



FEDERAL RESERVE BANK *of* NEW YORK

# U.S. Economy in a Snapshot

Research & Statistics Group

August 2016

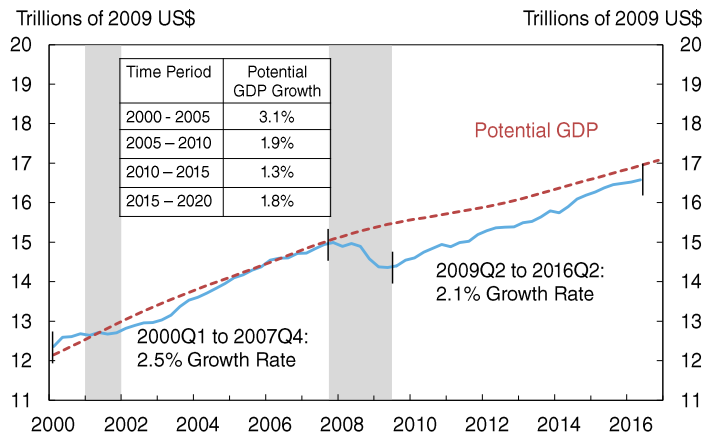
The *U.S. Economy in a Snapshot* compiles observations of staff members of the Federal Reserve Bank of New York's Research and Statistics Group. The views, model results, and analysis presented are solely those of the individual contributors and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System. The analysis presented herein is based on data released through August 5, 2016.

# OVERVIEW

- Growth of real personal consumption expenditures was robust in 2016Q2.
- Business equipment spending remains weak and fell in 2016Q2, following declines in 2016Q1 and 2015Q4.
- Manufacturing showed signs of improvement in June, while the June housing data indicated that the sector was on a very gradual uptrend.
  - **Housing starts and permits have been fairly flat recently, raising some question about the extent of any rebound in residential investment after its decline in 2016Q2.**

- Payroll growth was solid again in July. The unemployment rate was unchanged, while the employment-population ratio and labor force participation rate increased.
- Both headline inflation and core inflation remained fairly stable at levels below the FOMC's longer-term objective.
- The Bank of England moved to a more accommodative policy stance in response to signs of weakness following the Brexit vote. While economies outside the U.K. have shown little impact from the vote, there remain ongoing concerns about the global growth outlook.

## GDP



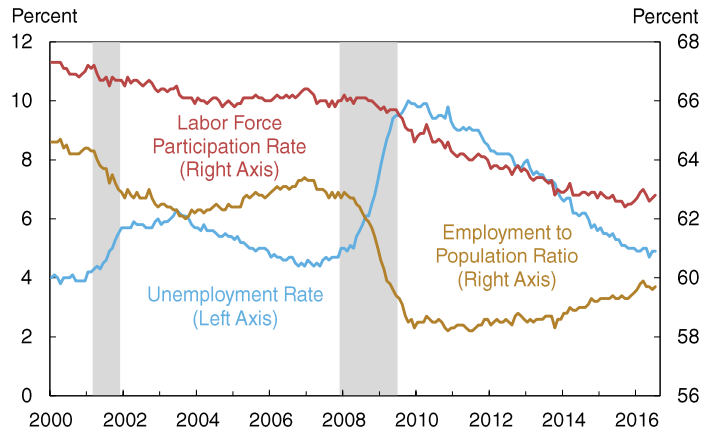
Source: Bureau of Economic Analysis, Congressional Budget Office via Haver Analytics. Note: Shading shows NBER recessions.

## 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 2.2% in 2016Q2.
  - **The July unemployment rate of 4.9% is near many estimates of its natural rate, including the CBO's estimate of 4.83%.**
  - **Compared to these alternative unemployment gap estimates, the CBO output gap indicates more resource slack.**
  - **The CBO will be releasing revised estimates of potential GDP and the natural rate of unemployment later in August.**
- Historically, inflation has tended to be restrained if the economy is operating below potential.

# OVERVIEW

## Labor Market Indicators



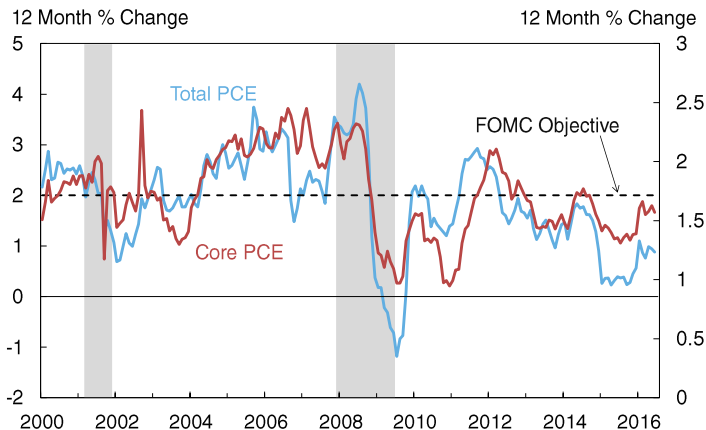
Source: Bureau of Labor Statistics  
via Haver Analytics

Note: Shading shows NBER recessions.

## Labor market continues to improve

- The unemployment rate remained at 4.9% in July.
  - An alternative measure of unemployment, U6, which includes marginally attached workers and workers who hold part-time jobs but prefer full-time jobs, increased from 9.6% in June to 9.7% in July.
- The labor force participation rate increased slightly from 62.7% in June to 62.8% in July.
- The employment-population ratio edged up from 59.6% to 59.7%.

## PCE Deflator



Source: Bureau of Economic Analysis  
via Haver Analytics

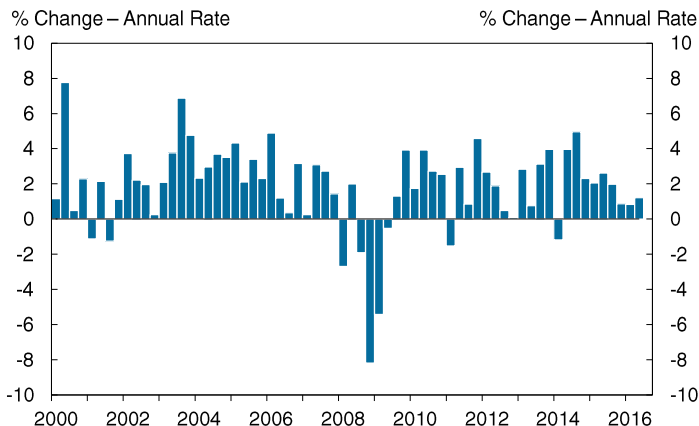
Note: Shading shows NBER recessions.

