

# The Virginia Tech – U.S. Forest Service

## February 2017

### Housing Commentary: Section II



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Virginia Polytechnic Institute and State University

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# **Federal Reserve System and Private Indicators**

# U.S. Economic Indicators

## Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents under their individual assessments of projected appropriate monetary policy, March 2017

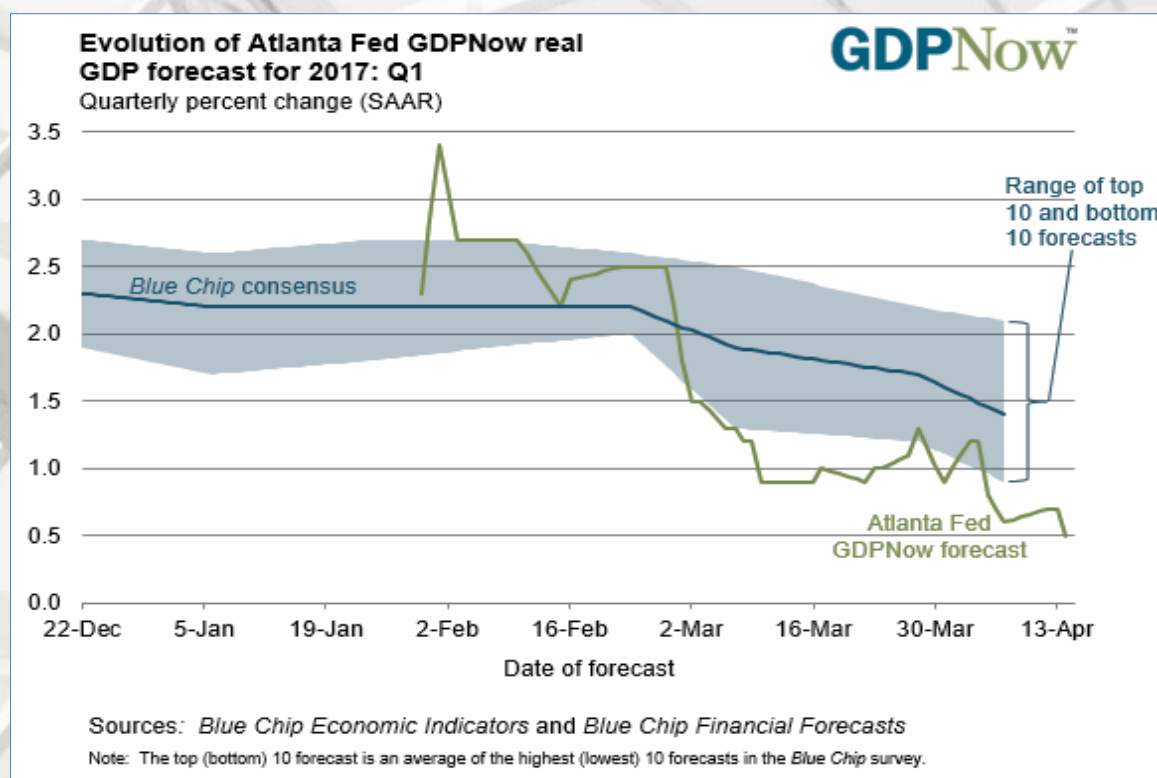
Advance release of table 1 of the Summary of Economic Projections to be released with the FOMC minutes

