The *U.S. Economy in a Snapshot* compiles observations of staff members of the Federal Reserve Bank of New York’s Research and Statistics Group. The views presented are solely those of the individual contributors and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System. The analysis presented herein is based on data released through December 13, 2022.
OVERVIEW

- **Output**
  - GDP rebounded in Q3 after falling in the first half of the year.
  - Net exports and consumption were the biggest contributors to growth.
  - Residential investment spending and inventory investment fell.

- **Indicators**
  - Consumer spending picked up in October, with a large increase in motor vehicle purchases.
  - The increase in spending coincided with another drop in the personal saving rate to a very low level.
  - Manufacturing ticked up in October, after being flat in Q3.
  - Housing starts continued to fall.

- **Labor market**
  - Payroll growth has been solid in recent months.
  - The unemployment rate stayed near where it has been since early in the year.
  - Wage growth remained elevated.

- **Inflation**
  - Core PCE inflation over the month eased in October after high readings in August and September.
  - CPI data for November suggest another dip in core PCE inflation, with the price index for durable goods falling sharply over the month.

---

**Real GDP**

Trillions of 2012 dollars, annualized

Source: Bureau of Economic Analysis via Haver Analytics

---

**Q3 output was below its pre-pandemic trend path**

- GDP has grown at a 1.5% annual rate since Q4 2019.
  - In the September Summary of Economic Projections (SEP), the median estimate for the longer-run GDP growth rate was 1.8%.
  - The October Blue Chip survey had expected average annual growth over the 2024-28 period at 1.9%.
  - GDP in Q3 was about 1% below what it would have been if, since Q4 2019, it grew at a rate close to longer-run forecasts.

- The unemployment rate was below its longer-run normal level.
  - The 3.7% unemployment rate in November was below both the Blue Chip consensus forecast of 4.2% for the average unemployment rate over 2024-28 and the median SEP projection of 4.0% for the longer-run unemployment rate.
  - The labor force participation rate in November was more than one percentage point below pre-pandemic levels.
**OVERVIEW**

**Unemployment Rate**

The unemployment rate was unchanged

- The unemployment rate remained at 3.7% in November.
- The labor force participation rate decreased from 62.2% in October to 62.1% in November.
  - Participation has declined for three consecutive months since its peak of 62.4% in August.
  - The labor force participation rate was 1.0 percentage point below its 2019 average and 0.4 percentage point above the 2021 average.
  - The rate for the 25 to 54 years-old cohort was near its 2019 average.

Source: Bureau of Labor Statistics via Haver Analytics

**PCE Deflator**

PCE inflation over the year fell in October

- PCE inflation over the year dropped from 6.2% in September to 6.0% in October.
  - Food prices were up 12% and energy prices were up 18%.
- Core PCE inflation dipped from 5.2% to 5.0%.
  - Durable goods inflation decreased from 5.7% to 4.0%.
  - Services inflation increased from 5.3% to 5.4%.
- Core PCE inflation over the month slowed from 5.7% (annualized) to 2.7%.

Source: Bureau of Economic Analysis via Haver Analytics
**ECONOMIC ACTIVITY**

**GDP Growth**
Quarterly % change, annualized

- Output rebounded in Q3
  - GDP rose at a 2.9% annual rate in Q3, after declining at a 1.1% rate in the first half.
    - Output was up 1.9% over the year.
    - Exports rose and imports fell, resulting in the net exports component being the major contributor to the Q3 increase.
    - Final sales to private domestic purchasers (consumption plus private fixed investment) rose slightly in the quarter.
  - Real gross domestic income (GDI) increased at a 0.3% annual rate in Q3, after being little changed in the first half.
    - The four-quarter change in real GDI was 1.7%.
    - With the slower growth of GDI in Q3, the gap between GDP and GDI narrowed considerably in the quarter.

**Manufacturing Index**
Index, 2017=100

- Manufacturing activity edged up
  - The manufacturing index rose 1.8% (annualized) over the month in October.
    - The index was up 2.4% over the year.
  - Durable goods production was up 4.4% over the year, while nondurable goods production was up 0.9%.
    - Outliers included motor vehicles, up 11%, and refinery output, down 1%.
  - The ISM manufacturing index fell in November, continuing a steady decline over the course of 2022.
    - The prices index and the supplier deliveries index were below pre-pandemic levels.

Source: Bureau of Economic Analysis via Haver Analytics

Source: Federal Reserve Board via Haver Analytics
**HOUSEHOLDS**

**Disposable Income and Consumption**
Trillions of 2012 dollars, annualized

- **Real Disposable Income**
- **Real Personal Consumption**

Source: Bureau of Economic Analysis via Haver Analytics

**Personal income jumped**
- Nominal personal income jumped 9% (annualized) over the month in October, while real disposable income increased by 5%.
  - Nominal compensation grew at a 6% rate.
  - Over the year, nominal income was up 5% and real disposable income was down 3%.

- Real personal consumption spending was up 6% (annualized) over the month in October and was up 2% over the year.
  - The personal saving rate fell from 2.4% in September to 2.3%.
  - The savings rate was near an historically low level.

