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 October 13, 2022.
Employment growth was solid, the unemployment rate fell, and consumer spending data continued to be soft.

- Output declined in Q2.
  - Drags on growth included inventories, consumer spending on goods, and residential investment.
  - Exports and spending on consumer services boosted growth.

- Real disposable income increased modestly in August.
  - The level remained well below its trend growth path.
  - Real consumer spending on goods fell.
  - The personal saving rate stayed at a low level.

- Payroll employment grew at a solid pace and the unemployment rate fell.
- Core PCE inflation over the year moved higher in August and CPI data point to another high reading in September.
- The 10-year Treasury yield rose, the S&P 500 stock index retreated, and the dollar appreciated.

### Real GDP

Trillions of 2012 dollars, annualized

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<td>2022</td>
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Source: Bureau of Economic Analysis via Haver Analytics

### Q2 output was below its pre-pandemic trend path

- GDP has grown at a 1.4% 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 expected average annual growth over the 2024-28 period at 1.9%.
  - GDP in Q2 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 3.5% unemployment rate in September 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 September was about one percentage point below pre-pandemic levels.
### Overview

#### Unemployment Rate

- **The unemployment rate fell in September**
  - The unemployment rate fell from 3.7% in August to 3.5% in September.
  - The Household Survey’s measure of employment increased by 315,000.
  - The labor force participation rate decreased slightly from 62.4% in August to 62.3% in September.
    - The labor force participation rate was 0.8 percentage point below its 2019 average.

#### PCE Deflator

- **PCE inflation over the year fell in August**
  - PCE inflation over the year fell from 6.4% in July to 6.2% in August.
    - Food prices were up 12% and energy prices were up 25%.
  - Core PCE inflation rose from 4.7% to 4.9%.
    - Durable goods inflation fell from 5.7% to 5.3%.
    - Housing inflation rose from 5.6% to 6.4%.
  - Core PCE inflation over the month jumped from 0.5% (annualized) in July to 7.0%.
    - The index for durable goods rose 5.9%, after falling 2.6% in the previous month.
    - Housing inflation jumped from 8.1% to 9.0%.
### HOUSEHOLDS

#### GDP Growth

*Quarterly % change, annualized*

- GDP fell at a 0.6% annual rate in Q2, after declining at a 1.6% rate in Q1.
  - Despite the two straight quarterly declines, output was up 1.8% over the year.
  - The inventory investment component was the major contributor to the Q2 decrease.
  - Final sales to private domestic purchasers (consumption plus private fixed investment) rose slightly in the quarter.

- Real gross domestic income (GDI) increased at a 0.1% annual rate in Q2.
  - Real GDI has risen 3.0% over the past year.
  - Revised data put Q2 GDI about 1% above GDP, compared to 4% previously.

*Source: Bureau of Economic Analysis via Haver Analytics*

#### Manufacturing Index

*Index, 2017=100*

- The manufacturing index edged up 0.1% in August.
  - The index was up 3% over the year.

- The motor vehicles index fell after two months of large increases.
  - The index was up 10% over the year and was 3% above its pre-pandemic level.

- The ISM manufacturing index in September was at a level suggesting modest growth.
  - The prices index was near its historical average.
  - The supplier deliveries index was stable at a much improved level relative to April’s reading.

*Source: Federal Reserve Board via Haver Analytics*
ECONOMIC ACTIVITY

Real disposable income increase modestly

- Real disposable income increased 1% (annualized) over the month in August, while nominal personal income rose 4%.
  - Nominal personal income was up 4% over the year, with compensation up 8%, proprietors' income up 4%, investment income up 4%, and government transfers down 8%.
  - Real disposable income was down 5% over the year.

- Real personal consumption spending was up 1% (annualized) over the month in August and was up 2% over the year.
  - The personal saving rate was unchanged at 3.5%, down from 9.3% in February 2020.

Consumer spending on goods fell

- Real spending on goods was down 2% (annualized) over the month and was unchanged over the year.
  - Spending on durable goods has been flat since the beginning of the year, while spending on nondurables has trended down.
  - Purchases of food have been below the series trend growth path in recent months.
  - Spending on goods was around 5% above its trend growth path.

- Real spending on services was up 3% (annualized) over the month and was up 3% over the year.
  - Spending was around 3% below its trend path, with shortfalls in recreation, health care, public transportation, and personal care.
**Business Investment Spending on Equipment**

- Equipment spending fell moderately in Q2
  - After rising briskly in Q1, real business equipment spending fell at a 2.0% annual rate in Q2.
    - Equipment spending subtracted 0.1 percentage point off annualized GDP growth in the quarter.
    - Spending fell in the information and industrial categories and rose in the transportation category.
    - Equipment spending was up 2.0% over the year.
  - Orders of capital goods rose robustly in August and remained at a high level.
    - Even so, orders data in recent months suggest sluggish growth of real equipment spending, especially as recent increases partly reflect higher prices.

