



Monthly Wholesale Trade

Sales and Inventories

May 1998

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

BW/98-5
Issued July 1998

MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES

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Sales. May 1998 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$213.2 billion, down 0.3 percent (+/- 0.9%) from the revised April level but were 2.5 percent (+/-1.2%) above the May 1997 level. The April preliminary estimate was revised downward by \$0.1 billion. May sales of durable goods decreased 1.1 percent (+/-0.8%) from April but were 3.9 percent (+/-1.6%) above last year. Compared to last month, sales of professional and commercial equipment and supplies declined 3.5 percent. Among nondurable goods, sales of petroleum and petroleum products increased 2.7 percent from the April level.

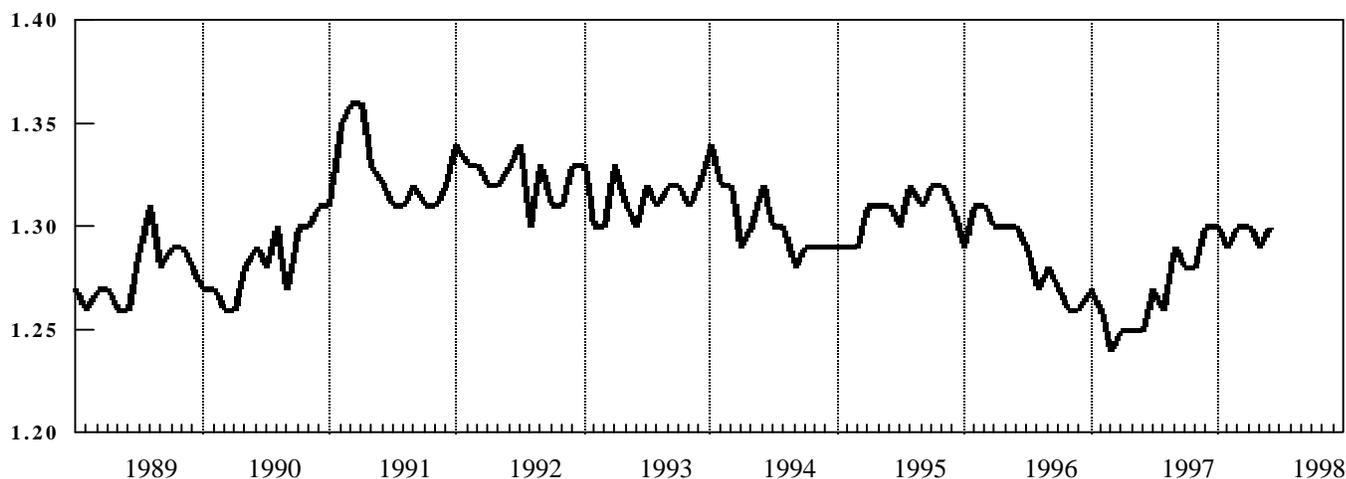
Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$277.5 billion at the end of May, up 0.6 percent (+/-0.3%) from the revised April level and were 6.6 percent (+/-1.7%) above May 1997. The April preliminary estimate was revised upward by \$0.1 billion.

Among durable goods, inventories of machinery, equipment, and supplies increased 1.6 percent from April, while motor vehicles and automotive equipment decreased 2.2 percent. End-of-month inventories of nondurable goods increased 1.1 percent (+/-0.8%) from last month, and were 6.3 percent (+/-2.0%) above the May 1997 level. Compared to last month, inventories of drugs, drug proprietaries and druggists' sundries rose 2.9 percent, and beer, wine, and distilled alcoholic beverages increased 2.8 percent.

