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 June 3, 2016.
- Real consumer spending surged in April suggesting that it may be on a firmer growth trajectory compared to the first quarter of 2016.
  - Consumer spending rose at the fastest pace in nearly seven years in April.

- After declining for two consecutive quarters, business equipment spending still appears to be weak.

- Indicators provided mixed signals about the state of manufacturing, while the general tone of the housing data for April suggests the sector remained on a very gradual uptrend.

- Payroll growth slowed in May, while the unemployment rate declined due to a fall in the labor force participation rate. The employment-population ratio was unchanged.
  - Aggregate compensation measures generally indicate that wage growth remained fairly restrained.

- Headline inflation has risen due to higher energy prices and core inflation has stabilized, but both measures continue to run below the FOMC’s longer-term objective.

- Financial market volatility was fairly subdued. Broad equity indexes and oil prices rose. Longer-term Treasury yields declined after the disappointing May labor market report. German sovereign yields declined to new lows.

### Q1 real GDP growth revised modestly upward

- The second estimate of real GDP growth in 2016Q1 was 0.8% (annual rate), compared to the 0.5% advance estimate.
  - The four-quarter change in real GDP was 2.0%, 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 2.2% in 2016Q1.
  - The May unemployment rate of 4.7% 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.
**OVERVIEW**

### Labor Market Indicators

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

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

**Note:** Shading shows NBER recessions.

#### Slowdown in labor market improvement

- The unemployment rate declined from 5.0% in April to 4.7% in May.
  - An alternative measure of unemployment, U6, which includes marginally attached workers and workers who hold part-time jobs but prefer full-time jobs, was flat at 9.7%.

- The labor force participation rate declined to 62.6% in May.
  - With the declines in the last two months, all of the increase in the participation rate in Q1 has been reversed.

- The employment-population ratio remained unchanged in May at 59.7%.

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### PCE Deflator

**12 Month % Change**

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

**FOMC Objective**

**Source:** Bureau of Economic Analysis via Haver Analytics

**Note:** Shading shows NBER recessions.

#### Inflation remains below the FOMC's objective

- The total PCE deflator increased 0.3% in April following a 0.1% rise in March. The core PCE deflator (which excludes food and energy prices) rose 0.2%, the same as the average monthly gain in the first quarter of 2016.
  - Energy prices increased 3.8% in April, although they are down 8.1% from a year ago.

- On a 12-month change basis, the increases in the total PCE deflator and the core PCE deflator were 1.1% and 1.6%, respectively.
  - After an upward trend during 2015, both measures have stabilized recently.
  - Since 2013, goods prices have generally been declining and have acted to restrain upward pressure on core inflation.
**ECONOMIC ACTIVITY**

**GDP Growth**

% Change – Annual Rate

% Change – Annual Rate

-10  -8  -6  -4  -2  0  2  4  6  8  10


Source: Bureau of Economic Analysis via Haver Analytics

**Output growth revised up in Q1**

- According to the second estimate, real GDP rose at a 0.8% annual rate during Q1, an upward revision from the advance estimate of a 0.5% increase.

- The 0.3 percentage point increase was largely accounted for by upward revisions in inventory investment and net exports.

- Real gross domestic income, which provides an alternative measure of economic activity, increased at a 2.2% annual rate.
  - The four-quarter change in real domestic income was 2.1%, little different from the 2.0% four-quarter change in real GDP.

**Manufacturing and ISM Manufacturing Index**

12 Month % Change

Index

20  15  10  5  0  -5  -10  -15  -20


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

Note: Shading shows NBER recessions.

**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.

- May survey data were more mixed on a rebound in the manufacturing sector.
  - The ISM Manufacturing Purchasing Managers Index expanded from 50.8 in April to 51.3 in May and for a third consecutive month remained above 50 – the threshold that divides expansion from contraction.
  - Regional manufacturing surveys, however, suggest ongoing weakness.
**Disposable Income and Consumption**

- Real personal consumption expenditures rose 0.6% in April, the largest monthly gain since 2009.
  - On a 12-month change basis, consumption increased 3%.
- Real disposable income continued to grow at a healthy pace.
  - Employee compensation grew 0.4% for the second consecutive month.
- The personal savings rate was 5.4% in April, notably below the revised March reading of 5.9%.

**Services, Durables, and Nondurable Goods**

- Goods consumption grew 1.2% in April, and by 4% on a 12-month change basis.
  - Boosted by solid vehicle sales, durable goods spending increased by 2.2% in April.
  - Nondurable goods consumption increased by a solid 0.7% in April, a markedly higher pace compared to the monthly average during the first quarter.
- Spending on services grew by 0.4% in April, rebounding from a 0.2% decline in the previous month.
**Business Sector**

**Equipment Investment and Capacity Utilization**

- Over the four quarters ending in 2016Q1, real business investment in new equipment was down 0.4%, 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.
  - This 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.

**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.

- The 3-month moving average of shipments and orders of such goods fell again in April.
  - Both series remain well below their peaks in late 2014.

