Consumer prices during 2003

Consumer inflation was lower in 2003, reflecting lower inflation for shelter, gasoline, and medical care, and falling prices for durables and telephone services.

The Consumer Price Index for All Urban Consumers (CPI-U) for All Items for the U.S. city average increased 1.9 percent in 2003, down from a 2.4-percent rise during the prior year, according to data from the Bureau of Labor Statistics. Either lower price increases or larger price decreases were reported for a wide range of expenditure categories for both commodities and services. The 2003 deceleration in the all items index largely reflects lower price increases for shelter, gasoline, and medical care (including hospital services, physicians’ services, and prescription drugs). Additionally, durables prices decreased more in 2003 than in 2002. Telephone services prices also decreased sharply in 2003, after increasing very slightly in 2002.

Excluding both food and energy, the commodities index decreased 2.5 percent last year, after decreasing 1.5 percent in 2002, 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 4.3 percent in 2003, following a 3.3-percent decline in 2002, the largest calendar-year decrease since 1938. The nondurables index rose 2.4 percent last year, following a 3.1-percent increase during the earlier year. The aggregate commodities index rose 0.5 percent, following a 1.2-percent increase in 2002. Commodities are generally subject to greater global competition than services, and generally increase in price less than services. Services prices rose less in 2003 than in 2002 (2.8 percent versus 3.2 percent, respectively), reflecting lower increases for owners’ equivalent rent, rent of primary residence, and medical care services, and a decrease in telephone services. Service inflation has been decelerating for each of the past 3 years.

The CPI-U excluding food and energy prices (often called the core CPI-U) increased 1.1 percent, after rising 1.9 percent in 2002. (See table 1.)

Other price measures

The Producer Price Index (PPI) for finished goods increased 4.0 percent in 2003. Excluding food and energy, the PPI for finished goods increased 1.0 percent, while the PPI for intermediate materials increased 2.1 percent. The PPI for crude nonfood materials less energy increased 20.8 percent. Prices of the following crude commodities rose dramatically in 2003. Iron and steel scrap prices increased 62.5 percent. Copper base scrap and nonferrous metal ores prices rose 29.8 and 26.1 percent, respectively. Raw cotton prices increased 37.5 percent.

Excluding petroleum, import prices for commodities increased 1.0 percent in 2003, after increasing 0.2 percent in 2002, 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 6.9 percent in 2003, after increasing 10.7 percent in 2002. The
energy index is composed of two fairly equally weighted components, motor fuel and household fuels.

Energy commodity prices, mainly gasoline and home heating (fuel) oil, rose 6.9 percent. An increase in world demand for crude oil, oil- and gasoline-supply disruptions, colder-than-expected winter weather in this country, and high natural gas prices all served to raise gasoline and heating oil prices.

Prices for energy services (natural gas and electricity) also rose 6.9 percent. Colder-than-expected winter weather and scarce natural gas imports were primarily responsible for last year’s high increase in natural gas prices.

Last year, gasoline charges increased 6.8 percent, following a 24.8-percent increase in 2002. Fuel oil prices rose 7.8 percent in 2003, after rising 14.7 percent during the earlier year. Gasoline prices rose during the first and third quarters of 2003—up 21.9 and 14.3 percent on a seasonally adjusted basis, respectively. These changes declined during the second and fourth quarters. The primary reasons for the higher gasoline prices in the first quarter include:

- an increase in world demand for crude oil,
- the war in Iraq that disrupted the supply of oil from that country,
- the disruption of the production of Venezuelan oil following an oil-worker strike there that began in December 2002 and continued during the first quarter of 2003,
- colder-than-expected weather in the Northeast area of the United States led to higher demand for and production of heating oil than usual. Refiners responded by producing more fuel oil at the expense of gasoline. As a result, gasoline stocks dropped to unusually low levels, and
- an increase in the demand for and the production of fuel oil arising from very high prices for natural gas. (Some industrial users and electric power companies have the ability to switch between using natural gas and fuel oil.)