Inventories/Sales Ratio. The May inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.30. The May 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 June is scheduled to be released August 7, 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 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		
		May 1998 (p)	Apr. 1998 (r)	May 1997 (r)	May/ Apr.	Apr./ Mar.	May 98 May 97	May 1998 (p)	Apr. 1998 (r)	May 1997 (r)	May/ Apr.	Apr./ Mar.	May 98 May 97	May 1998 (p)	Apr. 1998 (r)	May 1997 (r)
Adjusted²																
	U.S. Total	213,246	213,900	207,970	-0.3	0.1	2.5	277,540	275,933	260,258	0.6	-0.6	6.6	1.30	1.29	1.25
50	Durable	113,055	114,325	108,803	-1.1	0.5	3.9	183,125	182,548	171,402	0.3	-0.1	6.8	1.62	1.60	1.58
501	Automotive	19,007	18,914	18,022	0.5	0.6	5.5	28,487	29,131	27,977	-2.2	-4.8	1.8	1.50	1.54	1.55
502	Furniture	3,378	3,408	3,302	-0.9	-1.9	2.3	5,529	5,532	5,465	-0.1	3.0	1.2	1.64	1.62	1.66
503	Lumber	7,434	7,538	7,477	-1.4	2.7	-0.6	7,786	7,882	8,177	-1.2	2.2	-4.8	1.05	1.05	1.09
504	Prof. equip.	20,798	21,546	19,534	-3.5	0.3	6.5	27,210	27,229	24,516	-0.1	1.0	11.0	1.31	1.26	1.26
505	Metals	8,696	8,733	8,843	-0.4	-2.7	-1.7	14,247	14,108	13,634	1.0	0.0	4.5	1.64	1.62	1.54
506	Electrical	17,329	17,249	16,936	0.5	0.8	2.3	26,895	26,536	25,187	1.4	1.0	6.8	1.55	1.54	1.49
507	Hardware	6,747	6,617	6,352	2.0	-0.1	6.2	13,285	13,276	12,303	0.1	2.0	8.0	1.97	2.01	1.94
508	Machinery	18,820	18,850	17,044	-0.2	1.9	10.4	43,742	43,048	39,602	1.6	0.6	10.5	2.32	2.28	2.32
509	Other Durable	10,846	11,470	11,293	-5.4	0.3	-4.0	15,944	15,806	14,541	0.9	-1.1	9.6	1.47	1.38	1.29
51	Nondurable	100,191	99,575	99,167	0.6	-0.5	1.0	94,415	93,385	88,856	1.1	-1.5	6.3	0.94	0.94	0.90
511	Paper	7,532	7,453	6,791	1.1	-1.0	10.9	9,074	9,126	8,327	-0.6	-1.2	9.0	1.20	1.22	1.23
512	Drugs	10,814	10,747	9,411	0.6	-3.0	14.9	15,181	14,753	12,070	2.9	1.7	25.8	1.40	1.37	1.28
513	Apparel	6,996	7,070	6,962	-1.0	-3.3	0.5	12,085	12,001	11,517	0.7	0.2	4.9	1.73	1.70	1.65
514	Groceries	28,501	28,470	27,595	0.1	0.2	3.3	16,567	16,382	15,600	1.1	1.8	6.2	0.58	0.58	0.57
515	Farm-products	8,748	8,777	10,307	-0.3	-3.7	-15.1	9,611	9,835	10,665	-2.3	-8.3	-9.9	1.10	1.12	1.03
516	Chemicals	4,527	4,510	4,542	0.4	-0.8	-0.3	5,024	4,937	4,546	1.8	3.4	10.5	1.11	1.09	1.00
517	Petroleum	12,469	12,142	13,650	2.7	1.4	-8.7	4,663	4,545	5,022	2.6	0.7	-7.1	0.37	0.37	0.37
518	Alcohol	4,794	4,772	4,555	0.5	-1.3	5.2	5,269	5,126	4,586	2.8	-4.7	14.9	1.10	1.07	1.01
519	Other Nondur.	15,810	15,634	15,354	1.1	2.6	3.0	16,941	16,680	16,523	1.6	-5.1	2.5	1.07	1.07	1.08
Not Adjusted																
	U.S. Total	210,289	216,001	211,130	-2.6	-2.9	-0.4	276,265	278,205	259,109	-0.7	-0.3	6.6	Sales to date		
														1998	1997	
50	Durable	110,062	114,331	108,970	-3.7	-4.5	1.0	184,393	183,970	172,726	0.2	0.7	6.8	1,039,279	1,019,504	
501	Automotive	19,102	19,614	18,743	-2.6	-4.8	1.9	28,715	29,422	28,229	-2.4	-4.6	1.7	92,303	89,321	
502	Furniture	3,290	3,435	3,325	-4.2	-4.3	-1.1	5,573	5,405	5,509	3.1	1.7	1.2	16,474	16,606	
503	Lumber	7,687	7,644	7,903	0.6	5.6	-2.7	7,950	8,087	8,349	-1.7	1.8	-4.8	35,176	35,963	
504	Prof. equip.	19,446	20,964	18,753	-7.2	-7.4	3.7	26,802	27,338	24,173	-2.0	1.8	10.9	101,515	92,722	
505	Metals	8,670	9,100	9,038	-4.7	-5.6	-4.1	14,304	14,235	13,689	0.5	-0.3	4.5	44,479	44,137	
506	Electrical	16,359	16,576	16,343	-1.3	-7.7	0.1	26,895	26,483	25,212	1.6	2.5	6.7	81,596	79,562	
507	Hardware	6,619	6,452	6,377	2.6	1.4	3.8	13,577	13,502	12,586	0.6	2.6	7.9	31,211	29,580	
508	Machinery	18,726	19,661	17,624	-4.8	-1.6	6.3	44,617	43,866	40,394	1.7	1.7	10.5	92,394	84,303	
509	Other Durable	10,163	10,885	10,864	-6.6	-7.1	-6.5	15,960	15,632	14,585	2.1	2.2	9.4	52,439	53,611	
51	Nondurable	100,227	101,670	102,160	-1.4	-0.9	-1.9	91,872	94,235	86,383	-2.5	-2.2	6.4	491,692	493,699	
511	Paper	7,088	7,401	6,540	-4.2	-5.6	8.4	8,920	9,245	8,177	-3.5	-0.5	9.1	36,546	34,466	
512	Drugs	10,154	10,768	9,100	-5.7	-5.8	11.6	14,331	14,723	11,406	-2.7	1.6	25.6	53,207	44,836	
513	Apparel	5,681	6,759	5,848	-15.9	-15.4	-2.9	11,831	11,629	11,241	1.7	0.7	5.2	34,648	33,471	
514	Groceries	28,872	28,356	28,782	1.8	-1.1	0.3	16,352	16,136	15,382	1.3	2.1	6.3	138,030	135,187	
515	Farm-products	8,503	8,540	10,194	-0.4	-10.1	-16.6	8,352	9,953	9,268	-16.1	-16.5	-9.9	46,266	52,648	
516	Chemicals	4,690	4,686	4,828	0.1	-0.2	-2.9	5,124	4,972	4,641	3.1	2.3	10.4	23,101	22,868	
517	Petroleum	12,581	12,348	14,019	1.9	2.6	-10.3	4,682	4,522	5,042	3.5	3.1	-7.1	60,517	71,786	
518	Alcohol	4,919	4,786	4,915	2.8	3.9	0.1	5,085	5,157	4,439	-1.4	-2.4	14.6	21,660	20,671	
519	Other Nondur.	17,739	18,026	17,934	-1.6	13.9	-1.1	17,195	17,898	16,787	-3.9	-4.9	2.4	77,717	77,766	

