

# The Virginia Tech – U.S. Forest Service

## November 2016

### Housing Commentary: Section II



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# **Federal Reserve System and Private Indicators**

# U.S. Economic Indicators

## Federal Open Market Committee Projections

Percent

Variable	Median <sup>1</sup>					Central tendency <sup>2</sup>					Range <sup>3</sup>				
	2016	2017	2018	2019	Longer run	2016	2017	2018	2019	Longer run	2016	2017	2018	2019	Longer run
Change in real GDP	1.9	2.1	2.0	1.9	1.8	1.8-1.9	1.9-2.3	1.8-2.2	1.8-2.0	1.8-2.0	1.8-2.0	1.7-2.4	1.7-2.3	1.5-2.2	1.6-2.2
September projection	1.8	2.0	2.0	1.8	1.8	1.7-1.9	1.9-2.2	1.8-2.1	1.7-2.0	1.7-2.0	1.7-2.0	1.6-2.5	1.5-2.3	1.6-2.2	1.6-2.2
Unemployment rate	4.7	4.5	4.5	4.5	4.8	4.7-4.8	4.5-4.6	4.3-4.7	4.3-4.8	4.7-5.0	4.7-4.8	4.4-4.7	4.2-4.7	4.1-4.8	4.5-5.0
September projection	4.8	4.6	4.5	4.6	4.8	4.7-4.9	4.5-4.7	4.4-4.7	4.4-4.8	4.7-5.0	4.7-4.9	4.4-4.8	4.3-4.9	4.2-5.0	4.5-5.0
PCE inflation	1.5	1.9	2.0	2.0	2.0	1.5	1.7-2.0	1.9-2.0	2.0-2.1	2.0	1.5-1.6	1.7-2.0	1.8-2.2	1.8-2.2	2.0
September projection	1.3	1.9	2.0	2.0	2.0	1.2-1.4	1.7-1.9	1.8-2.0	1.9-2.0	2.0	1.1-1.7	1.5-2.0	1.8-2.0	1.8-2.1	2.0
Core PCE inflation <sup>4</sup>	1.7	1.8	2.0	2.0		1.7-1.8	1.8-1.9	1.9-2.0	2.0		1.6-1.8	1.7-2.0	1.8-2.2	1.8-2.2	
September projection	1.7	1.8	2.0	2.0		1.6-1.8	1.7-1.9	1.9-2.0	2.0		1.5-2.0	1.6-2.0	1.8-2.0	1.8-2.1	
Memo: Projected appropriate policy path															
Federal funds rate	0.6	1.4	2.1	2.9	3.0	0.6	1.1-1.6	1.9-2.6	2.4-3.3	2.8-3.0	0.6	0.9-2.1	0.9-3.4	0.9-3.9	2.5-3.8
September projection	0.6	1.1	1.9	2.6	2.9	0.6-0.9	1.1-1.8	1.9-2.8	2.4-3.0	2.8-3.0	0.4-1.1	0.6-2.1	0.6-3.1	0.6-3.8	2.5-3.8

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The September projections were made in conjunction with the meeting of the Federal Open Market Committee on September 20-21, 2016. One participant did not submit longer-run projections for the change in real GDP, the unemployment rate, or the federal funds rate in conjunction with the September 20-21, 2016, meeting, and one participant did not submit such projections in conjunction with the December 13-14, 2016, meeting.

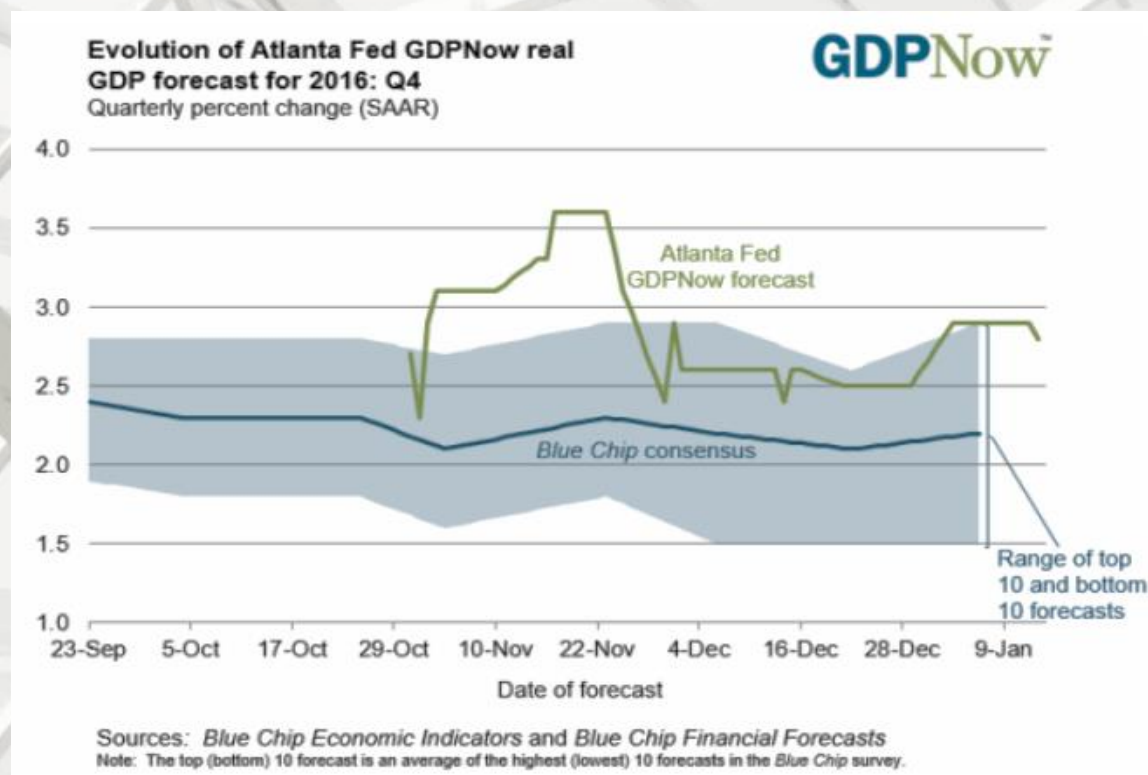
1. For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.

2. The central tendency excludes the three highest and three lowest projections for each variable in each year.

3. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.

4. Longer-run projections for core PCE inflation are not collected.

# U.S. Economic Indicators



## Atlanta Fed GDPNow™

**Latest forecast: 2.9 percent — January 13, 2016**

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the fourth quarter of 2016 is **2.8 percent** on January 13, down from 2.9 percent on January 10. The forecast of fourth-quarter real personal consumption expenditures growth ticked down from 2.6 percent to 2.5 percent after this morning's retail sales report from the U.S. Census Bureau.” – Pat Higgins, Economist, The Federal Reserve Bank of Atlanta

# U.S. Economic Indicators

## Southeast Purchasing Managers Index



Note: 50+ = Expansion

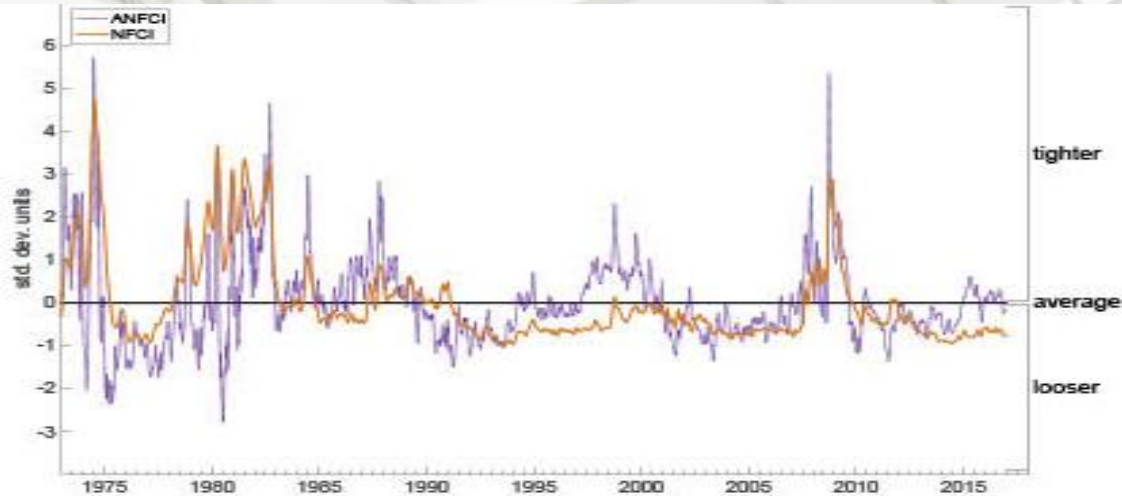
Source: Kennesaw State University, Coles College of Business Econometric Center



## The Federal Reserve Bank of Atlanta Southeast Manufacturing

“Kennesaw State University's Southeast Purchasing Managers Index (PMI), is a composite index that measures the region's manufacturing sector based on key sector indicators. December's reading was 53.8, a decrease from November (57.9) and an increase from December 2015 (52.0). The composite index measures the region's manufacturing sector based on key sector indicators; a reading below 50 indicates manufacturing is contracting, while over 50 means the industry is expanding.” – Troy Balthrop, Senior Analyst, The Federal Reserve Bank of Atlanta

# U.S. Economic Indicators



	Current	Previous	1 Month Ago	3 Months Ago	6 Months Ago	12 Months Ago
Index	1/6/2017	12/30/2016	12/9/2016	10/7/2016	7/8/2016	1/8/2016
NFCI	-0.77	-0.76	-0.76	-0.63	-0.62	-0.59
ANFCI	-0.17	-0.18	-0.23	0.22	0.11	0.12

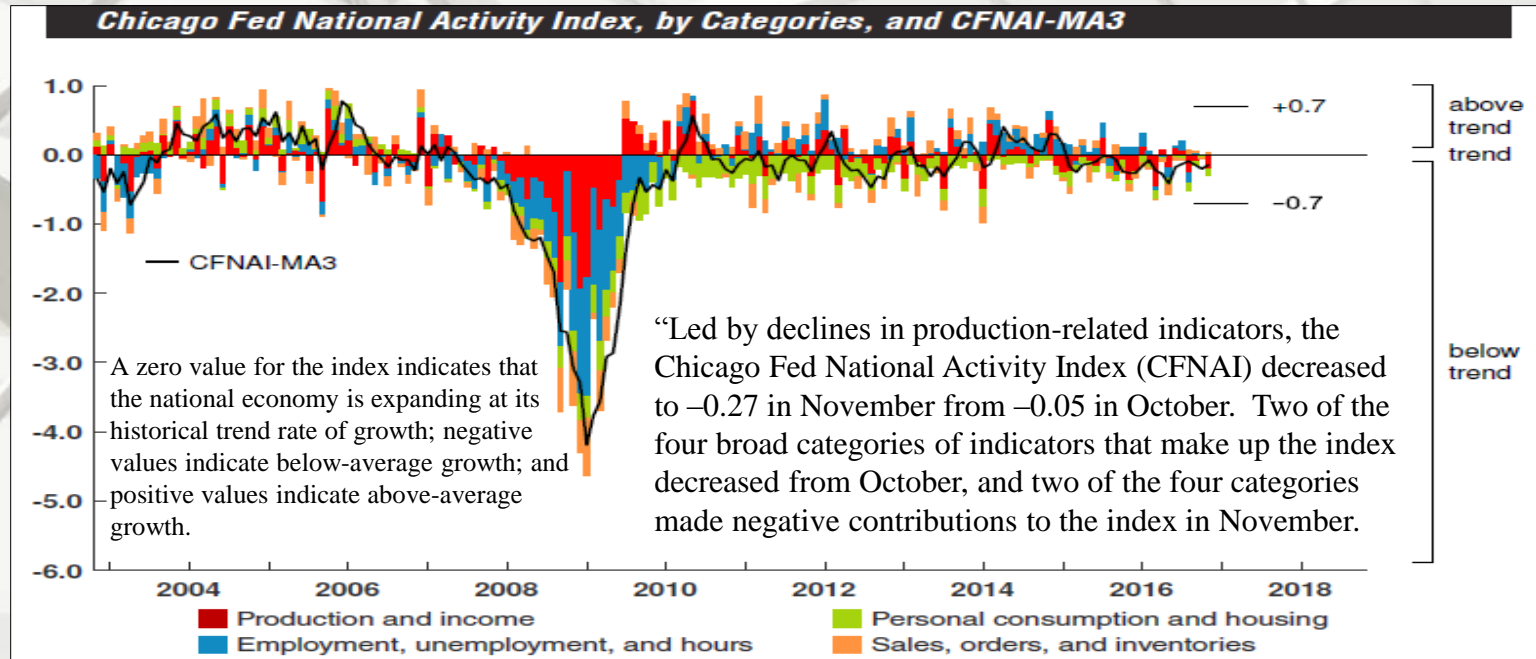
## The Federal Reserve Bank of Chicago

### Financial Conditions Little Changed in Week Ending Jan 6

“The NFCI ticked down to  $-0.77$  in the week ending January 6. The risk subindex ticked up from the previous week, while the credit subindex ticked down and the leverage and nonfinancial leverage subindexes were both unchanged.

The ANFCI ticked up from the previous week, to  $-0.17$ . The current level of the ANFCI indicates that financial conditions in the latest week were somewhat looser than what would typically be suggested by current economic conditions as captured by the three-month moving average of the Chicago Fed National Activity Index (CFNAI-MA3) and three-month total inflation according to the Price Index for Personal Consumption Expenditures (PCE).” – Scott Brave, Economic Research, The Federal Reserve Bank of Chicago

# Chicago Fed: National Activity Index



## Index shows economic growth decreased slightly in November

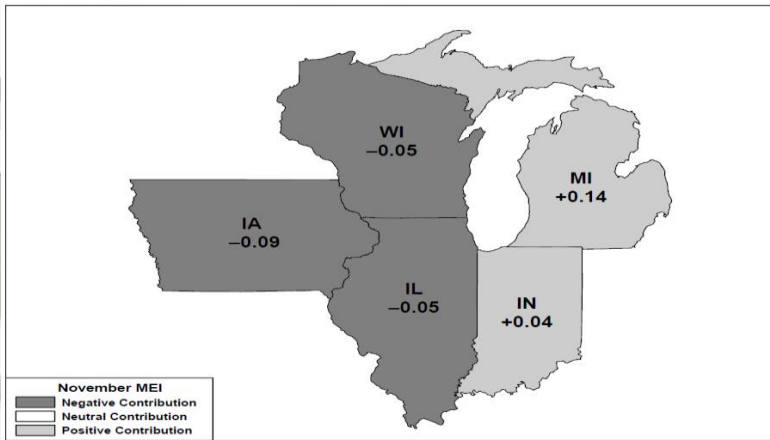
“The index’s three-month moving average, CFNAI-MA3, edged up to  $-0.14$  in November from  $-0.20$  in October. November’s CFNAI-MA3 suggests that growth in national economic activity was slightly below its historical trend. The economic growth reflected in this level of the CFNAI-MA3 suggests subdued inflationary pressure from economic activity over the coming year.

The CFNAI Diffusion Index, which is also a three-month moving average, moved up to  $-0.15$  in November from  $-0.23$  in October. Thirty-one of the 85 individual indicators made positive contributions to the CFNAI in November, while 54 made negative contributions. Forty-one indicators improved from October to November, while forty-four indicators deteriorated. Of the indicators that improved, 17 made negative contributions.” – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago



# Chicago Fed: Midwest Economy Index

MEI and the Seventh Federal Reserve District States



## Midwest Economy Index

“The Midwest Economy Index (MEI) decreased slightly to  $-0.01$  in November from a neutral reading in October. The relative MEI decreased to  $+0.20$  in November from  $+0.22$  in October. November’s value for the relative MEI indicates that Midwest economic growth was somewhat higher than what would typically be suggested by the growth rate of the national economy.” – Laura LaBarbera, Media Relations, Chicago Fed

“The manufacturing sector’s contribution to the MEI increased to  $+0.01$  in November from a neutral reading in October. The pace of manufacturing activity increased in Illinois and Indiana, but decreased in Iowa and Michigan and was unchanged in Wisconsin. Manufacturing’s contribution to the relative MEI increased to  $+0.22$  in November from  $+0.19$  in October.

The construction and mining sector’s contribution to the MEI ticked up to  $-0.03$  in November from  $-0.04$  in October. The pace of construction and mining activity was higher in Illinois, Indiana, Michigan, and Wisconsin, but lower in Iowa. Construction and mining’s contribution to the relative MEI was unchanged at  $-0.01$  in November.

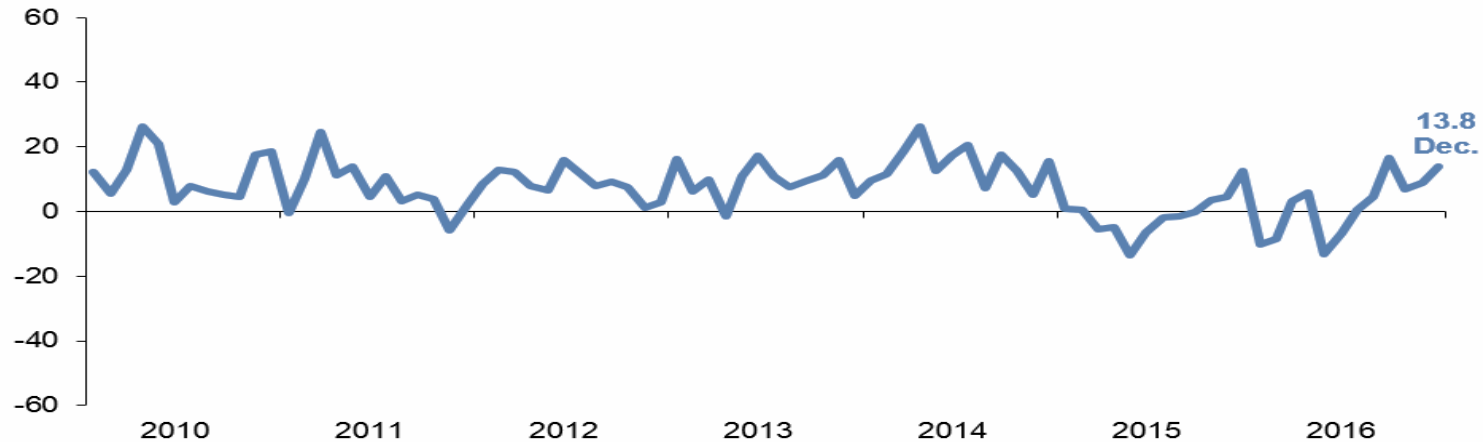
The service sector’s contribution to the MEI decreased to  $-0.02$  in November from  $+0.02$  in October. The pace of service sector activity was down in Illinois, Iowa, and Wisconsin, but up in Indiana and Michigan. The service sector’s contribution to the relative MEI fell to  $-0.02$  in November from  $+0.04$  in October.

The contribution from consumer spending indicators to the MEI moved up to  $+0.04$  in November from  $+0.02$  in October. Consumer spending indicators were, on balance, up in Iowa, Michigan, and Wisconsin, but down in Indiana and steady in Illinois. Consumer spending’s contribution to the relative MEI increased to  $+0.02$  in November from a neutral reading in October.” – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

# U.S. Economic Indicators

## Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

## The Federal Reserve Bank of Dallas

### Growth in Texas Manufacturing Activity Picks up Pace

“Texas factory activity increased for the sixth consecutive month in December, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The [production](#) index, a key measure of state manufacturing conditions, rose five points to 13.8, suggesting faster output growth this month.

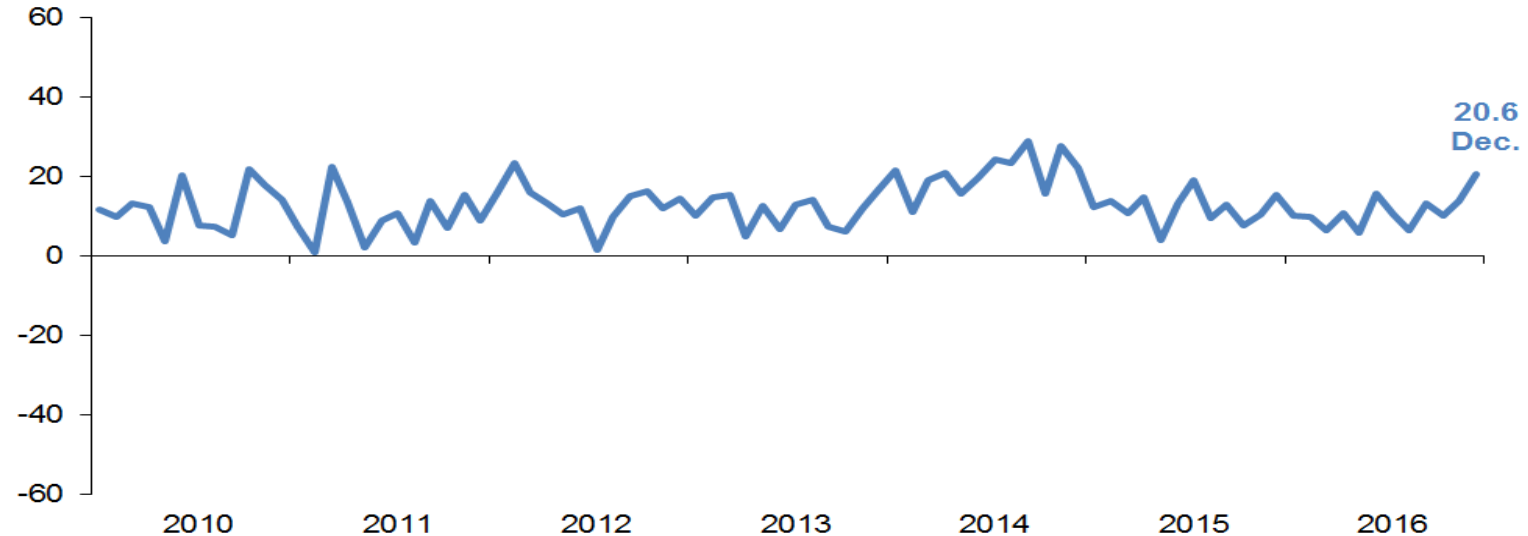
Most other measures of current manufacturing activity indicated expansion, although demand growth remained slightly negative. The [new orders](#) index climbed nine points to 7.3, posting its first positive reading in four months. However, the [growth rate of orders](#) index stayed slightly negative, edging down to -3.4. The [capacity utilization](#) index shot up 10 points to 13.8, its highest reading in more than two years. The [shipments](#) index rebounded from a dip into negative territory last month, climbing seven points to 4.7.

Perceptions of broader business conditions improved again this month. The [general business activity](#) index posted a second consecutive positive reading and moved up to 15.5. The [company outlook](#) index posted a similar gain, increasing six points to a reading of 17.4.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

# U.S. Economic Indicators

## Texas Service Sector Outlook Survey Revenue Index

Index, seasonally adjusted



## The Federal Reserve Bank of Dallas

### Texas Service Sector Activity Strengthens Further and Optimism Increases

“Texas service sector activity increased in December, according to business executives responding to the *Texas Service Sector Outlook Survey*. The [revenue](#) index, a key measure of state service sector conditions, rose from 13.7 in November to 20.6 in December.

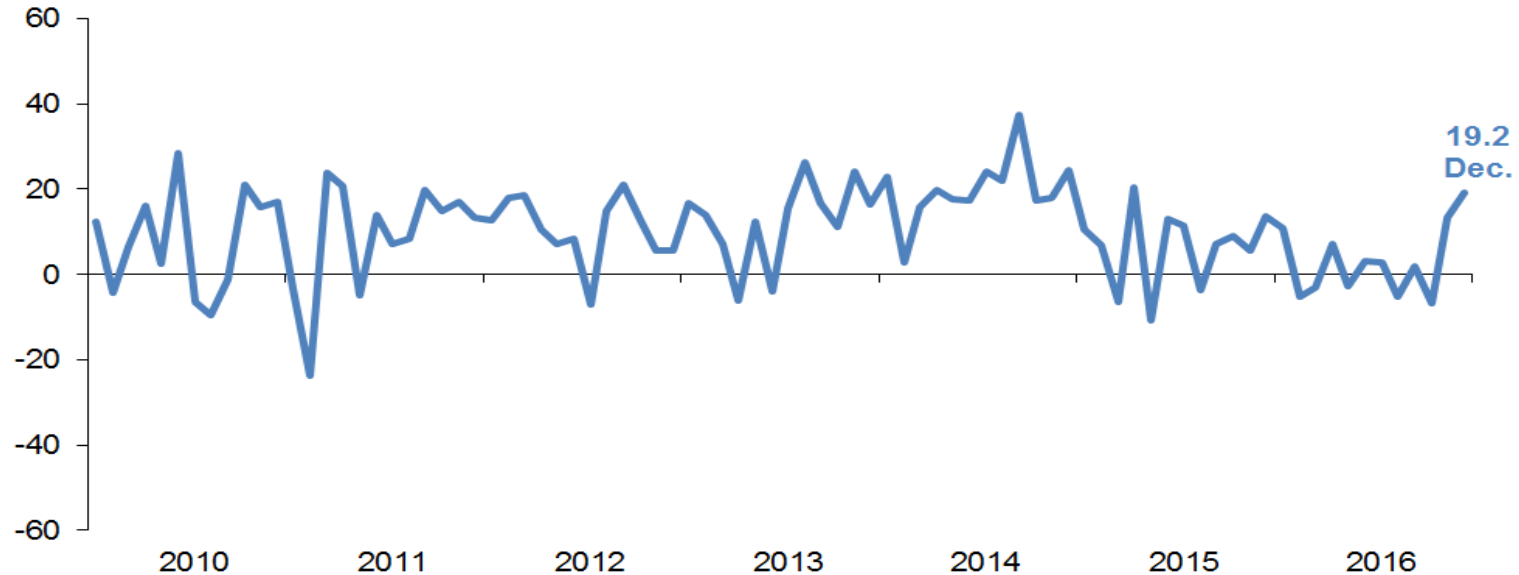
Labor market indicators reflected somewhat slower employment growth and longer workweeks this month. The [employment](#) index dipped from 9.2 to 7.8. The [hours worked](#) index edged up from a reading near zero to 4.1.

Perceptions of broader economic conditions reflected more optimism in December. The [general business activity](#) index advanced from 12.6 to 19.4. The [company outlook](#) index rose 5 points to 20.6, with 28 percent of respondents reporting that their outlook improved from last month and 8 percent noting it worsened.” – Amy Jordan, Assistant Economist, Federal Reserve Bank of Dallas

# U.S. Economic Indicators

## Texas Retail Outlook Survey Sales Index

Index, seasonally adjusted



## The Federal Reserve Bank of Dallas

### Texas Retail Outlook Survey: Retail Sales Continue to Grow

“Retail sales picked up in December, according to business executives responding to the *Texas Retail Outlook Survey*. The sales index rose 6 points to 19.2. Inventories increased at a slower pace this month. Labor market indicators improved this month. The employment index advanced 8 points to 12.3, indicating retail employment increased at a faster pace. The hours worked index rebounded from negative territory to 4.1, suggesting workweeks lengthened.

Retailers’ perceptions of broader economic conditions reflected more optimism in December. The general business activity index rose from 10.1 to 19.4. The company outlook index climbed 10 points to 23.7, with 31 percent of respondents reporting that their outlook improved from last month and 7 percent noting that it worsened.” – Amy Jordan, Assistant Economist, Federal Reserve Bank of Dallas

# U.S. Economic Indicators

## The Federal Reserve Bank of Dallas

### Texas Economy Positioned to Improve in 2017

“The Texas economy continues to expand at a moderate pace, with payroll employment growing at a 2.1 percent annualized pace in the second half of the year versus the lackluster 0.8 percent rate in the first half. October job growth was subdued, but September data were revised up (Chart 1). The *Texas Business Outlook Surveys* (TBOS) point to stronger growth in both manufacturing and services in November. The [Texas Employment Forecast](#) suggests that job growth for the year will be 1.5 percent (December/December) and that growth next year will be close to the state’s long-term trend rate of 2.1 percent.

Recent job gains have been broad based across industries as service-providing sectors continue to add jobs at a healthy pace and goods-producing industries have improved significantly (Chart 2). Declines in the energy and manufacturing sectors were far more muted in the third quarter than earlier in the year, and data for October suggest that both saw further improvement.

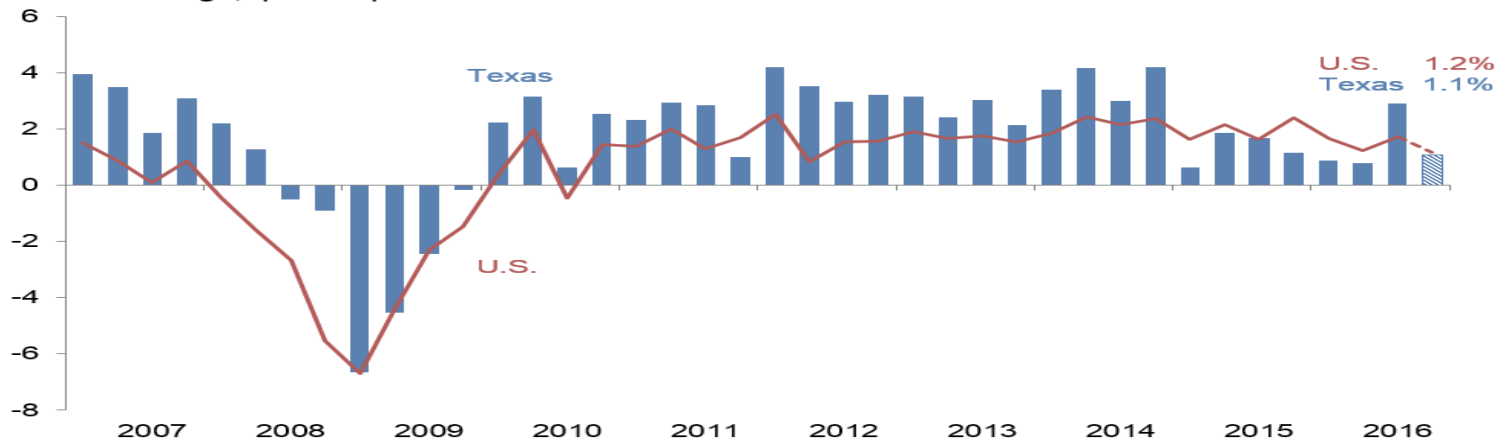
Manufacturing activity and employment have improved in recent months. The TMOS headline production index increased slightly to 8.8 in November. Other indexes, such as company outlook, general business activity and employment, increased to levels not seen since last year. Payroll employment data support this outlook as job declines steadily narrowed from May to September and slight job gains were seen in October.

