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, model results, and analysis 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 12, 2017.
After rising robustly in September, real consumer spending growth slowed down markedly in October.

- Durable goods expenditures fell slightly and services expenditures increased minimally.

Business equipment spending has been strong this year, with capital spending indicators pointing to solid and accelerating growth in the near term.

Housing indicators point to continued gradual improvement in this sector.

- Multi-family starts surged in October, and tight market conditions continued to promote a gradual rise in single-family starts.

Payroll growth was robust in November. The unemployment rate and the labor force participation rate were unchanged, while the employment-to-population ratio declined slightly.

- Growth of labor compensation remained subdued.

While core PCE inflation continues to run below the FOMC’s longer-run objective, the October price data indicate that core inflation appears to be firming modestly.

In the past month, U.S. equity indices continued to rise and reached new record highs. The nominal long-term Treasury yield was roughly unchanged, the Treasury yield curve flattened, and the U.S. dollar depreciated slightly.

**Output slightly above its potential level**

- Real GDP in 2017Q3 was 0.3% above the Congressional Budget Office’s (CBO) measure of real potential GDP.
  - Based on current data, real GDP had not been above the CBO estimate of real potential GDP since 2007Q4.
  - The November unemployment rate of 4.1% is below many estimates of its natural rate, including that of the CBO (4.74%).

- The CBO output gap indicates no remaining resource slack in the U.S. economy, while the unemployment gap signals even tighter resource constraints.
  - However, capacity utilization rates are still below their historical averages, suggesting appreciable remaining resource slack by that measure.
Labor market conditions remain strong

- The unemployment rate held at 4.1% in November.
  - This is the lowest the unemployment rate has reached since December of 2000, when the unemployment rate was 3.9%.

- The labor force participation rate was also unchanged in November at 62.7%.
  - The participation rate has fluctuated within the 62.7%-63.0% range over most of the period since the beginning of 2016.

- The employment-to-population ratio dropped 0.1 percentage point from 60.2% in October to 60.1% in November.

PCE inflation remains below FOMC objective

- The total PCE price index rose 0.1% in October, after a 0.4% increase in September. The core PCE price index (which excludes food and energy prices) increased 0.2% in October, up from a 0.15% rise in September.
  - While energy prices fell 1.1% in October, they are up 6.9% from a year ago.
  - Food prices rose 0.1% in October and are 0.5% higher than a year ago.

- The 12-month changes in the total PCE and core PCE price indices were +1.6% and +1.4%, respectively, in October.
  - Core PCE inflation appears to be on a firmer trajectory over the near-term, with the 3-month annualized change in the core PCE deflator at +1.9% through October.
**ECONOMIC ACTIVITY**

### GDP Growth

- % Change – Annual Rate

![GDP Growth Chart](image)

Source: Bureau of Economic Analysis via Haver Analytics

### Output growth in Q3 revised up

- According to the second estimate, real GDP rose at a 3.3% annual rate in Q3, an upward revision to the advance estimate of a 3.0% increase.

- There were modest upward revisions to equipment investment, intellectual property products, state and local government spending, and inventory investment.
  - In contrast, consumer spending and nonresidential structures investment were revised downward.

- Real gross domestic income (GDI), which provides an alternative measure of economic activity, increased at a 2.5% annual rate in 2017Q3.

### Manufacturing and ISM Manufacturing Index

- 12 Month % Change

![Manufacturing and ISM Manufacturing Index Chart](image)

Source: Institute for Supply Management, Federal Reserve Board via Haver Analytics

Note: Shading shows NBER recessions.

### Manufacturing expands at slower rate

- Manufacturing production rose by 1.3% in October.
  - The 12-month increase in manufacturing production of +2.5% is the highest since July 2014.

- The ISM Manufacturing index declined to 58.2 in November.
  - This value indicates continued expansion in manufacturing, but at a slower rate than in prior months.

- Regional surveys continue to indicate increasing activity in the manufacturing sector.
  - The headline indices of surveys run by the Dallas, Philadelphia and New York Feds declined but remained at values indicating continued expansion.
**Households**

**Disposable Income and Consumption**

- Growth in consumer spending slows in October
  - After rising at a robust 0.5% rate in September, real personal consumption expenditures rose by just 0.1% in October.
    - The slowdown reflected weak services expenditures and a decline in durable goods expenditures.
  - Real disposable income rose 0.3% in October after being essentially flat for the previous four months.
  - With growth in real disposable income exceeding that of real consumer spending, the personal saving rate moved up to 3.2% in October from a downwardly revised 3.0% in September.
    - The September personal saving rate is the lowest reported value in nearly ten years.

