U.S. Economy in a Snapshot
Research & Statistics Group
May 2016

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 May 17, 2016.
- Real consumer spending was flat in March and its growth slowed further during the first quarter of 2016.
  - However, April light-weight vehicle sales rebounded from a weak March reading and the April retail sales report was strong.

- Business fixed investment declined for a second consecutive quarter, while there were tentative signs of stabilization in the manufacturing sector.

- The general tone of the housing data in April suggests the sector remained on a very gradual uptrend.

- Payroll growth slowed in April, and the unemployment rate was unchanged. The labor force participation rate and the employment-population ratio both declined.
  - Wage growth remains subdued despite a relatively steady improvement in labor market conditions.

- After some firming in previous months, inflation softened modestly in March, signaling continued slow progress toward the FOMC's longer-term objective.

- Financial asset price fluctuations generally were fairly subdued. The yen appreciated after the Bank of Japan decided on April 28 to leave its policy stance unchanged.

### Real GDP growth was weak in Q1

- According to the advance estimate, real GDP growth in 2016Q1 was 0.5% (annual rate).
  - The four-quarter change in real GDP was 1.95%, slightly below the average pace of growth during this expansion.

- The gap between real GDP and the Congressional Budget Office's (CBO) measure of real potential GDP was about 2.25% in 2016Q1.
  - The current unemployment rate of 5.0% is near many estimates of its natural rate, including the CBO's estimate of 4.84%.
  - Compared to these alternative unemployment gap estimates, the CBO output gap indicates more resource slack.

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**GDP**

Trillions of 2009 US$

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Potential GDP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 - 2005</td>
<td>3.1%</td>
</tr>
<tr>
<td>2005 - 2010</td>
<td>1.9%</td>
</tr>
<tr>
<td>2010 - 2015</td>
<td>1.3%</td>
</tr>
<tr>
<td>2015 - 2020</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Source: Bureau of Economic Analysis, Congressional Budget Office via Haver Analytics

Note: Shading shows NBER recessions.
**Some slowdown in labor market improvement**

- The unemployment rate was unchanged at 5.0% in April, and has remained within the narrow range of 4.9%-5.0% since October 2015.

- Both the labor force participation rate and the employment-population ratio fell in April, after rising fairly steadily over the previous six months.
  - The labor force participation rate declined from 63.0% in March to 62.8% in April.
  - The employment-population ratio decreased from 59.9% in March to 59.7% in April.

**Inflation softens after recent upward trend**

- The total PCE deflator increased 0.1% in March, after declining by 0.1% in February. The core PCE deflator (which excludes food and energy prices) rose 0.1% in March, similar to the February increase.
  - Energy prices increased 1.1% in March after a sharp 6.4% decline in February.

- On a 12-month change basis, the increase in the total PCE deflator slowed to 0.8% in March from 1.0% in February. The 12-month increase in the core PCE deflator fell from 1.7% in February to 1.6% in March.
  - Goods prices continue to fall, consistent with their general behavior since 2013.
**ECONOMIC ACTIVITY**

**GDP Growth**

% Change – Annual Rate  

<table>
<thead>
<tr>
<th>Year</th>
<th>% Change – Annual Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>10</td>
</tr>
<tr>
<td>2001</td>
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<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>10</td>
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</table>

Source: Bureau of Economic Analysis via Haver Analytics

**Output growth slows further in Q1**

- According to the first estimate, GDP expanded at a modest 0.5% annual rate in 2016Q1.
  - The pace of GDP growth has slowed steadily during the past three quarters, with growth of 3.9% in 2015Q2 followed by growth of 2% and 1.4% in Q3 and Q4, respectively.
  - Growth in the first quarter has been weak for three consecutive years.

- Consumer spending and residential investment contributed around 1.75 percentage points to growth.
  - There was, however, a combined drag of over 1.4 percentage points from business fixed investment, inventory investment, and net exports.

**Manufacturing and ISM Manufacturing Index**

12 Month % Change  

<table>
<thead>
<tr>
<th>Year</th>
<th>12 Month % Change</th>
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<tbody>
<tr>
<td>2000</td>
<td>-20</td>
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<tr>
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</tr>
<tr>
<td>2015</td>
<td>60</td>
</tr>
<tr>
<td>2016</td>
<td>65</td>
</tr>
</tbody>
</table>

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

**Manufacturing sector conditions may be improving**

- April industrial production data suggest that manufacturing activity may be stabilizing.
  - Total industrial production rebounded 0.7% in April, following a 0.9% drop in March.
  - Manufacturing output rose 0.3% in April, reversing March’s 0.3% decline and providing a hopeful sign that the manufacturing sector will continue to expand in Q2.

