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MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES August 2016

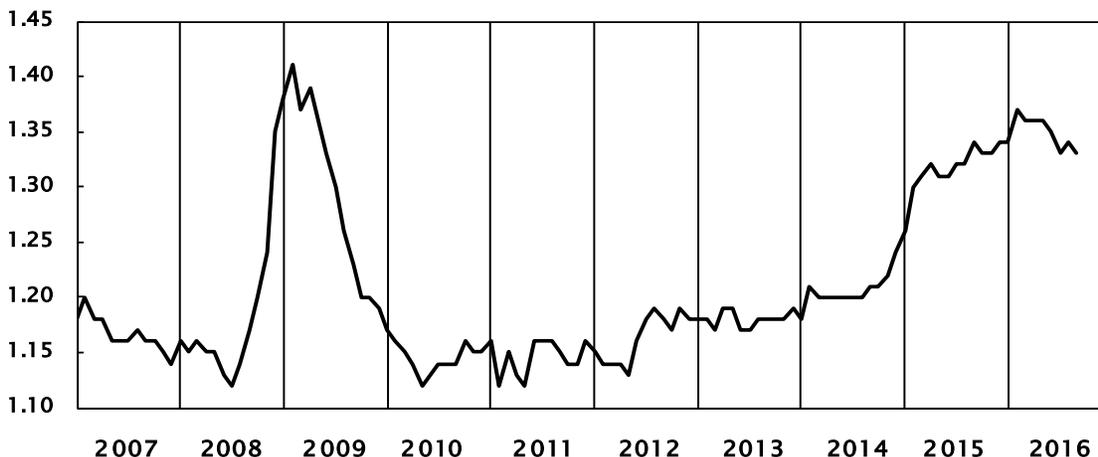
Sales. The U.S. Census Bureau announced today that August 2016 sales of merchant wholesalers, except manufacturers' sales branches and offices, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$444.3 billion, up 0.7 percent (+/-0.5%) from the revised July level and were up 0.6 percent (+/-1.2%)* from the August 2015 level. The June 2016 to July 2016 percent change was revised from the preliminary estimate of down 0.4 percent (+/-0.4%)* to down 0.6 percent (+/-0.4%). August sales of durable goods were down 0.5 percent (+/-0.7%)* from last month, but were up 0.7 percent (+/-1.8%)* from a year ago. Sales of machinery, equipment, and supplies were down 2.7 percent from July. Sales of nondurable goods were up 2.0 percent (+/-0.7%) from July and were up 0.5 percent (+/-1.8%)* from last August. Sales of farm product raw materials were up 6.7 percent from last month and sales of beer, wine, and distilled alcoholic beverages were up 2.2 percent.

Inventories. Total inventories of merchant wholesalers, except manufacturers' sales branches and offices, after adjustment for seasonal variations but not for price changes, were \$589.1 billion at the end of August, down 0.2 percent (+/-0.4%)* from the revised July level. Total inventories are down 0.1 percent (+/-1.8%)* from the revised August 2015 level. The July 2016 to August 2016 percent change was revised from the advance estimate of down 0.1 percent (+/-0.4%)* to down 0.2 percent (+/-0.4%)*. August inventories of durable goods were up 0.2 percent (+/-0.4%)* from last month, but were down 1.9 percent (+/-1.8%) from a year ago. Inventories of computer and computer peripheral equipment and software were up 1.9 percent from last month. Inventories of nondurable goods were down 0.7 percent (+/-0.5%) from July, but were up 2.8 percent (+/-3.0%)* from last August. Inventories of farm product raw materials were down 7.8 percent from last month and inventories of apparel, piece goods, and notions were down 2.1 percent.

Inventories/Sales Ratio. The August inventories/sales ratio for merchant wholesalers, except manufacturers' sales branches and offices, based on seasonally adjusted data, was 1.33. The August 2015 ratio was 1.34.

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 survey methodology can be found at: 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: 2007 to 2016
(Estimates adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for September is scheduled to be released November 9, 2016 at 10:00 a.m. EST.