Continued appreciation in the Texas trade-weighted value of the dollar presents a headwind to a more robust manufacturing recovery because much of what is manufactured in Texas is exported. While overall manufacturing employment has flattened out in recent months, manufacturing jobs tied to exports continue to decline” – Christopher Slijk, Senior Research Analyst and Keith Phillips, Assistant Vice President and Senior Economist, The Federal Reserve Bank of Dallas

# U.S. Economic Indicators

**Chart 1**  
**October Job Data Show Modest Growth Following a Strong Third Quarter**

Percent change, quarter/quarter\*



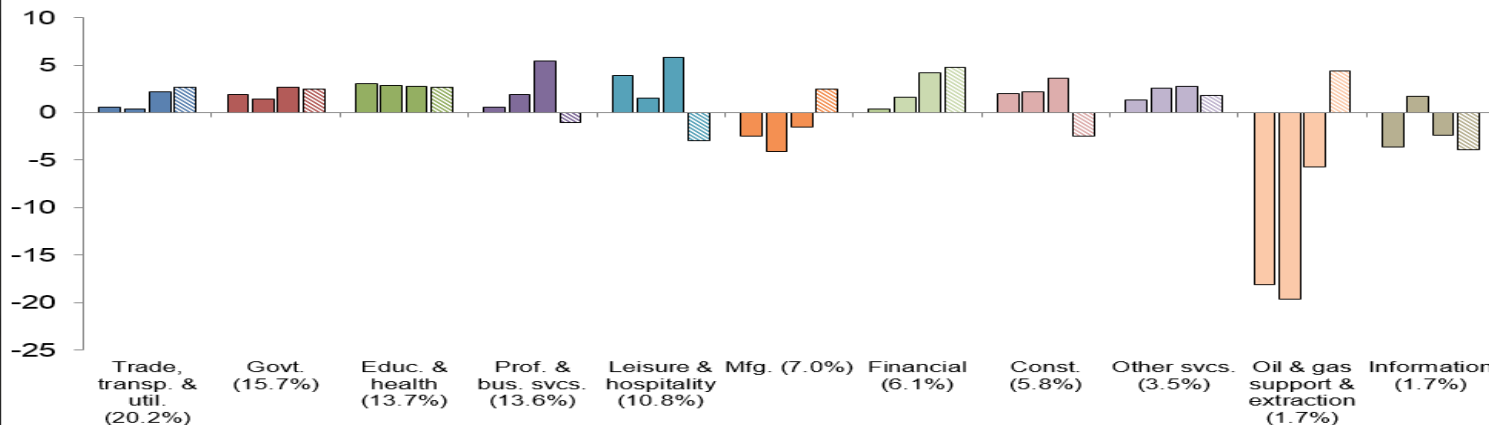
\*Seasonally adjusted, annualized rate.

NOTE: Fourth-quarter data are October/September.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal and other adjustments by the Federal Reserve Bank of Dallas.

**Chart 2**  
**Job Growth in Most Sectors Improves Since First Half**

Percent change, quarter/quarter\*

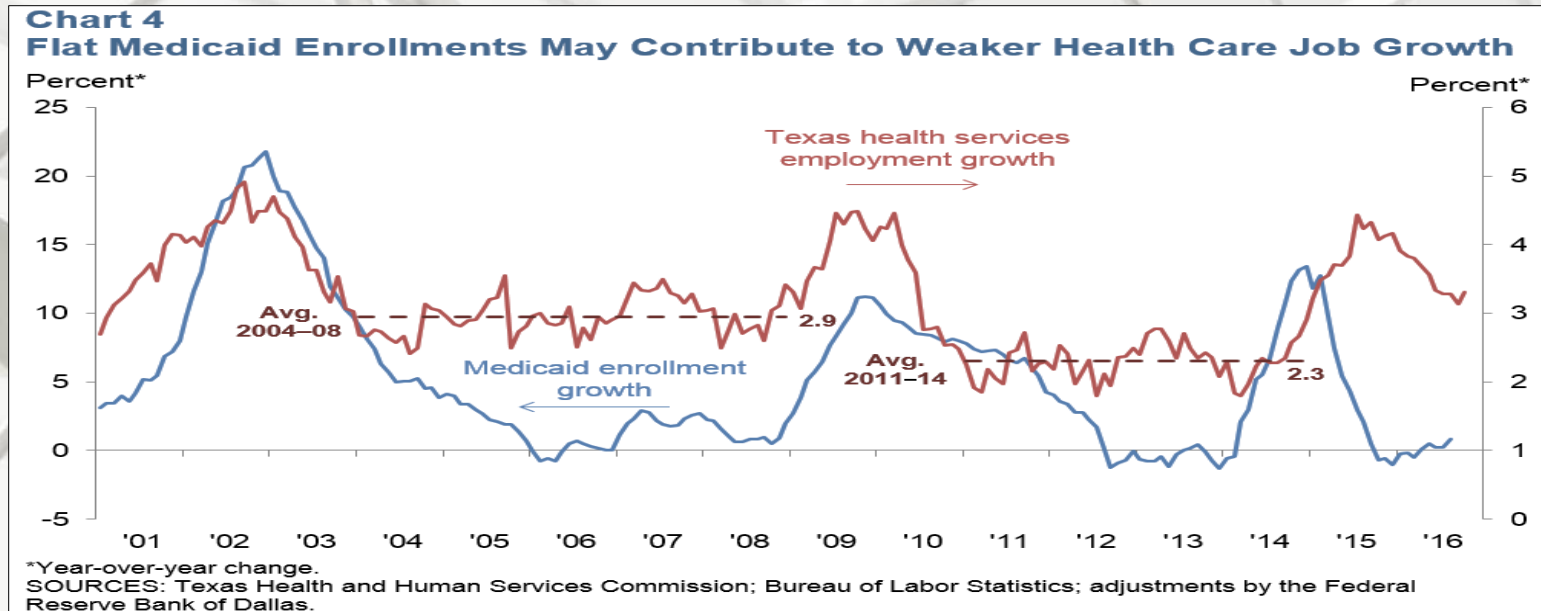


\*Seasonally adjusted, annualized rates; striped bars represent October/September growth.

NOTES: Numbers in parentheses are shares of total Texas nonfarm employment.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal and other adjustments by Federal Reserve Bank of Dallas.

# U.S. Economic Indicators

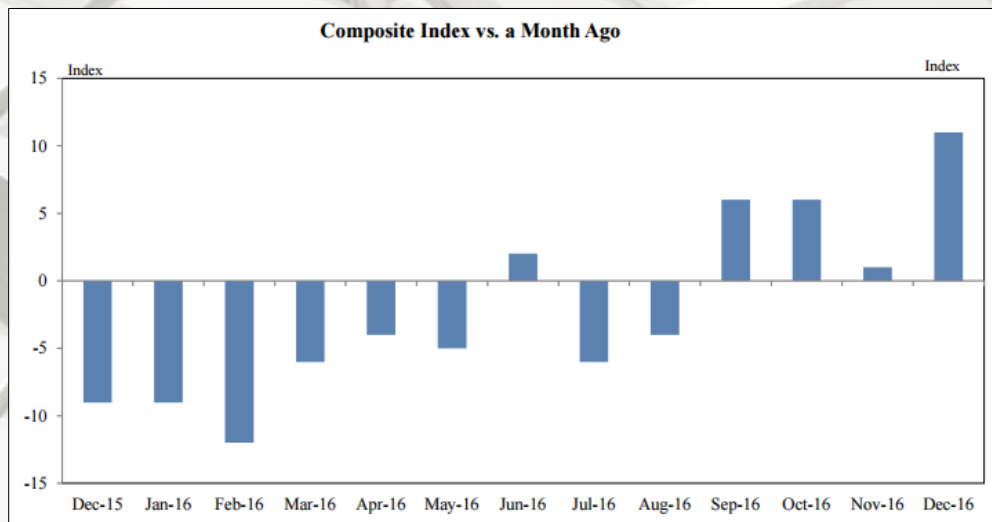


## The Federal Reserve Bank of Dallas Service Sector Growth Robust

“Job growth in most service-providing sectors – particularly trade, transportation and utilities; professional and business services; and leisure and hospitality – all surged after lackluster performances in the first half of the year.

Health care services employment has been a notable exception this year, keeping a steady pace of growth after providing a significant boost in 2015. October year-over-year growth came in at 3.3 percent (Chart 4). Some of the previous strength was likely attributable to rising health care utilization. Although Texas did not expand Medicaid coverage as part of the Affordable Care Act, many in the state who were eligible but not enrolled in Medicaid began signing up in 2014 and 2015. As this surge in enrollees dissipated, growth in health care jobs slowed. Going forward, hiring will likely moderate to its typical growth rate of 2 to 3 percent.” – Christopher Slijk, Senior Research Analyst and Keith Phillips, Assistant Vice President and Senior Economist, The Federal Reserve Bank of Dallas

# U.S. Economic Indicators



## Tenth District Manufacturing Summary

“Tenth District manufacturing activity improved considerably to its highest growth rate in over two years, and producers’ expectations for future activity also increased. Price indexes continued to post moderate increases in December.”  
– Pam Campbell, The Federal Reserve Bank of Kansas City

## The Federal Reserve Bank of Kansas City

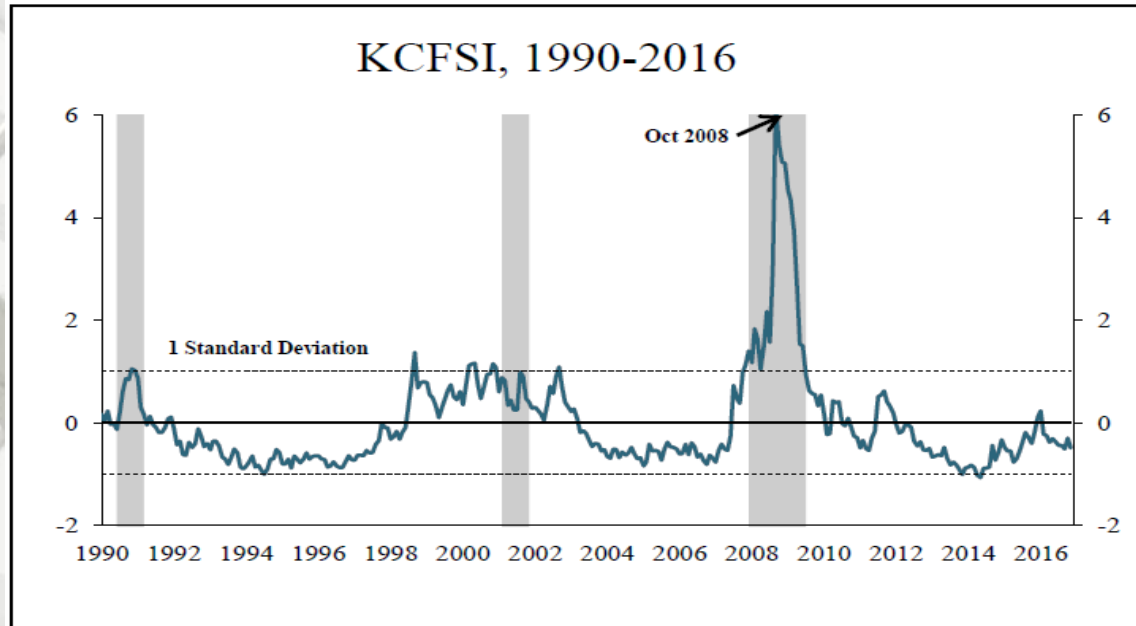
### Tenth District Manufacturing Activity Improved Considerably

“This was the highest composite reading in our survey since May 2014. This is now four straight months of factory expansion in our region, following a difficult time for many plants in 2015 and much of 2016.” – Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

“The month-over-month composite index was 11 in December, up from 1 in November and 6 in October. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Activity in nondurable goods plants increased markedly, particularly for food and plastics, while durable goods plants expanded at a slower pace. Most month-over-month indexes improved in December. The production index jumped from 9 to 24, and the shipments, new orders, and order backlog indexes also rose. The employment index increased from 1 to 10, its highest level since May 2014. The finished goods inventory index rose from -13 to 1, and the raw materials inventory index also moved higher.” – Pam Campbell, Kansas City Fed



# U.S. Economic Indicators



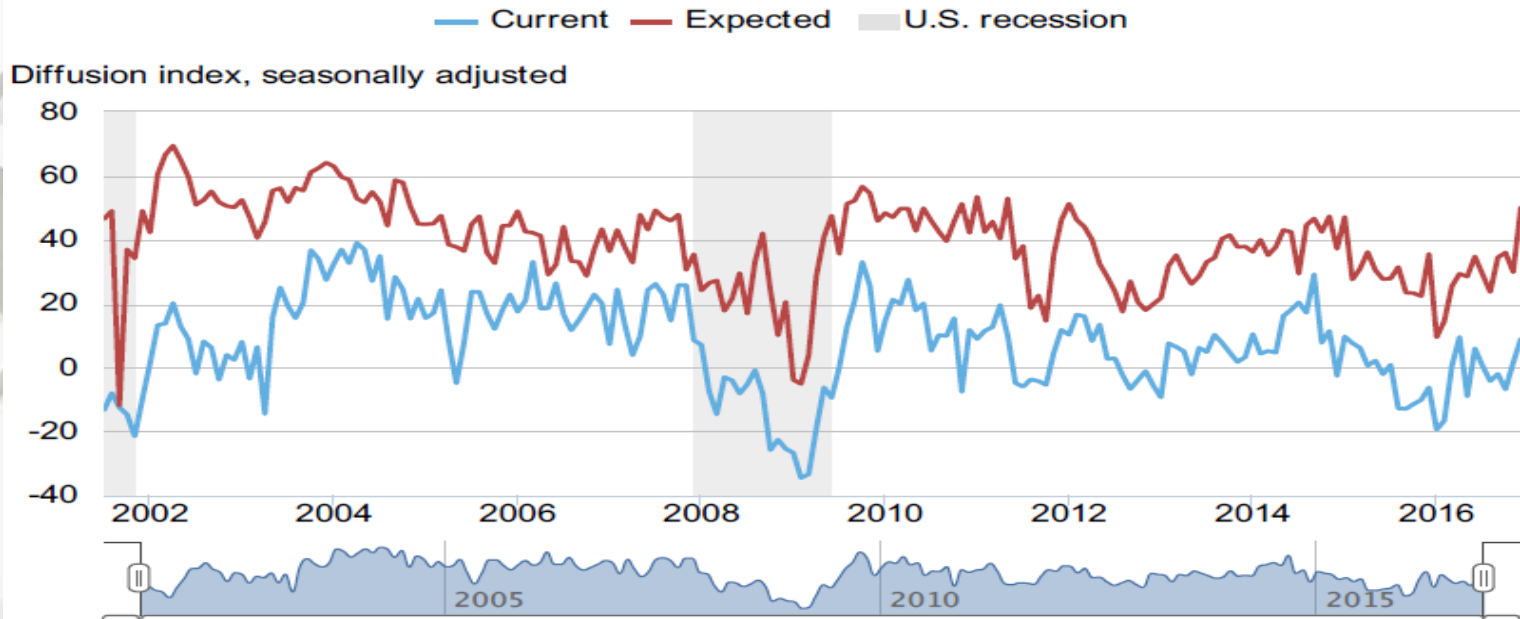
## **The Federal Reserve Bank of Kansas City The KCFSI suggests financial stress remains low**

“The Kansas City Financial Stress Index (KCFSI) decreased from -0.31 in November to -0.49 in December.

The KCFSI is constructed to have a mean value of zero and a standard deviation of one. A positive value of the KCSFI indicates that financial stress is above the long-run average, while a negative value signifies that financial stress is below the long-run average. A useful way to assess the level of financial stress is to compare the index in the current month to the index during a previous episode of financial stress, such as October 2008.” – Bill Medley, Media Relations, The Federal Reserve Bank of Kansas City

# U.S. Economic Indicators

## General Business Conditions



## Empire State Manufacturing Survey Business Activity Steadies

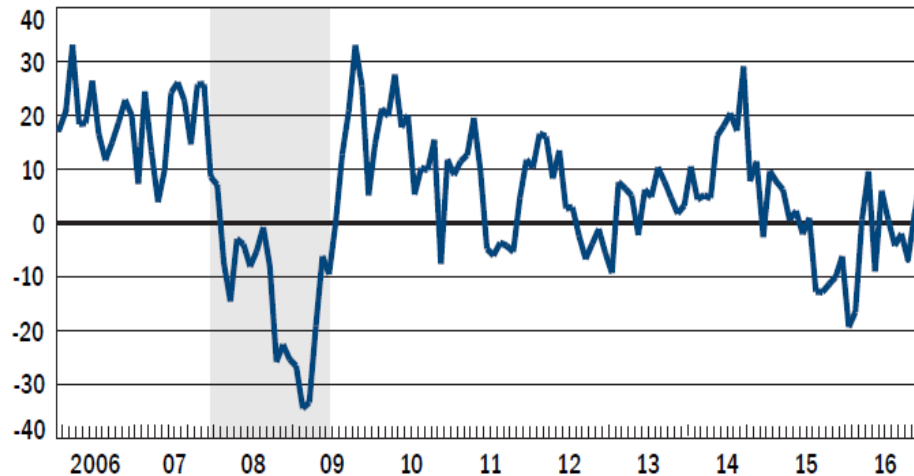
“Business activity grew modestly in New York State, according to firms responding to the December 2016 *Empire State Manufacturing Survey*. The headline general business conditions index climbed eight points to 9.0. The new orders index rose to 11.4, and the shipments index was unchanged at 8.5. Labor market conditions remained weak, with manufacturers reporting declines in employment and hours worked. Inventories continued to fall, and delivery times shortened. The prices paid index rose seven points, pointing to a pickup in input price increases, while the prices received index showed only a slight increase in selling prices. Indexes for the six-month outlook conveyed a high degree of optimism about future conditions, with the index for future business conditions rising to its highest level in nearly five years.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

## General Business Conditions

Seasonally Adjusted

Diffusion index



Note: The shaded area indicates a period designated a recession by the National Bureau of Economic Research.

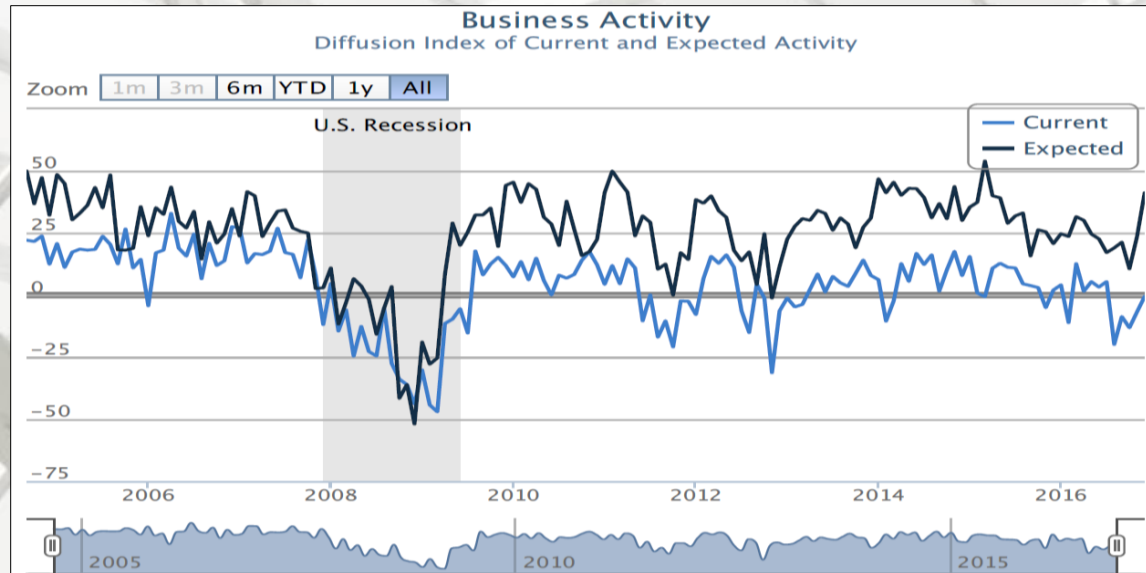
## Empire State Manufacturing Survey

“Manufacturing firms in New York State reported that business activity expanded in December. The general business conditions index rose eight points to 9.0, its highest level since April. Thirty-two percent of respondents reported that conditions had improved over the month, while 23 percent reported that conditions had worsened.” – The Federal Reserve Bank of New York

## Business Activity Picks Up

“Indexes for the six-month outlook strengthened, and suggested that respondents were very optimistic about future conditions. The index for future business conditions shot up twenty points to 50.2, its highest level in nearly five years, with 61 percent of respondents expecting conditions to improve in the months ahead. The index for future new orders climbed eighteen points to 46.7, and the index for future shipments increased fourteen points to 40.1. The index for future employment indicated that firms expected to expand employment significantly. The capital expenditures index climbed nine points to 21.7, and the technology spending index rose four points to 12.2.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

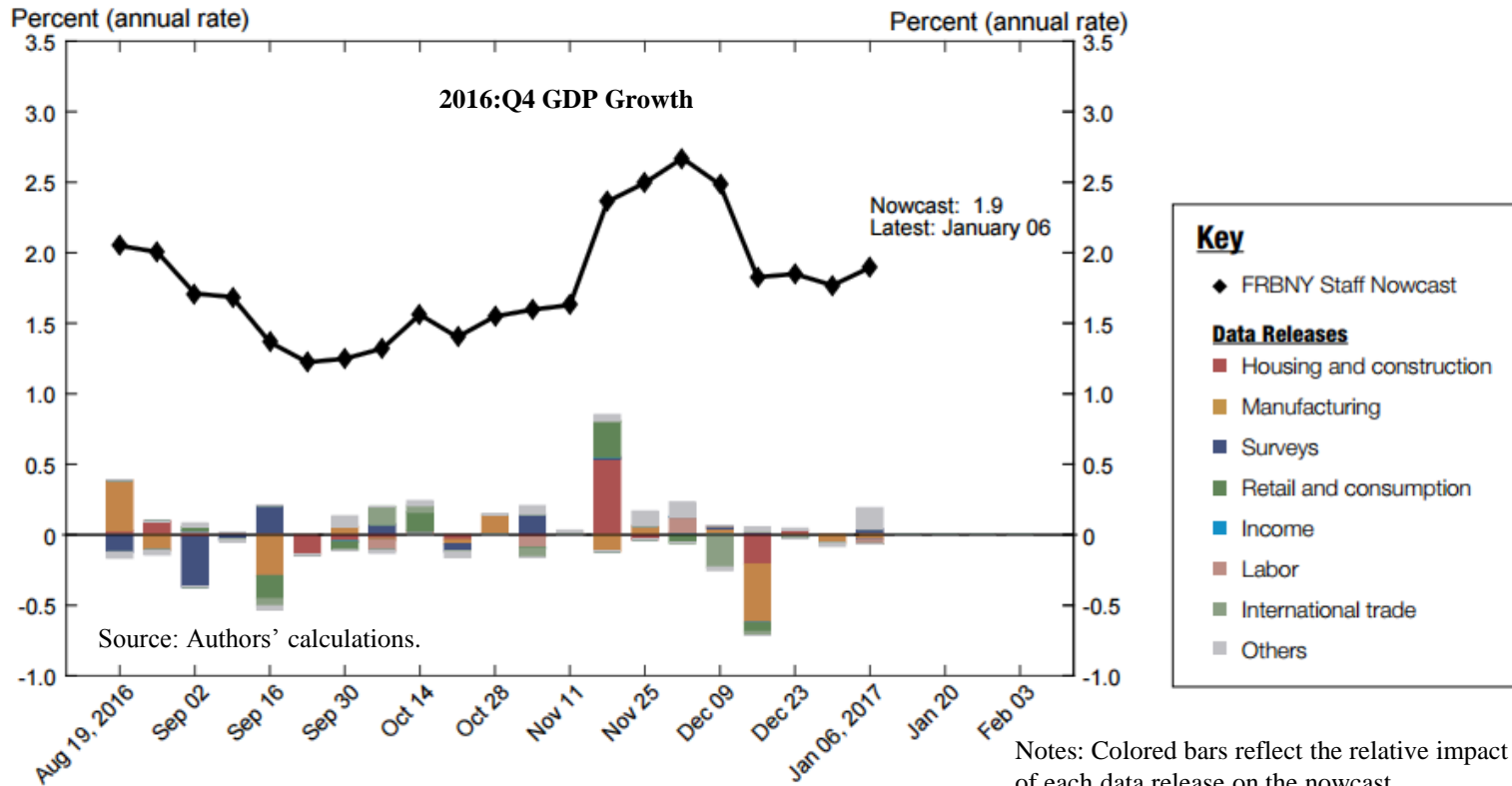


## Business Leaders Survey

“Activity in the region’s service sector held steady, according to firms responding to the Federal Reserve Bank of New York’s December 2016 *Business Leaders Survey*. The survey’s headline business activity index climbed six points to -0.6. The business climate index jumped 20 points to -3.8, signaling that respondents generally continued to view the business climate as worse than normal, though to a small degree compared with recent months. The employment index edged up to 11.2, pointing to a continued increase in employment levels, and the wages index moved down three points to 24.3, its lowest level in more than a year, suggesting that wages rose at a slower pace. The prices paid index held steady at 34.7, signaling that input prices continued to advance at a moderate pace, while the prices received index dipped below zero, suggesting a small decline in selling prices. Indexes assessing the six-month outlook increased significantly, and indicated that firms were much more optimistic about future business conditions than they had been in quite some time.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

## The Federal Reserve Bank of New York

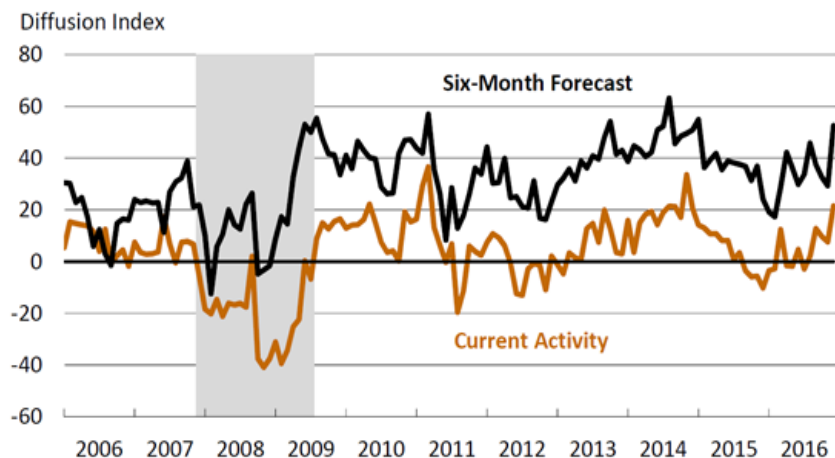


- “The FRBNY Staff Nowcast stands at 1.9% for both 2016:Q4 and 2017:Q1.
- The 2016:Q4 nowcast moved up 0.1 percentage point; this increase was largely due to parameter revisions.
- The 2017:Q1 nowcast moved up 0.2 percentage point; this increase was mainly due to parameter revisions and positive surprises from ISM survey data.”

The NY Fed does not mention the large contribution from new housing construction (orange bar).

# U.S. Economic Indicators

**Chart 1. Current and Future General Activity Indexes**  
January 2006 to December 2016



Note: The diffusion index is computed as the percentage of respondents indicating an increase minus the percentage indicating a decrease; the data are seasonally adjusted.

## Introduction

“Activity picked up in December, according to the firms responding to this month’s *Manufacturing Business Outlook Survey*. The indexes for general activity, shipments, and employment were all positive this month and increased from their readings last month. Manufacturers were much more optimistic about growth over the next six months. The indexes for future employment and capital spending also showed a notable rise.” – Philadelphia Fed

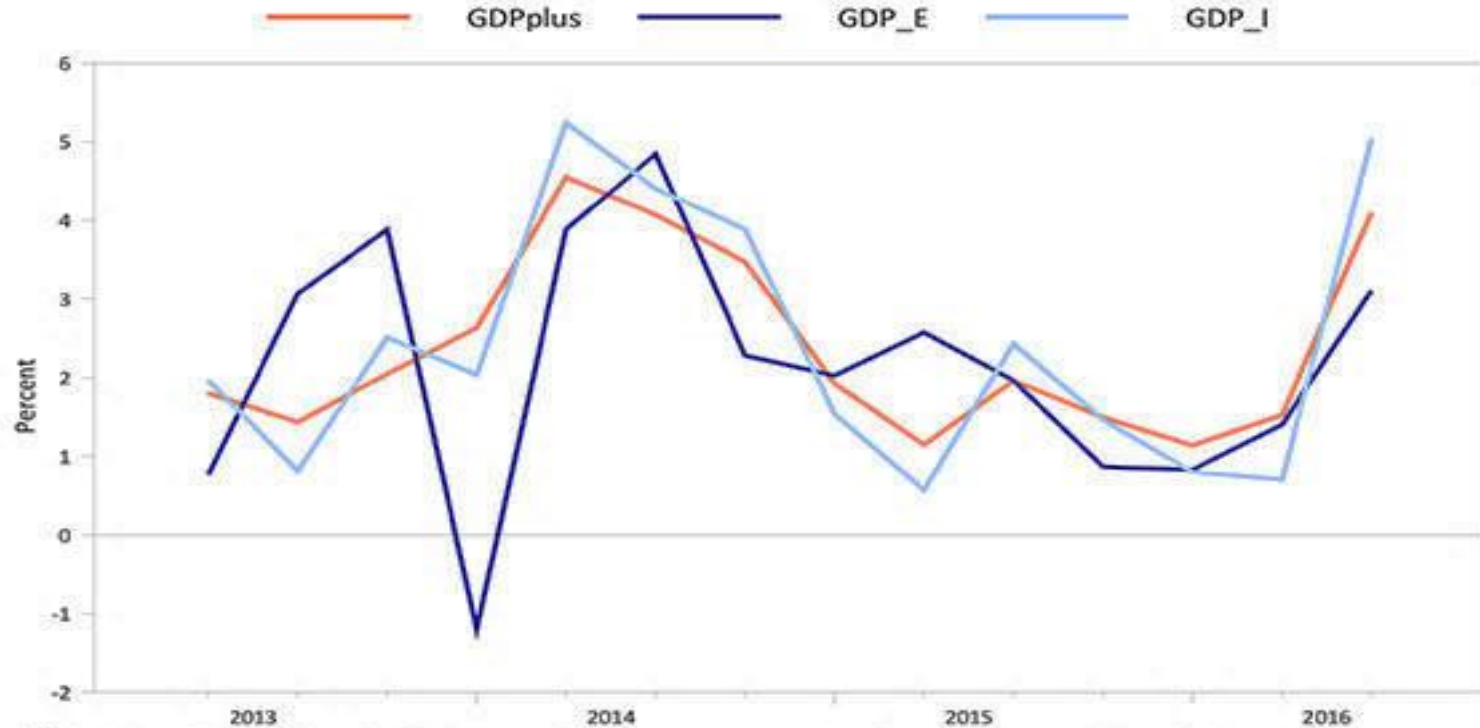
## November 2016 Manufacturing Business Outlook Survey Most Current Indicators Show Improvement

“The index for current manufacturing activity in the region increased from a reading of 7.6 in November to 21.5 this month. Nearly 34 percent of the firms reported increases in activity this month, compared with 24 percent last month. The general activity index has remained positive for five consecutive months, and the activity index reading was the highest since November 2014 (see Chart 1). The current new orders and shipments indexes remained positive, reflecting continued growth. The shipments index increased 3 points, while the new orders index fell 5 points. Both the delivery times and unfilled orders indexes were positive for the second consecutive month, suggesting longer delivery times and an increase in unfilled orders.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

# Philadelphia Fed: GDPplus

## GDPplus Components: Alternative Measures of Real Output Growth

Last Updated on November 29, 2016.



