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 January 13, 2016.
• Real consumption expenditures rebounded in November after being essentially flat in October.
  – The general trend for consumer spending remains fairly solid, although growth in Q4 appears to be slowing from the pace in Q3.

• Indicators from the manufacturing sector and for business equipment spending were soft.

• The general tone of housing data in November suggests a continued gradual improvement in conditions.

• Payroll growth was solid in December. There was no change in the unemployment rate, but the employment-population ratio and labor force participation rose slightly.
  – There were tentative signs of firmer wage growth.

• Inflation remains well below the FOMC’s longer-term objective.
  – Signals about future inflation are mixed, with modest rises in some underlying measures but continued low expectations reported in household surveys.

• Renewed concerns about an economic slowdown in China and weaker global growth weighed heavily on financial markets and commodity prices.

### Output remains below its potential level

• The third estimate of 2.0% real GDP growth for 2015Q3 was consistent with the pattern of subdued growth in this expansion.
  – Similarly, real GDP and real GDI (gross domestic income) advanced 2.1% and 2.0% respectively from 2014Q3.

• The gap between real GDP and the Congressional Budget Office’s (CBO) measure of real potential GDP was about 3% in 2015Q3.
  – The current unemployment rate is near many estimates of its natural rate. Compared to these alternative unemployment gap estimates, the CBO output gap indicates more resource slack.
**OVERVIEW**

**Labor Market Indicators**

- Labor market continues to improve
  - The unemployment rate was 5.0% in December for the third month in a row.
  - The labor force participation rate rose slightly from 62.5% in November to 62.6% in December, which is lower than the range around 62.8% that prevailed from October 2013 to May 2015.
  - The employment-population ratio increased from 59.4% to 59.5%.
    - For prime-age workers (25-54 years old), the employment-population ratio remained unchanged at 77.4%.

**PCE Deflator**

- Inflation remains subdued
  - The total PCE deflator was unchanged in November. The core PCE deflator (which excludes food and energy prices) rose 0.1%, following no change in October.
    - Energy prices fell 1.4% in November, the third decline in the last four months.
  - On a 12-month change basis, the total PCE deflator increased by 0.4%. The core PCE deflator rose 1.3%, where it has remained since the beginning of 2015.
    - Both measures remained significantly below the FOMC’s longer-run objective of 2%, held down in part by the effects of declines in energy prices and in prices of non-energy imports.
**ECONOMIC ACTIVITY**

**GDP Growth**

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<th>% Change – Annual Rate</th>
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<td>10</td>
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Source: Bureau of Economic Analysis, via Haver Analytics

**Output growth in Q3 revised down slightly**

- According to the third estimate, GDP rose at a 2.0% annual rate during Q3, a slight downward revision from the second estimate of a 2.1% increase.
  - The first estimate of GDP growth for 2015Q4 will be released on January 29.
- The downward revision was due to somewhat lower inventory investment.
- Real gross domestic income, which provides an alternative measure of overall economic activity, was revised down to 4.0% (annual rate) from the previous estimate of 4.5%.

**Manufacturing and ISM Manufacturing Index**

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<th>12 Month % Change</th>
<th>Index</th>
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<td>20</td>
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Source: Institute for Supply Management, Federal Reserve Board, via Haver Analytics

**Ongoing weakness in manufacturing**

- Total industrial production fell 0.6% in November.
  - November’s decline marks the third consecutive drop, exacerbated by the dampening effect of unseasonably mild weather on utilities.
- Manufacturing production was flat in November, following a modest increase in October and modest decline in September.
- The ISM’s survey signals further weakening in December.
  - The headline index fell to 48.2 in December—it’s sixth straight decline and lowest level since the recession.
  - It has now declined for six straight months, and is below the threshold of 50 for the second straight month, suggesting further weakening in manufacturing.
**Households**

**Disposable Income, Consumption, and Wealth**

- **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.

**Consumer spending rebounded in November**

- Real consumption expenditures grew 0.3% in November, following no change in October.
- Real disposable income rose 0.2% in November, slightly below the 0.3% gains seen in October and September.
- The personal savings rate edged down to 5.5% in November from a three-year high of 5.6% in October.
- Household net worth as a percentage of disposable income declined in the third quarter, reflecting lower stock market valuations.

