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## MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES April 2015

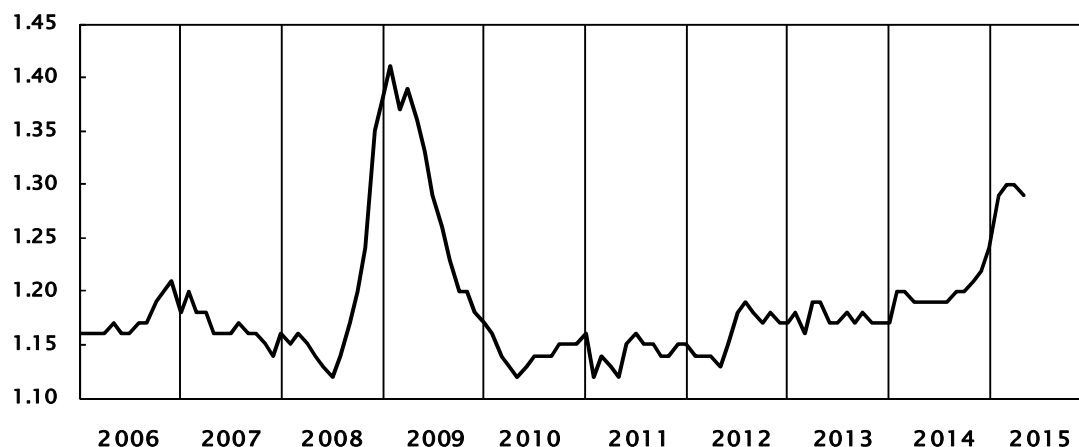
**Sales.** The U.S. Census Bureau announced today that April 2015 sales of merchant wholesalers, except manufacturers' sales branches and offices, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$448.3 billion, up 1.6 percent (+/-0.7) from the revised March level, but were down 3.3 percent (+/-1.4%) from the April 2014 level. The March preliminary estimate was revised downward \$0.6 billion or 0.1 percent. April sales of durable goods were up 1.2 percent (+/-0.7%) from last month and were up 2.4 percent (+/-1.6%) from a year ago. Sales of electrical and electronic goods were up 3.2 percent from last month and sales of motor vehicle and motor vehicle parts and supplies were up 3.2 percent. Sales of nondurable goods were up 2.0 percent (+/-0.7%) from March, but were down 8.2 percent (+/-1.6%) from last April. Sales of farm product raw materials were up 7.4 percent from last month and sales of petroleum and petroleum products were up 4.9 percent.

**Inventories.** Total inventories of merchant wholesalers, except manufacturers' sales branches and offices, after adjustment for seasonal variations but not for price changes, were \$576.9 billion at the end of April, up 0.4 percent (+/-0.4%)\* from the revised March level and were up 4.5 percent (+/-1.4%) from the April 2014 level. The March preliminary estimate was revised upward \$0.2 billion. April inventories of durable goods were up 0.1 percent (+/-0.4%)\* from last month and were up 6.6 percent (+/-1.6%) from a year ago. Inventories of lumber and other construction materials were up 3.4 percent from last month, while inventories of computer and computer peripheral equipment and software were down 3.1 percent. Inventories of nondurable goods were up 0.8% (+/-0.5%) from March and were up 1.1 percent (+/-1.6%)\* from last April. Inventories of paper and paper products were up 3.9 percent from last month and inventories of apparel, piece goods, and notions were up 2.7 percent.

**Inventories/Sales Ratio.** The April inventories/sales ratio for merchant wholesalers, except manufacturers' sales branches and offices, based on seasonally adjusted data, was 1.29. The April 2014 ratio was 1.19.

*Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling error. A discussion of the reliability of the estimates and general survey methodology can be found at: <[http://www.census.gov/wholesale/www/how\\_surveys\\_are\\_collected/monthly\\_methodology.html](http://www.census.gov/wholesale/www/how_surveys_are_collected/monthly_methodology.html)>.*

Monthly Inventories/Sales Ratios of Merchant Wholesalers, Except Manufacturers'  
Sales Branches and Offices: 2006 to 2015  
(Estimates adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for May is scheduled to be released July 10, 2015 at 10:00 a.m. EDT.

For additional survey information, including customizable time series by industry, visit <<http://www.census.gov/wholesale>>.

