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 6, 2016.
- Real consumer spending rose slightly in October, but its growth in Q3 was revised upward to indicate a healthy pace of growth in the quarter.

- Business equipment spending has declined for four consecutive quarters through 2016Q3, and October data suggested further sluggishness over the near term.

- Activity in manufacturing may be improving slightly. Real residential investment is likely to rebound in Q4 after falling for two consecutive quarters.

- Payroll growth remained solid in November, and there was a marked fall in the unemployment rate. The labor force participation rate declined, while the employment-population ratio was steady.

- Both headline and core inflation continued to run at levels below the FOMC’s longer-term objective, but inflation has shown slow progress towards the FOMC’s goal.

- Following the U.S. election, broad U.S. equity indexes hit new all-time highs, the dollar rose, and long-term sovereign yields increased. Oil prices increased after a recent OPEC agreement to reduce production.

### Output is below its potential level

- The gap between real GDP and the Congressional Budget Office’s (CBO) measure of real potential GDP was about 1.5% in 2016Q3.
  - The November unemployment rate of 4.6% is near or somewhat below many estimates of its natural rate, including that of the CBO (4.74%).
  - Compared to these alternative unemployment gap estimates, the CBO output gap indicates more resource slack.

- Historically, inflation has tended to be restrained when the economy is operating below potential.
**OVERVIEW**

**Labor Market Indicators**

- **Labor market continues to improve**
  - The unemployment rate fell to 4.6% in November.
    - The unemployment rate has not been this low since August 2007.
    - An alternative measure of unemployment, U6, which includes marginally-attached workers as well as workers who hold part-time jobs but prefer full-time jobs, fell from 9.5% to 9.3%.
  - The labor force participation rate fell from 62.8% in October to 62.7% in November, and the employment-population ratio remained at 59.7%.
    - These indicators have shown some improvement in the last twelve months.

**PCE Deflator**

- **Inflation maintaining its slow progress towards 2%**
  - The total PCE deflator rose 0.2% in October, while the core PCE deflator (which excludes food and energy prices) increased 0.1%.
    - Energy prices rose 3.8% in October, and are now nearly unchanged from a year ago.
    - While food prices were flat in October, they are down 1.8% from a year ago.
  - The 12-month change in the total PCE deflator was 1.4%, the highest reading since October 2014. The 12-month change in the core PCE deflator was 1.7%, the same as in September and August.
    - The recent data point to inflation moving slowly towards the FOMC’s longer-run objective.
ECONOMIC ACTIVITY

GDP Growth

% Change – Annual Rate

Source: Bureau of Economic Analysis via Haver Analytics

GDP growth in Q3 revised up modestly

- According to the second estimate, real GDP rose at a 3.2% annual rate in Q3, an upward revision to the advance estimate of a 2.9% increase.

- There was a fairly substantial upward revision to consumer spending that was partially offset by downward revisions to business fixed investment and inventory investment.

- Real gross domestic income (GDI), which provides an alternative measure of economic activity, increased at a 5.2% annual rate in Q3.
  - The four-quarter change in real GDI was 2.0%, moderately above the corresponding increase of 1.6% for real GDP.

Manufacturing and ISM Manufacturing Index

12 Month % Change

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

Note: Shading shows NBER recessions.

Manufacturing sector rises modestly

- Manufacturing activity increased 0.2% in October, the second consecutive monthly rise at that rate.
  - The level of manufacturing production is little different from that at the end of 2014, as sectors outside of high-tech and motor vehicles have been weak over this period.

- The ISM manufacturing index was 53.2 in November, up from 51.9 in October.
  - The increase was driven primarily by the production index which rose 1.4 percentage points to 56.0, and the supplier deliveries index which rose 3.5 percentage points to 55.7.

- Regional Fed surveys generally have improved recently.
  - The general conditions indexes from each survey are in modestly to moderately positive territory.
**Disposable Income and Consumption**

- Real consumption expenditures rose 0.1% in October, after solid growth of 0.5% in September.
  - Goods spending grew a strong 0.9% for the second consecutive month, while services expenditures declined 0.3%.
  - Both goods and services expenditures for September were revised upward.
- Real disposable personal income grew 0.4% in October.
  - There were upward revisions in real disposable personal income for the months of August and September.
- The personal saving rate increased to 6.0% in October from 5.7% in September.