## Inflation remains stable below FOMC's objective

- The total PCE deflator and the core PCE deflator (which excludes food and energy prices) each increased 0.1% in June after a 0.2% rise in May.
  - Energy prices increased 1.5% in June, similar to the increase in May, although they are down 10% from a year ago.
- On a 12-month change basis, the increases in the total PCE deflator and core PCE deflator were 0.9% and 1.6%, respectively.
  - After an upward trend in 2015, both measures have stabilized since the beginning of the year.

# ECONOMIC ACTIVITY

## GDP Growth

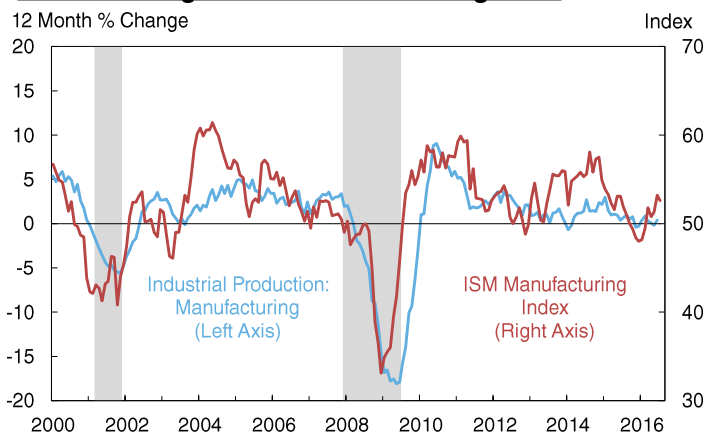


Source: Bureau of Economic Analysis via Haver Analytics

## Output growth in Q2 shows modest pickup

- According to the first estimate, GDP expanded at a 1.2% annual rate in 2016Q2.
  - GDP growth in Q1 was revised down from 1.1% to 0.8%.
- Consumer spending and net exports contributed a little over 3 percentage points to growth.
  - There was, however, a combined drag of over 1.8 percentage points from business fixed investment, residential investment, and inventory investment.
- This release included revisions to the national income and product accounts data for the period 2013Q1-2016Q1.
  - There was relatively little change to the level of real GDP in 2016Q1, although there were some changes to the quarterly growth rates over this period.

## Manufacturing and ISM Manufacturing Index



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

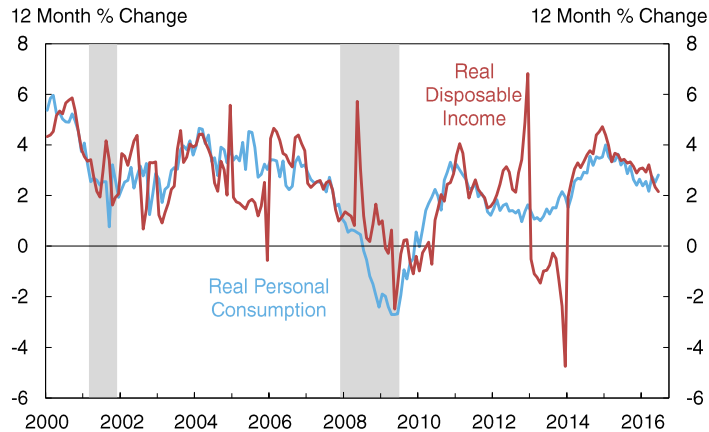
Note: Shading shows NBER recessions.

## Manufacturing activity expands modestly

- Manufacturing output, which had been drifting down for most of this year, picked up in June.
  - Manufacturing output rose 0.4% in June, while May's 0.2% decline was revised up from the 0.4% decline initially reported.
  - Output is now up 0.4% from a year ago, led by motor vehicles, foods & beverages, and computers.
- The ISM's manufacturing survey signals modest growth, while regional Fed surveys suggest flat activity.
  - The ISM's headline index edged back down to 52.6 in July, after climbing to 53.2 in June—its highest reading of the year.
  - Regional manufacturing surveys from Federal Reserve Banks generally pointed to flat activity in July.

# HOUSEHOLDS

## Disposable Income and Consumption



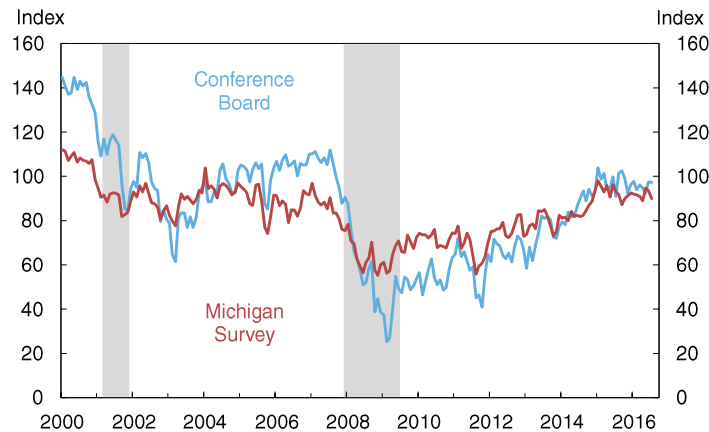
Source: Bureau of Economic Analysis,  
Federal Reserve Board via Haver Analytics

Note: Shading shows NBER recessions.

## Consumer spending shows robust growth in Q2

- Real personal consumption expenditures rose 0.3% in June, following a 0.2% increase in May.
  - On a 12-month change basis, consumer spending grew 2.8% in June compared to a 2.5% rise in May.
- Growth was solid for all components.
  - Durables consumption grew 0.4%, after declining 0.1% in May, and nondurables consumption increased 0.3%.
  - Following a (revised) increase of 0.2% in May, services consumption grew 0.3% in June.
- The personal saving rate declined to 5.3% in June, slightly below the average of the past 2 years.