Percent

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



# U.S. Economic Indicators

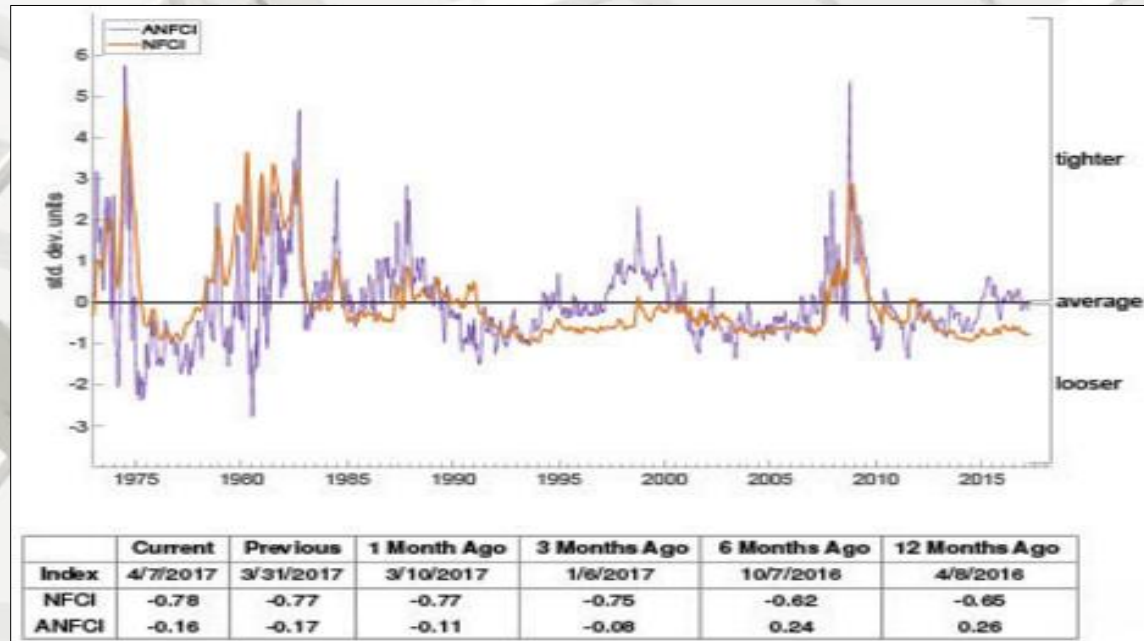


## Atlanta Fed GDPNow™

**Latest forecast: 0.5 percent — April 14, 2017**

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the first quarter of 2017 is 0.5 percent on April 14, down from 0.6 percent on April 7. The forecast for first-quarter real consumer spending growth fell from 0.6 percent to 0.3 percent after this morning's retail sales report from the U.S. Census Bureau and the Consumer Price Index release from the U.S. Bureau of Labor Statistics.” – Pat Higgins, Economist, The Federal Reserve Bank of Atlanta

# U.S. Economic Indicators



## The Federal Reserve Bank of Chicago

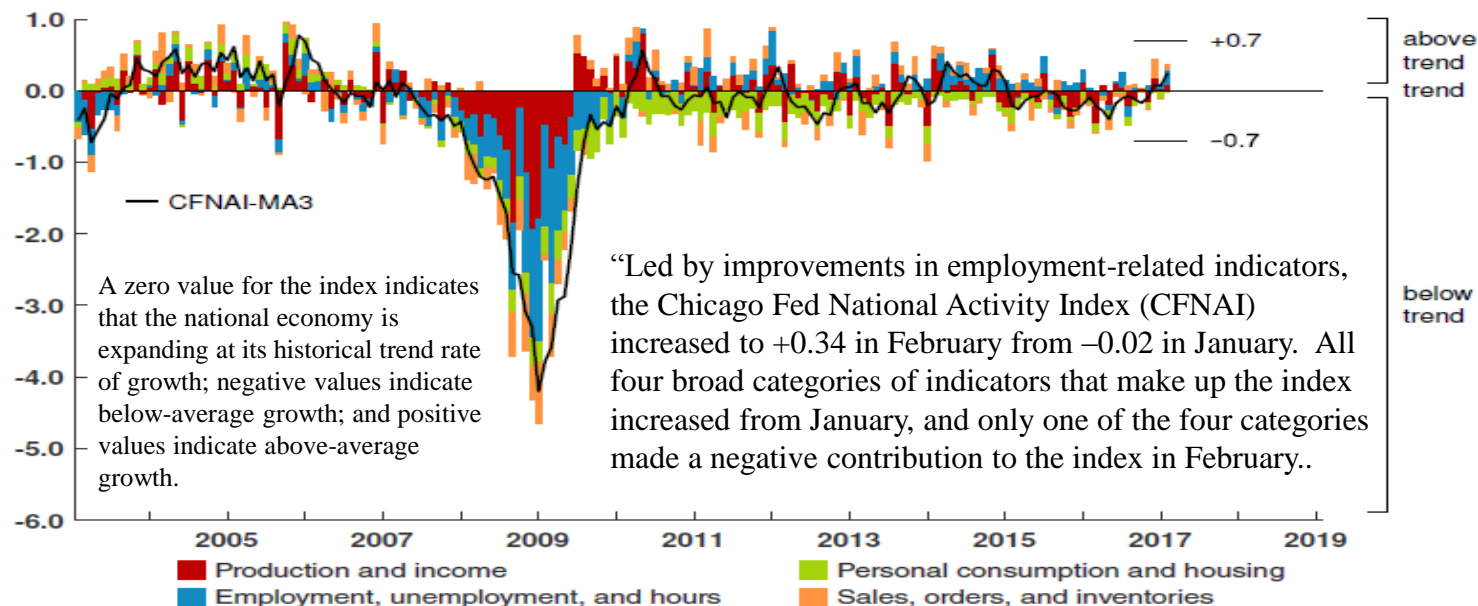
### Financial Conditions Little Changed in Week Ending Apr 7

“The NFCI ticked down to  $-0.78$  in the week ending April 7. The risk subindex ticked down from the previous week, while the leverage subindex edged up and the credit and nonfinancial leverage subindexes were unchanged. The ANFCI ticked up from the previous week, to  $-0.16$ .