**Total Light Vehicle Retail Sales**

- Sales of light motor vehicles (automobiles and light trucks) in November declined 0.8% to 17.9 million units at a seasonally-adjusted annual rate (SAAR), after rising in the prior two months.
  - Sales have largely recovered from their slowdown in the first part of 2016.
- Automobile sales were 7.2 million units in November, 1.2% above the October pace, but still 8.1% below the November 2015 pace.
- Light truck sales were 10.7 million units in November.
**Equipment Investment and Capacity Utilization**

- **Graph** showing the relationship between quarter change and percentage of capacity utilization from 1980 to 2015.
- **Source:** Bureau of Economic Analysis, Federal Reserve Board via Haver Analytics.
- **Note:** Shading shows NBER recessions.

**Investment in new equipment remains weak**

- Real business equipment spending fell 4.8% (annual rate) in 2016Q3, its fourth consecutive quarterly decline. The four-quarter change was -5.0%.
  - Over the past year, investment in transportation equipment and “other” equipment fell sharply, information equipment rose slightly, and industrial equipment rose moderately.

- A key reason for weak equipment investment is the low level of the manufacturing capacity utilization rate.
  - This rate was 74.9% in October 2016, well below its longer-term average of 78.5%.
  - The utilization rate has been fairly flat since the beginning of 2015, even with slow growth in capacity.

**Nondefense Capital Goods Excluding Aircraft**

- **Graph** showing new orders and shipments from 2000 to 2016.
- **Source:** Census Bureau via Haver Analytics.
- **Note:** Shading shows NBER recessions.

**Capital goods orders continue to rise modestly**

- Monthly data on new orders and shipments of nondefense capital goods excluding aircraft are high frequency indicators of business investment in new equipment.

- The 3-month moving average of orders of such goods increased in October, while that of shipments stayed flat.
  - Both series remain well below their peaks in late 2014.

- New orders have exceeded shipments for three consecutive months, after being generally below shipments since late 2014.
  - Based on historical patterns, such a difference between new orders and shipments suggests a modest improvement in equipment spending over the near term.
**HOUSING SECTOR**

**Housing Starts**

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Source: Census Bureau via Haver Analytics

Note: Shading shows NBER recessions.

**Housing starts moving higher at gradual pace**

- Total housing starts rose 25.5% in October after declining the previous two months.
  - Multi-family starts accounted for the bulk of the increase, rising 68.8% (monthly rate).
  - Single-family starts also increased, rising 10.7% to 869,000 units, the highest level since October 2007.

- The three-month moving average of single-family starts suggests the resumption of a gradual uptrend, while multi-family starts are running at a rate comparable to that in 2015.
  - It is not clear, however, how durable this uptrend in single-family starts will be given recent increases in mortgage interest rates.

**Credit Score at Mortgage Origination**

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Source: FRBNY / Consumer Credit Panel

Note: Shading shows NBER recessions.

**Mortgage underwriting standards slightly looser**

- 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.
GOVERNMENT SECTOR

**Real Government Consumption and Gross Investment**

- On a year-over-year basis, real government consumption and gross investment was up 0.3% as of 2016Q3, a marked slowing from the recent high of 2.2% as of 2015Q4.
- At the federal level, real consumption and gross investment was up 1.1% over the four quarters ending in 2016Q3, compared to an increase of 1.7% as of 2015Q4.
  - Nondefense spending (about 40% of the total) rose 2.6% as of 2016Q3, while defense spending was unchanged after having declined for most of the preceding five years.
- At the state and local government level, which represents about 60% of total government spending (excluding entitlement spending), real consumption and gross investment in 2016Q3 showed little change from a year ago.

**Real State and Local Consumption and Gross Investment**

- Real state and local government gross investment fell 5.1% over the four quarters ending in 2016Q3.
  - While investment displayed strong growth from late 2014 through early 2016, it declined sharply during Q2 and Q3 and is now 7.4% below its 2016Q1 peak.
  - Recent data suggests some improvement for Q4, with October state and local government construction spending showing a 2.3% rise from its September level.
- Real consumption expenditures grew 0.9% over the four quarters ending in 2016Q3.
  - Compared to the first three quarters of 2015, quarterly growth in state and local government consumption expenditures has slowed.

*Source: Bureau of Economic Analysis via Haver Analytics*  
*Note: Shading shows NBER recessions.*
International Developments

Real Exports and Imports of Goods and Services

- Net exports provide strong contribution to Q3 growth
  - Real exports increased 10.1% in 2016Q3 (SAAR), largely reflecting a transitory surge in soybean exports.
    - Real goods exports, however, fell 2.9% from September to October.
    - The 12-month change was 1.5%, down from 2.7% in September.
  - Real imports grew a modest 1.1% (SAAR) in 2016Q3.
    - Real nonoil imports increased 1.5% in October, more than offsetting the 1.2% decline in September.
    - Real nonoil imports are down 0.2% since last October.
  - Overall, net exports contributed 0.9 percentage point to real GDP growth in 2016Q3.