- New orders have been generally below shipments since late 2014, and were modestly below shipments in April.
  - Based on historical patterns, this difference between new orders and shipments is consistent with continued sluggishness in equipment spending over the near term.
**New and Existing Home Sales**

- Sales of both new and existing homes, while volatile from month to month, remain on a gradual uptrend.
  - New single family home sales in April soared by 16.6% at a seasonally-adjusted annual rate (SAAR), while existing home sales rose by 1.7% (SAAR).
- Mortgage interest rates remain below 4% (30-year fixed rate), and purchase mortgage applications continue to move higher.
- Inventories of both new and existing homes, expressed as month’s supply at the current selling pace, are quite low, which should spur new construction in the months ahead.

**Credit Score at Mortgage Origination**

- 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 72 million people in the population of adults with credit reports currently have scores below 650; the share of originations to borrowers in this range has fallen from 25% to 10% since the recession.
GOVERNMENT SECTOR

Real Government Consumption and Gross Investment

- 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 investment surge may be slowing

- Real state and local gross investment has traced a volatile upward path over 2015 and early 2016.
  - Investment grew by 12.3% (annual rate) in 2016Q1.
  - Underlying the growth was a rise in construction put in place in December and January, largely reflecting a surge in highway spending.
- However, recent monthly data are providing an early indication of slower growth in the second quarter.
  - State and local government construction put in place declined by 3.0% in April.
- In contrast, real state and local consumption expenditures have sustained a gradual but steady recovery since mid-2013.
**INTERNATIONAL DEVELOPMENTS**

**Real Exports and Imports of Goods and Services**

- **Import and export growth remain weak**
  - Real exports fell 2.0% for a second straight quarter in 2016Q1 (SAAR).
    - Although real goods exports rose 2.0% from March to April, the 12-month growth rate was -1.6%.
  - Real imports also declined for a second straight quarter in 2016Q1, falling 0.2% (SAAR).
    - Real nonoil imports grew 2.3% from March to April, but over the year were down 1.9%.
  - Overall, net exports were a 0.2 percentage point drag on real GDP growth in 2016Q1.

**Dollar Exchange Rate and Nonoil Import Prices**

- **Nonoil import prices are falling**
  - Import prices (excluding oil) were down 2% over the year in April.
    - The rate of decline in prices has moderated somewhat in recent months.
  - Auto prices were down 1%, while consumer good prices were unchanged.
    - The pace of decline in the prices of these goods has been relatively stable.
  - Industrial supplies are the major items pulling down the overall import prices index.
    - These prices were down 8%.
**Payroll employment growth slowed in May**

- Nonfarm payroll employment increased by 38,000 in May.
  - The monthly payroll employment gains have averaged 80,500 so far in the second quarter, compared to 195,700 in the first quarter.

- Aggregate hours worked rose by 0.1% in May.
  - The 12-month change in aggregate hours was 1.6%.

- The one month diffusion index (reflecting the balance between industries increasing and decreasing employment) was 51.3 in May, lower than the average of 58.8 in the 12 months prior to May.

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**Signs of slowdown in vacancy creation**

- The Job Openings and Labor Turnover Survey (JOLTS) reported that there were 5.8 million job openings as of the last business day in April, little changed from the 5.7 million openings in March.

- The Help Wanted Online (HWOL), an alternative measure of vacancies, reported a large drop in May after being flat in March and April. According to HWOL, online advertised vacancies decreased by 285,800 to 4,884,200 in May.
  - The HWOL drop in vacancies was widespread across all states.
**Three Measures of Job Destruction**

- JOLTS Layoffs and Discharges (Left Axis)
- EU Flows (Left Axis)
- Initial Claims (Right Axis)

Source: JOLTS, Bureau of Labor Statistics, Department of Labor via Haver Analytics

Note: Shading shows NBER recessions.

**Job destruction remains low**

- JOLTS also reported that there were 1.6 million layoffs and discharges in April, little changed from March.

- There were 1.692 million workers who transitioned from employment to unemployment in May according to the household survey, little changed from April and lower than its average in 2006 (1.764 million).

- For the week ending May 28th, the four-week moving average of initial claims for unemployment insurance was 277,000, slightly higher than one month ago (258,250).

**Growth of Average Hourly Earnings and ECI**

- Average hourly earnings rose 0.2% in May and have increased by 2.5% over the past 12 months.

- Average weekly earnings rose 0.2% in April, from $878.6 to $880.3.

- 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: Shelter and Its Main Components**

- **Rent of Primary Residence**
- **Owners’ Equivalent Rent**
- **Shelter**

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.

**Shelter inflation roughly stable since last fall**

- Shelter inflation and its main components—rent of primary residence and owners’ equivalent rent—appear to have stabilized since last fall at levels above those that prevailed in the middle of the previous expansion, but well below their peak values.
  - Shelter inflation measures the change in the cost of shelter services for both renters (rent of primary residence) and homeowners (owners’ equivalent rent).
  - The shelter component represents about 33% of overall CPI inflation and about 42% of core CPI inflation.