**Services, Durables, and Nondurable Goods**

**Goods expenditures lead consumption rebound**

- After a decline of 0.1% in October, both categories of goods consumption grew solidly in November.
  - Expenditures on durable goods increased 1.1% in November, while expenditures on nondurable goods grew 0.9%.
  - The strength in durable goods consumption and nondurable goods consumption was widespread across categories.
- Expenditures on services were essentially flat in November, similar to the previous month.
  - Spending on services was weak in several categories, while spending on household utilities declined due to unseasonably warm weather.
**Business Sector**

**Equipment Investment and Capacity Utilization**

- Real business investment in equipment rose 9.9% (annual rate) in 2015Q3, following modest growth in Q1 and Q2.
  - Spending rose strongly in Q3 for information and transportation equipment, but fell for industrial and other equipment.

- Historically, the rate of growth of business spending on equipment has been positively correlated with the manufacturing capacity utilization rate.

- The manufacturing capacity utilization rate was 76.2% in November, down from 76.3% in October.
  - The utilization rate has changed little over the past year—it was 76.4% in November 2014 and remains below pre-recession levels.

**Nondefense Capital Goods Excluding Aircraft**

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

- On a 3-month moving average basis, shipments of such goods fell again in November and new orders improved slightly.
  - The levels of both remain below their respective mid-2014 levels.

- New orders barely surpassed shipments in November after being below shipments for most of 2015.
  - Based on historical patterns, the modest difference between orders and shipments is generally consistent with sluggish growth in equipment spending over the near term.
**HOUSING SECTOR**

**Housing Starts**

Thousands, 3 MMA

- Total housing starts continued to trend higher, with a 3-month moving average of about 1.15 million units (seasonally-adjusted annual rate) in November.
  - Multifamily starts have rebounded more strongly since 2010.
  - The recovery in single family starts has been muted, reflecting the continued tightness of mortgage underwriting standards.

- Similar patterns are evident for multifamily and single family building permits.

- Despite these gains and continued low mortgage interest rates, housing starts per capita remain about 45% below the longer-term average from 1968-2003.

**New and Existing Home Sales**

Thousands

- Single family existing home sales fell 12.1% in November to 415,000 units, although they have generally increased during the year.
  - While they have surpassed pre-recession levels, single family existing home sales remain markedly below their levels in the mid-2000s.

- Single family new home sales increased 4.3% in November to 490,000 units.
  - After remaining essentially flat for two years, new single family home sales showed a perceptible improvement in the first two months of 2015. Since then, there has been a gradual decline in the pace of new home sales.

- Overall, trends in new and existing home sales point to continued gradual recovery in the housing market.
**Government Sector**

**Real Government Consumption and Gross Investment**

- Total real government consumption and gross investment is now growing modestly on a year-over-year basis after contracting for a 4 year period.
  - Real consumption and gross investment at the federal level has been flat over the first three quarters of 2015.
    - Nondefense spending is rising modestly, while defense spending continues to decline.
  - Real consumption and gross investment at the state and local level grew 1.9% over the four quarters ending in 2015Q3, the fastest since 2009Q2.
    - As of the third quarter of 2015, the state and local sector represents 61.2% of total government consumption and gross investment.

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

- From the third quarter of 2014 to the third quarter of 2015, state and local gross investment surged by 7.1%, while state and local consumption grew by a more modest 0.8%.
  - Investment expenditures account for approximately 20% of state and local spending.
- Due to strong growth earlier in 2015, state and local construction spending in November has increased 6.5% from a year ago.
  - Construction spending constitutes the bulk of state and local gross investment.
  - The pace of state and local construction spending, however, has slowed dramatically since September.
INTERNATIONAL DEVELOPMENTS

Real Exports and Imports of Goods and Services

- Real export growth was only 0.7% at a seasonally-adjusted annual rate (SAAR) in 2015Q3.
  - November data showed a monthly decline of 1.1% in real goods exports.
  - The strong dollar continues to keep exports below their post-1990 trend growth rate of 5%.

