1	0.17	0.3	0.39	2	0.89	0%
Apparel and household goods for other textiles	R40020	0.2	0.27	0.2	0.64	0.2	1.07	0%
Nontextile apparel and household goods	R40030	0.3	0.23	0.5	0.62	1.9	1.28	0%
Footwear of leather, rubber, or other materials	R40040	0.3	0.41	0.5	0.71	0.4	0.83	0%
Sporting/camping apparel and footwear	R40050	0.1	0.11	0.1	0.26	2.9	1.89	0%
Other consumer nondurables	R401	0.1	0.09	0.4	0.23	0.8	0.73	0%
Medicinal, dental and pharmaceutical preparatory materials	R40100	0.1	0.11	0.6	0.26	0.9	0.89	0%
Toiletries and cosmetics	R40120	0.5	0.31	1	1.04	4	2.34	0%
Other products (notions, writing supplies, tobacco products, etc.)	R40140	0.3	0.16	0.4	0.58	3.7	2.18	0%
Durables, manufactured	R41	0.1	0.15	0.3	0.32	0.5	0.82	0%

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Household goods	R410	0.2	0.12	0.6	0.27	1.4	0.62	0%
Furniture, household items	R41000	0.3	0.26	0.4	0.61	1.6	1.61	0%
Household and kitchen appliances	R41030	0.4	0.26	0.9	0.74	1.6	1.13	0%
Other household goods, n.e.s.	R41050	0.3	0.14	0.7	0.28	3.2	0.85	0%
Recreational equipment and materials	R411	0.1	0.22	0.3	0.44	0.6	1.71	0%
Motorcycles & parts	R41100	0	0.07	1.4	1.09	0.5	1.99	0%
Toys, shooting & sporting goods	R41120	0.1	0.26	0.2	0.59	0.7	2.18	0%
Musical instruments and parts	R41140	0	0	0	0.02	2.6	2.5	0%
Home entertainment equipment	R412	0.1	0.11	0.6	0.44	0.8	3.85	0%
Television and video receivers	R41200	0.1	0.12	0.6	0.64	1.2	5.55	0%
Coins, gems, jewelry, and collectibles	R413	0.5	1.03	1.5	2.77	5.8	3.9	0%
Nonmanufactured consumer goods	R42	0.7	0.7	1.1	0.96	4.3	1.43	74%
Nonmanufactured consumer durables	R421	0.4	0.07	1.2	0.28	4.7	0.94	83%
Gem diamonds-uncut or unset	R42100	0.3	0	1.3	0	5.3	0	98%
Footnotes								
[1] Indexes calculated using 100% non-sampled price data from one or more alternative data sources will not have variance due to sampling and have standard errors coded as not applicable (n.a.). Indexes calculated using a mix of directly collected price data and price data from one or more alternative data sources will have lower standard error values as the proportion of non-sampled trade value increases.								
[2] Index was not published the previous year. Estimates using prior year index values are excluded.								

Table 2. Variances for U.S. export price indexes for categories of goods: January 2023–December 2023

Description	End Use	1-month median absolute percent change	1-month median standard error	3-month median absolute percent change	3-month median standard error	12-month median absolute percent change	12-month median standard error	Percent Non- Sampled Trade Value ^[1]
All commodities	Q	0.6	0.11	2.2	0.23	5	0.58	14%
Agricultural commodities	QAG	0.9	0.3	2.5	0.61	7.6	1.29	31%
Nonagricultural commodities	QEXAG	0.6	0.12	2.3	0.24	4.8	0.51	12%
Foods, feeds, & beverages	Q0	0.9	0.33	2.9	0.62	7.8	1.13	33%
Agricultural foods, feeds & beverages, excluding distilled beverages	Q00	0.9	0.33	2.8	0.63	7.5	1.12	35%
Wheat and rice	Q000	3.2	0.38	6.6	0.8	17.6	1.77	77%
Wheat	Q00000	2.4	0	8.9	0	23.3	0	98%
Soybeans & other oil seeds	Q001	3.2	0.36	3.5	0.91	8.9	1.05	87%
Soybeans and soybean by-products, prior to the extraction of oil	Q00100	3.1	0.07	3.7	0.12	11.4	0.16	96%
Feedstuff	Q002	2	0.46	6	0.85	17.2	1.43	61%
Corn	Q00200	3.6	0.17	6.4	0.32	20.3	0.55	91%
Other agricultural foods	Q003	0.4	0.47	0.8	1.17	1.2	1.59	0%
Meat, poultry & other edible animal products	Q00300	1	0.63	1.8	1.2	4.7	2.6	0%
Fruit and fruit preparations, including fruit juices	Q00320	3.2	2.84	4.9	5.12	4.7	5.85	0%
Vegetables and vegetable preparations and juices	Q00330	1.3	1.4	2.9	2.37	17.4	8.09	0%
Nuts & preparations	Q00340	2	1.55	3.7	2.57	7.3	2.83	0%
Bakery & confectionery products	Q00350	0.2	0.26	2.4	0.91	10.3	2.17	0%
Other foods and food preparations (lard, soft bev, spices), n.e.s.	Q00360	0.6	0.28	1.5	0.76	7.3	3.51	0%
Nonagricultural foods (fish, distilled beverages)	Q01	1.2	0.54	5.4	1.11	14.5	1.98	0%
Fish and shellfish	Q01000	1.8	0.77	7.3	1.76	19.5	2.69	0%
Industrial supplies & materials	Q1	1.5	0.31	5.8	0.45	12.6	0.98	26%
Agricultural industrial supplies & materials	Q10	1.1	0.97	1.8	1.52	7.3	3.7	0%
Other agricultural materials	Q101	0.6	1.1	1.5	1.84	2.9	3.76	0%
Fuels & lubricants	Q11	3.9	0.6	12.3	0.81	20.3	1.27	53%
Petroleum & petroleum products	Q111	4.8	0.47	11	0.72	13	1.07	61%
Crude petroleum	Q11100	6.9	n.a.	7.9	n.a.	14.8	n.a.	100%
Fuel oil	Q11110	6.4	0.3	19.7	0.37	22.6	0.64	84%
Other petroleum products	Q11120	4.3	1	10.6	1.35	12	1.82	37%
Nonagricultural supplies & materials excluding fuels & building materials	Q12	0.5	0.31	0.9	0.61	6.2	1.31	9%
Nonferrous & other metals	Q122	2.4	0.53	3	0.79	4.5	1.48	40%
Aluminum & alumina	Q12200	1.6	0.48	4.3	1.17	9.8	1.75	16%
Copper	Q12210	1.3	0.85	4.2	1.26	8.8	2.68	14%
Nonmonetary gold	Q12260	2.9	0.02	4.9	0.03	7.2	0.06	96%
Other precious metals	Q12270	2.6	1.5	8.7	2.93	28.7	3.89	1%
Other nonferrous metals	Q12290	2.7	0.97	3.9	2.29	8.5	5.5	0%
Woodpulp and recovered paper	Q12420	4	1.93	10.3	4.32	13	4.32	0%
Chemicals, excluding medicinals	Q125	0.7	0.57	1.4	1.37	9.3	2.74	0%
Plastic materials	Q12500	1.1	0.76	3.1	1.65	25.2	2.33	0%
Fertilizers, pesticides & insecticides	Q12510	0.5	0.62	11.4	2.19	26.5	5.16	0%
Other chemicals, excluding medicinals	Q12550	0.2	0.39	1.7	1.16	5.3	2.66	0%
Other nonagricultural industrial supplies and materials	Q127	0.2	0.27	0.6	0.72	2.4	1.59	0%
Selected building materials	Q13	0.7	0.42	1.6	1.31	8.7	2.06	2%
Lumber & other wood supplies	Q131	0.9	0.69	2.7	1.38	17.8	3.33	0%
Logs, lumber, plywood and veneers	Q13100	1.2	0.78	3.5	1.47	23.8	3.04	0%
Miscellaneous building materials, excluding wood	Q132	0.1	0.13	0.9	1.04	1.6	3.01	3%
Other building materials, excluding wood and glass (Dec. 2016=100)	Q13210	0.1	0.09	1	0.92	3.3	2.21	4%
Capital goods	Q2	0.1	0.09	0.4	0.18	2.2	0.85	1%
Electrical generating equipment	Q20	0.2	0.27	0.9	0.77	3.9	1.95	0%
Electric apparatus and parts, n.e.s.	Q20005	0.2	0.28	0.9	0.83	3.7	2.34	0%
Nonelectrical machinery	Q21	0.1	0.1	0.3	0.2	1.3	1	0%
Oil drilling, mining, and construction machinery, and equipment	Q210	0.2	0.26	1.1	0.49	4.2	1.41	0%