## Consumer Confidence



Source: Conference Board,  
University of Michigan

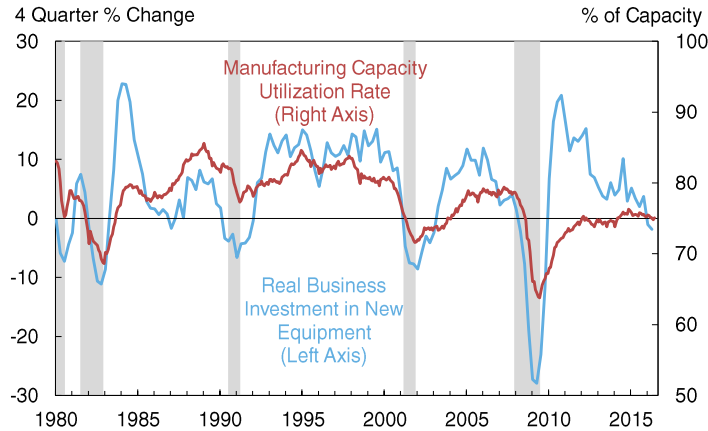
Note: Shading shows NBER recessions.

## Consumer sentiment declines in July

- The Michigan consumer sentiment index dropped from 93.5 in June to 90.0 in July, the lowest reading in 2016.
- The two components of the index – the Current Economic Conditions and the Expectations – declined.
  - The decline in the Expectations component was more pronounced, dropping from 82.4 in June to 77.8.
- Other commonly used indices of consumer confidence, such as the Bloomberg and the Conference Board measures, also declined in July.

# BUSINESS SECTOR

## Equipment Investment and Capacity Utilization



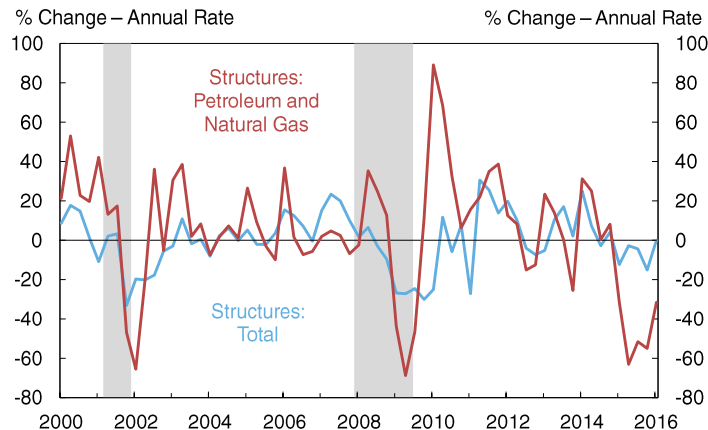
Source: Bureau of Economic Analysis, Federal Reserve Board via Haver Analytics

Note: Shading shows NBER recessions.

## Investment in new equipment remains weak

- Real business equipment spending fell 3.5% (annual rate) in 2016Q2, its third consecutive decline. The four-quarter change was -1.9%.
  - Investment in information processing equipment, transportation equipment, and “other” equipment fell in 2016Q2, while spending on industrial equipment increased.
- A key reason for the weakness in new equipment investment spending is the relatively low level of the manufacturing capacity utilization rate.
  - This rate was 75.1% in June 2016, compared to 75.3% in June 2015, and has been on a slight downward trend since late 2014.

## Investment in Nonresidential Structures



Source: Bureau of Economic Analysis via Haver Analytics

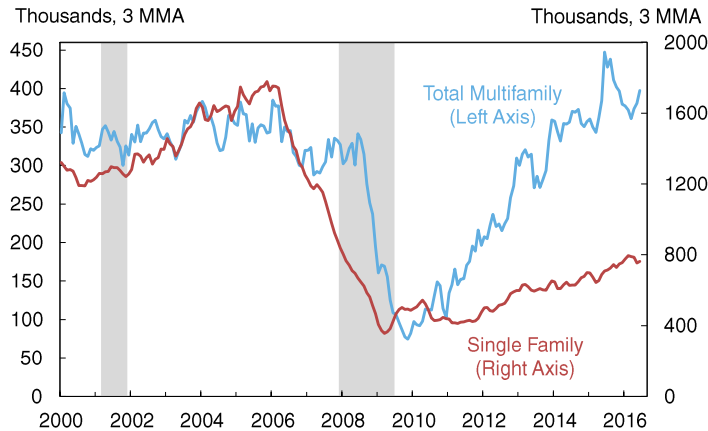
Note: Shading shows NBER recessions.

## Nonresidential structures investment still falling

- On a year-over-year basis, real business investment in new nonresidential structures has declined for six consecutive quarters, with a 7.0% decline in 2016Q2.
- The weakness over the past six quarters is more than accounted for by rapidly declining investment in mining exploration, shafts and wells.
  - Excluding mining exploration, shafts, and wells, real investment in nonresidential structures was up 4.3% over the four quarters ending in 2016Q2.
  - Investment in mining exploration, shafts, and wells represented nearly 30% of total investment in nonresidential structures over the period from 2011 through 2014. By 2016Q2, however, it has declined to just 11%.

# HOUSING SECTOR

## Housing Starts



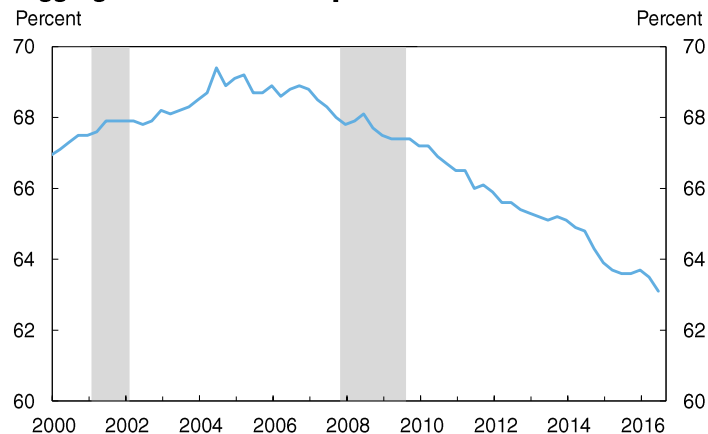
Source: Census Bureau via Haver Analytics

Note: Shading shows NBER recessions.

