

## Consumer prices up slightly more in 2002, led by energy and hospital services

*Higher prices for energy and hospital services contributed to the higher rise in the Consumer Price Index; however, the 'core' index (which excludes energy and food) rose less than it did a year earlier*

Todd Wilson

The Consumer Price Index for All Urban Consumers (CPI-U) for All Items for the U.S. city average increased 2.4 percent in 2002, up from a 1.6-percent rise during the prior year.<sup>1</sup> The acceleration mainly reflects higher prices for energy (motor fuel and household fuels) and hospital services (both inpatient and outpatient). Within the energy component (which represents about 6 percent of the CPI), double-digit increases were recorded for gasoline and fuel oil.

When energy is excluded, consumer inflation was lower in 2002 than in 2001: the all items less energy index increased only 1.8 percent, compared with 2.8 percent in 2001. Excluding both food and energy, the commodities index decreased 1.5 percent last year, the largest calendar-year decrease since the BLS began keeping records in 1958. Durable commodities prices (including vehicles, furniture and bedding, computers, and so forth) decreased 3.3 percent in 2002, the largest calendar-year decrease since 1938. The nondurables index rose 3.1 percent last year, following a 1.4-percent decrease during the earlier year. The aggregate commodities index was up 1.2 percent, after declining 1.4 percent in 2001. Commodities are generally subject to greater global competition than services, and generally experience price increases less than those in services. Prices rose less for services in 2002 than in 2001 (3.2 percent versus 3.7 percent, respectively), reflecting lower increases for both owners' equivalent rent and rent of primary residence.

The CPI-U excluding food and energy prices (often called the core CPI-U) increased only 1.9 percent, less than the 2.7-percent rise in 2001.<sup>2</sup> (See table 1.)

### Other price measures

The Producer Price Index (PPI) for finished goods increased 1.2 percent last year. Excluding food and energy, the PPI for finished goods decreased 0.4 percent, while the PPI for intermediate materials increased 1.6 percent. The PPI for crude nonfood materials less energy increased 12.4 percent. Raw cotton prices increased 42.7 percent. Wastepaper prices increased 35.7 percent. Iron and steel scrap prices increased 27.0 percent.

Excluding petroleum, import prices for commodities increased 0.2 percent in 2002, after decreasing 4.4 percent in 2001, as measured by the Import Price Index. (The PPI does not reflect changes in import prices.) Slightly rising or else decreasing import prices in recent years have damped input costs for many businesses in this country. Furthermore, very low import inflation has inhibited price increases by domestic firms facing import competition.

### Energy and food prices

*Energy.* Energy prices increased 10.7 percent in 2002, after decreasing 13.0 percent in 2001. Last