- April survey data also point to a possible bottoming out in manufacturing activity.
  - While the ISM Manufacturing Purchasing Managers Index retreated from 51.8 in March to 50.8 in April, for a second consecutive month the measure remained above 50 – the threshold that divides expansion from contraction.
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 flat in March

- After growing 0.3% in February, real personal consumption expenditures rose less than 0.1% in March.
  - While goods expenditures grew at a healthy 0.3% rate, services expenditures declined by 0.1%.

- Income continued to grow at a robust pace.
  - Real disposable income grew 0.3% in March and at an annualized growth rate of 2.9% during 2016Q1.

- The personal saving rate rose to 5.4% in March.
  - For the first quarter, the personal saving rate was 5.2%, above the fourth quarter average of 5%.

Retail Sales: PCE Control Excluding Gasoline

12 Month % Change

Source: Census Bureau via Haver Analytics
Note: Shading shows NBER recessions.

Retail sales jumped in April

- Retail sales increased at a solid 1.3% rate in April.
  - Sales increased in all but one of the major retail sectors, led by a 3.2% increase in auto sales.

- There were upward revisions to retail sales for February and March.

- The categories of retail sales feeding into consumer spending estimates also increased, suggesting that consumer spending may pick up in Q2.
  - The 12-month change in the PCE control excluding gasoline (a measure that also excludes expenditures on motor vehicles and building materials) was 3.9%.
**Investment in new equipment remains sluggish**

- Over the four quarters ending in 2016Q1, real business investment in new equipment was down 0.3%, continuing a slowing trend in place since 2010.
  - In response to lower commodity prices, investment in new agricultural, and mining and oilfield equipment is down sharply.

- A key reason for the overall slow pace of growth of investment in new equipment is the relatively low level of the manufacturing capacity utilization rate.
  - That rate has remained slightly above 75% for over a year.
  - Historically, robust growth of investment in new equipment is associated with a capacity utilization rate of 80% or higher.

**Nonresidential structures investment still falling**

- On a year-over-year basis, real business investment in new nonresidential structures has declined for three consecutive quarters, with a 4.4% decline in 2016Q1.

- The current weakness is more than accounted for by rapidly declining investment in oil and gas drilling.
  - Excluding oil and gas drilling, real investment in nonresidential structures was up 15.6% over the four quarters ending in 2016Q1.
  - Oil and gas drilling represented 26.5% of total investment in nonresidential structures as of the second half of 2014, but has declined by 67% over the four quarters ending in 2016Q1.
Recent trend in home construction has been flat

- The 3-month moving average of total housing starts was 1.16 million units at a seasonally-adjusted annual rate (SAAR) for April and is little changed since mid-2015.
  - Multifamily starts have fallen back to around 370,000 following a mid-2015 surge. Nonetheless, recent levels are still near pre-recession levels.
  - The gradual recovery in single family starts has continued into 2016, reflecting slowly improving fundamentals.

- Even with continued low mortgage interest rates, housing starts per capita remain more than 45% below the longer-term average from 1968 to 2003.

Single family housing inventory remains low

- The CoreLogic single family national home price index rose 6.7% in March from the previous year.
  - House price growth has strengthened, with all 50 states registering year-over-year price increases in March.
  - The national house price index is now 39% above the most recent low reached in February 2012, indicating a prolonged recovery in house prices.

- The inventory of single family homes was 1.74 million units at the end of March, equivalent to a 4.4 months’ supply which was the same as in February.
  - The level of single family homes for sale remains below the low end of the historical range of 5-7 months, and is creating an environment of price appreciation given ongoing labor market improvement.
Government sector is expanding modestly

- On a year-over-year basis, real government consumption and gross investment was up 1.4% as of 2016Q1, its best performance since 2010Q1.

- At the federal level, real consumption and gross investment was up a modest 0.2% over the four quarters ending in 2016Q1.

- At the state and local government level, which represents about 60% of total government spending (excluding entitlement spending), the four-quarter change of real consumption and gross investment was up 2.2% in 2016Q1.
  - This is the strongest growth in this sector since 2002.

State and local government investment surges again

- Real state and local gross investment has traced a volatile upward path over 2015 and early 2016.
  - Investment grew by 12.7% (annual rate) in 2016Q1.
  - Underlying the growth was a December and January climb in construction put in place, arising in large part from a surge in highway spending.

