



# Monthly Wholesale Trade

## Sales and Inventories

### November 1997

U.S. Department of Commerce  
Economics and Statistics Administration  
BUREAU OF THE CENSUS

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**Sales.** November 1997 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$210.9 billion, down 0.7 percent (+/- 0.6%) from the revised October level but 2.5 percent (+/- 1.4%) above the November 1996 level. The October preliminary estimate was revised downward by \$1.2 billion or -0.5 percent. Among durable goods, sales of lumber and other construction materials were down 3.7 percent from last month and were 6.3 percent below last November. Among nondurable goods, sales of farm-product raw materials decreased 12.0 from last month and were 7.8 percent below November 1996, while sales of drugs, drug proprietaries, and druggists' sundries increased 1.9 percent from October and were up 15.9 percent from last year.

**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$270.6 billion at the end of November, up 0.9 percent (+/- 0.4%) from the revised October level and were 5.9 percent (+/- 1.5%) above November 1996. The October preliminary estimate was

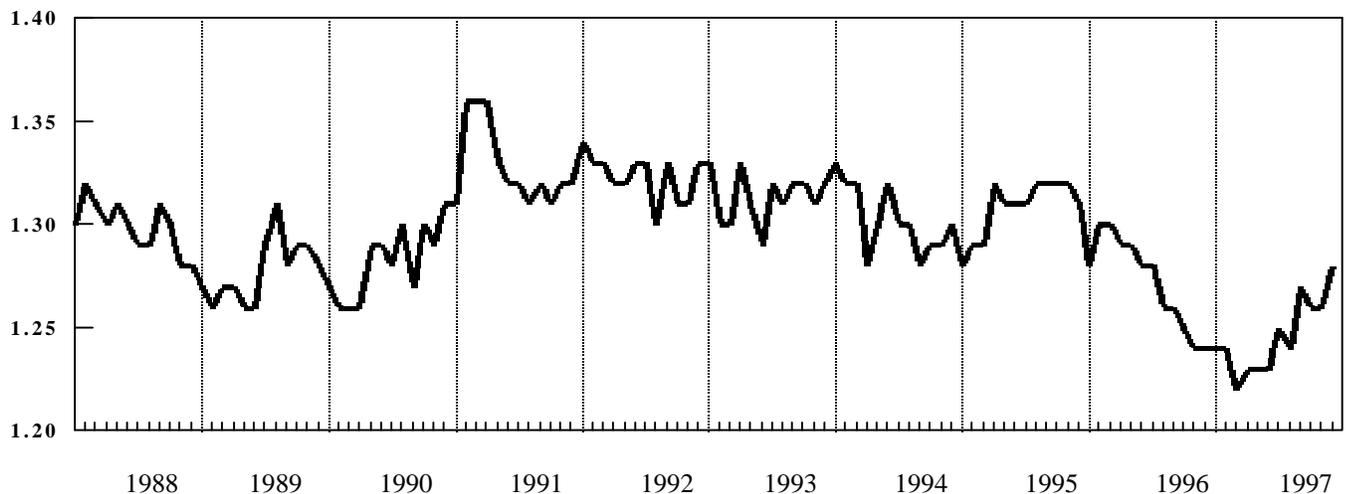
revised downward \$1.5 billion, or 0.5 percent. Among durable goods, inventories of machinery, equipment, and supplies were up 1.0 percent from last month, and were 7.5 percent above November 1996, while inventories of electrical goods were down 1.3 percent from October but were up 2.7 percent from last year. End-of-month inventories of nondurable goods increased 1.9 percent (+/- 1.0%) from October, and were 7.6 percent (+/- 2.8%) above November 1996. Compared to last month, inventories of groceries and related products rose 2.9 percent, and drugs, drug proprietaries and druggists' sundries increased 2.7 percent.

**Inventory/Sales Ratio.** The November inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data was 1.28. The November 1996 ratio was 1.24.

*Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/96-RV Current Business Report.*

#### Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1988 to 1997

(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for December is scheduled to be released February 10, 1998 at 10:00 a.m.

Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Piencykoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - <http://www.census.gov/svsd/www/mwts.html>.



