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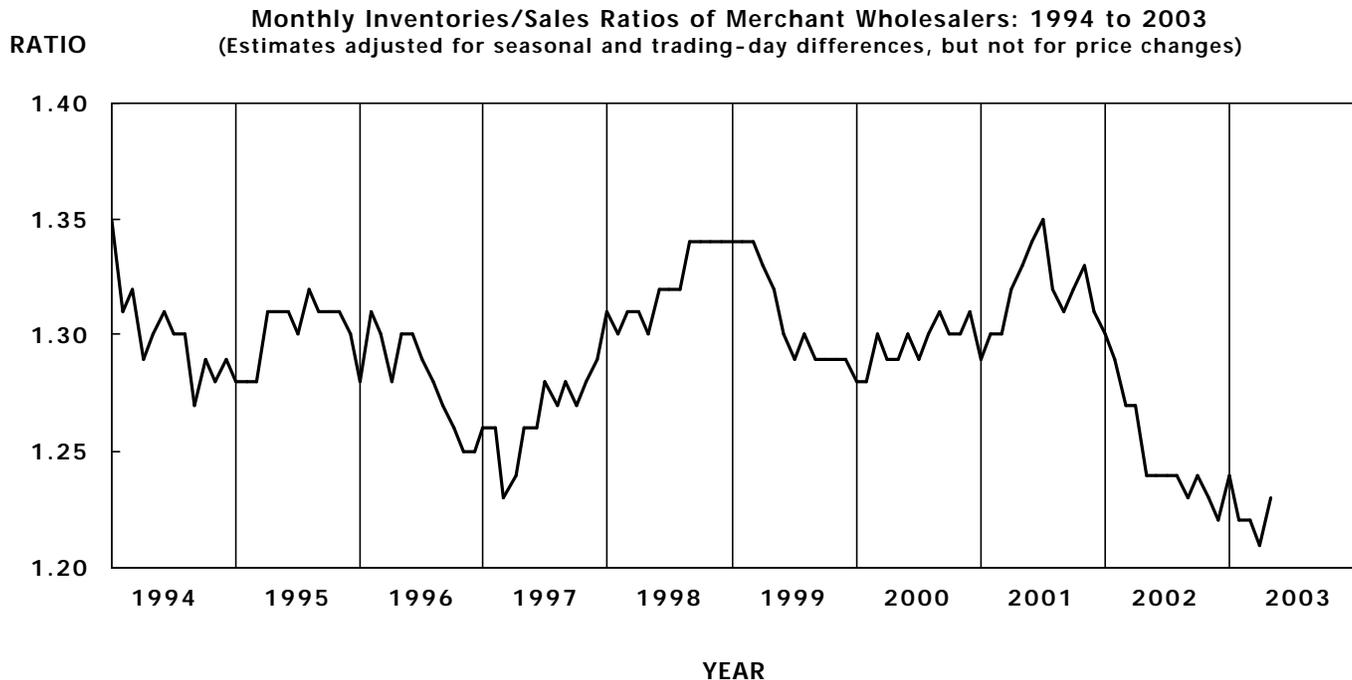
MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES APRIL 2003

Sales. April 2003 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$235.7 billion, down 2.0 percent (+/-0.6%) from the revised March level, but were up 3.8 percent (+/-1.0%) from the April 2002 level. The March preliminary estimate was virtually unchanged. Among durable goods, sales of motor vehicle and motor vehicle parts and supplies decreased 1.8 percent from last month. April sales of nondurable goods decreased 3.6 percent (+/-0.8%) from last month, but were up 6.8 percent (+/-1.7%) from last year. Compared to last month, sales of petroleum and petroleum products decreased 24.0 percent and sales of paper and paper products decreased 2.3 percent.

Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$290.6 billion at the end of April, down 0.1 percent (+/-0.3%) from last month, but were up 2.8 percent (+/-0.8%) from a year ago. The March preliminary estimate was revised downward \$0.1 billion. Among durable goods, inventories of furniture and home furnishings were up 1.3 percent from March, while inventories of computer peripheral equipment and software were down 3.0 percent. Among nondurable goods, inventories of petroleum and petroleum products decreased 4.9 percent and inventories of grocery and related products decreased 1.5 percent from last month.

Inventories/Sales Ratio. The April inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.23. The April 2002 ratio was 1.24.

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 appears in BW/02-A Current Business Reports.



