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 April 7, 2017.
- Real consumer spending fell in February for a second consecutive month, suggesting a marked slowdown in Q1 PCE growth.
  - A delay in tax refund disbursements may be a factor behind weak consumer spending so far in 2017.

- February data suggested some improvement in business equipment spending conditions and a continued slow uptrend in single-family housing starts.

- Surveys continued to indicate sizable improvement in manufacturing conditions, with production data showing a rebound in the sector's activity.

- Payroll growth was softer in March, partly due to weather effects, but other indicators pointed to ongoing labor market improvement.
  - The unemployment rate fell, the employment-population ratio rose, and the labor force participation rate held steady in the month.

- February data suggest that headline inflation is close to the FOMC's longer-run objective, while core inflation is still running modestly below the objective.

- U.S. equity indexes and nominal long-term Treasury yields moved lower. Oil prices retraced most of the decline that occurred in the first half of March, while the broad dollar foreign exchange index moved lower.

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**Output is modestly below its potential level**

- The gap between real GDP and the Congressional Budget Office's (CBO) measure of potential GDP was about 0.9% in 2016Q4.
  - The CBO projects that the growth rate of potential GDP will remain fairly subdued for the next few years.
  - The March unemployment rate of 4.5% is below many estimates of its natural rate, including that of the CBO (4.7%).
  - The CBO output gap indicates some resource slack remains.

- Inflation has tended to be restrained when the economy is operating below potential GDP.
**Labor Market Indicators**

- **Unemployment Rate (Left Axis)**
- **Labor Force Participation Rate (Right Axis)**
- **Employment to Population Ratio (Right Axis)**

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.

**Labor market conditions continue to strengthen**

- The unemployment rate declined from 4.7% in February to 4.5% in March.
  - The broader U-6 measure of unemployment fell to 8.9% in March, the lowest since December 2007.
  - The share of long-term unemployed (27+ weeks) in the pool of unemployed workers fell from 23.8% to 23.3%.
- The labor force participation rate remained at 63.0%.
- The employment-population ratio rose 0.1 percentage point in March to 60.1%.
  - The March level was the highest level since February 2009.

**PCE Deflator**

- **Total PCE**
- **Core PCE**

Source: Bureau of Economic Analysis via Haver Analytics

Note: Shading shows NBER recessions.

**Headline inflation close to FOMC’s objective**

- The total PCE deflator rose 0.1% in February, following a 0.4% increase in January. The core PCE deflator (which excludes food and energy prices) rose 0.2% in February, after increasing 0.3% in the previous month.
  - Energy prices fell 1.3% after sizable increases in the previous 5 months, but were up 18.4% from a year ago.
  - Food prices rose 0.1%, but were down 1.5% from a year ago.
- The 12-month change in the total PCE deflator was 2.1%, its first reading above 2% since April 2012.
  - The 12-month change in the core PCE deflator was 1.8%, little changed from that in January and near where it has been since mid-2016.
**ECONOMIC ACTIVITY**

**GDP Growth**

- According to the third estimate, real GDP rose at a 2.1% annual rate in Q4, an upward revision from the second estimate of a 1.9% increase.
- The upward revision to GDP growth reflected stronger consumer spending and greater inventory investment that were partly offset by weaker nonresidential fixed investment, lower exports, and higher imports.
- Real gross domestic income (GDI), which provides an alternative measure of economic activity, increased at a 1.0% annual rate in Q4.
  - The four-quarter change in real GDI was 1.9%, just below the 2.0% increase for real GDP.

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**Output growth revised up in Q4**

**Manufacturing and ISM Manufacturing Index**

- Manufacturing production rose 0.5% in February, matching a 0.5% increase in January.
  - Production has now increased for six consecutive months.
- The ISM manufacturing index edged down in March, after eight months of steady growth.
  - The index remains close to 10 points higher than its December 2015 trough.
- While recent data points to steady growth in the manufacturing sector, it is still early to conclude that a sustained rebound in manufacturing activity has begun.
### 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 remained soft in February

- Real PCE decreased 0.1% in February, following a retreat of 0.3% in January.
  - The decline in spending was due to a decline of 0.1% in both real durable goods and services expenditures.
  - By contrast, nondurable goods expenditures rose 0.1%, driven by higher real spending on energy goods.

- Real disposable personal income increased 0.2% in February, recovering from the decline of 0.1% in January.

- The personal saving rate rose to 5.6% in February from a revised 5.4% in January.

### Total Light Vehicle Retail Sales

**Source:** Autodata via Haver Analytics

**Note:** Shading shows NBER recessions.

### Light vehicle sales slipped in Q1

- Sales of light motor vehicles (automobiles and light trucks) in March dropped 5.4% to 16.6 million units at a seasonally-adjusted annual rate (SAAR), down from 17.6 million units in the previous two months.
  - Light vehicle sales averaged 17.3 million units in 2017Q1, a step-down from the pace of 18.1 million units in 2016Q4.