**Consumer Confidence**

- Consumer sentiment remains elevated
  - The Michigan index of consumer sentiment declined from 100.7 in October to 98.5 in November.
    - The Michigan index, however, remains higher than its average in 2015 and 2016.
  - The Conference Board’s Consumer Confidence Index (CCI) rose to 129.5 from 126.2 in October.
    - The index has increased for the 5th month in a row and has reached its highest level since November 2000.
  - Both indices remain high, but exhibit different trends: while the CCI keeps rising, the Michigan index has remained flatter over past months.
**Equipment Investment and Capacity Utilization**

- **Equipment investment rises solidly**
  - With another brisk rise during the third quarter, real business equipment investment increased 6.3% over the four quarters ending in 2017Q3.
  - Four-quarter changes were positive for all major categories, with the largest rise for industrial equipment.
  - The level of real business equipment investment hit a new peak in 2017Q3.
  - Even with the Q3 rise, equipment investment has risen sluggishly over the past three years, as the manufacturing capacity utilization rate remains low.
  - This rate was 76.4% in October, 2 percentage points below its longer-term average.
  - Historically, robust growth of equipment investment has not occurred until the capacity utilization rate surpassed 80%.

**Nondefense Capital Goods Excluding Aircraft**

- **New orders and shipments are strengthening**
  - Shipments of nondefense capital goods excluding aircraft continue to rise at a brisk pace, rising 9.3% over the twelve months ending in October. Moreover, it appears that the rate of increase is accelerating, with the three-month annualized change at 16.3%.
  - New orders for nondefense capital goods excluding aircraft have increased somewhat faster than shipments over the past three months, with the level remaining above that of shipments.
  - These developments suggest strengthening of business investment in new equipment in the months ahead.
**HOUSING SECTOR**

**Housing Starts**

- **Thousands, 3 MMA**
- **2000** to **2016**
- **Total Multifamily (Left Axis)**
- **Single Family (Right Axis)**
- **Source**: Census Bureau via Haver Analytics
- **Note**: Shading shows NBER recessions.

**Housing starts remain on a gradual uptrend**

- Total housing starts in October were an upside surprise, rising 13.7% to 1.290 million units (seasonally-adjusted annual rate).
- Single-family starts rose 5.3% in October to 877,000 units. Using a three-month moving average to smooth out volatility, single-family starts remain on a gradual uptrend.
- Multi-family starts surged 36.8% in October to 413,000 units. This increase comes after a roughly nine month period of declines.
- Continued improvement in the labor market has the potential to strengthen the rate of recovery in this sector.

**Credit Score at Origination: Mortgages**

- **Score**
- **2003** to **2017**
- **Median**, **25th percentile**, **10th percentile**
- **Source**: New York Fed Consumer Credit Panel/Equifax
- **Note**: Credit Score is EquifaxRiskScore3.0; mortgages include firstliens only.

**Mortgage underwriting standards remain tight**

- Credit standards have loosened only modestly since 2012, after tightening sharply between 2007 and mid-2009.
- Lending standards also remain tight compared to levels in the early 2000s, which preceded the subprime boom.
- Nearly 67.5 million people in the population of adults with credit reports currently have scores below 650.
  - The share of originations to borrowers below this level has fallen from 25% to 10% since the Great Recession.
Real government spending unchanged over past year

- As of 2017Q3, real consumption and gross investment by both the federal and state and local governments was essentially unchanged from a year earlier.

- At the federal level, both defense and nondefense spending were roughly unchanged over the year ending in 2017Q3.
  - Defense spending, comprising 60% of federal consumption and gross investment, had been contracting sharply as recently as 2013. In contrast, nondefense spending grew 3.2% in 2015 but has slowed since then.

- At the state and local level, employment has been rising but infrastructure spending has been declining sharply in recent quarters.

State and local public sector remains weak

- State and local government consumption expenditures rose 1.0% (annual rate) in Q3, similar to the rate in Q2.
  - After rising moderately in 2014—16, state and local government consumption has slowed markedly since.
  - In Q3, the four-quarter change in state and local government consumption was only +0.6%.
  - State and local consumption, comprised mainly of wages and salaries, is about 80% of state and local spending.

- Real investment spending by states and localities declined at a 5.8% annual rate in Q3.
  - Real state and local government gross investment has fallen through most of the current expansion.
  - State and local government investment spending in 2017Q3 was more than 22% below its recent peak in 2008Q3.
Recent data show an increasing trade deficit
- The trade deficit increased to $48.7 billion in October from a revised $44.9 billion deficit in September, as real imports increased over the month, while real exports fell.
  - Real exports of goods fell 0.2% over the month in October, mainly owing to large declines in export volumes of the foods, feeds and beverages as well as capital goods (ex. autos) categories.
  - Real nonoil imports of goods increased 1.3% in October, driven predominantly by higher import volumes of the consumer goods (ex. autos) and other goods categories.
- Net exports added 0.4 percentage point to GDP in the Q3 Second Estimate, virtually unchanged from the Q3 First Estimate.