Monthly Wholesale Trade for May is scheduled to be released July 9, 2003 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, U.S. Census Bureau, Washington, DC 20233, or call Nancy Piesto, (301) 763-2747.

This report is available on day of issue through the Department of Commerce's STAT-USA website; for information, call (202) 482-1986. The data are also available on the internet - <http://www.census.gov/whl>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers

[Total sales and inventory estimates are shown in millions of dollars. Estimates are based on data from the Monthly Wholesale Trade Survey, Annual Wholesale Trade Survey, and administrative records. Except for NAICS code 4225, estimates have been adjusted using results of the most recent economic census.]

NAICS ¹ code	Kind of Business	Sales						Inventories						Inventories/Sales Ratios		
		Monthly			Percent change			Monthly			Percent change			Ratios		
		Apr. 2003 (P)	Mar. 2003 (r)	Apr. 2002 (r)	Apr./Mar.	Mar./Feb.	Apr. 03 Apr. 02	Apr. 2003 (P)	Mar. 2003 (r)	Apr. 2002 (r)	Apr./Mar.	Mar./Feb.	Apr. 03 Apr. 02	Apr. 2003 (P)	Mar. 2003 (r)	Apr. 2002 (r)
Adjusted²																
42	U.S. Total	235,743	240,547	227,173	-2.0	1.0	3.8	290,602	290,938	282,779	-0.1	0.4	2.8	1.23	1.21	1.24
421	Durable	112,335	112,537	111,649	-0.2	2.1	0.6	175,317	175,406	171,389	-0.1	0.4	2.3	1.56	1.56	1.54
4211	Automotive	17,831	18,163	17,576	-1.8	5.9	1.5	25,587	25,474	22,772	0.4	1.3	12.4	1.43	1.40	1.30
4212	Furniture	3,581	3,574	3,582	0.2	-0.6	0.0	5,436	5,368	5,134	1.3	1.5	5.9	1.52	1.50	1.43
4213	Lumber	6,863	6,877	6,886	-0.2	0.9	-0.3	7,302	7,311	7,051	-0.1	-1.8	3.6	1.06	1.06	1.02
4214	Prof. equip.	21,056	21,013	19,850	0.2	1.1	6.1	23,452	23,952	23,838	-2.1	0.4	-1.6	1.11	1.14	1.20
42143	Comp. equip.	9,580	9,434	9,068	1.5	0.4	5.6	7,474	7,705	8,181	-3.0	0.0	-8.6	0.78	0.82	0.90
4215	Metals	7,271	7,253	7,603	0.2	2.9	-4.4	13,599	13,642	12,739	-0.3	0.5	6.8	1.87	1.88	1.68
4216	Electrical	17,671	17,476	17,729	1.1	1.7	-0.3	23,558	23,384	23,164	0.7	0.4	1.7	1.33	1.34	1.31
4217	Hardware	5,427	5,478	5,606	-0.9	2.0	-3.2	10,620	10,682	10,052	-0.6	1.6	5.7	1.96	1.95	1.79
4218	Machinery	18,560	18,485	18,909	0.4	1.2	-1.8	45,615	45,614	47,071	0.0	-0.3	-3.1	2.46	2.47	2.49
4219	Misc. Durable	14,075	14,218	13,908	-1.0	1.5	1.2	20,148	19,979	19,568	0.8	0.2	3.0	1.43	1.41	1.41
422	Nondurable	123,408	128,010	115,524	-3.6	0.0	6.8	115,285	115,532	111,390	-0.2	0.6	3.5	0.93	0.90	0.96
4221	Paper	6,137	6,283	6,080	-2.3	2.4	0.9	6,232	6,218	6,070	0.2	-0.5	2.7	1.02	0.99	1.00
4222	Drugs	21,130	20,827	19,247	1.5	1.9	9.8	30,546	30,143	27,584	1.3	2.3	10.7	1.45	1.45	1.43
4223	Apparel	6,943	6,978	7,583	-0.5	-0.9	-8.4	12,414	12,418	11,833	0.0	1.5	4.9	1.79	1.78	1.56
4224	Groceries	35,778	35,351	33,567	1.2	0.1	6.6	22,331	22,660	21,771	-1.5	-1.3	2.6	0.62	0.64	0.65