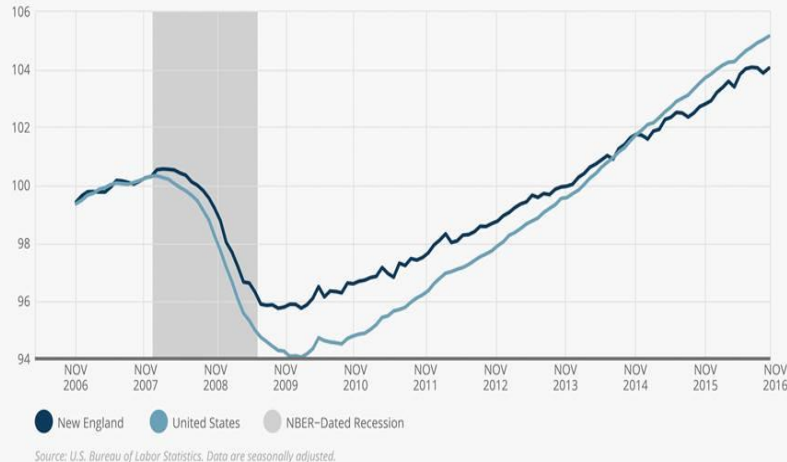
NOTES: Shaded areas indicate NBER recessions. The data measure the quarter-over-quarter growth rate in continuously compounded annualized percentage points.

Sources: Bureau of Economic Analysis (BEA) and NBER via Haver Analytics; Federal Reserve Bank of Philadelphia.

GDPplus is a measure of the quarter-over-quarter rate of growth of real GDP in annualized percentage points. It improves on the BEA's expenditure- and income-side measures, GDP\_E and GDP\_I, respectively. GDP\_E is the “standard” GDP measure used routinely, whereas GDP\_I is little used, but each contains useful information.

# New England Fed

EXHIBIT 1  
**Nonagricultural Employment**  
November 2006 – November 2016  
Index 2007=100



## Federal Reserve Bank of New England

“In late 2016, New England and the United States continued to see improvements in economic indicators. Employment increased, home prices rose, and unemployment rates fell. Growth in consumer prices was modest in the region due in part to decreased Transportation and Medical Care costs. Despite a small decrease in exports nationally from Q3 2015 to Q3 2016, the New England region experienced a moderate increase in exports year-over-year.”

## Economic activity continued to improve throughout 2016

“The United States and New England continued to post consistent job gains in 2016. Between November 2015 and November 2016, payroll employment grew by 1.6 percent nationally and 1.3 percent regionally (Exhibit 1). Although employment in each New England state increased since November 2015, there was a wide range of rates of job growth across the region. Within New England, New Hampshire posted the strongest year-over-year job gains, increasing employment by 2.2 percent from November 2015 to November 2016. Over this period, New Hampshire and Massachusetts were the only New England states to exceed the national pace of job growth. Vermont posted the slowest employment growth in the region, increasing payroll jobs just 0.1 percent over this time period.” – Riley Sullivan, Policy Analyst, New England Public Policy Center, Federal Reserve Bank of New England



# U.S. Economic Indicators

## The Federal Reserve Bank of Richmond

### Manufacturing Sector Activity Strengthened; Hiring Softened, New Orders Rose

“Fifth District manufacturing activity expanded in December. The volume of new orders picked up compared to last month and shipments increased. Manufacturing employment softened, while wage increases were more widespread across firms. Prices of raw materials rose more quickly in December, while prices of finished goods rose at a somewhat slower rate.

Manufacturers were optimistic about future business conditions. Firms expected robust growth in shipments and in the volume of new orders. Additionally, survey participants looked for backlogs to build more quickly in the months ahead and anticipated increased capacity utilization. Expectations were for slightly longer vendor lead times.

Producers anticipated an increase in hiring along with broader wage gains during the next six months, while they planned for longer workweeks. For the six months ahead, producers expected faster growth in prices paid and prices received.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

# U.S. Economic Indicators



## Current Activity

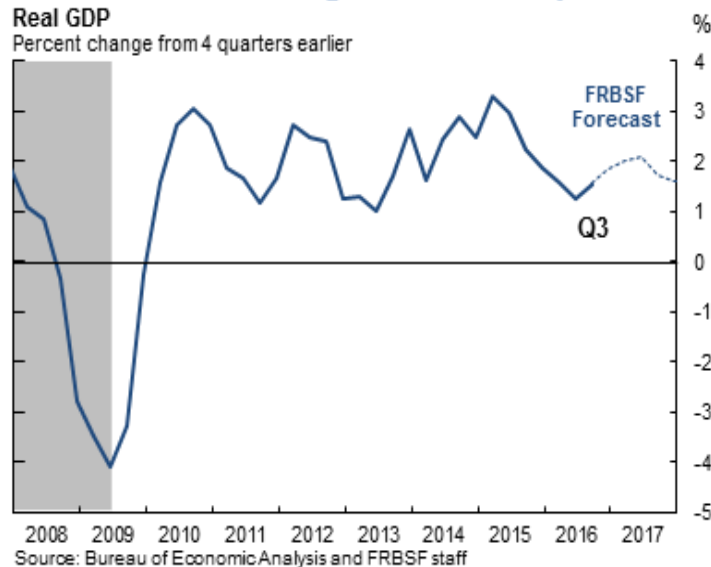
“Overall manufacturing conditions strengthened this month. The composite index for manufacturing moved to a reading of eight from last month's reading of 4. The index for shipments advanced 11 points to end at 12, and the new orders indicator added five points also ending at a reading of 12. Manufacturing employment softened this month; the December index settled at -1.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

# U.S. Economic Indicators

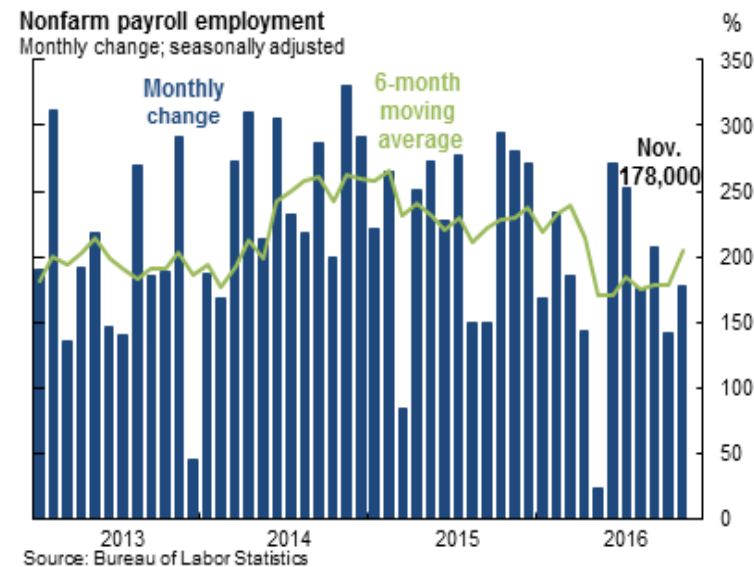


# U.S. Economic Indicators

## Growth continuing at moderate pace



## Employment growth solid

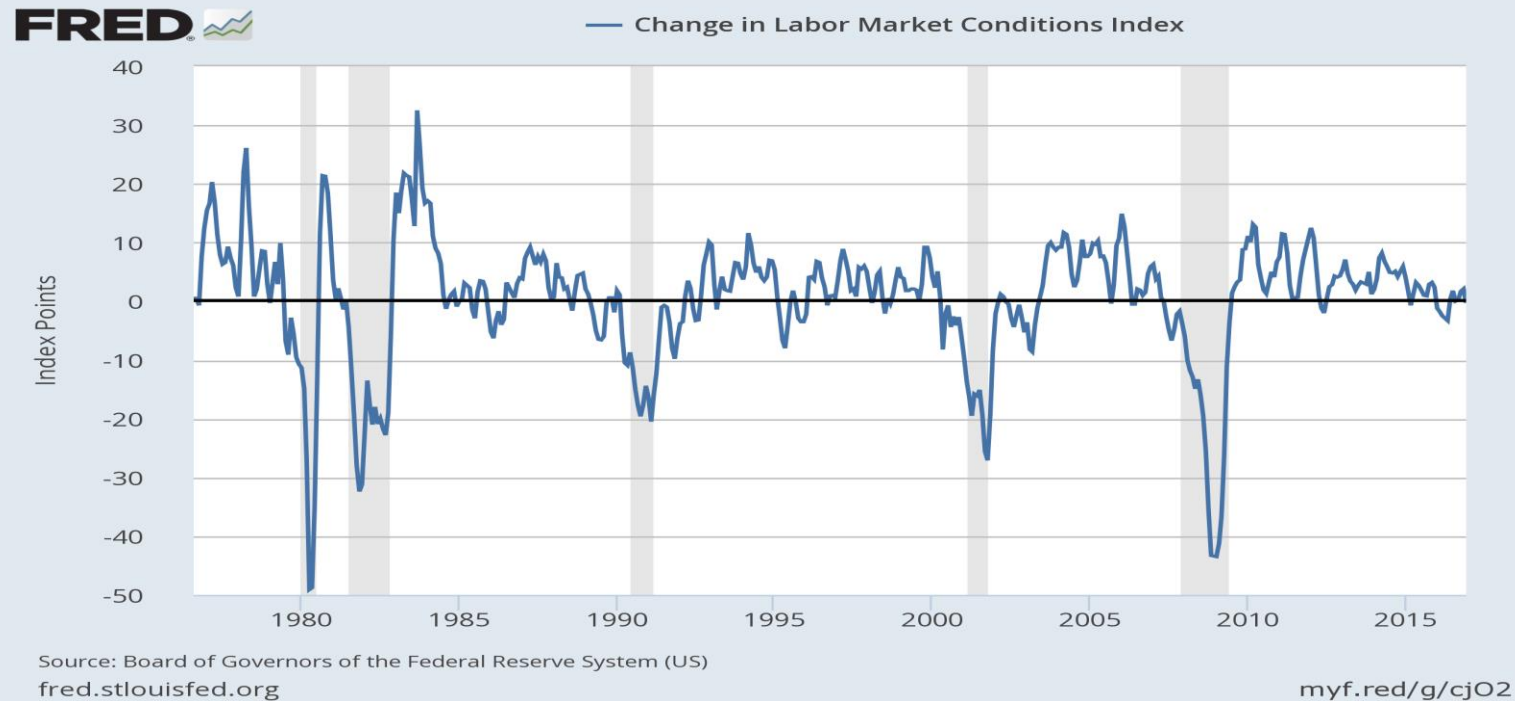


## The Federal Reserve Bank of San Francisco

“Real GDP growth was revised up to an annualized rate of 3.2% in the third quarter from an initial estimate of 2.9%, confirming that the economy has picked up from its modest pace in the first half of the year when growth averaged only 1.1%. Growth is being driven primarily by healthy consumer spending, as business investment has been weak, particularly in the energy sector.

We expect GDP growth to soften somewhat in the fourth quarter, as some of the third quarter strength was due to higher exports and an inventory rebound, and is likely to be transitory. Going into 2017 and beyond, the growth rate should slow somewhat to its long run trend of a little over 1-1/2%.” – Reuven Glick, Group Vice President, The Federal Reserve Bank of San Francisco

# U.S. Economic Indicators



## Federal Reserve Board of Governors: Labor Market Conditions Index

The Labor Market Conditions Index (LMCI) assesses changes in the U.S. labor market. As of January 5, the LMCI was -0.3, a decrease from November's 2.1 reading. The Y/Y change was a decline of 1,167 percent (12/2015 reading: 3.2)

“A positive value indicates that labor market conditions are above their long-run average, while a negative value signifies that labor market conditions are below their long-run average.” – The Federal Reserve Bank of St. Louis

# U.S. Economic Indicators



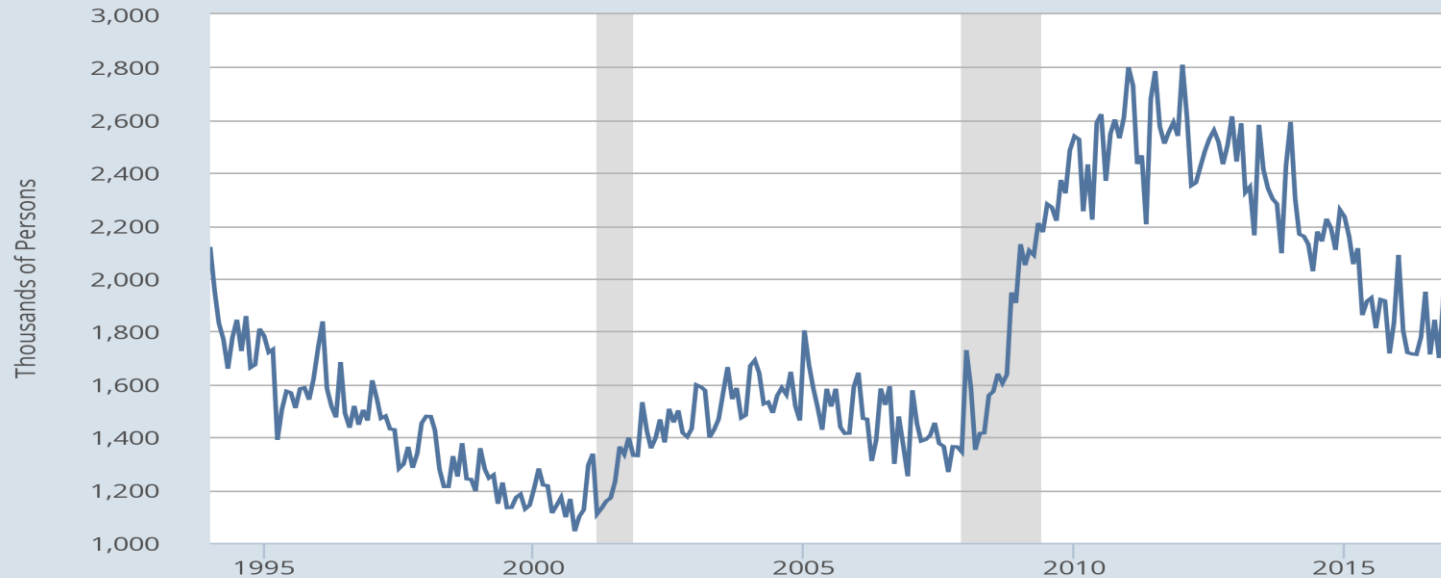
## Federal Reserve Board of Governors: Part-Time Employment for Economic Reasons

The employment level for part-time for economic reasons (LNS12032194) also assesses under-employment in the U.S. labor market. As of December, the LNS12032194 level was 5,598 (thousands of persons), a decrease from November's 5,669 reading. The Y/Y change was a decline of 7.6 percent (12/2015 reading: 6,057)

# U.S. Economic Indicators

FRED 

— Not in Labor Force: Searched for Work and Available



Source: U.S. Bureau of Labor Statistics  
fred.stlouisfed.org

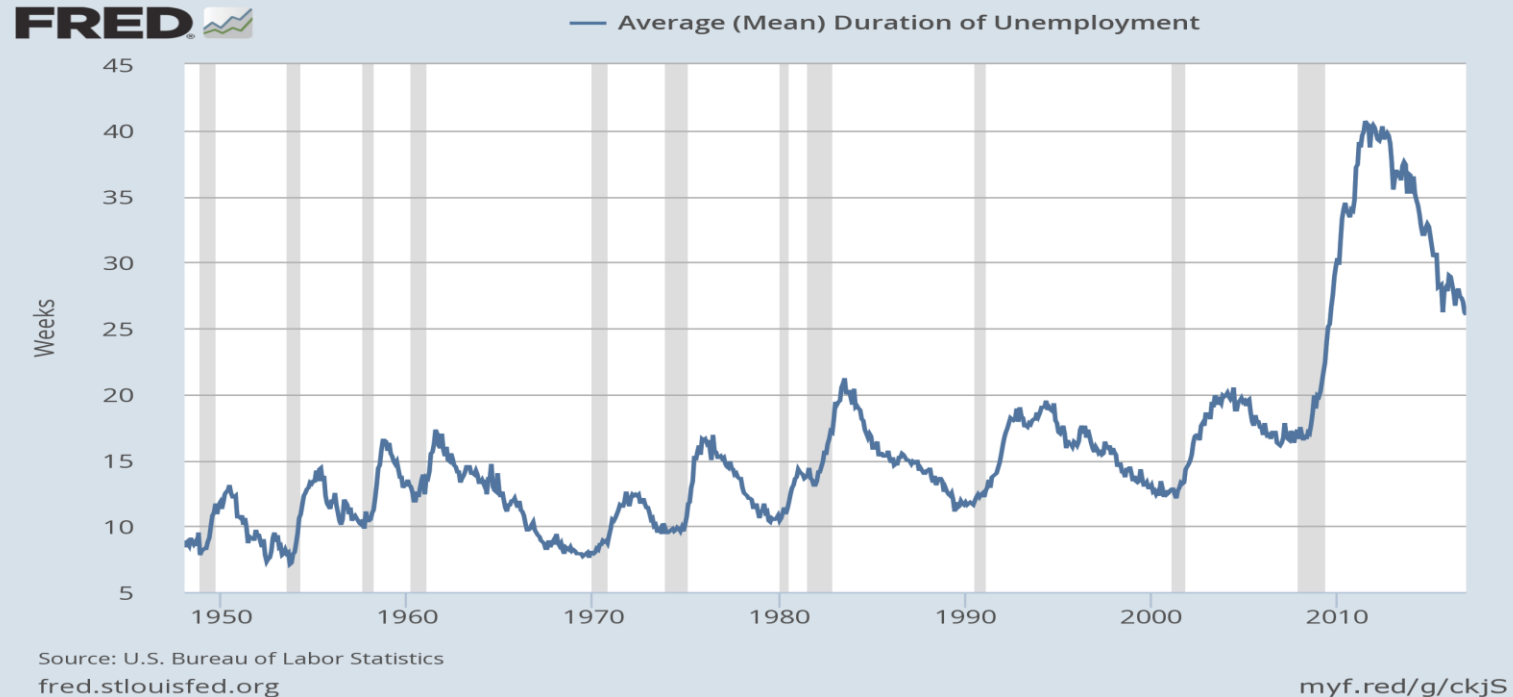
myf.red/g/ckmE

## Federal Reserve Board of Governors:

### Not in Labor Force: Searched for Work and Available

The Not in Labor Force: Searched for Work and Available level (LNU05026642) was 1,684 (thousands of persons) in December, an decrease from November's 1,932 reading. The Y/Y change was a decline of -8.1 percent (12/2015 reading: 1,833)

# U.S. Economic Indicators

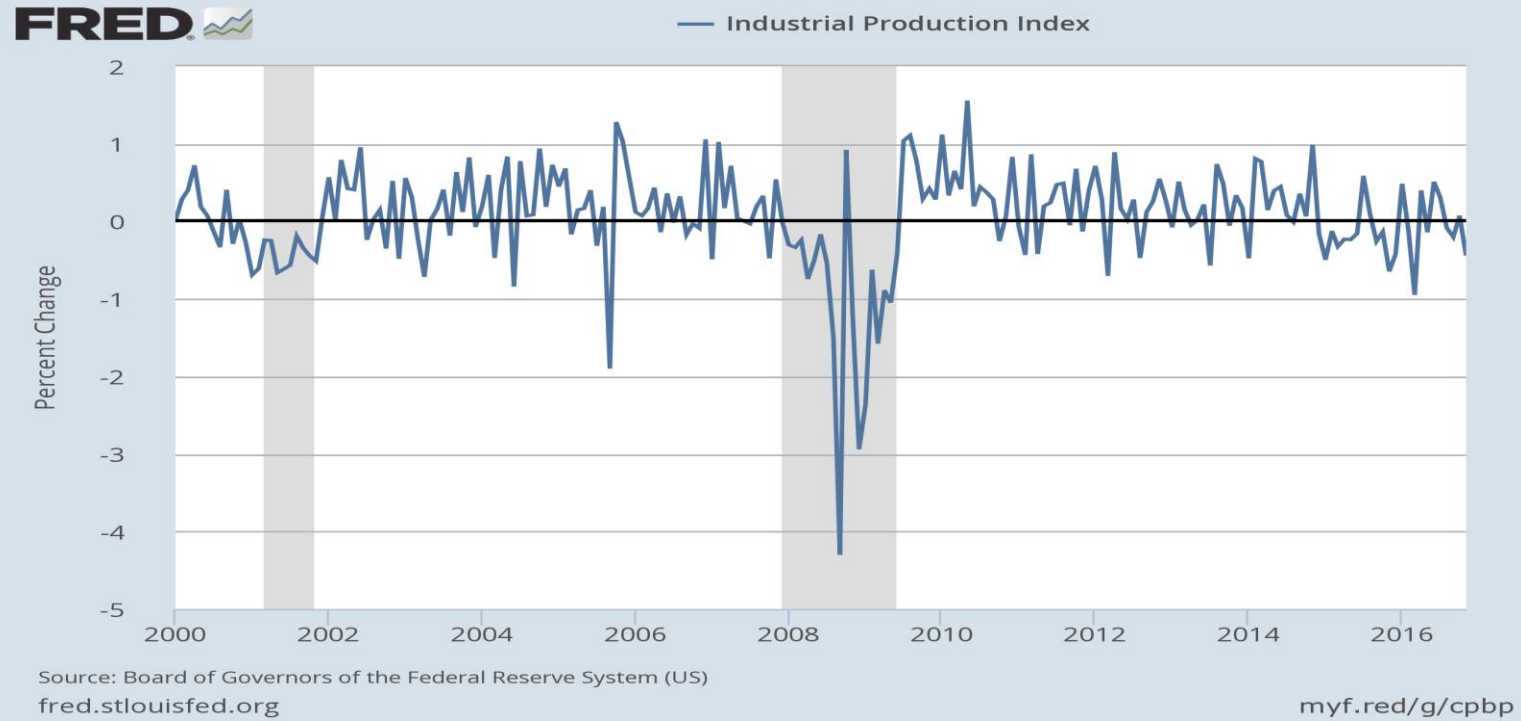


## **Federal Reserve Board of Governors: Average (Mean) Duration of Unemployment**

The average (mean) duration of unemployment (UEMPMEAN) assesses unemployment in the U.S. labor market. As of December, the UEMPMEAN level was 26.0 weeks, a decrease from November's 26.2 reading. The Y/Y change was a decline of -6.5 percent (12/2015 reading: 27.8)



# U.S. Economic Indicators

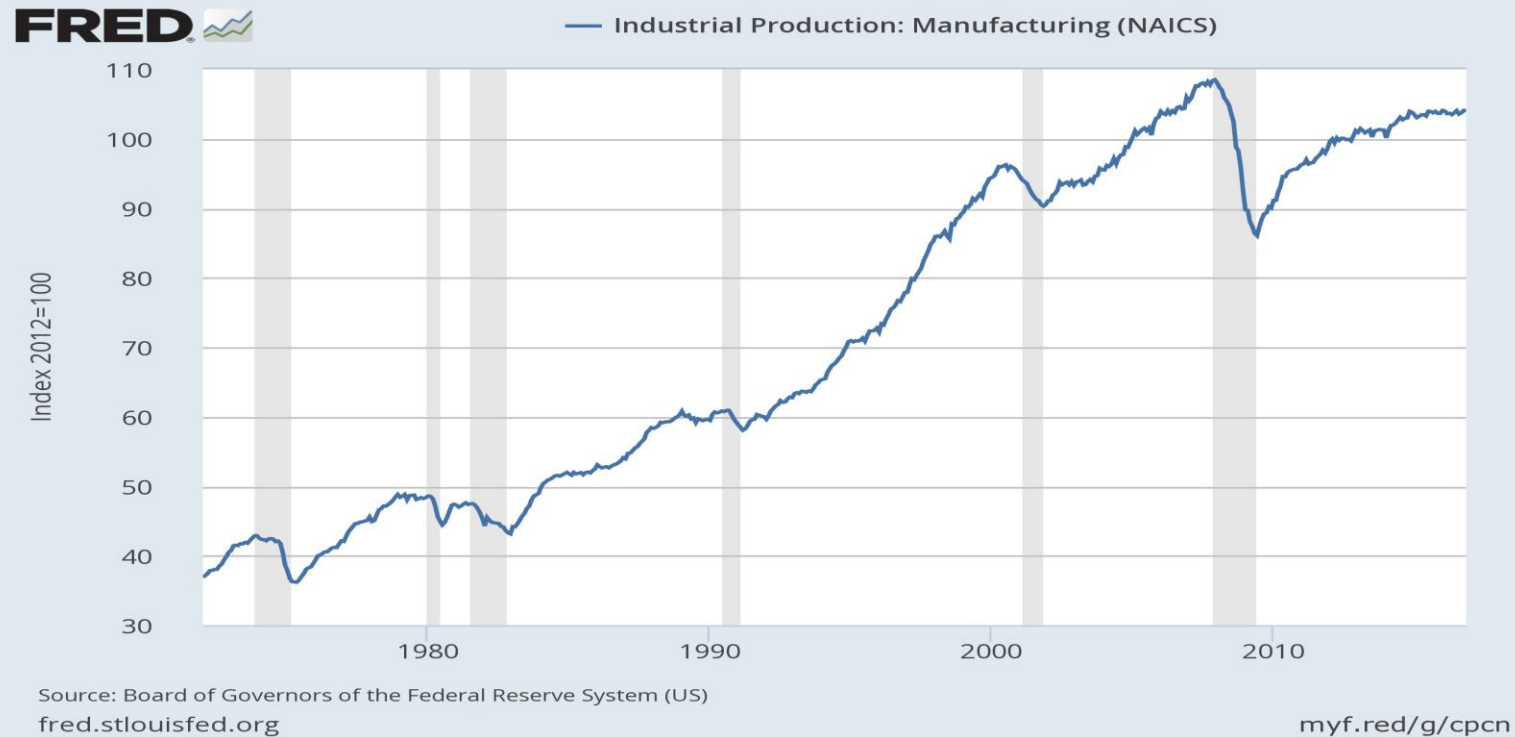


## Federal Reserve Board of Governors: Industrial Production Index

The Industrial Production Index (INDPRO) level was 103.6 in November, a decrease from October (104.3) and a decrease from November 2015 reading of 10455. In the graph above, the year-over-year percentage change is presented. The Y/Y change was a decline of -0.6 percent (12/2015 reading: 103.3)

“The Industrial Production Index is an economic indicator that measures real output for all facilities located in the United States manufacturing, mining, and electric, and gas utilities (excluding those in U.S. territories).” – The Federal Reserve Bank of St. Louis