- Real US imports grew at a sluggish pace for the second consecutive quarter, rising only 2.3% (SAAR) in 2015Q3.
  - The weakness continued in November, with real non-oil imports decreasing 2.0% from October.

- The net export contribution to real GDP growth was -0.3 percentage point in 2015Q3.

Dollar Exchange Rate and Nonoil Import Prices

- Import prices (excluding oil) were down 3.5% over the year in November.
  - The dollar’s appreciation makes goods produced abroad cheaper in dollar terms.

- Auto and capital goods price indexes are down 2% over the year and consumer goods prices are down 1%.
  - These drops are all about 2-3 percentage points below the average price changes seen over the last ten years.

- Industrial supplies, which are commodity-type goods, are down 10% over the year.
  - The key factor behind the drop in the overall import price index is the decline in commodity prices.
**Employment continues to show solid growth**

- Nonfarm payroll employment increased by 292,000 in December.
  - Payroll employment increased on average by 284,000 per month in the last quarter of 2015.

- Aggregate hours worked increased by 0.3% after declining by 0.1% in November.
  - The 12-month change in aggregate hours was 1.9%.

- The one month diffusion index (reflecting the balance between industries increasing and decreasing employment) was 64.4 in December.

**Beveridge curve remains shifted out**

- The Beveridge curve shows the relationship between job openings from the JOLTS data and the unemployment rate from the Current Population Survey (CPS).

- During the recession, there was a dramatic drop in the job openings rate and an increase in the unemployment rate.

- Since 2010, the unemployment rate has declined by almost 5 percentage points and the job openings rate has improved substantially.
  - Despite these improvements, recent data points still lie to the right of the pre-recession Beveridge curve.
**Labor Market**

**Job Openings/Unemployed and Quits Rate**

- **Improving labor market suggests higher quits rate**
  - The ratio of job openings to number of unemployed job seekers was 0.69 in November, very close to its pre-recession peak.
    - This ratio declined substantially during the recession, reaching its lowest value of 0.15 in July 2009.
  - The continued improvement in job availability during 2015 has not yet been matched by a corresponding increase in the quits rate.
    - While the quits rate has rebounded since 2009 and has risen from 1.3% to roughly 2.0%, it has remained in the 1.9-2% range over the past year.

**Growth of Average Hourly Earnings: All Employees**

- **Signs of some pickup in labor compensation growth**
  - Average hourly earnings were flat in December, but increased by 2.5% over the past 12 months.
  - The 12-month change in average hourly earnings has been above 2% in the second half of 2015, suggesting that labor market improvement may now be generating firmer wage growth.
**Michigan Inflation Expectations: 5-10 Years Ahead**

- **75th Percentile**
- **Median**
- **25th Percentile**

Source: University of Michigan

**Note:** Shading shows NBER recessions.

**Consumers expect low inflation over long-term**

- Michigan long term inflation expectations (five to ten years ahead) have been declining over the past several months.

- In December, the median of long term inflation expectations was unchanged at 2.6% and remained near the low end of the range that has prevailed over the last two years.
  - Recent readings are among the lowest recorded in the entire history of the survey.

- The distribution of long term inflation expectations widened slightly in December, with the 75th percentile rebounding from 3.5% to 4.1%.

**Measures of Core CPI Inflation**

- **FRB Cleveland Weighted Median CPI**
- **FRB Cleveland Trimmed Mean CPI**
- **CPI Excluding Food & Energy**

Source: Bureau of Labor Statistics and Federal Reserve Bank of Cleveland, via HaverAnalytics

**Note:** Shading shows NBER recessions.

**Modest rise in recent core CPI inflation readings**

- Core inflation measures are designed to remove transitory movements in inflation.
  - The ex-food and energy measure associates transitory movements with price changes of these particular items.
  - Instead, the weighted median and trimmed mean measures associate transitory movements with items displaying “small” and “large” price changes.

- While the weighted median has been higher and less variable than the trimmed mean and ex-food and energy measures since early 2012, all the measures have been showing a general acceleration during the past six months.
**US Equity Market Returns and Volatility**

- Broad US equity market indices have declined significantly in value in 2016.
  - The S&P 500 index returned -5% over the period from December 31 to January 12.