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Gasoline production was reduced during the third quarter of 2003 following five refinery shutdowns and a ruptured pipeline. In July, two refinery fires, one in Louisiana and one in Oklahoma, reduced gasoline output. In August, a multi-state wide electricity outage shut down three refineries in Detroit and Toledo. In the Southwest, gasoline supplies were disrupted in July when a gasoline pipeline in Arizona ruptured.\(^3\)

The price of world crude oil increased slightly in 2003, from about $26 per barrel in December 2002 to about $28 per barrel in December 2003. In December 2002, the average price per gallon of regular unleaded gasoline was $1.39. By December 2003, that price had risen to $1.49.

Natural gas prices increased 17.4 percent last year, following a 6.7-percent increase in 2002. Colder-than-expected weather during the first quarter of 2003, insufficient imports, high oil prices, lacklustre natural gas production, and very low storage levels early in the year caused natural gas prices to soar. For the 3-month period ending March, this index rose 26.6 percent on a seasonally-adjusted basis. Natural gas prices declined during the remaining three quarters of 2003. Following the first quarter, natural gas inventories grew rapidly as electric power generators and industrial consumers switched fuels; they consumed more distillate fuel oil and less natural gas. Increases in hydroelectric generation also contributed to a decline in demand for natural gas.\(^5\)

In recent years, electric power companies have increasingly relied on clean-burning natural gas to generate electricity. This increase in demand for natural gas has put pressure on a supply restricted primarily to the United States and Canada, the largest exporter of natural gas to this country. Canada exports mostly dry natural gas to the United States, via pipeline. This gas accounts for one-sixth of the natural gas the United States consumes.\(^6\) In 2002, Canada exported 94.3 percent of the natural gas this country imported. The second largest exporter to the United States was Trinidad, who exported only 3.8 percent (in the form of liquid natural gas).\(^7\)

The inability of the United States to increase natural gas imports (compared with crude oil, for example) to meet higher-than-expected demand is a main reason natural gas prices soared last year. Unfortunately, Canada does not have the capacity to appreciably increase its natural gas exports.

Because natural gas is quite challenging to transport as a cryogenic liquid, imports of liquid natural gas have been negligible. The amount of liquid natural gas terminals and imports have been restrained over environmental and safety concerns as well as over cost constraints.\(^8\) Electricity prices increased 2.6 percent in 2003.

**Food.** Food inflation was higher in 2003, 3.6 percent, compared with 1.5 percent during the prior year. Price increases for beef and veal and eggs were sharp in 2003, compared with 2002. Price increases for pork, chicken, fish and seafood, dairy products, fresh vegetables, and cereals and bakery products were notable last year. The food at home (grocery store food) index advanced 4.5 percent, while the food-away-from-home (restaurant food) index advanced 2.3 percent.

Beef and veal prices rose 23.5 percent in 2003, following a 0.6-percent increase in 2002. Beef supplies grew increasingly tight during 2003. Beef production last year decreased 3.1 percent. Cold storage stocks decreased 24.5 percent between January 2003 and January 2004.\(^9\) From the beginning of last year through mid spring, poor feeding conditions led to sharply lower steer and heifer dressed slaughter weights, and to very tight supplies of higher quality beef.\(^10\) The discovery of mad cow disease in one cow in Canada on May 20 led to a ban on imports of Canadian cattle and other ruminants (sheep, goats, deer, and elk).\(^11\) Imports of Canadian cattle, per head, decreased 67.6 percent for the first 11 months of 2003, compared with the first 11 months of 2002.\(^12\) The cattle market reacted to this further tightening of beef supplies by selling cattle from feedlots ahead of schedule, at lower weights than usual. While third-quarter 2003 steer and heifer slaughterers rose 2.5 percent, beef production was down due to sharply lower dressed slaughter weights. On August 8, Canadian boneless beef from cattle less than 30 months old was allowed to return to the U.S. market. Since then imports from Canada have been rising.\(^13\)