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Expenditure category	Dec. 2001 relative importance	Percent change for 12 months ended December—									
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
All Items .....	100.000	2.7	2.7	2.5	3.3	1.7	1.6	2.7	3.4	1.6	2.4
Food .....	14.688	2.9	2.9	2.1	4.3	1.5	2.3	1.9	2.8	2.8	1.5
Energy .....	6.218	-1.4	2.2	-1.3	8.6	-3.4	-8.8	13.4	14.2	-13.0	10.7
All items less food and energy .....	79.094	3.2	2.6	3.0	2.6	2.2	2.4	1.9	2.6	2.7	1.9
Commodities less food and energy .....	23.860	1.6	1.4	1.7	1.1	.4	1.3	.2	.6	-.3	-1.5
All items less energy .....	93.782	3.1	2.6	2.9	2.9	2.1	2.4	2.0	2.6	2.8	1.8
Commodities .....	41.300	1.5	2.3	1.4	3.2	.2	.4	2.7	2.7	-1.4	1.2
Durables .....	12.089	2.7	2.9	1.7	.7	-1.5	-5	-1.2	.0	-1.3	-3.3
Furniture and bedding .....	1.051	3.6	1.6	4.2	1.0	-7	1.4	-1.3	.4	-3.1	-1.1
Televisions .....	0.150	-1.7	-1.4	-4.0	-5.3	-4.3	-4.8	-7.3	-10.7	-10.8	-10.6
New vehicles .....	5.083	3.3	3.3	1.9	1.8	-9	.0	-3	.0	-1	-2.0
Personal computers and peripheral equipment .....	0.275	-	-	-	-	-	-35.8	-26.5	-22.7	-30.7	-22.1
Nondurables .....	29.212	1.1	2.0	1.4	4.0	.8	.7	4.1	3.6	-1.4	3.1
Energy commodities .....	2.752	-5.1	5.2	-3.3	13.8	-6.9	-15.1	29.5	15.7	-24.5	23.7
Gasoline .....	2.536	-5.9	6.4	-4.2	12.4	-6.1	-15.4	30.1	13.9	-24.9	24.8
Fuel oil .....	0.121	-4.6	.0	1.5	23.3	-11.7	-15.2	30.9	40.5	-26.7	14.7
Apparel .....	4.399	.9	-1.6	.1	-2	1.0	-7	-5	-1.8	-3.2	-1.8
Medical care commodities .....	1.377	3.1	3.0	1.8	2.6	2.3	4.1	4.0	2.8	4.4	3.1
Services .....	58.700	3.8	2.9	3.5	3.3	2.8	2.6	2.6	3.9	3.7	3.2
Shelter .....	31.522	3.0	3.0	3.5	2.9	3.4	3.3	2.5	3.4	4.2	3.1
Rent of primary residence .....	6.421	2.2	2.5	2.5	2.8	3.1	3.4	3.1	4.0	4.7	3.1
Owners' equivalent rent of primary residence .....	22.046	3.2	3.3	3.7	2.8	3.1	3.2	2.4	3.4	4.5	3.3
Utility natural gas service .....	0.945	5.8	-3.2	-3.6	11.0	3.3	-3.5	2.1	36.7	-15.1	6.7
Medical care services .....	4.434	5.9	5.4	4.4	3.2	2.9	3.2	3.6	4.6	4.8	5.6
Airline fares .....	0.761	17.0	-9.5	1.8	14.7	-4.8	4.1	10.9	5.9	-3.9	-2.4
Telephone services .....	2.324	-	-	-	-	-	.3	.4	-2.3	1.3	.2
Medical care .....	5.810	5.4	4.9	3.9	3.0	2.8	3.4	3.7	4.2	4.7	5.0

NOTE: Dash indicates data are not available. Data are not seasonally adjusted.

year, gasoline prices increased 24.8 percent, following a 24.9-percent decrease in 2001. The increase in gasoline prices was especially swift during the first 4 months of 2002, nearly 27 percent, not seasonally adjusted. This increase accompanied a jump of nearly 38 percent in world crude oil prices during the same period. Household fuel oil prices increased 14.7 percent in 2002.

During 2002, the threat of continuing warfare in the Middle East and of resultant oil-supply disruptions led to increases in the prices of crude oil and its products, including gasoline and household fuel oil. The price of world crude oil increased from nearly \$18 per barrel in December 2001 to more than \$26 per barrel in December 2002. In December 2001, the average price per gallon of regular unleaded gasoline was \$1.13; by December 2002, it had risen to \$1.39.

A decrease in competition in recent years among U.S. oil refiners may also have contributed to rising gasoline prices.

Oil company mergers and acquisitions have reduced the number of refining and sales operations across the United States. While 189 companies owned 324 refineries in 1981, by April 2002, 63 companies owned approximately 150 refineries. As a result, domestic refining capacity slightly decreased during that time. Simultaneously, demand for crude oil and its products, such as gasoline and household fuel oil, increased.<sup>3</sup>

Natural gas prices increased 6.7 percent last year, following a 15.1-percent decrease in 2001. Contributing factors were crude oil price increases, in addition to concerns that the drilling and exploration of natural gas supplies have declined over the past year. Electricity costs decreased 1.9 percent in 2002.