## Recent trend in residential construction is flat

- The 3-month moving average of total housing starts was 1.16 million units at a seasonally-adjusted annual rate (SAAR) in June, little changed since mid-2015.
  - The 3-month moving average of single family starts increased from 753,333 to 762,333 in June, but remains below the recent peak of 795,000 in February of this year.
  - The 3-month moving average of multifamily starts has increased somewhat in recent months, but remains below levels reached in mid-2015.
- Even with historically low mortgage interest rates, housing starts per capita remain more than 45% below the longer-term average from 1968 to 2003.

## Aggregate Homeownership Rate



Source: Census Bureau via Haver Analytics

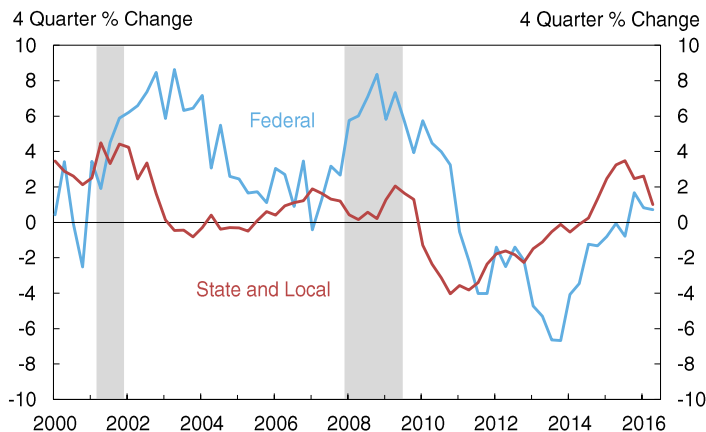
Note: Shading shows NBER recessions.

## Homeownership continues to fall

- The aggregate homeownership rate continues to decline.
  - The rate began a sharp rise in 1995 and peaked at 69% in 2004.
  - Since 2006, the homeownership rate has declined by over 6 percentage points.
- The homeownership rate now stands at 62.9%.
  - Homeownership has now fallen well below its pre-boom level.
  - The current reading of the homeownership rate matches its lowest level in the last 50 years.
- Further declines in homeownership would reduce the rate to levels not seen since the mid-1960s.

# GOVERNMENT SECTOR

## Real Government Consumption and Gross Investment



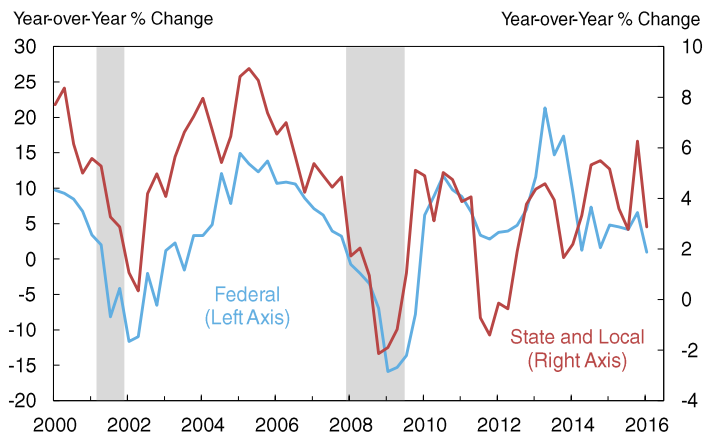
Source: Bureau of Economic Analysis via Haver Analytics

Note: Shading shows NBER recessions.

## Government sector is expanding modestly

- On a year-over-year basis, real government consumption and gross investment was up 0.9% as of 2016Q2, the seventh consecutive quarterly increase.
- Real consumption and gross investment at the federal level was up 0.7% over the four quarters ending in 2016Q2.
  - Nondefense spending (about 40% of the total) was up nearly 3%, while defense spending was down 0.8%.
- 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 slowed to 1% in 2016Q2 from a recent peak of 3.5% in 2015Q3.

## Growth of Government Receipts



Source: Bureau of Economic Analysis via Haver Analytics

Note: Shading shows NBER recessions.

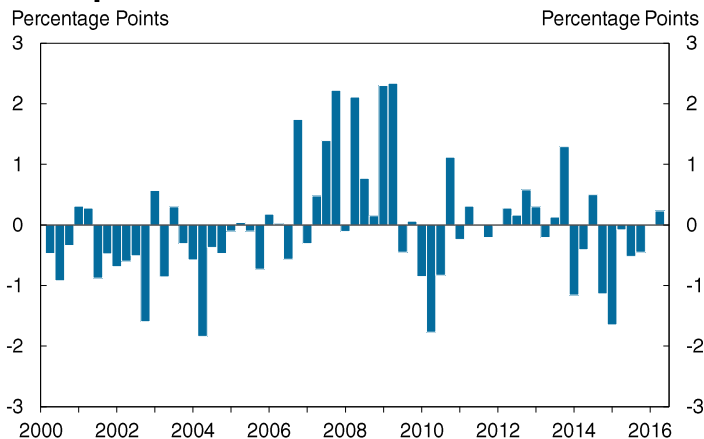
## Growth of government receipts has slowed

- Growth of total receipts at the federal level has slowed sharply over the past year.
  - The main reason is a slowing of tax receipts, which represent about two thirds of the total, with both personal income taxes and corporate profits taxes contributing to this slowdown.
- Growth of total receipts of state and local governments are quite volatile, but slowed sharply in 2016Q1.
  - Growth of personal income taxes and taxes on corporate profits have both slowed over the past year.
  - Growth of federal grants-in-aid, another important source of revenues for state and local governments, has also slowed over the past year.



