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**MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES  
FEBRUARY 2003**

**Notice of Revised Data:** Monthly wholesale sales, inventories, and inventories/sales ratios were revised based on the results of the 2001 Annual Trade Survey. The Annual Benchmark Report for Wholesale Trade showing revised data was released on April 3, 2003 and can be found on our website at <http://www.census.gov/whl>.

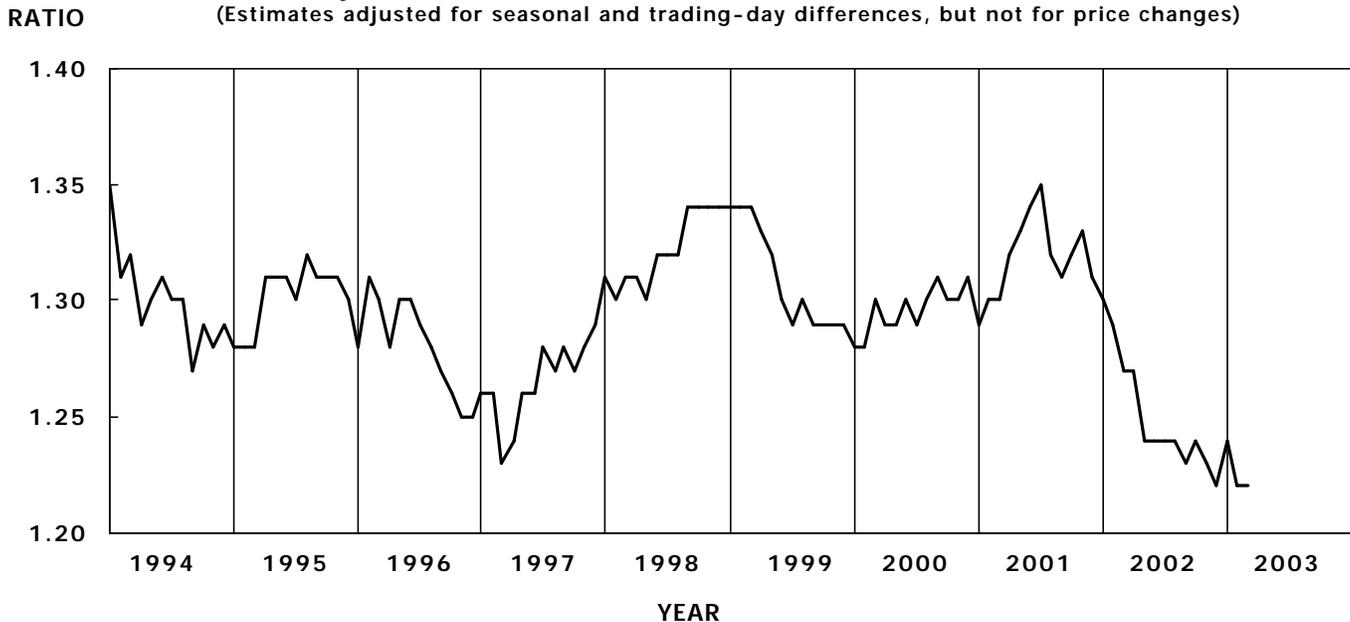
**Sales.** February 2003 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$238.1 billion, up 0.5 percent (+/-0.6%) from the revised January level and were up 6.2 percent (+/-0.9%) from the February 2002 level. The January preliminary estimate was revised upward \$0.5 billion or 0.2 percent. February sales of durable goods decreased 1.6 percent (+/-0.9%) from last month and were down 1.1 percent (+/-1.3%) from a year ago. Compared to last month, sales of motor vehicle and motor vehicle parts and supplies decreased 4.3 percent and sales of lumber and other construction materials decreased 2.9 percent. February sales of nondurable goods increased 2.4 percent (+/-0.8%) from last month and were up 13.4 percent (+/-1.4%) from last year. Compared to last month, sales of petroleum and petroleum products increased 13.2 percent, while sales of farm product raw materials decreased 4.0 percent.

**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$289.5 billion at the end of February, up 0.3 percent (+/-0.4%) from last month and were up 1.8 percent (+/-0.8%) from a year ago. The January preliminary estimate was virtually unchanged. End-of-month inventories of durable goods increased 0.7 percent (+/-0.5%) from January and were up 1.2 percent (+/-1.1%) from last February. Inventories of lumber and other construction materials were up 1.9 percent from January. Among nondurable goods, inventories of drugs and druggists' sundries increased 2.2 percent compared to last month, while petroleum and petroleum products decreased 6.2 percent.