# U.S. Economic Indicators

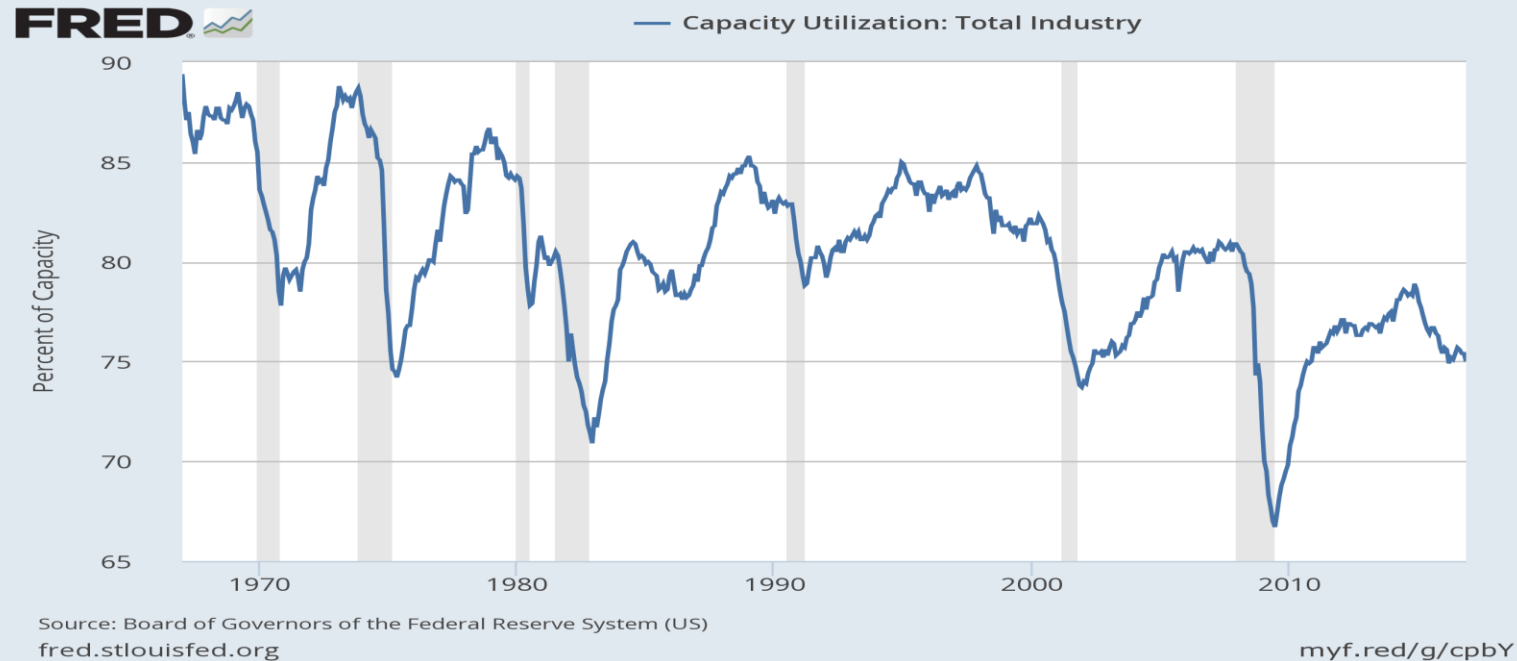


## Federal Reserve Board of Governors: Industrial Production Manufacturing Index

The Industrial Production Manufacturing Index (NAICS) level was 104.0 in November, a decrease from October (104.1) and an increase from the December 2015 reading of 103.6. The Y/Y change was an increase of 0.38 percent (12/2015 reading: 103.3)

“The Industrial Production Manufacturing Index is an economic indicator that measures real output of United States manufacturing, mining, and electric, and gas utilities (excluding those in U.S. territories).” – The Federal Reserve Bank of St. Louis

# U.S. Economic Indicators

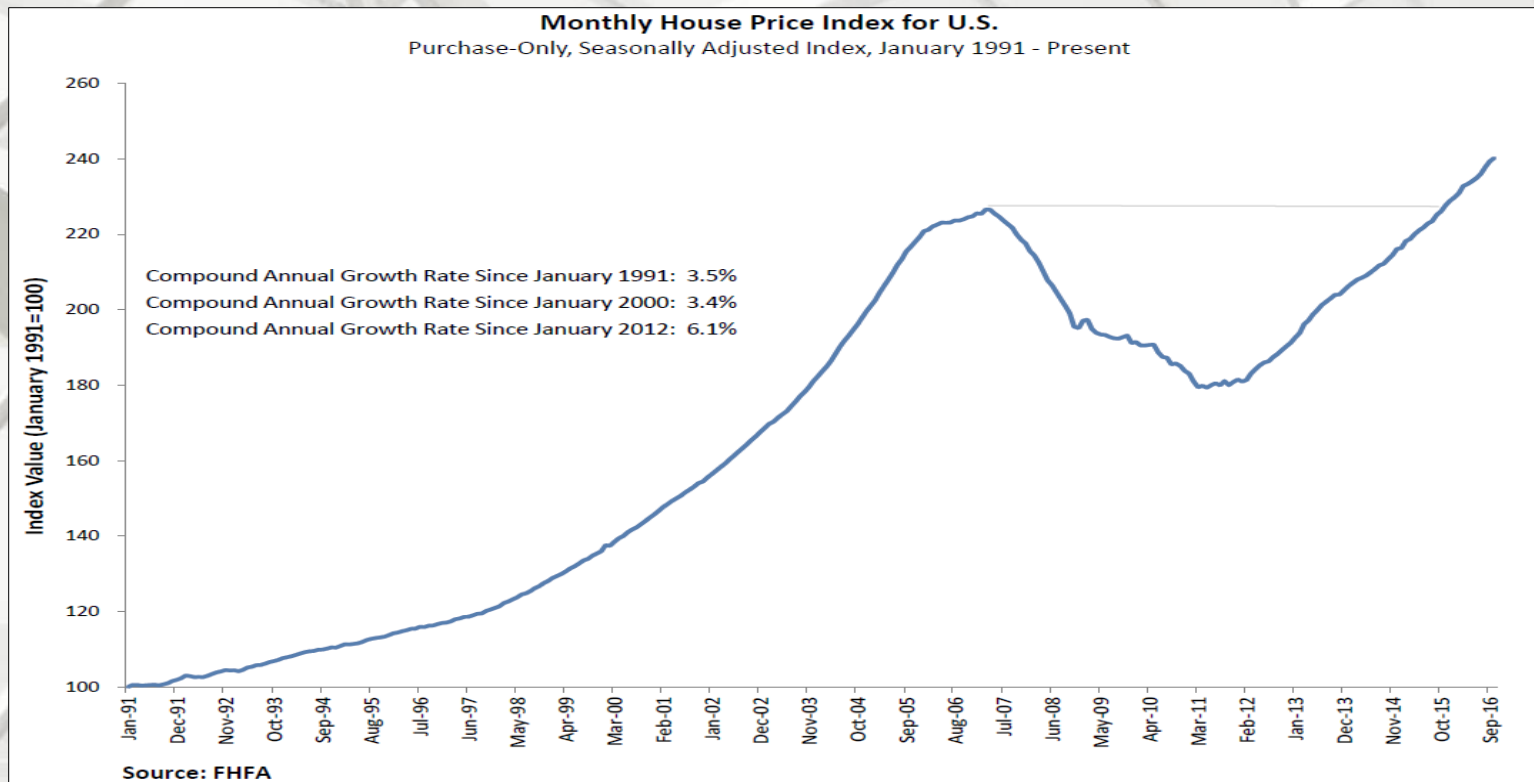


## Federal Reserve Board of Governors: Capacity Utilization Index

The Capacity Utilization-Total Industry (TCU) level was 75.0 in November, a decrease from October's reading of 75.4 and also a decrease from the December 2015 level of 75.7 (-0.9%). In the graph above, the "percent of capacity" is presented.

"Capacity Utilization: Total Industry (TCU) is the percentage of resources used by corporations and factories to produce goods in manufacturing, mining, and electric and gas utilities for all facilities located in the United States (excluding those in U.S. territories). We can also think of capacity utilization as how much capacity is being used from the total available capacity to produce demanded finished products." – The Federal Reserve Bank of St. Louis

# U.S. Economic Indicators

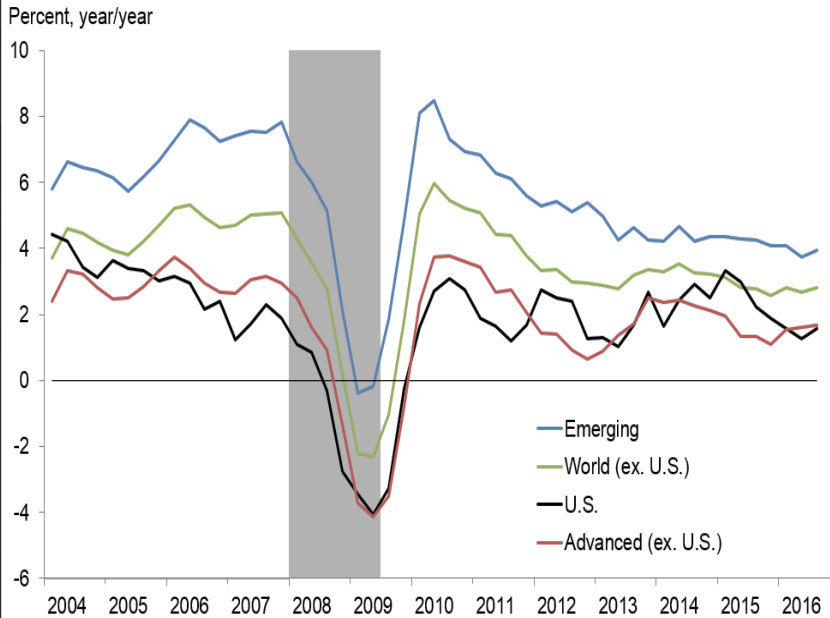


## FHFA House Price Index U.S. House Price Index: October 2016

“The FHFA House Price Index (HPI) reported a 0.4 percent increase in U.S. house prices in October from the previous month. From October 2015 to October 2016, house prices were up 6.1 percent. For the nine census divisions, seasonally adjusted monthly price changes from September 2016 to October 2016 ranged from -0.6 percent in the East South Central division to +1.2 percent in the Mountain division. The 12-month changes were all positive, ranging from +3.6 percent in the Middle Atlantic division to +8.3 percent in the Mountain division.” – Stefanie Johnson and Corinne Russell, FHFA

# Federal Reserve Indicators: Global

**Chart 1**  
**Global Growth Remains Relatively Unchanged in Third Quarter**



NOTES: Aggregated using U.S. trade weights. Shaded bar indicates global recession. Last data point is third quarter 2016.  
SOURCES: Database of Global Economic Indicators; Haver Analytics; author's calculations.

## **New Global Events Lead to More Uncertainty**

“Events in the last month and a half such as the U.S. presidential election result, the rejection of the Italian referendum and India’s currency reform have increased uncertainty in the global outlook. Additionally, the impact of “Brexit” still remains uncertain because final separation agreements between the U.K. and its European trading partners have yet to be formulated. Most recent data do not yet reflect the latest global events, with the outlook for global growth (excluding the U.S.) little changed since the November Federal Open Market Committee (FOMC) meeting.” – Arthur Hinojosa, Research Analyst, The Federal Reserve Bank of Dallas

## **The Federal Reserve Bank of Dallas**

### **Global Economic Outlook Remains Relatively Unchanged**

“The Dallas Fed’s Database of Global Economic Indicators (DGEI) global gross domestic product (GDP) growth aggregate (excluding the U.S.) shows growth at 2.8 percent year over year for the third quarter (Chart 1). Most of the global GDP growth can be attributed to two emerging-market economies, China (6.7 percent) and India (7.1 percent). Since the last FOMC meeting, expectations for 2016 GDP growth were revised up for the U.K. but were offset by downward revisions to Brazil. Even with the lower expectations for Brazilian GDP growth, the country’s economy is still expected to exit from recession next year.” – Arthur Hinojosa, Research Analyst, The Federal Reserve Bank of Dallas

# Federal Reserve Indicators: Global



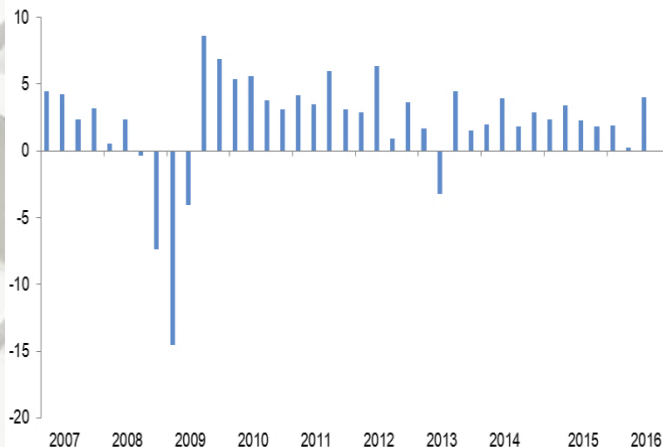
## New Risks Affecting the Global Economy

“The appreciation of the USD isn’t the only new risk to the global economy. On Dec. 4, Italy rejected the referendum put forward by Prime Minister Matteo Renzi, which now puts the European banking system back at the forefront of perceived global problems. The world’s oldest bank, also Italy’s third-largest bank, Banca Monte dei Paschi di Siena, recently had the worst assessment from the European Central Bank’s stress tests due to a large portion of nonperforming loans. With the rejection of the Italian referendum, a bailout, if needed, appears less likely. As seen in Chart 4, Italy has the largest debt burden in Europe at 136 percent of GDP, excluding Greece (180 percent).” – Arthur Hinojosa, Research Analyst, The Federal Reserve Bank of Dallas

“India is also adding uncertainty to global markets due to an effort to bring “black money” back into the taxable economy. India’s announcement on Nov. 8 caught the world by surprise, including the people of India. The decision to do away with the 500 and 1,000 rupee notes has caused a rush to deposit household cash into banks. The deadline for conversion of these two types of banknotes to new usable notes is the end of December, which has led to long lines at banks as people try to preserve their savings. It has been estimated that the two banned banknotes account for 80 to 85 percent of the cash in circulation. With India’s economy being a key driver of world growth, this can have a significant impact on markets, with potential spillover effects being felt globally.” – Arthur Hinojosa, Research Analyst, The Federal Reserve Bank of Dallas

# Federal Reserve Indicators: Global

**Chart 1**  
**Third-Quarter Growth Solid and Second Quarter Revised Up**  
Quarterly percent change, annualized



SOURCE: Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography).

## **Mexico Economy Expands in 3<sup>rd</sup> Quarter, 2<sup>nd</sup> Quarter Revised up**

“Mexico’s economy grew at an annualized 4.0 percent pace in the third quarter, according to the second estimate released by Instituto Nacional de Estadística y Geografía. In addition, second-quarter growth was revised up to 0.2 percent annualized from the previous estimate of –0.7 percent. More recent data on employment and industrial production also improved, but exports and retail sales fell. Inflation ticked up in November to its highest level in two years, while the peso depreciated. The consensus 2017 gross domestic product (GDP) growth forecast was revised down considerably to 1.6 percent.” – Jesus Cañas, Business Economist, The Federal Reserve Bank of Dallas

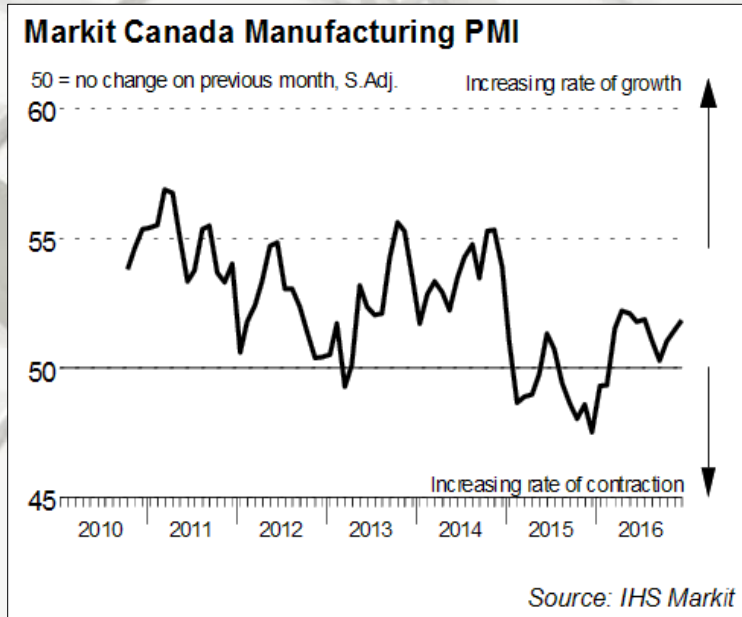
## **The Federal Reserve Bank of Dallas**

### **Output Picks Up – Exports Increase in September**

“Mexico’s GDP grew 4 percent annualized in the third quarter, in line with the advance estimate (Chart 1). Service-related activities (including trade, transportation and business services) rose 5.8 percent, while goods-producing industries (including manufacturing, construction, utilities and mining) grew 0.6 percent. Agricultural output expanded 8.2 percent in the third quarter.

Exports dropped 5.7 percent in October following a 7.5 percent increase in September. The three-month moving averages of total and manufacturing exports ticked down in late 2016 after growing for most of the year. Oil exports turned around earlier this year, although the reversal was driven by rising oil prices, not higher volume. Oil exports remain at low levels and were down 27 percent in the first 10 months of 2016 compared with the same period a year ago. Through October, manufacturing exports are 4.1 percent below the same period a year ago.” – Jesus Cañas, Business Economist, The Federal Reserve Bank of Dallas

# Private Indicators: Global



## Markit Canada Manufacturing PMI™

### New order growth hits two-year high in December

“December data highlighted a positive end to 2016 for the Canadian manufacturing sector, led by the fastest upturn in incoming new work for two years. The latest survey also pointed to the strongest pace of production growth since July and a sustained rise in payroll numbers. However, input cost inflation accelerated for the third month running, driven by higher prices for imported materials, especially metals. Pressure on operating margins resulted in the steepest rise in factory gate prices since May 2014.”

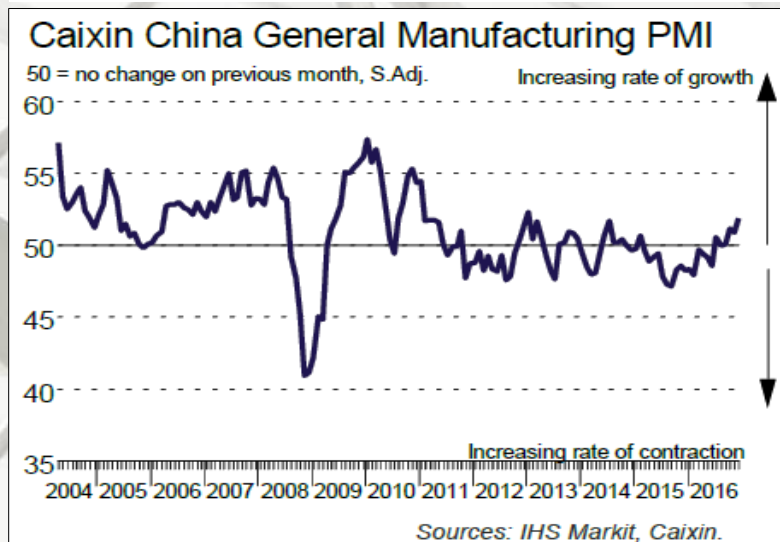
“At 51.8 in December, up from 51.5 in November, the seasonally adjusted **Markit Canada Manufacturing Purchasing Managers’ Index™ (PMI™)** signalled a modest improvement in overall business conditions across the manufacturing sector. The latest reading was the strongest since July and well above the survey-record low seen at the same time in 2015 (47.5). Stronger business conditions largely reflected a sustained rebound in new order growth in December, alongside rising production volumes and continued job creation among manufacturing firms.

Stronger new business growth and a rebound in energy sector spending underpinned the improved performance of Canada’s manufacturing sector at the end of 2016. The latest upturn in new orders was the fastest in two years, despite a relatively subdued contribution from export sales. Moreover, the combination of increasing orders and depleted inventories in December bodes well for output growth heading into 2017. However, manufacturers continue to face longer delivery times and higher prices for raw materials, with input cost inflation now close to a two-and-a-half year peak.” – Tim Moore, Senior Economist, IHS Markit

Source: <https://www.markiteconomics.com/Survey/PressRelease.mvc/aad4d3c30e9f4bd3a5a22389a0027c24; 1/3/17>



# Private Indicators: Global



## Caixin China General Manufacturing PMI™

### Operating conditions improve at quickest pace in nearly four years

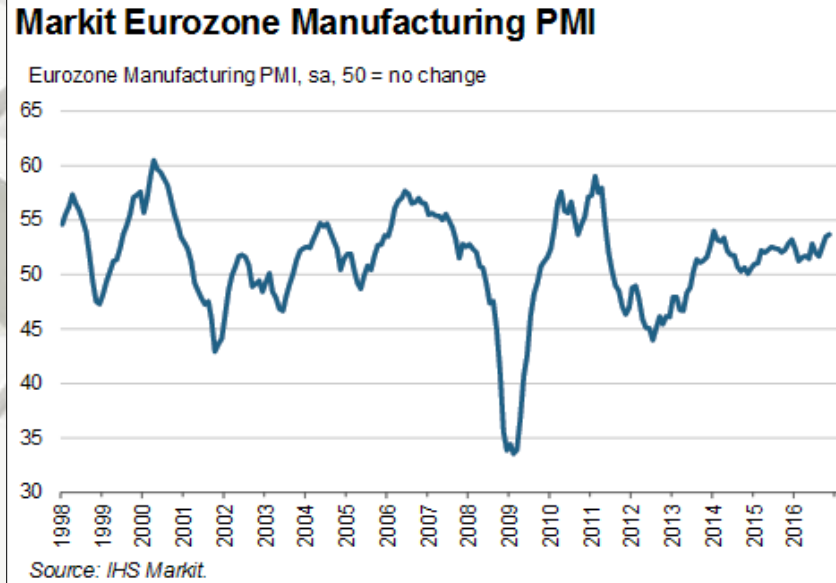
“The seasonally adjusted Purchasing Managers’ Index™ (PMI™) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – picked up from 50.9 in November to 51.9 at the end of 2016. Although modest overall, the latest reading pointed to the fastest rate of improvement in the health of the sector since January 2013.”

“Manufacturing companies in China reported the strongest upturn in operating conditions since January 2013 at the end of 2016. Production expanded at the fastest pace in nearly six years, supported by a solid increase in total new work. As a result, companies raised their purchasing activity at a quicker rate than in November, which led to a renewed increase in stocks of inputs. However, employment continued to decline, as companies made efforts to reduce their costs. Nonetheless, input price inflation picked up to its sharpest since early 2011 amid reports of higher raw material costs, which prompted firms to raise their selling prices at a marked rate.

The Caixin China General Manufacturing PMI was 51.9 in December, up one point from the previous month and the strongest expansion since January 2013. The sub-indices for output and new orders both hit multi-year highs while those for input costs and output charges continued to rise rapidly, underlining sustained inflationary pressure.

The Chinese manufacturing economy continued to improve in December, with the majority of sub-indices looking optimistic. However, it is still to be seen if the stabilization of the economy is consolidated due to uncertainties in whether restocking and consumer price rises can be sustainable.” – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis , CEBM Group

# Private Indicators: Global



## Markit Eurozone Manufacturing PMI®

### Eurozone Manufacturing PMI at highest level since January 2014

“The final Markit Eurozone Manufacturing PMI® rose to a 34-month high of 53.7 in November, up from 53.5 in November and unchanged from the earlier flash estimate. The PMI signalled expansion for the forty-first successive month, extending its current record sequence above the stagnation mark of 50.0.”

“The upturn in the eurozone manufacturing sector continued to gather pace in November. Operating conditions improved to the greatest degree since the start of 2014, underpinned by further growth in production volumes, rising staffing levels and stronger inflows of new work.

For a region suffering double-digit unemployment, there was also good news on the jobs front. The rate of factory job creation held close to November’s five-and-a-half-year high as firms boosted operating capacity in line with stronger demand.

Eurozone manufacturers are enjoying the best improvement in business conditions for almost three years, as the benefits of a weaker currency and strengthening demand helped firms brush off political worries. The November survey provided firm evidence that the weaker euro is providing a meaningful stimulus to manufacturing, leading to greater import substitution and higher exports. New export orders\* for manufactured goods rose at the fastest rate since February 2014.” – Chris Williamson, Chief Business Economist, Markit®

# Private Indicators: Global

## Markit Eurozone Composite PMI



## Markit Eurozone Composite PMI®

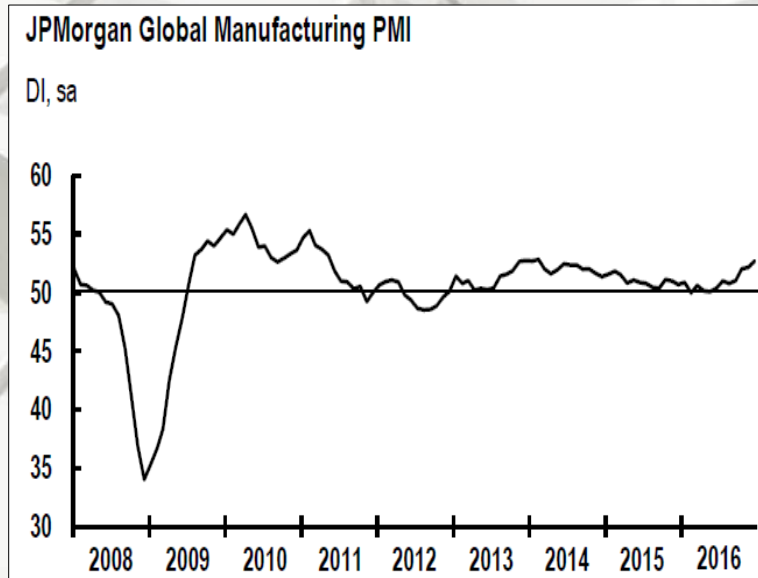
### Eurozone economy expands at fastest pace since May 2011

“The end of 2016 saw the eurozone economy maintain a robust pace of expansion. Output growth accelerated to a 67-month high to round off the best quarter of the year. However, price pressures continued to mount, with inflation of both input costs and output charges gathering pace.”

“At 54.4 in December, up from November’s 53.9, the final **Markit Eurozone PMI®** Composite Output Index signalled a faster rate of expansion than the earlier flash estimate. Manufacturing led the growth acceleration, with production increasing at the quickest pace since April 2014. Service sector activity also rose solidly, with the rate of increase staying close to November’s 11-month high.

The final PMI data signal an even stronger end to 2016 than the preliminary flash numbers, though whether this provides a much-needed springboard for the euro area’s recovery to gain further momentum in 2017 remains very uncertain. Much depends on political events over the course of the next year. The survey data are signalling a 0.4% expansion of GDP in the fourth quarter, with growth accelerating in December as business activity rose at the fastest rate for over five-and-a-half years. ...” – Chris Williamson, Chief Business Economist, Markit®

# Private Indicators: Global



## JP Morgan Global Manufacturing PMI™ Global Manufacturing PMI at 34-month high in December

“The headline **J.P. Morgan Global Manufacturing PMI™** – ... – rose for the fourth straight month to post 52.7, up from 52.1 in November, its highest level since February 2014.

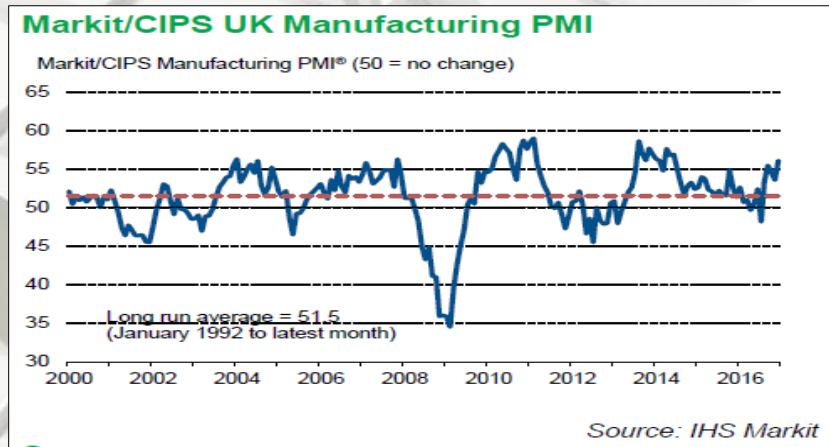
December PMI data signalled a stronger improvement in the health of the global manufacturing sector, rounding off the best quarter for industry since the start of 2014.”

“Growth was seen across the consumer, intermediate and investment goods sectors in December. Moreover, rates of expansion improved in all three categories. Over 2016 as a whole, growth was above that registered in 2015 in the intermediate goods industry, but slower at producers of consumer and investment goods.

Global manufacturing production increased for the sixth successive month in November, under-pinned by rising levels of incoming new business. New orders expanded for the forty-seventh month in a row, with the pace of growth accelerating to the strongest since August 2014.

The improvement in the headline PMI to a 34-month high rounds off a generally positive second half of the year for the global manufacturing sector. With rates of expansion in production and new order volumes having gathered pace during the latter part of 2016, the sector will start 2017 on a solid footing with positive momentum building and job creation accelerating.” – Rob Dobson, Senior Economist, IHS Markit

# Private Indicators: Global



## Markit/CIPS UK Manufacturing PMI™

“The seasonally adjusted **Markit/CIPS Purchasing Managers’ Index® (PMI®)** rose to a 30-month high of 56.1 in December, up from 53.6 in November and well above its long-run average (51.5). The headline PMI has signalled expansion in each of the past five months.”

### Manufacturing PMI at 30-month high as growth of output and new orders strengthen

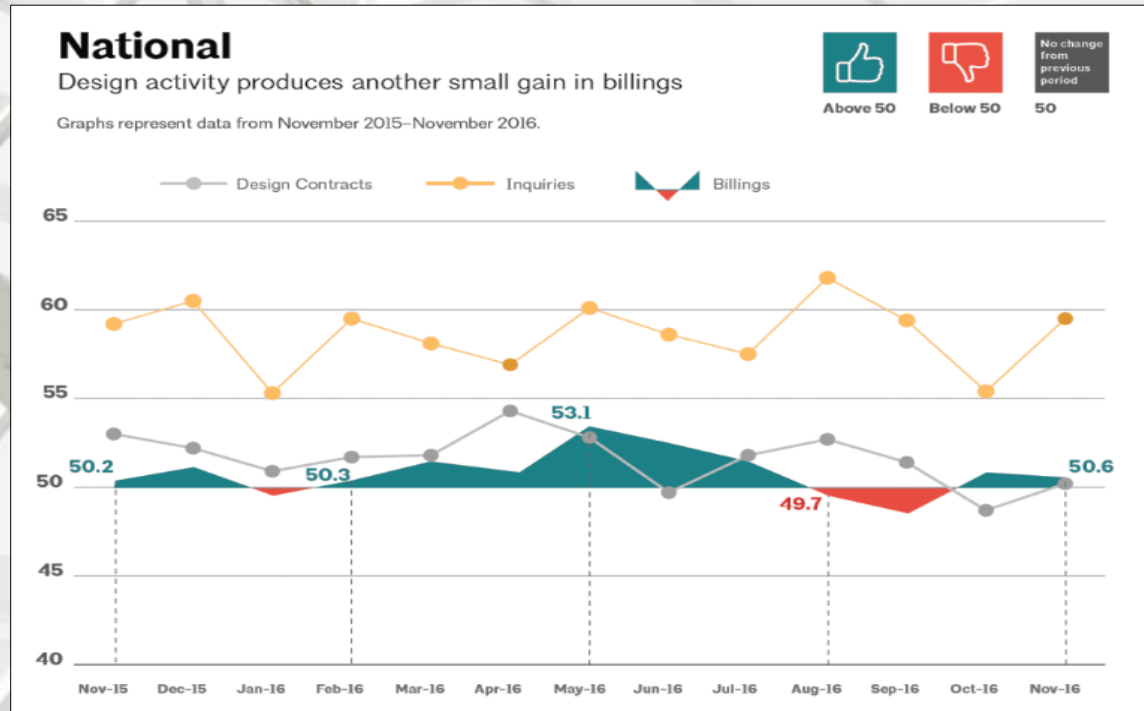
“The UK manufacturing sector ended 2016 on a positive note. Rates of growth for production and new orders in December were among the best seen over the past two-and-a-half years. Companies benefited from stronger inflows of new work from both domestic and overseas clients, the latter aided by the boost to competitiveness from the weak sterling exchange rate.