**Business Investment in Nonresidential Structures**

- Spending on nonresidential structures fell in Q2
  - Real nonresidential structures investment spending decreased at a 13% annual rate in Q2.
    - Structures investment was a 0.3 percentage point drag on annualized GDP growth in the quarter.
    - Spending was down 9% over the year and down almost 24% since Q4 2019.
  - Spending in the energy sector increased for the seventh straight quarter.
    - Spending on mining exploration, shafts, and wells was still down nearly 13% from its Q4 2019 level.
  - Nominal private nonresidential construction spending in August was up moderately from December 2021.
HOUSING SECTOR

Residential Investment
Billions of 2012 dollars, annualized

Residential investment faltered in Q2
- A drop in residential investment spending took 0.9 percentage point off annualized Q2 real GDP growth.
  - Spending was down 5% over the quarter, with most of the drag from lower commissions and improvements.
  - Spending was down 7% over the year.
- Investment continued to be relatively high in both single-family and multi-family structures.
  - Single-family construction in Q2 was up 25% relative to Q4 2019 and multi-family construction was up 13%.
- Housing starts in July and August were 10% below the Q2 2022 monthly average.

Existing Single-Family Home Sales
Thousands, annualized

Home sales were down
- Existing single-family home sales in July and August were down 10% relative to the Q2 monthly average.
  - Sales were down 20% relative to the 2021 average.
- New single-family home sales in July and August were equal to the Q2 monthly average.
  - Sales were down 20% relative to the 2021 average.
- Home prices were up 16% over the year in July.
  - Prices fell 3% (annualized) over the month, the first monthly price decline since 2012.
GOVERNMENT SECTOR

Federal Government Spending

- Federal spending was again a drag on growth
  - Federal government spending subtracted 0.3 percentage point from annualized real GDP growth in Q2, following negative contributions in each of the prior four quarters.
    - Nondefense spending subtracted 0.3 percentage point from growth, while defense spending was flat.
    - Overall spending was down 4% over the year, with consumption down 5% and investment spending down 1%.
  - The Q2 drag from nondefense spending reflects a statistical quirk.
    - Federal government sales from the Strategic Petroleum Reserve subtract from government consumption but add to private inventories, with no net effect on overall GDP.

State and Local Government Spending

- State and local government spending dipped in Q2
  - Real state and local government spending subtracted a slight 0.1 percentage point from annualized real GDP growth in Q2.
    - Spending was up 1% over the year.
  - S&L government consumption was flat over the quarter.
    - Spending was up 2% over the year.
  - Investment spending fell 2% over the quarter, with a 3% drop in construction and a 1% decline in equipment purchases more than offsetting a 1% increase in spending on intellectual property products.
    - Total investment spending was down 5% over the year, with construction spending down 8%.
**INFLATION**

**Core CPI Inflation**
- 12-month % change

**Core CPI inflation remained high**
- Core inflation over the year rose from 6.3% in August to 6.6% in September.
  - Core goods inflation fell from 7.1% to 6.6%.
  - Core services inflation was rose from 6.1% to 6.6%, with an increase in rent inflation from 6.3% to 6.7%.
- The core CPI rose 7.1% (annualized) over the month, a modest increase from 7.0% in July.
  - Monthly inflation for core goods collapsed from 5.6% to 0.2%.
  - Monthly inflation for core services jumped from 7.2% to 9.9%.
  - Monthly rent inflation rose from 8.9% to 9.6%.

**CPI Inflation: Durable Goods**
- 12-month % change

**Durable goods inflation eased**
- The durable goods component of the CPI rose 7.1% over the year in September, down from 7.8% in August.
  - Prices over the month fell 1.4 % (annualized), after rising 6.0% in August.
  - Prices for furnishings, used vehicles, and recreational goods were behind the swing in the monthly rate.
- Prices for new motor vehicles were up 13% over the year, while prices for used vehicles were up 7%.
  - Prices for new vehicles have trended up in 2022, while price for used vehicles have been relatively stable.
- Prices for household furnishings were up 10% over the year, prices for recreational goods were up 4%, and prices for IT goods were down 10%.
**LABOR MARKET**

**Payroll Employment**

Index, 2019=100

- Nonfarm payroll employment rose by 263,000 in September.
  - This was slightly below the average of recent monthly gains.
  - The most notable increases were in leisure and hospitality and health care.

- The Household Survey's employment-to-population ratio was unchanged at 60.1%.
  - The ratio has stayed within a narrow band of around 60% for the last six months.