Table 2. Variances for U.S. export price indexes for categories of goods: January 2023–December 2023								
Excavating, paving & construction machinery	Q21030	0.2	0.23	1	0.57	3.5	1.21	0%
Industrial and service machinery	Q211	0.2	0.13	0.7	0.21	4.7	0.95	1%
Metal working machine tools and rolling mill machines	Q21120	0.2	0.18	1.1	0.56	5	1.85	1%
Measuring, testing & control instruments	Q21160	0.2	0.17	1.2	0.73	5.6	2.18	0%
Materials handling equipment	Q21170	0.4	0.31	1.2	0.66	5.6	1.27	4%
Other industrial machinery	Q21180	0.1	0.11	0.4	0.25	4.4	1.42	0%
Agricultural machinery and equipment	Q212	0.2	0.16	0.6	0.46	6.5	3.18	0%
Computers, peripherals, and semiconductors	Q213	0.4	0.28	1	0.52	4.6	3.03	0%
Computers	Q21300	0.5	0.42	0.7	0.93	1.8	1.77	0%
Computer peripherals, accessories and parts	Q21301	0.2	0.15	1.1	1.11	6.6	1.81	0%
Semiconductors	Q21320	0.5	0.34	1.4	0.82	4.8	5.17	0%
Telecommunications equipment	Q214	0.1	0.18	0.4	0.4	0.8	1.09	0%
Scientific and medical machinery	Q216	0.3	0.39	0.8	0.75	1.3	1.81	0%
Laboratory testing & control instruments	Q21600	0.4	0.4	0.8	1.69	1.8	4.45	0%
Other scientific, medical and hospital equipment	Q21610	0.3	0.2	0.6	0.59	1.6	1.74	0%
Transportation equipment excluding motor vehicles (Dec. 2001=100)	Q22	0.2	0.22	1.8	0.38	6.9	0.63	3%
Civilian aircraft, aircraft engines and parts	Q220	0.2	0.18	1.8	0.37	7	0.68	0%
Parts for civilian aircraft	Q22010	0.3	0.42	1	1.15	3.6	2.44	0%
Automotive vehicles, parts & engines	Q3	0.3	0.18	1.3	0.26	3.3	0.5	0%
Passenger cars, new and used	Q300	0.1	0.09	1.8	0.41	1.6	0.81	0%
Vehicles designed to transport goods	Q301	0.1	0.03	0.7	0.43	4.2	0.63	0%
Parts, engines, bodies & chassis	Q302	0.1	0.22	0.6	0.38	4	0.94	0%
Engines and engine parts (carburetors, pistons, rings, & valves)	Q30200	0.2	0.15	0.7	0.56	10.3	1.66	0%
Nonengine parts & accessories	Q30230	0.2	0.15	0.3	0.46	1.6	1.35	0%
Consumer goods, excluding automobiles	Q4	0.3	0.12	0.8	0.3	2.3	1.16	7%
Nondurables, manufactured	Q40	0.3	0.15	0.8	0.45	1.1	2.06	0%
Other consumer nondurables	Q401	0.3	0.12	0.8	0.43	1.6	2.1	0%
Medicinal, dental, and pharmaceutical preparatory materials	Q40100	0.4	0.16	1	0.57	1.7	2.75	0%
Toiletries & cosmetics	Q40120	0.1	0.1	0.5	0.48	2.5	1.45	0%
Other products (notions & writing articles)	Q40140	0.7	0.25	0.9	0.39	2.2	0.97	0%
Durables, manufactured	Q41	0.3	0.12	0.8	0.38	4.7	1.08	0%
Household goods	Q410	0.2	0.16	1.1	0.64	2.9	1.19	0%
Household and kitchen appliances	Q41030	0.1	0.18	1	0.57	6.8	6.06	0%
Miscellaneous household goods	Q41050	0.2	0.18	0.8	0.48	1.9	0.8	0%
Recreational equip & materials	Q411	0.1	0.23	0.4	0.45	10.7	4.06	0%
Toys, shooting and sporting goods	Q41120	0.1	0.18	0.2	0.57	11.4	5.03	0%
Coins, gems, jewelry & collectibles ^[2]	Q413	0.4	0.25	.	.	.	.	0%
Jewelry ^[2]	Q41310	0.2	0.19	.	.	.	.	0%
Nonmanufactured consumer goods	Q42	0.1	0.14	1.7	0.33	3	5.59	84%
Footnotes								
[1] Indexes calculated using 100% non-sampled price data from one or more alternative data sources will not have variance due to sampling and have standard errors coded as not applicable (n.a.). Indexes calculated using a mix of directly collected price data and price data from one or more alternative data sources will have lower standard error values as the proportion of non-sampled trade value increases.								
[2] Index was not published the previous year. Estimates using prior year index values are excluded.								

Table 3. Variances for U.S. import price indexes for industries: January 2023–December 2023

Description	NAICS	1-month median absolute percent change	1-month median standard error	3-month median absolute percent change	3-month median standard error	12-month median absolute percent change	12-month median standard error	Percent Non- Sampled Trade Value ^[1]
Nonmanufacturing	ZNONMANU	4.3	0.66	5.6	1.28	11.6	1.15	64%
Agriculture, forestry, fishing and hunting	Z11	1.9	2.25	3.5	3.01	3.6	4.06	0%
Crop production	Z111	2	2.42	4.5	3.59	4.7	4.35	0%
Fruit and tree nut farming	Z1113	1.4	2.83	6.7	4.62	6.4	5.78	0%
Noncitrus fruit and tree nut farming	Z11133	1.7	2.94	7.1	4.8	6.1	6.04	0%
Other noncitrus fruit farming	Z111339	1.9	1.52	3.2	2.62	9.4	3.39	0%
Animal production ^[2]	Z112	2.4	3.21	.	.	.	.	0%
Mining	Z21	5.6	0.58	9.2	1.03	16.2	0.87	87%
Oil and gas extraction	Z211	5.1	0.3	10.2	0.81	17.2	0.72	91%
Crude petroleum extraction	Z21112	3.4	n.a.	9	n.a.	15.9	n.a.	100%
Natural gas extraction	Z21113	11	4.48	17.7	7.18	43.6	6.79	0%
Mining (except oil and gas) ^[2]	Z212	3.4	3.21	.	.	.	.	0%
Manufacturing	ZMANU	0.2	0.13	0.5	0.18	2	0.35	4%
Manufacturing, part 1	Z31	0.2	0.21	0.4	0.36	0.6	0.58	0%
Food manufacturing	Z311	0.4	0.49	1	0.85	0.9	1.35	0%
Grain and oilseed milling	Z3112	1.4	1.35	4.4	2.36	4.9	4.1	0%
Starch and vegetable fats and oils manufacturing	Z31122	1.6	1.67	1.6	2.83	7.3	4.46	0%
Soybean and other oilseed processing	Z311224	1.7	1.66	1.8	2.9	8.1	4.71	0%
Sugar and confectionery product manufacturing	Z3113	1.2	0.55	3.2	0.99	13.4	3	0%
Animal slaughtering and processing	Z3116	1.5	1.03	4.6	1.79	4.3	2.61	0%
Animal (except poultry) slaughtering	Z311611	1.7	1.04	4.8	1.81	4.9	2.67	0%
Seafood product preparation and packaging	Z3117	1.6	0.71	2.5	1.25	8.4	2.4	0%
Other food manufacturing	Z3119	0.3	0.67	0.7	1.46	2.9	3.2	0%
All other food manufacturing ^[2]	Z31199	0.3	0.3	.	.	.	.	0%
Beverage and tobacco product manufacturing	Z312	0.3	0.18	0.9	0.3	4.2	0.59	0%
Beverage manufacturing	Z3121	0.3	0.17	0.9	0.31	4.5	0.65	0%
Breweries (Dec. 2006=100)	Z31212	0.1	0.04	0.1	0.17	4.2	0.69	0%
Wineries	Z31213	0.3	0.31	0.6	0.59	3.9	0.93	0%
Distilleries	Z31214	0.2	0.13	0.8	0.55	3.5	1.01	0%
Apparel manufacturing	Z315	0.1	0.16	0.2	0.36	1.5	0.68	0%
Cut and sew apparel manufacturing (Dec. 2009=100)	Z3152	0.1	0.12	0.2	0.25	1.7	0.6	0%
Men and boys cut and sew apparel manufacturing	Z31522	0.1	0.25	0.4	0.53	1	1.03	0%
Apparel accessories and other apparel manufacturing	Z3159	0	0.04	0.7	0.39	2.6	1.62	0%
Leather and allied product manufacturing	Z316	0.2	0.22	0.3	0.36	0.6	0.84	0%
Footwear manufacturing	Z3162	0.2	0.27	0.4	0.48	0.2	0.99	0%
Manufacturing, part 2	Z32	0.9	0.48	1.8	0.54	7.4	0.81	3%
Paper manufacturing	Z322	1	0.46	1.8	1.18	4.1	1.79	0%
Pulp, paper, and paperboard mills	Z3221	1.9	1.01	3.5	2.14	7.5	3.83	0%
Converted paper product manufacturing	Z3222	0.3	0.38	0.4	0.84	1.5	1.99	0%
Petroleum and coal products manufacturing	Z324	5.1	2.51	9.7	2.34	19.4	2.84	22%
Chemical manufacturing	Z325	0.3	0.26	1.2	0.48	6	0.86	0%
Basic chemical manufacturing	Z3251	0.9	0.74	2.1	1.2	12.6	2.08	0%
Other basic inorganic chemical manufacturing ^[2]	Z32518	2.3	2.01	.	.	.	.	0%
Other basic organic chemical manufacturing	Z32519	0.8	0.53	0.9	1.2	4.2	2.55	0%
All other basic organic chemical manufacturing	Z325199	0.4	0.47	1	1.1	3	2.91	0%
Resin, synthetic rubber, and synthetic fibers and filaments manufacturing ^[2]	Z3252	1.3	1.3	.	.	.	.	0%
Resin and synthetic rubber manufacturing ^[2]	Z32521	1.3	1.45	.	.	.	.	0%
Plastics material and resin manufacturing ^[2]	Z325211	1.4	1.67	.	.	.	.	0%
Pesticide, fertilizer, other agricult. chemical manufacturing (Dec. 2007=100)	Z3253	5.9	3.22	11.5	5.42	36	8.43	0%
Fertilizer manufacturing ^[2]	Z32531	7.5	3.15	.	.	.	.	0%
Pharmaceutical and medicine manufacturing	Z3254	0.1	0.11	0.5	0.26	0.9	0.88	0%