4225	Farm products	9,937	9,633	8,909	3.2	-5.9	11.5	9,295	9,251	10,420	0.5	-0.5	-10.8	0.94	0.96	1.17
4226	Chemicals	5,375	5,431	5,161	-1.0	2.6	4.1	5,974	5,972	5,931	0.0	-0.9	0.7	1.11	1.10	1.15
4227	Petroleum	17,172	22,592	14,882	-24.0	0.8	15.4	4,230	4,448	4,575	-4.9	-3.0	-7.5	0.25	0.20	0.31
4228	Alcohol	7,068	7,077	6,731	-0.1	0.5	5.0	7,439	7,497	7,091	-0.8	0.5	4.9	1.05	1.06	1.05
4229	Misc. Nondur.	13,868	13,838	13,364	0.2	-1.7	3.8	16,824	16,925	16,115	-0.6	1.8	4.4	1.21	1.22	1.21
Not Adjusted																
Sales to date																
2003 2002																
42	U.S. Total	239,109	243,477	230,318	-1.8	11.9	3.8	290,812	291,603	283,146	-0.3	0.4	2.7	928,653	875,806	
421	Durable	113,689	114,751	113,099	-0.9	15.8	0.5	176,894	175,280	172,966	0.9	0.3	2.3	432,061	428,050	
4211	Automotive	18,865	18,726	18,525	0.7	21.1	1.8	26,048	25,856	23,205	0.7	-0.2	12.3	69,707	68,290	
4212	Furniture	3,585	3,620	3,643	-1.0	11.6	-1.6	5,316	5,218	5,006	1.9	0.6	6.2	13,753	13,851	
4213	Lumber	7,247	6,836	7,189	6.0	16.0	0.8	7,528	7,538	7,270	-0.1	1.2	3.5	26,362	25,838	
4214	Prof. equip.	20,151	21,685	19,016	-7.1	18.2	6.0	23,804	23,617	24,172	0.8	-0.1	-1.5	79,548	76,388	
42143	Comp. equip.	8,967	9,717	8,424	-7.7	19.0	6.4	7,743	7,489	8,451	3.4	-0.9	-8.4	35,591	34,908	
4215	Metals	7,533	7,224	7,747	4.3	10.4	-2.8	13,449	13,533	12,624	-0.6	0.2	6.5	28,393	28,691	
4216	Electrical	17,406	17,791	17,463	-2.2	13.6	-0.3	23,275	22,776	22,886	2.2	-1.0	1.7	67,082	67,566	
4217	Hardware	5,649	5,462	5,870	3.4	13.2	-3.8	10,779	10,810	10,203	-0.3	3.1	5.6	21,094	21,863	
4218	Machinery	19,488	18,947	20,100	2.9	16.2	-3.0	46,527	46,253	48,012	0.6	1.5	-3.1	72,328	73,153	
4219	Misc. Durable	13,765	14,460	13,546	-4.8	13.1	1.6	20,168	19,679	19,588	2.5	-1.7	3.0	53,794	52,410	
422	Nondurable	125,420	128,726	117,219	-2.6	8.6	7.0	113,918	116,323	110,180	-2.1	0.5	3.4	496,592	447,756	
4221	Paper	6,069	6,245	6,013	-2.8	11.2	0.9	6,307	6,156	6,155	2.5	-1.0	2.5	24,156	23,667	
4222	Drugs	21,510	20,869	19,555	3.1	9.7	10.0	30,577	30,625	27,612	-0.2	4.8	10.7	82,328	75,658	
4223	Apparel	6,686	7,578	7,227	-11.8	8.0	-7.5	11,806	11,822	11,277	-0.1	-2.4	4.7	28,109	29,932	
4224	Groceries	35,599	35,881	33,668	-0.8	12.2	5.7	21,817	22,456	21,314	-2.8	-0.1	2.4	136,985	131,153	
4225	Farm products	9,818	9,614	8,820	2.1	-3.9	11.3	8,942	9,843	10,055	-9.2	-7.0	-11.1	41,366	35,475	
4226	Chemicals	5,515	5,523	5,264	-0.1	11.2	4.8	5,998	6,002	5,955	-0.1	-0.5	0.7	21,379	20,048	
4227	Petroleum	18,254	22,005	15,522	-17.0	5.7	17.6	4,116	4,421	4,461	-6.9	-2.3	-7.7	81,517	54,015	
4228	Alcohol	7,075	6,716	6,677	5.3	14.5	6.0	7,565	7,430	7,204	1.8	3.2	5.0	25,224	23,900	
4229	Misc. Nondur.	14,894	14,295	14,473	4.2	8.5	2.9	16,790	17,568	16,147	-4.4	0.8	4.0	55,528	53,908	

^P Preliminary estimate. ^r Revised.

