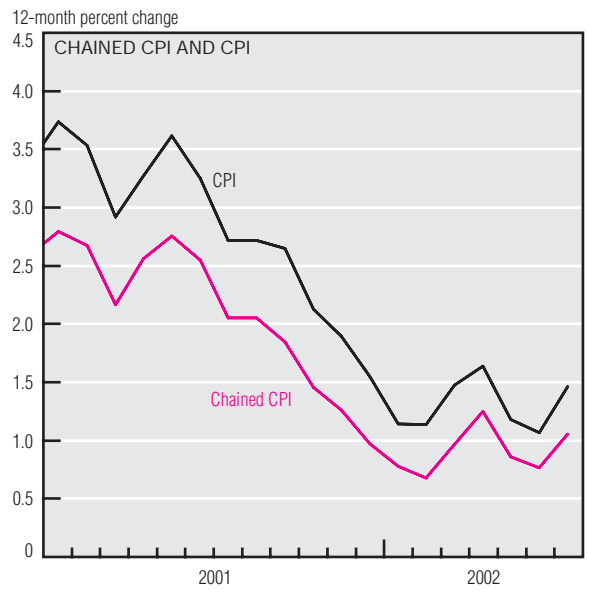
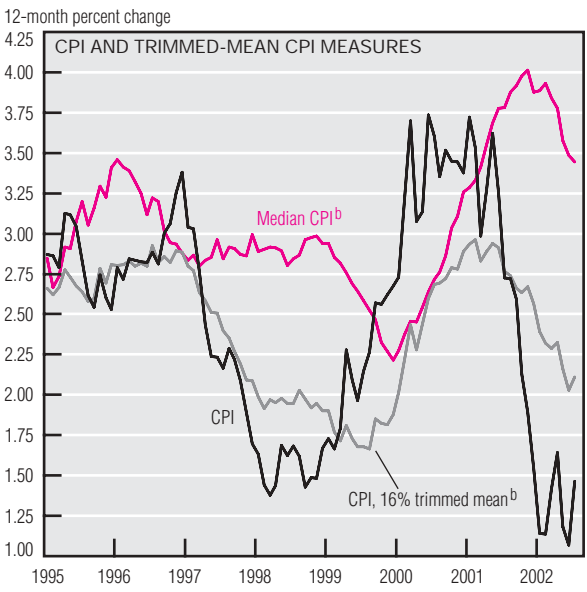
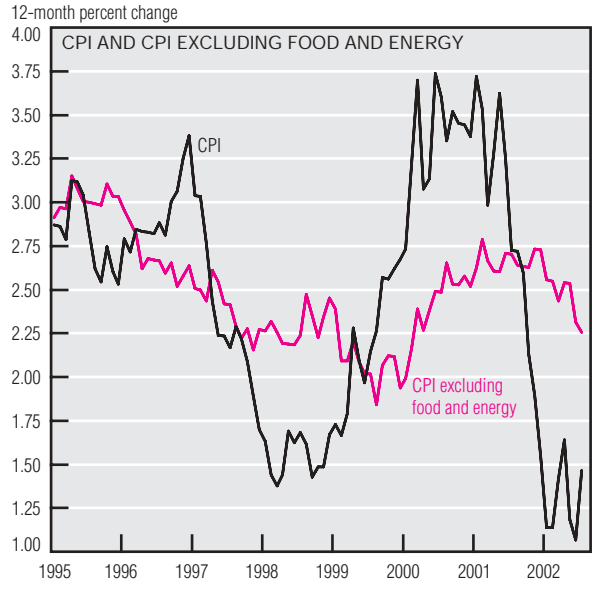


Inflation and Prices

	Percent change, last:				
	1 mo. ^a	3 mo. ^a	12 mo.	5 yr. ^a	2001 avg.
Consumer prices					
All items	1.3	0.9	1.5	2.3	1.5
Less food and energy	1.9	1.5	2.3	2.3	2.7
Median ^b	3.0	2.8	3.4	3.1	3.9
Producer prices					
Finished goods	-2.6	-2.0	-1.1	-1.1	-1.7
Less food and energy	-3.9	-0.5	-0.2	1.1	0.9



a. Annualized.
 b. Calculated by the Federal Reserve Bank of Cleveland.
 SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and Federal Reserve Bank of Cleveland.