*Food.* Food inflation was much lower in 2002, only 1.5 percent, compared with 2.8 percent during the prior year. Decreases or lower increases in prices for pork, dairy, fish and

seafood, chicken, and beef and veal were partially offset by higher prices for fresh fruits and vegetables. The food at home (grocery store food) index advanced 0.8 percent, while the food away from home (restaurant food) index advanced 2.3 percent.

Supplies of pork, beef, and poultry each rose sharply in 2002. As of the end of September, cold storage stocks of red meat and poultry were 30 percent higher than a year ago. An increase in meat and poultry supplies accompanied a sharp increase in feed costs.<sup>4</sup>

Pork prices decreased 2.3 percent in 2002, after increasing 3.7 percent during the prior year. In 2002, pork production, imports, and beginning-of-the-year stocks all increased. Last fall, record pork production followed an abundant March-through-May pig crop, an increase in feeder pig imports, and higher feed costs.<sup>5</sup> Sow slaughters increased 6.6 percent, from January to December 2001, to the same period for 2002, following higher feed costs.<sup>6</sup> Hog imports increased dramatically in 2002, both for carcasses and live hogs. Carcass imports from Canada, by weight, rose 12.9 percent, from the first 11 months of 2001 to the same period for 2002. Live hog imports, per head, from Canada increased 7.8 percent over that same period.<sup>7</sup> Beginning-of-the-year pork stocks rose 12.1 percent from 2001 to 2002.<sup>8</sup>

Beef and veal prices rose 0.6 percent in 2002, following a 6.2-percent increase in 2001. As was the case with pork last year, beef production, imports, and beginning-of-the-year stocks all increased. Beef supplies rose sharply during the first three quarters of 2002, then tightened during the fourth quarter. A summer drought brought poor forage conditions that led to sharply higher slaughter rates in 2002. Beef production, by weight, increased 3.7 percent. Per capita beef consumption rose only 1.8 percent.<sup>9</sup>

Chicken prices decreased 0.1 percent last year, after increasing 5.1 percent in 2001. A decline in beginning-of-the-year broiler stocks was offset by a 3.4-percent increase in production, by weight, following an increase in feed costs.<sup>10</sup> Broiler exports declined 8.0 percent, largely due to a slowdown in shipments to Russia over a trade dispute between the two countries. (Russia is the largest importer of U.S. broilers.) Other countries—including Japan, Korea, and Mexico—imposed restrictions on U.S. poultry products during some part of 2002.<sup>11</sup>

Prices for dairy products decreased 2.0 percent, after increasing 5.8 percent in 2001. Milk production, by weight, rose 2.6 percent in 2002.<sup>12</sup> Relatively high milk prices prior to 2002 led to an increase in the number of milk cows in 2002. In the summer of 2002, many new or highly enlarged dairy farms served to increase milk production.<sup>13</sup> The milk index decreased 3.7 percent in 2002. The cheese index decreased 2.5 percent.

Fish and seafood prices declined 1.1 percent last year, following a 0.1-percent decrease in 2001. June 1, 2002, cold storage shrimp holdings increased more than 30 percent from the same time in 2001.

The fresh fruits index increased 4.7 percent in 2002, after increasing just 0.6 percent in 2001. Prices for oranges, including tangerines, rose 15.1 percent in 2002. In the spring, the California navel orange crop was delayed by rain. In Florida, a 3-year drought stressed trees and reduced that State's citrus crop. Apple prices increased 6.9 percent. Apple production in the eastern and central States decreased sharply last year. The Washington apple crop was reduced by a late freeze. (Washington is the Nation's largest producer of apples.) At the beginning of December, apple shippers held the lowest stocks since 1990. Banana prices remained unchanged in 2002.

Fresh vegetable prices increased 6.4 percent last year, after decreasing 4.1 percent in 2001. Tomato prices rose 9.2 percent in 2002, with rain and cool weather limiting Florida supplies. The potato index rose 8.3 percent.

## Items other than food and energy

*Apparel.* For the fifth consecutive year, apparel prices declined in 2002, down 1.8 percent, after decreasing 3.2 percent in 2001. The declines occurred among all major apparel categories except for footwear, including those for men's and boys' clothing, women's and girls' clothing, infants' and toddlers' clothing, and jewelry and watches.