The current level of the ANFCI indicates that financial conditions in the latest week were roughly consistent with 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

Chicago Fed National Activity Index, by Categories, and CFNAI-MA3



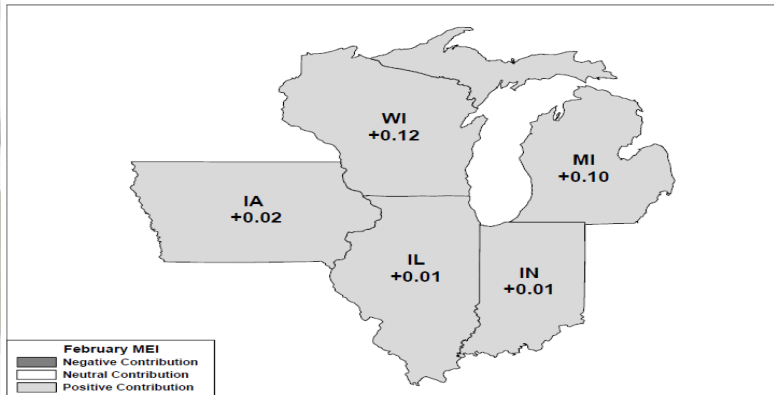
## Economic Growth Increased in February

“The index’s three-month moving average, CFNAI-MA3, improved to +0.25 in February from +0.07 in January, reaching its highest level since December 2014. February’s CFNAI-MA3 suggests that growth in national economic activity was somewhat above its historical trend. The economic growth reflected in this level of the CFNAI-MA3 suggests limited inflationary pressure from economic activity over the coming year.

The CFNAI Diffusion Index, which is also a three-month moving average, moved up to +0.17 in February from +0.02 in January. Fifty-five of the 85 individual indicators made positive contributions to the CFNAI in February, while 30 made negative contributions. Sixty-three indicators improved from January to February, while 22 indicators deteriorated. Of the indicators that improved, 15 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



Note: The map's shading summarizes the most recent contribution to growth in Midwest economic activity from each of the five states in the Seventh Federal Reserve District (Illinois, Indiana, Iowa, Michigan, and Wisconsin).

## Midwest Economy Index

“The Midwest Economy Index (MEI) increased to +0.27 in February from +0.01 in January. The relative MEI increased to +0.08 in February from -0.09 in January. February’s value for the relative MEI indicates that Midwest economic growth was slightly higher than what would typically be suggested by the growth rate of the national economy.” – Laura LaBarbera, Media Relations, Chicago Fed

## Midwest Economic Growth Picked Up in February

“The manufacturing sector’s contribution to the MEI increased to +0.11 in February from +0.02 in January. The pace of manufacturing activity increased in Illinois, Indiana, Iowa, and Wisconsin, but decreased in Michigan. Manufacturing’s contribution to the relative MEI edged down to +0.06 in February from +0.09 in January.

The construction and mining sector’s contribution to the MEI increased to +0.06 in February from -0.02 in January. The pace of construction and mining activity was higher in Illinois, Indiana, Michigan, and Wisconsin, but unchanged in Iowa. Construction and mining made a contribution of +0.06 to the relative MEI in February, up from -0.03 in January.

The service sector made a contribution of +0.04 to the MEI in February, up from a neutral contribution in January. The pace of service sector activity was up in Illinois, Iowa, and Wisconsin, but down in Indiana and Michigan. The service sector’s contribution to the relative MEI increased to -0.10 in February from -0.15 in January.

The contribution from consumer spending indicators to the MEI moved up to +0.05 in February from +0.01 in January. Consumer spending indicators were, on balance, up in Illinois and Wisconsin, but steady in Indiana, Iowa, and Michigan. Consumer spending’s contribution to the relative MEI moved up to +0.05 in February from +0.01 in January.” – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Source: <https://www.chicagofed.org/publications/mei/index>; 3/31/17



# U.S. Economic Indicators

## Texas Economy Expands Broadly

“Economic growth continues to accelerate in Texas across sectors and metropolitan areas. Respondents to the Federal Reserve Bank of Dallas’ [Texas Business Outlook Surveys \(TBOS\)](#) indicate strengthening activity in 2017. Employment surged 4.9 percent in January.

The Dallas Fed’s 2017 Texas job growth forecast stands at 2.7 percent, higher than the state’s long-run 2.1 percent average and the 1.7 percent expansion in 2016. Downside risks for the state economy include an appreciating dollar, which makes exports more expensive, and potential new U.S. trade policies disrupting economic ties with Mexico.