Pork prices increased 5.2 percent in 2003, after decreasing 2.3 percent during the prior year. Pork production, in pounds, increased 1.3 percent last year.\(^14\) Despite higher production, pork prices rose following an increase in demand for pork, a beef substitute, accompanying soaring beef prices. Pork prices would probably have risen more had it not been for increased imports of Canadian hogs and pork carcasses. A smaller pig crop in 2003, created by breeding herd reductions in 2002, was offset by higher U.S. imports of Canadian hogs and pork carcasses, and by slightly higher dressed weights.\(^15\) Canadian hog imports, by head, rose 27.2 percent last year, from January to November, compared with the same period in 2002. Canadian carcass imports, by weight, rose 11.6 percent over the same period.\(^16\)

Chicken prices increased 4.7 percent in 2003, after decreasing 0.1 percent in 2002. While chicken broiler production, by weight, remained fairly constant during the first half of 2003, and increased 1.2 percent for the year, stocks of broilers in cold storage decreased throughout the year. By the end of November, broiler products held in cold storage decreased 27 percent from the prior year.\(^17\) Cold storage stocks of total chicken decreased 20.7 percent from January 2003 to January 2004. Per capita consumption of broilers rose 1.1 percent in 2003.\(^18\)

Fish and seafood prices increased 2.7 percent in 2003, following a 1.1-percent decrease during the earlier year. Demand was strong for fresh and processed catfish and salmon. Last year’s lobster catch declined.
The eggs index increased 30.1 percent in 2003, the highest calendar-year increase since 1989, following a 9.7-percent rise in 2002. The higher egg prices are probably the result of tighter supplies following low returns during 1999 to 2002. U.S. egg-type layer flocks declined nearly 2 percent between January and August 2003. The rent of primary residence index increased 2.7 percent in 2003, after decreasing 2.0 percent in 2002. Milk prices rose 6.9 percent. Cheese prices increased 2.3 percent. In early fall, milk production remained slightly down from the prior year. Declines in milk cow numbers accelerated, while milk output per cow increased slightly. Milk production remained fairly constant during most of the year due to quite low financial returns since early 2002. The number of milk cows in production decreased fairly swiftly during late summer. Their number had peaked in late winter, then it began slipping during the spring following low returns. Farm exits accelerated in early fall, most likely when leftover forage supplies were used up. On the demand side, milk supplies used in manufactured dairy products were down compared with the prior year during most of 2003. Decreases in quantities of milk used continued through at least November. Cheese output increased 0.3 percent in 2003, while butter output decreased 8.5 percent.

Fresh vegetable prices increased 7.6 percent, following a 6.4-percent rise in 2002. Lettuce prices rose 38.1 percent. Excessively warm temperatures reduced some lettuce yields. Unusually wet spring weather lowered romaine and iceberg supplies. Cool weather delayed California lettuce harvests. The other fresh vegetables index rose 8.4 percent, reflecting higher prices for bell peppers, cauliflower, cucumbers, and broccoli.

Fresh fruit charges rose 1.4 percent, compared with 4.7 percent in 2002. Cereals and bakery products prices rose 2.8 percent, following a 1.0-percent increase during the prior year.

Items other than food and energy

Shelter. Shelter costs rose 2.2 percent in 2003, the lowest calendar-year increase since 1965, after increasing 3.1 percent in 2002. Over the past 2 years, increases in the indexes for both rent of primary residence and owners’ equivalent rent of primary residence have been decelerating. Since 2001, both residential rental vacancy rates and new housing starts for structures with five units or more have risen sharply. Since 2000, the supply of single unit houses has increased dramatically.

The rent of primary residence index increased 2.7 percent in 2003, the lowest calendar-year rise since 1995, following a 3.1-percent increase in 2002. The vacancy rate of residential rental units climbed to a record 9.8 percent in 2003, the highest rate since the inception of this measure in 1960. In 2001 and 2002, the vacancy rates were 8.4 and 9.0 percent, respectively. The supply of multi-unit housing swiftly increased in recent years. Over the past 2 years, new housing starts for structures with five units or more have risen 8.1 percent, compared with a 4.5-percent decrease during the prior 2-year period. (The owners’ equivalent rent index is imputed from changes in residential rent, re-weighted to reflect owner costs of consuming shelter.)

Medical care. The medical care index increased 3.7 percent in 2003, the lowest calendar-year increase since 1999, following a 5.0-percent increase in 2002. Lower price increases were reported for hospital services, physicians’ services, and prescription drugs and medical supplies.

