MONTHLY ADVANCE ECONOMIC INDICATORS REPORT, AUGUST 2023

Release Number: CB23-165

September 29, 2023 — The U.S. Census Bureau announced the following international trade, wholesale inventories, and retail inventories advance statistics for August 2023:

	ADVANCE INTERNATIONAL TRADE: GOODS DEFICIT		ADVANCE WHOLESALE INVENTORIES		ADVANCE RETAIL INVENTORIES	
AUGUST 2023	$84.3 Billion	-7.3%°	$901.2 Billion	-0.1%*	$793.4 Billion	+1.1%
JULY 2023	$90.9 Billion		$901.9 Billion (R)		$785.1 Billion (R)	
Next release: October 26, 2023.						
* The 90 percent confidence interval includes zero. There is insufficient evidence to conclude that the actual change is different from zero. ° Statistical significance is not applicable or not measurable. Data adjusted for seasonality but not price changes. Source: U.S. Census Bureau; Advance Economic Indicators Report, September 29, 2023.						

Advance International Trade in Goods

The international trade deficit was $84.3 billion in August, down $6.6 billion from $90.9 billion in July. Exports of goods for August were $168.9 billion, $3.6 billion more than July exports. Imports of goods for August were $253.1 billion, $3.1 billion less than July imports.

Advance Wholesale Inventories

Wholesale inventories for August, adjusted for seasonal variations and trading day differences, but not for price changes, were estimated at an end-of-month level of $901.2 billion, down 0.1 percent (±0.4 percent)* from July 2023, and were down 0.9 percent (±1.1 percent)* from August 2022. The June 2023 to July 2023 percentage change was unrevised from the preliminary estimate of down 0.2 percent (±0.2 percent)*.

Advance Retail Inventories

Retail inventories for August, adjusted for seasonal variations and trading day differences, but not for price changes, were estimated at an end-of-month level of $793.4 billion, up 1.1 percent (±0.2 percent) from July 2023, and were up 4.5 percent (±0.5 percent) from August 2022. The June 2023 to July 2023 percentage change was revised from up 0.2 percent (±0.2 percent)* to up 0.5 percent (±0.2 percent).

The September 2023 Advance report is scheduled for release on October 26, 2023. View the full schedule in the Economic Briefing Room: <www.census.gov/economic-indicators/>. The full text and tables of this release can be found at <www.census.gov/econ/indicators/>.

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EXPLANATORY NOTES

International Trade in Goods

Goods (Census Basis)

Data for goods on a Census basis are compiled from the documents collected by the U.S. Customs and Border Protection and reflect the movement of goods between foreign countries and the 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and U.S. Foreign Trade Zones. They include government and non-government shipments of goods and exclude shipments between the United States and its territories and possessions; transactions with U.S. military, diplomatic, and consular installations abroad; U.S. goods returned to the United States by its Armed Forces; personal and household effects of travelers; and in-transit shipments. Data for U.S. exports to Canada are derived from import data compiled by Canada. For more information on the data exchange and substitution please refer to the FT-900. The General Imports value reflects the total arrival of merchandise from foreign countries that immediately enters consumption channels, warehouses, or Foreign Trade Zones.

For imports, the value reported is the U.S. Customs and Border Protection appraised value of merchandise— generally, the price paid for merchandise for export to the United States. Import duties, freight, insurance, and other charges incurred in bringing merchandise to the United States are excluded.

Exports are valued at the free alongside ship value of merchandise at the U.S. port of export, based on the transaction price including inland freight, insurance, and other charges incurred in placing the merchandise alongside the carrier at the U.S. port of exportation.

Additional information on coverage and valuation are available in the Guide to Foreign Trade Statistics, <www.census.gov/foreign-trade/guide/sec2.html#coverage> and <www.census.gov/foreign-trade/guide/sec2.html#valuation>, respectively.

Nonsampling Errors

Goods data are a complete enumeration of documents collected by the U.S. Customs and Border Protection and are not subject to sampling errors. This report presents current month statistics which reflect nearly complete coverage. Current month statistics reflecting complete coverage will be published in the upcoming U.S. International Trade in Goods and Services report (FT-900). Statistics for other months shown reflect complete coverage and appear in the most recently published FT-900. Quality assurance procedures are performed at every stage of collection, processing, and tabulation. However, the data are still subject to several types of nonsampling errors. Information on nonsampling errors and other quality issues are available in the Guide to Foreign Trade Statistics, <www.census.gov/foreign-trade/guide/sec2.html>.

