U.S. Economy in a Snapshot
Research & Statistics Group
February 2018

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 February 5, 2018.

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- Real consumer spending growth was moderate in December.
  - Durable goods expenditures posted solid gains.

- Business equipment spending continued to increase robustly in the last quarter, exhibiting brisk growth overall in 2017.

- Housing indicators point to continued gradual improvement in this sector.
  - Tight housing supply and the strong labor market have the potential to provide continuing support to the housing sector.

- Payroll growth was solid in January. The unemployment rate, labor force participation rate and employment-to-population ratio were all unchanged.
  - The latest readings of various measures of labor compensation indicated further modest strengthening of growth.

- Core PCE inflation continued to run below the FOMC’s longer-run objective, but near-term momentum has firmed.

- After hitting record highs in late January, U.S. equity indices declined sharply. Realized and implied volatility rose significantly. The nominal 10-year Treasury yield increased sharply, and the broad trade-weighted dollar index declined.

Output modestly above its potential level

- Real GDP in 2017Q4 was 0.5% above the Congressional Budget Office’s (CBO) measure of real potential GDP.
  - Real GDP was not above the CBO estimate of real potential GDP between 2007Q4 and 2017Q3.
  - The January unemployment rate of 4.1% is below many estimates of its natural rate, including that of the CBO (4.73%).

- The CBO output gap indicates nonexistent 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 Indicators
- **Unemployment Rate**
  - The unemployment rate remained at 4.1% in January.
  - The unemployment rate has been at that level for the past four months.
- **Labor force participation rate**
  - The labor force participation rate in January was 62.7%, the fourth consecutive month at that level.
  - The **labor force participation rate for male workers** rose from 86.5% in December to 68.6% in January, but this increase was offset by a decline in the participation rate for female workers from 56.7% to 56.5%.
- **Employment-to-population ratio**
  - The employment-to-population ratio remained at 60.1% in January for the third month in a row.
  - An increase in the male employment-to-population ratio of 0.2% since December was netted out by a decline in the female employment-to-population ratio.

### PCE Deflator
- **Total PCE**
  - The total PCE price index rose 0.1% in December, after a 0.2% increase in November. The core PCE price index (which excludes food and energy prices) increased 0.2% in December, up from a 0.1% rise in November.
  - Energy prices have been volatile recently, falling 1.2% in December after a gain of 4.3% in November.
  - Food prices rose 0.1% in December and are up only 0.8% from a year ago.
- **Core PCE**
  - The 12-month changes in the total PCE and core PCE price indices were +1.7% and +1.5%, respectively, in December.
  - There is evidence of near-term momentum in inflation, as the core PCE price index rose 1.9% (annual rate) in Q4 following gains of 0.9% and 1.3% in Q2 and Q3, respectively.

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

**Note:** Shading shows NBER recessions.
GDP Growth

% Change – Annual Rate


Growth maintains solid pace in 2017Q4

- According to the advance release, real GDP expanded at a 2.6% annual rate in 2017Q4.
  - Growth in Q4 moderated somewhat compared to that in Q2 and Q3, but the four-quarter change in output was 2.5%, which was the highest since 2015Q2.

- Growth in real GDP in 2017Q4 reflected exceptional strength in final sales to domestic producers along with substantial drags from inventory investment and net exports.
  - Final sales to domestic producers contributed 4.4 percentage points to growth, while inventory investment and net exports contributed -0.7 and -1.1 percentage points to growth, respectively.

Manufacturing and ISM Manufacturing Index

12 Month % Change


Manufacturing expands at slower rate

- Manufacturing production rose by 0.1% in December following a 0.3% rise in November.
  - Manufacturing production increased by 2.3% in 2017 on a 12-month change basis.

- The ISM Manufacturing index was broadly unchanged in January, edging down 0.2 percentage point to 59.1.
  - The Purchasing Managers Index (PMI) indicates continued expansion in manufacturing at a slightly slower pace.
  - The Prices Index jumped 4.4 percentage points to 72.7 in January, indicating accelerating upward price pressures.

- All regional Fed manufacturing surveys indicated continued expansion in January.
**HOUSEHOLDS**

**Disposable Income, Consumption, and Wealth**

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<th>Quarter % Change</th>
<th>% of Disposable Income</th>
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- Household Net Worth (Right Axis)
- Real Disposable Income (Left Axis)
- Real Personal Consumption (Left Axis)

Source: Bureau of Economic Analysis, Federal Reserve Board, via Haver Analytics
Note: Shading shows NBER recessions.