- Automobile sales and light truck sales in March were 6.3 million units and 10.3 million units, respectively.
  - Automobile sales averaged 7.2 million units in 2016Q4, while light truck sales averaged 10.9 million units.
  - The slowdown in light motor vehicle sales has been partly attributed to lower used-car prices from a large inventory and a possible tightening in lending standards.
**Equipment Investment and Capacity Utilization**

- Real business equipment spending rose 1.9% (annual rate) in 2016Q4, the first increase in five quarters.
  - Investment in industrial equipment and information equipment rose over Q3 levels, while investment in transportation equipment and “other” equipment fell.
  - Investment spending over the year was down 3.8%.

- A key reason for weak equipment investment recently is the low level of the manufacturing capacity utilization rate.
  - This rate was 75.8% in February, well below its longer-term average of 78.5%.
  - The utilization rate has fluctuated in a narrow range in recent years, even as capacity growth has been slow.

**Nondefense Capital Goods Excluding Aircraft**

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

- The 3-month moving averages of shipments and of new orders of such goods have risen from their troughs in mid-2016.
  - Both series, however, remain well below their peaks in late 2014 and are also below their 2012-15 average level.

- New orders have been moderately above shipments since mid-2016.
  - This difference between orders and shipments is consistent with continued growth in equipment spending over the near term.
HOUSING SECTOR

Housing starts remain on gradual uptrend

- Total housing starts rose 3% in February and continue to be on a gradual upward trend.

- Multi-family starts appear to have peaked, staying essentially unchanged over the past year and a half.
  - The vacancy rate of rental units in 10+ unit structures has stopped declining and the rate of increase of rents for such units has begun to slow.

- Single-family starts remain at a relatively low level but are trending higher.
  - The months' supply of existing homes listed for sale is at a very low level, putting upward pressure on prices.

Homeownership rate ticks up

- The aggregate homeownership rate rose in the second half of 2016.
  - Homeownership rate had fallen to 63.1% in 2016Q2.
  - Homeownership rate bounced back to close year at 63.5%.

- Homeownership rate remains almost six percentage points below its 2004Q2 peak (69.4%).
  - Homeownership rate has fallen the most for households headed by persons aged 25 to 54.

- 2016 rate is comparable to mid-1960s lows for this series.
**GOVERNMENT SECTOR**

**Real Government Consumption and Gross Investment**

- **Government sector was roughly flat in 2016**
  - Real government consumption and gross investment was flat in 2016.
    - Real government consumption and gross investment grew 0.2% over the four quarters ending in 2016Q4.
  - Federal purchases declined slightly over 2016.
    - Nondefense spending rose about 2.5% for the year, while defense spending fell 2.0%.
  - State and local government purchases rose 0.4%.
    - State and local consumption spending, dominated by employee compensation, rose 0.7%, while gross investment declined by 0.8%.
    - State and local consumption and gross investment comprise about 60% of the total government sector.

**Federal Debt**

- **Federal debt held by the public expected to increase**
  - Federal debt held by the public as a share of GDP has increased sharply since the Great Recession, rising from 35% in FY2007 to 77% in FY2016.
    - Federal Debt held by the public includes that held by the Federal Reserve.
  - Under the latest CBO current-policy baseline, federal debt held by the public is projected to increase to 89% of GDP, in ten years, the highest since 1947.
  - Gross federal debt is projected to remain essentially unchanged over the next decade.
    - By around 2020, the Social Security system will turn cash flow negative, converting debt held in intergovernmental accounts into debt held by the public.
**INTERNATIONAL DEVELOPMENTS**

**Real Exports and Nonoil Imports of Goods**

- 12 Month % Change

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
<th>Nonoil Imports</th>
</tr>
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<tr>
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<tr>
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<td>2015</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

**Trade data for 2017Q1 have been mixed**

- Real imports of nonoil goods fell 2.9% over the month in February, more than reversing a 1.3% jump in January.
  - Autos and consumer goods accounted for the sharp decline.
  - Imports were down to near their year-ago levels.

- Real exports of goods increased 0.3% over the month in February, in line with the previous month.
  - Exports were up 4.5% over the year, with robust sales of industrial supplies and flat exports of capital goods.

- Net exports subtracted 1.8 percentage points from real GDP growth in 2016Q4.