¹ For a full description of the NAICS codes used in this table, see <http://www.census.gov/svsd/www/naicsdef.html>.

² Estimates are adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for the seasonal adjustment factors used. Cumulative seasonally adjusted sales estimates are not tabulated.

Note: Estimates have not been adjusted for price changes. Table 2 provides estimated measures of sampling variability. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at <http://www.census.gov/svsd/www/mwtsreliability.html>.

Table 2. Coefficients of Variation and Standard Errors for Sales and Inventories Estimates

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

NAICS code	Kind of Business	Median coefficients of variation for level (%)				Median standard errors for trend				Coefficients of variation for level (%)		Standard errors 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.	Current year	Previous year	to previous year cumulative
42	U.S. Total	1.2	1.6	1.3	1.6	0.4	0.2	0.6	0.5	1.1	1.1	0.5
421	Durable	1.4	1.5	1.4	1.5	0.6	0.3	0.8	0.6	1.2	1.3	0.7
4211	Automotive	3.7	4.5	3.7	4.5	0.9	0.8	1.1	1.4	3.8	3.8	0.8
4212	Furniture	5.0	7.0	5.0	6.9	1.6	0.7	2.8	1.3	6.0	5.2	1.7
4213	Lumber	4.9	6.2	4.9	6.2	1.1	0.7	1.8	2.3	4.8	5.0	1.6
4214	Prof. equip.	4.8	6.5	4.8	6.5	1.3	0.5	1.9	1.7	4.7	4.9	2.1
42143	Comp. equip.	8.9	7.3	8.9	7.3	2.1	1.3	2.7	4.1	7.8	7.6	2.5
4215	Metals	7.3	9.6	6.8	9.5	1.8	0.7	2.7	3.2	6.0	5.6	2.0
4216	Electrical	3.4	5.1	3.5	5.1	1.2	0.6	1.6	1.7	3.5	3.5	1.4
4217	Hardware	7.9	10.9	7.9	10.9	1.3	0.5	2.3	1.7	7.8	8.1	2.1
4218	Machinery	3.4	3.2	3.4	3.2	1.5	0.4	2.2	1.2	3.3	3.1	1.7
4219	Misc. Durable	4.9	7.3	4.6	7.4	1.7	0.7	2.8	2.6	4.8	5.4	2.4
422	Nondurable	1.8	2.5	1.9	2.5	0.5	0.3	0.8	1.0	1.7	1.4	0.7
4221	Paper	4.3	3.4	4.3	3.4	1.0	0.8	1.1	1.4	4.2	4.2	0.7
4222	Drugs	5.5	5.6	5.5	5.6	0.9	0.4	1.8	1.6	5.7	5.8	1.3
4223	Apparel	4.9	4.9	4.9	5.1	2.3	0.9	2.8	1.9	4.4	5.1	2.0
4224	Groceries	3.9	6.3	3.9	6.2	0.7	0.7	1.6	2.0	4.0	3.5	1.5
4225	Farm products	6.7	8.1	6.7	9.0	2.2	1.8	2.9	3.9	6.9	5.7	2.1
4226	Chemicals	5.1	7.1	5.2	7.1	1.0	0.8	1.8	1.8	4.7	4.7	1.8
4227	Petroleum	6.6	7.6	6.4	7.0	0.8	1.1	2.0	1.9	6.8	5.7	2.5
4228	Alcohol	4.0	5.3	4.1	5.3	1.1	0.6	1.1	1.1	3.8	3.8	1.0
4229	Misc. Nondur.	7.4	8.2	7.4	8.2	2.1	1.1	2.5	2.0	6.7	7.4	2.5

Note: Estimated measures of sampling variability are based on estimates unadjusted for seasonal variation or trading-day differences. Medians are computed using final monthly estimates for the latest 12 months. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at www.census.gov/svsd/www/mwtsreliability.html.

Reliability of Estimates

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 percent change 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 zero, then we do not have sufficient evidence to conclude the estimated change was statistically different from zero. For monthly totals, 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 can occur because of nonresponse, insufficient coverage of the universe of wholesale businesses, mistakes in the recording and coding of data, and response errors. Imputed data accounts for approximately 28% of the sales estimates and 31% of the inventories estimates. Additionally, estimates of sales and inventories prior to March 2001 have been restated from SIC-based estimates. The restatement methodology may have introduced additional nonsampling error. The calculated median standard errors of year-to-year change estimates may also be influenced by the methodology used to impute historical data for units in the NAICS sample. The effect of this historic imputation methodology on published estimates will decrease as more data from the NAICS sample is accumulated. Precautionary steps are taken to minimize nonsampling errors, but their magnitude is not directly measured.

