



Monthly Wholesale Trade

Sales and Inventories

March 1998

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

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MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES March 1998

Notice of Revised Data: Monthly wholesale data were revised based on the results of the 1996 Annual Trade Survey. The Annual Benchmark Report for Wholesale Trade showing the revised data was released on May 6, 1998.

Sales. March 1998 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$213.6 billion, up 1.1 percent (+/- 0.7%) from the revised February level and were 2.9 percent (+/-0.8%) above the March 1997 level. The February preliminary estimate was revised upward by \$0.01 billion. March sales of durable goods increased 1.3 percent (+/-1.2%) from February and were 5.8 percent (+/-1.3%) above last year. Sales of professional and commercial equipment and supplies were up 3.1 percent. Sales of nondurable goods increased 0.9 percent (+/-0.5%) from last month but were down 0.1 percent (+/-1.5%) from a year ago. Compared to last month, sales of beer, wine, and distilled alcoholic beverages rose 4.4 percent, while chemicals and allied products fell 2.7 percent.

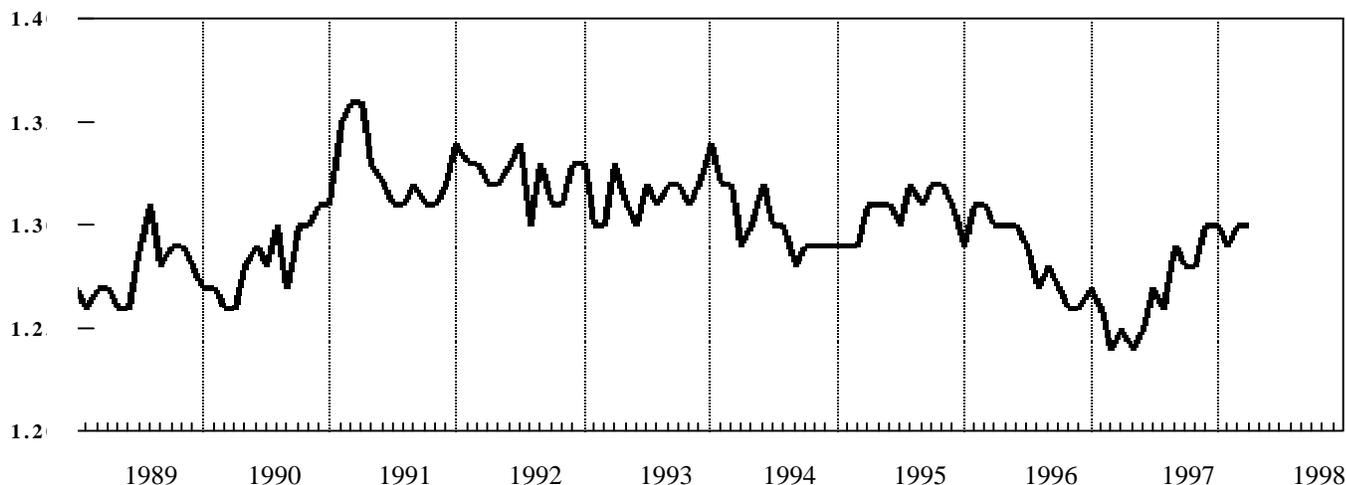
Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$277.1 billion at the end of March, up 0.5 percent (+/-0.3%) from the revised February level and were 6.7 percent (+/-1.2%) above March 1997. The February preliminary estimate was revised upward by \$0.6 billion or 0.2 percent.

End-of-month inventories of durable goods increased 0.6 percent (+/-0.4%) from last month and were 7.1 percent (+/-1.3%) above March 1997. Compared to last month, inventories of electrical goods increased 2.2 percent, while furniture and home furnishings declined 1.8 percent. Among nondurable goods, inventories of beer, wine, and distilled alcoholic beverages increased 3.2 percent from last month, and drugs, drug proprietaries and druggists' sundries were up 3.0 percent. However, farm-product raw materials were down 2.4 percent from February.

Inventories/Sales Ratio. The March inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.30. The March 1997 ratio was 1.25.

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/97-RV Current Business Reports.

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1989 to 1998 (Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for April is scheduled to be released June 9, 1998 at 10:00 a.m.

Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Pienycoski, (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 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1998 and 1997

[In millions of dollars]

SIC ¹ code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change			ratios		
		Mar. 1998 (p)	Feb. 1998 (r)	Mar. 1997 (r)	Mar./ Feb.	Feb./ Jan.	Mar. 98 Mar. 97	Mar. 1998 (p)	Feb. 1998 (r)	Mar. 1997 (r)	Mar./ Feb.	Feb./ Jan.	Mar. 98 Mar. 97	Mar. 1998 (p)	Feb. 1998 (r)	Mar. 1997 (r)
Adjusted²																
	U.S. Total	213,620	211,312	207,522	1.1	0.5	2.9	277,136	275,750	259,786	0.5	1.3	6.7	1.30	1.30	1.25
50	Durable	113,589	112,168	107,365	1.3	0.7	5.8	181,941	180,926	169,819	0.6	1.4	7.1	1.60	1.61	1.58
501	Automotive	18,585	18,279	17,937	1.7	2.1	3.6	30,150	29,633	28,111	1.7	1.5	7.3	1.62	1.62	1.57
502	Furniture	3,467	3,417	3,422	1.5	-4.1	1.3	5,392	5,489	5,206	-1.8	-1.3	3.6	1.56	1.61	1.52
503	Lumber	7,365	7,391	7,546	-0.4	-2.1	-2.4	7,694	7,740	7,907	-0.6	-1.1	-2.7	1.04	1.05	1.05
504	Prof. equip.	21,495	20,856	18,984	3.1	1.8	13.2	26,921	26,664	23,567	1.0	1.4	14.2	1.25	1.28	1.24
505	Metals	8,992	8,931	8,485	0.7	-0.4	6.0	13,987	14,140	13,458	-1.1	0.8	3.9	1.56	1.58	1.59
506	Electrical	17,115	16,933	16,595	1.1	1.6	3.1	26,314	25,760	25,342	2.2	1.3	3.8	1.54	1.52	1.53
507	Hardware	6,666	6,734	6,307	-1.0	0.6	5.7	12,896	13,105	11,894	-1.6	3.5	8.4	1.93	1.95	1.89
508	Machinery	18,486	18,359	16,570	0.7	0.1	11.6	42,549	42,285	38,635	0.6	1.8	10.1	2.30	2.30	2.33
509	Other Durable	11,418	11,268	11,519	1.3	0.9	-0.9	16,038	16,110	15,699	-0.4	1.8	2.2	1.40	1.43	1.36
51	Nondurable	100,031	99,144	100,157	0.9	0.3	-0.1	95,195	94,824	89,967	0.4	1.1	5.8	0.95	0.96	0.90
511	Paper	7,506	7,280	6,993	3.1	-1.0	7.3	9,196	9,109	8,209	1.0	5.0	12.0	1.23	1.25	1.17
512	Drugs	11,096	10,872	9,118	2.1	2.9	21.7	14,526	14,103	12,003	3.0	3.5	21.0	1.31	1.30	1.32
513	Apparel	7,466	7,394	6,861	1.0	0.9	8.8	12,025	11,903	11,345	1.0	-2.6	6.0	1.61	1.61	1.65
514	Groceries	28,485	28,262	28,033	0.8	4.1	1.6	16,309	16,481	15,781	-1.0	3.7	3.3	0.57	0.58	0.56
515	Farm-products	9,163	9,289	10,044	-1.4	-7.9	-8.8	10,794	11,056	10,921	-2.4	-4.1	-1.2	1.18	1.19	1.09
516	Chemicals	4,590	4,717	4,553	-2.7	-1.9	0.8	4,804	4,795	4,732	0.2	-3.6	1.5	1.05	1.02	1.04
517	Petroleum	11,963	11,939	14,408	0.2	-0.5	-17.0	4,514	4,507	5,192	0.2	-4.7	-13.1	0.38	0.38	0.36
518	Alcohol	4,854	4,648	4,589	4.4	2.0	5.8	5,359	5,195	4,486	3.2	3.9	19.5	1.10	1.12	0.98
519	Other Nondur.	14,908	14,743	15,558	1.1	-1.9	-4.2	17,668	17,675	17,298	0.0	3.2	2.1	1.19	1.20	1.11
Not Adjusted																
	U.S. Total	222,656	193,114	210,848	15.3	-2.2	5.6	278,445	279,086	261,001	-0.2	0.6	6.7	Sales to date		
														1998	1997	
50	Durable	119,775	101,437	109,989	18.1	-0.6	8.9	181,763	181,251	169,534	0.3	1.7	7.2	613,282	598,929	
501	Automotive	20,518	16,652	19,211	23.2	2.0	6.8	30,452	30,729	28,336	-0.9	3.7	7.5	53,500	51,911	
502	Furniture	3,571	3,007	3,422	18.8	-4.6	4.4	5,327	5,363	5,149	-0.7	-1.1	3.5	9,729	9,857	
503	Lumber	7,291	6,238	7,214	16.9	-2.0	1.1	7,940	7,825	8,176	1.5	1.7	-2.9	19,894	20,138	
504	Prof. equip.	22,720	19,000	19,762	19.6	-2.4	15.0	26,786	26,317	23,449	1.8	-1.2	14.2	61,187	55,122	
505	Metals	9,523	8,413	8,774	13.2	-2.8	8.5	14,113	14,154	13,579	-0.3	-0.1	3.9	26,594	25,721	
506	Electrical	17,988	15,409	16,877	16.7	0.8	6.6	25,893	25,760	24,886	0.5	1.1	4.0	48,684	47,159	
507	Hardware	6,399	5,791	5,853	10.5	-3.2	9.3	13,089	13,079	12,061	0.1	4.8	8.5	18,175	16,810	
508	Machinery	20,039	17,000	17,415	17.9	-0.1	15.1	42,847	42,285	38,905	1.3	2.8	10.1	54,060	48,883	
509	Other Durable	11,726	9,927	11,461	18.1	1.9	2.3	15,316	15,739	14,993	-2.7	0.7	2.2	31,399	31,826	
51	Nondurable	102,881	91,677	100,859	12.2	-4.0	2.0	96,682	97,835	91,467	-1.2	-1.4	5.7	290,060	291,502	
511	Paper	7,821	6,872	7,000	13.8	-6.4	11.7	9,224	9,100	8,234	1.4	2.8	12.0	22,034	20,861	
512	Drugs	11,418	10,024	8,945	13.9	-7.4	27.6	14,511	14,343	11,979	1.2	-2.3	21.1	32,267	26,422	
513	Apparel	8,123	7,438	7,238	9.2	9.7	12.2	11,628	11,998	10,993	-3.1	-5.6	5.8	22,340	20,872	
514	Groceries	28,941	25,662	28,285	12.8	-3.0	2.3	16,032	16,036	15,497	0.0	0.8	3.5	81,068	79,461	
515	Farm-products	9,502	8,945	10,134	6.2	-17.0	-6.2	11,917	13,356	12,089	-10.8	-9.2	-1.4	29,224	32,116	
516	Chemicals	4,737	4,434	4,585	6.8	-3.5	3.3	4,910	4,872	4,831	0.8	-1.5	1.6	13,765	13,269	
517	Petroleum	12,119	11,402	14,221	6.3	-6.1	-14.8	4,392	4,412	5,047	-0.5	-6.5	-13.0	35,668	44,304	
518	Alcohol	4,611	3,779	4,208	22.0	5.9	9.6	5,252	4,930	4,392	6.5	5.6	19.6	11,960	11,380	
519	Other Nondur.	15,609	13,121	16,243	19.0	0.9	-3.9	18,816	18,788	18,405	0.1	4.2	2.2	41,734	42,817	