To learn more about this release and the other indicators the U.S. Census Bureau publishes, join us for the Investigating Economic Indicators Webinar Series. For more information, visit <<http://www.census.gov/econ/webinar>>.

To receive the latest updates on the nation's key economic indicators, download the America's Economy app for Apple and Android smartphones and tablets.

The U.S. Census Bureau updated its Application Programming Interface (API) with monthly and quarterly economic indicators. The API allows developers to combine Census Bureau statistics with other data sets to create tools for research on a variety of topics. For more information, visit <<http://www.census.gov/developers>>.

\* The 90 percent confidence interval includes zero. The Census Bureau does not have sufficient statistical evidence to conclude that the actual change is different from zero.



**Table 2. Estimated Measures of Sampling Variability of Monthly Wholesale Sales and Inventory Estimates**

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

NAICS code	Kind of Business	Coefficient of variation for monthly total				Standard error for monthly total				Coefficient of variation for total		Standard error for percent change
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Current month to current month last year		Sales to date		Current year sales to date to previous year sales to date
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current year	Previous year	
<b>42</b>	<b>U.S. Total</b>	<b>1.0</b>	<b>1.5</b>	<b>0.8</b>	<b>1.6</b>	<b>0.4</b>	<b>0.2</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>	<b>1.2</b>	<b>0.7</b>
<b>423</b>	<b>..Durable</b>	<b>1.2</b>	<b>1.9</b>	<b>1.3</b>	<b>1.9</b>	<b>0.4</b>	<b>0.2</b>	<b>0.9</b>	<b>0.9</b>	<b>1.2</b>	<b>1.1</b>	<b>0.7</b>
4231	..Automotive	3.3	4.9	2.8	4.8	1.0	0.5	1.9	2.2	2.8	2.4	1.3
4232	..Furniture	7.1	6.2	6.9	6.1	2.1	0.5	5.0	5.7	6.9	5.6	4.3
4233	..Lumber	4.7	5.4	4.9	5.5	1.1	0.5	1.7	0.8	4.7	4.0	1.2
4234	..Prof. equip.	3.5	4.8	4.3	5.0	1.5	1.0	2.6	2.2	3.8	3.3	2.3
42343	...Comp. equip.	4.2	7.4	4.8	7.1	2.4	0.8	2.8	2.6	4.0	3.5	2.5
4235	..Metals	5.1	8.5	4.8	8.4	0.7	0.4	1.8	2.0	5.0	5.2	1.8
4236	..Electrical	2.6	3.3	2.3	3.5	0.6	0.6	1.9	1.2	2.4	1.6	1.6
4237	..Hardware	2.4	4.0	2.3	4.0	0.9	0.4	2.8	4.0	2.3	2.2	2.6
4238	..Machinery	3.1	3.6	3.0	3.7	1.0	0.2	1.7	1.9	3.1	3.1	1.6
4239	..Misc. Durable	3.5	5.5	4.4	5.4	1.6	0.5	3.4	3.0	3.7	4.1	3.0
<b>424</b>	<b>..Nondurable</b>	<b>1.8</b>	<b>1.8</b>	<b>1.7</b>	<b>1.9</b>	<b>0.4</b>	<b>0.3</b>	<b>0.9</b>	<b>0.9</b>	<b>1.7</b>	<b>2.1</b>	<b>0.8</b>
4241	..Paper	4.8	6.8	4.6	6.8	0.7	0.5	1.8	2.1	4.6	4.3	2.1
4242	..Drugs	2.9	4.5	2.7	4.8	0.4	0.3	1.6	1.6	3.0	3.2	1.5
4243	..Apparel	6.7	5.7	6.2	5.6	1.6	1.0	3.9	2.9	6.7	5.0	3.2
4244	..Groceries	3.2	5.9	3.3	5.7	0.6	0.5	1.2	2.3	3.4	4.0	1.0
4245	..Farm products	2.9	4.2	2.6	4.5	1.4	0.6	2.5	2.0	2.3	1.9	2.0
4246	..Chemicals	4.3	5.3	3.7	5.0	1.6	0.7	3.0	2.5	4.0	4.3	2.2
4247	..Petroleum	6.7	3.8	6.1	4.1	0.6	0.4	1.1	2.4	6.2	5.7	1.0
4248	..Alcohol	4.9	4.8	4.6	4.9	0.6	0.5	2.2	1.6	4.7	3.8	2.3
4249	..Misc. Nondur.	3.9	6.3	3.7	6.4	1.9	0.8	4.6	2.0	3.5	4.1	4.1

Note:

Estimated measures of sampling variability are based on estimates not adjusted for seasonal variation, trading-day differences, or moving holidays. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at [http://www.census.gov/wholesale/www/how\\_surveys\\_are\\_collected/monthly\\_methodology.html](http://www.census.gov/wholesale/www/how_surveys_are_collected/monthly_methodology.html).