**Consumption spending steady in December**

- Real personal consumption increased 0.3% in December, supported by continued growth of net worth.
  - Demand for durable goods rose a solid 0.8% in December, after increasing 1.1% in November.
  - Spending on non-durables was flat, while services rose 0.3%, the same pace as November.
- Real disposable personal income increased 0.2% in December, rebounding from a flat reading in November.
- The personal saving rate fell to 2.4% in December, confirming a downward trend since May 2017 and reaching a 13-year low.

**Household net worth continues to rise**

- Total net worth of U.S. households pushed further into record territory during 2017Q3 from improving home values and higher stock prices.
  - During Q3, net worth of households and non-profit organizations rose by about $1.7 trillion to a little under $97 trillion.
  - Real estate wealth rose by $285 billion and financial net worth increased by approximately $1.45 trillion.
  - Wealth has risen for eight consecutive quarters.
- Household wealth fell by almost $12 trillion during the 2007-09 recession, but recovered by 2012Q3.
- Rising household net worth and declining saving rates point to strong wealth effects on consumer spending.
**Equipment Investment and Capacity Utilization**

- **Equipment investment rises solidly**
  - With another robust increase last quarter, real business equipment investment rose 8.8% over the four quarters ending in 2017Q4.
  - All major categories had solidly positive 4-quarter changes, with the largest rises in information and “other” equipment.
  - Even with solid increases in 2017, the equipment spending share of GDP stayed below its average share in 2015.

- Equipment investment still has risen only modestly over the past three years, as the manufacturing capacity utilization rate remains low.
  - This rate was 76.4% in December, two percentage points below its longer-term average.
  - Historically, robust growth of equipment investment has not occurred until the capacity utilization rate approached 80%.

**Investment in Nonresidential Structures**

- **Moderate growth in nonresidential structures investment**
  - Real investment in nonresidential structures grew at a moderate 3.7% over the four quarters of 2017, comparable to the rate of growth of 2016.
    - This category of final expenditures includes investment in a wide range of nonresidential structures, such as office buildings, retail space, warehouses, health care and education facilities. It also includes oil and gas related structures and the value added by drilling wells.

  - Petroleum and natural gas exploration, wells, and shafts accounted for about 19% of this category of investment over the second half of 2017 but was responsible for all of the growth.
    - The petroleum and natural gas sector grew at a 20.9% annual rate over the second half of 2017 while everything else declined at a 7.6% annual rate.
**HOUSING SECTOR**

**Housing Starts**

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Source: Census Bureau via Haver Analytics

Note: Shading shows NBER recessions.

**Housing starts still point to improving conditions**

- Total housing starts fell 8.2% in December after rising 3.0% in November. The December level was just shy of 1.2 million units (seasonally adjusted annual rate).

- Single-family starts fell 11.8% in December to 836,000 units. Even so, the 2017 level of single-family starts was the highest since 2007.

- Multi-family starts rose 1.4% in December after falling 6.1% in November. The 2017 level of multi-family starts was below the 2015 and 2016 levels.

- The strong labor market has the potential to provide support for further improvement in the housing sector.

**New and Existing Home Sales**

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Source: Census and National Association of Realtors via Haver Analytics

Note: Shading shows NBER recessions.

**Home sales on an overall gradual uptrend**

- Single-family existing home sales decreased 2.6% in December to 4.96 million units (SAAR).
  - Single-family existing home sales are 1.0% higher than a year ago and are comparable to mid-2002 levels.

- Single-family new home sales decreased 9.3% (SAAR) in December to 625,000 units.
  - Single-family new home sales have risen 14.1% over the past year, but fell below the immediate pre-recession level (641,000 units in November 2007) after having surpassed it for the first time in November 2017.

- Inventories-sales ratios for existing and new homes are below their historical averages, which has contributed to upward pressure on home prices.
Real government spending unchanged over past year

- The fourth quarter saw some improvement in the rate of growth of real government consumption and gross investment after roughly no change in the previous two years.
- At the federal level, spending was up 1.1% over 2017, the first meaningful increase since 2015Q4.
  - This increase was led by defense spending, which comprises 60% of federal consumption and gross investment.
  - Nondefense spending was down 0.8% over the period.
- Spending at the state and local level was up 0.5% over the four quarters of 2017 after being essentially unchanged in the preceding three quarters.
  - The pickup in growth in this sector has been led by infrastructure investment.

Growth of government receipts is firming

- Growth of federal government receipts increased to 3.4% over the four quarters ending in 2017Q3 after having stalled in 2016.
- Growth of total receipts at the state and local level has also improved somewhat of late, though less so than at the federal level.
- In both cases, the improvement stems from stronger growth of taxable income in 2017 reflecting a pick up in the rate of growth of nominal GDP.
INTERNATIONAL DEVELOPMENTS

Net Exports: Contribution to GDP Growth

Source: Bureau of Economic Analysis via Haver Analytics

Net exports tempered growth in 2017Q4

- According to the advance release, net exports subtracted 1.1 percentage points from GDP growth in Q4.
  - Real exports grew 6.9% (SAAR), and real imports rose 13.9% (SAAR).
  - Growth rates of both real exports and imports accelerated substantially relative to Q3.