Volumes of apparel sales and consumer confidence have declined during the past 3 years. When consumer confidence declines, consumers tend to put off clothing purchases. Because many consumers were worried about the economy following the news of corporate scandals and a bearish stock market last year, they put off discretionary purchases such as for clothing. Demand for apparel was especially low at department stores and specialty clothing stores. Discount clothing stores continued to show better sales results than full-price clothing stores.

In December, apparel retailers experienced the least prosperous holiday shopping season in decades. While many discount chain stores that marketed largely to teenagers earned fair revenues, sales for most stores were dismal. In an attempt to attract customers, many apparel outlets resorted to markdowns. In December, BLS data collectors throughout the country recorded the highest number of sale-price clothing quotes, as a percentage of all apparel quotes collected, of any month in more than 10 years.

For the past decade, an oversupply of clothiers and apparel merchandise has existed in this country. With many stores offering identical clothing, apparel prices have actually declined over the past 12 years. Between

December 1990 and December 2002, the apparel index decreased 3.0 percent.

In 2002, the index for women's and girls' apparel decreased 1.5 percent. The index for men's and boys' apparel decreased 2.9 percent. Infants' and toddlers' clothing prices decreased 2.5 percent. Charges for jewelry and watches were down 3.9 percent. Footwear prices increased 0.1 percent.

*Shelter.* Shelter costs rose 3.1 percent last year, after increasing 4.2 percent in 2001. The owners' equivalent rent index rose 3.3 percent, following a 4.5-percent rise in 2001. The rent of primary residence index increased 3.1 percent, following a 4.7-percent increase in 2001.

Hotel and motel charges remained unchanged in 2002, after decreasing 0.8 percent during the prior year. Following the September 11, 2001, terrorist attacks, demand for hotels and motels decreased, especially in New York, Las Vegas, and Orlando. (Demand declined for other travel-related services as well, such as airline tickets.) Since the attacks, hotel and motel charges, in general, never returned to normal levels, even though demand for lodging in popular vacation cities such as in New York, Las Vegas, and Orlando did rebound in 2002.

*Airline fares.* Airline fares decreased for the second year in a row in 2002 in reaction to a decrease in the number of travelers following both the September 11, 2001, terrorist attacks, and the slowdown in the economy during the past 2 years. These declines in 2001 and 2002 marked the first time, since the 1963 inception of this series, that this index has declined for 2 consecutive years. Last year, airline fares decreased 2.4 percent, as carriers attempted to increase the number of flyers, following a 3.9-percent decrease in fares in 2001.

*Vehicles.* New vehicle prices decreased 2.0 percent last year, the largest calendar-year decline since 1971, following a 0.1-percent decline in 2001. New car prices decreased 2.0 percent in 2002. New truck prices declined 2.2 percent. Strong competition among vehicle makers, a sluggish economy, the news of corporate scandals and a bearish stock market all served to weaken new car and truck sales. In an effort to encourage buying, manufacturers offered cash rebates that were more generous than during 2001, in addition to stable sticker prices.

Increased discounting through rebates characterized the 2.0-percent decline in the new vehicles index in 2002.<sup>14</sup> During February 2002, the 1-month seasonally adjusted new vehicles index decreased 0.9 percent, the largest 1-month decline since February 1987. Average rebates in February 2002 grew close to \$2,000, about one-third higher than a year earlier.<sup>15</sup> February new vehicle sales were slow, as expected by manufacturers, following a sales peak in

October 2001 that resulted from the 0-percent financing offers by manufacturers.

In calendar year 2002, new vehicle sales decreased 1.9 percent.<sup>16</sup> The percentage of sales with cash rebates increased to 43 percent in December 2002, from 26 percent in December 2001. The average cash rebate increased to \$2,237, from \$1,226 over the same period.<sup>17</sup>

The Internet has also served to hold down new car and truck prices. In recent years, consumers have become increasingly informed and price savvy, using the Internet to conveniently compare styles, equipment options, and prices of vehicles.