# INTERNATIONAL DEVELOPMENTS

## Net Exports: Contribution to GDP Growth

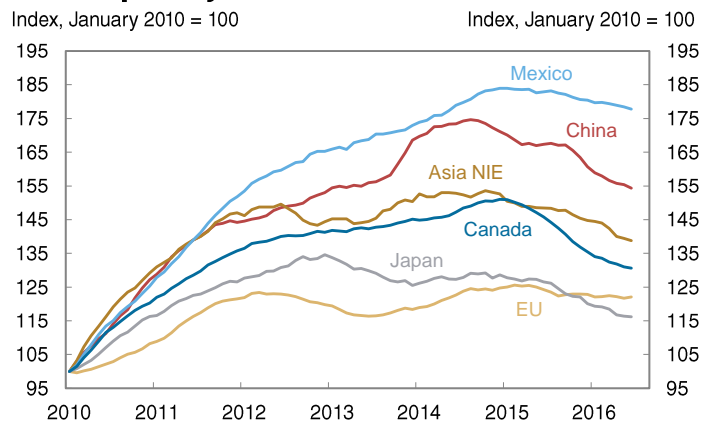


Source: Bureau of Economic Analysis via Haver Analytics

## Net exports added to GDP growth in Q2

- Net exports added 0.2 percentage point to GDP growth in 2016Q2 (SAAR).
  - This is the first positive growth contribution from net exports since 2014Q3.
- Real exports grew slightly in Q2, rising 1.4% (SAAR).
  - However, real exports fell 1.3% from 2015Q2 to 2016Q2.
- Real imports were essentially flat in Q2, falling only 0.4% (SAAR).
  - The four-quarter change in real imports showed a decline of 0.2%.

## Goods Exports by Destination



Shares of total exports in 2016 Q2: Mexico 15.6%; China 7.1%; Asia NIE 9.1%; Canada 19.2%; EU 19.1%; Japan 4.1%

Source: Census Bureau via Haver Analytics

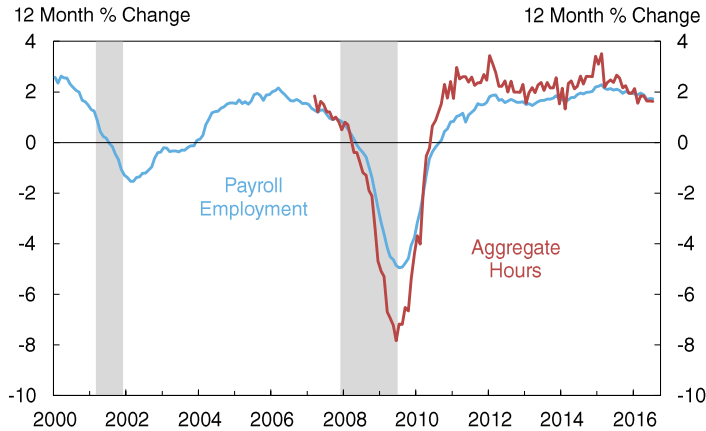
Note: Data are 12-month moving averages.

## Exports are weak across all major destinations

- Canada was the largest contributor to the weakness of exports in 2016Q2.
  - Exports of goods to Canada, which account for 19% of US goods exports, fell 5.2% over the four quarters ending in 2016Q2.
- Asia Newly Industrialized Economies (NIEs) were the second largest contributor to the drag on export growth in 2016Q2.
  - Exports of goods to NIEs fell almost 10% from 2015Q2 to 2016Q2.

# LABOR MARKET

## **Growth of Payroll Employment and Aggregate Hours**



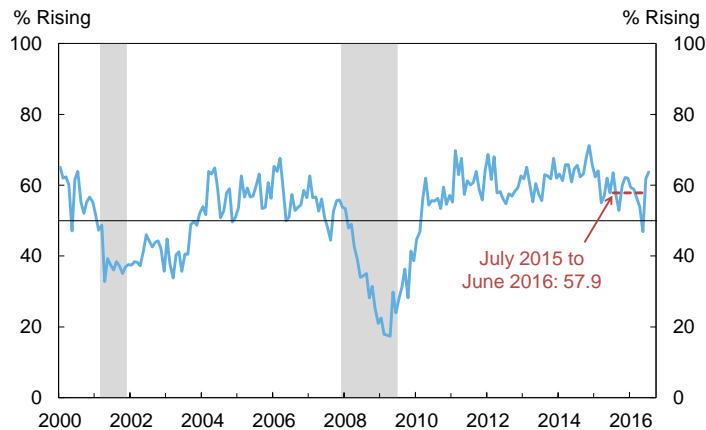
Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.

## **Strong payroll employment growth in July**

- The robust employment growth reported in June continued into July.
- Nonfarm payroll employment increased by 255,000 in July, with monthly payroll employment gains averaging around 190,000 in the last three months.
  - Viewed over the last three months, payroll gains are still somewhat below the levels that prevailed earlier this year.
- Aggregate hours worked rose by 0.5% in July.
  - The 12-month change in aggregate hours was 1.6%.

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



Source: Bureau of Labor Statistics via Haver Analytics

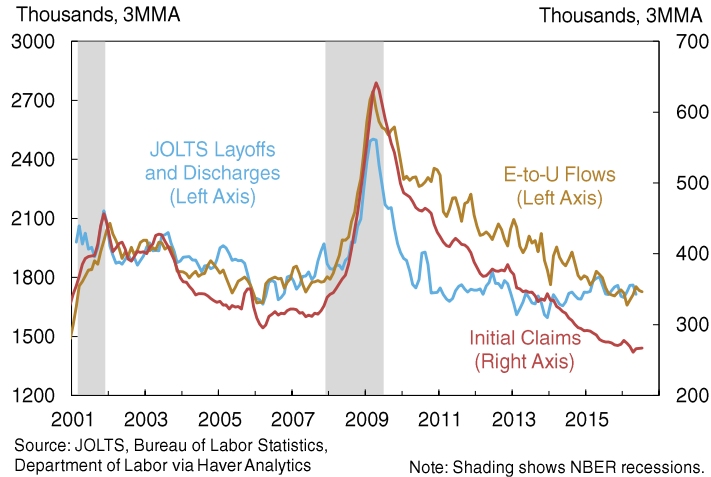
Note: Shading shows NBER recessions.