The UK manufacturing sector starts 2017 on a strong footing. The headline PMI hit a two-and-a-half year high in December, with rates of expansion in output and new orders among the fastest seen during the survey’s 25-year history. Based on its historical relationship against official manufacturing output data, the survey is signaling a quarterly pace of growth approaching 1.5%, a surprisingly robust pace given the lacklustre start to the year and the uncertainty surrounding the EU referendum.

The boost to competitiveness from the weak exchange rate has undoubtedly been a key driver of the recent turnaround, while the domestic market has remained a strong contributor to new business wins. A plus point from the December survey was that the expansion was led by the investment and intermediate goods sectors, suggesting capital spending and corporate demand took the reins from the consumer in driving industrial growth forward.” – Rob Dobson, Director & Senior Economist, IHS Markit

# Private Indicators

## American Institute of Architects (AIA)

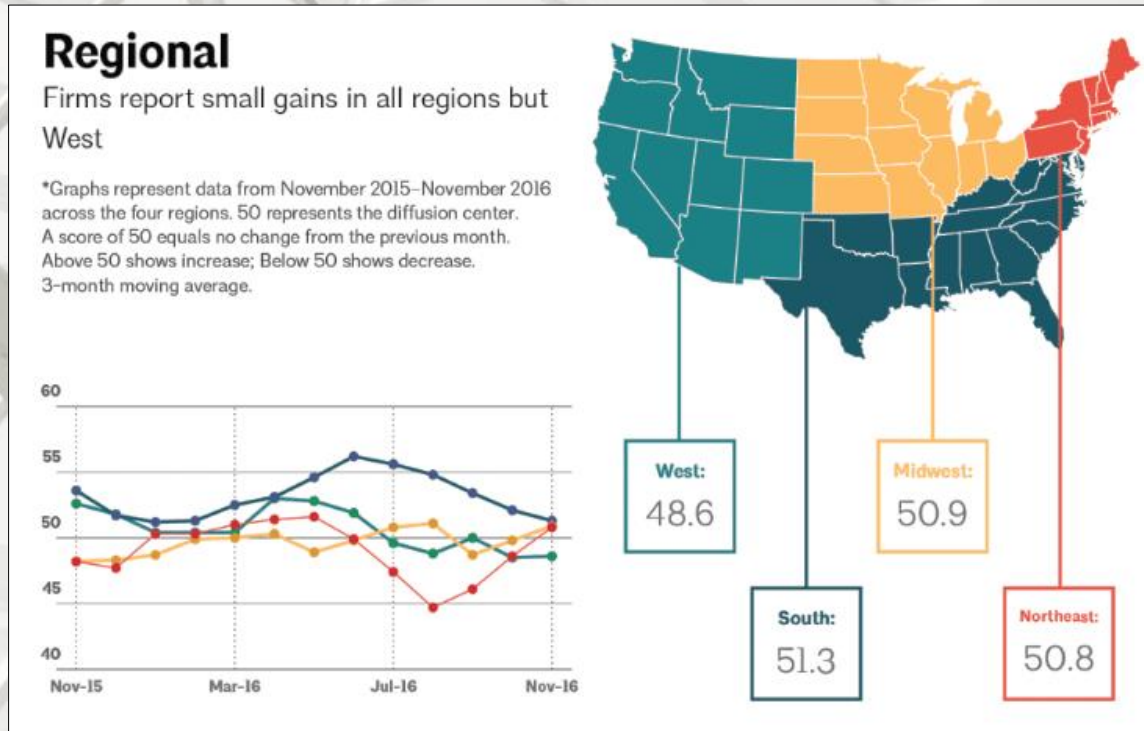


### November Architecture Billings Index

#### Business conditions improve modestly

“Growth in billings at US architecture firms remained soft in November, with the national index score of 50.6 just about matching the October figure of 50.8. New design contracts also showed a very modest gain of 50.2, coming off a rare decline in October. Overall, the third quarter was disappointing for many architecture firms, and the fourth quarter is not looking a lot stronger.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

# Private Indicators: AIA



“Slow growth generally sums up design activity nationally, and also sums up the recent trends at firms in most regions across the country and in most construction sectors. Firms in the Northeast, Midwest, and South reported modest growth on average in November, while firms in the West reported a slight decline.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

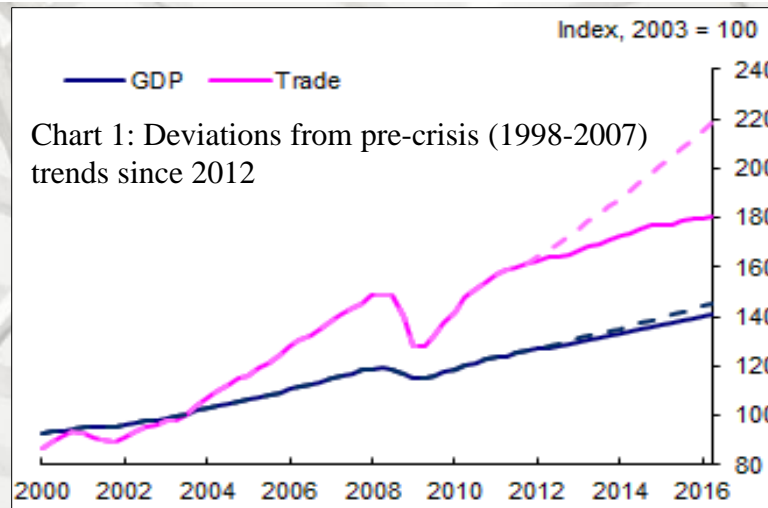
# Private Indicators: AIA



“Residential as well as commercial/industrial firms reported a slight increase in billings, while institutional firms reported revenue to be down a tick for the month. From an architecture firm perspective, therefore, the outlook for construction activity over the coming nine to 12 months would seem to be generally moving forward, but with very little momentum.” – Kermit Baker, Hon. AIA, Chief Economist, AIA



# Private Indicators



## Bank Underground

### The world trade slowdown (redux)

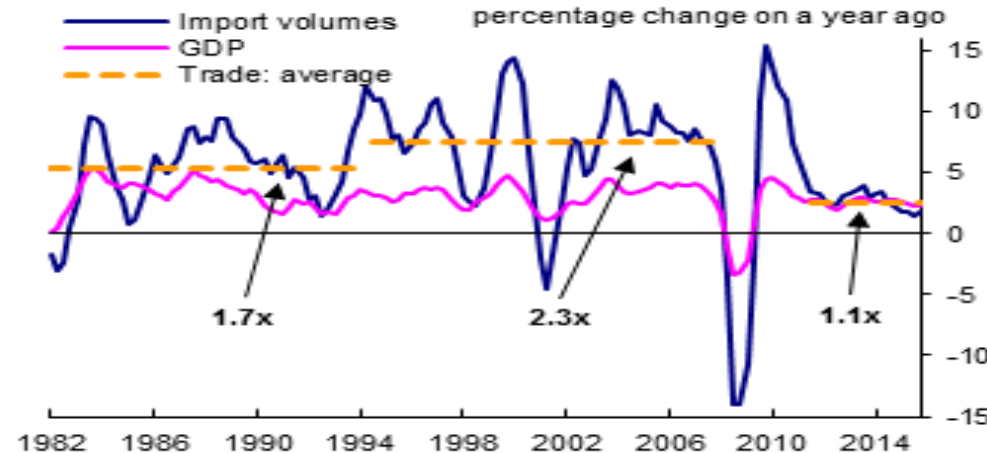
“The volume of world trade is now 17% below where it would be had it grown at pre-crisis trend after 2011. This post argues that most of this gap can be explained by weakness in world GDP, but stalling expansion in global value chains (GVCs) is playing an increasingly important role.

We also argue that this shortfall can’t be explained by shifts in the geographical or the expenditure split of global GDP growth. While world trade grew twice as quickly as world GDP pre-crisis, it is likely to grow at about the same rate as world GDP in the future. This matters: weak trade could explain half of the 1pp fall in annual global productivity growth since the crisis.

The trade shortfall is much larger than for world GDP, which is only 3% below trend (Chart 1). However, trade tends to be significantly more volatile than GDP. We estimate that 13pp of the 17% shortfall is explained by the weakness in global demand since 2012. This is based on an error-correction model (ECM) linking world imports and world GDP, estimated over the period 1995Q1-2016Q2.” – Gene Kindberg-Hanlon and David Young, Global Spillovers and Interconnections Division, Bank of England

# Private Indicators

Chart 5: Stages of world trade and GDP growth



## Global value chains probably won't expand as fast in the future

“Between 1982 and 1994, world trade grew about 1.7 as fast as GDP; from 1995 to 2007 it grew 2.3 times faster; but since 2012 it has only grown 1.1 times as fast (Chart 5). Average GDP growth hasn't fluctuated nearly as much. As explained above, GVCs don't appear to be a big factor behind the trade slowdown at the moment, explaining only one fifth of the slowdown (Chart 1), but they are likely to be in the future..

The import-intensity of GDP increased rapidly over the pre-crisis decade, raising trade growth well above GDP growth. This reflected several drivers:

1. A series of major trade agreements (NAFTA, EEA, completion of the Uruguay trade round and formation of the WTO) saw a large fall in tariffs and non-tariff barriers to trade.
2. The ICT revolution allowed significant improvements to the abilities of companies to sell goods in foreign markets and coordinate production across multiple countries.
3. Previously restricted markets in China and the Soviet Union opened up over this period.” – Gene Kindberg-Hanlon and David Young, Global Spillovers and Interconnections Division, Bank of England

# Private Indicators

“But these were one-time factors that boosted trade, and are unlikely to be repeated. Recently released world input-output data to 2014 suggest value chains did indeed stall post-2011, and it is likely that the effects of the pre-crisis surge in globalisation are now finished. Political developments suggest trade liberalisation will, if anything, go into reverse. Furthermore, it seems unlikely there will be a demand-driven recovery in trade. Global growth has repeatedly disappointed since the crisis, and even now is expected to remain subdued. The MPC’s global growth forecast only increases by 1/4pp over the next three years.

And a [recent post on Bank Underground](#) also shows that the current rate of world GDP growth does not appear weak relative to many periods over the past 35 years, other than during the run-up to the global financial crisis, suggesting there will not be much of pickup going forward. So while world trade grew twice as quickly as world GDP over the pre-crisis decade, it is likely to grow at about the same rate as world GDP in the future.

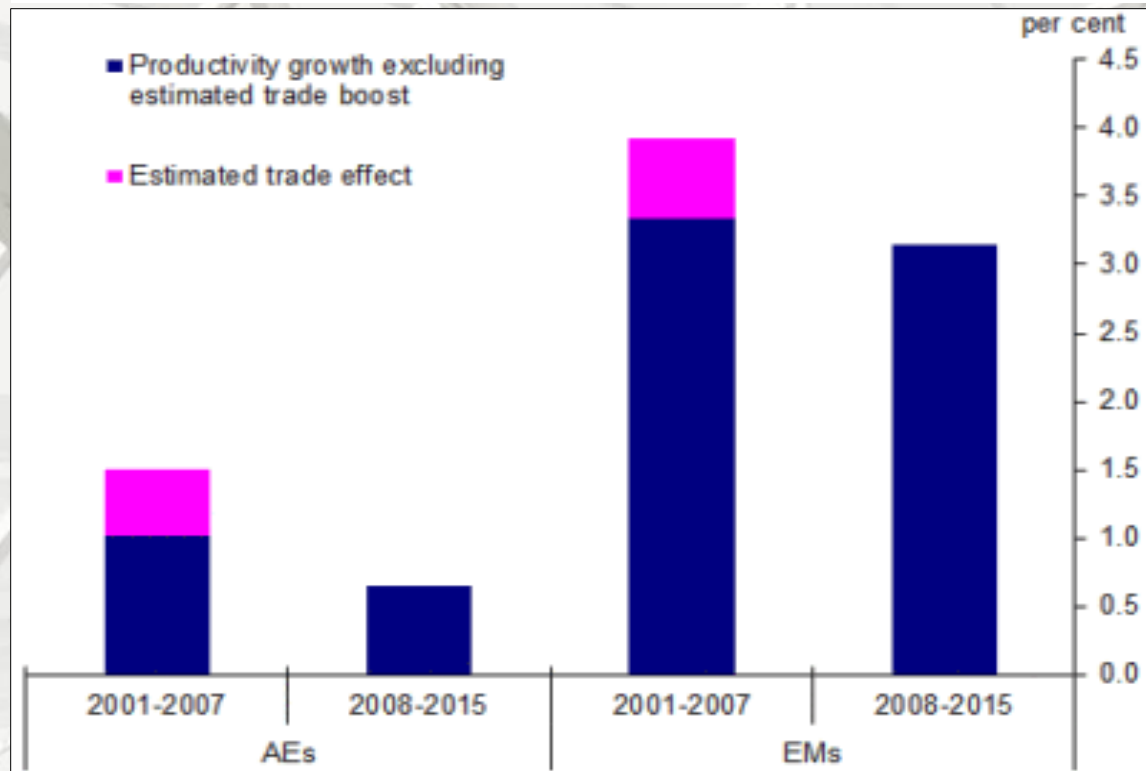
## Why all of this matters

Trade is thought to boost productivity through a range of channels, including [increased specialisation and opening up domestic firms to foreign competition](#), improved capital allocation, and enhanced technology diffusion.

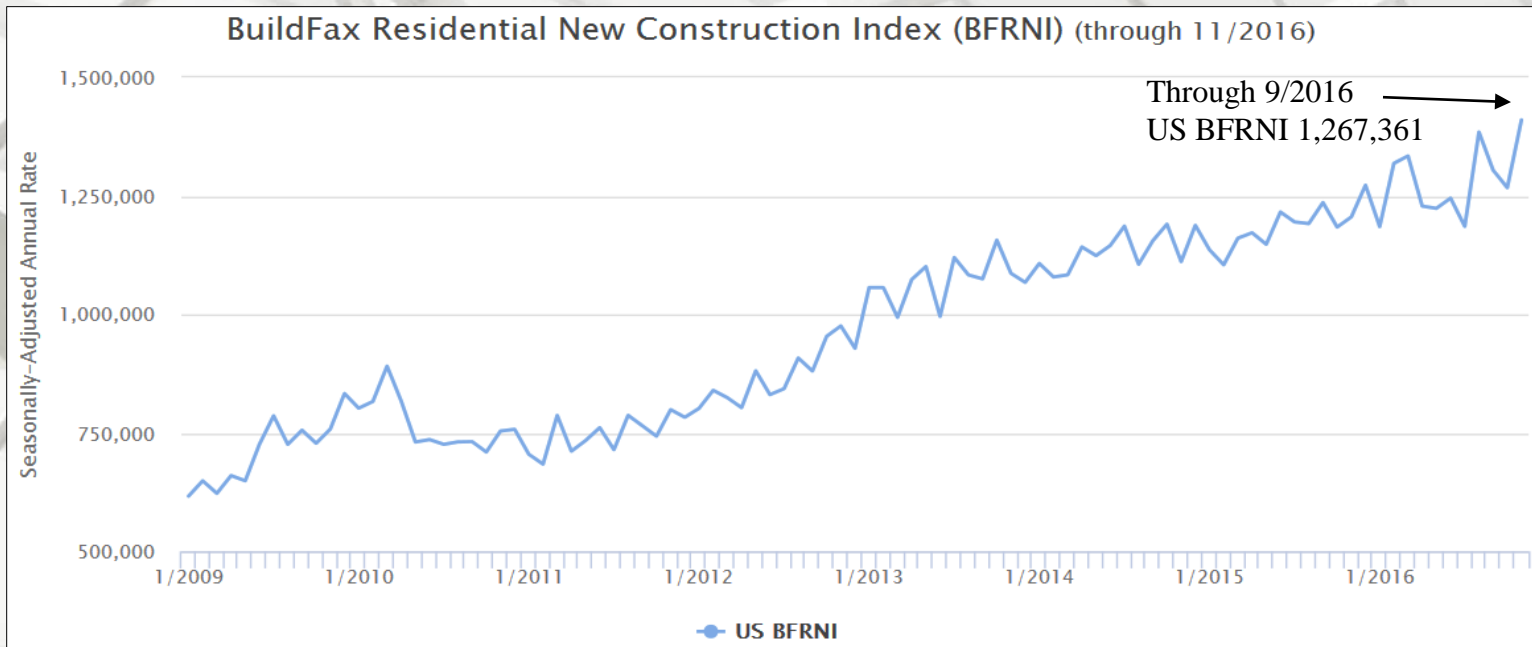
[Frankel and Rose \(2000\)](#) estimate that a 1pp increase in the ratio of exports plus imports to GDP boosts the level of productivity by around 0.3%. The rise in this ratio was rapid pre-crisis, at around 1.5pp per year, but has since stalled. This would suggest that the weakness in world trade explains half of the 1pp fall in annual global productivity growth since the crisis (Chart 6).” – Gene Kindberg-Hanlon and David Young, Global Spillovers and Interconnections Division, Bank of England

# Private Indicators

Chart 6: Impact of trade on average annual productivity growth



# Private Indicators



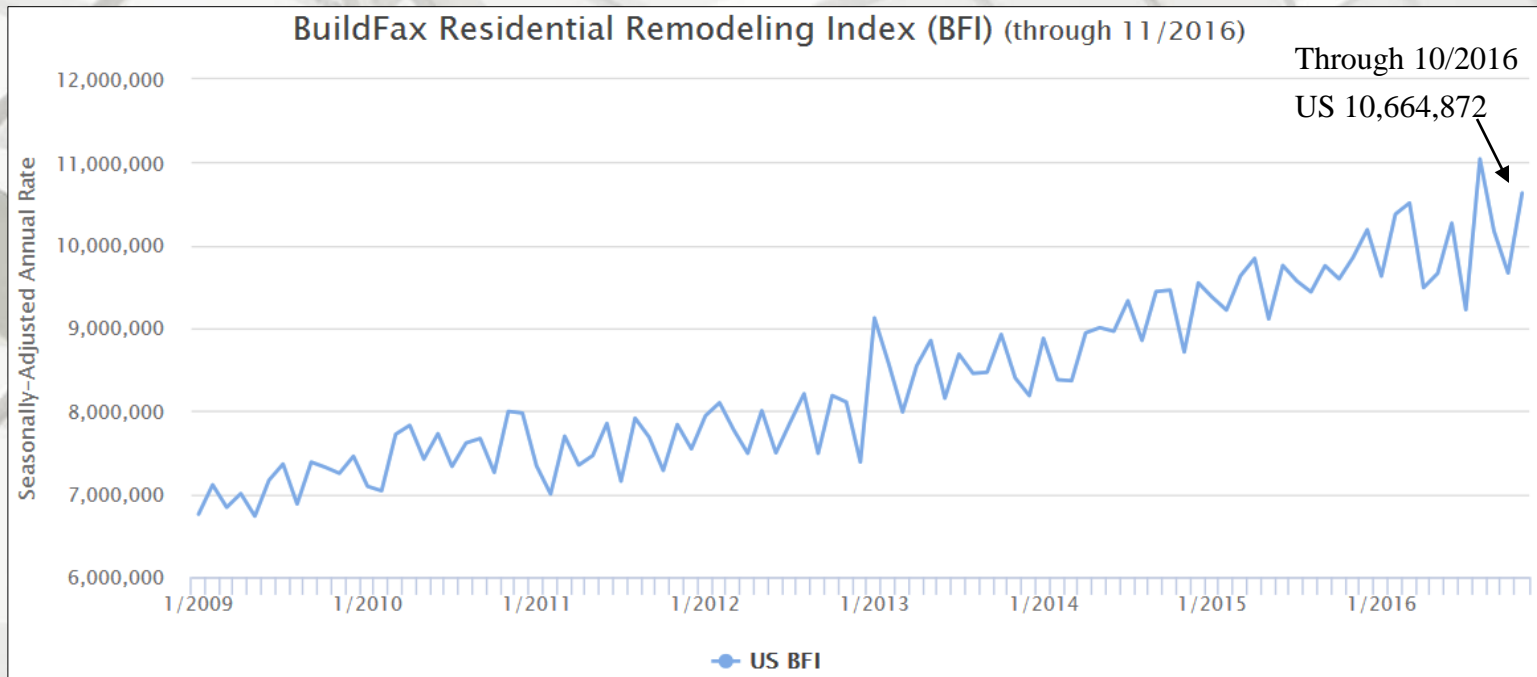
## BuildFax Residential New Construction Index

“Residential new construction authorized by building permits in the United States in November were at a seasonally-adjusted annual rate of 1,310,828. This is 2% below the revised September rate of 1,335,376 and is 11% above the revised November 2015 estimate of 1,179,763. BuildFax reports on total new residential projects, this is unlike the U.S. Census that reports total number of housing units.”

## Regional Residential New Construction

“Seasonally-adjusted annual rates of residential new construction across the country in November 2016 are estimated as follows: Northeast, 67,500 (down 3% from September and up 92% from November 2015); South, 761,019 (down 1% from September and up 13% from November 2015); Midwest, 219,003 (up 3% from September and down 3% from November 2015); West, 279,573 (down 3% from September and up 9% from November 2015).”

# Private Indicators



## BuildFax Residential Remodeling Index

“Residential remodels authorized by building permits in the United States in November were at a seasonally-adjusted annual rate of 10,629,913. This is 10% above the revised October rate of 9,664,872 and is 8% above the revised November 2015 estimate of 9,856,463.”

## Regional Residential Remodeling

“Seasonally-adjusted annual rates of residential remodeling across the country in November 2016 are estimated as follows: Northeast, 796,169 (down 6% from October and up 5% from November 2015); South, 5,393,283 (up 15% from October and up 14% from November 2015); Midwest, 1,916,431 (up 7% from October and down 0% from November 2015); West, 2,467,646 (up 6% from October and up 3% from November 2015).”

# Private Indicators

## New Construction Starts in November Slip 6 Percent

*Decreased Activity Reported for Nonresidential Building, Housing, and Public Works*

“The November statistics lowered the Dodge Index to 135 (2000=100), down from a revised 143 for October. While the Dodge Index has retreated from its most recent high of 154 in August, the November reading was still 7% above this year’s low of 126 in July.”

“At a seasonally adjusted annual rate of \$638.3 billion, new construction starts in November retreated 6% from October, according to Dodge Data & Analytics. Each of the three major construction sectors experienced reduced activity in November. Nonresidential building continued to recede from its elevated September pace, . . . . **Residential building** in November settled back after strengthening in October, maintaining the up-and-down pattern that’s been present since August. Nonbuilding construction in November declined after its public works segment had been lifted in October by the start of several large projects, . . . .

For the first eleven months of 2016, total construction starts on an unadjusted basis were \$627.2 billion, essentially matching the amount reported for the same period a year ago. During the second half of 2016, the year-to-date performance for total construction starts has shown consistent improvement, even with the recent deceleration, given the comparison to the weaker activity reported during last year’s second half. Excluding the volatile manufacturing plant and electric utility/gas plant categories, total construction starts during this year’s January-November period would be up 4%.” – Robert Murray, Chief Economist, McGraw Hill Construction

# Private Indicators

## **New Construction Starts in November Slip 6 Percent**

*Decreased Activity Reported for Nonresidential Building, Housing, and Public Works*

“The path of expansion for construction activity has been hesitant in recent years, with gains followed by setbacks, and this has certainly been true during 2016. After a lackluster second quarter, total construction starts showed improvement during the third quarter, and have receded so far during the fourth quarter. On the plus side, the year-to-date amount for nonresidential building in dollar terms is now showing growth, joining the gains that have been reported for residential building over the course of 2016. The public works sector remains slightly lower than a year ago, although the extent of its shortfall has become smaller.”

Going forward, the construction industry should still benefit from several positive factors. For commercial building, vacancy rates have yet to show much in the way of upward movement. For institutional building, funding support for school construction is coming from the passage of such recent state bond measures as the \$9 billion Proposition 51 in California. For residential building, while mortgage rates have risen they remain at historically low levels for the present, and demand for housing from millennials seems to be picking up. For public works, support is coming from recent bond measures passed at the state level, although the continuing resolution just passed by Congress for fiscal 2017 federal appropriations did not provide an increase for highway funding. What remains to be seen is the extent to which Congress will respond to the proposals by the incoming Trump Administration for greater infrastructure spending and less regulation of the banking sector.” – Robert Murray, Chief Economist, McGraw Hill Construction



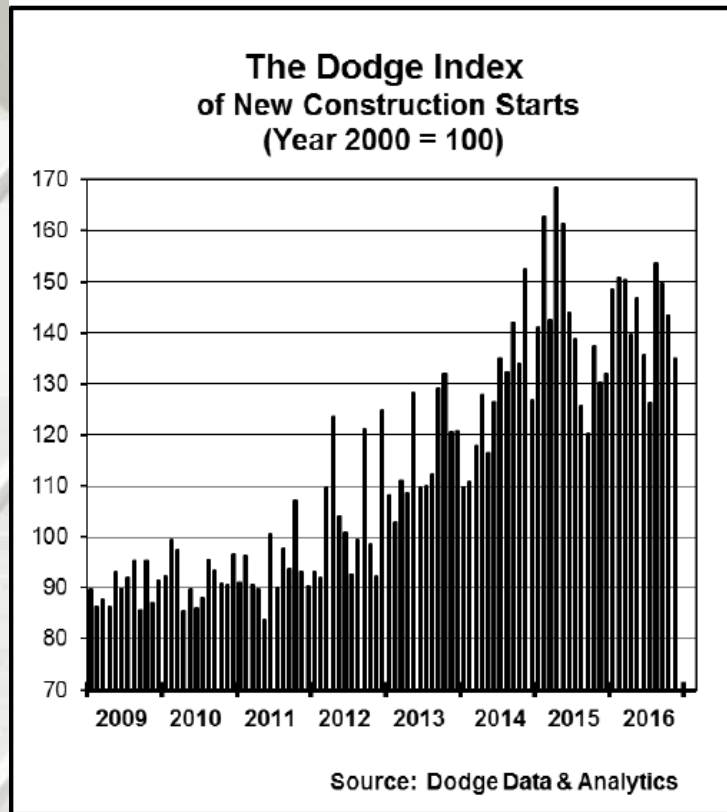
# Private Indicators

“**Residential building**, at \$275.4 billion (annual rate), fell 5% in November. Multifamily housing pulled back 12% from its improved October level, continuing the fluctuating pattern of recent months. There were ten multifamily projects valued at \$100 million or more that reached groundbreaking in November, down slightly from the eleven such projects reported in October. ...

During the January-November period of 2016, residential building was up 6% compared to last year. The gain was due primarily to a 7% increase for single family housing, reflecting this year-to-date pattern by major region – the Midwest, up 10%; the South Atlantic, up 9%; the West, up 7%; the Northeast, up 5%; and the South Central, up 3%. Multifamily housing registered a smaller year-to-date increase, edging up just 2%. The nation’s leading multifamily market by dollar volume, New York NY, dropped 26% year-to-date from its robust amount in 2015. If the New York NY metropolitan area is excluded, multifamily housing for the nation would be up 11% during this year’s first eleven months. ...” – Robert Murray, Chief Economist, McGraw Hill Construction

# Private Indicators

## November 2016 Construction Starts



## November 2016 Construction Starts

### Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

#### Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>November 2016</u>	<u>October 2016</u>	<u>% Change</u>
Nonresidential Building	\$224,621	\$235,997	-5
Residential Building	275,406	289,495	-5
Nonbuilding Construction	<u>138,253</u>	<u>152,399</u>	<u>-9</u>
<b>Total Construction</b>	<b>\$638,280</b>	<b>\$677,891</b>	<b>-6</b>

#### The Dodge Index

Year 2000=100, Seasonally Adjusted

November 2016.....135

October 2016 .....143

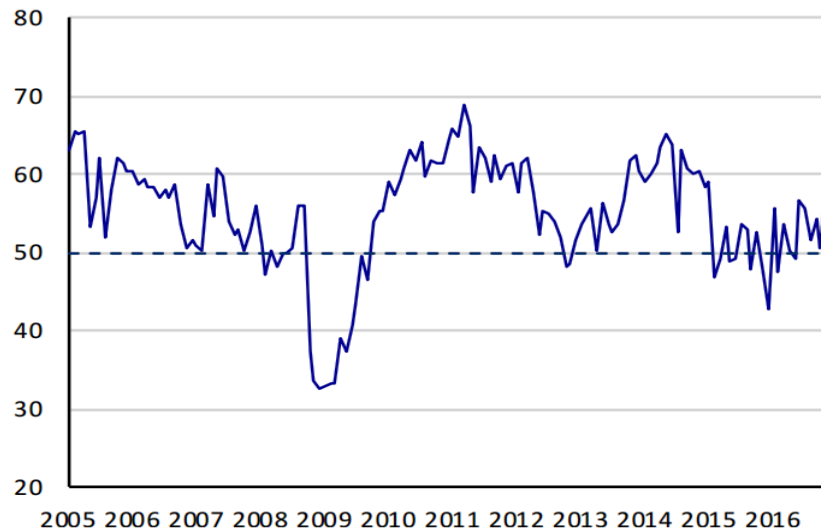
#### Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>11 Mos. 2016</u>	<u>11 Mos. 2015</u>	<u>% Change</u>
Nonresidential Building	\$208,490	\$204,679	+2
Residential Building	263,337	249,262	+6
Nonbuilding Construction	<u>155,420</u>	<u>171,522</u>	<u>-9</u>
<b>Total Construction</b>	<b>\$627,247</b>	<b>\$625,463</b>	<b>-0-</b>
<b>Total Construction, excluding manufacturing buildings and electric utilities/gas plants</b>	<b>\$569,857</b>	<b>\$547,523</b>	<b>+4</b>

# Private Indicators

Chicago Business Barometer™



## December Chicago Business Barometer

“The MNI Chicago Business Barometer fell 3.0 points to 54.6 in December from 57.6 in November, led by declines in both New Orders and Order Backlogs.