- The relative strength in shelter inflation since 2014 has provided a significant offset to the weakness in core goods inflation over this same period.

**Michigan Inflation Expectations 5 to 10 Years**

Source: University of Michigan

Note: Shading shows NBER recessions.

**Long-term inflation expectations remain low**

- The University of Michigan’s consumer survey shows median long-term (5-10 years) inflation expectations unchanged at 2.5% in May, matching its record low.
  - The entire distribution of long-term inflation expectations has shifted down slightly since January.

- Starting in mid-2014, there has been a gradual downward trend in the median long-term expected inflation rate.
  - The 75th percentile has trended down more noticeably—after fluctuating between 4% and 5% for most of the past 20 years, it has averaged under 4% in the last nine months.
  - The 75th percentile matched its record low of 3.5% in May.
**US Equity Market Returns and Volatility**

- Broad US equity markets rose over the past month.
  - The S&P 500 increased 2.5% nearing its 2015 record highs.
  - The index is also up about 5% for the year as of June 6.

- Volatility was little changed.
  - Readings of the VIX option-implied volatility index have tended to stay around 15 during the past three months.
  - For 2016, the VIX average of 17.9 through June 6 has been close to its historical median value of around 18.

**International Equity Indices**

- Global equity indices gained some more traction over the past month.
  - The DAX index continued its 4 month rally since its recent low on February 11th and has added 1.7% over the past month, although it is roughly flat from the start of the year through June 6.
  - The Japanese Nikkei stock index increased slightly, and is down about 10% from January 1 – June 6 of this year.
  - The Shanghai A shares index increased 3.8% over the past month, and is also down about 10% for the year as of June 6.
**British vs. European Equity Indices**

- FTSE250
- FTSE100
- FTSE Europe Ex UK

**Limited “Brexit” effect on UK equity markets**

- 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.
  - From May 13 – June 6, the FTSE 100, FTSE 250, and FTSE Europe ex UK Indices have increased 2.2%, 3.2%, and 2%, respectively.

**Expected Federal Funds Rate**

**Intermittent shifts in implied FFR path**

- The expected path for the Federal Funds rate (FFR) implied by rates on overnight indexed swaps (OIS) is little changed since the April FOMC meeting.
  - The path flattened during the first half of May, steepened significantly in the second half of the month, before flattening again in the first week of June following the weaker than expected May labor market report released on June 3rd.

  - 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.
10-Year Treasury and Term Premium

10-year Treasury yield little changed on net
- Consistent with the path of the OIS curve, nominal Treasury yields were little changed on net, rising leading up to the May labor market report and then declining sharply after the weaker than expected reading.
- 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 increases since the start of the year.
  - The breakeven inflation rate is about 1.5%, close to 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 estimated inflation risk premium is at multi-year lows of around -0.6%.
**SPECIAL TOPIC: CONSUMER BORROWING IN OIL COUNTRY**

**Oil and Gas: Active Rigs and Extraction Employment**

![Graph showing active oil rigs and employment from 1997 to 2015](image)

Source: Baker Hughes, Bureau of Labor Statistics

**The regional impact of the oil boom and bust**

- Between 2004 and 2013, the United States surpassed Saudi Arabia and Russia to become the world’s largest producer of oil, but in 2014, oil prices fell sharply and resulted in a decline in extraction employment.
  - The number of rigs rose sharply with the oil boom until the end of 2014, then dropped dramatically.
  - Employment in oil and gas extraction tracks movements in the oil rig counts, although it responds somewhat more gradually.

- Oil-producing areas are experiencing a downturn in employment, while the US overall has experienced relatively steady improvement.

**Comparison of Household Borrowing Patterns**

![Graph showing mortgage and auto loans from 1999 to 2015](image)

Source: New York Fed Consumer Credit Panel, Equifax

**The energy cycle and household debt**

- Until 2004, growth in mortgage and auto loan balances were quite similar across oil-producing and non-oil-producing counties.

- In 2004, growth in auto loan and mortgage balances began to diverge across counties.
  - Auto balances in the energy counties grew faster than in the rest of the country, especially until the onset of the financial crisis in 2008.
  - The difference in auto balances continued to grow slowly until early 2016 when auto loan balances declined a bit.
  - The US overall saw declines in mortgage balances during the post-2008 period, but mortgage debt in the energy counties rose modestly until a very small decline in 2016Q1.
SPECIAL TOPIC: CONSUMER BORROWING IN OIL COUNTRY

90+ Day Delinquency Rates

Delinquency patterns differ for housing and oil busts

- The housing bust had smaller effects on mortgage delinquencies in the mostly rural, oil-producing counties, but mortgage delinquencies in the energy counties ticked up in late-2015.

- Although auto loans performed better in energy-producing counties during the financial crisis, 90+ day delinquency rates for auto loans in these counties have risen sharply since mid-2014.

- While these effects are relevant in these counties, the affected areas are quite small relative to the nation.

Source: New York Fed Consumer Credit Panel, Equifax