Table 3. Variances for U.S. import price indexes for industries: January 2023–December 2023

Medicinal and botanical manufacturing ^[2]	Z325411	0.1	0.24	.	.	.	.	0%
Pharmaceutical preparation manufacturing	Z325412	0.2	0.12	0.4	0.38	2.3	1.38	0%
In-vitro diagnostic substance manufacturing ^[2]	Z325413	0	0.05	.	.	.	.	0%
Biological product (except diagnostic) manufacturing	Z325414	0.1	0.08	0.8	0.41	2.6	0.89	0%
Other chemical product and preparation manufacturing (Dec. 2006=100)	Z3259	0.5	0.28	1.1	0.88	3.2	2.07	0%
Printing ink manufacturing ^[2]	Z32591	0	0	.	.	.	.	0%
All other miscellaneous chemical product and preparation manufacturing ^[2]	Z325998	0.1	0.2	.	.	.	.	0%
Plastics and rubber products manufacturing	Z326	0.3	0.36	0.6	0.6	1.4	1.27	0%
Plastics product manufacturing	Z3261	0.5	0.37	0.9	0.75	1.9	1.57	0%
Plastics packaging materials and film and sheet manufacturing	Z32611	0.6	0.56	2.2	1.1	4.6	2.15	0%
Unlaminated plastics film and sheet (except packaging) manufacturing	Z326113	0.6	0.56	2.4	1.08	4.9	2.08	0%
Other plastics product manufacturing	Z32619	0.3	0.3	0.6	0.55	1	2.1	0%
Rubber product manufacturing	Z3262	0.2	0.25	0.6	0.53	4.3	1.71	0%
Tire manufacturing	Z32621	0.4	0.16	0.5	0.35	5.6	2.43	0%
Nonmetallic mineral product manufacturing	Z327	0.4	0.22	1.2	0.81	2.7	1.78	0%
Other nonmetallic mineral product manufacturing	Z3279	0.2	0.28	1.7	1.19	1.5	4.32	0%
All other nonmetallic mineral product manufacturing	Z32799	0.2	0.35	1.7	1.5	2.6	5.12	0%
Manufacturing, part 3	Z33	0.1	0.09	0.3	0.18	0.6	0.48	5%
Primary metal manufacturing	Z331	1.4	0.3	2.1	0.89	6.7	1.75	43%
Alumina and aluminum production and processing	Z3313	1.2	0.44	2.3	1.31	8.2	3.53	58%
Alumina refining and primary aluminum production	Z331313	1.8	0.04	4.9	0.09	12.3	0.13	95%
Nonferrous metal (except aluminum) production and processing	Z3314	2.3	0.17	3.8	0.38	4.9	2.09	65%
Nonferrous metal (except aluminum) smelting and refining	Z33141	2.3	0.15	4.9	0.21	7.1	0.46	77%
Nonferrous metal products manufacturing, not made from copper or aluminum	Z33149	2.7	0.21	4	0.49	6.7	2.47	70%
Secondary smelting, refining, and alloying of nonferrous metal ^[2]	Z331492	2.7	0.15	.	.	.	.	92%
Fabricated metal product manufacturing	Z332	0.4	0.36	0.6	0.61	2.1	1.25	1%
Cutlery and handtool manufacturing	Z3322	0.2	0.3	0.7	0.65	0.5	1.45	0%
Metal kitchen cookware, utensil, cutlery and flatware manufacturing	Z332215	0.1	0.38	1	0.94	1.2	2.3	0%
Saw blade and hand tool manufacturing ^[2]	Z332216	0.2	0.17	.	.	.	.	0%
Hardware manufacturing	Z3325	0.3	0.4	0.8	0.97	2.8	2.18	0%
Machine shops; and screw, nut, and bolt manufacturing (Dec. 2012=100)	Z3327	0.9	0.76	2.7	1.57	14.4	6.82	0%
Other fabricated metal product manufacturing	Z3329	0.4	0.34	0.7	0.74	0.9	1.7	0%
Metal valve manufacturing	Z33291	0.3	0.26	0.6	0.61	1.1	1.49	0%
Industrial valve manufacturing	Z332911	0.2	0.14	0.2	0.28	0.7	2.01	0%
All other fabricated metal product manufacturing	Z33299	0.2	0.48	0.8	1.37	1.5	3.08	0%
Machinery manufacturing	Z333	0.2	0.12	0.4	0.25	3.5	0.65	1%
Agriculture, construction, and mining machinery manufacturing	Z3331	0.2	0.17	0.5	0.49	4.5	1.02	0%
Agricultural implement manufacturing (Dec. 2016=100)	Z33311	0.3	0.11	0.8	0.28	3	1.13	0%
Farm machinery and equipment manufacturing	Z333111	0.3	0.13	0.8	0.28	2.5	1.26	0%
Construction machinery manufacturing	Z33312	0.2	0.16	1	0.63	5.1	1.84	0%
Industrial machinery manufacturing	Z3332	0.5	0.28	0.7	0.52	3.4	1.33	0%
Other industrial machinery manufacturing	Z333249	0.4	0.26	1.3	0.82	3.8	1.89	0%
Commercial and service industry machinery manufacturing	Z3333	0.5	0.24	1.3	0.72	4.2	1.84	0%
Optical instrument and lens manufacturing	Z333314	0.1	0.15	0.9	0.87	3.9	3.8	0%
Other commercial and service industry machinery manufacturing	Z333318	0.4	0.38	1.3	0.74	5	2.09	0%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment	Z3334	0.2	0.19	0.3	0.4	1.6	1.1	0%
Air-conditioning, heating, & industrial refrigeration equipment manufacturing	Z333415	0.2	0.22	0.4	0.45	0.4	1	0%
Metalworking machinery manufacturing	Z3335	0.2	0.26	0.8	0.58	3.7	1.63	18%
Machine tool manufacturing	Z333517	0.4	0.41	1.1	0.91	3	2.22	0%
Engine, turbine, and power transmission equipment manufacturing	Z3336	0.4	0.3	1.4	1.03	4.6	1.46	0%
Other engine equipment manufacturing	Z333618	0.3	0.37	1	1.34	2.2	0.97	0%
Other general purpose machinery manufacturing	Z3339	0.2	0.24	0.3	0.43	3.1	1.19	0%
Pump and compressor manufacturing (Dec. 2013=100)	Z33391	0.4	0.39	1.6	0.77	5	1.9	0%
Measuring, dispensing, and other pumping equipment manufacturing	Z333914	0	0.12	1.7	1.24	6.1	3.87	0%
Material handling equipment manufacturing	Z33392	0.2	0.23	0.5	0.86	1.3	2.07	0%
All other general purpose machinery manufacturing	Z33399	0.3	0.37	0.4	0.74	3.4	1.87	0%
All other miscellaneous general purpose machinery manufacturing	Z333999	0.3	0.57	0.7	1.01	1.7	3.55	0%