### Reliability of the Estimates

Because the estimates presented in this report 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 (CV), as given in Table 2 of this report, are estimated measures of sampling variation.

The margin of sampling error, as used on page 1, gives a range about the estimate, which can be used to construct a 90-percent confidence interval. If, for example, the percent change estimate is +1.2 percent and its estimated standard error is 0.8 percent, then the margin of sampling error is  $\pm 1.753 \times 0.8$  percent or  $\pm 1.4$  percent, and the 90 percent confidence interval is  $1.2 \pm 1.4$  or  $-0.2$  percent to 2.6 percent. If the interval contains 0, then one does not have sufficient statistical evidence to conclude at the 90 percent confidence level that the actual change is different from zero. Estimated changes shown in the text are statistically significant unless otherwise noted. For a monthly total, the estimated coefficient of variation is given. The resulting confidence interval is the estimated monthly total  $\pm 1.753 \times CV \times$  (the estimated monthly total). The Census Bureau recommends that individuals using estimates in this report incorporate this information into their analyses, as sampling error could affect the conclusions drawn from the estimates.

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 wholesale businesses, mistakes in the recording and coding of data, model error, 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.

**Table 3. Combined<sup>1</sup> Adjustment Factors for Monthly Wholesale Sales and Inventory Estimates**

[Combined adjustment factors are computed using the Census Bureau's X-13 ARIMA-SEATS program and are based on data from the Monthly Wholesale Trade Survey.]

NAICS code	Kind of Business	Sales						Inventories					
		2015					2014	2015					2014
		May	Apr.r	Mar.r	Feb.	Jan.	Apr.r	May	Apr.r	Mar.r	Feb.	Jan.	Apr.r
<b>42</b>	<b>U.S. Total<sup>2</sup></b>	<b>0.998</b>	<b>1.022</b>	<b>1.034</b>	<b>0.901</b>	<b>0.933</b>	<b>1.026</b>	<b>0.991</b>	<b>1.007</b>	<b>1.011</b>	<b>1.010</b>	<b>1.010</b>	<b>1.006</b>
<b>423</b>	<b>.Durable</b>	<b>0.964</b>	<b>1.008</b>	<b>1.038</b>	<b>0.875</b>	<b>0.924</b>	<b>1.010</b>	<b>0.999</b>	<b>1.001</b>	<b>0.997</b>	<b>0.999</b>	<b>0.995</b>	<b>1.001</b>
4231	..Automotive	0.978	1.017	1.075	0.908	0.904	1.024	0.997	1.010	1.005	1.031	1.004	1.008
4232	..Furniture	0.982	0.999	0.997	0.880	0.932	0.996	0.984	0.972	0.968	0.984	0.996	0.972
4233	..Lumber	1.049	1.065	0.986	0.808	0.840	1.060	1.042	1.048	1.044	1.025	0.979	1.053
4234	..Prof. equip.	0.905	0.992	1.047	0.839	0.911	0.988	0.987	0.999	0.979	0.992	1.005	1.000
42343	...Comp. equip.	0.880	0.974	1.029	0.808	0.907	0.972	0.987	1.007	0.968	0.963	0.993	1.004
4235	..Metals	0.989	1.009	1.041	0.920	0.979	1.024	1.002	1.004	1.006	1.001	1.003	1.006
4236	..Electrical	0.956	0.972	1.009	0.865	0.939	0.975	0.999	0.988	0.972	0.977	0.985	0.987
4237	..Hardware	1.027	1.024	1.011	0.859	0.903	1.031	1.015	1.017	1.011	0.996	0.984	1.016
4238	..Machinery	0.984	1.055	1.070	0.880	0.909	1.059	1.002	1.006	1.010	1.003	0.991	1.006
4239	..Misc. Durable	0.930	0.995	1.040	0.907	0.952	0.989	0.980	0.983	0.976	0.983	1.005	0.985
<b>424</b>	<b>.Nondurable</b>	<b>1.025</b>	<b>1.034</b>	<b>1.027</b>	<b>0.903</b>	<b>0.950</b>	<b>1.035</b>	<b>0.978</b>	<b>1.014</b>	<b>1.034</b>	<b>1.026</b>	<b>1.034</b>	<b>1.013</b>
4241	..Paper <sup>3</sup>	0.971	1.011	1.026	0.899	0.959	1.013	1.000	1.000	1.000	1.000	1.000	1.000
4242	..Drugs	0.976	1.023	1.048	0.912	0.982	1.025	0.988	0.978	1.004	0.964	0.993	0.977
4243	..Apparel	0.915	0.939	1.009	0.938	0.891	0.953	0.969	0.956	0.950	0.984	1.011	0.955
4244	..Groceries	1.021	1.016	1.035	0.907	0.949	1.017	0.989	0.985	0.995	0.979	1.004	0.984
4245	..Farm products	0.974	1.035	1.026	0.952	1.045	1.041	0.842	1.042	1.189	1.225	1.252	1.047
4246	..Chemicals <sup>3</sup>	1.013	1.037	1.025	0.924	1.005	1.046	1.000	1.000	1.000	1.000	1.000	1.000
4247	..Petroleum	1.027	0.998	1.016	0.901	0.968	1.016	1.020	1.023	1.002	1.010	0.978	1.024
4248	..Alcohol	1.031	0.998	0.969	0.830	0.768	1.000	1.029	1.025	1.000	0.967	0.971	1.024
4249	..Misc. Nondur.	1.206	1.223	1.069	0.880	0.870	1.202	0.991	1.118	1.158	1.127	1.063	1.118