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

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	
42	U.S. Total	1.2	1.6	1.1	1.6	0.3	0.2	0.7	1.0	1.1	0.9	0.6
423	..Durable	1.5	1.7	1.4	1.8	0.4	0.2	1.0	1.0	1.4	1.1	0.9
4231	..Automotive	3.9	4.5	3.9	4.7	0.5	0.3	1.5	2.3	3.7	3.0	1.4
4232	..Furniture	7.1	7.0	7.5	6.9	1.8	0.8	3.7	2.9	7.4	6.8	2.2
4233	..Lumber	5.2	5.8	5.3	5.8	1.1	0.3	3.1	2.0	5.1	5.1	2.2
4234	..Prof. equip.	3.4	3.6	3.5	3.8	1.0	0.4	2.3	1.7	3.4	3.4	2.0
42343	...Comp. equip.	4.6	5.6	5.0	5.4	1.5	0.7	2.0	1.4	4.4	3.9	1.8
4235	..Metals	5.2	7.9	5.2	8.0	1.0	0.4	2.7	2.1	5.1	4.9	1.7
4236	..Electrical	2.6	3.3	2.7	3.3	0.9	0.4	1.1	1.5	2.7	2.5	0.8
4237	..Hardware	3.4	4.0	3.7	3.9	1.9	0.5	1.8	0.8	3.0	2.4	1.3
4238	..Machinery	3.1	3.5	3.1	3.7	0.9	0.4	3.8	2.0	2.6	2.8	2.5
4239	..Misc. Durable	6.2	5.2	5.5	5.1	1.8	0.4	2.7	1.7	4.9	3.9	2.0
424	..Nondurable	1.7	2.4	1.8	2.3	0.4	0.3	1.0	1.7	1.8	1.7	0.9
4241	..Paper	5.2	6.1	5.2	6.0	1.2	0.4	1.9	2.4	5.0	4.6	1.1
4242	..Drugs	3.5	7.8	3.4	7.4	0.3	0.2	1.8	3.7	3.4	2.9	1.6
4243	..Apparel	7.4	6.5	6.6	6.2	1.8	1.0	2.5	2.3	6.8	6.9	2.4
4244	..Groceries	3.7	6.1	3.6	6.4	1.1	0.7	1.7	2.5	3.6	3.2	1.5
4245	..Farm products	2.0	5.9	2.5	5.7	1.1	1.1	3.2	3.4	2.3	2.6	2.2
4246	..Chemicals	4.0	5.6	3.5	5.2	1.1	0.8	2.4	1.9	3.7	4.0	1.4
4247	..Petroleum	5.6	4.4	5.4	4.2	0.3	0.5	1.2	1.4	5.5	6.2	1.4
4248	..Alcohol	4.7	6.1	4.9	5.7	1.0	0.7	2.0	3.2	4.8	4.9	1.8
4249	..Misc. Nondur.	3.1	5.6	3.4	5.6	1.3	0.5	2.7	1.4	3.3	3.7	1.6

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.

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 ± 1.4 percent, and the 90 percent confidence interval is 1.2 ± 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. Combined¹ 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					
		2016					2015	2016					2015
		Sep.	Aug.r	Jul.r	Jun.	May	Aug.r	Sep.	Aug.r	Jul.r	Jun.	May	Aug.r
42	U.S. Total²	1.026	1.051	0.964	1.054	1.024	0.992	0.994	0.984	0.992	0.990	0.993	0.984
423	..Durable	1.053	1.057	0.955	1.064	0.994	0.995	1.006	1.003	1.008	1.001	1.002	1.003
4231	..Automotive	0.988	1.057	0.961	1.038	1.013	1.003	0.984	0.961	1.001	0.995	0.994	0.961
4232	..Furniture	1.049	1.102	0.953	1.027	1.010	1.037	1.039	1.034	1.022	0.994	0.980	1.033
4233	..Lumber	1.075	1.149	1.030	1.153	1.073	1.072	0.995	1.019	1.032	1.039	1.039	1.015
4234	..Prof. equip.	1.086	1.002	0.969	1.111	0.935	0.948	1.014	1.012	1.003	0.992	0.992	1.010
42343	...Comp. equip.	1.100	0.966	1.010	1.140	0.899	0.921	1.027	1.010	1.007	1.006	0.992	1.009
4235	..Metals	1.044	1.085	0.967	1.058	1.020	1.009	1.004	1.005	1.009	1.000	1.003	1.003
4236	..Electrical	1.079	1.032	0.914	1.038	0.971	0.977	1.029	1.028	1.009	0.992	0.997	1.027
4237	..Hardware	1.046	1.123	1.021	1.126	1.043	1.049	0.998	1.005	1.013	1.011	1.012	1.005
4238	..Machinery	1.031	1.080	0.951	1.062	1.027	1.007	0.995	0.999	1.005	1.005	1.010	0.999
4239	..Misc. Durable	1.093	1.086	0.927	1.032	0.985	1.001	1.029	1.020	1.010	0.990	0.981	1.021
424	..Nondurable	1.000	1.043	0.973	1.050	1.051	0.990	0.975	0.952	0.966	0.974	0.978	0.952
4241	..Paper	1.033	1.092	0.952	1.030	1.007	1.020	0.981	0.982	1.006	1.009	1.004	0.984
4242	..Drugs	1.019	1.051	0.942	1.021	1.009	0.969	1.000	0.972	0.999	1.003	0.987	0.978
4243	..Apparel	1.136	1.171	0.984	0.973	0.920	1.093	1.069	1.066	1.061	1.013	0.965	1.067
4244	..Groceries	1.012	1.048	0.981	1.017	1.038	1.010	1.016	0.993	0.989	0.979	0.982	0.991
4245	..Farm products	0.915	0.907	0.862	0.958	0.977	0.840	0.752	0.658	0.746	0.805	0.869	0.649
4246	..Chemicals ³	1.018	1.091	0.985	1.067	1.016	1.021	1.000	1.000	1.000	1.000	1.000	1.000
4247	..Petroleum	0.988	1.071	1.047	1.060	1.082	1.028	0.996	1.006	1.029	1.063	1.044	1.002
4248	..Alcohol	1.023	1.071	0.945	1.143	1.054	0.972	1.005	0.995	1.013	1.014	1.029	0.995
4249	..Misc. Nondur.	0.910	0.930	0.921	1.166	1.240	0.900	0.926	0.892	0.874	0.904	0.985	0.890

Footnotes:

^r Revised factors.

¹ 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.

² 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.

³ No significant 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. For surveyed companies, approximately 65.4% provided data for this reporting period, resulting in a total quantity response rate of 66.1% for sales and 66.0% for inventories.

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>.