**Consumer Spending**
Trillions of 2012 dollars, annualized

- **Services**
- **Goods**

Source: Bureau of Economic Analysis via Haver Analytics

**Consumer spending on goods increased sharply**
- Real spending on goods was up 14% (annualized) over the month in October.
  - Spending was boosted by a surge in purchases of motor vehicles.
  - Spending on goods was unchanged over the year, with purchases of durable goods up 2%, purchases of food down 5%, and spending on energy down 1%.

- Real spending on services rose by 2% (annualized) over the month and was up 3% over the year.
**Business Sector**

### Equipment spending rose robustly in Q3
- After falling in Q2, real business equipment spending increased at an 11% annual rate in Q3.
  - Equipment spending added 0.5 percentage point to annualized GDP growth in the quarter.
  - Spending rose briskly in the information and transportation categories but fell in the industrial and “other” categories.
  - Equipment spending was up 5% over the year.

- Orders of capital goods rose solidly in October.
  - Even though nominal orders have been on the uptrend, the pace has slowed gradually.
  - Also, much of the recent growth of orders has resulted from rising prices for capital equipment.

### Spending on nonresidential structures fell in Q3
- Real nonresidential structures investment spending decreased at a 7% annual rate in Q3.
  - Structures investment was a 0.2 percentage point drag on annualized GDP growth in the quarter.
  - Spending was down 9% over the year and down about 25% since Q4 2019.

- Spending in the energy sector decreased following seven straight quarterly increases.
  - Spending on mining exploration, shafts, and wells was down nearly 15% from its Q4 2019 level.

---

**Business Investment Spending on Equipment**

Billions of 2012 dollars, annualized

![Graph showing business investment spending on equipment from 2015 to 2022](source)

**Business Investment in Nonresidential Structures**

Billions of 2012 dollars, annualized

![Graph showing business investment in nonresidential structures from 2015 to 2022](source)
Residential Investment

- A steep drop in residential investment spending took 1.4 percentage points off annualized Q3 GDP growth.
  - Investment spending was down 27% (annualized) over the quarter and down 13% over the year.
- Investment in single-family housing in Q3 was down 37% (annualized) over the quarter and investment in multi-family structures was down 5%.
  - Single-family construction was down 14% over the year and multi-family construction was down 7%.
  - Declines in commissions and home improvement spending were also drags on residential investment.
  - Housing starts continued to decline in October.

Existing Single-Family Home Sales

- Existing single-family home sales in Q3 were down 38% (annualized) relative to Q2.
  - Q3 sales were down 20% over the year.
  - Sales in October were down 28% over the year.
- New single-family home sales fell 7% over the quarter.
  - Q3 sales were down 16% over the year.
  - Sales in October were down 6% over the year.
- Prices for single-family homes were down 2% over the three months ending in September.
  - The home price index was 11% above its year-ago level.
**Federal Government Spending**

Billions of 2012 dollars, annualized

- **Defense**
- **Nondefense**

Source: Bureau of Economic Analysis via Haver Analytics

**Federal spending rebounded**

- Federal government spending added 0.2 percentage point to annualized real GDP growth in Q3, following negative contributions in the two prior quarters.
  - Nondefense spending added 0.06 percentage point to growth and defense spending added 0.16 percentage point.

- Real spending was down 1% over the year.
  - Defense spending was down 2% and nondefense spending was unchanged.

---

**State and Local Government Spending**

Billions of 2012 dollars, annualized

Source: Bureau of Economic Analysis via Haver Analytics

**State and local government spending increased**

- Real state and local government spending added 0.3 percentage point to annualized real GDP growth in Q3.
  - Spending was unchanged over the year.

- S&L government consumption was up 2% (annualized) over the quarter.
  - Spending was up 1% over the year.

- Investment spending rose 9% (annualized) over the quarter, with an 8% increase in construction, a 12% jump in equipment purchases, and an 8% increase in spending on intellectual property products.
  - Total investment spending was down 3% over the year, with construction spending down 6%.
INFLATION

Core CPI Inflation

- Core inflation over the year fell from 6.3% in October to 6.0% in November.
  - Core goods inflation fell from 6.6% to 3.7%.
  - Core services inflation rose slightly to 6.8%.
  - Rent inflation increased from 7.5% to 7.9%.

- The core CPI rose 2.5% (annualized) over the month, down from the 3.1% pace set in October.

CPI Inflation: Energy Prices

- The energy component of the CPI was 13% above its year-ago level in November.
  - Gasoline was up 10% over the year, natural gas prices were up 16%, and electricity prices were up 14%.

- The energy index was 38% above its 2019 average.
  - Gasoline was 43% above its 2019 level, electricity was 23% above, and natural gas was 50% above.
  - Prices for natural gas and electricity were largely unchanged in the years between 2014 and 2019.

- The recent fall in crude oil prices will put downward pressure on the December reading.
PAYROLL EMPLOYMENT

Employment rose at a solid pace in November

- Nonfarm payroll employment increased by 263,000 in November.
  - Notable increases were in health and education services, as well as leisure and hospitality.
  - Employment growth has slowed in recent months from the pace set in the first half of the year.