**Table 2. Coefficients of Variation and Standard Error for Sales and Inventories**

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to Year Estimates		Cumulative sales estimates		Current year cumulative to previous year cumulative
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	CY	PY	year cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	<b>U.S. Total</b>	1.0	1.4	1.0	1.4	0.4	0.3	0.8	1.5	1.0	0.8	0.7
<b>50</b>	<b>Durable</b>	2.1	2.2	2.1	2.2	0.6	0.3	1.5	2.3	2.0	1.2	1.4
501	Automotive	4.1	5.2	4.1	4.2	1.3	1.0	3.5	4.4	3.6	2.8	2.8
502	Furniture	5.8	7.2	5.6	7.2	2.5	1.0	4.5	10.6	5.5	3.9	4.0
503	Lumber	5.0	5.4	5.1	5.3	1.5	0.9	5.3	5.5	5.0	2.3	4.9
504	Prof. equip.	5.6	6.7	5.7	6.8	1.4	0.9	4.5	5.0	5.4	3.4	4.2
505	Metals	4.6	9.2	4.5	9.1	1.3	0.7	2.8	10.2	4.6	3.6	2.4
506	Electrical	4.9	4.2	4.8	4.1	1.3	0.5	3.5	2.9	4.7	2.8	3.3
507	Hardware	4.9	4.7	4.9	4.7	1.5	0.5	6.4	5.1	4.5	2.5	5.9
508	Machinery	5.4	4.6	5.6	4.7	1.8	0.5	4.9	5.3	5.4	2.0	5.0
509	Other Durable	4.5	6.6	4.4	6.4	1.6	0.9	2.8	6.0	4.1	3.2	2.0
<b>51</b>	<b>Nondurable</b>	1.9	2.0	1.9	2.0	0.6	0.3	1.4	1.4	1.8	1.3	1.2
511	Paper	3.4	3.7	3.5	3.9	1.0	0.4	3.0	4.0	3.3	4.9	3.5
512	Drugs	5.7	5.2	5.5	5.2	0.5	0.4	3.4	2.2	5.6	4.9	3.4
513	Apparel	4.7	7.7	4.8	7.8	2.3	0.8	4.7	5.7	4.6	3.0	3.4
514	Groceries	3.2	4.8	3.2	4.8	0.8	0.7	2.0	5.1	2.9	2.7	1.8
515	Farm-products	5.2	6.8	5.1	6.7	2.3	1.6	3.2	3.8	4.7	3.7	2.2
516	Chemicals	5.6	5.4	5.6	5.2	1.3	0.6	4.5	3.8	5.5	2.9	4.0
517	Petroleum	5.6	13.9	5.3	14.0	1.0	1.0	3.8	12.7	5.6	4.3	3.5
518	Alcohol	6.4	5.8	6.4	6.1	1.6	1.2	8.0	5.8	6.3	4.9	8.1
519	Other Nondur.	6.0	5.7	5.9	5.7	1.8	1.1	6.4	5.4	5.4	1.9	5.8

Note: The median measures of variability are based on the most recent 11 months of data.

### Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65 \times 0.9\%$  or  $\pm 1.5\%$ , and the 90% confidence interval is  $-0.3\%$  to  $+2.7\%$ . If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65 \times CV \times$  (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample, (2) inability to obtain information

about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

Official Business

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**Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers**

SIC code	Kind of business	Sales					Inventories						
		1997					1996		1997				1996
		Dec.	Nov.r	Oct.r	Sep.	Aug.	Nov.r	Dec.	Nov.r	Oct.r	Sep.	Aug.	Nov.r
	<b>U.S. Total<sup>1</sup></b>	<b>1.013</b>	<b>0.950</b>	<b>1.079</b>	<b>1.024</b>	<b>1.005</b>	<b>0.977</b>	<b>1.003</b>	<b>1.008</b>	<b>1.006</b>	<b>0.978</b>	<b>0.980</b>	<b>1.008</b>
<b>50</b>	<b>Durable</b>	<b>1.007</b>	<b>0.950</b>	<b>1.091</b>	<b>1.055</b>	<b>1.002</b>	<b>0.973</b>	<b>0.986</b>	<b>0.994</b>	<b>0.998</b>	<b>0.994</b>	<b>1.000</b>	<b>0.994</b>
501	Automotive	1.025	0.948	1.046	0.967	0.967	0.977	0.973	1.015	0.996	0.975	0.969	1.016
502	Furniture	1.004	0.994	1.123	1.071	1.006	1.011	0.974	0.992	0.997	1.032	1.037	0.992
503	Lumber	0.883	0.916	1.121	1.070	1.095	0.952	0.986	0.971	0.957	0.981	0.990	0.969
504	Prof. equip.	1.070	0.932	1.068	1.074	0.991	0.961	1.010	1.007	1.008	0.981	0.993	1.006
505	Metals	0.948	0.909	1.062	1.026	0.998	0.928	1.014	0.973	0.983	0.988	0.999	0.972
506	Electrical	0.982	0.974	1.119	1.096	1.013	0.990	0.980	0.988	0.985	1.001	1.025	0.989
507	Hardware	0.956	0.964	1.126	1.092	1.031	0.985	0.992	0.987	0.995	1.003	1.004	0.987
508	Machinery	1.036	0.908	1.058	1.011	0.974	0.937	0.983	0.992	1.002	0.985	1.003	0.993
509	Other Durable	1.029	1.053	1.171	1.110	1.030	1.068	0.973	0.998	1.030	1.028	1.026	0.999
<b>51</b>	<b>Nondurable</b>	<b>1.022</b>	<b>0.946</b>	<b>1.066</b>	<b>0.998</b>	<b>0.993</b>	<b>0.975</b>	<b>1.032</b>	<b>1.034</b>	<b>1.022</b>	<b>0.954</b>	<b>0.944</b>	<b>1.034</b>
511	Paper	1.015	0.924	1.067	1.036	1.039	0.954	1.022	1.021	1.008	0.967	0.963	1.021
512	Drugs	1.063	0.956	1.096	1.033	0.947	0.982	1.029	1.010	1.016	0.990	0.967	1.011
513	Apparel	0.806	0.949	1.175	1.126	1.095	0.964	1.009	0.963	0.983	1.011	1.024	0.963
514	Groceries	1.032	0.981	1.052	0.997	0.997	0.998	1.017	1.032	1.062	1.014	0.969	1.034
515	Farm-products	1.089	0.976	1.074	0.949	0.936	0.999	1.221	1.223	1.083	0.714	0.708	1.221
516	Chemicals	0.946	0.920	1.039	0.991	0.996	0.942	0.995	0.983	0.974	0.979	1.005	0.983
517	Petroleum	1.062	0.941	1.043	0.972	1.015	0.993	1.025	1.023	1.033	1.016	1.016	1.023
518	Alcohol	1.147	0.988	1.077	0.990	1.026	1.034	0.921	1.077	1.100	1.052	0.997	1.076
519	Other Nondur.	0.970	0.883	1.018	0.975	0.968	0.905	0.985	0.999	0.980	0.919	0.926	0.999



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<sup>1</sup> Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.