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

"Annual Benchmark Report for Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

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
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	CY	PY	to previous year cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.0	1.4	1.0	1.4	0.4	0.2	0.7	1.3	0.9	0.5	0.3
50	Durable	2.1	2.1	2.1	2.2	0.7	0.3	1.3	2.0	2.0	2.4	0.7
501	Automotive	4.1	5.4	4.1	5.4	1.2	1.0	3.1	4.1	4.2	3.7	2.1
502	Furniture	6.3	7.4	6.3	7.4	2.2	1.0	4.6	10.1	6.2	5.3	2.5
503	Lumber	4.9	5.8	5.1	5.9	1.2	0.8	4.2	5.3	5.2	5.6	2.5
504	Prof. equip.	5.5	6.4	5.6	6.6	1.4	0.7	3.8	4.4	4.8	5.8	2.7
505	Metals	4.6	9.2	4.6	9.2	1.3	0.7	2.8	10.2	4.4	4.2	1.5
506	Electrical	5.1	4.5	5.0	4.5	1.4	0.5	3.4	2.8	6.0	4.5	2.0
507	Hardware	5.0	4.8	5.0	4.8	1.2	0.5	6.0	5.0	5.1	4.4	1.5
508	Machinery	5.8	5.0	5.7	4.8	1.8	0.5	4.5	5.2	6.4	6.3	2.6
509	Other Durable	4.8	7.3	4.9	7.0	1.5	0.8	2.6	5.6	5.5	4.6	2.1
51	Nondurable	1.9	2.1	1.9	2.1	0.5	0.4	1.3	1.4	1.8	0.5	0.4
511	Paper	4.1	3.7	4.2	3.9	1.1	0.4	4.0	4.8	5.1	0.2	0.1
512	Drugs	5.8	5.1	5.7	5.0	0.6	0.4	3.4	2.1	6.3	5.5	2.5
513	Apparel	5.4	7.8	5.3	7.9	2.1	0.8	3.5	5.2	5.5	4.5	2.4
514	Groceries	3.0	5.3	3.0	5.3	0.8	0.5	1.8	4.8	2.9	3.0	0.8
515	Farm-products	5.3	8.1	5.3	7.9	2.4	1.6	3.1	4.4	4.4	4.2	1.9
516	Chemicals	5.9	5.7	6.0	5.5	1.3	0.6	4.3	3.1	6.0	6.1	1.8
517	Petroleum	6.1	13.9	5.9	14.0	1.0	0.8	3.4	11.8	5.6	5.1	1.2
518	Alcohol	6.3	6.1	6.4	6.1	1.7	1.3	7.4	5.5	6.1	6.8	1.1
519	Other Nondur.	6.0	5.9	6.0	5.8	1.8	0.9	5.5	5.0	6.7	6.0	2.7