**Inventories/Sales Ratio.** The February inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.22. The February 2002 ratio was 1.27.

*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 Inventories/Sales Ratios of Merchant Wholesalers: 1994 to 2003**  
(Estimates adjusted for seasonal and trading-day differences, but not for price changes)



**Monthly Wholesale Trade for March is scheduled to be released May 7, 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 <sup>1</sup> code	Kind of Business	Sales						Inventories						Inventories/Sales Ratios		
		Monthly			Percent change			Monthly			Percent change			Ratios		
		Feb. 2003 (p)	Jan. 2003 (r)	Feb. 2002 (r)	Feb./ Jan.	Jan./ Dec.	Feb. 03 Feb. 02	Feb. 2003 (p)	Jan. 2003 (r)	Feb. 2002 (r)	Feb./ Jan.	Jan./ Dec.	Feb. 03 Feb. 02	Feb. 2003 (p)	Jan. 2003 (r)	Feb. 2002 (r)
<b>Adjusted<sup>2</sup></b>																
<b>42</b>	<b>U.S. Total</b>	<b>238,145</b>	<b>236,978</b>	<b>224,199</b>	<b>0.5</b>	<b>1.4</b>	<b>6.2</b>	<b>289,544</b>	<b>288,705</b>	<b>284,463</b>	<b>0.3</b>	<b>0.0</b>	<b>1.8</b>	<b>1.22</b>	<b>1.22</b>	<b>1.27</b>
<b>421</b>	<b>Durable</b>	<b>109,982</b>	<b>111,779</b>	<b>111,181</b>	<b>-1.6</b>	<b>1.0</b>	<b>-1.1</b>	<b>174,772</b>	<b>173,626</b>	<b>172,747</b>	<b>0.7</b>	<b>-0.1</b>	<b>1.2</b>	<b>1.59</b>	<b>1.55</b>	<b>1.55</b>
4211	Automotive	17,330	18,104	17,729	-4.3	0.1	-2.3	25,205	24,896	23,257	1.2	-0.8	8.4	1.45	1.38	1.31
4212	Furniture	3,565	3,557	3,554	0.2	3.6	0.3	5,246	5,197	5,241	0.9	-0.1	0.1	1.47	1.46	1.47
4213	Lumber	6,795	6,995	6,933	-2.9	7.2	-2.0	7,434	7,298	6,985	1.9	1.4	6.4	1.09	1.04	1.01
4214	Prof. equip.	20,687	20,734	20,130	-0.2	-0.3	2.8	23,858	23,717	23,107	0.6	0.9	3.3	1.15	1.14	1.15
42143	Comp. equip.	9,381	9,412	9,346	-0.3	-2.0	0.4	7,717	7,651	7,670	0.9	1.5	0.6	0.82	0.81	0.82
4215	Metals	7,020	7,143	7,093	-1.7	2.3	-1.0	13,528	13,378	12,788	1.1	-1.6	5.8	1.93	1.87	1.80
4216	Electrical	17,179	17,162	17,438	0.1	0.5	-1.5	23,388	23,414	23,378	-0.1	-0.6	0.0	1.36	1.36	1.34
4217	Hardware	5,331	5,448	5,694	-2.1	2.4	-6.4	10,476	10,422	10,215	0.5	1.7	2.6	1.97	1.91	1.79
4218	Machinery	18,202	18,723	18,607	-2.8	0.6	-2.2	45,711	45,470	48,206	0.5	-0.5	-5.2	2.51	2.43	2.59
4219	Misc. Durable	13,873	13,913	14,003	-0.3	0.4	-0.9	19,926	19,834	19,570	0.5	0.7	1.8	1.44	1.43	1.40
<b>422</b>	<b>Nondurable</b>	<b>128,163</b>	<b>125,199</b>	<b>113,018</b>	<b>2.4</b>	<b>1.7</b>	<b>13.4</b>	<b>114,772</b>	<b>115,079</b>	<b>111,716</b>	<b>-0.3</b>	<b>0.0</b>	<b>2.7</b>	<b>0.90</b>	<b>0.92</b>	<b>0.99</b>
4221	Paper	6,134	6,205	6,094	-1.1	-0.5	0.7	6,227	6,130	6,215	1.6	-0.2	0.2	1.02	0.99	1.02
4222	Drugs	20,296	20,060	18,801	1.2	-0.2	8.0	29,339	28,700	27,893	2.2	0.3	5.2	1.45	1.43	1.48
4223	Apparel	7,034	7,281	7,554	-3.4	-1.1	-6.9	12,180	12,323	12,420	-1.2	-0.6	-1.9	1.73	1.69	1.64
4224	Groceries	35,313	34,811	34,150	1.4	0.4	3.4	22,953	22,951	21,388	0.0	1.8	7.3	0.65	0.66	0.63
4225	Farm products	10,335	10,766	8,626	-4.0	-3.0	19.8	9,355	9,455	10,599	-1.1	-2.2	-11.7	0.91	0.88	1.23