The Consumer Price Index rose 0.1% (1.3% annual rate) in July, the same rate of increase it posted in June. According to the Labor Department, the CPI indexes for food and energy, which were unchanged in June, rose 0.2% for food (2.1% annual rate) and 0.4% for energy (5.0% annual rate) in July. Moreover, the CPI communications index rose sharply during the month, partly because of a hike in postal rates.

Over the most recent 12 months, the CPI has risen at a modest 1.5% rate. Core measures of inflation, by

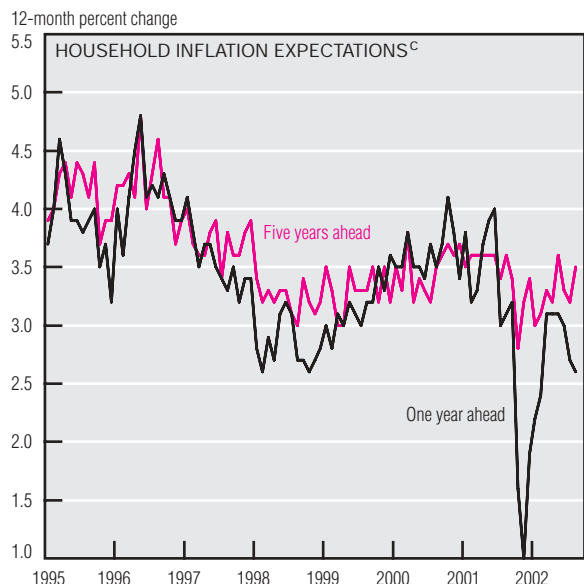
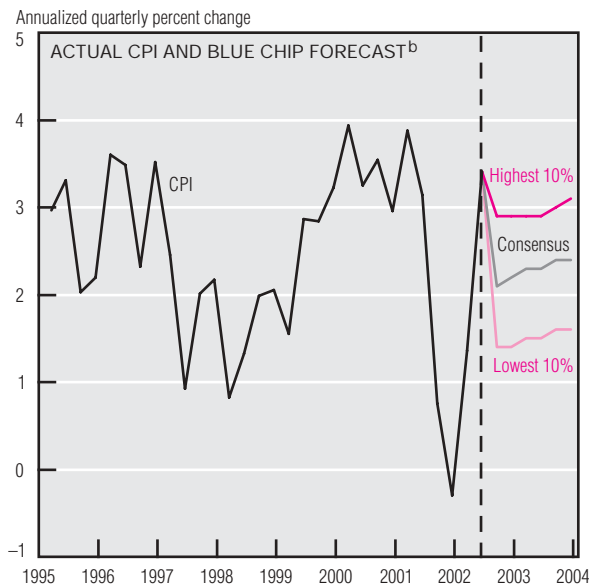
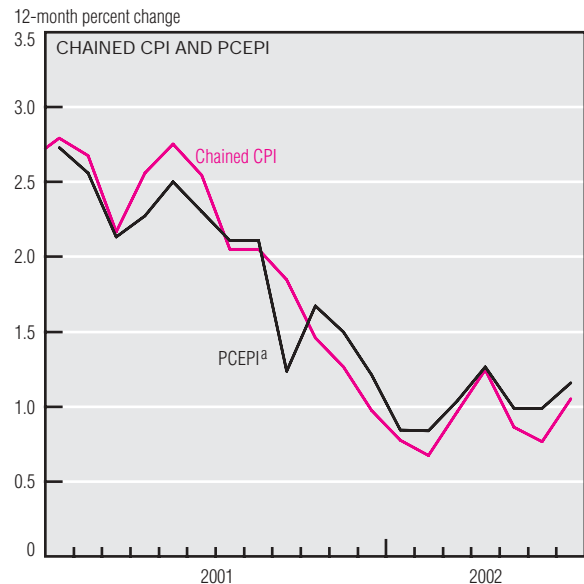
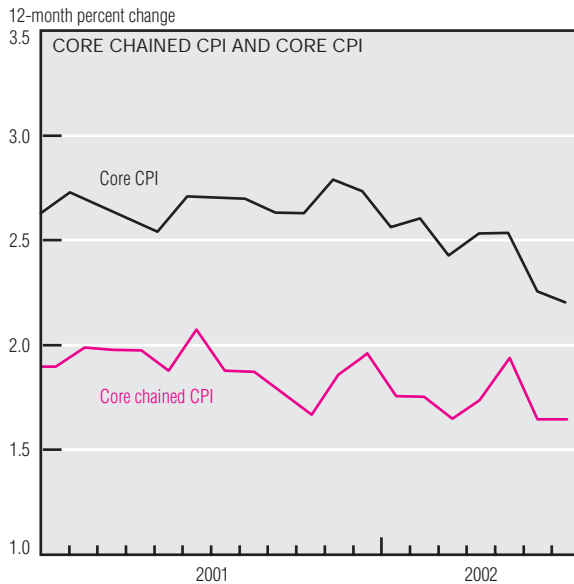
contrast, continue to rise more rapidly. The CPI excluding food and energy, for instance, rose at a 2.3% rate over the past 12 months. During the same period, the trimmed-mean inflation measures—the median CPI and the 16% trimmed-mean CPI—rose 3.4% and 2.1%, respectively. Despite the faster rate of increase, however, all core measures have been trending down throughout the course of this year.