Table 3. Variances for U.S. import price indexes for industries: January 2023–December 2023								
Computer and electronic product manufacturing	Z334	0.2	0.24	0.5	0.37	1.7	1.21	0%
Computer and peripheral equipment manufacturing	Z3341	0.1	0.52	0.4	0.61	1.4	3.94	0%
Electronic computer manufacturing	Z334111	0.2	0.8	0.4	0.88	1.3	5.64	0%
Computer terminal and other computer peripheral equipment manufacturing	Z334118	0.3	0.23	0.7	0.42	2.6	0.92	0%
Communications equipment manufacturing	Z3342	0.1	0.09	0.6	0.19	2.8	0.65	0%
Audio and video equipment manufacturing	Z3343	0.1	0.09	0.4	0.41	0.8	3.91	0%
Semiconductor and other electronic component manufacturing	Z3344	0.3	0.27	0.9	0.68	3.1	2.13	0%
Semiconductor and related devices manufacturing	Z334413	0.1	0.17	0.5	0.5	3.4	1.27	0%
Printed circuit assembly (electronic assembly) manufacturing	Z334418	0.6	1.12	4.4	3.11	18.6	6.23	0%
Navigational, measuring, electromedical, and control instruments	Z3345	0.2	0.14	0.6	0.3	2.7	0.69	0%
Electromedical and electrotherapeutic apparatus manufacturing	Z334510	0	0.09	0.6	0.76	0.7	1.38	0%
Analytical laboratory instrument manufacturing	Z334516	0.4	0.47	0.4	0.78	0.9	1.65	0%
Other measuring and controlling device manufacturing ^[2]	Z334519	0.6	0.14	.	.	.	.	0%
Manufacturing and reproducing magnetic and optical media	Z3346	0.9	0.63	2.6	1.81	8.3	2.38	0%
Blank magnetic and optical recording media manufacturing	Z334613	0.9	0.64	2.7	1.92	8.8	2.52	0%
Electrical equipment, appliance, and component manufacturing	Z335	0.2	0.25	0.4	0.51	0.6	1.28	0%
Electric lighting equipment manufacturing	Z3351	0.2	0.25	0.4	0.43	1.6	2.88	0%
Lighting fixture manufacturing	Z33512	0.2	0.21	0.5	0.43	1.7	2.63	0%
Household appliance manufacturing	Z3352	0.3	0.24	0.8	0.7	1.6	1.11	0%
Small electrical appliance manufacturing	Z33521	0.2	0.15	0.4	0.27	0.2	1.3	0%
Major household appliance manufacturing	Z33522	0.5	0.42	1.1	1.11	3.3	1.65	0%
Electrical equipment manufacturing (Dec. 2017=100)	Z3353	0.4	0.54	0.5	1.16	0.8	2	0%
Motor and generator manufacturing	Z335312	0.1	0.19	0.5	0.6	2.5	1.99	0%
Switchgear and switchboard apparatus manufacturing	Z335313	0.3	0.43	1	1.22	3.5	2.97	0%
Communication and energy wire and cable manufacturing	Z33592	0.5	0.28	1	1.19	1.2	2.08	0%
Other communication and energy wire manufacturing	Z335929	0.3	0.28	0.8	1	2.1	1.85	0%
Current-carrying wiring device manufacturing ^[2]	Z335931	0.7	0.72	.	.	.	.	0%
Transportation equipment manufacturing	Z336	0.1	0.11	0.3	0.21	2.1	0.41	0%
Motor vehicle manufacturing	Z3361	0	0.03	0.7	0.24	2.4	0.53	0%
Automobile and light duty motor vehicle manufacturing	Z33611	0	0.04	0.6	0.26	2.1	0.56	0%
Automobile manufacturing	Z336111	0	0.04	0.5	0.29	2	0.63	0%
Heavy duty truck manufacturing (Dec. 2015=100)	Z33612	0	0	1.1	0.03	7.1	0.18	0%
Motor vehicle parts manufacturing	Z3363	0.1	0.26	0.1	0.5	0.6	1.02	0%
Motor vehicle gasoline engine and engine parts manufacturing	Z33631	0.4	0.25	0.8	0.78	0.2	1.8	0%
Motor vehicle electrical and electronic equipment manufacturing	Z33632	0.4	0.49	1.3	1.3	1.7	1.8	0%
Motor vehicle brake system manufacturing	Z33634	0.2	0.79	0.7	1.64	3.3	6.7	0%
Motor vehicle transmission and power train parts manufacturing	Z33635	0.3	0.33	1.1	0.8	1.2	1.84	0%
Motor vehicle seating and interior trim manufacturing	Z33636	0.2	0.18	0.4	0.5	3.6	1.29	0%
Other motor vehicle parts manufacturing	Z33639	0.2	0.39	0.5	0.83	1	2.2	0%
Aerospace product and parts manufacturing	Z3364	0.3	0.15	1.1	0.41	6.2	1.19	0%
Aircraft manufacturing ^[2]	Z336411	0.1	0.07	.	.	.	.	0%
Aircraft engine and engine parts manufacturing	Z336412	0.5	0.27	2	0.66	7.6	2.1	0%
Other transportation equipment manufacturing	Z3369	0.1	0.13	0.6	0.72	0.5	1.35	0%
Motorcycle, bicycle, and parts manufacturing	Z336991	0.1	0.16	0.9	0.74	0.9	1.6	0%
Furniture and related product manufacturing	Z337	0.2	0.25	0.2	0.5	1.7	1.33	0%
Household and institutional furniture and kitchen cabinet manufacturing	Z3371	0.3	0.28	0.5	0.63	1.6	1.77	0%
Household and institutional furniture manufacturing ^[2]	Z33712	0.3	0.28	.	.	.	.	0%
Upholstered household furniture manufacturing	Z337121	0.1	0.11	0.3	0.28	0.9	1.21	0%
Nonupholstered wood household furniture manufacturing	Z337122	0.7	0.57	0.9	1.16	5.8	3.68	0%
Institutional furniture manufacturing	Z337127	0.3	0.26	0.7	1.04	5.1	4.42	0%
Office furniture (including fixtures) manufacturing	Z3372	0.4	0.19	1	0.66	7.2	1.94	0%
Showcase, partition, shelving, and locker manufacturing	Z337215	0.1	0.2	1.1	0.83	4	2.41	0%
Miscellaneous manufacturing	Z339	0.2	0.21	0.4	0.53	1.2	1.24	12%
Medical equipment and supplies manufacturing	Z3391	0.3	0.26	0.5	0.56	1.4	1.28	0%
Surgical and medical instrument manufacturing	Z339112	0.2	0.32	1	0.62	1.9	1.56	0%
Surgical appliance and supplies manufacturing	Z339113	0.1	0.16	0.7	0.83	1.4	2.77	0%
Ophthalmic goods manufacturing ^[2]	Z339115	0	0.46	.	.	.	.	0%

Table 3. Variances for U.S. import price indexes for industries: January 2023–December 2023								
Other miscellaneous manufacturing	Z3399	0.3	0.26	0.6	0.72	1.2	1.68	18%
Jewelry and silverware manufacturing	Z33991	0.4	0.63	1.2	1.63	1	2.22	45%
Sporting and athletic goods manufacturing	Z33992	0.2	0.14	0.7	0.63	3.8	3.37	0%
Doll, toy, and game manufacturing	Z33993	0.2	0.38	0.3	0.99	1.4	3.11	0%
All other miscellaneous manufacturing (339999)	Z339999	0	0.08	0.4	0.51	1.3	1.69	0%
Footnotes								
[1] Indexes calculated using 100% non-sampled price data from one or more alternative data sources will not have variance due to sampling and have standard errors coded as not applicable (n.a.). Indexes calculated using a mix of directly collected price data and price data from one or more alternative data sources will have lower standard error values as the proportion of non-sampled trade value increases.								
[2] Index was not published the previous year. Estimates using prior year index values are excluded.								

Table 4. Variances for U.S. export price indexes for industries: January 2023–December 2023

Description	NAICS	1-month median absolute percent change	1-month median standard error	3-month median absolute percent change	3-month median standard error	12-month median absolute percent change	12-month median standard error	Percent Non- Sampled Trade Value ^[1]
Nonmanufacturing	YNONMANU	2.2	0.44	6.6	0.72	19.9	1.21	55%
Agriculture, forestry, fishing and hunting	Y11	1.8	0.47	4.4	0.82	14.1	1.7	59%
Crop production	Y111	1.8	0.45	4.6	0.71	15	1.83	63%
Oilseed and grain farming	Y1111	3.1	0.08	5.9	0.15	17.3	0.22	95%
Soybean farming	Y11111	3.2	n.a.	3.8	n.a.	11.5	n.a.	100%
Wheat farming	Y11114	2.4	n.a.	8.9	n.a.	23.3	n.a.	100%
Corn farming	Y11115	3.9	0.01	7.3	0.2	20.7	0.48	96%
Fruit and tree nut farming (Dec. 2006=100)	Y1113	1.4	2.24	3.9	3.92	3.9	3.52	0%
Noncitrus fruit and tree nut farming (Dec. 2007=100)	Y11133	1.4	2.47	4.3	4.19	3.8	3.82	0%
Tree nut farming	Y111335	2.1	1.57	3.8	2.6	8	2.7	0%
Other crop farming	Y1119	1.6	1.08	4.5	1.39	18	4.44	0%
Cotton farming (Dec. 2007=100)	Y11192	2	1.22	5	1.06	17.3	3.85	0%
Mining	Y21	3.3	0.63	8.9	0.91	23.5	1.83	52%
Oil and gas extraction	Y211	4.1	0.49	11	0.9	25.4	2.04	60%
Crude petroleum extraction	Y21112	6.9	n.a.	7.9	n.a.	14.8	n.a.	100%
Natural gas extraction	Y21113	3.5	1.16	14	1.6	37.6	3.63	19%
Mining (except oil and gas)	Y212	2.1	1.63	5.5	2.75	8.8	6.16	0%
Metal ore mining (Dec. 2012=100)	Y2122	2.2	2.16	8.5	3.35	3.7	5.07	0%
Copper, nickel, lead, and zinc mining ^[2]	Y21223	3.4	0.97	.	.	.	.	0%
Manufacturing	YMANU	0.5	0.11	1.2	0.2	2.2	0.45	7%
Manufacturing, part 1	Y31	0.3	0.33	0.8	0.61	3	1.66	0%
Food manufacturing	Y311	0.5	0.42	1.1	0.77	3.2	1.93	0%
Grain and oilseed milling	Y3112	1.5	1.1	3.3	2.63	9.3	4.41	0%
Starch and vegetable fats and oils manufacturing	Y31122	1	1.18	3.2	1.94	11.8	4.8	0%
Soybean and other oilseed processing	Y311224	1.6	1.19	2.7	2.07	11.3	4.44	0%
Fruit and vegetable preserving and specialty food manufacturing	Y3114	0.5	0.32	1.9	0.96	23.9	14.64	0%
Animal slaughtering and processing	Y3116	1	0.71	2	1.42	5.5	2.54	0%
Animal (except poultry) slaughtering	Y311611	1	0.7	3.5	1.3	4.2	3.15	0%
Poultry processing ^[2]	Y311615	1.9	1.36	.	.	.	.	0%
Other food manufacturing (Dec. 2014=100)	Y3119	0.9	0.36	1.8	1.12	7.6	3.4	0%
All other food manufacturing (Dec. 2017=100)	Y31199	0.9	0.39	1.8	0.87	10	3.93	0%
Beverage and tobacco product manufacturing	Y312	0.6	0.99	2.5	1.64	2.9	3.7	0%
Beverage manufacturing (Dec. 2009=100)	Y3121	0.6	1.05	2.7	1.73	3.1	3.98	0%
Manufacturing, part 2	Y32	0.9	0.26	4	0.5	7.6	1.03	12%
Wood product manufacturing (Dec. 2017=100)	Y321	0.5	0.71	1.6	1.62	14.3	5.08	0%
Paper manufacturing	Y322	1.5	0.65	2.8	1.09	9.2	1.64	0%
Pulp mills ^[2]	Y32211	4.5	1.81	.	.	.	.	0%
Converted paper product manufacturing (Dec. 2014=100)	Y3222	0.5	0.5	1.4	1.03	3.1	1.95	0%
Petroleum and coal products manufacturing	Y324	4.1	0.64	13.8	0.88	17.1	0.97	55%
Chemical manufacturing	Y325	0.2	0.3	0.6	0.72	5.4	1.75	0%
Basic chemical manufacturing	Y3251	0.5	0.77	1.4	1.45	5.7	2.94	0%
Other basic inorganic chemical manufacturing	Y32518	1.2	1	5.2	1.89	11.4	4.41	0%
Other basic organic chemical manufacturing (Dec. 2017=100)	Y32519	0.4	0.7	1.5	1.69	2.1	3.59	0%
Resin, synthetic rubber, and artificial synthetic fibers and filaments	Y3252	1	0.75	2.9	1.58	24.2	2.66	0%
Resin and synthetic rubber manufacturing (Dec. 2014=100)	Y32521	1	0.76	3.1	1.6	25.2	2.4	0%
Plastics material and resin manufacturing	Y325211	1.1	0.84	3.6	1.88	26.5	2.5	0%
Pharmaceutical and medicine manufacturing	Y3254	0.3	0.14	0.7	0.45	1.8	2.54	0%
Pharmaceutical preparation manufacturing	Y325412	0.4	0.14	0.8	0.45	3.6	1.04	0%
In-vitro diagnostic substance manufacturing	Y325413	0.2	0.51	0.8	1.24	4.5	5.48	0%
Biological product (except diagnostic) manufacturing	Y325414	0.2	0.24	1.6	0.9	4.1	5.34	0%
Soap, cleaning compound, and toilet preparation manufacturing	Y3256	0.3	0.55	0.6	1	3.1	1.62	0%