## **Employment gains were widespread**

- The one month diffusion index (reflecting the balance between industries increasing and decreasing employment) was 63.7 in July, above its average of 57.9 in the prior 12 months.
- Employment in goods producing industries rose by 16,000.
- Private service-providing sector's employment increased by 201,000, which was above the average monthly employment gains in the first six months.

# LABOR MARKET

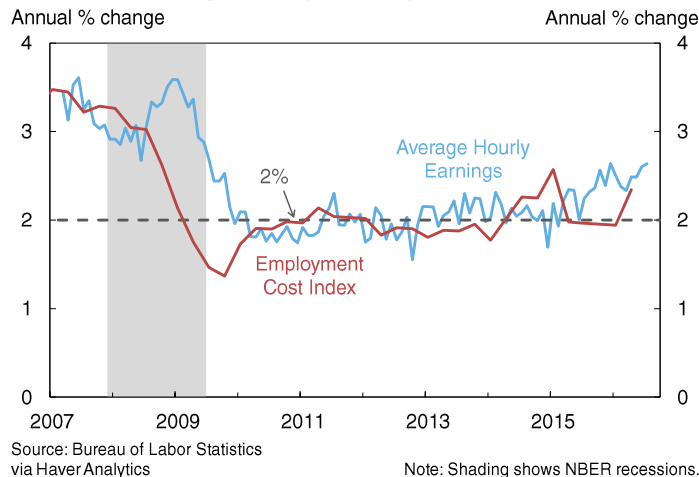
## Three Measures of Job Destruction



## Job destruction remains low

- JOLTS also reported that there were 1.7 million layoffs and discharges in May, little changed from April.
- There were 1.689 million workers who transitioned from employment to unemployment in July according to the household survey.
- For the week ending July 30<sup>th</sup>, the four-week moving average of initial claims for unemployment insurance was 260,250, slightly below the reading of 264,750 from one month ago.

## Growth of Average Hourly Earnings and ECI

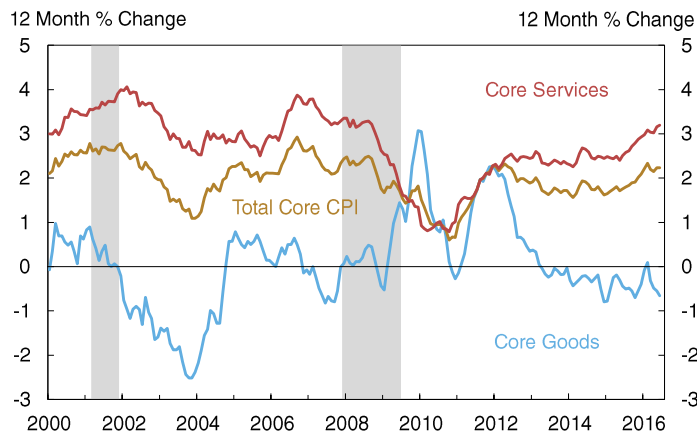


## Compensation growth somewhat stronger

- Average hourly earnings rose 0.3% in July and have increased by 2.6% over the past 12 months.
  - The 12-month change in average hourly earnings has been consistently above the narrow range near 2% that prevailed from January 2010 until August 2015.
- Average weekly earnings rose 0.6% in July, from \$880.98 to \$886.31.
- The employment cost index rose 0.6% in 2016Q2.
  - The 12-month change in the ECI (which is not seasonally-adjusted) for the period ending June 2016 was 2.3%, above the 2.0% increase for the same period ending in June 2015.

# INFLATION

## CPI Inflation: Core Goods and Core Services



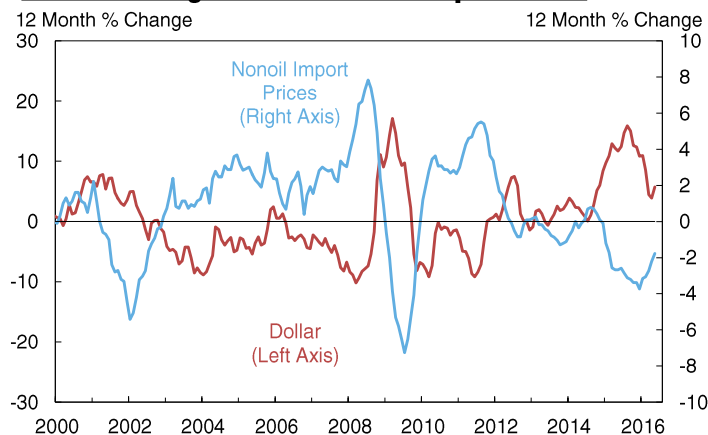
Source: Bureau of Labor Statistics  
via HaverAnalytics

Note: Shading shows NBER recessions.

## Goods and services prices continue to diverge

- The 12-month change in the core CPI was 2.3% in June, up from 2.2% in May.
- Core CPI goods prices continued to decline, in part due to the effects of earlier falls in non-oil import prices.
  - On a 12-month change basis, core CPI goods prices fell 0.6% in June, compared to a 0.5% decline in May.
- Core CPI services prices are less exposed to trade and continue to rise at a steady pace.
  - The 12-month change in core CPI services prices was 3.2% in June, the same as in May.
  - The shelter component of the CPI rose 3.5% from a year ago.

## Dollar Exchange Rate and Nonoil Import Prices



Source: Federal Reserve Board, Bureau of  
Labor Statistics via HaverAnalytics

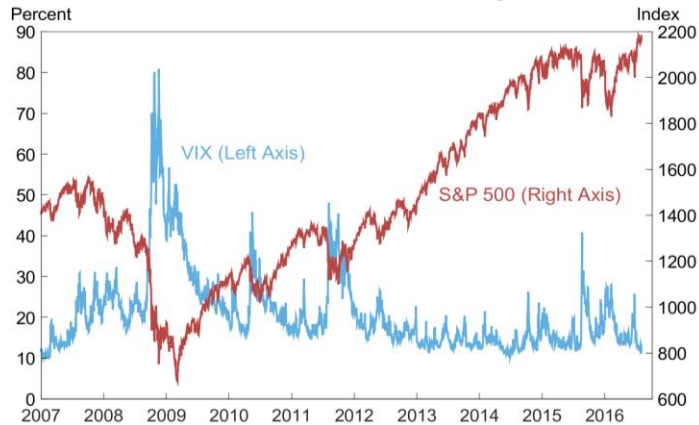
Note: Dollar is Board's trade-weighted measure.