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	C Y	P Y	to previous year cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.0	1.3	1.0	1.4	0.4	0.2	0.7	1.0	0.9	0.6	0.3
50	Durable	2.1	2.1	2.1	2.1	0.6	0.3	1.1	1.1	2.0	2.4	0.8
501	Automotive	4.1	5.4	4.1	5.4	1.2	0.8	2.7	3.2	4.2	4.0	1.8
502	Furniture	6.4	7.6	6.5	7.5	2.2	0.8	4.6	3.2	6.3	5.4	2.7
503	Lumber	4.8	5.9	5.0	5.9	1.2	0.8	2.9	2.9	4.9	5.3	1.8
504	Prof. equip.	5.5	6.4	5.5	6.4	1.4	0.6	3.1	3.5	4.5	5.6	2.6
505	Metals	4.6	9.2	4.5	9.2	1.3	0.7	2.7	3.1	4.4	4.3	1.2
506	Electrical	5.3	5.0	5.4	4.6	1.4	0.5	2.3	1.9	6.0	4.9	1.6
507	Hardware	5.1	4.8	5.0	4.8	1.2	0.5	2.5	2.0	5.2	4.5	1.2
508	Machinery	5.9	5.5	5.8	5.4	1.7	0.5	3.9	2.2	6.3	6.2	2.4
509	Other Durable	5.4	7.6	5.3	7.5	1.5	0.8	2.7	3.6	5.8	4.8	2.2
51	Nondurable	1.9	2.2	1.9	2.2	0.5	0.4	1.2	1.4	1.8	0.6	0.5
511	Paper	4.4	4.2	4.4	4.1	1.1	0.5	4.5	4.9	4.8	0.4	0.2
512	Drugs	5.8	5.0	5.7	5.0	0.7	0.5	3.0	1.5	6.3	5.5	2.3
513	Apparel	5.4	7.7	5.3	7.8	2.1	0.8	2.9	3.6	5.1	4.5	1.9
514	Groceries	3.0	5.6	3.0	5.5	0.8	0.5	1.6	2.7	3.0	3.2	0.8
515	Farm-products	5.1	8.1	5.2	8.1	2.3	1.7	2.9	4.4	4.2	4.4	2.0
516	Chemicals	5.9	5.7	5.9	5.6	1.3	0.6	2.7	2.4	5.8	5.8	1.4
517	Petroleum	6.0	13.9	5.9	14.2	1.0	0.7	1.9	1.8	5.7	5.5	1.2
518	Alcohol	6.3	6.2	6.4	6.2	1.6	1.3	2.1	5.5	6.3	6.9	1.2
519	Other Nondur.	6.1	6.0	6.1	5.9	1.8	1.0	5.2	4.8	6.2	5.5	2.4