Note: The median measures of variability are based on the most recent 12 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

Penalty for Private Use, \$300

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

SIC code	Kind of business	Sales					Inventories							
		1998				1997	1997			1998			1997	1997
		Apr.	Mar.r	Feb.r	Jan	Dec.	Mar.r	Apr.	Mar.r	Feb.r	Jan.	Dec.	Mar.r	
	U.S. Total¹	1.005	1.034	0.916	0.940	1.018	1.012	1.010	1.006	1.013	1.021	1.003	1.006	
50	Durable	0.997	1.047	0.904	0.913	1.009	1.022	1.008	0.998	1.002	0.999	0.985	0.998	
501	Automotive	1.033	1.104	0.911	0.912	1.018	1.071	1.019	1.010	1.037	1.015	0.963	1.008	
502	Furniture	1.010	1.030	0.880	0.884	1.004	1.000	0.979	0.988	0.977	0.975	0.973	0.989	
503	Lumber	1.006	0.990	0.844	0.843	0.883	0.956	1.023	1.032	1.011	0.983	0.982	1.034	
504	Prof. equip.	0.958	1.057	0.911	0.950	1.083	1.041	1.003	0.995	0.987	1.013	1.006	0.995	
505	Metals	1.046	1.059	0.942	0.966	0.950	1.034	1.010	1.009	1.001	1.010	1.010	1.009	
506	Electrical	0.958	1.051	0.910	0.917	0.990	1.017	0.995	0.984	1.000	1.002	0.981	0.982	
507	Hardware	0.979	0.960	0.860	0.894	0.947	0.928	1.012	1.015	0.998	0.985	0.989	1.014	
508	Machinery	1.032	1.084	0.926	0.928	1.028	1.051	1.019	1.007	1.000	0.990	0.985	1.007	
509	Other Durable	0.939	1.027	0.881	0.873	1.026	0.995	0.990	0.955	0.977	0.988	0.976	0.955	
51	Nondurable	1.018	1.029	0.926	0.968	1.028	1.011	1.014	1.017	1.032	1.062	1.034	1.017	
511	Paper	0.988	1.042	0.944	0.998	1.013	1.001	1.017	1.003	0.999	1.020	1.022	1.003	
512	Drugs	1.015	1.029	0.922	1.025	1.062	0.981	0.998	0.999	1.017	1.077	1.024	0.998	
513	Apparel	0.954	1.088	1.006	0.925	0.813	1.055	0.966	0.967	1.008	1.040	1.003	0.969	
514	Groceries	0.993	1.016	0.908	0.975	1.037	1.009	0.985	0.983	0.973	1.001	1.010	0.982	
515	Farm-products	0.988	1.037	0.963	1.069	1.124	1.009	1.026	1.104	1.208	1.276	1.223	1.107	
516	Chemicals	1.047	1.032	0.940	0.955	0.941	1.007	1.001	1.022	1.016	0.995	0.998	1.021	
517	Petroleum	0.999	1.013	0.955	1.012	1.073	0.987	0.995	0.973	0.979	0.998	1.044	0.972	
518	Alcohol	1.008	0.950	0.813	0.783	1.149	0.917	1.002	0.980	0.949	0.934	0.926	0.979	
519	Other Nondur.	1.144	1.047	0.890	0.865	0.984	1.044	1.080	1.065	1.063	1.053	0.990	1.064	



r Revised

¹ 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.