Footnotes:

<sup>1</sup> Revised factors.

<sup>1</sup> Combined factors for sales include the effects of seasonal variation, trading day differences, and moving holidays. Combined factors for inventories include only the effects of seasonal variation.

<sup>2</sup> Adjusted sales and inventories estimates for detailed kind-of-business levels in Table 1 are computed by dividing each "Not Adjusted" estimate by the combined adjustment factor for the corresponding kind of business and month. Adjusted estimates for broad kind-of-business levels are obtained by summing adjusted estimates at the appropriate detailed levels. Combined factors shown for broad kind-of-business levels may be used to approximate adjusted estimates at these levels, but the resulting estimates may differ slightly from the published estimates.

<sup>3</sup> No discernible seasonal pattern for this NAICS code was detected in the latest annual review of the seasonal adjustment for inventories. Therefore, the combined adjustment factors for inventories are set to one for this NAICS code.

Note:

The seasonal adjustment factors shown are estimates derived from a model that uses sample survey data as input. Therefore, these estimates may contain sampling error and nonsampling error. Additional information on the general form of the model and the X-13 ARIMA-SEATS program may be found at <http://www.census.gov/srd/www/x13as/>.

### Description of the Survey

The Census Bureau conducts the Monthly Wholesale Trade Survey (MWTS) to provide national estimates of monthly sales, end-of-month inventories, and inventories-to-sales ratios by kind of business for wholesale firms located in the United States. Specifically, the MWTS covers 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.

The MWTS sample was selected using a stratified, one-stage design with strata defined by kind of business (e.g., Automotive, Furniture, Lumber, etc.) and annual sales size. The sample includes firms of all sizes and is updated on a quarterly basis to account for new wholesale firms, deaths, and other changes to the wholesale universe. Each month, questionnaires are mailed to employer firms selected in a probability sample of approximately 4,200. Approximately 68% of those mailed provided data for this reporting period. Data for nonresponding firms are imputed based on data for similar-sized firms classified in the same kind of business. Approximately 32% of the total sales estimate and 31% of the total end-of-month inventories estimate is based on imputed data.

Monthly sales and inventories estimates are obtained by summing weighted data (either reported or imputed). The monthly estimates are benchmarked to annual survey estimates and are adjusted for seasonal variation and trading-day differences. Individuals who use estimates in this report to create new estimates should cite the Census Bureau as the source of only the original estimates. Additional information on the MWTS can be found on the Census Bureau website at: <http://www.census.gov/wholesale>.