Table 4. Variances for U.S. export price indexes for industries: January 2023–December 2023

Soap and cleaning compound manufacturing	Y32561	0.2	0.44	0.6	1.1	3.5	3.53	0%
Toilet preparation manufacturing	Y32562	0.2	0.12	0.6	0.69	2.8	1.79	0%
All other miscellaneous chemical product and preparation manufacturing ^[2]	Y325998	0.3	0.45	.	.	.	.	0%
Plastics and rubber products manufacturing	Y326	0.2	0.25	0.5	0.54	2.4	1.41	1%
Plastic packing materials & unlaminated film and sheet manufacturing	Y32611	0.2	0.15	0.6	0.51	2.8	2.55	0%
Unlaminated plastic film and sheet (except packing) manufacturing	Y326113	0.1	0.09	0.2	0.19	2.3	2.06	0%
Rubber product manufacturing (Dec. 2006=100)	Y3262	0.4	0.24	0.7	0.75	7	2.21	0%
Nonmetallic mineral product manufacturing	Y327	0.2	0.09	0.7	0.3	2.2	1.66	0%
Glass and glass product manufacturing	Y3272	0.3	0.17	0.8	0.47	2.8	2.81	0%
Manufacturing, part 3	Y33	0.2	0.08	0.3	0.13	1.5	0.61	6%
Primary metal manufacturing	Y331	1.8	0.56	2.2	0.82	6.7	1.72	38%
Alumina and aluminum production and processing (Dec. 2009=100)	Y3313	1.2	0.21	2.6	0.63	8.7	1.67	21%
Nonferrous metal (except aluminum) production and processing	Y3314	2.4	0.54	2.2	0.94	3.7	1.78	50%
Nonferrous metal rolling and drawing production and processing	Y33149	2.4	0.62	2.1	1.07	5	2.03	54%
Primary nonferrous metal rolling and drawing production and processing	Y331491	1.4	1.38	2.3	2.49	4.8	8.01	0%
Secondary smelting, refining, and alloying of nonferrous metal	Y331492	2.7	0.52	3.2	1.02	5.2	1.41	65%
Machinery manufacturing	Y333	0.2	0.12	0.9	0.25	5.1	1	1%
Agriculture, construction, and mining machinery manufacturing	Y3331	0.2	0.25	1.1	0.56	5.5	1.67	0%
Agricultural implement manufacturing (Dec. 2017=100)	Y33311	0.2	0.3	1.1	0.5	4.7	2.8	0%
Farm machinery and equipment manufacturing	Y333111	0.2	0.16	0.8	0.41	4.8	2.96	0%
Construction machinery manufacturing	Y33312	0.1	0.16	0.8	0.39	4.9	0.98	0%
Industrial machinery manufacturing ^[2]	Y3332	0.1	0.08	.	.	.	.	0%
Semiconductor machinery manufacturing ^[2]	Y333242	0.1	0.08	.	.	.	.	0%
Other industrial machinery manufacturing ^[2]	Y333249	0.2	0.08	.	.	.	.	0%
Commercial and service industry machinery manufacturing	Y3333	0.3	0.34	1.3	1.12	6.1	2.21	0%
Metalworking machinery manufacturing	Y3335	0.2	0.19	1.2	0.55	3.8	2.12	14%
Other engine equipment manufacturing	Y333618	0.3	0.24	1	0.81	5.5	1.23	0%
Other general purpose machinery manufacturing	Y3339	0.3	0.26	1.1	0.43	6	1.65	0%
Air and gas compressor manufacturing ^[2]	Y333912	0.5	0.5	.	.	.	.	0%
Material handling equipment manufacturing ^[2]	Y33392	0.6	0.81	.	.	.	.	0%
All other general purpose machinery manufacturing	Y33399	0.2	0.17	0.9	0.44	6.3	2.8	0%
All other miscellaneous general purpose machinery manufacturing	Y333999	0.1	0.2	1.1	0.56	7.4	4.89	0%
Computer and electronic product manufacturing	Y334	0.2	0.17	0.3	0.32	1.6	1.78	0%
Computer and peripheral equipment manufacturing	Y3341	0.5	0.37	0.6	0.79	4.2	1.26	0%
Electronic computer manufacturing	Y334111	0.5	0.46	0.8	1	2	1.95	0%
Computer terminal and other computer peripheral equipment manufacturing ^[2]	Y334118	0.3	0.17	.	.	.	.	0%
Communications equipment manufacturing	Y3342	0.2	0.17	0.4	0.35	1.4	0.82	0%
Radio and TV broadcasting and wireless equipment (Dec. 2009=100)	Y33422	0.2	0.18	0.5	0.35	1.5	0.87	0%
Semiconductor and other electronic component manufacturing	Y3344	0.4	0.16	1.5	0.33	4.4	0.89	0%
Navigational, measuring, electromedical, and control instruments	Y3345	0.2	0.25	0.8	0.62	2.4	1.85	0%
Electromedical and electrotherapeutic apparatus manufacturing	Y334510	0.1	0.1	0.6	0.3	1.2	4.51	0%
Analytical laboratory instrument manufacturing	Y334516	0.5	0.47	1.4	0.99	3.4	6.5	0%
Electrical equipment, appliance, and component manufacturing	Y335	0.2	0.27	0.8	0.75	4.3	2.33	0%
Household appliance manufacturing ^[2]	Y3352	0.1	0.19	.	.	.	.	0%
Motor and generator manufacturing	Y335312	0.2	0.29	0.7	1.15	4.6	1.94	0%
Other electrical equipment and component manufacturing	Y3359	0.3	0.36	1.1	1.07	4.2	2.91	0%
Wiring device manufacturing	Y33593	0.2	0.22	0.9	1.36	3.2	2.42	0%
Current-carrying wiring device manufacturing	Y335931	0.2	0.22	0.9	1.4	3.3	2.44	0%
Transportation equipment manufacturing	Y336	0.3	0.15	1.1	0.25	4.8	0.45	1%
Motor vehicle manufacturing	Y3361	0.3	0.1	1.2	0.35	2.5	0.63	0%
Automobile and light duty motor vehicle manufacturing	Y33611	0.3	0.1	1.3	0.38	2.2	0.69	0%
Automobile manufacturing	Y336111	0.1	0.09	1.8	0.41	1.6	0.81	0%
Light truck and utility vehicle manufacturing	Y336112	0	0	0.7	0.68	4.5	0.93	0%
Heavy duty truck manufacturing	Y33612	0.2	0.06	0.4	0.22	4.7	0.42	0%
Motor vehicle body and trailer manufacturing (Dec. 2013=100)	Y3362	0.1	0.1	0.6	0.32	2.3	1.52	0%
Motor vehicle body manufacturing	Y336211	0.1	0.14	0.8	0.51	3.2	2.3	0%
Motor vehicle parts manufacturing	Y3363	0.1	0.24	0.5	0.57	4.6	1.34	0%

Table 4. Variances for U.S. export price indexes for industries: January 2023–December 2023								
Motor vehicle gasoline engine and engine parts manufacturing ^[2]	Y33631	0.1	0.13	.	.	.	.	0%
Motor vehicle electrical and electronic equipment manufacturing (Dec. 2008=100)	Y33632	0.2	0.26	1	0.83	3.4	3.38	0%
Motor vehicle transmission and power train parts manufacturing ^[2]	Y33635	0.1	0.27	.	.	.	.	0%
Aerospace product and parts manufacturing	Y3364	0.2	0.17	1.9	0.35	7.3	0.69	0%
Other aircraft parts and auxiliary equipment manufacturing	Y336413	0.4	0.46	1.4	1.19	4.2	2.81	0%
Miscellaneous manufacturing	Y339	0.3	0.17	0.8	0.41	4.4	1.74	19%
Medical equipment and supplies manufacturing	Y3391	0.5	0.19	1	0.56	2.9	0.94	0%
Surgical and medical instrument manufacturing	Y339112	0.5	0.31	1.1	0.83	4.6	1.43	0%
Surgical appliance and supplies manufacturing	Y339113	0.5	0.38	0.8	0.9	1.1	1.26	0%
Other miscellaneous manufacturing (Dec. 2013=100)	Y3399	0.5	0.11	0.8	0.48	6.1	2.81	37%
Jewelry and silverware manufacturing	Y33991	0.5	0.12	1.1	0.28	4.6	3.02	56%
All other miscellaneous manufacturing ^[2]	Y33999	0.1	0.08	.	.	.	.	0%
Footnotes								
[1] Indexes calculated using 100% non-sampled price data from one or more alternative data sources will not have variance due to sampling and have standard errors coded as not applicable (n.a.). Indexes calculated using a mix of directly collected price data and price data from one or more alternative data sources will have lower standard error values as the proportion of non-sampled trade value increases.								
[2] Index was not published the previous year. Estimates using prior year index values are excluded.								