The U.S. Census Bureau recommends that data users incorporate this information into their analyses, as nonsampling errors could impact the conclusion drawn from the results. For a detailed discussion of errors affecting the goods data, see U.S. Merchandise Trade Statistics: A Quality Profile (October 2014), available at

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<www.census.gov/foreign-trade/aip/quality_profile10032014.pdf> or from the Economic Indicators Division, U.S. Census Bureau.

Adjustments for Seasonal and Trading-Day Variations
Goods data are presented on a seasonally adjusted and not seasonally adjusted basis. Seasonally adjusted (and/or trading day adjusted data) are produced using X-13ARIMA-SEATS software to develop monthly adjustment factors. Goods data are initially classified under the Harmonized Commodity Description and Coding System (Harmonized System), which is an internationally accepted standard for the commodity classification of traded goods. Combining trade into approximately 140 export and 140 import end-use categories makes it possible to examine goods according to their principal uses. These categories are used as the basis for computing the seasonal and trading-day adjusted data. These adjusted data are then summed to the six end-use aggregates for publication.
For more information, visit the seasonal adjustment section of the Guide to Foreign Trade here:
<www.census.gov/foreign-trade/guide/sec2.html#seasonal>.

Retail and Wholesale Inventories
National estimates of end-of-month inventories are based on data from the Monthly Retail Trade Survey and the Monthly Wholesale Trade Survey. Additional information for each survey can be found at <www.census.gov/retail> and <www.census.gov/wholesale>. The advance estimates contained in this report are not incorporated into the full MRTS and MWTS time series.

The MRTS and MWTS samples selected to measure inventories consist of a stratified simple random sampling method of approximately 11,000 retail firms and 4,200 wholesale firms located in the United States. The retail and wholesale samples include firms of all sizes and are updated on a quarterly basis to account for new retail and wholesale firms, deaths, and other changes to the universe.

Data for nonresponding firms are imputed based on data for similar-sized firms classified in the same kind of business. For surveyed Retail companies, approximately 44.7 percent provided data for this reporting period resulting in a total quantity response rate of 53.8 percent. For surveyed Wholesale companies, approximately 56.2 percent provided data for this reporting period resulting in a total quantity response rate of 61.9 percent.

MRTS estimates cover companies with one or more establishments that sell merchandise and related services to final consumers. Nonemployers are represented in the retail estimates through benchmarking to prior annual survey estimates that include nonemployer sales based on administrative records.

MWTS estimates cover wholesale merchants who sell goods on their own account and include such businesses as wholesale merchants or jobbers, industrial distributors, exporters, and importers. Sales offices and branches maintained by manufacturing, refining, or mining firms for the purpose of marketing their products are not covered in this report. Also excluded is NAICS Industry Group 4251: Wholesale Electronic Markets and Agents and Brokers.

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Reliability of Estimates

Because the retail and wholesale estimates are based on a sample survey, they contain sampling error and nonsampling error.

Sampling error is the difference between the estimate and the result that would be obtained from a complete enumeration of the sampling frame conducted under the same survey conditions. This error occurs because only a subset of the entire sampling frame is measured in a sample survey. Standard errors and coefficients of variation are estimated measures of sampling variation.

The margin of sampling error gives a range about the estimate which is a 90 percent confidence interval. If, for example, the percentage change estimate is +1.2 percent and its estimated standard error is 0.9 percent, then the margin of sampling error is ±1.753 x 0.9 percent or ±1.6 percent, and the 90 percent confidence interval is −0.4 percent to +2.8 percent. If the interval contains 0, then one does not have sufficient evidence to conclude at the 90 percent confidence level that the change is different from zero and therefore the change is not statistically significant. Estimated changes are statistically significant unless otherwise noted. For a monthly total, the estimated coefficient of variation is given. The resulting confidence interval is the estimated value ±1.753 x CV x (the estimated monthly total).

Nonsampling error encompasses all other factors that contribute to the total error of a sample survey estimate. This type of error can occur because of nonresponse, insufficient coverage of the universe of businesses, mistakes in the recording and coding of data, and other errors of collection, response, coverage, or processing. Although nonsampling error is not measured directly, the Census Bureau employs quality control procedures throughout the process to minimize this type of error.

The U.S. Census Bureau recommends that individuals using retail and wholesale estimates incorporate this information into their analyses, as sampling error and nonsampling error could affect the conclusions drawn from the estimates.

Adjustments for Seasonal Variations

Concurrent seasonal adjustment is used to adjust the retail and wholesale inventories estimates for seasonal variations. Concurrent seasonal adjustment uses all available unadjusted estimates as input to the X-13ARIMA-SEATS program. The factors derived from the program are applied to the retail and wholesale estimates of current and previous month inventories and for inventories estimates a year ago as well.