Global recovery picks up steam
- Global GDP growth has strengthened in recent quarters.
  - Growth has averaged 3.6% over the first three quarters of 2017, compared with an average of 2.7% in 2014-16.
  - Emerging economies outside China account for most of the pickup in global activity. Growth in these countries has averaged 4.0% so far in 2017, vs. just 2.3% in 2014-16.
- Business surveys point to continued solid growth in Q4.
  - At its November level, the global composite purchasing managers index is consistent with growth slightly above 3%.
- Consensus growth forecasts have been on a rising trend for more than a year, and now predict growth to remain slightly above 3% through 2018.
**Payroll Employment and Aggregate Hours**

- Payroll employment growth above expectations
  - Nonfarm payrolls increased by +228,000, above the median forecast (+195,000).
    - The net revision to September and October payrolls raised employment gains by 3,000, bringing the average monthly increase in payroll employment to +170,000 over the past three months.
  - Average weekly hours rose slightly over the month, from 34.4 hours to 34.5 hours.
    - Along with the rise in payrolls, aggregate hours worked by all private employees increased by 0.46%.
  - Private payroll employment increased by +221,000.

**Alternative Unemployment Rates**

- **U6 rises slightly in November**
  - An alternative measure of unemployment, U6, which includes marginally attached workers and workers who hold part-time jobs but prefer full-time jobs, rose from 7.9% in October to 8.0% in November.
    - Despite the increase over the month, the 3-month moving average of U6 was 8.07%, a level last reached in December 2006.
  - Other alternative measures of unemployment behaved like the headline unemployment rate (U3), remaining at their October values.
    - U4, which includes discouraged workers, remained at 4.4%, while U5, which includes marginally attached workers, held at 5.0%.
**LABOR MARKET**

### Employment-to-Population Ratio 12-mo. Change

![Chart showing percentage points for employment-to-population ratio by age group.](chart)

- **Men**
  - Ages 16-24
  - Ages 25-54
  - Ages 55+
- **Women**
  - Ages 16-24
  - Ages 25-54
  - Ages 55+

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

**Note:** Difference between November 2017 and November 2016 ratios presented above.

### E-POP ratio rose in the last year

- The employment-to-population (E-POP) ratio rose over the last year.
  - The E-POP ratio has increased by 0.4 percentage points (pp) since November 2016, when the E-POP ratio was 59.7%.

- Since November 2016, the employment-to-population ratio has grown for both men (+0.3pp) and women (+0.6pp).
  - For men, the rise in the E-POP ratio is the result of an increase for prime-age and older men that offset the decline for young workers.
  - The E-POP ratio for young and prime-age women rose over the year, while the E-POP for older women remained unchanged.

### Growth of Average Hourly Earnings and ECI

![Chart showing annual % change in average hourly earnings and employment cost index.](chart)

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

**Note:** Shading shows NBER recessions.

### Average hourly earnings growth is muted

- Average hourly earnings increased by 0.19% from $26.50 in October to $26.55 in November.
  - The 12-month change in average hourly earnings was 2.47% in November.
  - The mean 12-month change in average hourly earnings was 2.62% over the period January to December 2016, well above the 2.03% average for the 2010-2015 period.

- Average weekly earnings grew at a faster pace than average hourly earnings.
  - Average weekly earnings increased by 0.48% in November.
  - The 12-month change in average weekly earnings was 3.07%.
INFLATION

**Core inflation rises in October**
- Core inflation strengthened in October, suggesting that the slump observed earlier in the year might have been temporary.
  - Core CPI increased 0.2% in October, and its 12-month change was 1.8%, 0.1% higher than in the previous five months.

- Core goods prices stopped falling in October and services prices increased slightly faster than in September.
  - Core services prices rose 0.3% in October, up from the 0.2% increase recorded in September.
  - Core goods prices increased by 0.1% in October, after decreasing in each of the previous seven months.

**Core inflation forecasts for 2018 are slightly lower**
- The U.S. Survey of Professional Forecasters provides density (histogram) forecasts that show the probability that inflation will fall into 10 separate ranges.
  - The Q4 survey was fielded from October 30 through November 7, with results released on November 13.

- Compared to the Q3 survey, respondents modestly raised the probability that core PCE inflation measured from 2017Q4 to 2018Q4 will be below 2.0 percent.
  - Forecasters now see a 59% chance of 2018 core PCE inflation below 2.0%, up from 54% in the previous survey.
  - The Q4 survey reports that the probability of core PCE inflation falling between 1.5 and 1.9 percent in 2018 is about 40%, with less weight on most of the other ranges.
**U.S. Equity Market Index and Volatility**

- **U.S. equity markets reach new record highs**
  - U.S. equity market indices rose, with the S&P 500 stock market index reaching new highs.
    - Between November 6 and December 8, the S&P 500 index increased 2.3%.
  - Option-implied stock market volatility, as measured by the CBOE Volatility Index (VIX), remains around historically low levels.
    - On November 3rd, the VIX reached its lowest level since 1993 at 9.14.