Medical care services fees rose 4.2 percent, versus 5.6 percent in 2002. As was the case in 2002, insurance companies and Medicare continued to keep physician and hospital reimbursement increases low.

The hospital and related services index rose 6.4 percent, after rising 9.8 percent in 2002. Outpatient hospital services prices rose 6.6 percent, following a 12.7-percent rise in 2002. Inpatient hospital services prices rose 5.7 percent in 2003, after rising 9.4 percent during the prior year.

In 2003, increases in hospital labor costs were lower than during the prior year. The Employment Cost Index for wages and salaries for all civilian hospital employees increased only 3.7 percent, based on annual average indexes, the lowest rise since 2000, after increasing 4.8 percent in 2002. Increases in nursing fees continued to move hospital charges higher accompanying a growing nursing shortage, especially of registered nurses. However, the increase in nursing fees was not as steep as during each of the previous 2 years. The employer cost of wages and salaries per hour worked for civilian nurses increased 5.2 percent, from $24.88 in 2002 to $26.17 in 2003, based on annual average data, following a 6.6-percent rise during 2002.
Physicians’ services charges rose 2.3 percent during 2003, after rising 3.2 percent in 2002. Fees for dental services increased 4.4 percent in 2003, following a 4.5-percent rise in 2002. The index for prescription drugs and medical supplies increased 2.5 percent in 2003, compared with 4.5 percent in 2002. Several highly popular prescription drugs switched to over-the-counter status. When this change in status occurs, the over-the-counter version is priced in place of the prescription version; the item remains in the prescription drugs and medical supplies index until the next sample rotation. As was the case to a lesser degree in 2002, some of the 2003 slowdown in the growth of this index was due to brand-to-generic substitutions within the prescription drug sample following patent losses on name-brand drugs.

Telephone services. The index for telephone services decreased 2.7 percent in 2003, following a 0.2-percent increase during the earlier year. A rise in local (wire) charges was offset by decreases in interstate and intrastate toll calls, and in wireless telephone services.

Interstate long distance telephone call charges decreased 10.9 percent last year, compared with a 5.9-percent decline in 2002. Intrastate long distance charges decreased 9.4 percent, compared with a 6.1-percent decline in 2002. In 2003, long-distance telephone companies faced continued fierce competition from price wars among other long-distance carriers, as well as from wireless telephone companies. Increasingly in recent years, long-distance providers have incurred losses from customers shifting from making long distance calls by traditional (wire) telephones to making them by wireless (cellular) telephones. Cellular telephone services charges decreased 1.3 percent last year, after rising 0.3 percent in 2002. Local telephone charges rose 2.6 percent, following a 5.3-percent rise in 2002.


Lower demand for new cars, in addition to continued strong competition among vehicle makers, led to continued production cost cutting, flat pricing, and higher manufacturer rebates. Over the past 2 years, manufacturers offered higher cash rebates and reduced-rate financing, in addition to stable sticker prices, to encourage buying. Rebates were higher from U.S. manufacturers than from foreign makers.

In calendar year 2003, new vehicle sales decreased 1.0 percent, after decreasing 1.9 percent in 2002. Last year, a 3.9-percent increase in new lightweight truck sales was offset by a 6.1-percent decrease in new car sales.27

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 2.3 percent in 2003. Used car and truck prices decreased 11.8 percent, compared with a 5.5-percent decrease in 2002.

College costs. The college tuition and fees index advanced 9.8 percent in 2003, compared with 7.0 percent in 2002, the highest increase since 1993. Housing at school, excluding board prices, advanced 5.7 percent, following a 6.1-percent increase in 2002, the highest increase since 1992. According to the College Board, for the 2003 to 2004 school year, the average cost of tuition and fees at a 4-year public institution was $4,694—$579 higher than for the prior school year. The average cost of room and board at these colleges was $5,942—$368 higher than for the prior school year.