Statement Regarding Natural Disasters: For information on the impact of natural disasters, including hurricanes, on the compilation of this report, please see <Wholesale Natural Disaster FAQs> and <Retail Natural Disaster FAQs>.

Data Availability

The Advance Economic Indicators Report is available at <www.census.gov/econ/indicators/index.html>. For archived versions of the Advance Economic Indicators Report please visit the Historical Data tab at the following: <www.census.gov/econ/indicators/historical_data.html>.

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RESOURCES

API

The Census Bureau's application programming interface lets developers create custom apps to reach new users and makes key demographic, socio-economic and housing statistics more accessible than ever before.
<www.census.gov/developers>

FRED Mobile App

Receive the latest updates on the nation's key economic indicators by downloading the FRED App <fred.stlouisfed.org/fred-mobile> for both Apple and Android devices. FRED, the signature database of the Federal Reserve Bank of St. Louis, now incorporates the Census Bureau's 13 economic indicators.

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* The 90 percent confidence interval includes zero. There is insufficient statistical evidence to conclude that the actual change is different from zero.

° Statistical significance is not applicable or not measurable for this survey.

(R) Revised from the last published Monthly Retail Trade Report and Monthly Wholesale Trade: Sales and Inventories Report

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Table 1. U.S. International Trade in Goods by Principal End-Use Category (1)

In millions of dollars. Details may not equal totals due to seasonal adjustment and rounding. (X) – Not applicable

	Goods - Census Basis (2)						
	Monthly				Percent change		
	August 2023 (a)	July 2023	June 2023	August 2022	August 2023/ July 2023	July 2023/ June 2023	August 2023/ August 2022
Seasonally Adjusted							
Balance	-84,271	-90,921	-88,547	-87,398	(X)	(X)	(X)
Exports	168,851	165,292	162,493	179,512	2.2	1.7	-5.9
Foods, Feeds, & Beverages	12,352	12,364	12,404	15,412	-0.1	-0.3	-19.8
Industrial Supplies (3)	60,369	57,749	56,355	73,990	4.5	2.5	-18.4
Capital Goods	50,917	49,890	49,797	48,550	2.1	0.2	4.9
Automotive Vehicles, etc.	15,516	16,889	15,180	13,327	-8.1	11.3	16.4
Consumer Goods	22,276	21,230	21,200	21,296	4.9	0.1	4.6
Other Goods	7,421	7,169	7,557	6,938	3.5	-5.1	7.0
Imports	253,122	256,213	251,040	266,911	-1.2	2.1	-5.2
Foods, Feeds, & Beverages	16,775	16,886	16,232	17,326	-0.7	4.0	-3.2
Industrial Supplies (3)	55,058	52,481	53,912	66,668	4.9	-2.7	-17.4
Capital Goods	69,474	71,680	69,445	71,475	-3.1	3.2	-2.8
Automotive Vehicles, etc.	38,827	39,405	38,665	33,933	-1.5	1.9	14.4
Consumer Goods	62,286	64,510	61,944	67,818	-3.4	4.1	-8.2
Other Goods	10,702	11,250	10,841	9,690	-4.9	3.8	10.4
Not Seasonally Adjusted							
Balance	-94,111	-96,039	-90,584	-102,453	(X)	(X)	(X)
Exports	171,330	159,623	167,303	181,182	7.3	-4.6	-5.4
Foods, Feeds, & Beverages	11,773	11,292	11,712	14,612	4.3	-3.6	-19.4
Industrial Supplies (3)	62,106	58,001	57,873	75,731	7.1	0.2	-18.0
Capital Goods	51,598	48,714	52,011	48,784	5.9	-6.3	5.8
Automotive Vehicles, etc.	16,324	15,133	15,547	14,096	7.9	-2.7	15.8
Consumer Goods	22,016	19,505	22,462	20,970	12.9	-13.2	5.0
Other Goods	7,513	6,979	7,698	6,989	7.7	-9.3	7.5
Imports	265,441	255,662	257,887	283,635	3.8	-0.9	-6.4
Foods, Feeds, & Beverages	16,759	16,645	16,747	17,522	0.7	-0.6	-4.4
Industrial Supplies (3)	58,385	54,525	56,678	70,622	7.1	-3.8	-17.3
Capital Goods	72,143	71,549	72,945	74,972	0.8	-1.9	-3.8
Automotive Vehicles, etc.	40,530	38,161	38,986	35,671	6.2	-2.1	13.6
Consumer Goods	66,942	64,105	61,618	75,223	4.4	4.0	-11.0
Other Goods	10,682	10,676	10,912	9,625	0.1	-2.2	11.0

(a) Advance statistics

(1) For a listing of the detail included in each end-use category, see <www.census.gov/foreign-trade/reference/codes/enduse/exeumstr.txt>.
(2) Data are presented on a Census basis. The information needed to convert to a balance of payment basis is not available.
(3) Includes petroleum and petroleum products.