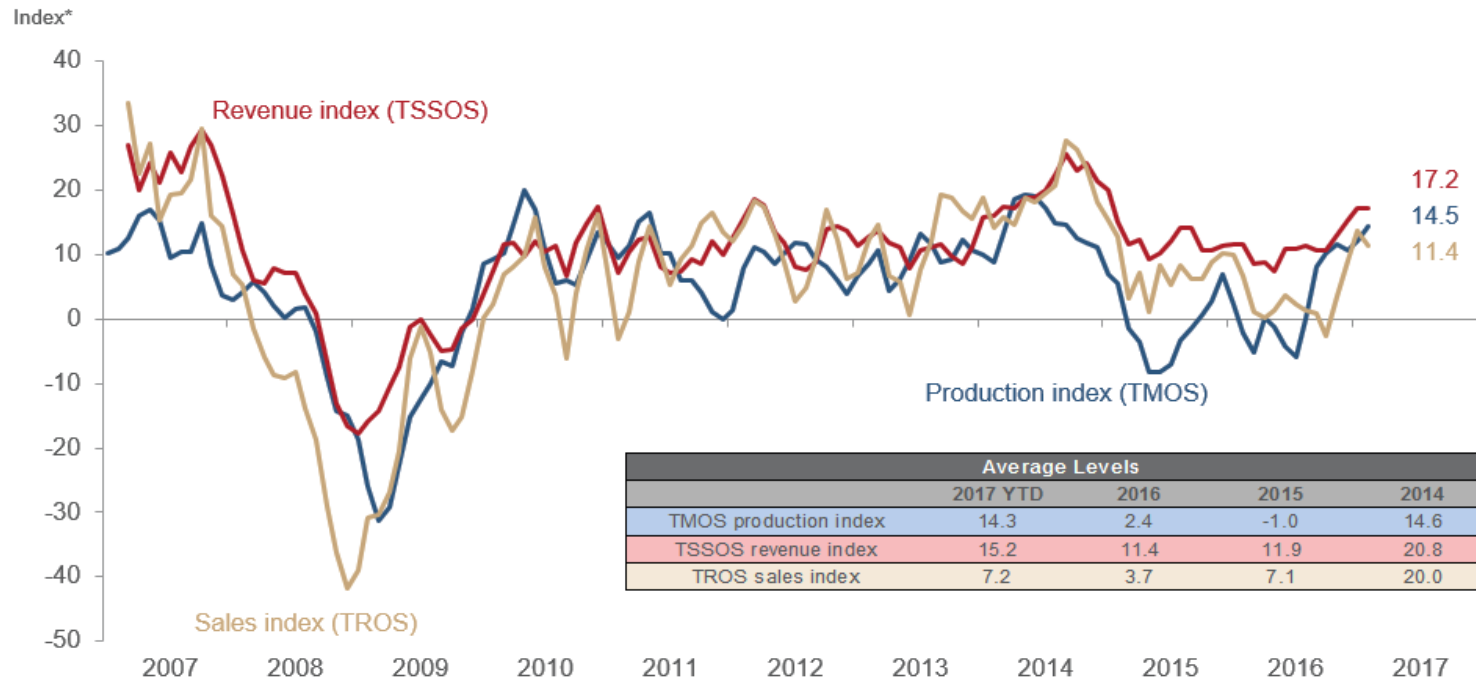
## Economic Activity Exceeds Recent Levels

TBOS headline indexes indicate robust expansion in February. The three-month moving averages of the three indexes are well above the average levels of the past two years (*Chart 1*). The [Texas Service Sector Outlook Survey \(TSSOS\)](#) revenue index remained elevated in February, and the [Texas Retail Outlook Survey \(TROS\)](#) sales index has remained positive since November 2016, suggesting upward momentum. The [Texas Manufacturing Outlook Survey \(TMOS\)](#) production index pushed higher in February to near 2014 levels, when manufacturing boomed with high oil prices and a thriving state economy.

The Texas manufacturing sector’s return to growth, which began late last year, mirrors trends seen across the nation. Federal Reserve and Institute for Supply Management manufacturing surveys’ new orders indexes indicate a recent rebound following uneven performances in 2015 and 2016 (*Chart 2*).” – Stephanie Gullo and Alex Abraham, Research Assistants, and Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

# U.S. Economic Indicators

**Chart 1**  
**Texas Business Outlook Surveys' Headline Indexes Up in 2017**



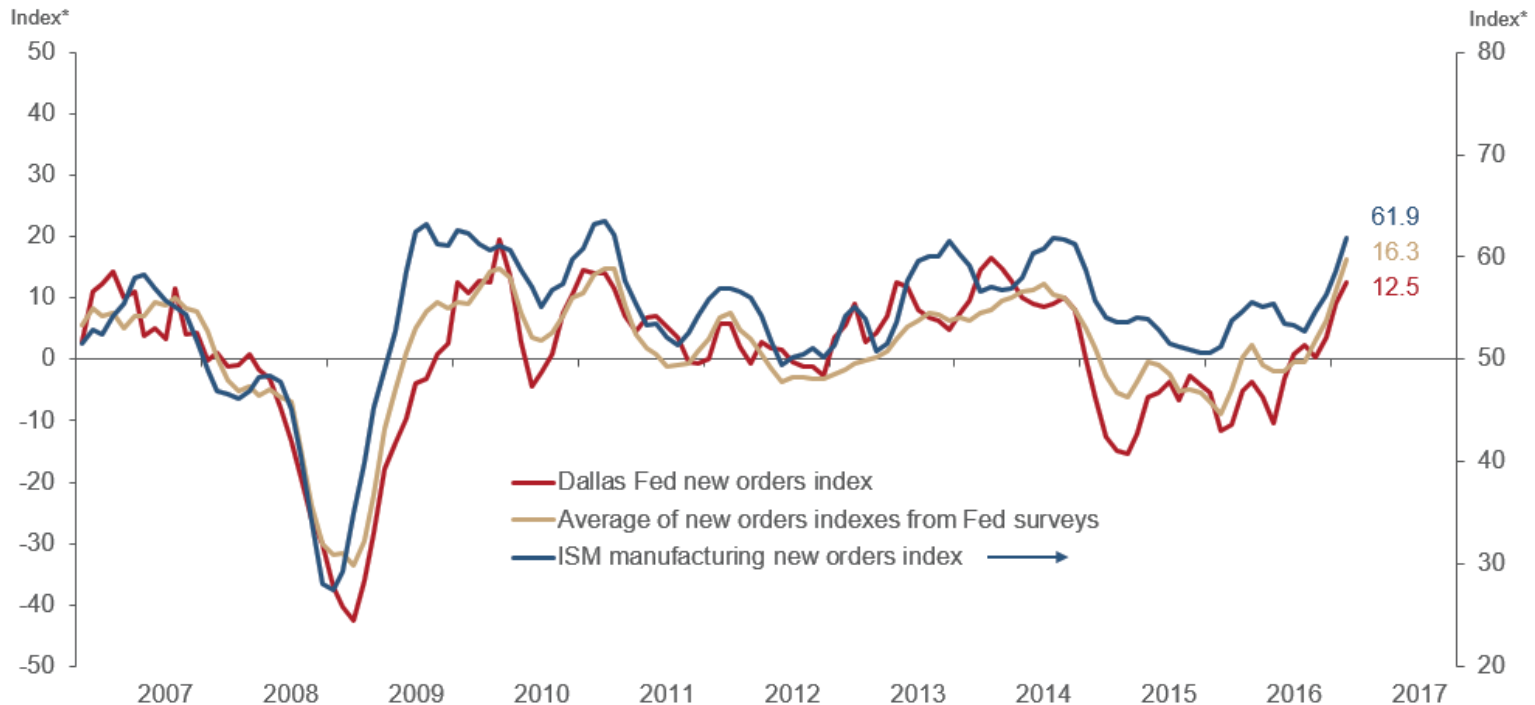
\*Seasonally adjusted, three-month moving average.