After a disappointing start to the fourth quarter, the latest results suggest economic conditions have improved somewhat, with the Barometer averaging 54.3 in Q4, the highest in two years.” – Shaily Mittal, Senior Economist, MNI Indicators

## New Orders Retreats from November High

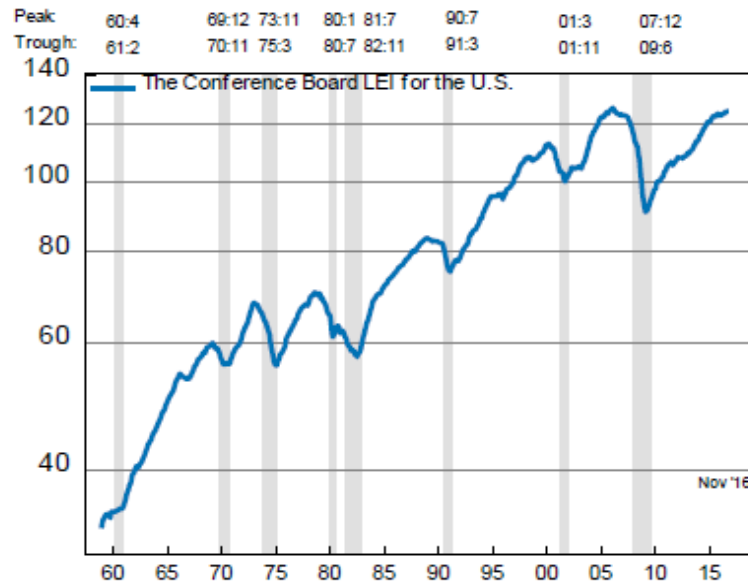
“The December decline was led by a slowdown in New Orders, which fell 6.7 points to 56.5, giving up most of the November gain that had left it running at the fastest pace since June. Production also subtracted from the Barometer, ending 2016 at the lowest level since October, while Order Backlogs moved back into contraction. Employment held firm, remaining below 50 for the second month in a row, while Supplier Deliveries was the only component to gain ground in December.

The Chicago Business Barometer ended 2016 in a much healthier position than a year ago when it slipped into contraction. This is largely owed to stronger outturns in the second half of the year and is testament to the resilience of the US economy. Most respondents to our survey remain upbeat about the fate of their business as we head into 2017, buoyed by fresh hope of better things to come under the new administration. Hopefully, 2017 can build on the momentum generated in the latter stages of 2016.” – Jamie Satchithanatham, Economist, MNI Indicators.

# Private Indicators

**The Conference Board Leading Economic Index® for the U.S.** was unchanged in November, remaining at 124.6 (2010 = 100), following a 0.1 percent increase in October, and a 0.3 percent increase in September.

## U.S. Composite Economic Indexes (2010 = 100)



“The U.S. Leading Economic Index continued on an upward trend through 2016, although at a moderate pace of growth. The underlying trends in the LEI suggest that the economy will continue expanding into the first half of 2017, but it’s unlikely to considerably accelerate. Although the industrial and construction indicators held the U.S. LEI back in November, the weakness was offset by improvements in the interest rate spread, initial unemployment insurance claims, and stock prices.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

## Economy to Continue Expanding at Moderate Pace through Early 2017

“The Conference Board Leading Economic Index® (LEI) for the U.S. increased 0.1 percent in November to 114.6 (2010 = 100), following a 0.2 percent increase in October, and a 0.2 percent increase in September.

The Conference Board Coincident Economic Index® (CEI) for the U.S. increased 0.3 percent in November to 123.2 (2010 = 100), following a 0.2 percent increase in October, and a 0.2 percent increase in September.

The Conference Board Lagging Economic Index® (LAG) for the U.S. increased 0.3 percent in November to 123.2 (2010 = 100), following a 0.2 percent increase in October, and a 0.2 percent increase in September.

# Private Indicators

## US Economic Forecast 4th Quarter 2016

### Introduction: Big changes bring big forecast shifts

“It is rare for economic forecasters to change outlooks substantially over the course of a few months. Most economic news tells us only a little about how things are changing — one release is positive, the next negative, and the net difference is not all that large. But this time really is different.

The election of Donald Trump as president qualifies as a very significant change to the economic outlook. There is no simple template for the policy mix to be expected from his new administration. Presidential candidates generally don't present policy proposals that are terribly detailed, and Trump's proposals tended to be less fleshed out than usual.

In the long transition period, this mainly takes the form of uncertainty. And US economic policy isn't determined by the president waving a magic wand. It requires buy-in from Congress, and Trump's relationship with Congress is itself difficult to predict. Future policy outcomes range widely as a result.

Our baseline reflects a relatively successful implementation of Trump's key economic proposals, although at more modest levels. These include:

1. A temporary infrastructure spending program of about \$250 billion: Spending starts in early 2018, ramps up through 2019, then falls off as the program ends in 2020 and 2021.
2. Permanent business and personal tax cuts with a static impact of \$300 million in the five years of our forecast.
3. Suppression of international trade: Imports are forecast to grow more slowly than history would suggest based on GDP, reflecting some combination of tariffs and increased barriers to trade. Exports also grow more slowly, reflecting barriers and tariffs in other countries.
4. Higher costs due to supply chain interruptions from the trade barriers, and because of higher labor costs as undocumented immigrants leave the labor force.” – Dr. Daniel Bachman, Senior Manager, and Rumki Majumdar, Manager and Economist, Deloitte

# Private Indicators

## US Economic Forecast 4th Quarter 2016

“The baseline also includes two key assumptions about expectations in the short run:

1. Lower investment spending in early 2017, reflecting both increased uncertainty and higher interest rates.
2. Higher interest rates starting in early 2017, reflecting expectations that the new economic policies will lead to higher deficits and a full-employment economy, both of which suggest that future interest rates will rise.

We do not judge that the supply-side elements of the program, such as regulatory relief, will have a large impact in the five-year forecast horizon. This doesn't mean that they might not be important for the economy's long-run growth. But over the next few years, the impact on economic aggregates (such as GDP, employment, and inflation) will be dominated by the large demand-side impacts of this policy mix.

All economic forecasts include assumptions about policy. But this forecast's accuracy will be particularly sensitive to the policy choices and accomplishments of the new administration. Each of the main macroeconomic policy interventions — the infrastructure spending plan, the tax cuts, and raising the trade barriers — can be carried out in larger or smaller measures. The resulting policy mix will almost certainly differ from the assumptions here. How it will be different is a big question.

The result of our assumption is a few quarters of slow growth starting in 2017 because of the unusual level of uncertainty (particularly around international supply chains). By early 2018, that uncertainty may give way to faster growth because of the demand-side impact of tax cuts and infrastructure spending. By 2020, the infrastructure program likely begins to wind down, reducing GDP growth.

With the economy now relatively close to full employment in the model, the demand stimulus creates inflationary pressures. That's made worse by the trade barriers, which may raise prices for consumer goods as well as increase the cost of doing business. This can lead to much faster Fed movement and much higher long-term interest rates in the baseline simulation than in our previous forecast.<sup>17</sup> – Dr. Daniel Bachman, Senior Manager, and Dr. Rumki Majumdar, Manager and Economist, Deloitte

# Private Indicators

## US Economic Forecast 4th Quarter 2016 Scenarios

“Our scenarios are designed to demonstrate the different paths down which the new administration’s policies might take the US economy. Foreign risks have not dissipated, and we’ve incorporated them into the scenarios. But for now, we view the greatest uncertainty in the US economy to be that generated within the United States.

**The baseline (55 percent probability):** Uncertainty restrains business investment in early 2017, but tax cuts and infrastructure spending push up GDP in 2018 and 2019. With the economy at full employment, the faster GDP growth creates some inflationary pressures. Increased trade restrictions add to the price pressures. The Fed moves aggressively to prevent inflation from picking up too much, and long-term interest rates rise substantially. Growth rises to 2.5 to 3.0 percent for a couple of years before falling off as the impact of the stimulus fades.

**Recession (5 percent):** Sudden policy changes in the United States, including a large tariff on Chinese goods, trigger a global financial crisis. The crisis is exacerbated by the sudden change in global supply chain cost structures from higher US trade barriers, as well as retaliation from China. The Fed and the European Central Bank act to ease financial conditions, and growth starts to pick up as businesses adopt to the new global costs and restructure their capital to reflect the new global cost structure. GDP falls in the last two quarters of 2017 and recovers after 2018.” – Dr. Daniel Bachman, Senior Manager, and Dr. Rumki Majumdar, Manager and Economist, Deloitte

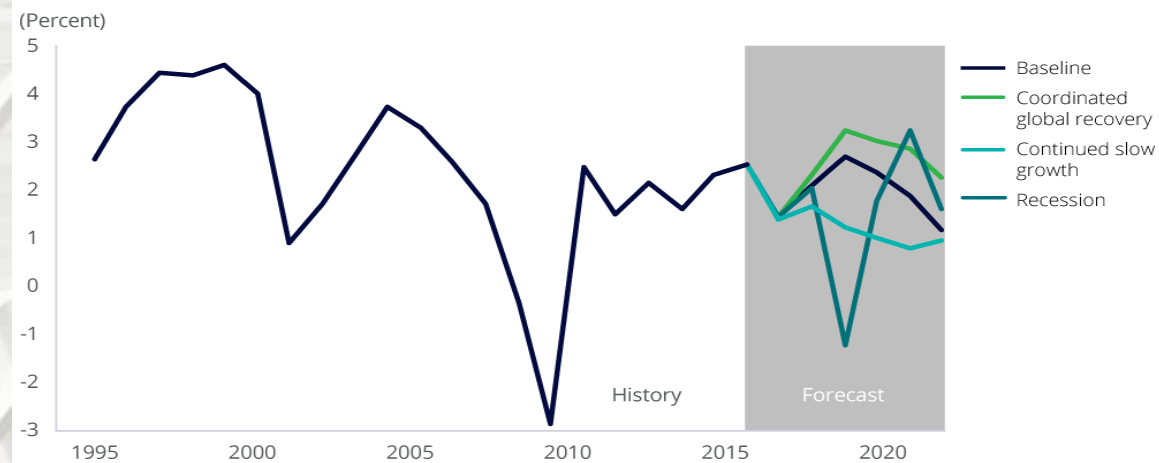
# Private Indicators

## US Economic Forecast 4th Quarter 2016 Scenarios

**“Slower growth (30 percent):** The infrastructure program and tax cuts stall in Congress. And the administration has placed significant restrictions on US imports, raising costs and disrupting supply chains. Businesses hold back on investments to restructure their supply chains because of uncertainty about future policy. Global growth also slows because of the supply chain disruptions, reducing demand for US exports. GDP growth falls to 1 percent over the forecast period, and the unemployment rate rises.

**Successful policy takeoff (10 percent):** The administration takes only symbolic action on trade. With supply chain disruptions off the table, businesses focus on tax cuts that are designed to increase investment spending, and the opportunities available from the infrastructure plan. Tightening labor markets attract many people back into the labor force, and the high labor-force participation rate helps to moderate the impact of faster growth on wages and inflation. Growth remains above 2 percent for the next five years.” – Dr. Daniel Bachman, Senior Manager, and Dr. Rumki Majumdar, Manager and Economist, Deloitte

Figure 1. Real GDP growth



Sources: Deloitte/Oxford Economics.

Deloitte University Press | [dupress.deloitte.com](http://dupress.deloitte.com)



# Private Indicators

## US Economic Forecast 4th Quarter 2016

### Housing

“Every year, thousands of young Americans abandon the nest, happy to leave home and start their own households. But more than usual stayed put during the recession: The number of households didn’t grow nearly enough to account for all the newly minted young adults. We expect those young adults would prefer to live on their own and create new households; as the economy continues to recover, they will likely do exactly that — as previous generations have.

This likely means some positive fundamentals for housing construction in the short run. **Since 2008, the United States has been building fewer new housing units than the population would normally require; in fact, housing construction was hit so hard that the oversupply turned into an undersupply. But the hole is shallower than you might think. Several factors offset each other: If household size returns to mid-2000s levels, we would need an additional 3.2 million units; on the other hand, household vacancy rates are much higher than normal. Vacancy returning to normal would make available an additional 2.5 million units — which would fill 78 percent of the pent-up demand for housing units.**

But are the existing vacant houses in the right place or condition, or are they the right type, for that pent-up demand? The future of housing may look very different than in the past. Growth in new housing construction has been concentrated in multifamily units. If that persists, we may find it is related to young buyers’ growing reluctance to settle in existing single-family units.” – Dr. Daniel Bachman, Senior Manager, and Dr. Rumki Majumdar, Manager and Economist, Deloitte

# Private Indicators

## US Economic Forecast 4th Quarter 2016 Housing

“In developing our housing forecast, we assumed that the demand for housing (in the form of the average household’s size decreasing) picks up this year, vacancy rates gradually drop, and household depreciation begins falling after new renters and buyers remove about 2.5 million housing units from the nation’s housing surplus. **Slowing population growth suggests that we will have a short-lived housing boom in which starts hit the 1.3–1.4 million level, followed by a period of contraction until starts reach the level of long-run demand. We estimate this to be about 1.0 million units in the medium term. Housing will likely contribute to GDP growth in 2017–18 — particularly if economic policy creates a boom — but subtract from GDP growth by 2019 as the pent-up demand dissipates. In the long run, the slowing population suggests that housing will not be a growth sector (although specific segments, such as housing for elderly residents, might well be very strong).**”

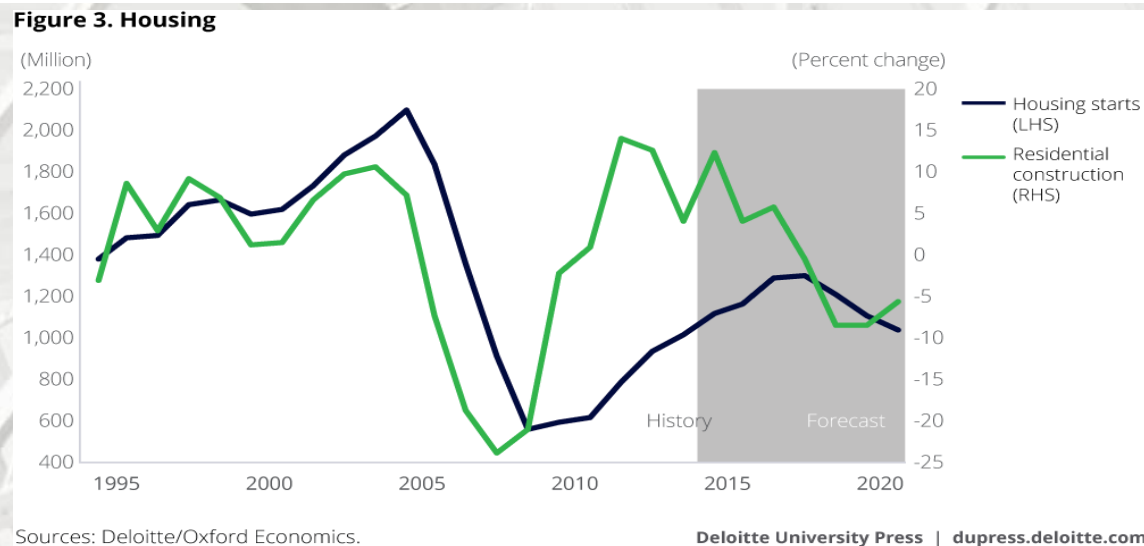
While economic growth and job creation may point to strong house sales, higher interest rates may moderate any potential housing boom. Higher inflation and a strong Fed response may drive up mortgage rates more quickly than businesses in the housing sector would like.”  
– Dr. Daniel Bachman, Senior Manager, and Dr. Rumki Majumdar, Manager and Economist, Deloitte

# Private Indicators

## Housing News

“Housing permits fell in the late spring and then stalled for two months. September saw a significant rise in permits, suggesting (to the optimistic) that housing construction would start to grow again. At an annual rate of 1.2 million, permits are still below the level required to make up for the many years of low housing growth. Much of the volatility in permits was, however, in the multifamily sector. Single-family starts have been growing at an average rate of about 5 percent over the previous year’s level for several months.

Contract interest rates were flat through October but likely rose in late November. Long-term interest rates had begun rising even before the election. House prices continue to move up and are about 5 percent above the previous year’s level (according to the Case-Shiller national index).” – Dr. Daniel Bachman, Senior Manager, and Dr. Rumki Majumdar, Manager and Economist, Deloitte



# Private Indicators

## Economy and Housing

**Table 1. Deloitte US forecast: Baseline**

Percent change, year over year unless otherwise noted.

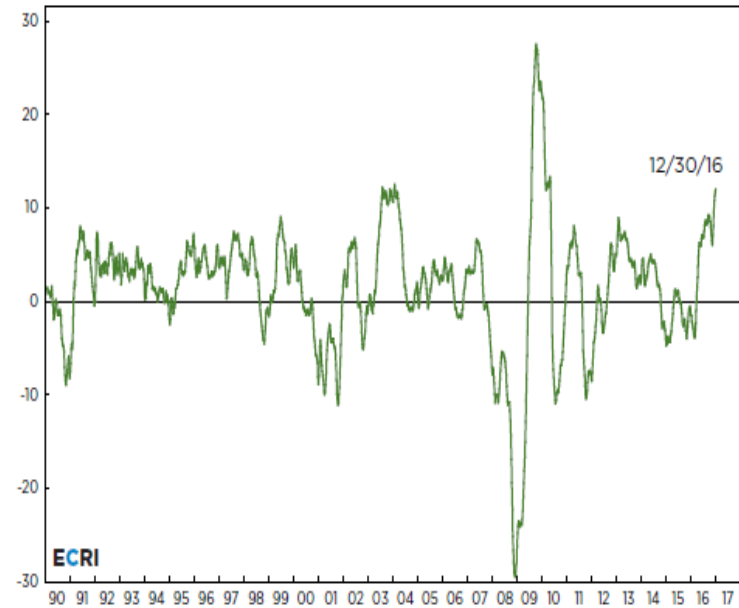
	History					Forecast					
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>GDP and components</b>											
Real GDP	1.6	2.2	1.7	2.4	2.6	1.5	2.2	2.8	2.4	2	1.2
Real consumer spending	2.3	1.5	1.5	2.9	3.2	2.6	2.6	2.3	2.3	2.5	2
Real consumer spending, durable goods	6.1	7.4	6.2	6.7	6.9	4.9	4.5	3.3	3.2	2.9	2.7
Real consumer spending, nondurable goods	1.8	0.6	1.7	2.6	2.7	2.3	1.9	2	2.1	2.3	1.9
Real consumer spending, services	1.8	0.8	0.6	2.3	2.8	2.3	2.5	2.3	2.2	2.4	1.9
Real investment in private housing	0.6	13.5	11.9	3.5	11.7	3.6	5.1	-1	-8.8	-8.7	-6.1
Real fixed business investment	7.7	9	3.5	6	2.1	-0.6	2.5	7.1	7.3	4.3	1.7
Real inventory accumulation	38	55	79	58	84	15	17	31	37	33	19
Real exports of goods and services	6.9	3.4	3.5	4.3	0.1	0.7	2.3	1.5	1.8	2.1	2.2
Real imports of goods and services	5.5	2.2	1.1	4.4	4.6	0.6	2.9	1.9	1.1	1.1	1.4
Real government consumption and investment	-3	-1.9	-2.9	-0.9	1.8	0.8	0.1	1.9	1	-0.2	-0.7
Real federal government consumption and investment	-2.7	-1.9	-5.8	-2.5	0	0.5	-0.9	-1.6	-1.7	-0.5	-1.2
Real state and local government consumption and investment	-3.3	-1.9	-0.8	0.2	2.9	0.9	0.5	3.8	2.4	0.1	-0.6
<b>Housing</b>											
Housing starts (thousands)	612	784	928	1,001	1,108	1,151	1,270	1,286	1,192	1,094	1,027
Stock of owner-occupied homes (millions)	132	133	133	134	135	136	136	137	138	139	140
Interest rate on 30-year fixed rate mortgages (percent)	4.46	3.66	3.98	4.17	3.85	3.6	4.24	5.87	7.47	8.66	9.05

# Private Indicators

Weekly Leading Index, Growth Rate (%)



Weekly Leading Index, Growth Rate (%)



## U.S. WLI Edged Up

The level of the weekly WLI rose to 144.7 from 1144.0.

The growth rate of the weekly WLI increased to 12.0% from 11.8%.

“The U.S. Weekly Leading Index (WLI) edged up to 144.7 from 144.0. The growth rate increased to 12.0% from 11.8%, highest since May 7, 2010, a 347-week high.” – Lakshamn Achuthan, Chief Operations Officer, ECRI

# Private Indicators

## U.S. Gallup Good Jobs Rate, Monthly Trend

January 2010-December 2016

■ Gallup Good Jobs Rate



Rates shown are for December of each year

GALLUP DAILY TRACKING

### GALLUP DAILY

REAL UNEMPLOYMENT  
Department of Labor (U-6)

9.3% -0.2

GALLUP GOOD JOBS  
Percent of Adult Population

44.8% +0.1

ENGAGED AT WORK

32.5% +0.1

ECONOMIC CONFIDENCE

11 -1

## U.S. Gallup Good Jobs Rate Down in December

- “GGJ rate of 44.7% down year-on-year for first time since April 2014
- Unemployment up 0.3 points to 5.2%
- Workforce participation falls to 66.5%

- The Gallup Good Jobs (GGJ) rate in the U.S. was 44.7% in December, down from 45.7% in November. While the GGJ rate often declines somewhat in December, this represents the first month with a year-on-year decrease since April 2014. The U.S. GGJ rate was 45.3% in December 2015.” – Ben Ryan, Consultant Specialist, Gallup

# Private Indicators

## December 2016 Manufacturing ISM® Report On Business®

### December PMI® at 54.7%

#### **New Orders, Production and Employment Growing Inventories Contracting, Supplier Deliveries Slowing**

“Economic activity in the **manufacturing sector** expanded in December, and the overall economy grew for the 91st consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.”

The December PMI® registered 54.7 percent, an increase of 1.5 percentage points from the November reading of 53.2 percent.

The New Orders Index registered 60.2 percent, an increase of 7.2 percentage point from the November reading of 53 percent.

The Production Index registered 60.3 percent, 4.3 percentage points higher than the November reading of 56 percent.

The Employment Index registered 53.1 percent, a decrease of 2 percentage point from the November reading of 52.3 percent.

Inventories of raw materials registered 47 percent, a decrease of 2 percentage points from the November reading of 49 percent.

The Prices Index registered 65.5 percent in November, an increase of 11 percentage points from the November reading of 54.5 percent, indicating higher raw materials prices for the 10th consecutive month..

The PMI®, New Orders, Production and Employment Indexes all registered new highs for the year 2016, and the forward-looking comments from the panel are largely positive” – Bradley Holcomb, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

# Private Indicators

## December 2016 Non-Manufacturing ISM® Report On Business®

**December NMI® at 57.2%**

**Business Activity Index at 61.4%, New Orders Index at 61.6%,  
Employment Index at 53.8%**

“Economic activity in the **non-manufacturing sector** grew in December for the 83rd consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**.

The NMI® registered 57.2 percent in December, matching the November figure. This represents continued growth in the non-manufacturing sector at the same rate.

The Non-Manufacturing Business Activity Index decreased to 61.4 percent, 0.3 percentage point lower than the November reading of 61.7 percent, reflecting growth for the 89th consecutive month, at a slightly slower rate in December.

The New Orders Index registered 61.6 percent, 4.6 percentage points higher than the reading of 57 percent in November.

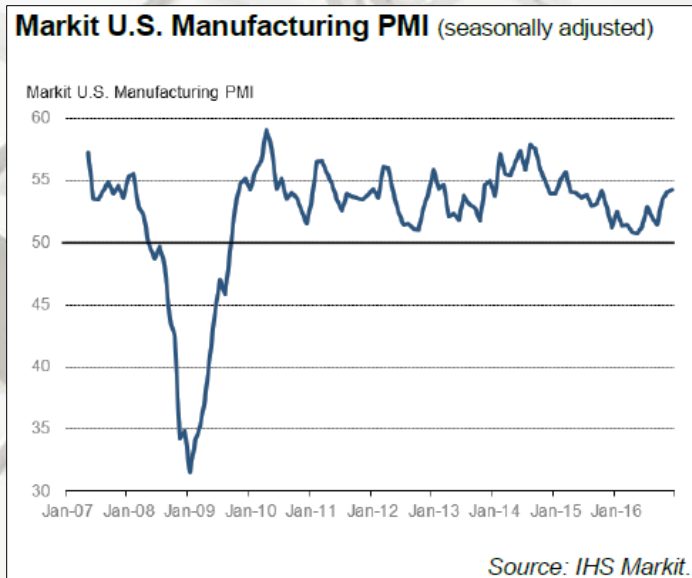
The Employment Index decreased 4.4 percentage points in December to 53.8 percent from the November reading of 58.2 percent.

The Prices Index increased 0.7 percentage point from the November reading of 56.3 percent to 57 percent, indicating prices increased in December for the ninth consecutive month at a slightly faster rate.

According to the NMI®, 12 non-manufacturing industries reported growth in December. The non-manufacturing sector closed out the year strong maintaining its rate of growth month-over-month. Respondents' comments are mostly positive about business conditions and the overall economy.” – Anthony Nieves, CPSM, C.P.M., CFPM, Chair of the Institute for Supply Management® (ISM®) Non-Manufacturing Business Survey Committee



# Private Indicators



## Markit U.S. Manufacturing PMI™ Manufacturing ends 2016 on strong note as PMI hits 21-month high

“At 54.1 in November, the final Markit U.S. Manufacturing Purchasing Managers’ Index™ (PMI™) picked up from 53.4 in November and signalled the strongest improvement in business conditions for just over one year. The latest reading was up from the earlier ‘flash’ reading (53.9) and the joint-highest seen since March 2015, thereby signalling a robust improvement in manufacturing performance.”

“December data signalled a strong end to the year for the US manufacturing sector, with overall business conditions improving at the fastest pace since March 2015. Robust rises in new orders and production volumes led to the sharpest pace of job creation for a year-and-a-half. Meanwhile, greater client spending and upbeat business confidence resulted in the largest accumulation of preproduction inventories since August 2014. ... The latest rise in the headline index reading was largely driven by stronger rates of employment growth and inventory building in December, which more than offset slightly weaker increases in output and new orders.

The manufacturing sector ended 2016 on a buoyant note, with promising signs that growth could pick up further in 2017. The pace of growth signalled by the PMI in December was the strongest for almost two years, and the combination of improving current demand and optimism for a further upturn in 2017 prompted companies to build inventory and boost capacity. The latter was reflected in the largest rise in factory payroll numbers for one and a half years. The upturn is being driven almost entirely by rising demand from domestic customers, with exports stymied by the dollar’s recent surge.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators

## Service sector business activity (seasonally adjusted)



## Markit U.S. Services PMI™ Job creation accelerates to its fastest since September 2015

- “Robust rise in service sector payrolls
- Solid rates of activity and new business growth in December
- Prices charged increase at sharpest rate for 18 months” – Markit®

“At 53.9 in December, the seasonally adjusted **Markit final U.S. Services Business Activity Index** dropped from 54.6 in November to signal the slowest upturn in service sector activity for three months. Nonetheless, the latest reading was well above the neutral 50.0 threshold and pointed to a solid pace of expansion. Moreover, the average reading during the final quarter of 2016 (54.4) was the strongest since Q4 2015.

The US economy ended 2016 on a solid footing on which sustained growth looks set to be achieved in the coming year. Although losing a little momentum in December, the pace of business activity growth in the services and manufacturing sectors combined remained one of the strongest seen over the past year. The surveys signal GDP annualized growth of approximately 2.0% in the fourth quarter, a pace which we expect to be met – if not slightly exceeded – through 2017.