Table 5. Variances for U.S. import price indexes for categories of goods: January 2023–December 2023

Description	Harmonized system	1-month median absolute percent change	1-month median standard error	3-month median absolute percent change	3-month median standard error	12-month median absolute percent change	12-month median standard error	Percent Non-Sampled Trade Value ^[1]
Live animals; animal products	PI	0.9	1.11	2.1	1.78	1.7	2.04	0%
Meat and edible meat offal	P02	1.8	1.23	5.5	2.08	5	2.75	0%
Meat of bovine animals, fresh or chilled ^[2]	P0201	2.7	1.27	.	.	.	.	0%
Fish and crustaceans, molluscs and other aquatic invertebrates	P03	2.2	0.76	4.4	1.29	7.4	2.49	0%
Fish fillets and other fish meat, fresh, chilled, frzn, (Dec. 2008=100)	P0304	5.3	1.59	6	2.17	4.4	2.93	0%
Crustaceans, live, fresh, chilled, etc; in shell or not; cooked or uncooked	P0306	1.2	1.03	3.4	1.6	13.3	3	0%
Vegetable products	PII	1.1	2.17	2.7	3.29	2.2	3.9	0%
Edible vegetables, roots, and tubers	P07	2.6	5.88	4.6	7.47	8.9	9.77	0%
Edible fruit and nuts; peel of citrus fruit or melons	P08	1.5	3.87	6.9	6.24	5.2	8.21	0%
Coffee, tea, mate and spices	P09	1.5	0.84	2.2	2.69	6.2	3.41	0%
Coffee, roasted or unroasted, decaf; coffee husks and skins (Dec. 2007=100)	P0901	1.2	0.85	2.2	2.49	4.8	3.64	0%
Animal or vegetable fats and oils (Dec. 2009=100)	PIII	1.3	1.5	2	3.26	4.4	5.2	0%
Prepared foodstuffs, beverages, and tobacco	PIV	0.3	0.35	0.9	0.59	4.9	1.41	0%
Edible preps of meat, of fish, or of aquatic invertebrates (Dec. 2004=100)	P16	1	0.64	2.2	1.68	9.4	3.33	0%
Sugars and sugar confectionary	P17	0.8	0.61	3	1.28	9.6	2.94	0%
Cocoa and cocoa preparations (Dec. 2009=100)	P18	2.1	0.53	4.6	0.93	19.1	6.58	0%
Miscellaneous edible preparations ^[2]	P21	0.5	0.36	.	.	.	.	0%
Food preparations nesoi ^[2]	P2106	0	0	.	.	.	.	0%
Beverages, spirits, and vinegar	P22	0.3	0.17	0.8	0.31	4.2	0.62	0%
Beer, ale, porter, stout, and the like ^[2]	P2203	0	0.04	.	.	.	.	0%
Wine of fresh grapes, including fortified wine	P2204	0.4	0.4	0.8	0.8	3.4	1.06	0%
Ethyl alcohol undenatured less than 80% alcohol (Dec. 2001=100)	P2208	0.1	0.12	0.7	0.54	3.9	0.95	0%
Mineral products	PV	5.1	1.04	10.7	1.4	16.8	1.01	67%
Mineral fuels, oils and residuals, bituminous substances and mineral waxes	P27	5.2	1.05	11.3	1.28	17.4	1.12	69%
Petroleum oils and oils from bituminous minerals, crude	P2709	3.4	n.a.	9	n.a.	15.9	n.a.	100%
Petroleum oils (not crude), bituminous oils, & products thereof, nesoi	P2710	5.2	2.59	10.1	2.42	19.7	2.88	23%
Petroleum gases and other gaseous hydrocarbons	P2711	11	4.48	17.7	7.18	43.6	6.79	0%
Products of the chemical or allied industries	PVI	0.2	0.28	0.5	0.55	3.4	1.15	0%
Inorganic chemicals	P28	1.4	2.01	3	3.58	6.8	7.66	0%
Organic chemicals	P29	0.6	0.45	1.4	1.07	2.4	1.74	0%
Heterocyclic compounds with nitrogen hetero-atoms only (Dec. 2016=100)	P2933	0.1	0.1	1.8	1.95	6.4	4.77	0%
Nucleic acids and their salts, other heterocyclic compounds (Dec. 2009=100)	P2934	0.2	0.28	0.4	0.66	2.3	1.64	0%
Pharmaceutical products	P30	0.1	0.11	0.6	0.29	0.8	0.96	0%
Human and animal blood, prep; antisera & other blood fractions (Dec. 2014=100)	P3002	0.1	0.07	0.8	0.39	2.3	0.85	0%
Medicaments (except vaccines, band., pharmaceuticals) (Dec. 2001=100)	P3004	0.2	0.14	0.3	0.41	2.6	1.54	0%
Fertilizers ^[2]	P31	4.4	2.46	.	.	.	.	0%
Tanning extracts; dye, pigments, varnish, paints & putty ^[2]	P32	1	0.74	.	.	.	.	0%
Miscellaneous chemical products	P38	0.6	0.48	1.2	0.96	2.8	2.98	0%
Plastics and articles thereof; rubber and articles thereof	PVII	0.4	0.41	1.1	0.55	2.4	1.22	0%
Plastics and articles thereof	P39	0.7	0.52	1.8	0.77	5.1	1.37	0%
Articles of plastic, polymers & resins of heading 3901 to 3914, nesoi ^[2]	P3926	0.3	0.6	.	.	.	.	0%
Rubber and articles thereof	P40	0.3	0.27	0.6	0.6	2.6	2.09	0%
New pneumatic tires of rubber (Dec. 2004=100)	P4011	0.4	0.16	0.5	0.35	5.6	2.48	0%
Woodpulp, recovered paper, and paper products	PX	1	0.61	1.9	1.45	4.6	2.28	0%
Textile and textile articles	PXI	0.1	0.15	0.2	0.36	0.7	0.73	0%
Articles of apparel and clothing accessories, not knitted or crocheted	P62	0.1	0.07	0.1	0.15	0.8	0.75	0%
Men or boys suits, ensembles, suit-type jackets, blazers & trousers	P6203	0	0.09	0.2	0.31	0.7	1.04	0%
Women or girls suits, dresses, skirts; not knitted (Dec. 2017=100)	P6204	0.1	0.05	0.4	0.22	0.5	0.5	0%
Headgear, umbrellas, artificial flowers, etc.	PXII	0.2	0.23	0.3	0.54	0.1	0.78	0%
Footwear and parts of such articles	P64	0.2	0.29	0.4	0.57	0.2	0.85	0%
Footwear with uppers of leathers	P6403	0	0.11	0.3	0.4	0.6	1.79	0%