NOTE: The last data point is February 2017.

SOURCES: Federal Reserve Bank of Dallas' Texas Manufacturing Outlook Survey (TMOS), Texas Service Sector Outlook Survey (TSSOS) and Texas Retail Outlook Survey (TROS).

# U.S. Economic Indicators

**Chart 2**  
**Other Surveys Show Strength in Manufacturing Across Nation**

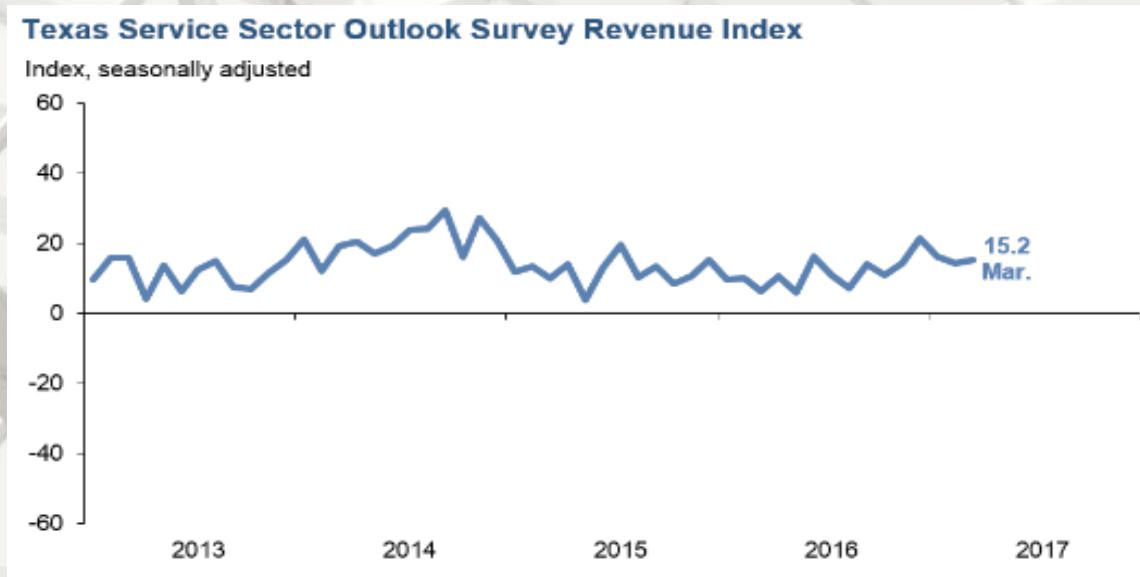


\*Seasonally adjusted, three-month moving average.

NOTES: Average series include all Federal Reserve Bank surveys with new orders indexes. Data are through February 2017.

SOURCES: Federal Reserve Bank of Dallas; Federal Reserve Bank of New York; Federal Reserve Bank of Kansas City; Federal Reserve Bank of Philadelphia; Federal Reserve Bank of Richmond; Institute for Supply Management.

# U.S. Economic Indicators



## Texas Service Sector Activity Remains Solid

“Texas service sector activity grew in March, according to business executives responding to the Texas Service Sector Outlook Survey. The [revenue](#) index, a key measure of state service sector conditions, rose slightly from 14.1 in February to 15.2 in March.

Labor market indicators reflected faster employment growth and longer workweeks this month. The [employment](#) index edged up 2 points to 8.1. The [hours worked](#) index at 6.5 was similar to last month.