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

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

SIC code	Kind of business	Sales					Inventories						
		1998					1997		1998				1997
		Jun.	May.r	Apr.r	Mar.	Feb.	May.r	Jun.	May.r	Apr.r	Mar.	Feb.	May.r
	U.S. Total¹	1.038	0.986	1.009	1.034	0.916	1.014	0.984	0.995	1.007	1.008	1.013	0.996
50	Durable	1.046	0.975	1.001	1.048	0.904	1.000	0.999	1.007	1.008	1.000	1.002	1.007
501	Automotive	1.062	1.005	1.037	1.096	0.911	1.040	0.996	1.008	1.010	1.007	1.037	1.009
502	Furniture	1.014	0.974	1.008	1.034	0.880	1.007	1.014	1.008	0.977	0.990	0.977	1.008
503	Lumber	1.113	1.034	1.014	0.987	0.844	1.057	1.027	1.021	1.026	1.030	1.011	1.021
504	Prof. equip.	1.044	0.935	0.973	1.054	0.911	0.960	0.989	0.985	1.004	0.996	0.987	0.986
505	Metals	1.050	0.997	1.042	1.074	0.942	1.022	1.009	1.004	1.009	1.012	1.001	1.004
506	Electrical	1.026	0.944	0.961	1.050	0.910	0.965	1.013	1.000	0.998	0.984	1.000	1.001
507	Hardware	1.102	0.981	0.975	0.961	0.860	1.004	1.001	1.022	1.017	1.011	0.998	1.023
508	Machinery	1.066	0.995	1.043	1.080	0.926	1.034	0.999	1.020	1.019	1.008	1.000	1.020
509	Other Durable	1.005	0.937	0.949	1.025	0.881	0.962	1.000	1.001	0.989	0.957	0.977	1.003
51	Nondurable	1.026	0.998	1.018	1.028	0.926	1.029	0.958	0.973	1.009	1.019	1.032	0.972
511	Paper	1.001	0.941	0.993	1.042	0.944	0.963	0.977	0.983	1.013	1.005	0.999	0.982
512	Drugs	1.004	0.939	1.002	1.032	0.922	0.967	0.965	0.944	0.998	0.999	1.017	0.945
513	Apparel	1.000	0.812	0.956	1.093	1.006	0.840	1.018	0.979	0.969	0.964	1.008	0.976
514	Groceries	1.023	1.013	0.996	1.009	0.908	1.043	0.990	0.987	0.985	0.982	0.973	0.986
515	Farm-products	0.945	0.972	0.973	1.042	0.963	0.989	0.789	0.869	1.012	1.111	1.208	0.869
516	Chemicals	1.076	1.036	1.039	1.033	0.940	1.063	1.008	1.020	1.007	1.018	1.016	1.021
517	Petroleum	0.984	1.009	1.017	1.005	0.955	1.027	0.952	1.004	0.995	0.972	0.979	1.004
518	Alcohol	1.117	1.026	1.003	0.953	0.813	1.079	0.990	0.965	1.006	0.982	0.949	0.968
519	Other Nondur.	1.114	1.122	1.153	1.039	0.890	1.168	0.966	1.015	1.073	1.070	1.063	1.016



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.