**Dollar Exchange Rate and Nonoil Import Prices**

- 12 Month % Change

<table>
<thead>
<tr>
<th>Year</th>
<th>Nonoil Import Prices (Right Axis)</th>
<th>Dollar (Left Axis)</th>
</tr>
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<tr>
<td>2006</td>
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<td>2008</td>
<td>4.3</td>
<td>6</td>
</tr>
<tr>
<td>2010</td>
<td>5.4</td>
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<tr>
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<td>7.6</td>
<td>3</td>
</tr>
<tr>
<td>2016</td>
<td>8.7</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Board, Bureau of Labor Statistics via Haver Analytics  
Note: Dollar is Board's trade-weighted measure.

**Import prices have stabilized**

- Nonoil import prices were roughly unchanged over the year in February.
  - This stability follows a steep decline from mid-2014 to mid-2016.

- Consumer goods were down 1% over the year, while auto prices were unchanged.
  - Auto prices had been falling since they peaked in early 2013.

- Import prices for nonoil industrial supplies are up 7%.
  - The increase is largely due to substantial increases in prices for steel and other metals.
LABOR MARKET

Payroll Employment and Aggregate Hours

- Payroll employment growth slows
  - March nonfarm payroll employment rose by 98,000, well below the revised gains of 219,000 in February.
    - The median expectations was for an increase of 180,000.
    - Winter storm Stella during the March reference week and some payback from a warm weather boost to February payrolls partly held back March payroll growth.
  - Aggregate hours increased 0.1% in March, following a 0.1% decrease in February.
    - The 12-month change was 1.4%.
    - Average weekly hours were unchanged at 34.3.
  - Payroll gains were broad-based.

E/Pop Change from Mar. 2016 to Mar. 2017

- Household employment rates increased
  - The employment to population ratio edged up to 60.1%.
    - Employment rates in March increased for all age groups.
    - Overall and within age groups, employment rates are at their highest since 2009.
  - Gains in employment and participation are primarily from young workers and women of all ages. Over the past 12 months:
    - The employment rate for young workers (ages 16-24) increased 1.1 percent.
    - Increases in female employment rates have outpaced increases in male employment rates for all age groups except 55+.
    - Among prime age workers (ages 25-54), a 1 percentage point increase in the female employment rate accounted for the entire overall change.
**LABOR MARKET**

**Job-Finding Rates by Duration of Unemployment**

- Job finding rates have increased, particularly for the long-term unemployed.
  - For workers unemployed 1 year or more, the job finding rate (12-month moving average) has risen almost 2 percentage points since March 2016.

- The percentage of workers unemployed 27 or more weeks declined to 23.3%.
  - This is the lowest level since January of 2009.

- The median duration of unemployment was 10.3 weeks in March.
  - Median weeks unemployed has remained near 10 weeks since September 2016.

**Growth of Average Hourly Earnings and ECI**

- Average hourly earnings rose 0.2% in March and increased 2.7% over the past 12 months.
  - Wage growth was stronger among service-providing industries than among goods-producing industries.
    - Average hourly earnings rose by 0.2% for the former and 0.1% for the latter.

- Average weekly earnings also increased 0.2% from $894.89 to $896.60.

- The employment cost index rose 2.2% for the 12 months ending December 2016.
INFLATION

CPI Inflation: Core Goods and Core Services

- The core CPI inflation moves up in February, rising 0.2% in February, or 2.2% on a 12-month basis, reinforcing the stability observed in this index since the end of 2015 at levels slightly above 2%.
- Core services inflation was 0.3% in February for the fourth consecutive month, with its 12-month rate stable at 3.1%.
- Core goods prices were essentially flat in February, after a strong 0.4% increase in January. As a result, their 12-month change fell back down to -0.5%, with fairly widespread weakness across categories.

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

Michigan Inflation Expectations 5 to 10 Years

- Inflation expectations decline in Michigan survey
  - According to the University of Michigan Survey, median long-term (5-10 years ahead) inflation expectations declined from 2.6% in January to 2.4% in March.
    - This measure has stayed between 2.3% and 2.6% since June 2016, and remains very close to its historical low of 2.3% set in December 2016.
  - Median near-term inflation expectations also declined slightly from 2.6% in January to 2.5% in March.
  - Both measures (especially at the long-term horizon) remain near the low end of the range observed over the last three years.

Source: University of Michigan
Note: Shading shows NBER recessions.
U.S. equity markets fell to just below all-time highs

- U.S. equity markets declined modestly in March and early April after reaching a record high on March 1.
  - As of April 7, the S&P 500 index was down 1.7% from its all-time high, but up 5.2% since the beginning of the year.

- Option-implied stock market volatility as measured by the CBOE Volatility Index (VIX Index) remains low.
  - The VIX Index increased modestly in March and early April, but remains at the lower end of its historical range.