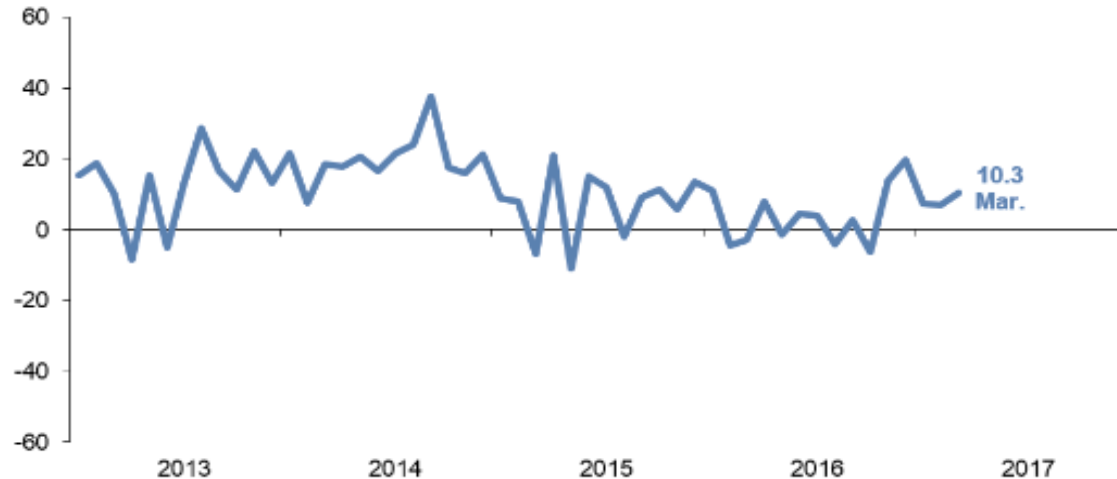
Perceptions of broader economic conditions reflected slightly less optimism in March. The [general business activity](#) index dipped from 15.6 to 13.2. The [company outlook](#) index fell slightly to 10.3, with 19 percent of respondents reporting that their outlook improved from last month and 9 percent 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

### Retail Sales Continue Pick Up

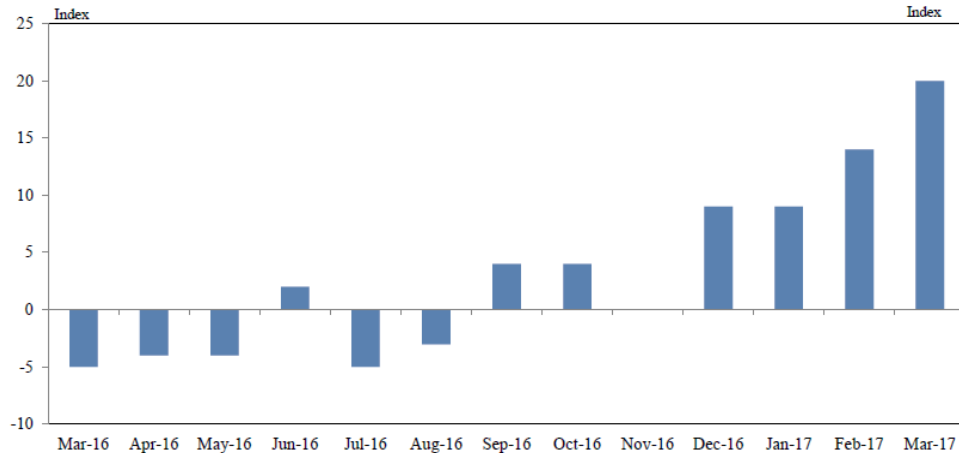
“Retail sales increased at a faster pace in March, according to business executives responding to the Texas Retail Outlook Survey. The [sales](#) index rose from 6.9 in February to 10.3 in March. [Inventories](#) increased at a slower pace this month.

Labor market indicators were mixed this month. The [employment](#) index rebounded to positive territory, rising 6 points to 2.7, indicating retail employment increased on net. The [hours worked](#) index dipped from a reading near zero to -1.5, suggesting workweeks shortened.

Retailers’ perceptions of broader economic conditions reflected less optimism in March. The [general business activity](#) index moved down from 8.4 to 3.0. The [company outlook](#) index dropped into negative territory to -1.3, with 11 percent of respondents reporting that their outlook improved from last month and 12 percent noting that it worsened.” – Amy Jordan, Assistant Economist, Dallas Fed