Tight State budgets nationwide led to substantial reductions in public college and university funding by States. As a result, tuition and fees increased sharply. State schools receive more than one-third of their revenue from State governments. Not surprisingly, tuition and fees for 4-year public institutions increased much more than for private institutions. The College Board reported that tuition and fees increases at 4-year public institutions outpaced those at private institutions by 8.1 percent.28 The economic slowdown during 2001 and 2002 reduced tax revenues, leading to lower State government appropriations made to public colleges and universities over the past 3 years. As a result, State officials may have raised tuition by more than they would have had the economy not fallen into a recession in 2001 and 2002. Between December 2000 and December 2003, the index for college tuition and fees rose 24.8 percent.

The index for educational books and supplies (for all educational levels) rose 6.0 percent in 2003, following a 9.7-percent rise during the previous year.

Cable and satellite television. Cable and satellite television service charges rose 3.8 percent in 2003, after increasing 7.3 percent in 2002. Since 1998, cable television companies have faced sharply increasing competition from satellite television providers, whose market share has been growing swiftly since then. Between June 2002 and June 2003, the number of direct broadcast satellite television (DBS) subscribers rose from 18.2 million households to 20.4 million households. Meanwhile, in the last several years, the number of cable subscribers has declined. Ten years ago cable companies served nearly 100 percent of subscribers to multichannel video programming distribution (MVPD). Today cable’s share has declined to about 75 percent of all MVPD subscribers. The DBS share is now almost 22 percent. Other delivery technologies, including wireless cable systems and private cable systems, make up the remainder of the MVPD market.
Largely in response to this increasing competition from satellite providers, in recent years cable companies have invested heavily in offering subscribers new and improved channels; in offering digital transmission as an alternative to analog; and in offering better customer service. Cable companies have been raising charges in recent years in excess of overall consumer inflation to recoup these expenses.\textsuperscript{29}

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**Notes**

\textsuperscript{1} Annual percent changes are calculated from December to December, unless otherwise stated.
\textsuperscript{2} 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. Inclement weather often leads temporary food shortages and temporarily increased demand for household fuels. Sustained shifts in food and energy prices, of course, will affect overall inflation.
\textsuperscript{3} Unlike the CPI, the PPI and the Import Price Index are preliminary when issued and subject to revision as late reports are received.
\textsuperscript{6} Natural Gas Supply and Demand Issues, testimony of Federal Reserve Board Chairman Alan Greenspan before the Committee on Energy and Commerce, U.S. House of Representatives (Federal Reserve Board of Governors, June 10, 2003).
\textsuperscript{7} Natural Gas Annual 2002, Table 9 (Energy Information Administration, U.S. Department of Energy, 2003).
\textsuperscript{8} Natural Gas Supply and Demand Issues, testimony of Federal Reserve Board Chairman Alan Greenspan before the Committee...
\textsuperscript{9} Livestock, Dairy and Poultry Outlook (U.S. Department of Agriculture, January 16, 2004).
\textsuperscript{10} Ibid, December 17, 2003.
\textsuperscript{11} Ibid.
\textsuperscript{12} Ibid, January 16, 2004.
\textsuperscript{13} Ibid, December 17, 2003.
\textsuperscript{14} Ibid, January 16, 2004.
\textsuperscript{15} Ibid, October 17, 2004.
\textsuperscript{17} Ibid.
\textsuperscript{18} Ibid.
\textsuperscript{19} Ibid, October 17, 2004.
\textsuperscript{20} Ibid, December 17, 2003.
\textsuperscript{22} Ibid, February 17, 2004.
\textsuperscript{23} Housing Vacancies and Homeownership, Fourth Quarter 2003 (U.S. Census Bureau, February 3, 2004).
\textsuperscript{24} Gross Domestic Product: Fourth Quarter 2003, Preliminary (U.S. Bureau of Economic Analysis, February 27, 2004).
\textsuperscript{25} Housing starts data are from New Residential Construction in December 2003, (U.S. Census Bureau, January 21, 2004).
\textsuperscript{26} Federal Reserve Statistical Release (Federal Reserve Board of Governors, February 9, 2004).
\textsuperscript{27} New vehicle sales figures are from Automotive News, Crain Communications Inc., January 12, 2004.
\textsuperscript{29} FCC Releases Tenth Annual Report on Competition in Video Markets (Federal Communications Commission, January 28, 2004).