## Import prices are falling less rapidly

- Import prices (excluding oil) were down 2% over the year in June.
  - The rate of decline in prices has moderated slightly in recent months.
- Import prices for autos and consumer goods were unchanged over the year.
  - Prices for autos were falling at a 2 percent rate at the end of last year.
- Prices for industrial supplies were down 6%.
  - The prices for these goods were down 13% over the course of 2015.

# FINANCIAL MARKETS

## US Equity Market Returns and Volatility



Source: Bloomberg Finance L.P.

## US equity markets at all-time highs

- Broad US equity market indices, including the S&P 500 and the Nasdaq, registered new all-time highs in August amid generally favorable economic data releases and the continued low level of interest rates.
  - Since June 27 (the Monday after the UK referendum), the S&P 500 has increased about 9%.
  - As of August 9, the index is up 8.5% for the year.
- Stock market volatility, as measured by the VIX index, is at its lowest level since Summer 2015.
  - Option-implied volatility, as measured by the VIX, spiked above 25 following the UK referendum, but has since declined to around 12.
  - This level is well below its average over the first half of the year, which was around 18.

## International Equity Indices



Source: Bloomberg Finance L.P.

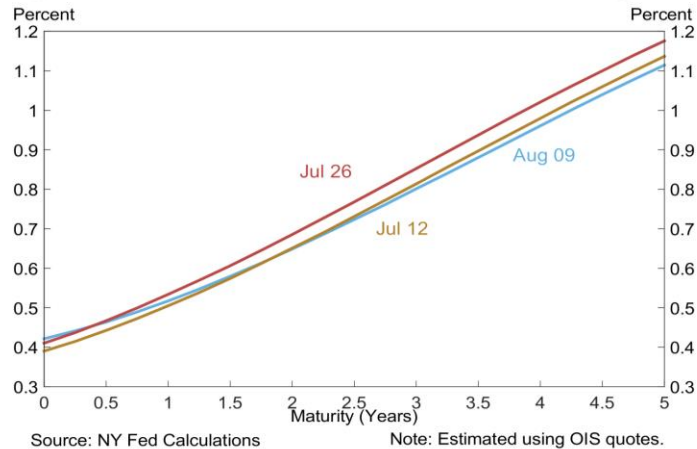
Note: 01/04/2007 = 1

## International equity indices move higher

- Major global equity indices have fully retraced their losses following the UK referendum, although they remain below their 2015 highs.
  - European indices, such as the German DAX and the UK FTSE 100 and FTSE 250, saw significant increases over the last month and are up since the start of the year.
  - The Japanese Nikkei stock index increased about 7% since the beginning of July, but is still down about 9% year-to-date.
  - The Shanghai A shares index has remained flat over the past month and is down about 8% year-to-date.

# FINANCIAL MARKETS

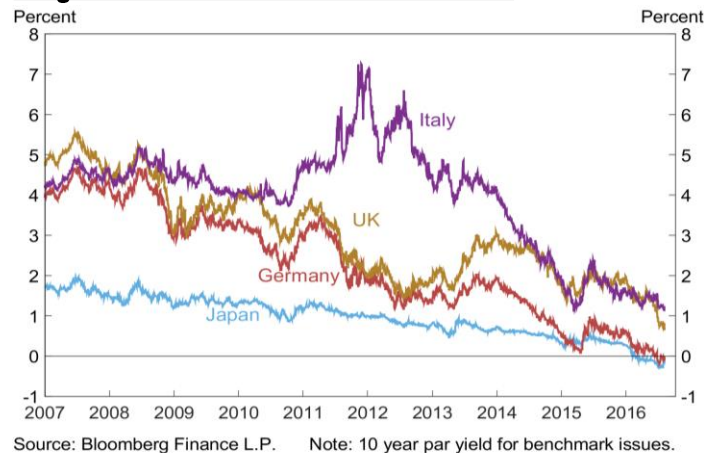
## Expected Federal Funds Rate



## Implied Federal Funds rate path nearly unchanged

- The expected path for the Federal Funds rate (FFR) implied by rates on overnight indexed swaps (OIS) is close to its level from one month ago.
  - The path flattened following the July FOMC meeting and the Q2 GDP data release, but then rebounded somewhat following the better-than-expected July labor market report.
- The current market-implied path remains well below the median longer run path from the FOMC's Summary of Economic Projections (SEP) and the NY Fed Primary Dealer Survey.

## Long Term Yields in Advanced Economies

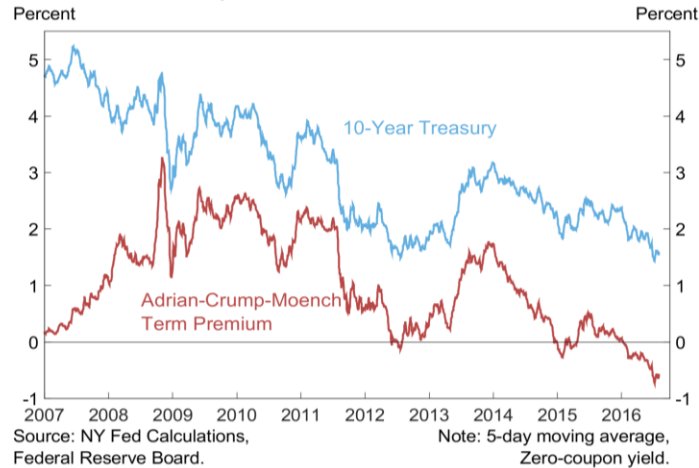


## Global sovereign bond yields remain very low

- Long-term government bond yields are at historically low levels in foreign advanced economies.
  - 10-year yields remain negative in Germany and Japan, despite slight increases in recent weeks.
  - The yield on 10-year UK sovereign bonds has fallen about 80 basis points relative to the day prior to the EU referendum vote, reflecting lower expected growth and monetary policy easing by the Bank of England.
- Bond yield spreads of peripheral European countries, such as Italy and Spain, have fallen in recent weeks.
  - The gap in yields between Italian and German 10-year government bonds has narrowed by about 40 basis points relative to its spike following the UK referendum.