Leased car and truck prices decreased 2.0 percent in 2002. Used car and truck prices decreased 5.5 percent, compared with a 1.9-percent decrease in 2001.

*Medical care.* The medical care index increased 5.0 percent in 2002, the highest calendar-year increase since 1993, following a 4.7-percent increase in 2001. Higher price increases for hospital services and dental services were partially offset by lower price increases for prescription drugs, internal and respiratory over-the-counter drugs, physician services, and eyeglasses and eye care.

The index for prescription drugs and medical supplies increased 4.5 percent last year, compared with 6.0 percent in 2001. Most of the slowdown in the growth of this index was due to patent losses on many name-brand drugs in the CPI sample. Last year, several brand-to-generic substitutions were made within the CPI drug sample. Additionally, fewer new drugs were introduced. The drug categories that showed the strongest price gains last year include anti-infectives, antihistamines, gastrointestinal, cardiovasculars, estrogens/progestins and psychotherapeutics.

Medical care services fees rose 5.6 percent, versus 4.8 percent in 2001. The acceleration in this index in 2002 was principally due to a higher increase in the hospital and related services index, which rose 9.8 percent, the highest calendar-year increase since 1990. Outpatient hospital services prices rose 12.7 percent, following a 6.8-percent increase in 2001. Inpatient hospital services prices rose 9.4 percent in 2002, after rising 6.9 percent during the prior year. The consolidation of hospitals in recent years has led to a reduction in competition among hospitals, and has given them increased bargaining power with managed care plans, allowing the hospitals to negotiate larger payments from the plans. In addition to integrating with other hospitals, many hospitals have also integrated with physician groups and with labs.

Another main factor behind last year's high increase in hospital services charges was higher salaries for nurses. Increases in nursing charges have accelerated in recent years due to a growing shortage, especially of registered nurses.

Additionally, restrictions of allowable charges and reductions in some Medicare and Medicaid reimbursements have led many hospitals to attempt to compensate by increasing fees to private-pay patients. Finally, an increase in both the elderly population, and in the number of people with serious chronic diseases, some of whom are elderly, has increased demand for inpatient hospital services. The average length of stay for inpatient services has slowly risen in recent years after a long decline, indicating additional demand for inpatient services. Today, inpatient hospital beds are occupied mainly by the most sick and fragile patients with severe chronic diseases. The healthier patients, who once may have occupied inpatient beds, have increasingly been moved to outpatient settings.

Physicians' services charges rose 3.2 percent during 2002, after rising 3.5 percent in 2001. Fees for dental services increased 4.5 percent last year, following a 3.9-percent rise in 2001.

*College costs.* The college tuition and fees index advanced 7.0 percent last year, the highest increase since 1993, compared with 6.2 percent in 2001. Housing at school, excluding board prices advanced 6.1 percent, the highest increase since 1992, following a 5.2-percent increase in 2001. According to the College Board, for the 2002 to 2003 school year, the average cost of tuition and fees at a 4-year public institution was \$4,081—\$356 higher than for the prior school year. The average cost of room and board at these colleges was \$5,582—\$316 higher than for the prior school year. The College Board reported that tuition increases at 4-year public institutions outpaced those at private institutions by about 2 percent.<sup>18</sup>

The economic slowdown over the past 2 years has reduced tax revenues, leading to lower government appropriations made to public universities and also to lower endowments made to them. As a result, State officials have raised

tuition by more than they would have had the economy not fallen into a recession in 2001.

The index for educational books and supplies (for all educational levels) rose 9.7 percent in 2002, following a 3.3-percent rise during the previous year.

*Cable television.* Cable television prices rose 7.3 percent in 2002, the largest increase since 1996, following a 4.0-percent increase during the earlier year. Since 1998, cable television companies have faced increasing competition from satellite television providers, whose market share has been growing substantially in recent years. Between 1998 and 2002, the number of satellite television subscribers grew to more than 22 million from slightly more than 13 million. Largely in response to this increasing competition, cable companies have invested heavily in offering subscribers more channels, and in offering digital transmission as an alternative to analog. Most of these upgrades have been completed, and cable companies are now raising rates to attempt to recoup these expenses.