**U.S. Bank Equities Performance**

- **U.S. bank stocks outperformed market**
  - U.S. bank stock performance outpaced broader equities in November and early December.
    - As measured by the KBW Nasdaq bank index, bank equities rose 4.6% between November 6 and December 8, compared to an increase of 2.3% for the S&P 500 Index.
    - Similarly, the XLF financial sector ETF rose 4.7% over the same period.
  - For 2017 year-to-date, the KBW index is up 16.2% and the XLF ETF is up 20.4% compared to the broader stock market, which has increased 18.4%.
**USD Exchange Rates**

- The exchange value of the dollar against a basket of global currencies decreased over the last month.
  - The dollar depreciated about 0.5% against the Mexican peso, and 0.2% against the Japanese yen.
  - The dollar depreciated about 1.4% against the euro, due in part to strong economic data from the euro area.
- Since the start of the year, the dollar has depreciated about 7.4% against a basket of global currencies.

**Expected Federal Funds Rate**

- The expected path of the federal funds rate implied by rates on overnight indexed swaps (OIS) flattened over the past month.
- The current market-implied path out to five years remains below 2.4%.
  - The reported longer-run value of the median respondent of the FOMC’s December 2017 Summary of Economic Projections is 2.8%.
**10-Year Treasury and Term Premium**

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<th>Year</th>
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Source: NY Fed calculations, Federal Reserve Board

Note: 5-day moving average, zero-coupon yield.

**Longer-term Treasury yields remain low**

- 10-year Treasury yields remain low by historical standards.
  - The 10-year yield has increased roughly 26 basis points from its level in early September, and is down by about 28 basis points from the year-to-date high observed in March.
  - Estimates from the Adrian-Crump-Moench term structure model attribute the decline in the 10-year yield over the last few months to a reduction in term premia and a modest downward revision in the expected average short-term interest rate over the next decade.
  - The estimated 10-year term premium remains at very low levels.

**Breakeven inflation little changed**

- Market-implied TIPS-based measures of long-term inflation expectations ("breakevens") were little changed over the past month.
  - The five-to-ten year breakeven inflation rate is up more than 50 basis points from the record lows observed last year.
  - According to the Abrahaus-Adrian-Crump-Moench term structure model, most of the movements in forward inflation compensation continue to reflect movements of the inflation risk premium.
EARNINGS DISPARITY AND SOCIAL MOBILITY

College type and major matter for medium-term earnings

- Our objective is to understand how educational background (major, selectivity, college type) affects earnings, employment, earnings disparities and economic mobility.
  - We present results for 4-year college attendance; 2-year results are similar unless otherwise indicated.
- College selectivity and type matter for medium-term earnings.
  - Selective college attendance (relative to non-selective ones) leads to 11% higher earnings 6 years after enrollment.
  - For-profit college attendance leads to 17% lower earnings (relative to private not-for-profit attendance).
- Major matters for medium-term earnings.
  - A one percentage point increase in the share of students majoring in STEM (rather than Arts) leads to a 0.6% increase in that cohort's earnings 6 years after enrollment.

Marked increase in selectivity premium in long term

- Relative premium from selective college attendance increases in the long run.
  - Selective college attendance leads to 11% higher earnings in the short run but 20% higher earnings in the long term.
- Relative premium from for-profit college attendance becomes even more negative in the long term.
  - Major premium remains the same in the long term.
- Major, college type, and selectivity also matter for medium-term employment, but markedly less.
  - Unlike earnings premium, employment probability remains similar between the medium and long term.
EARNINGS DISPARITY AND SOCIAL MOBILITY

**College type & major matter for economic mobility**

- Economic mobility refers to the extent to which individuals move along the income distribution over time.
  - The chart reports differences in mean earnings 6 years after enrollment between students in the top and bottom tercile of family income at time of enrollment.

- Selective colleges promote upward mobility.
  - Selective college attendance (relative to non-selective) increases earnings of students from the bottom tercile by about $2,700 more than for students in the top tercile.

- For-profit colleges hinder upward mobility; 4-year public colleges serve as equalizers.
  - However, community colleges (2yr public) widen initial income differences.

**Economic mobility patterns similar in the long term**

- Findings for economic mobility are similar across medium term (6 years after enrollment) and long term (10 years after enrollment).
  - However, majoring in a STEM subject tends to equalize earnings in the long run.

- For-profit colleges continue to be polarizing, but slightly less so in the long run.
  - Attendance in public colleges becomes even more equalizing relative to the medium term.