- Volatility has increased since December.
  - S&P 500 realized volatility so far in January is 20.4% (in annualized standard deviations), up from 18.1% in December, suggesting elevated volatility compared to historical levels.
  - The VIX option-implied volatility index averaged 22.77 so far in January, increasing from its December average of 18.02. By comparison, the VIX’s historical median is around 18.

**International Equity Indices**

- Global equity indices have also declined significantly in early January.
  - The DAX index decreased by 7% from the end of December to January 12.
  - Over the same period, the Shanghai A shares index decreased by 15% and the Japanese Nikkei stock index declined 10%.
**FINANCIAL MARKETS**

**Expected Federal Funds Rate**

- The expected path for the Federal Funds rate implied by rates on overnight indexed swaps (OIS) is shallower than the implied path during the first half of December.

- The latest market-implied forecast for December is still below the median longer run forecast suggested by the FOMC’s Summary of Economic Projections (SEP) and the NY Fed Primary Dealer Survey.

**10-Year Treasury and Term Premium**

- Consistent with the shallower path for OIS rates, the yield on 10-year Treasury securities declined from 2.23% on December 7 to 2.12% on January 12.

- As implied by the term-structure model of Adrian-Crump-Moench, the yield decline since December is attributed to a combination of lower expected short term interest rates as well as lower term premia.
**FINANCIAL MARKETS**

**5-10 Year Forward Decomposition**

![Chart showing 5-10 Year Forward Decomposition](chart.png)

**Inflation expectations remain well anchored**

- Market-implied TIPS-based measures of long-term inflation expectations (“breakevens”) declined significantly.
  - The breakeven inflation rate declined from 1.80% on December 7 to 1.58% on January 12.
  - The breakeven inflation rate is at multi-year lows.

- Variation in the breakeven inflation rate appears largely driven by changes in the inflation risk premium, with implied expected inflation (as measured by the Adrian-Crump-Moench model) remaining stable.
  - The inflation risk premium is also at multi-year lows of around -0.4%.

**BAA Credit Spread**

![Chart showing BAA Credit Spread](chart.png)

**Corporate cost of borrowing has increased**

- Corporate credit spreads of BAA-rated firms relative to the 10-year Treasury yield have been increasing since mid-2014.
  - Much of the recent increase is attributed to energy and materials sectors.
  - Spreads in non-energy and non-materials sectors are also elevated, but to a lesser extent.
SPECIAL TOPIC: SURVEY OF CONSUMER EXPECTATIONS

**Inflation Expectations**

- Median one-year ahead expected inflation rate
- Median three-year ahead expected inflation rate

Source: Survey of Consumer Expectations, Federal Reserve Bank of New York

**Inflation expectations have declined slightly**

- The FRBNY Survey of Consumer Expectations provides monthly updates on household expectations.
  - The survey is nationally representative, involves a rotating panel of about 1,300 household heads, and covers a broad range of topics.

- Inflation expectations have declined at the one-year ahead horizon since June 2015, reaching a low for the series.

- Inflation expectations have also declined at the three-year ahead horizon, albeit a small uptick in the most recent data.

**One-year Ahead Earnings Growth Expectations**

- 75th percentile expected earnings growth
- Median expected earnings growth
- 25th percentile expected earnings growth

Source: Survey of Consumer Expectations, Federal Reserve Bank of New York

**Lower earnings growth expectations**

- Median earnings growth expectations have been subdued since a high of 2.7% in November 2014.

- In the most recent survey, median expected earnings growth declined substantially to 2.0%, returning to levels mostly observed in the second half of 2013.

- The recent decline was widespread across all age groups, and was especially pronounced for low education and middle-income workers.
SPECIAL TOPIC: SURVEY OF CONSUMER EXPECTATIONS

One-year Ahead Household Spending Growth Expectations

Marked decline in spending growth expectations

- One-year ahead median household spending growth expectations have been declining since December 2014.

- In the most recent data, expected household spending growth decreased sharply to 2.9 percent, marking the lowest level of the series since the inception of the survey in June 2013.

- The decline was particularly pronounced among older, lower education and lower income respondents.

Source: Survey of Consumer Expectations, Federal Reserve Bank of New York