- The trade deficit increased to $53.1 billion in December from a revised $50.4 billion deficit in November.
  - Real goods exports increased 2.6% over the month in December. The increase was broad based, with the exception of auto and consumer goods.
  - Real goods imports rose 2.7% between November and December, as import volumes of consumer goods and industrial supplies were up markedly while oil imports fell.

China: Manufacturing PMI and Industrial Production

China’s growth may slow in 2018

- China’s GDP increased by 6.8% in 2017Q4 over the same quarter of the previous year, unchanged from the growth rate recorded in 2016Q4.
  - An increased contribution from net trade offset slower growth in both consumption and investment.

- The January reading for the Purchasing Managers Index dipped to 51.3, while industrial production in 2017Q4 grew by 6.3% (SAAR), down from 6.6% in Q3.
  - Real retail sales and fixed asset investment slowed notably in Q4. However, revisions to these data make year-over-year comparisons difficult.

- Total credit growth slowed from 14.4% to 13.9% year-over-year in December, in part due to weaker bank lending.
**Payroll Employment and Aggregate Hours**

- Nonfarm payrolls increased by 200,000, above the Bloomberg median forecast of 180,000.
  - The year-over-year growth rate in nonfarm payrolls was 1.5% in January 2018. The growth rate was 1.8% in January 2017 and 1.9% in January 2016.
  - Goods-producing employment increased by 0.3% between December and January, while service-providing employment increased by 0.1%.

- Average weekly hours dropped from 34.5 in December to 34.3 in January.
  - Aggregate weekly hours worked by all private employees decreased 0.5% in January.

**FT Workers with Hours Reduced by Weather**

- In January, 1.863 million full-time workers reported working less than 35 hours due to bad weather.
  - In January 2018, the number of full-time workers working fewer hours due to bad weather was unusually high for that time of the year. On average, between 2012 and 2017, 764,000 full-time workers reported working less than 35 hours due to inclement weather in January.

- In 2017, average weekly hours fell in March and in September, relative to the prior month. The number of full-time workers who reported reduced hours due to bad weather during these months were 3.145 million and 2.964 million, respectively.
**LABOR MARKET**

**Revisions to Payroll Employment Growth**

- **Pre-Revision Average:** 171K
- **Post-Revision Average:** 181K
- **Average Difference:** 9.8K

Source: Bureau of Labor Statistics

**Annual nonfarm payroll growth revised upward**

- Per an annual benchmark revision, nonfarm employment increased by 2.173 million in 2017, compared to the pre-benchmark revision estimate of 2.055 million, a difference of around 10,000 per month.
  - Sample-based employment estimates from the previous year are updated annually using administrative records of the unemployment insurance tax system.
- The average benchmark revision over the past 10 years has been plus or minus 0.2% of employment on a non-seasonally adjusted basis.

**Growth of Average Hourly Earnings and ECI**

**Earnings growth continues upward trend**

- Average hourly earnings increased by 0.34% from $26.65 in December to $26.74 in January.
  - The year-over-year average hourly earnings growth rate has increased in each of the last three months, from 2.3% in October 2017 to 2.9% in January.
- The employment cost index, which measures quarterly changes in labor costs, increased by 0.6% from September to December.
- Because wage growth in the January establishment survey might have been influenced by the measured reduction of hours worked, additional readings of these data are necessary to determine if the pick-up in wage growth is sustainable.

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.
**INFLATION**

**CPI Inflation: Core Goods and Core Services**

- Core CPI inflation gradually recovering
  - The core CPI rose 0.3% in December, its strongest reading since January 2017.
  - The 12-month core CPI and its services and goods components are recovering gradually after dropping unexpectedly in the first half of 2018.
    - The temporary factors that had been identified in real time as contributing to holding down core inflation appear to be vanishing, although the resulting lift to inflation is partly masked by 12-month averaging.
  - The pick-up in core goods inflation over the past few months has been more pronounced than in core services, partly reflecting the higher volatility of the former.

**Core Goods and Core Services: 3 Month Change**

- Momentum in core CPI back to year-ago levels
  - The recent recovery in core CPI is more evident from the 3-month change in its components.
  - 3-month inflation in core services is currently running around 3%, after dipping to as low as 1% in May 2017.
  - 3-month inflation in core goods was back in positive territory in December, after dropping to almost -3% earlier in the year.
    - Core goods inflation has staged similar recoveries around this time in the previous three years, just to plunge back into deflationary territory soon thereafter.
**U.S. Equity Market Index and Volatility**

- After increasing through much of January, U.S. equity markets declined sharply in late January and early February.
  - The S&P 500 index reached an all-time high on January 26.
  - Between January 26 and February 5, the index declined 7.8%.
  - As of February 5, the index was down 0.9% year-to-date.