4226	Chemicals	5,254	5,325	5,065	-1.3	4.9	3.7	6,059	6,099	5,957	-0.7	1.7	1.7	1.15	1.15	1.18
4227	Petroleum	22,524	19,900	12,459	13.2	11.3	80.8	4,592	4,893	4,477	-6.2	-2.0	2.6	0.20	0.25	0.36
4228	Alcohol	7,046	6,982	6,659	0.9	-2.4	5.8	7,460	7,547	6,829	-1.2	0.9	9.2	1.06	1.08	1.03
4229	Misc. Nondur.	14,227	13,869	13,610	2.6	2.9	4.5	16,607	16,981	15,938	-2.2	-1.2	4.2	1.17	1.22	1.17
<b>Not Adjusted</b>																
<b>Sales to date</b>																
<b>2003      2002</b>																
<b>42</b>	<b>U.S. Total</b>	<b>217,448</b>	<b>228,515</b>	<b>204,534</b>	<b>-4.8</b>	<b>-1.5</b>	<b>6.3</b>	<b>290,690</b>	<b>292,210</b>	<b>285,905</b>	<b>-0.5</b>	<b>0.5</b>	<b>1.7</b>	<b>445,963</b>	<b>418,778</b>	
<b>421</b>	<b>Durable</b>	<b>98,972</b>	<b>104,549</b>	<b>100,130</b>	<b>-5.3</b>	<b>-3.1</b>	<b>-1.2</b>	<b>174,936</b>	<b>172,488</b>	<b>172,847</b>	<b>1.4</b>	<b>0.7</b>	<b>1.2</b>	<b>203,521</b>	<b>202,968</b>	
4211	Automotive	15,424	16,656	15,814	-7.4	-8.0	-2.5	26,037	25,145	24,024	3.5	1.0	8.4	32,080	31,665	
4212	Furniture	3,205	3,304	3,199	-3.0	2.4	0.2	5,157	5,098	5,147	1.2	0.1	0.2	6,509	6,587	
4213	Lumber	5,905	6,386	5,990	-7.5	19.2	-1.4	7,434	7,167	6,971	3.7	4.3	6.6	12,291	11,949	
4214	Prof. equip.	18,329	19,366	17,855	-5.4	-11.8	2.7	23,667	23,693	22,991	-0.1	1.9	2.9	37,695	36,760	
42143	Comp. equip.	8,143	8,744	8,150	-6.9	-16.3	-0.1	7,586	7,567	7,555	0.3	2.3	0.4	16,887	16,958	
4215	Metals	6,543	7,093	6,646	-7.8	14.8	-1.5	13,487	13,351	12,762	1.0	-3.5	5.7	13,636	13,771	
4216	Electrical	15,719	16,218	15,938	-3.1	-1.8	-1.4	23,154	23,344	23,191	-0.8	0.5	-0.2	31,937	32,385	
4217	Hardware	4,830	5,159	5,147	-6.4	9.2	-6.2	10,486	10,307	10,215	1.7	2.3	2.7	9,989	10,427	
4218	Machinery	16,309	17,581	16,728	-7.2	-5.5	-2.5	45,528	44,470	47,917	2.4	-0.6	-5.0	33,890	34,095	
4219	Misc. Durable	12,708	12,786	12,813	-0.6	-3.6	-0.8	19,986	19,913	19,629	0.4	3.4	1.8	25,494	25,329	
<b>422</b>	<b>Nondurable</b>	<b>118,476</b>	<b>123,966</b>	<b>104,404</b>	<b>-4.4</b>	<b>0.0</b>	<b>13.5</b>	<b>115,754</b>	<b>119,722</b>	<b>113,058</b>	<b>-3.3</b>	<b>0.2</b>	<b>2.4</b>	<b>242,442</b>	<b>215,810</b>	
4221	Paper	5,613	6,224	5,570	-9.8	2.8	0.8	6,196	6,081	6,165	1.9	-2.5	0.5	11,837	11,648	
4222	Drugs	18,896	20,923	17,504	-9.7	-0.7	8.0	29,222	30,451	27,781	-4.0	0.6	5.2	39,819	36,941	
4223	Apparel	7,006	6,830	7,569	2.6	19.2	-7.4	12,095	12,717	12,345	-4.9	3.4	-2.0	13,836	14,399	
4224	Groceries	31,994	33,523	30,906	-4.6	-3.7	3.5	22,448	22,974	20,939	-2.3	0.6	7.2	65,517	63,452	
4225	Farm products	10,015	11,929	8,341	-16.0	-3.9	20.1	10,580	11,469	12,019	-7.8	-2.4	-12.0	21,944	18,181	
4226	Chemicals	4,960	5,373	4,786	-7.7	16.3	3.6	6,065	6,062	5,969	0.0	0.8	1.6	10,333	9,842	
4227	Petroleum	20,835	20,437	11,537	1.9	15.4	80.6	4,528	4,957	4,419	-8.7	-3.7	2.5	41,272	24,726	
4228	Alcohol	5,883	5,565	5,547	5.7	-33.0	6.1	7,199	7,215	6,590	-0.2	4.5	9.2	11,448	10,752	
4229	Misc. Nondur.	13,274	13,162	12,644	0.9	-0.6	5.0	17,421	17,796	16,831	-2.1	-1.4	3.5	26,436	25,869	