Nominal Goods Exports by Destination

- Exports to major destinations except Asia remain weak
  - Nominal exports of goods fell 1.2% between October 2015 and October 2016.
  - The EU contributed the most to this export drag, falling 6.4%.
    - Offsetting some of this decline, exports to China grew 11.3%, mainly due to soybeans.

Source: Bureau of Economic Analysis via Haver Analytics
Note: Shading shows NBER recessions.

Note: Data are 12-month moving averages.
Payroll Employment and Aggregate Hours

Payroll employment growth remained solid

- November nonfarm payroll employment rose by 178,000, which was above revised gains of 142,000 in October.
  - Over the last three months, average monthly gains were 176,000, which is similar to the average gains of 171,000 in the first half of 2016.

- Aggregate hours increased 0.1% in November.
  - The 12-month change fell to 1.4% and remains below its recent peak of 2.7% in July 2015.
  - Average weekly hours remained at 34.4.

- Payroll gains were not as broad-based as earlier this year, with the one-month diffusion index at 55.5%, below its average of 56.9% over the first three quarters of 2016.

Household Survey Indicators, Prime-age Workers

Unemployment falls on decline in participation

- The declines in overall unemployment and participation were driven by prime-age workers (ages 25-54).
  - The labor force participation rate for prime-age workers fell by 0.2 percentage point to 81.4% in November.
  - The unemployment rate for this group also fell by 0.2 percentage point from 4.2% to 4.0%.

- The decline in the prime-age unemployment rate was driven mostly by a decline in participation.
  - Despite the November decline from its recent high in October (81.6%), prime-age participation in 2016 remains consistently above its 2015 average of 80.8%.
LABOR MARKET

Average and Median Unemployment Durations

Unemployment durations continue to shorten

- In November, average weeks unemployed declined by 0.9 weeks to 26.3 weeks.
  - In 2016, average weeks unemployed has declined by 2.6 weeks from 28.9 weeks in January.
  - The median duration of unemployment has fallen from 10.9 weeks in January to 10.1 weeks in November.

- Declines in 2016 in the share of medium- and long-term unemployed were not due to increased movements into nonparticipation.
  - Relative to 2015, average monthly transitions to nonemployment for those unemployed 5 or more weeks actually declined by 0.9 percentage point to 23.8% in 2016.

Growth of Average Hourly Earnings and ECI

Compensation growth showing signs of a pickup

- Average hourly earnings declined 0.1% in November and rose 2.5% over the past 12 months.
  - Despite the monthly decline, the 12-month growth in average hourly earnings remains above the narrow range near 2% that prevailed from January 2010 through August 2015.

- Average weekly earnings also decreased 0.1% from $891.65 to $890.62.

- The employment cost index rose 2.2% for the 12 months ending in September 2016.
CPI Inflation: Core Goods and Core Services

- Core CPI inflation remaining stable in 2016
  - On a 12-month change basis, core CPI services inflation in October was 3%, which matched its January reading.
    - The inflation trend in the shelter component continued to move slightly higher, while price changes in most other components remained relatively subdued.
    - After showing some recent strength, medical care services prices have been essentially flat over the past two months.
  - Following the typical pattern, core CPI goods inflation has been somewhat more volatile than core CPI services inflation during 2016.
    - On a 12-month change basis, core goods prices have recently hovered around a 0.5% rate of decline.

Michigan Inflation Expectations 5 to 10 Years

- Long-term inflation expectations rise
  - The median of inflation expectations at the 5-10 year horizon from the Michigan survey rose from 2.4% in October to 2.6% in November.
    - This reversed the historical low reached in October.
    - The mean increased to 2.9% from 2.8% in October, returning to its September level.
  - Near-term (1-year) inflation expectations were unchanged.
    - The median and mean expectations were 2.4% and 3% respectively, the same levels as in September.
US Equity Market Returns and Volatility

Source: Bloomberg Finance L.P.

US equity markets near all-time highs

- U.S. equity markets rebounded in November after a modest decline at the end of October, with valuations near all-time highs.
  - As of December 5th, the S&P 500 index is up 7.8% for the year and 5.7% since November 4th.
- Option-implied stock market volatility, as measured by the VIX index, decreased in November alongside the rally in equity markets.
  - The VIX index decreased from 22.5 to 12.1 between November 4th and December 5th, moving toward the lower end of its historical distribution.

Expected Federal Funds Rate

Source: NY Fed Calculations

Note: Estimated using OIS quotes.