Further information regarding the reliability of estimates can be found on the Internet on our web page at <http://www.census.gov/svsd/www/mwtsreliability.html>.

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

[Seasonal adjustment factors are computed using the Census Bureau's X-12 ARIMA program and are based on data from the Monthly Wholesale Trade Survey, Annual Wholesale Trade Survey, and administrative records.]

NAICS code	Kind of Business	Sales						Inventories					
		2003					2002	2003					2002
		May	Apr.r	Mar.r	Feb.	Jan.	Apr.r	May	Apr.r	Mar.r	Feb.	Jan.	Apr.r
42	U.S. Total ¹	1.017	1.010	1.014	0.913	0.962	1.012	0.990	1.001	1.003	1.004	1.013	1.002
421	Durable	1.013	1.011	1.021	0.902	0.936	1.013	1.007	1.008	0.999	0.999	0.995	1.008
4211	Automotive	1.017	1.058	1.031	0.901	0.920	1.054	1.001	1.018	1.015	1.030	1.010	1.019
4212	Furniture	0.996	1.001	1.013	0.902	0.929	1.017	0.998	0.978	0.972	0.981	0.981	0.975
4213	Lumber	1.078	1.056	0.994	0.865	0.913	1.044	1.028	1.031	1.031	1.001	0.982	1.031
4214	Prof. equip.	0.983	0.957	1.032	0.883	0.934	0.958	0.989	1.015	0.986	0.991	0.999	1.014
42143	Comp. equip.	0.950	0.936	1.030	0.869	0.929	0.929	0.995	1.036	0.972	0.981	0.989	1.033
4215	Metals	1.021	1.036	0.996	0.928	0.993	1.019	0.992	0.989	0.992	0.995	0.998	0.991
4216	Electrical	0.986	0.985	1.018	0.912	0.945	0.985	0.997	0.988	0.974	0.988	0.997	0.988
4217	Hardware	1.045	1.041	0.997	0.898	0.947	1.047	1.016	1.015	1.012	0.998	0.989	1.015
4218	Machinery	1.048	1.050	1.025	0.893	0.939	1.063	1.021	1.020	1.014	0.996	0.978	1.020
4219	Misc. Durable	0.976	0.978	1.017	0.913	0.919	0.974	1.001	1.001	0.985	1.004	1.004	1.001
422	Nondurable	1.027	1.013	1.014	0.921	0.986	1.018	0.966	0.988	1.009	1.010	1.044	0.989
4221	Paper	0.987	0.989	0.994	0.916	1.003	0.989	1.018	1.012	0.990	0.995	0.992	1.014
4222	Drugs	0.978	1.018	1.002	0.931	1.043	1.016	0.958	1.001	1.016	0.992	1.061	1.001
4223	Apparel	0.916	0.963	1.086	0.996	0.938	0.953	0.977	0.951	0.952	0.990	1.032	0.953
4224	Groceries	1.045	0.995	1.015	0.906	0.963	1.003	0.982	0.977	0.991	0.979	1.001	0.979
4225	Farm products	0.944	0.988	0.998	0.977	1.108	0.990	0.850	0.962	1.064	1.138	1.213	0.965
4226	Chemicals	1.052	1.026	1.017	0.939	1.009	1.020	1.012	1.004	1.005	1.001	0.994	1.004
4227	Petroleum	1.069	1.063	0.974	0.929	1.027	1.043	0.963	0.973	0.994	0.987	1.013	0.975
4228	Alcohol	1.054	1.001	0.949	0.833	0.797	0.992	1.000	1.017	0.991	0.965	0.956	1.016
4229	Misc. Nondur.	1.085	1.074	1.033	0.936	0.949	1.083	0.968	0.998	1.038	1.048	1.048	1.002

r Revised.

¹Adjusted sales and inventory estimates for detailed kind-of-business levels in Table 1 are computed by dividing each unadjusted estimate by the seasonal 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. Seasonal 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.

Note: The seasonal adjustment factors shown are estimates derived from a model that uses sample survey data as input. Therefore, these estimates may contain model error, sampling error, and nonsampling error. Additional information on the general form of the model and the X-12 ARIMA program may be found at <http://www.census.gov/srd/www/x12a/>.