# U.S. Economic Indicators

Composite Index vs. a Month Ago



## Tenth District Manufacturing Summary

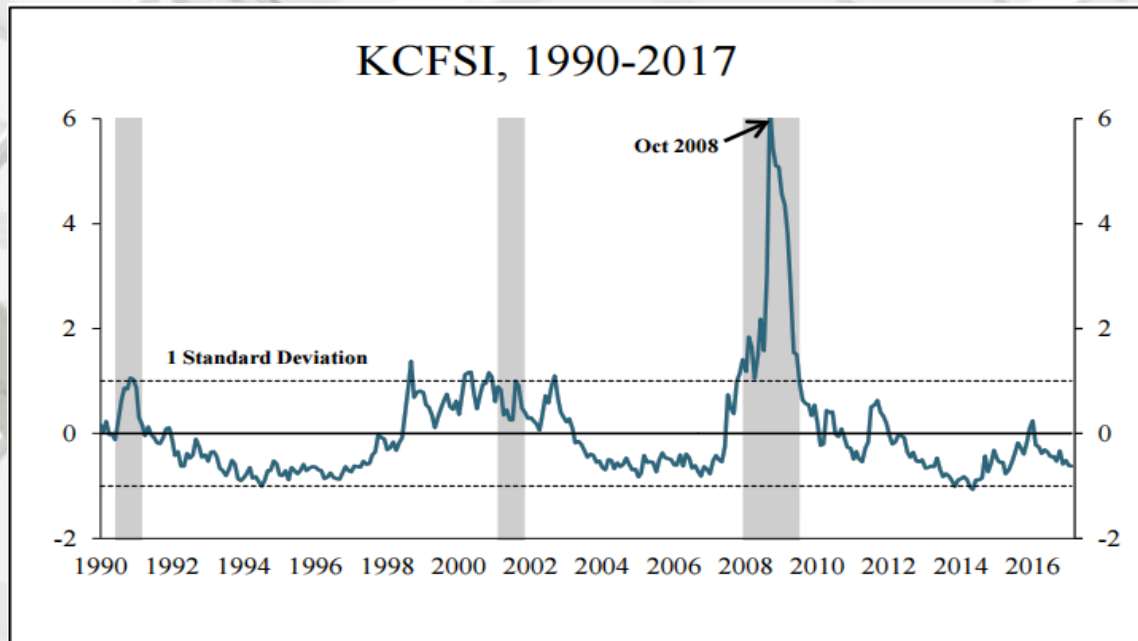
“Tenth District manufacturing activity strengthened further in March, and many indexes of expectations for future activity were at or near record highs. Most price indexes increased moderately.” – Pam Campbell, Federal Reserve Bank of Kansas City

## The Federal Reserve Bank of Kansas City Tenth District Manufacturing Activity Strengthened Further

“The month-over-month composite index was 20 in March, its highest reading since March 2011, up from 14 in February and 9 in March. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Activity in both durable and nondurable goods plants increased, particularly for metals, computer, electronic, and aircraft products. Most month-over-month indexes rose further in March. The production and shipments indexes increased considerably, while the new orders and order backlog indexes rose more moderately but remained high. The employment index moderated slightly from 17 to 13, and the new orders for exports index also eased. Both inventory indexes increased for the second straight month.” – Pam Campbell, The Federal Reserve Bank of Kansas City

“Our composite index accelerated again, and has only been higher one time in the last 15 years. The future employment index was the strongest in the 23-year history of the survey.” – Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

# U.S. Economic Indicators



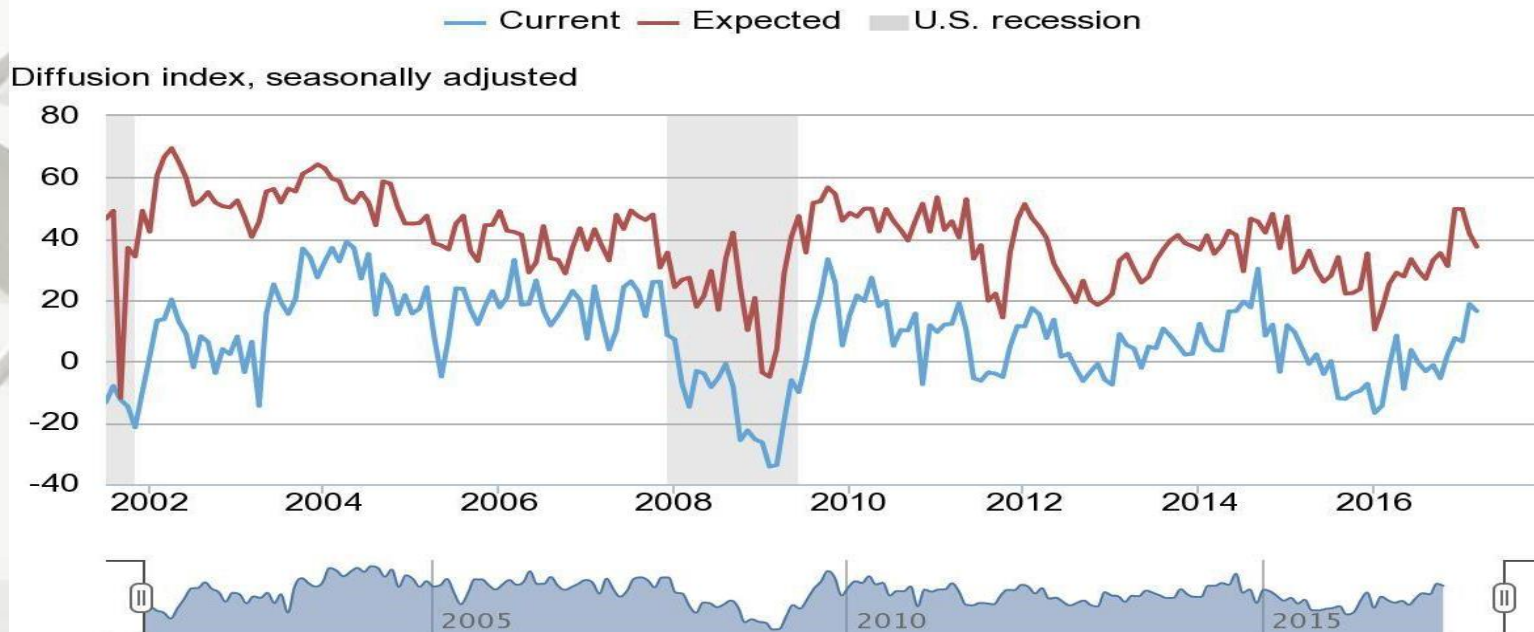
## **The Federal Reserve Bank of Kansas City The KCFSI suggests financial stress remains low**