**Average Hourly Earnings and the ECI**

Year-over-year % change

- The growth in average hourly earnings eased from 5.2% over the year in August to 5.0% in September.
  - Monthly wage growth moderated significantly in the Leisure and Hospitality sector.

- The employment cost index grew at a 5.4% annual rate from March to June.
  - The index was up 5.0% over the year in June.
Regional business activity remained weak in September

- Manufacturing activity levelled off after declining sharply in August, and service sector activity remained weak, according to the September regional business surveys.
  - The Empire Survey’s headline index (manufacturing) surged 30 points to -1.5, and the Business Leaders Survey’s headline index (services) climbed 10 points to 5.3.
  - There was a small increase in employment in both sectors, though employment declined slightly in the Leisure and Hospitality sector.
  - The Empire Survey’s prices paid index fell 16 points to 39.6, and the prices received index fell 9 points to 23.6, its lowest level since early 2021. The Business Leaders Survey’s price indexes remained elevated.

Employment growth remained strong in some areas

- Job growth in downstate New York, Northern New Jersey, and Puerto Rico outperformed the nation in August, but remained below the national pace in upstate New York and Fairfield.
  - Over the prior 12 months, employment increased by 6.2% in downstate New York, 5.3% in Northern New Jersey, 3.3% in Fairfield CT, and 2.7% in upstate New York, compared to 4% nationally.
  - Employment remained 2.9% below pre-pandemic levels in downstate New York, 4.1% below in upstate New York, 0.1% below in Northern New Jersey, and 1.1% below in Fairfield, while the nation has fully recovered.
  - Employment in Puerto Rico grew 5.8% on a year-over-year basis in August and was 5.5% above pre-pandemic levels.
INTERNATIONAL DEVELOPMENTS

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

- Imports and exports both rose in Q2.
  - Higher exports added 1.5 percentage points to annualized GDP growth, while higher imports subtracted 0.4 percentage point.
  - The increase in exports was not enough to bring foreign sales back to pre-pandemic levels.
  - Higher exports were led by industrial supplies, durable consumer goods, and tourism.
- Imports were well above pre-pandemic levels.
  - Imports slowed after large increases in the previous two quarters.
  - The level of consumer goods imports continued to be well above its trend growth path.

Net exports were a boost to Q2 growth

Crude Oil Prices
Dollars per barrel (WTI)

- Oil prices (WTI) declined to $84/barrel in September.
  - Prices were up 18% over the year.
  - Prices moved higher in early October in response to announced cuts in OPEC+ production quotas.
- The Department of Energy’s October forecast projects that the global inventory build up seen this year will end in Q4 2022.
  - Both consumption and production growth are expected to be minimal in 2023.
**FINANCIAL MARKETS**

**Implied Fed Funds Rate**

- The expected path of the federal funds rate implied by overnight indexed swaps increased across all maturities between September 2 and October 7.

- The market-implied federal funds rate at the end of 2023 went up to 4.5%, which is slightly below the median value of 4.6% in the FOMC's Summary of Economic Projections (SEP) from September 2022.

- At the five-year horizon, the market-implied federal funds rate increased to around 3.3%, which is above the median SEP longer-run federal funds rate of 2.5%.

**10-Year Treasury and Term Premium**

- The 10-year Treasury yield was at 3.89% on October 7, 69 basis points higher than the yield on September 2.
  - The yield averaged 1.76% in January 2020.
  - The yield averaged 0.89% in 2020, 1.44% in 2021, and 2.67% in the first nine months of 2022.
  - Estimates from the Adrian-Crump-Moench term structure suggest the increase in the 10-year Treasury yield from September 2 to October 7 was due primarily to a higher expected interest rate path.

Source: NY Fed calculations, Bloomberg Finance L.P.

Note: Estimated using OIS quotes.

Source: Federal Reserve Bank of New York and Federal Reserve Board via Haver Analytics

Note: Five-day rolling averages.
Equity prices declined

- U.S. equity prices, as measured by the S&P 500 index, were down 15% on October 7 relative to the recent August 16 high.
  - The S&P 500 index was down 24% year-to-date on October 7 after being up 29% over the course of 2021.

- Option-implied stock market volatility, as measured by the CBOE Volatility Index (VIX Index), increased from 21.3 on September 2 to 25.9 on October 7.
  - The median VIX Index value was 18.1 over the period from the beginning of 2000 through October 7.

The dollar appreciated

- The Federal Reserve's trade-weighted broad dollar index on October 7 was up 3% relative to September 2.
  - The index was up 10% relative to the end of 2021.

- The dollar on October 7 was 2% stronger against the euro and 4% stronger against the yen relative to September 2.