Implied path for the Federal Funds rate steepens

- The expected path for the Federal Funds rate (FFR) implied by rates on overnight index swaps (OIS) increased and steepened over the past month.
  - The largest increases in implied rates were observed in medium to longer term tenors.
  - Economic data, including payrolls, were largely in line with market expectations.
- The current market-implied path is now closer to the median longer run path from the FOMC’s Summary of Economic Projections (SEP) and the NY Fed Primary Dealer Survey.
US Bank Equities Performance

- U.S. bank equities were up 17.1% as measured by the KBW index in November compared to a 4.1% increase for the S&P 500 index.
  - The XLF financial sector ETF also outperformed the S&P 500 index by gaining 14.5% in November.
  - This move continued earlier gains in October after banks exceeded third quarter earnings expectations.

US Dollar Exchange Rates

- The dollar appreciated broadly relative to other developed and emerging market currencies.
  - The trade-weighted dollar index appreciated over 3% in November, which included gains of 4.4% versus the euro, 9.8% versus the yen, and 7.1% versus the peso.
  - These moves coincided with a widening of interest rate differentials, including a steepening of the implied path for short-term U.S. interest rates.
**FINANCIAL MARKETS**

### 10-Year Treasury and Term Premium

- **10-Year Treasury**
- **Adrian-Crump-Moench Term Premium**

Source: NY Fed Calculations, Federal Reserve Board.

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

### Longer-term Treasury yields increase

- U.S. long-term Treasury yields remained at low levels despite an increase of over 50 basis points in November.
  - At 2.43 percent, the 10-year yield at the end of November has retraced its declines from earlier in the year.

- Estimates of the Adrian-Crump-Moench term structure model attribute the yield curve change primarily to a higher term premium rather than a higher expected path for the short-term rate.
  - Estimates of the 10-year term premium increased 40 basis points over the course of November and are now in positive territory, after having been negative for almost all of 2016.

### Inflation expectations increase modestly

- Market-implied TIPS-based measures of long-term inflation expectations ("breakevens") increased by 28 basis points in November, but remain near historical lows.
  - The five-to-ten year breakeven inflation rate stands at around 1.89 percent, which is about 0.2 percentage point above its level at the beginning of the year.

- According to the Abrahams-Adrian-Crump-Moench model, variation in the breakeven inflation rate is largely driven by changes in the inflation risk premium, while expected inflation has remained stable.
  - The estimated five-to-ten year inflation risk premium increased by about 30 basis points over the course of November.
SPECIAL TOPIC: SUBPRIME AUTO LOANS

**Auto Loan Originations by Credit Score**

- Billsions of Dollars
- Source: New York Fed Consumer Credit Panel / Equifax
- * Credit score is EquifaxRiskscore 3.0

**Prime and subprime auto originations strong in 2016**

- The dollar volume of originations has been high for all groups of borrowers this year.
  - Both prime and subprime originations are at very high levels.
  - Quarterly levels of originations are only just shy of the highs reached in 2005, with the total for 2016 set to be the highest on record.

- The overall composition by credit score of both originations and outstanding balances has been stable.

**Outstanding Balances by Credit Score and Lender Type**

- 2016 Q3
- Source: New York Fed Consumer Credit Panel / Equifax
- Note: Credit score is EquifaxRiskscore 3.0 at time of origination

**Auto finance companies dominate subprime lending**

- Loans by banks and credit unions comprise half of auto loans balances, with the remaining half originated by auto finance companies typically through a dealer.

- The vast majority (75%) of subprime loans are originated by auto finance companies, with only 25% of subprime auto loans from banks and credit unions.

- Thus, the risks of subprime auto loans lie disproportionately on the balance sheets of auto finance companies.
SPECIAL TOPIC: SUBPRIME AUTO LOANS

Outstanding Auto Loan Balances by Credit Score

- Subprime balances surpass pre-recession peak
  - Auto loan balances broken out by credit score reveal that balances associated with the most creditworthy borrowers (those with a score above 760) have steadily increased, even through the Great Recession.
  - While balances of subprime borrowers (those with a score below 620) contracted sharply during the Great Recession, they began growing in 2011 and surpassed their pre-recession peak in 2015.

Flow into 90+ Delinquency by Score at Origination

- Subprime delinquencies on the rise
  - For borrowers with credit scores over 620, the delinquency rate of auto loans has been relatively low and stable since 2012.
  - There has been a pronounced worsening in the delinquency rate for subprime auto loans, with a notable increase during the past few years.
  - There are roughly 6 million individuals who are 90+ days late on their auto loan payments.
    - The elevated distress associated with these delinquencies is of concern, as these delinquencies are likely to have continued consequences for the affected households.