- The Household Survey’s employment-to-population ratio was down slightly to 59.9%.
  - The ratio has stayed within a narrow band around 60% for the last six months.
  - The ratio was almost 2 percentage points below its 2019 average.
  - The rate for the 25-54 years-old cohort was near its 2019 average.

AVERAGE HOURLY EARNINGS AND THE ECI

Wage growth was elevated

- The growth in average hourly earnings over the month increased from 5.7% to 6.8% in November.
  - Wage growth over the year increased from 4.9% to 5.1%.

- The employment cost index rose at a 5.1% annual rate from June to September.
  - The index was up 5.1% over the year.
  - For comparison, the index rose at a 2.7% rate over the course of 2019.
Regional business activity was weak in November

- Manufacturing activity edged slightly higher, while service sector activity contracted, according to the November regional business surveys.
  - The Empire Survey’s headline index (manufacturing) climbed 14 points to 4.5, and the Business Leaders Survey’s headline index (services) held steady at -11.8.
  - Despite the decline in activity, the surveys point to a modest increase in employment in both sectors.
  - Selling price increases picked up slightly in the manufacturing sector but slowed slightly in the service sector.

Strong employment growth in downstate New York

- Strong job growth persisted through October in downstate New York and in Puerto Rico, but growth remained sluggish in upstate New York.
  - Over the prior 12 months, employment increased by 3.7% in downstate New York, 2.6% in Northern New Jersey, 2.8% in Fairfield CT, and 1.3% in upstate New York, compared to 3.6% nationally.
  - Employment remained 3.5% below pre-pandemic levels in downstate New York, 4.6% below in upstate New York, 1.3% below in Northern New Jersey, and 0.6% below in Fairfield, while it was 0.5% above pre-pandemic levels for the nation as a whole.
  - Employment in Puerto Rico grew 3.8% on a year-over-year basis in October and was 5.8% above pre-pandemic levels.
INTERNATIONAL DEVELOPMENTS

Exports and Imports of Goods and Services
Billions of 2012 dollars, annualized

Net exports boosted Q3 growth
- Exports rose and imports fell in Q3.
  - Net exports added 2.9 percentage points to annualized GDP growth.
  - Higher exports added 1.7 percentage points, while lower imports added 1.2 percentage points.

- Exports moved back to near pre-pandemic levels.
  - Higher exports were led by energy and nondurable industrial supplies.
  - Exports of goods fell in October relative to the Q3 level.

- Imports retreated after large increases in Q4 2021 and Q1 2022.
  - Imports of consumer goods fell from a high level.
  - Imports of goods rose in October relative to the Q3 level.

Crude Oil Prices
Dollars per barrel (WTI)

Oil prices moved lower
- Oil prices (WTI) fell from $88/barrel in October to $84/barrel in November.
  - Prices have dropped from $90/barrel in early November to $75/barrel in mid-December.
  - Prices averaged $88/barrel in 2021 and $96/barrel in the first eleven months of 2022.

- The Department of Energy’s November forecast projects that global inventories will increase in Q4 2022.
  - Both consumption and production growth are expected to be minimal in 2023, with a modest increase in inventory levels.
  - The previous month’s forecast had more demand, less supply, and inventories falling next year.
**Implied path for the federal funds rate shifted down**

- The expected path of the federal funds rate implied by overnight indexed swaps decreased for maturities greater than about 6 months between November 4 and December 12.

- The market-implied federal funds rate at the end of 2024 decreased to 3.3% which is below the median value of 3.9% in the FOMC’s Summary of Economic Projections (SEP) from September 2022.

- At the five-year horizon, the market-implied federal funds rate decreased to around 2.8%, which is above the median SEP longer-run federal funds rate of 2.5%.

**Ten-year Treasury yields declined**

- The 10-year Treasury yield was at 3.61% on December 12, 56 basis points lower than the yield on November 4.
  - The yield averaged 1.76% in January 2020.
  - The yield averaged 0.89% in 2020, 1.44% in 2021, and 2.91% in the first eleven months of 2022.
  - Estimates from the Adrian-Crump-Moench term premium suggest the decrease in the 10-year Treasury yield from November 4 to December 12 was due to a lower expected interest rate path and a decrease in the term premium.
**Equity prices fell**

- U.S. equity prices, as measured by the S&P 500 index, were down 6% on December 12 relative to November 4.
  - The S&P 500 index was down about 17% year-to-date after being up 28% over the course of 2021.

- Option-implied stock market volatility, as measured by the CBOE Volatility Index (VIX Index), increased from 24.6 on November 4 to 25.0 on December 12.
  - The median VIX Index value was 18.1 over the period from the beginning of 2000 through December 12.

---

**The dollar depreciated**

- The Federal Reserve's trade-weighted broad dollar index on December 9 was down 4% relative to November 4.
  - The index was up 6% since the beginning of the year.

- The dollar on December 9 was 6% weaker against the euro and 8% weaker against the yen relative to November 4.