In July, the Labor Department issued a new index, the chained CPI, which is intended to improve on the conventional CPI by addressing the

issue of substitution bias. Substitution bias arises when a price index fails to account for the way a change in (relative) prices might cause consumers to change how they allocate expenditures among the items in their market basket. The conventional CPI, for instance, assumes that the market basket remains fixed: No matter how much the price of one good may rise relative to others, consumers are assumed to continue buying these goods in the same relative quantities. The chained CPI, by contrast, uses a method that accounts for the fact

(continued on next page)

Inflation and Prices (cont.)



a. Personal Consumption Expenditures Price Index.

b. Blue Chip panel of economists.

c. Mean expected change in consumer prices as measured by the University of Michigan's *Survey of Consumers*.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of Economic Analysis; University of Michigan; and *Blue Chip Economic Indicators*, August 10, 2002.

that the consumers' market basket changes over time in response to changes in relative prices.

Estimates of the substitution bias inherent in the conventional CPI calculation have generally been lower than +0.5% annually. Indeed, a commission convened by the Senate Finance Committee in the mid-1990s concluded that inflation was being overestimated by 0.2%–0.4% annually. The chained CPI has been available only for the last few years, but simulations by the Bureau of Labor Statistics indicate that these bias estimates were appropriate for most of the 1990s.

During the current decade, the gap has become much more pronounced, often nearly a full percentage point. In recent months, however, the difference between the year-over-year differential has narrowed to about 0.4%.

Chaining the core measure tells much the same story, with differences in annual growth between the chained and conventional indexes at or near a full percentage point in 2000 and 2001 and narrowing to 0.6% in the most recent several months. Interestingly, the measure that tracks the chained CPI most closely is the

Personal Consumption Expenditures Price Index, which uses a similar chaining method.

Economists' consensus expectation of inflation is about 2.5% over the next 18 months. Households seem optimistic about the inflation outlook over the short run: Their year-ahead expectations of inflation have fallen for the third consecutive month. However, households are less sanguine about the inflation outlook for the next five years or so; these longer-run expectations have been trending up since the beginning of this year.