*Legal services.* The index for legal services rose 4.3 percent in 2002, after rising 6.5 percent in 2001. Increases in legal fees accompanied higher compensation and overhead expenses associated with providing briefs, attending depositions, handling no fault or uncontested divorces, writing wills and trusts, and handling driving under the influence.

*Funeral expenses.* The funeral expenses index increased 4.3 percent last year, following a 4.5-percent rise during 2001. Higher salaries were paid to funeral directors and staff. Funeral homes incurred, and passed onto consumers, higher costs associated with providing the following commodities and services: caskets, cremation services, immediate burials, memorials, cemetery lots, crypts, grave liners and automobile related services. □

## Notes

<sup>1</sup> Annual percent changes are calculated from December to December, unless otherwise stated.

<sup>2</sup> Economists often exclude food and energy price movements when evaluating the underlying or "core" level of inflation. Food and energy price movements tend to be relatively volatile in the short-to-intermediate terms, making only transitory impacts on the All items CPI. Large rises in these prices are often followed by large decreases, and vice versa. Volatility in food and energy price movements, such as that caused by unusual weather conditions, is generally self-correcting. In-clement weather often leads to temporary food shortages and temporarily increased demand for household fuels. Sustained shifts in food and energy prices, of course, will affect overall inflation.

<sup>3</sup> See Kenneth Bredemeier, "Oil Firms Said to Prop Up Gas Prices," *Washington Post*, April 30, 2002.

<sup>4</sup> *Agricultural Outlook* (U.S. Department of Agriculture, Dec. 2002).

<sup>5</sup> *Ibid.*

<sup>6</sup> *Livestock, Dairy and Poultry Outlook* (U.S. Department of Agriculture, Dec. 24, 2002).

<sup>7</sup> *Livestock, Dairy and Poultry Outlook* (U.S. Department of Agriculture, Jan. 28, 2003).

<sup>8</sup> *Agricultural Outlook* (U.S. Department of Agriculture, Dec. 2002).

<sup>9</sup> *Livestock, Dairy and Poultry Outlook* (U.S. Department of Agriculture, Jan. 28, 2003).

<sup>10</sup> *Agricultural Outlook* (U.S. Department of Agriculture, Dec. 2002).

<sup>11</sup> *Ibid.*

<sup>12</sup> *Livestock, Dairy and Poultry Outlook* (U.S. Department of Agriculture, Jan. 28, 2003).

<sup>13</sup> *Livestock, Dairy and Poultry Outlook* (U.S. Department of Agriculture, Dec. 24, 2002).

<sup>14</sup> Note, in 1998 the CPI dropped the automobile finance component from the CPI to be more consistent with the conceptual framework of a one-period model of price change. The new vehicle component measures the vehicle's cash price, reflecting any dealership mark-ups, or manufacturer rebates and/or concessions. It does not reflect the effect of any special finance offers, such as 0-percent financing. Exclusion of the finance component is not likely to have a large effect on the index, however, because most dealers offered the alternative of a rebate or special financing, and in those cases the CPI reflected a rebate.

<sup>15</sup> New vehicle rebates figures are from *U.S. Automotive Sales, PIN Pulse Weekly Sales Forecast*, J. D. Power and Associates, Dec. 2002: Week 3.

<sup>16</sup> New vehicle sales figures are from *Automotive News*, Crain Communications, Inc., Jan. 6, 2003.

<sup>17</sup> New vehicle rebates figures are from *U.S. Automotive Sales, PIN Pulse Weekly Sales Forecast*, J. D. Power and Associates, Dec. 2002: Week 3.

<sup>18</sup> *Ninety Billion Dollars Available in Student Financial Aid, with Scholarship Growth Outpacing Loan Growth*, The College Board, Oct. 24, 2002.

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