U.S. bank stocks underperformed

- U.S. bank equities underperformed broader equities in March and early April.
  - As measured by the KBW Nasdaq bank index, bank equities decreased 8.5% between March 1 and April 7, compared to a 1.7% decrease in the S&P 500 index.
  - The XLF financial sector ETF declined 6.8% over the same period.

- For 2017 year-to-date, U.S. bank equities are now little changed, whereas the broader stock market has increased modestly.
  - The KBW index is down 1.0% through April 7, the XLF ETF is up 1.2%, and the S&P 500 is up 5.2%.
FINANCIAL MARKETS

USD Exchange Rates

Source: Bloomberg Finance L.P. Note: Start date 01/03/2007 = 1.

U.S. dollar depreciated

- The dollar generally weakened over the last month.
  - The dollar depreciated 1% against a basket of global currencies between March 10 and April 7.
  - For the same period, the dollar weakened 3% against the Japanese yen and 5% against the Mexican peso, but strengthened 1% against the euro.

- For 2017 year-to-date, the dollar has weakened 3% against a basket of global currencies, 5% against the yen, 10% against the peso, and 1% against the euro.

Expected Federal Funds Rate


Implied path for federal funds rate shifted down

- The expected path for the federal funds rate implied by rates on overnight indexed swaps (OIS) shifted down modestly over the past month.
  - The path implies just under 50 basis points of tightening over the next year and just over 75 basis points over the next two years.

- The current market-implied path remains somewhat below the median path from the FOMC’s March 2017 Summary of Economic Projections and the March 2017 NY Fed Primary Dealer Survey.
### Longer-term Treasury yields declined

- Long-term Treasury yields fell over the past month.
  - The 10-year yield closed at 2.42% on April 7, down 20 basis points from March 10 and down 19 basis points for the year.

- Estimates of the Adrian-Crump-Moench term structure model attribute most of the decrease to a lower term premium (as opposed to a lower path for the short-term rate).
  - Since March 10, the term premium declined 14 basis points, whereas the expected path of the short-term rate declined only 7 basis points.

### Breakeven inflation moved lower

- Market-implied TIPS-based measures of long-term inflation expectations (“breakevens”) declined over the past month.
  - The five-to-ten year breakeven inflation rate was 1.89% on April 7, down 21 basis points since March 9, but up 3 basis points year-to-date.

- According to the Abrahams-Adrian-Crump-Moench model, the inflation risk premium fell over the past month, while expected inflation remained stable.
  - The estimated five-to-ten year inflation risk premium declined 23 basis points between March 9 and April 7, but is only down 6 basis points year-to-date.
SPECIAL TOPIC: HOMEOWNERSHIP, EDUCATION, AND STUDENT DEBT

Graduates have higher homeownership rates

- Insights can be gained by merging National Student Clearinghouse education records to the NY Fed Consumer Credit Panel.
  - Is homeownership related to college attendance and student debt?
  - Does this relationship vary by degree type and graduation?

- We find that graduation is associated with markedly higher homeownership rates, regardless of debt status.

- Among both graduates and non-graduates, those with student debt have lower homeownership rates.

Bachelor’s have higher homeownership rates

- The chart differentiates college attendees by degree program and student debt status.

- Bachelor’s or higher degrees are associated with higher homeownership rates than associates, regardless of debt status.
  - Non-attendees have lowest homeownership rates.

- At any given age and for each degree type, holding debt is associated with distinctly lower homeownership rates.
  - Homeownership gap between debt and non-debt holders larger for Associates (eight percentage points) than for Bachelor’s (five percentage points).
SPECIAL TOPIC: HOMEOWNERSHIP, EDUCATION, AND STUDENT DEBT

Homeownership by College Status and Debt Level

- College, no student debt
- College, with less than $25,000 in student debt
- College, with more than $25,000 in student debt
- No college

Source: New York Fed Consumer Credit Panel / Equifax and National Student Clearinghouse

Level of student debt correlated with homeownership

- We separate student debt holders by those who hold more than $25,000 and those who hold less than $25,000.
- Those holding more than $25,000 of debt have lower homeownership rates than those who hold less.
- Since the amount of student debt held is possibly correlated with the degree program, these patterns may understate the importance of debt volume.

Homeownership by College Status and Income

- College, above mean income
- College, below mean income
- No college, above mean income
- No college, below mean income

Source: New York Fed Consumer Credit Panel / Equifax and National Student Clearinghouse

Note: Mean income is $55,000

College appears to mitigate importance of income

- We differentiate individuals that grew up in areas with an average income above and below $55,000.
- Homeownership rates among college attendees are similar for both income groups.
  - Homeownership gap between the two income groups is larger among non-attendees.
- In terms of homeownership, college appears to help in “levelling the playing field” across income levels.
  - Comparable homeownership rates do not mean that the two groups own similar homes or live in similar neighborhoods.