The upturn also continues to deliver an impressive rate of job creation, especially given the current high level of employment – largely reflecting improved confidence about the economic outlook. ...” – Chris Williamson, Chief Economist, Markit®

# Private Indicators

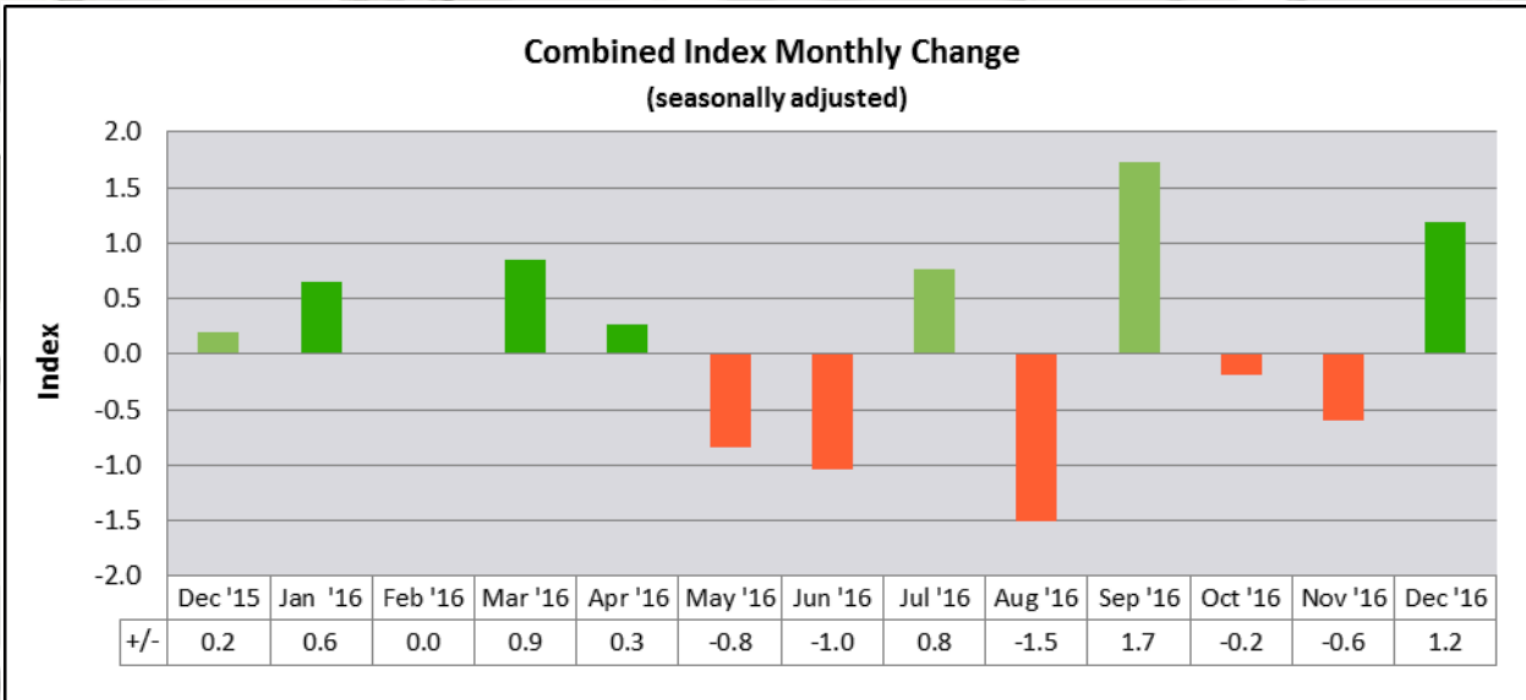
## National Association of Credit Management – Credit Managers’ Index

“The reading for the combined CMI jumped up from 52.9 to 54.1, the third-highest reading seen this year. In April, it hit 54.6 and in March it was at 54.3. Last month’s 52.9 was the fourth-lowest reading in the last 12 months. The news was similarly positive in both the favorable and unfavorable index readings. The favorable score last month was 60.3. This month there was a slight decline to 59.1, but that is still higher than it was for five months of this year. The recovery in the index of unfavorable factors was more impressive, as it went from 48 (thoroughly in contraction territory) to 50.8, as high as it has been since May.

The manufacturing sector has been fighting some pretty serious headwinds of late, but they have not resulted in the expected slowdown—at least not yet. The biggest concern towards the end of the year was the gain in strength of the dollar and the expected impact on exports. The fact the Fed finally got around to hiking the rates means that the dollar will gain even more — and quickly. In short, there was a nice rebound as far as manufacturing was concerned. That seems related to both the better mood of the consumer and the fact that construction season was extended a little by the unseasonable weather.

When there is a problem in retail during the holiday season, the economy is not doing all that well. This year is not turning out to be a record breaker, but it will be better than it was last year. That means more retailers will be alive to fight another day. There has also been some decent expansion in the manufacturing sectors that is connected to retail, and the construction community got a little shot in the arm with the warmer-than-usual weather that extended their season by more than a month.” – Chris Kuehl, Ph.D., Economist, NACM

# Private Indicators

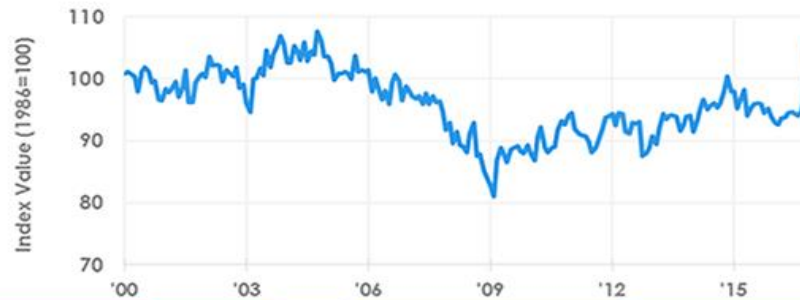


<b>Combined Manufacturing and Service Sectors (seasonally adjusted)</b>	Dec '15	Jan '16	Feb '16	Mar '16	Apr '16	May '16	Jun '16	Jul '16	Aug '16	Sep '16	Oct '16	Nov '16	Dec '16
Sales	55.0	55.8	56.8	59.2	59.8	56.7	56.9	60.0	53.7	57.9	56.9	61.8	58.6
Index of favorable factors	56.6	58.2	58.6	60.0	59.2	57.9	57.0	60.0	56.4	59.5	58.4	60.3	59.1
Index of unfavorable factors	50.3	50.3	50.1	50.6	51.6	51.0	49.9	49.2	49.1	49.9	50.3	48.0	50.8
<b>NACM Combined CMI</b>	<b>52.8</b>	<b>53.5</b>	<b>53.5</b>	<b>54.3</b>	<b>54.6</b>	<b>53.8</b>	<b>52.7</b>	<b>53.5</b>	<b>52.0</b>	<b>53.7</b>	<b>53.5</b>	<b>52.9</b>	<b>54.1</b>

# Private Indicators

## Small Business Optimism Index Increases 7.4 to 105.8

Based on 10 survey indicators, seasonally adjusted, Jan. '00 – Dec. '16



**NFIB**.com/sboi

## December 2016 Report: Small Business Economic Trends

“Small business optimism rocketed to its highest level since 2004, with a stratospheric 38-point jump in the number of owners who expect better business conditions, according to the monthly National Federation of Independent Business (NFIB) Index of Small Business Optimism, ... .”

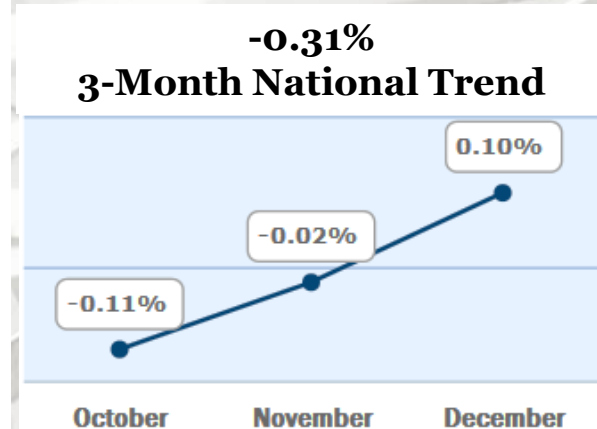
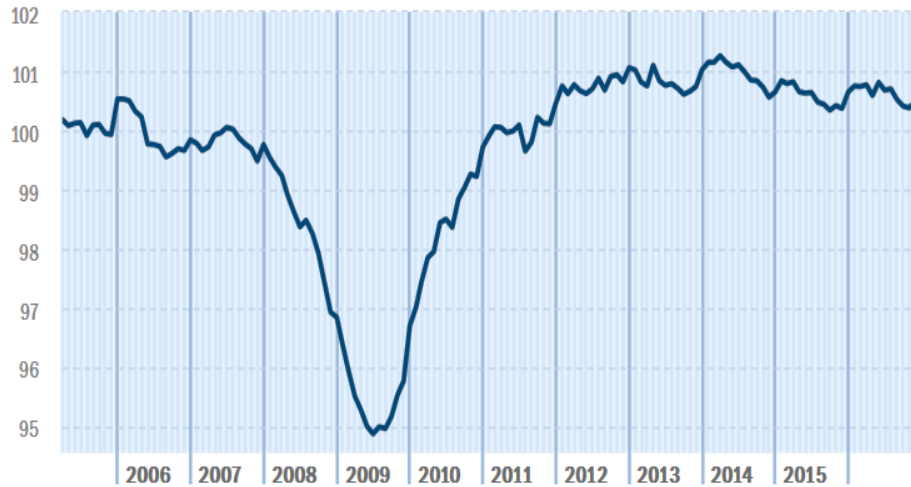
### SMALL BUSINESS OPTIMISM SKYROCKETED IN DECEMBER

“The Index reached 105.8, an increase of 7.4 points. Leading the charge was “Expect Better Business Conditions,” which shot up from a net 12 percent in November to a net 50 percent last month. The other two big movers in the survey, “Sales Expectations” and “Good Time to Expand,” jumped by 20 percentage points and 12 percentage points, respectively.”

“Business owners who expect better business conditions accounted for 48 percent of the overall increase. The December results confirm the sharp increase that we reported immediately after the election. This is the second consecutive month in which small business owners reported a much brighter outlook for the economy and higher expectations for their businesses. In this month’s report, we are also finding evidence that higher optimism is leading to increased business activity, such as capital investment.” – William Dunkelberg, Chief Economist, National Federation of Independent Business

“We haven’t seen numbers like this in a long time. Small business is ready for a breakout, and that can only mean very good things for the U.S. economy.” – Juanita Duggan, President and CEO, National Federation of Independent Business

# Private Indicators



## The Paychex | IHS Small Business Jobs Index

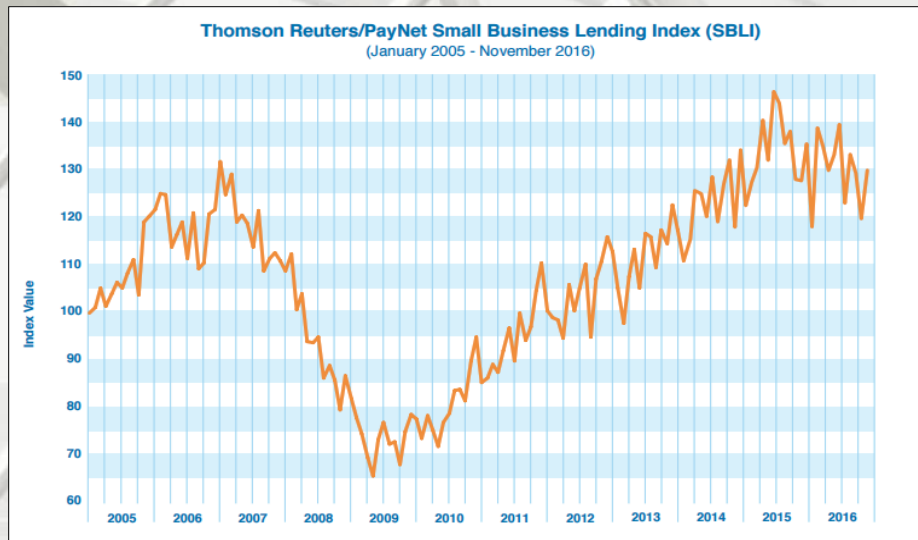
**The national index has declined for three straight months, from 100.70 to 100.38 in November**

“Ending three months of declines, at 100.49, the Paychex | IHS Small Business Jobs Index closed 2016 on an uptick, 0.10 percent over the previous month. The year, however, was marked with volatility, with the national index averaging 100.72 during the first half of 2016 and 100.53 during the second half. Seven of eight industries analyzed increased in December, while Manufacturing declined.”

“A year-end increase brought the Paychex | IHS Small Business Jobs Index 0.12 percent above a year ago. The average index level of 100.62 during 2016 surpassed 2015’s average of 100.59.” – James Diffley, Chief Regional Economist, HIS Markit

# Private Indicators

## Thomson Reuters/PayNet Small Business Lending Index U.S. small business borrowing rises as Trump elected president: PayNet



### Small Business Lending Index: 129.9

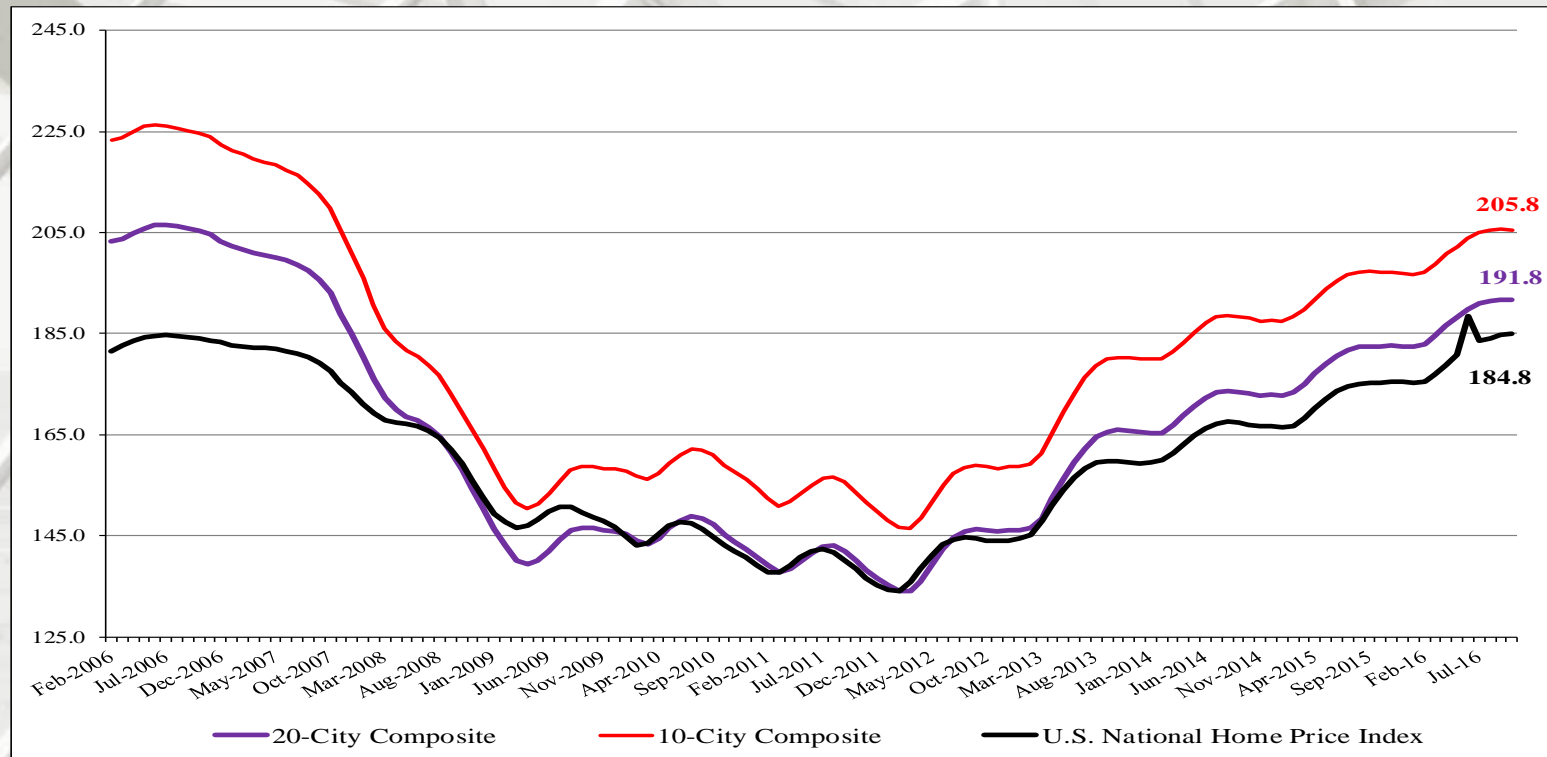
“The Thomson Reuters/PayNet Small Business Lending Index rose to 129.9 in November from a downwardly revised 119.8 in October. Measured from a year earlier, it was the first increase in six months. Movements in the index typically correspond with movements in gross domestic product growth a quarter or two ahead.”

“Borrowing by small U.S. firms ticked up in November, ..., as Americans unexpectedly elected Republican Donald Trump as their next president and investors bid up U.S. stocks on bets that tax cuts will boost profits.

Right now we've got this post-election bounce, because we know who will be in office. Is this going to continue into a new era of growth or no? That's unclear.” – Bill Phelan, President, PayNet

# Private Indicators

## S&P/Case-Shiller Home Price Indices





# Private Indicators

## S&P/Case-Shiller Home Price Indices

### **National Index Extends New High As Home Price Gains Continue**

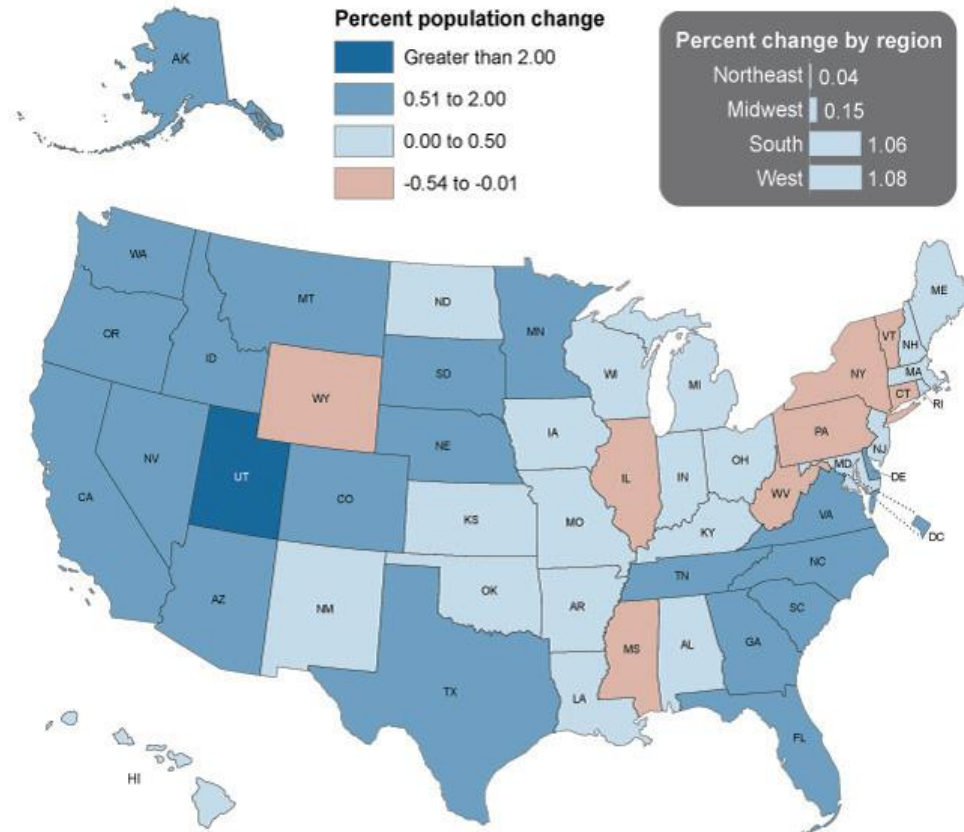
“Home prices and the economy are both enjoying robust numbers. However, mortgage interest rates rose in November and are expected to rise further as home prices continue to out-pace gains in wages and personal income. Affordability measures based on median incomes, home prices and mortgage rates show declines of 20-30% since home prices bottomed in 2012. With the current high consumer confidence numbers and low unemployment rate, affordability trends do not suggest an immediate reversal in home price trends. Nevertheless, home prices cannot rise faster than incomes and inflation indefinitely.

After the S&P CoreLogic Case-Shiller National Index bottomed in February 2012, its year-over-year growth accelerated to a peak rate of 10.9% in October 2013 and then gradually fell to its current rate of approximately 5%. During the same period, the highest year-over-year rate from any city was 29% in August and September 2013; currently the highest single city gain declined to approximately 11%. Both national and city growth in home prices slowed but remains above the growth rate of incomes and inflation.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

# Demographics

## Utah is Nation's Fastest-Growing State

Population Change From July 1, 2015 to July 1, 2016



“Utah’s population crossed the 3.0 million mark as it became the nation’s fastest-growing state over the last year. Its population increased 2.0 percent to 3.1 million from July 1, 2015, to July 1, 2016, according to U.S. Census Bureau national and state population estimates released today.

States in the South and West continued to lead in population growth. In 2016, 37.9 percent of the nation’s population lived in the South and 23.7 percent lived in the West.” – Ben Bolender, Chief of the Population Estimates Branch, U.S. Census

United States  
**Census**  
Bureau

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU  
[census.gov](https://www.census.gov)

Source: Vintage 2016 Population Estimates  
[www.census.gov/programs-surveys/popest.html](https://www.census.gov/programs-surveys/popest.html)

# Demographics

## HELLO my name is...

### Top 15 Most Popular Last Names in the U.S. by Rank

1990	2000	2010
Smith	Smith	Smith
Johnson	Johnson	Johnson
Williams	Williams	Williams
Jones	Brown	Brown
Brown	Jones	Jones
Davis	Miller	Garcia
Miller	Davis	Miller
Wilson	Garcia	Davis
Moore	Rodriguez	Rodriguez
Taylor	Wilson	Martinez
Anderson	Martinez	Hernandez
Thomas	Anderson	Lopez
Jackson	Taylor	Gonzalez
White	Thomas	Wilson
Harris	Hernandez	Anderson

Surnames in red indicate their first appearance among the top 15 last names in a census.

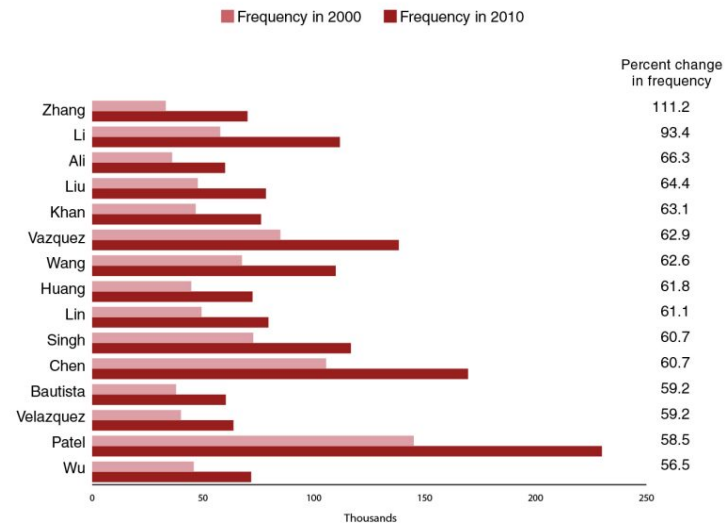
United States  
Census  
Bureau

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU  
census.gov

Source: Frequently Occurring Surnames in the 1990 Census,  
Demographic Aspects of Surnames from Census 2000 and  
Frequently Occurring Surnames in the 2010 Census

## Top Surnames

### Top 15 Last Names With the Largest Frequency Increase



United States  
Census  
Bureau

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU  
census.gov

Source: Demographic Aspects of Surnames from Census 2000 and  
Frequently Occurring Surnames in the 2010 Census

## Most Popular Surnames in the United States

“Today, the U.S. Census Bureau released the country’s 1,000 most common surnames by race and Hispanic origin and those that occurred 100 or more times in the [2010 Census](#). The graphics show the [top 15 most popular surnames](#) and [those with the largest increase and rank](#). Additionally, the [Random Samplings blog](#) discusses trends gathered from the tabulations.” – U.S. Census

# Demographics

## Percentage of Young Americans Living With Parents Rises to 75-Year High

Household formations by millennials lag behind other economic recoveries; high rents, mortgage standards cited

“Almost 40% of young Americans were living with their parents, siblings or other relatives in 2015, the largest percentage since 1940, according to an analysis of census data by real estate tracker Trulia.

Despite a rebounding economy and recent job growth, the share of those between the ages of 18 and 34 doubling up with parents or other family members has been rising since 2005. Back then, before the start of the last recession, roughly one out of three were living with family.

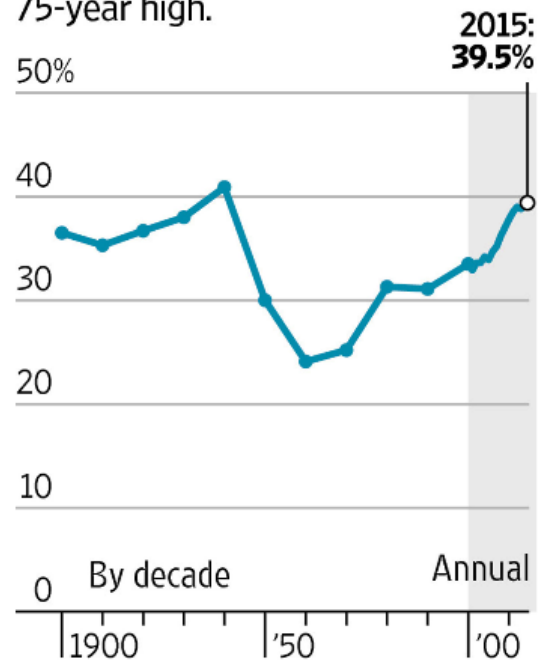
The trend runs counter to that of previous economic cycles, when after a recession-related spike, the number of younger Americans living with relatives declined as the economy improved. The result is that there is far less demand for housing than would be expected for the millennial generation, now the largest in U.S. history. The number of adults under age 30 has increased by 5 million over the last decade, but the number of households for that age group grew by just 200,000 over the same period, according to the Harvard Joint Center for Housing Studies.

The share of young Americans living with parents hit a high of 40.9% in 1940, just a year after the official end of the Great Depression, and fell to a low of 24.1% in 1960. It hovered between about 31% and 33% from 1980 to the mid-2000s, when the rate started climbing steadily.” – Chris Kirkham, Reporter-Residential Real Estate and Home Builders, *The Wall Street Journal*

# Demographics

## Welcome Home

The percentage of 18- to 34-year-olds living with parents and other family members hit a 75-year high.



Notes: 1900 to 1970 data are from the Decennial Census records, 1980 to 2015 from Current Population Survey; Including stepparent, grandparent, other relative(s)  
Sources: U.S. Census Bureau; Trulia

THE WALL STREET JOURNAL.

“Household formation is closely correlated with housing affordability and income. Among those aged 25 to 34, 40% of those earning less than \$25,000 headed their own household. The share rose to 50% for those earning between \$25,000 and \$50,000, and 58% for those with incomes above \$50,000, according to the Harvard Joint Center.

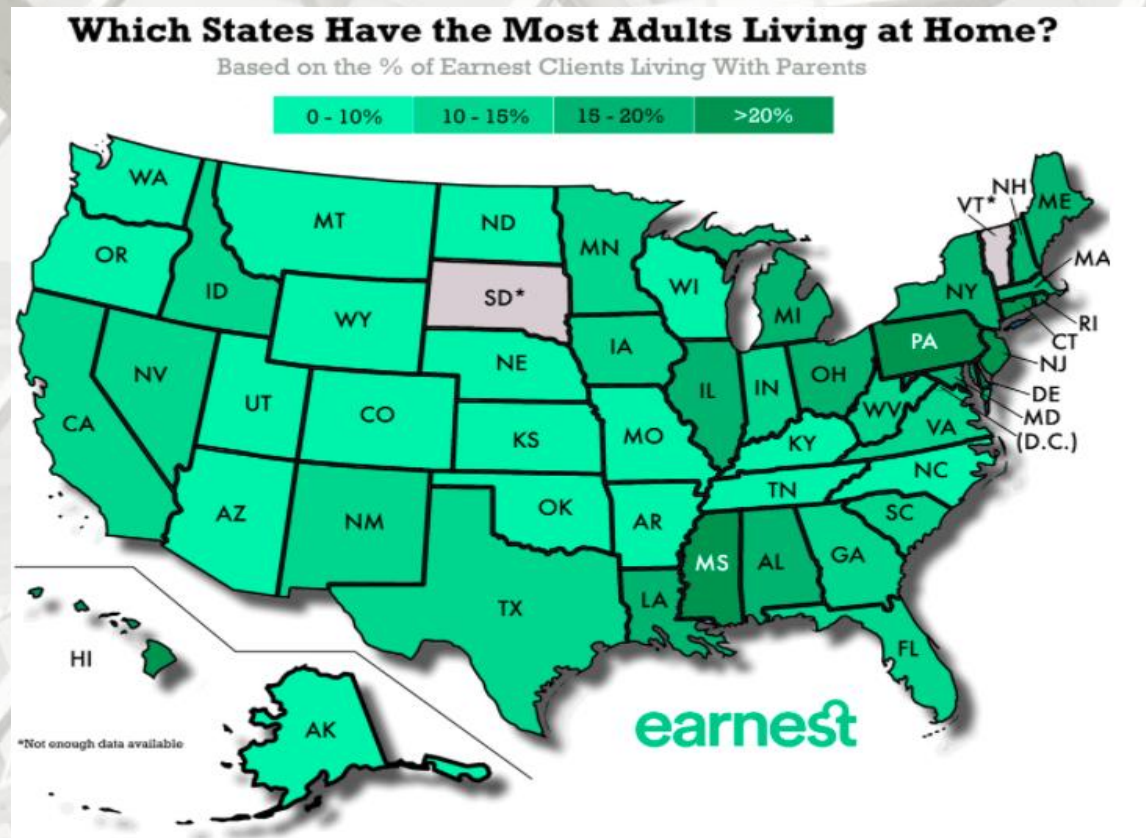
Census data also show younger Americans are getting married and having children later in life than previous generations. Even so, economists project the historically large millennial generation will more than double its current number of households through 2025.