Table 5. Variances for U.S. import price indexes for categories of goods: January 2023–December 2023								
Footwear with uppers of textile materials ^[2]	P6404	0.1	0.14	.	.	.	.	0%
Stone, plaster, cement, asbestos, ceramics, glass etc.	PXIII	0.4	0.22	0.9	0.77	2.3	1.91	0%
Articles of stone, plaster, cement, asbestos, or mica	P68	0.2	0.23	0.7	0.46	0.9	3.07	0%
Glass and glassware	P70	0.4	0.28	1.4	1.81	6.7	3.58	0%
Pearls, stones, precious metals, imitation jewelry, and coins	PXIV	2.1	0.36	2.2	0.86	2.4	1.87	56%
Diamonds, whether or not worked, but not mounted or set	P7102	0.3	0	1.3	0	5.3	0	97%
Silver unwrought, semi-manufactured, or powder	P7106	4.8	0	7.2	0	11.1	0	99%
Gold (incl plated with platinum), unwrht, semi-mfg or pwdr	P7108	3	n.a.	5.2	n.a.	7.3	n.a.	100%
Platinum, unwrought, semi-mfg or powder	P7110	4.6	0.41	16.4	0.64	47.9	0.83	74%
Base metals and articles of base metals	PXV	0.5	0.34	1.9	0.85	4.5	2.14	15%
Articles of iron or steel	P73	0.7	0.63	1.8	1.12	2.5	3.17	0%
Structures (excluding prefab buildings of heading 9406) and parts thereof ^[2]	P7308	0.6	0.61	.	.	.	.	0%
Screws, bolts, nuts, rivets, cotters, and washers	P7318	0.9	0.8	2.8	1.62	14.8	7.11	0%
Copper and articles thereof	P74	2.1	0.07	3.8	0.18	7.4	0.37	53%
Aluminum and articles thereof	P76	0.6	1.07	1.8	1.65	4.3	2.68	42%
Aluminum, unwrought	P7601	1.9	n.a.	5	n.a.	12.1	n.a.	100%
Tools, implements, cutlery, spoons and forks, of base metal; parts thereof	P82	0.1	0.2	0.3	0.46	2.1	1.36	0%
Miscellaneous articles of base metal	P83	0.3	0.37	1.4	0.89	3.6	1.44	0%
Mountings and other hardware for furniture, doors, and windows	P8302	0.3	0.19	2	1.31	4.9	2.55	0%
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	PXVI	0.1	0.14	0.3	0.25	0.4	0.7	0%
Machinery and mechanical appliances; parts thereof	P84	0.2	0.28	0.4	0.48	0.5	1.32	1%
Spark-ignition internal combustion piston engines	P8407	0.4	0.28	1.3	0.85	2.9	1.5	0%
Parts for spark-ignition and diesel internal combustion piston engines	P8409	0.4	0.38	1.1	0.95	3.2	2.97	0%
Turbojets, turbopropellers and other gas turbines, and parts thereof	P8411	0.5	0.29	2	0.6	8.5	1.78	0%
Engines & motors, nesoi, & parts thereof (Dec. 2012=100)	P8412	0	0	0.8	0.6	1.6	2.45	0%
Pumps for liquids; liquid elevators; parts thereof	P8413	0.4	0.34	1.2	0.73	4.2	2.29	0%
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	P8414	0.2	0.26	0.6	0.44	2.1	1.32	0%
Air conditioning machines and parts thereof (Dec. 2014=100)	P8415	0.2	0.25	0.3	0.51	1.5	1.25	0%
Refrigerators, freezers, heat pumps; and parts	P8418	0.9	0.59	2.3	1.48	4.1	2.13	0%
Nonelectric water heaters and parts ^[2]	P8419	0.1	0.06	.	.	.	.	0%
Centrifuges & filtering/purifying machinery and parts (Dec. 2017=100)	P8421	0.3	0.62	0.9	1.32	5.8	2.22	0%
Self-propelled earth-moving, tamping, & road roller machines (Dec. 2012=100)	P8429	0	0	1.7	0.67	5.2	1.19	0%
Parts for materials handling & construction machines	P8431	0.2	0.36	0.8	1.04	3.4	4.44	0%
Printing machinery, machines ancillary to printing; & parts (Dec. 2012=100)	P8443	0.1	0.06	0.1	0.15	0.4	1	0%
Powered hand tools, nonelectric, and parts thereof ^[2]	P8467	0.3	0.21	.	.	.	.	0%
Computer equipment	P8471	0.1	0.64	0.3	0.74	1.1	4.8	0%
Parts and accessories, n.e.s.o.i., for computers and other office machines	P8473	0.6	1.06	4	2.76	17.2	5.64	0%
Machines & appliances having functions n.e.s.; parts thereof (Dec. 2016=100)	P8479	0.2	0.43	0.7	1.22	2.6	3.96	0%
Taps, cocks, valves & similar appliances; parts thereof	P8481	0.2	0.13	0.5	0.36	0.8	1.73	0%
Electrical machinery and equip, sound and TV recorders & reproducers, parts	P85	0.1	0.13	0.4	0.26	0.7	0.63	0%
Electric motors and generators (excludes generating sets)	P8501	0.1	0.17	0.4	0.66	2.6	2.06	0%
Vehicular electric lighting equipment, and defrosters; (Dec. 2014=100)	P8512	0	0.08	2.3	3.63	6.1	7.51	0%
Electrothermic domestic appliances; water & space heaters; resistors	P8516	0.3	0.18	0.8	0.43	2	2.72	0%
Electrical apparatus for line telephony or line telegraphy; videophones; parts	P8517	0.1	0.09	0.6	0.2	2.8	0.65	0%
Prepared unrecorded media for sound or similar recording (Dec. 2004=100)	P8523	0.9	0.63	2.6	1.87	8.4	2.48	0%
Radio & TV transmission apparatus; video cameras & camera recorders; TV cameras	P8525	0	0	0.1	0.08	1.5	0.4	0%
TV reception apparatus; video monitors & video projectors	P8528	0.4	0.34	1.5	0.62	4.6	5.36	0%
Electrical circuit switching, protecting or connection app. of 1000 volts or less	P8536	0.5	0.54	1.8	1.5	7.2	3.63	0%
Insulated conductors (Dec. 2010=100)	P8544	0.2	0.35	0.7	0.68	1.5	1.59	0%
Vehicles, aircraft, vessels and associated transport equipment	PXVII	0.1	0.12	0.3	0.24	2	0.53	1%
Motor vehicles and their parts	P87	0.1	0.13	0.4	0.25	1.8	0.56	0%
Tractors (other than work trucks of heading 8709) (Dec. 2017=100)	P8701	0.1	0.06	0.4	0.16	5	0.42	0%
Motor vehicles designed to transport people	P8703	0	0.04	0.5	0.29	2	0.63	0%
Parts of tractors, buses, automobiles, trucks, spec. vehicles	P8708	0.2	0.41	0.2	0.75	0.7	1.57	0%
Aircraft, spacecraft, and parts thereof	P88	0.1	0.15	0.4	0.41	4.7	1.04	0%
Other aircraft, nesoi; spacecraft & launch vehicles ^[2]	P8802	0.1	0.07	.	.	.	.	0%
Optical, photo, measuring, medical & musical instruments; & timepieces	PXVIII	0.2	0.15	0.6	0.38	2.7	0.68	0%

Table 5. Variances for U.S. import price indexes for categories of goods: January 2023–December 2023								
Optical, photographic, measuring and medical instruments	P90	0.1	0.17	0.5	0.42	2.3	0.74	0%
Instruments used in medical, surgical, dental, and veterinarian sciences	P9018	0.1	0.31	0.5	0.72	1.6	1.44	0%
Orthopedic appliances; artificial body parts; hearing aids, etc (Dec. 2003=100)	P9021	0.1	0.18	0.4	0.97	1.4	2.32	0%
Instruments and apparatus for physical or chemical analysis (Dec. 2006=100)	P9027	0.4	0.46	0.7	0.81	1.3	1.64	0%
Miscellaneous manufactured articles	PXX	0.1	0.21	0.1	0.4	1.2	0.97	0%
Furniture & stuffed furnishings; lamps & lighting fittings, nesoi; prefab bldgs	P94	0.1	0.22	0.2	0.47	1.1	1.26	1%
Seats other than barber, dental and similar chairs (Dec. 2001=100)	P9401	0.1	0.13	0.4	0.4	2.1	1.76	0%
Furniture other than seats, nes	P9403	0.3	0.37	0.4	0.64	4.2	1.95	0%
Toys, games and sports equipment; parts and accessories thereof	P95	0.2	0.27	0.3	0.66	0.7	2.27	0%
Articles for arcade, table or games parts thereof (Dec. 2018=100)	P9504	0.1	0.13	1	0.4	4.6	2.41	0%
Articles & equipment for sports nesoi; parts & accessories thereof	P9506	0.2	0.16	0.8	0.69	4.5	3.69	0%
Miscellaneous manufactured articles	P96	0.2	0.08	0.5	0.84	8.3	6.35	0%
Footnotes								
[1] Indexes calculated using 100% non-sampled price data from one or more alternative data sources will not have variance due to sampling and have standard errors coded as not applicable (n.a.). Indexes calculated using a mix of directly collected price data and price data from one or more alternative data sources will have lower standard error values as the proportion of non-sampled trade value increases.								
[2] Index was not published the previous year. Estimates using prior year index values are excluded.								

Table 6. Variances for U.S. export price indexes for categories of goods: January 2023–December 2023