- In contrast, real state and local consumption expenditures have sustained a gradual but steady recovery since the first quarter of 2014.
INTERNATIONAL DEVELOPMENTS

Net Exports: Contribution to GDP Growth

- Net exports subtracted 0.3 percentage point from GDP growth in 2016Q1 (SAAR).
  - This follows a -0.1 percentage point growth contribution in 2015Q4.
- Real exports slumped in Q1, falling 2.6% (SAAR).
  - The four-quarter change in real exports was only 0.3%.
- Real imports were flat in Q1, rising only 0.2% (SAAR).
  - The four-quarter change in real imports was small at 1.2%.

Goods Exports by Destination

Exports are weak across all major destinations

- Canada contributed the most to the drag on exports in 2016Q1.
  - Exports of goods to Canada, which account for 18% of US goods exports, fell 8.9% over the four quarters ending in 2016Q1.
- China was the second largest contributor to the drag on export growth in 2016Q1.
  - Exports of goods to China fell more than 10% from 2015Q1 to 2016Q1.
  - Although exports to China have been on a downward trend since August 2014, their share is currently 7% and still represents a 50% increase over the last 10 years.
**LABOR MARKET**

**Growth of Payroll Employment and Aggregate Hours**

- Payroll employment growth slowed in April
  - Nonfarm payroll employment increased by 160,000 in April.
    - Monthly job gains have averaged 200,000 over the past three months, but average monthly employment growth was 232,000 in the twelve months prior to April.
  - Aggregate hours worked rose by 0.4% in April.
    - The 12-month change in aggregate hours was 2.1%.
  - The one month diffusion index (reflecting the balance between industries increasing and decreasing employment) was 56.3 in April, lower than the average of 59.2 in the 12 months prior to April.

**1-Month Diffusion Index: All Industries**

- Employment gains occur in the private service sector
  - Employment in private service-providing industries increased 174,000, which is slightly lower than the average monthly employment gains of 185,700 in Q1.
  - Employment in goods-producing industries fell by 3,000 in April, while government employment declined by 11,000.
    - Manufacturing employment increased 4,000, following a 29,000 decline in March.
    - Construction employment rose by only 1,000, following an increase of 41,000 in March.
    - Mining employment declined by 8,000 in April, and has fallen by 192,000 since its recent peak in September 2014.
LABOR MARKET

Unemployment Outflow Rates

- The unemployment rate has remained within the narrow range of 4.9%-5.0% since October 2015 mostly due to a lack of improvement in unemployment outflows into employment and nonparticipation.
  - The monthly transition rate from unemployment to employment (U-to-E rate) was 22.2% in April.
    - This rate peaked at around 26% in December 2015.
  - The monthly transition rate from unemployment to nonparticipation (U-to-N rate) was 24.7% in April, close to its 2015 average.

Growth of Average Hourly Earnings and ECI

- Average hourly earnings rose 0.4% in April and have increased by 2.5% over the past 12 months.
- Average weekly earnings rose 0.6% in April, from $875.5 to $880.8.
- The employment cost index rose 0.6% in 2016Q1 and has increased by 1.94% over the past 4 quarters.

Source: Bureau of Labor Statistics via Haver Analytics
Note: Shading shows NBER recessions.
**INFLATION**

### CPI Inflation: Core Goods and Core Services

The 12-month change in the core CPI was 2.1% in April, down from 2.2% in March and 2.3% in February.

Core CPI services prices continue to rise at a healthy pace.
- The 12-month change in core CPI services prices was 3.0% in April, the same change as in March.

Core CPI goods prices continue to fall.
- On a 12-month basis, core CPI goods inflation moved down to -0.5% in April from -0.4% in March.

### Slightly higher forecasts of 2016 core PCE inflation

The US Survey of Professional Forecasters provides density (histogram) forecasts that show the probability that inflation will fall into each of 10 ranges.

Compared to last quarter, survey respondents are slightly raising the probability associated with higher inflation outcomes in 2016.
- The Q2 survey was fielded from late April through mid-May, with results released on May 13.

Forecasters have nudged up the probability that core PCE inflation from 2015Q4 to 2016Q4 will be between 1.5 and 1.9 percent to a little over 40%, and see little likelihood that it will rise above 2.4% or fall below 1%.
**US Equity Market Returns and Volatility**

![Graph showing US Equity Market Returns and Volatility]

- **Source:** Bloomberg Finance L.P.

**US equity markets continued to stabilize**

- Broad US equity markets have traded in a narrow range and are roughly unchanged over the past month.
  - The S&P 500 index is up about 2.5% since the beginning of the year.

- Volatility was also little changed.
  - Readings of the VIX option-implied volatility index have tended to stay around 15 in the past two months.
  - The year-to-date VIX average of 18.5 has been close to its historical median value of around 18.