- Option-implied stock market volatility, as measured by the CBOE Volatility Index (VIX Index), increased sharply in early February.
  - The VIX Index closed at 37.3 on February 5, its highest level in almost 2½ years; this follows a sustained period of historically low volatility.

**U.S. Bank Equities Performance**

- As measured by the KBW Nasdaq Bank Index, bank equities reached a post-crisis high on February 1, before declining 6.7% between February 1 and February 5.
  - As of February 5, the index was up 1.9% year-to-date.

- The XLF financial sector ETF reached a post-crisis high on January 26, before declining 7.6% between January 26 and February 5.
  - As of February 5, the index was down 1.0% year-to-date.
FINANCIAL MARKETS

**USD Exchange Rates**

- The exchange value of the dollar against a basket of global currencies decreased 2.1% between January 5 and February 5.
  - Over this same period, the dollar depreciated by 2.7%, against the euro, 3.5% against the Japanese yen, and 2.1% against the Mexican peso.
- Since the start of the 2018, the dollar has depreciated 2.7% 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) shifted up over the past month.
- The market-implied path remains somewhat below the path implied by the medians in the FOMC’s December 2017 Summary of Economic Projections and the December 2017 New York Fed Surveys of Primary Dealers and Market Participants.
**FINANCIAL MARKETS**

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### 10-Year Treasury and Term Premium

- **Longer-term Treasury yields rise**
  - Longer-term Treasury yields rose sharply over the past month.
    - The 10-year yield increased roughly 30 basis points between January 5 and February 5, to its highest level in nearly four years.
  - Estimates from the Adrian-Crump-Moench term structure model attribute about 20 basis points of the increase in the 10-year yield over the past month to a less negative term premium and the remainder to a higher path for the short-term interest rate.
    - The estimated 10-year term premium remains negative.

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### 5-10 Year Forward Decomposition

- **Breakeven inflation increases**
  - Market-implied TIPS-based measures of long-term inflation expectations (“breakevens”) increased over the past month.
    - The five-to-ten year breakeven inflation rate was 2.14% on February 5, up 18 basis points from January 5 and 20 basis points year-to-date.
  - According to the Abrahams-Adrian-Crump-Moench model, most of the movements in forward inflation compensation continue to reflect movements of the inflation risk premium.
    - The estimated five-to-ten year inflation risk premium increased 12 basis points between January 5 and February 5.
HOMEOWNERSHIP RATE

Aggregate Homeownership Rate

- After a long decline, the aggregate homeownership rate rose over the last half of 2017.
  - The homeownership rate reached 64% in December.

- The aggregate homeownership rate reflects the strong housing cycle of the 2000s.
  - The homeownership rate varied in a narrow range from 1965-1995, when it began a ten-year rise.
  - The rate reached 69.3% in 2004, before falling for a decade.

- The June 2017 trough was 63%, very close to the lowest levels of the homeownership rate since the 1960s.

Homeownership Rate by Region

- The homeownership rate varies substantially over regions.
  - The Midwest is highest, followed by the South, Northeast, and West; this ranking has been stable since mid-1970s.
  - The Midwest and West homeownership rates differ by almost 10 percentage points.

- All regions experienced a strong rise in early 2000s.

- The four regions experienced a uniformly sharp decline of six percentage points after 2006.
  - The December 2017 homeownership levels are above the December 1994 levels, except in the Northeast.

Source: Census Bureau via Haver Analytics
Homeownership rate is seasonally adjusted.

Note: Shading shows NBER recessions.
**Homeownership Rate**

### Homeownership Rate by Age

- **Ages 55-65 (Right Axis)**
- **Ages 45-55 (Right Axis)**
- **Ages 35-45 (Right Axis)**
- **Under 35 (Left Axis)**

Source: Census Bureau via Haver Analytics

Note: Shading shows NBER recessions. Homeownership rate is seasonally adjusted.

### Homeownership rate increase led by millennials

- **The boom-bust cycle affected homeownership for most age groups.**
  - The 2017 rates are below 2004 rates for all age groups.

- **These dynamics are most pronounced for younger ages.**
  - Rates for young (age < 45) households rose and fell the most, whereas older households’ rates were flat prior to the decline after 2004.

- **The recent aggregate uptick has been driven by younger households.**
  - Rates for millennials (age < 35) are up one percentage point since last year.

- **All age groups’ rates except 65+ remain below 1993 levels.**