The Inflation Outlook

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The views expressed here do not necessarily reflect the views of the Federal Reserve Bank of Chicago or the Federal Reserve System.
Historical perspective

Core PCE
(year-year percent change)


Historical
10-year average expectation

Source: BEA via Haver Analytics, Federal Reserve Board of Governors
Progress, but inflation remains elevated

PCE price index
(12-month percent change)

Source: BEA via Haver Analytics
Look at components to gauge progress

Core PCE Inflation Components
(12-month percent change)

Note: Core goods are goods less food and beverages purchased for off-premise consumption and gasoline and other energy goods. Core services are services less electricity and gas. Food services are included, as is the case in BEA core PCE prices.
Source: BEA via Haver Analytics; staff calculations
Core goods

PCE core goods
(12-month percent change)

Note: Core goods are goods less food and beverages purchased for off-premise consumption and gasoline and other energy goods.
Source: BEA via Haver Analytics; staff calculations
Core goods: Supply chain healing

Global Supply Chain Pressure Index
(Standard deviations from average)

Housing services

PCE housing services
(12-month percent change)

Source: BEA via Haver Analytics; staff calculations
Housing services: More to come on rents

PCE housing services and Zillow Observed Rent Index
(12-month percent change)

Source: BEA and Zillow via Haver Analytics; staff calculations
Services ex housing

PCE core services ex housing
(12-month percent change)

Note: Core services are services less electricity and gas. Food services are included, as is the case in BEA core PCE prices.
Source: BEA via Haver Analytics; staff calculations
Monetary policy the key going forward

- Pandemic-related distortions are mostly resolved
- Monetary policy must do the heavy lifting now
- Looking for further softening in labor market and below trend growth
- Stable long term inflation expectations
Monetary policy: Federal Funds Rate

Federal Funds Rate
(percent)

Market-implied path, Nov. 29

Longer run

Sources: Federal Reserve Board of Governors
Tight financial conditions

Treasury inflation protected securities
(percent, p.a.)

Nominal interest rates
(percent, p.a.)

Source: Federal Reserve Board via Haver Analytics

Source: Wall Street Journal and S&P via Haver Analytics
Labor market coming into balance …

**Job openings per unemployed worker**

- **Source:** Bureau of Labor Statistics via Haver Analytics

**Prime-age labor force participation**

- **Source:** BLS via Haver Analytics
... with signs of cooling

**Total Hours Worked, Private Employees**  
(Index = 100 @ 2007; seasonally adjusted)

**Average weekly hours worked, private employees**  
(seasonally adjusted)

Source: BLS via Haver Analytics
But growth has come in strong

Real GDP growth
(quarterly, SAAR)

Source: BEA & Wolters Kluwer via Haver Analytics
Households have less “extra” savings

Stock of Excess Savings

($ billions)

2020 2021 2022 2023

2023:Q2
Moderating real activity

Industrial production, manufacturing sector
(12-month percent change)

Private residential investment
(4-quarter percent change)

Source: Federal Reserve Board via Haver Analytics

Source: BEA via Haver Analytics
Yet labor market still strong

Change in Total Nonfarm Payroll Employment
(Thousands, SA)

Source: BLS via Haver Analytics
## Soft landing?

<table>
<thead>
<tr>
<th>Year/Forecast</th>
<th>GDP</th>
<th>Unemployment Rate</th>
<th>Total PCE</th>
<th>Core PCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023 Year-to-date</td>
<td>3.1</td>
<td>3.9</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td>2024 Blue Chip Median Forecast (Nov. 2023)</td>
<td>0.8</td>
<td>4.3</td>
<td>2.3</td>
<td>2.4</td>
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</tbody>
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**Notes:** 2024 Blue Chip Forecast as of November 2023. For Blue Chip forecasts, GDP and total and core PCE prices are Q4/Q4 percent changes. Unemployment rate is the Q4 average. For YTD data, GDP is the annualized real GDP growth rate from 2022:Q4 through 2022:Q3; unemployment rate is the rate in Oct. 2023; and total and core PCE inflation are the annualized percent change in the indexes from December 2022 through October 2023.

**Sources:** Wolters Kluwer, BEA, and BLS via Haver Analytics

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**Federal Reserve Bank of Chicago**
Stable longer term inflation expectations

Michigan Survey of Inflation Expectations
(Percent)

Source: University of Michigan from Haver Analytics

TIPS inflation compensation
(Percent)

Source: Board of Governors of the Federal Reserve System
Summing up

• Inflation remains elevated, but clear progress

• Monetary policy remains restrictive

• Cooling labor market and reasons to expect a slowdown

• Soft landing?
Manufacturing activity still slowing

ISM Manufacturing: PMI Composite Index
(>50 indicates expansion)

Source: Institute for Supply Management via Haver Analytics
Drivers of core PCE inflation
Wage growth slowing

Wage growth
(12-month percent change)

Source: BLS, Federal Reserve Bank of Atlanta via Haver Analytics; Indeed
Signs of moderating real activity

Industrial production, manufacturing sector
(12-month percent change)

Private residential investment
(4-quarter percent change)

Source: Federal Reserve Board via Haver Analytics

Source: BEA via Haver Analytics