**International Equity Indices**

![Graph showing International Equity Indices]

- **Source:** Bloomberg Finance L.P.
  **Note:** 01/04/2007 = 1

**Modest gains for most international equity indices**

- The strong rebound of global equity indices starting in mid-February has slowed since early April.
  - The DAX index has continued its modest advance, registering a year-to-date return of -3.24% through May 13.
  - Asian equity markets have been mixed. The Japanese Nikkei stock index rose this past month, with a year-to-date return of -11.05% as of May 13. The Shanghai A shares index, however, declined 7.40% since April 5, and it is down 14.24% year-to-date.
**British vs. European Equity Indices**

- Despite the uncertainty surrounding the upcoming June 23 referendum on Britain’s European Union membership, the blue-chip FTSE 100 index has moved in lock step with other major European indices.
  - As of May 13, the FTSE 100, FTSE 250, and FTSE Europe ex UK Indices have registered year-to-date returns of 0.74%, -2.76% and -5.27%, respectively.

**Expected Federal Funds Rate**

- The expected path for the Federal Funds rate implied by rates on overnight indexed swaps (OIS) flattened on net since the April FOMC meeting.
  - There was, however, a steepening in the path leading up to the April FOMC meeting.

- The current market-implied path remains below the median longer run path from the FOMC’s Summary of Economic Projections (SEP) and the NY Fed Primary Dealer Survey.
**FINANCIAL MARKETS**

### 10-Year Treasury and Term Premium

- **10-year Treasury yield still down in 2016**
  - Consistent with the path of the OIS curve, nominal Treasury yields were little changed on net, rising leading up to the April FOMC meeting and then reversing those increases afterwards.
    - The yield on 10-year Treasuries decreased from 1.97% just before the FOMC meeting to 1.78% on May 13.
  - Estimates of the Adrian-Crump-Moench term-structure model attribute the yield decline since the start of the year to a combination of lower expected short term interest rates and lower term premium.
    - The term premium on the 10-year Treasury remains in negative territory.

### 5-10 Year Forward Decomposition

- **Inflation expectations remain well anchored**
  - Market-implied TIPS-based measures of long-term inflation expectations ("breakevens") have retraced some of their declines since the start of the year.
    - The breakeven inflation rate rose to around 1.6%, but continues to be at multi-year lows.
  - Variation in the breakeven inflation rate appears to be largely driven by changes in the inflation risk premium, with implied expected inflation (as measured by the Abrahams-Adrian-Crump-Moench model) remaining stable.
    - The inflation risk premium also remains at multi-year lows of around -0.5%.
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 remain low

- 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 were generally on a declining trend at both the one-year and the three-year ahead horizons from June through December of 2015.
- Inflation expectations have risen slightly from their series’ lows in January 2016, but still remain low.

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

Slight rebound in earnings growth expectations

- One-year ahead median earnings growth expectations have gradually declined from a high of 2.7% in November 2014 to 2.0% in January 2016.
- Since January 2016, median expected earnings growth has rebounded slightly to 2.4%, perhaps reflecting recent increases in average hourly earnings.
- The recent rebound was concentrated among lower educated workers as well as lower and middle income workers.
**SPECIAL TOPIC: SURVEY OF CONSUMER EXPECTATIONS**

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**Labor Market Transitions Expectations**

- **3-month Job Finding Rate (Right Axis)**
- **12-month Job Leaving Rate (Left Axis)**
- **12-month Job Losing Rate (Left Axis)**

![Graph showing labor market transitions expectations](image)

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

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**Mixed signals from expected labor market transitions**

- The mean perceived probability of losing one’s job in the next 12 months has risen to 15.8% from the series’ low of 12.7% last October, returning to levels observed in the third quarter of 2014.

- Similarly, the mean perceived probability of finding a job (if a current job were lost) has declined to 52.9% from the series’ high of 57.1% last November.

- On the other hand, the mean perceived probability of leaving one’s job voluntarily increased in April and reached a series high of 23.1%.

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**One-year Ahead Household Spending Growth Expectations**

- **75th percentile point prediction**
- **Median point prediction**
- **25th percentile point prediction**

![Graph showing one-year ahead household spending growth expectations](image)

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

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**Marked decline in spending growth expectations**

- One-year ahead median household spending growth expectations have declined markedly between December 2014 and December 2015.

- Since last December, median expected household spending growth has risen somewhat, but remains at the low end of the range observed since the inception of the survey.

- The recent rebound is mostly driven by middle and higher income respondents.