Still, delayed household formation has kept home builders guessing about their behavior in coming years. Tim Kane, president of California builder MBK Homes, said it is obvious that household formation is slower for millennials. That leaves him to wonder: “Is it going to happen at the same rate, and is it going to happen at all for homeownership?” – Chris Kirkham, Reporter-Residential Real Estate and Home Builders, *The Wall Street Journal*

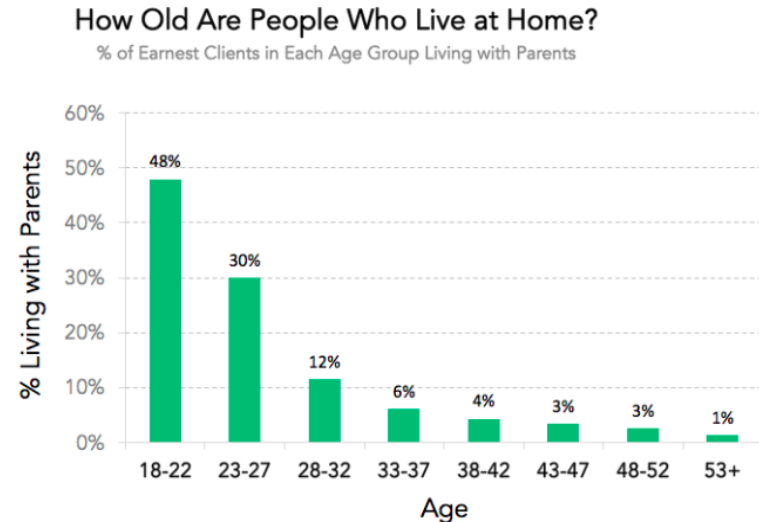
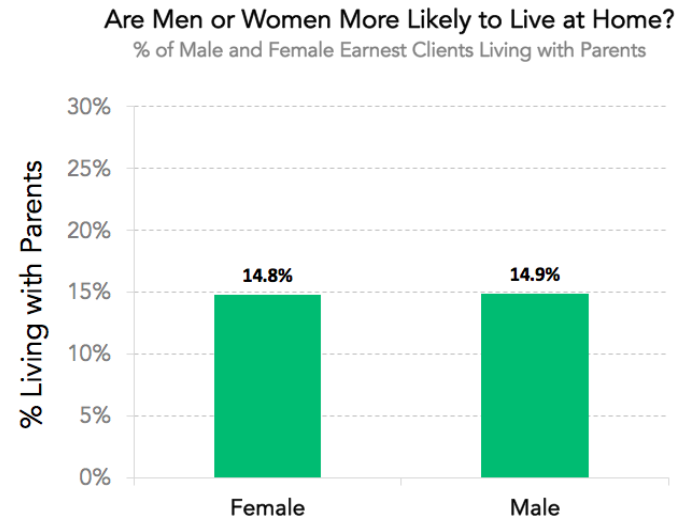
# Demographics

## These are the states where most adults live at home with their parents

“Living at home with your parents isn't just for little kids anymore. Young adults are now more likely to live with their parents than in any other living arrangement, according to a recent report by the Pew Research Center. Recent college grads aren't alone; adults in the 25-29 and 30-34 age brackets are also moving home in record numbers.” – PricewaterhouseCoopers Data Studio, PricewaterhouseCoopers, *Business Insider*



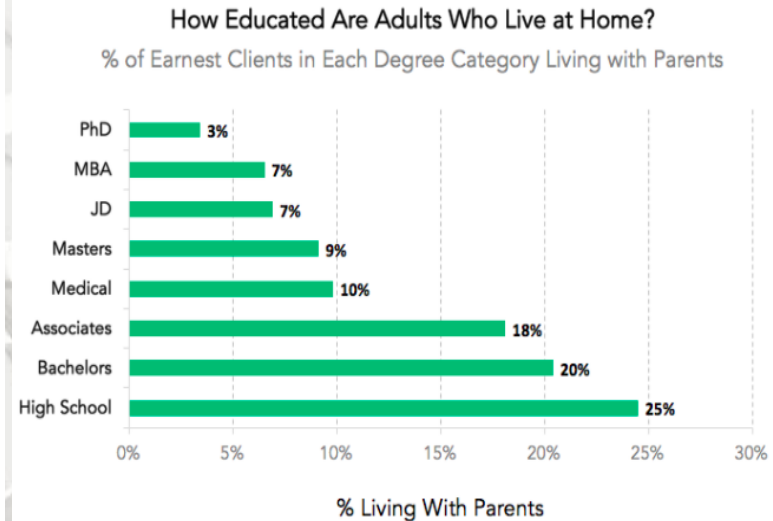
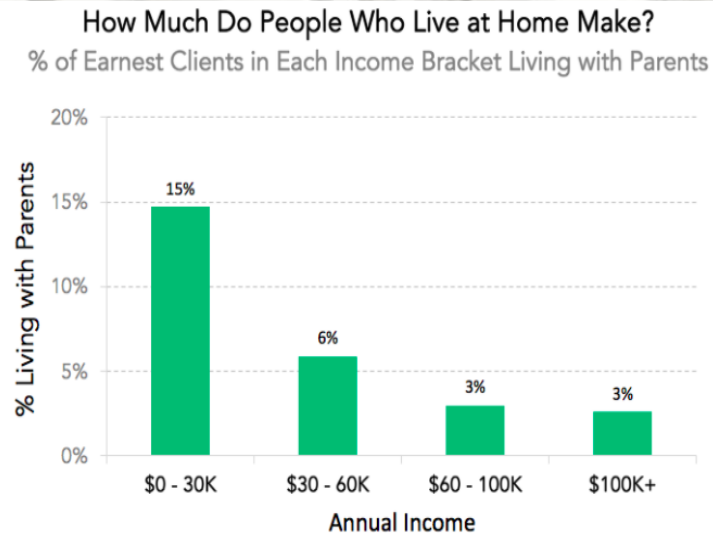
# Demographics



“Men have gotten press lately for earning degrees at lower rates than women and entering the workplace in decreasing numbers. But we found that males and females are virtually even when it comes to living at home. We next considered age. Is it fair to characterize people who live at home mostly as recent college grads? We broke our sample into eight age groups and charted the percentage of each group that lives with their parents below.

Indeed, younger adults are far more likely than older ones to live with their parents. In our sample, the average age of a person living at home was 27. The average renter and owner were 31 and 37, respectively. At the tail end of this graph, we see a small number of older adults reporting to live with their parents. This could represent a group that lives with elderly parents to provide care.” – Priceonomics Data Studio, Priceonomics, *Business Insider*

# Demographics



“If cost of living influences living arrangements, people are likely living at home out of financial necessity. We would then expect income to be low among people who live with their parents. Is it?

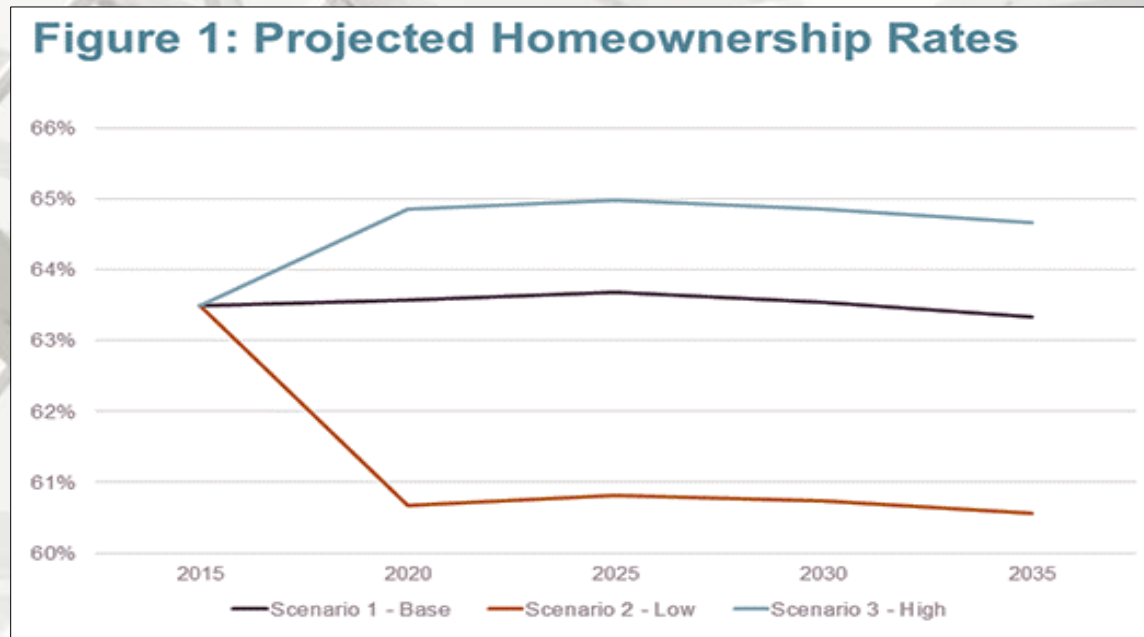
Our data suggest that people who live at home do so because they can’t afford to live independently. This group makes an average annual income of around \$6,000. That’s not enough to pay the rent, no matter which state you live in.

Yet, some people who live at home make a wage that should allow them to live independently. Like the older groups in our age analysis, these high earners could be older adults in established households who live with elderly parents to provide, not receive, support.” – Priceonomics Data Studio, Priceonomics, *Business Insider*



# Demographics

## Three Scenarios for the Future of Homeownership Rates



“Following the rise and fall in the homeownership rate over the past two decades, considerable uncertainty exists about the homeownership rate’s future trajectory. In a [new working paper](#), I present three plausible scenarios and examine the implications of different homeownership rate outcomes for future growth in the number of homeowner and renter households. (A [supplemental working paper](#) provides additional analysis of the factors that have contributed to the homeownership rate’s decade-long decline.)” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

# Demographics

## Three Scenarios for the Future of Homeownership Rates

**“Scenario 1 (“Base Scenario”)** – Constant homeownership rates. The base scenario applies the 2015 homeownership rates by age, race/ethnicity, and family type to the projected household counts for each year. This scenario therefore describes the likely outcomes if homeownership rates stabilize near their current levels. By holding homeownership rates constant, this scenario also reveals the implications of changes in the distribution of U.S. households by age, race/ethnicity, and family type for the future homeownership rate.

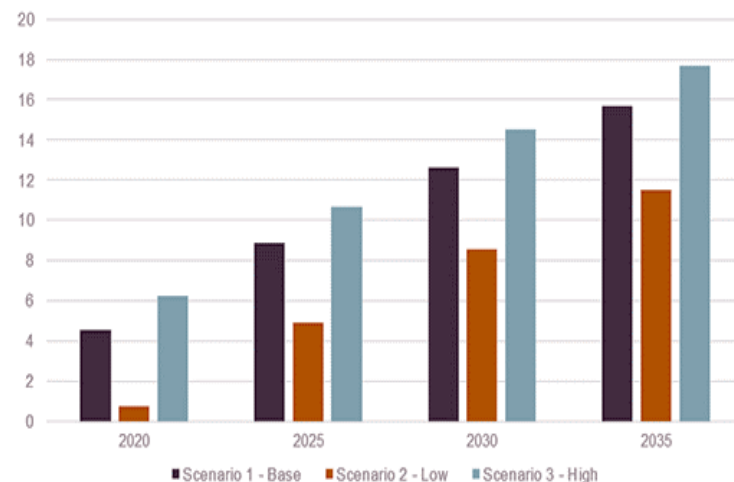
The base scenario shows that changes in the distribution of households by age, race/ethnicity, and family type will not substantially alter the homeownership rate between 2015 and 2035. Rather, the homeownership rate would increase slightly from 63.5 percent in 2015 to 63.7 percent in 2025 before falling to 63.3 percent in 2035. (Figure 1) Because the base scenario holds the rates for each age, race/ethnicity, and family type category constant at their 2015 levels, the changes (or lack thereof) reflect the cumulative effect of trends in the profile of U.S. households, such as population aging, increased racial and ethnic diversity, and delayed marriage and childbirth.” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

# Demographics

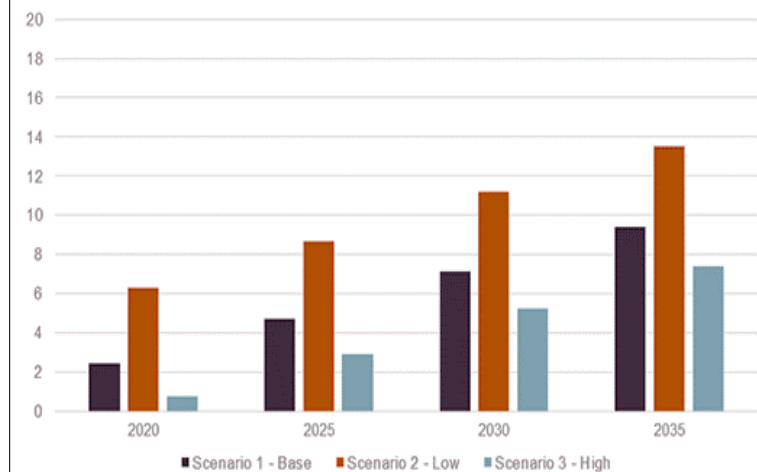
## “Scenario 1 (“Base Scenario”)

The upshot is that these trends largely offset one another, affecting the overall homeownership rate only minimally. Instead, increases in the number of homeowner and renter households are driven by household growth, producing 8.9 million additional homeowner households and 4.7 million additional renter households by 2025, and 15.7 million additional homeowner households and 9.4 million additional renter households by 2035. (Figures 2 and 3)” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

**Figure 2: Projected Growth in Homeowner Households from 2015 (Millions)**



**Figure 3: Projected Growth in Renter Households from 2015 (Millions)**



# Demographics

**“Scenario 2 (“Low Scenario”)** – Continued decline through 2020 followed by constant homeownership rates. The starting point for the low scenario is the set of 2015 homeownership rates for each age, race/ethnicity, and family type category. The low scenario then projects the 2020 rates for each category by applying the 5-year cohort trends observed from 2010-2015. The 2020 homeownership rates for each age, race/ethnicity, and family type category are then held constant to project the homeownership rates for 2025, 2030, and 2035. This scenario describes the likely homeownership outcomes if the homeownership rate’s ongoing decline continues for several more years before stabilizing.

The low scenario describes the consequences of continued declines through 2020 before the home ownership rate stabilizes. Under this scenario, the projected homeownership rate falls from 63.5 percent in 2015 to 60.7 percent in 2020 before leveling off at 60.8 percent in 2025 and 60.6 percent in 2035. The homeowner growth figures show that the continuation of the 2010-2015 cohort trend implies minimal growth in the number of homeowner households, adding just 755,471 additional homeowner households through 2020. In subsequent years, the eventual stabilization of the homeownership rate at 2020 levels allows household growth to add 4.9 million homeowner households through 2025 and 11.6 million homeowner households through 2035. This sluggish growth in homeowner households is accompanied by faster increases in the number of renter households, with 8.7 million additional renter households by 2025 and 13.5 million additional renter households by 2035.” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

# Demographics

## Scenario 2 (“Low Scenario”)

“The projected declines in the homeownership rate through 2020 reflects the replication of recent cohort trends from the starting point of cohorts’ already-low 2015 homeownership rates. The projected 2020 rates therefore assume a continuation of the foreclosure-related homeownership exits, tight credit conditions, weak incomes, and other factors that contributed to the homeownership rate’s recent declines.

Additionally, they assume the absence of any catch-up growth due to pent up demand among households unable to buy a home in recent years or to homeownership reentries among households that experienced a foreclosure. The low scenario therefore defines a trajectory that reflects the continuation of recent declines for several more years before the homeownership rate stabilizes.— Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

# Demographics

**“Scenario 3 (“High Scenario”)** – Homeownership rates return to pre-boom levels. The third scenario applies constant homeownership rates determined by the maximum of the 1995 and the 2015 rate for each age, race/ethnicity, and family type category. This scenario uses the 1995 homeownership rates to define the pre-boom levels that might reflect a longer-term equilibrium. It then adjusts the rates upward to the 2015 rates for older households and other groups for whom longer-term upward trends have kept the 2015 rates above their 1995 levels. The resulting homeownership rates therefore define a high scenario in which homeownership rates increase to levels slightly above than their 1995 levels, but well below their mid-2000s peaks. While such homeownership rate increases may be more plausible over longer-term periods than in the next few years, the high scenario applies these rates to all time periods, providing estimates of homeowner growth if the rates are realized within each time horizon.

In contrast, the high scenario projections describe homeownership outcomes under assumptions that project a reversal of recent declines and returns homeownership rates to levels slightly above the pre-boom period. The projected homeownership rates for the high scenario increase from 63.5 percent in 2015 to 64.9 percent in 2020, before leveling off at 65.0 percent in 2025 and 64.7 percent in 2035. This higher homeownership rate trajectory implies the addition of 10.6 million homeowner households and 2.9 million renter households by 2025, and 17.7 million homeowner households and 7.4 million renter households by 2035.” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

# Demographics

## “Scenario 3 (“High Scenario”)

The higher homeownership rates produced by this scenario reflect the combination of 1995 home ownership rates with an adjustment for longer-term upward trends in the homeownership attainment of certain groups, particularly older households. While there is no clear “normal” equilibrium for the homeownership rate, this scenario adopts the 1995 rates as the most recent year that precedes the housing boom and bust. Additionally, it assumes that any groups with higher levels of homeownership attainment in 2015 compared to 1995 will sustain the higher 2015 levels into the future.

This assumption implies an uptick in cohort trends that fully catches up to the level defined by the maximum of the 1995 or 2015 rate. This result may be particularly tenuous for middle-aged households, who experienced the most severe effects of foreclosures and may not reach the homeownership rates of prior cohorts. To the extent that the foreclosure crisis and Great Recession have had significant impacts for some cohorts, this scenario therefore assumes that such effects will be offset by broader changes in the economy, credit conditions, or housing markets over time.” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

# Demographics

## The Financial Situations of Older Adults

“Since housing is typically the single largest item in the household budget, housing affordability has important repercussions for overall well-being. For homeowners, housing can also be — if equity is sufficient — an important source of wealth, one that can be tapped to pay for home modifications needed to age in place. And when households reach the stage where they need additional services and care to continue to live independently, their ability to pay for such services will depend significantly on their housing situations and costs.

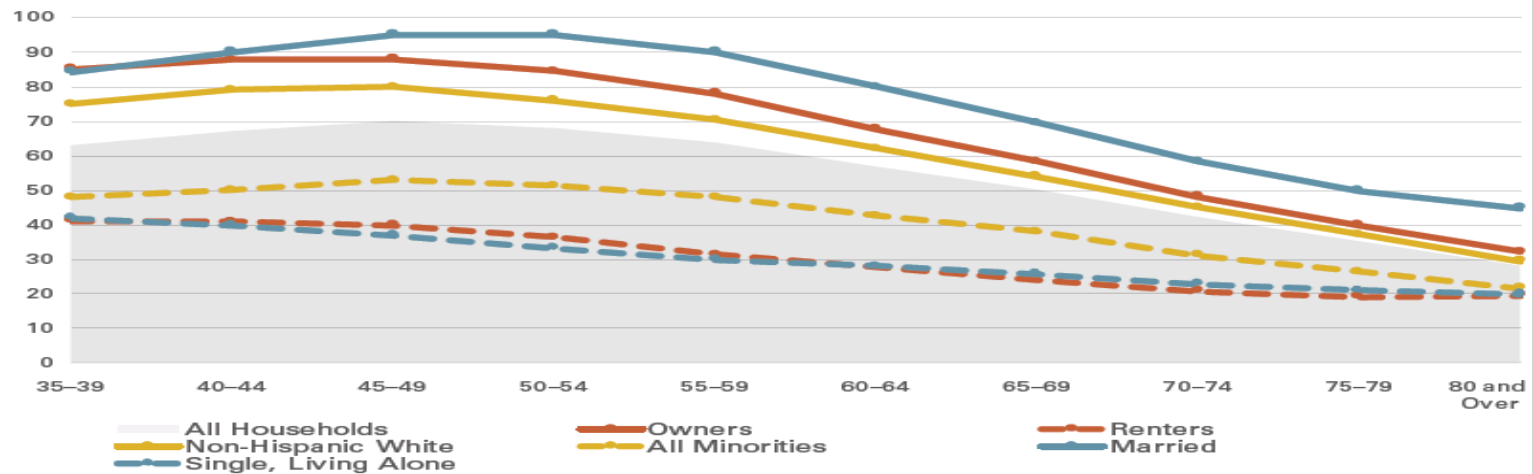
Not surprisingly, older adults’ financial resources vary widely. **While many are financially secure, able to cover the costs of housing, other necessities, and long-term care if needed, significant numbers of low-, moderate-, and middle-income households live in unaffordable housing and lack assets to cover the costs of home modifications or in-home supports. Going forward, if current income and wealth distributions hold, population and household growth among older ages will mean millions more older owners and renters in precarious financial situations. Furthermore, today’s pre-retirees may face heightened financial challenges as they cross into later life because of the blow many were dealt by the Great Recession (including unemployment or early retirement, loss of savings, and declines in home equity) and impending shortfalls in Medicaid and Social Security. Compared to previous generations, higher shares of these older adults are carrying debt into retirement, and smaller shares hold traditional pensions.**” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard



# Demographics

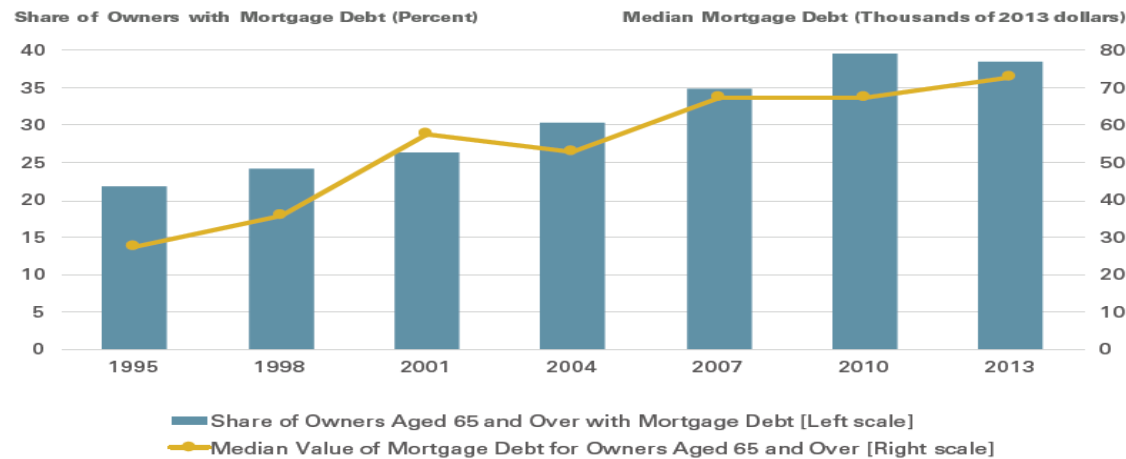
Figure 4.1: Median Income Declines with Age For Nearly Every Segment of the Older Population

Median Household Income by Age of Householder (Thousands of dollars)



Source: JCHS tabulations of US Census Bureau, 2014 American Community Survey 1-Year Estimates.

Figure 4.7: More Older Households are Carrying Higher Amounts of Mortgage Debt into Retirement



Notes: Mortgage debt is debt on a primary residence. The share with mortgage debt is among all older owners. Median value of mortgage debt is among owners with mortgage debt only and in constant 2013 dollars adjusted for inflation using the CPI-U-RS.

Source: JCHS tabulations of US Federal Reserve Board, 2013 Survey of Consumer Finances.

# Demographics

“In 2014, fully 78 percent of households headed by a person aged 65 and older owned their homes, while the remaining 22 percent were renters. Among owners, the share with mortgages declines with age. Nearly two-thirds (64 percent) of homeowners over age 65 possessed their homes without a mortgage, compared with 25 percent of homeowners under 65. Monthly housing costs vary widely by tenure and mortgage status: in 2014, median monthly costs for homes owned outright by a person aged 65 or older were \$450; for renters, \$770; and for owners with mortgages, \$1,262.

Largely reflecting these significant differences in costs, the shares of older households that are housing cost burdened, paying more than 30 percent of gross income toward housing costs, are closely linked to tenure type and presence of a mortgage. Owners aged 65 and over who own their homes outright are least likely to be housing cost burdened (17 percent), while more than half (55 percent) of renters of the same age bear housing cost burdens. Meanwhile, 45 percent of older owners with mortgages face cost burdens.

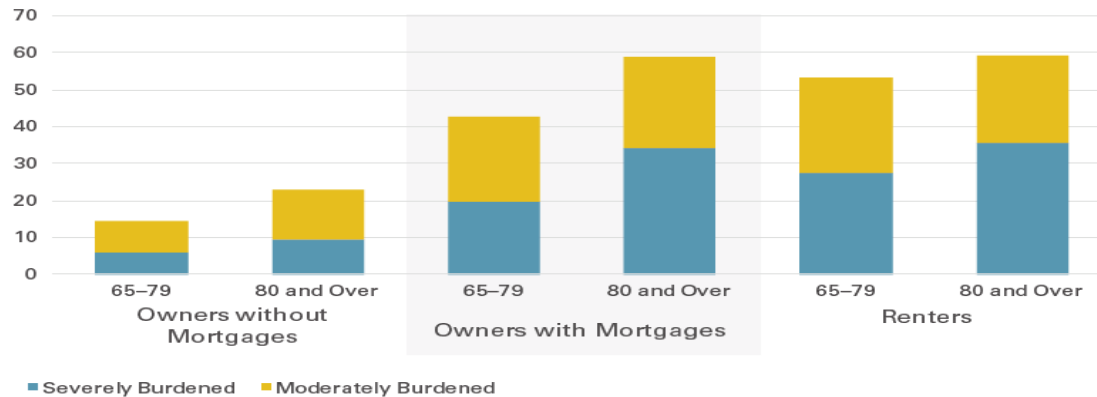
## Summary

In two decades, millions of older adults will likely lack the resources to secure suitable housing: in our quite possibly conservative estimate, nearly 17.1 million households will face housing cost burdens in 2035, an increase of more than 7 million from today. Over 8.5 million of these households will face severe cost burdens, spending more than 50 percent of gross income on housing costs; such households will have little left over for necessities, including the supports and care that could enable them to remain in their homes. While even moderate- and middle-income owners are likely to face cost burdens, renters will be especially vulnerable to cost burdens, and by 2035, over 7.6 million renters may be eligible for housing subsidies. Fulfilling their needs would require substantial increases in federal funding from current levels.” – Jonathan Spader, Senior Research Associate, Joint Center for Housing Studies at Harvard

# Demographics

Figure 4.2: Cost Burdens are Lowest among Owners without Mortgages

Share of Households by Age Group (Percent)

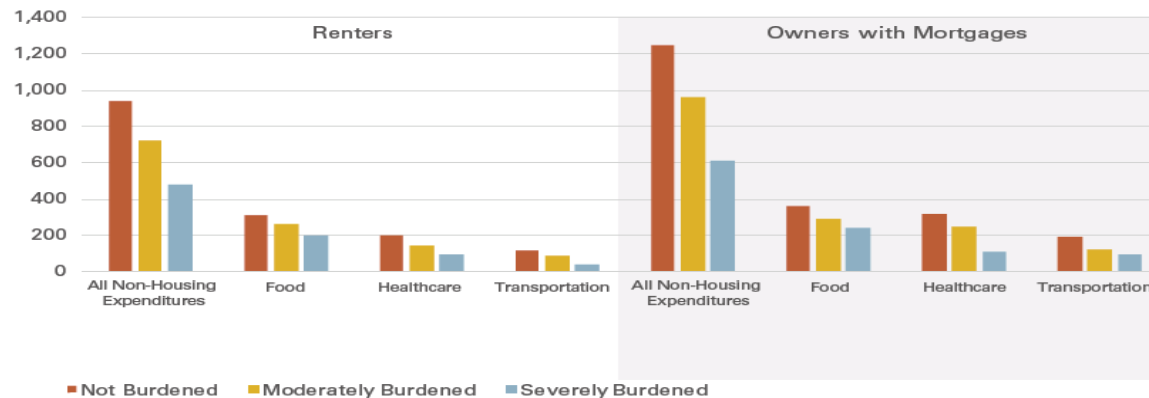


Notes: Moderately / severely cost burdened is defined as paying 30-50% / over 50% of income on housing.

Source: JCHS tabulations of US Census Bureau, 2014 American Community Survey 1-Year Estimates.

Figure 4.3: Housing Cost Burdens Force Low-Income Older Households to Cut Spending on other Basic Necessities

Average Monthly Expenditures for Low-Income Households Aged 65 and Over (Dollars)



Notes: Moderately / severely cost burdened is defined as paying 30-50% / over 50% of income on housing. Low-income households are in the bottom quartile of all households ranked by total spending.

Source: JCHS tabulations of US Bureau of Labor Statistics, 2014 Consumer Expenditure Survey.

# Demographics

## Housing in the Evolving U.S. Suburbs

“Suburban housing dynamics increasingly reflect some of the most profound issues shaping our society, including aging, immigration, economic mobility, and evolving consumer preferences. As a result, suburbs will generate substantial residential development and redevelopment opportunities and challenges in the years ahead.” – Stockton Williams, Executive Director, Terwilliger Center

U.S. suburban housing markets are well positioned to remain preferred places to live and work over the coming decades, even as many urban cores and downtown neighborhoods continue to attract new residents and businesses... .

Suburbs are not monolithic, according to the report, titled [\*Housing in the Evolving American Suburb\*](#), which is based on a new analytic framework for classifying suburbs developed by RCLCO. The report classifies and compares suburbs in the 50 largest metropolitan areas in the United States – shown in a searchable online map – and assesses the key issues that will shape suburban residential demand and development in the years ahead. The work shows significant differences between cities and suburbs, as well as a wide variety of types of suburbs, in terms of their housing characteristics and conditions. These differences are likely to substantially influence future residential demand and development in every major market in the United States.” – Trisha Riggs, Urban Land Institute

<http://uli.org/wp-content/uploads/ULI-Documents/Housing-in-the-Evolving-American-Suburb.pdf>

# Demographics

## Housing in the Evolving U.S. Suburbs

- “The United States remains a largely suburban nation. In America’s 50 largest (and most urbanized) metropolitan areas, suburbs account for 79 percent of the population, 78 percent of the households, 32 percent of the land area, and — of particular noteworthiness — 75 percent of the young adults aged 25 to 35.
- Suburban growth has driven recent metropolitan growth. From 2000 to 2015, suburban areas accounted for 91 percent of U.S. population growth and 84 percent of household growth in the top 50 metro areas.
- A large majority of Americans work in suburbs, although job growth has been more balanced recently.
- As of 2014, 67.5 percent of the employment in the 50 largest U.S. metro areas was in the suburbs. Between 2005 and 2010, employment in suburban areas remained stagnant, but it increased by 8.2 percent in urban areas. But between 2010 and 2014, jobs increased by 9 percent in suburbs versus 6 percent in urban areas.
- U.S. suburbs as a whole are racially and ethnically diverse. Seventy-six percent of the minority populations in the top 50 U.S. metro areas lives in the suburbs.
- The variety of types of suburbs creates a wide range of development opportunities. The report identifies development trends, issues, and innovative product examples in five distinct types of suburbs within the 50 largest metro areas: “Established High-End,” “Stable Middle-Income,” “Economically Challenged,” “Greenfield Lifestyle,” and “Greenfield Value.” – Trisha Riggs, Urban Land Institute

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