<sup>p</sup> Preliminary estimate. <sup>r</sup> Revised.

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

<sup>2</sup> 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
<b>42</b>	<b>U.S. Total</b>	1.2	1.6	1.3	1.6	0.4	0.2	0.6	0.5	1.1	1.1	0.6
<b>421</b>	<b>Durable</b>	1.4	1.5	1.4	1.5	0.5	0.3	0.8	0.6	1.1	1.4	0.8
4211	Automotive	3.5	4.5	3.2	4.4	0.9	0.8	1.1	1.4	3.9	3.9	0.9
4212	Furniture	4.7	7.0	4.7	6.9	1.6	0.7	2.9	1.3	6.0	5.0	2.0
4213	Lumber	4.9	6.2	4.9	6.3	1.1	0.6	1.9	2.4	5.0	4.9	1.7
4214	Prof. equip.	4.9	6.5	4.8	6.4	1.3	0.6	2.0	1.7	4.7	5.2	2.4
42143	Comp. equip.	8.9	7.2	8.9	7.2	2.1	1.3	2.9	4.1	7.8	7.4	2.7
4215	Metals	6.8	9.3	6.8	9.2	1.6	0.7	2.8	3.4	5.4	5.5	2.4
4216	Electrical	3.5	5.1	3.5	5.0	1.2	0.6	1.6	1.7	3.6	3.7	1.5
4217	Hardware	7.9	10.9	7.9	10.9	1.3	0.6	2.4	1.8	7.9	8.6	2.5
4218	Machinery	3.6	3.2	3.7	3.1	1.6	0.4	2.1	1.2	3.2	3.3	2.0
4219	Misc. Durable	4.7	7.4	4.6	7.5	1.8	0.7	2.9	2.6	4.4	5.5	2.7
<b>422</b>	<b>Nondurable</b>	1.8	2.5	1.9	2.5	0.5	0.4	0.9	0.9	1.7	1.4	0.8
4221	Paper	4.3	3.3	4.3	3.3	1.0	0.7	1.1	1.5	4.0	4.0	0.8
4222	Drugs	5.3	5.6	5.3	5.5	0.9	0.4	1.8	1.9	5.7	5.9	1.0
4223	Apparel	5.0	4.9	5.0	5.1	2.2	0.9	2.9	2.2	4.7	5.3	2.4
4224	Groceries	3.8	6.1	3.6	6.1	0.8	0.8	1.6	1.8	4.0	3.6	1.6
4225	Farm products	6.4	9.7	6.4	10.0	2.1	1.8	2.8	3.8	6.9	5.8	2.8
4226	Chemicals	5.2	7.1	5.2	7.1	1.1	0.8	1.7	1.8	5.0	4.8	2.2
4227	Petroleum	6.2	6.8	6.1	6.9	0.7	1.1	1.5	1.9	6.6	5.5	3.1
4228	Alcohol	4.1	5.3	4.1	5.3	1.0	0.7	1.1	1.1	3.8	3.8	1.4
4229	Misc. Nondur.	7.6	8.2	7.7	8.2	2.0	1.2	2.8	1.9	6.8	7.7	2.8