NOTES:
* Current month statistics reflect nearly complete coverage; current month statistics reflecting complete coverage will be published in the upcoming U.S. International Trade in Goods and Services report (FT-900). Statistics for other months shown reflect complete coverage and appear in the most recently published FT-900.
* For information on data sources, nonsampling errors, and definitions, see the explanatory notes in this release or at <www.census.gov/econ/indicators/advance_report.pdf>.
Source: U.S. Census Bureau; Advance Economic Indicators Report, September 29, 2023.

Table 2. Levels and Percent Changes for Inventories

Inventories estimates are shown in millions of dollars. Estimates are based on data from the Monthly Wholesale Trade Survey and the Monthly Retail Trade Survey.

	Inventories					
	Monthly			Percent change		
	August 2023 (a)	July 2023 (r)	August 2022 (r)	August 2023/ July 2023	July 2023/ June 2023	August 2023/ August 2022
Adjusted[1]						
Merchant wholesale[2] trade, total	901,151	901,899	909,682	-0.1	-0.2	-0.9
Durable goods	561,907	561,378	542,381	0.1	-0.4	3.6
Nondurable goods	339,244	340,521	367,301	-0.4	0.1	-7.6
Retail trade, total	793,406	785,124	759,508	1.1	0.5	4.5
Total (excl. motor veh. & parts)	563,820	560,656	571,675	0.6	0.0	-1.4
Motor vehicle & parts dealers	229,586	224,468	187,833	2.3	1.7	22.2
Not Adjusted						
Merchant wholesale[2] trade, total	886,024	889,639	890,274	-0.4	-0.6	-0.5
Durable goods	562,657	565,879	544,133	-0.6	0.1	3.4
Nondurable goods	323,367	323,760	346,141	-0.1	-1.9	-6.6
Retail trade, total	782,019	766,442	747,636	2.0	-1.2	4.6
Total (excl. motor veh. & parts)	556,919	547,819	564,092	1.7	-0.8	-1.3
Motor vehicle & parts dealers	225,100	218,623	183,544	3.0	-2.3	22.6

(a) Advance estimate

(r) Revised estimate

See footnotes and notes at the end of Table 3.

Table 3. Estimated Measures of Sampling Variability

Estimates are shown as percents and are based on data from the Monthly Wholesale Trade Survey and the Monthly Retail Trade Survey.

	Inventories					
	Monthly			Standard Error of		
	Coefficient of Variation			Percent Change		
	August 2023 (a)	July 2023 (r)	August 2022 (r)	August 2023/ July 2023	July 2023/ June 2023	August 2023/ August 2022
Merchant wholesale[2] trade, total	2.0	2.1	1.8	0.2	0.1	0.6
Durable goods	3.0	3.0	2.7	0.3	0.1	0.8
Nondurable goods	1.7	1.7	1.5	0.2	0.2	0.7
Retail trade, total	1.2	1.2	0.9	0.1	0.1	0.3
Total (excl. motor veh. & parts)	1.5	1.5	1.0	0.1	0.1	0.4
Motor vehicle & parts dealers	1.7	1.7	1.6	0.2	0.2	0.9

(a) Advance estimate

(r) Revised estimate

(1) Estimates are concurrently adjusted for seasonal variation and trading day differences, but not for price changes. Concurrent seasonal adjustment uses all available not adjusted estimates as input to the X-13ARIMA-SEATS program. The factors derived from the program are used in calculating all seasonally adjusted estimates shown in this table.

(2) The 2012 North American Industry Classification System (NAICS) defines merchant wholesalers as including manufacturers' sales branches and offices. However, the estimates included in this release exclude manufacturers' sales branches and offices. Note that this is not a change in coverage from prior releases and is consistent with the description used in the Monthly Wholesale Trade Survey data products.

NOTES:

Estimated measures of sampling variability are based on estimates not adjusted for seasonal variation. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at
<www.census.gov/wholesale/www/how_surveys_are_collected/monthly_methodology.html> for wholesale and at
<www.census.gov/retail/mrts/how_surveys_are_collected.html> for retail.

Source: U.S. Census Bureau; Advance Economic Indicators Report, September 29, 2023.