Description	Harmonized system	1-month median absolute percent change	1-month median standard error	3-month median absolute percent change	3-month median standard error	12-month median absolute percent change	12-month median standard error	Percent Non-Sampled Trade Value ^[1]
Live animals; animal products	DI	0.7	0.55	2	0.98	7.5	1.84	0%
Meat & edible meat offal (Dec. 2006=100)	D02	1	0.74	1.9	1.15	5.6	2.46	0%
Meat of swine (pork), fresh, chilled or frozen	D0203	1.8	0.65	4.1	1.06	3.7	2.57	0%
Fish and crustaceans, mollusks and aquatic invertebrates (Dec. 2016=100)	D03	1.9	0.81	7.9	1.62	19.6	2.22	0%
Vegetable products	DII	2.1	0.48	5	0.7	13.2	1.89	63%
Edible fruit and nuts; peel of citrus fruit or melons	D08	1.6	2.01	4.4	3.38	4.1	3	0%
Nuts nesoi, fresh or dried (Dec. 2015=100)	D0802	2.1	1.57	3.8	2.6	8	2.71	0%
Cereals	D10	2.6	0.15	6.8	0.34	19.2	0.59	90%
Wheat and meslin	D1001	2.4	n.a.	8.9	n.a.	23.3	n.a.	100%
Corn (maize)	D1005	3.9	0.03	7.2	0.2	20.5	0.56	95%
Oilseeds and misc. grains, seeds, fruits, plants, straw and fodder	D12	2.9	0.19	3.3	0.26	12.1	0.69	83%
Soybeans, whether or not broken (Dec. 2001=100)	D1201	3.2	n.a.	3.8	n.a.	11.5	n.a.	100%
Prepared foodstuffs, beverages, and tobacco	DIV	0.5	0.37	0.4	1.11	2.3	2.45	0%
Miscellaneous edible preparations (Dec. 2017=100)	D21	0.6	0.24	1.6	0.82	10.2	2.94	0%
Food preparations nesoi	D2106	0.8	0.32	1.9	0.75	7.6	3.69	0%
Beverages, spirits, and vinegar (Dec. 2008=100)	D22	0.2	0.12	0.8	1.03	0.4	1.82	0%
Residues and waste from the food industries; prepared animal feed	D23	1.7	1.06	4.8	1.98	8.7	3.25	0%
Mineral products	DV	4	0.49	12.4	0.7	20.7	1.18	53%
Ores, slag and ash (Dec. 2012=100)	D26	2.3	2.05	7	3.63	4.6	7.89	0%
Mineral fuels, oils and residuals, bituminous substances and mineral waxes	D27	4.2	0.49	12.8	0.72	21.5	1.2	56%
Petroleum oils and oils from bituminous minerals, crude	D2709	6.9	n.a.	7.9	n.a.	14.8	n.a.	100%
Petroleum oils & oils from bituminous minerals (excl crude) & products, nes	D2710	4.5	0.62	13.7	0.83	18	0.96	60%
Petroleum gases and other gaseous hydrocarbons (Dec. 2014=100)	D2711	3.5	1.16	14	1.6	37.6	3.63	19%
Petroleum coke, petroleum bitumen and residues of petroleum oils	D2713	3.1	2.93	5	5.15	20.9	8.61	0%
Products of the chemical or allied industries	DVI	0.3	0.31	1	0.71	2.1	1.94	0%
Pharmaceutical products	D30	0.4	0.16	1	0.55	1.9	2.72	0%
Human and animal blood, prepared; other blood frctns (Dec. 2014=100)	D3002	0.2	0.24	1.6	0.9	4.1	5.32	0%
Medicaments	D3004	0.3	0.15	0.9	0.5	3.5	1.05	0%
Essential oils and resinoids; perfumery cosmetic or toilet preparations	D33	0.2	0.08	1	0.77	5.4	1.65	0%
Beauty or make-up and skin-care preparations	D3304	0	0.04	0.7	0.84	5.3	3.07	0%
Soap; lubricants; waxes, polishing or scouring products; candles, pastes	D34	0.3	0.41	0.7	1.27	3.5	3.11	0%
Miscellaneous chemical products	D38	0.2	0.29	0.8	0.72	2.9	3.27	0%
Composite diagnostic or laboratory reagents (Dec. 2001=100)	D3822	0.2	0.51	0.8	1.22	5.5	6.12	0%
Plastics and articles thereof; rubber and articles thereof	DVII	0.3	0.46	1.1	0.72	8.2	3.32	0%
Plastics and articles thereof	D39	0.4	0.45	1.2	0.88	9.8	4.02	0%
Plates, sheets, films, foil and strips of plastic	D3920	0.2	0.16	0.5	0.43	1.3	2.38	0%
Rubber and articles thereof	D40	0.3	0.17	0.9	0.64	2.1	1.73	0%
Wood, wood charcoal, cork, straw, baskets and wickerwork (Dec. 2014=100)	DIX	0.9	0.96	1.9	2.39	16.8	3.92	0%
Woodpulp, recovered paper, and paper products	DX	2.1	0.82	3.8	1.43	5.9	1.97	0%
Woodpulp and recovered paper	D47	4.2	1.99	10.2	4.9	11.9	4.6	0%
Chemical woodpulp, soda or sulfate, except dissolving grades ^[2]	D4703	4.5	1.84	-	-	-	-	0%
Paper and paperboard; articles of paper pulp, paper or paperboard	D48	1.1	0.36	2	0.7	3.3	1.84	0%
Cotton, including yarns and woven fabrics thereof	D52	1.7	1.1	4.2	1.08	15.1	3.59	0%
Cotton, not carded or combed (Dec. 2018=100)	D5201	2	1.22	5	1.06	17.3	3.85	0%
Stone, plaster, cement, asbestos, ceramics, glass etc.	DXIII	0.2	0.08	1.2	1.3	1.3	2.82	0%
Glass and glassware	D70	0.1	0.05	1.5	0.51	1.9	2.03	0%
Pearls, stones, precious metals, imitation jewelry, and coins	DXIV	1.7	0.52	1.9	0.6	3.3	1.53	54%
Diamonds, whether or not worked, but not mounted or set (Dec. 2013=100)	D7102	0.1	0	1	0	3.8	0	97%
Gold (including gold plated with platinum), unwrought (Dec. 2001=100)	D7108	2.9	0.02	4.9	0.04	7.2	0.06	96%
Platinum, unwrought, semimanufactured or in powder form	D7110	5.7	3.22	18.5	5.53	44.8	3.09	0%
Waste and scrap of precious metals	D7112	4	0.84	4.3	1.26	5.1	4.92	26%

Table 6. Variances for U.S. export price indexes for categories of goods: January 2023–December 2023								
Articles of jewelry and parts thereof, of precious metal ^[2]	D7113	0.2	0.19	-	-	-	-	0%
Base metals and articles of base metals	DXV	1	0.29	1.7	0.57	2.4	1.16	4%
Copper and articles thereof	D74	2.4	0.19	3.7	0.32	6.9	2.76	14%
Aluminum and articles thereof	D76	1.2	0.39	3.1	1.13	4.3	2.06	11%
Miscellaneous articles of base metal ^[2]	D83	0.2	0.22	-	-	-	-	0%
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	DXVI	0.1	0.1	0.2	0.27	2.1	1.26	0%
Machinery and mechanical appliances; parts thereof	D84	0.1	0.11	0.9	0.26	4.3	0.56	0%
Spark-ignition internal combustion piston engines	D8407	0	0	0.6	0.5	30	5.66	0%
Diesel & semi-diesel internal combustion piston engines	D8408	0.3	0.21	1.2	0.43	7.3	0.93	0%
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	D8414	0.2	0.22	0.8	0.53	6.1	1.23	0%
Centrifuges & filtering/purifying machinery and parts	D8421	0.4	0.39	2.7	1.23	11.8	4.52	0%
Parts for materials handling & construction machines ^[2]	D8431	0.2	0.29	-	-	-	-	0%
Computer equipment	D8471	0.4	0.43	0.6	0.79	1.5	1.49	0%
Parts and accessories, n.e.s.o.i., for computers and other office machines ^[2]	D8473	0.2	0.15	-	-	-	-	0%
Machines used solely for manufacture of semiconductor boules ^[2]	D8486	0.1	0.08	-	-	-	-	0%
Electrical machinery and equipment and parts and accessories thereof	D85	0.2	0.15	0.3	0.41	1.3	2.63	0%
Electrical apparatus for line telephony or line telegraphy; videophones; parts	D8517	0.2	0.18	0.4	0.37	1.5	0.87	0%
Electrical circuit switching, protecting or connection app of 1000 volts or less	D8536	0.1	0.25	0.7	0.87	1.7	1.79	0%
Semiconductors; L.E.D.s; mounted crystals; parts thereof (Dec. 2017=100)	D8541	0.1	0.12	0.5	0.91	1.1	2.44	0%
Electronic integrated circuits and micro assemblies; parts thereof	D8542	0.6	0.17	2	0.4	6.1	1.13	0%
Insulated conductors; optical fiber cables w/individually sheathed fibers	D8544	0.3	0.41	1	1.26	7	5.83	0%
Vehicles, aircraft, vessels and associated transport equipment	DXVII	0.2	0.14	1.1	0.26	3	0.52	2%
Motor vehicles and their parts	D87	0.3	0.18	0.7	0.27	2.3	0.52	0%
Tractors other than work trucks ^[2]	D8701	0.3	0.11	-	-	-	-	0%
Automobiles and other motor vehicles inc minivans, 4-dr specialty vehicles	D8703	0.1	0.09	1.7	0.41	1.6	0.8	0%
Motor vehicles for the transport of goods	D8704	0.1	0.01	1	0.56	5.4	0.66	0%
Parts and access of tractors, buses automobiles, trucks, spec. vehicles	D8708	0.3	0.22	0.4	0.61	0.8	1.4	0%
Parts, nesoi, of civil aircraft and spacecraft (exc. military)	D8803	0.4	0.46	1.4	1.19	4.2	2.81	0%
Optical, photo, measuring, medical & musical instruments; & timepieces	DXVIII	0.3	0.21	0.8	0.58	3	1.06	0%
Instruments used in medical, surgical, dental, and veterinarian sciences	D9018	0.3	0.25	0.4	0.66	1.9	1.96	0%
Hearing aids; artificial body parts; and orthopedic apparatus ^[2]	D9021	0.2	0.35	-	-	-	-	0%
Instruments and apparatus for physical or chemical analysis	D9027	0.4	0.41	1.3	1.28	2.3	4.24	0%
Measuring or checking instruments, and appliances n.e.s. (Dec. 2001=100)	D9031	0.4	0.11	0.9	0.8	5.1	2.63	0%
Miscellaneous manufactured articles	DXX	0.3	0.24	0.7	0.57	4.4	2.36	3%
Furniture; stuffed furnishings; lamps and lighting fittings nesoi	D94	0	0	0.6	0.74	1.2	1.67	5%
Toys, games and sports equipment; parts and accessories thereof	D95	0.1	0.29	0.3	0.92	13.8	5.76	0%
Footnotes								
[1] Indexes calculated using 100% non-sampled price data from one or more alternative data sources will not have variance due to sampling and have standard errors coded as not applicable (n.a.). Indexes calculated using a mix of directly collected price data and price data from one or more alternative data sources will have lower standard error values as the proportion of non-sampled trade value increases.								
[2] Index was not published the previous year. Estimates using prior year index values are excluded.								