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](http://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		2002	2003			2002		2002
		Mar.	Feb.r	Jan.r	Dec.	Nov.	Feb.r	Mar.	Feb.r	Jan.r	Dec.	Nov.	Feb.r
<b>42</b>	<b>U.S. Total</b> <sup>1</sup>	<b>1.010</b>	<b>0.915</b>	<b>0.962</b>	<b>0.990</b>	<b>0.970</b>	<b>0.914</b>	<b>1.002</b>	<b>1.004</b>	<b>1.013</b>	<b>1.004</b>	<b>1.008</b>	<b>1.004</b>
<b>421</b>	<b>Durable</b>	<b>1.015</b>	<b>0.902</b>	<b>0.936</b>	<b>0.974</b>	<b>0.965</b>	<b>0.903</b>	<b>0.998</b>	<b>1.000</b>	<b>0.995</b>	<b>0.986</b>	<b>0.994</b>	<b>1.000</b>
4211	Automotive	1.023	0.890	0.920	1.002	0.993	0.892	1.013	1.033	1.010	0.992	1.018	1.033
4212	Furniture	1.012	0.899	0.929	0.939	1.014	0.900	0.972	0.983	0.981	0.979	0.993	0.982
4213	Lumber	0.986	0.869	0.913	0.821	0.899	0.864	1.032	1.000	0.982	0.955	0.963	0.998
4214	Prof. equip.	1.028	0.886	0.934	1.056	0.935	0.887	0.981	0.992	0.999	0.989	1.004	0.995
42143	Comp. equip.	1.038	0.868	0.929	1.088	0.908	0.872	0.968	0.983	0.989	0.981	1.007	0.985
4215	Metals	0.992	0.932	0.993	0.885	0.933	0.937	0.990	0.997	0.998	1.017	0.994	0.998
4216	Electrical	1.020	0.915	0.945	0.967	0.990	0.914	0.976	0.990	0.997	0.986	1.003	0.992
4217	Hardware	0.986	0.906	0.947	0.888	0.943	0.904	1.009	1.001	0.989	0.983	0.975	1.000
4218	Machinery	1.022	0.896	0.939	1.000	0.930	0.899	1.014	0.996	0.978	0.979	0.978	0.994
4219	Misc. Durable	1.007	0.916	0.919	0.957	1.040	0.915	0.987	1.003	1.004	0.978	0.994	1.003
<b>422</b>	<b>Nondurable</b>	<b>1.012</b>	<b>0.923</b>	<b>0.986</b>	<b>1.002</b>	<b>0.979</b>	<b>0.921</b>	<b>1.008</b>	<b>1.010</b>	<b>1.044</b>	<b>1.040</b>	<b>1.034</b>	<b>1.012</b>
4221	Paper	0.990	0.915	1.003	0.971	0.968	0.914	0.995	0.995	0.992	1.015	1.013	0.992
4222	Drugs	0.999	0.931	1.043	1.048	0.980	0.931	1.013	0.996	1.061	1.058	1.009	0.996
4223	Apparel	1.094	0.996	0.938	0.778	0.969	1.002	0.951	0.993	1.032	0.992	0.958	0.994
4224	Groceries	1.017	0.906	0.963	1.004	0.992	0.905	0.990	0.978	1.001	1.013	1.031	0.979
4225	Farm products	1.002	0.969	1.108	1.119	1.068	0.967	1.075	1.131	1.213	1.215	1.227	1.134
4226	Chemicals	1.005	0.944	1.009	0.910	0.933	0.945	1.008	1.001	0.994	1.002	0.992	1.002
4227	Petroleum	0.973	0.925	1.027	0.991	0.959	0.926	0.985	0.986	1.013	1.031	1.018	0.987
4228	Alcohol	0.944	0.835	0.797	1.161	1.018	0.833	0.990	0.965	0.956	0.923	1.039	0.965
4229	Misc. Nondur.	1.041	0.933	0.949	0.983	0.914	0.929	1.034	1.049	1.048	1.050	1.026	1.056

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<sup>1</sup>Adjusted 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/>.