# FINANCIAL MARKETS

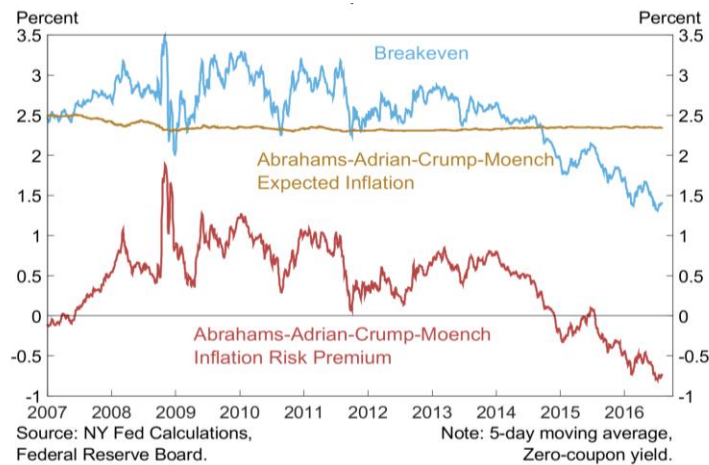
## 10-Year Treasury and Term Premium



## 10-year Treasury yield remains near all-time low

- The U.S. 10-year Treasury yield rebounded slightly from its all-time low in July, but remains at historically low levels.
  - The 10-year yield has declined about 75 basis points since the beginning of the year, while shorter-term yields have fallen less, resulting in a flattening of the yield curve.
- Estimates of the Adrian-Crump-Moench term-structure model attribute the yield decline since the start of the year to a lower term premium rather than to a lower expected path for the short-term rate.
  - Estimates of the term premium on the 10-year Treasury yield remain in substantially negative territory.

## 5-10 Year Forward Decomposition

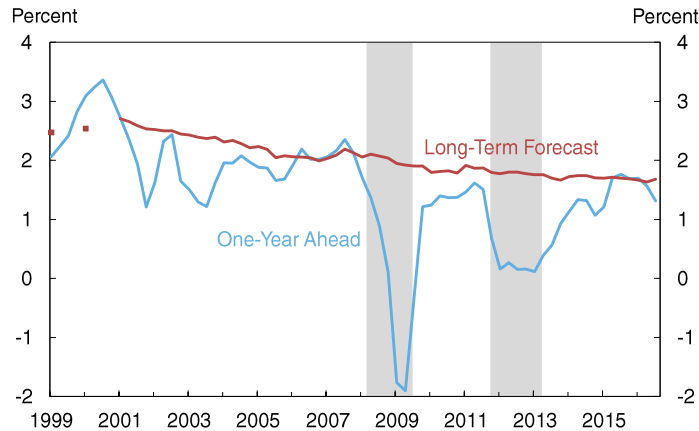


## Inflation expectations remain well anchored

- Market-implied TIPS-based measures of long-term inflation expectations (“breakevens”) have remained flat near multi-year lows.
  - Following a slight drop in the wake of the UK referendum, the five-to-ten year breakeven inflation rate stands around 1.4%, which is 0.3 percentage point below its level at the beginning of the year.
- 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 five-to-ten year inflation risk premium is near multi-year lows of around -0.7%.

# BREXIT AND THE EURO AREA OUTLOOK

## Mean Point Forecasts of GDP Growth



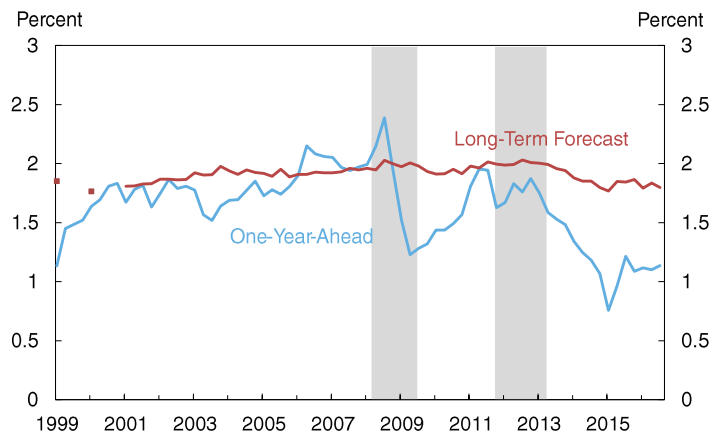
Source: European Central Bank

Note: Shading shows CEPR Euro Area Recessions.

## Lower near-term growth forecasted for euro area

- 2016Q3 ECB Survey of Professional Forecasters was conducted between June 30 and July 6.
  - Survey was fielded after Brexit vote was known.
- Average point forecast for near-term growth (one-year ahead horizon) declined 0.3 percentage point from the 2016Q2 survey.
  - Output is expected to grow 1.3% from 2016Q1-2017Q1.
- No change to long-term growth expectations (4-5 years ahead), with expected growth of 1.7% for 2021.

## Mean Forecasts of HICP Inflation



Source: European Central Bank

Note: Shading shows CEPR Euro Area Recessions.

## No change to euro area inflation expectations

- Compared to the 2016Q2 survey, inflation expectations were unchanged across near- and long-term horizons.
  - Consumer price inflation in the euro area is measured by the Harmonized Index of Consumer Prices (HICP).
  - Average point forecasts are 1.1% for June 2016-June 2017, and 1.8% for 2021.
- ECB's Governing Council aims to maintain inflation below, but close to, 2% over the medium-term.
  - Mean long-term forecast has been below 2% since 2013Q4.