“The Kansas City Financial Stress Index (KCFSI) was little changed in March. The KCFSI decreased from -0.61 in February to -0.62 in March.

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 Expansion Continues

“Business activity continued to grow at a solid clip in New York State, according to firms responding to the March 2017 *Empire State Manufacturing Survey*. The headline general business conditions index edged down two points to 16.4. The new orders index climbed to 21.3, its highest level in several years, pointing to a substantial increase in orders. The shipments index moved down to 11.3, indicating that shipments increased at a slower pace. The unfilled orders index rose to 14.2, its highest level in more than a decade, and delivery times lengthened. Labor market conditions pointed to an increase in both employment and hours worked. Input prices and selling prices increased at a slower pace this month. Indexes assessing the six-month outlook, although generally somewhat lower, continued to convey a high degree of optimism about future conditions.” – The Federal Reserve Bank of New York



# U.S. Economic Indicators

## Empire State Manufacturing Survey

“Manufacturing firms in New York State reported that business activity continued to expand at a steady pace. After reaching its highest level in more than two years last month, the general business conditions index edged down two points to 16.4 — its fifth consecutive positive reading. According to 34 percent of respondents, conditions had improved over the month, while 18 percent reported that conditions had worsened. The new orders index climbed eight points to 21.3, its highest level since 2009, pointing to a sizable increase in orders. The shipments index fell seven points to 11.3, indicating that shipments increased at a slower pace. The unfilled orders index rose six points to 14.2, its highest level since 2004. The delivery time index moved up to 10.6, a sign of longer delivery times, and the inventories index dipped below zero, suggesting that inventory levels were slightly lower.

## Firms Remain Optimistic

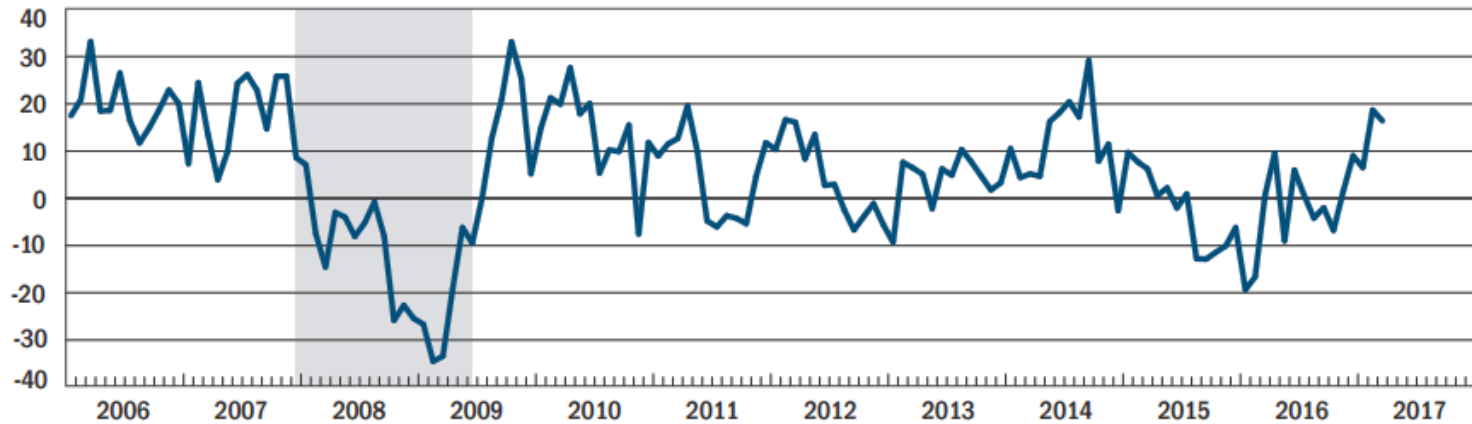
“Although future indexes were generally lower, indexes assessing the six-month outlook suggested that firms remained highly optimistic about future conditions. The index for future business conditions fell four points to 37.4. Employment and hours worked are expected to increase in the months ahead. The capital expenditures index edged up to 23.9, while the technology spending index fell eight points to 8.0.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

## General Business Conditions

Seasonally Adjusted

Diffusion index



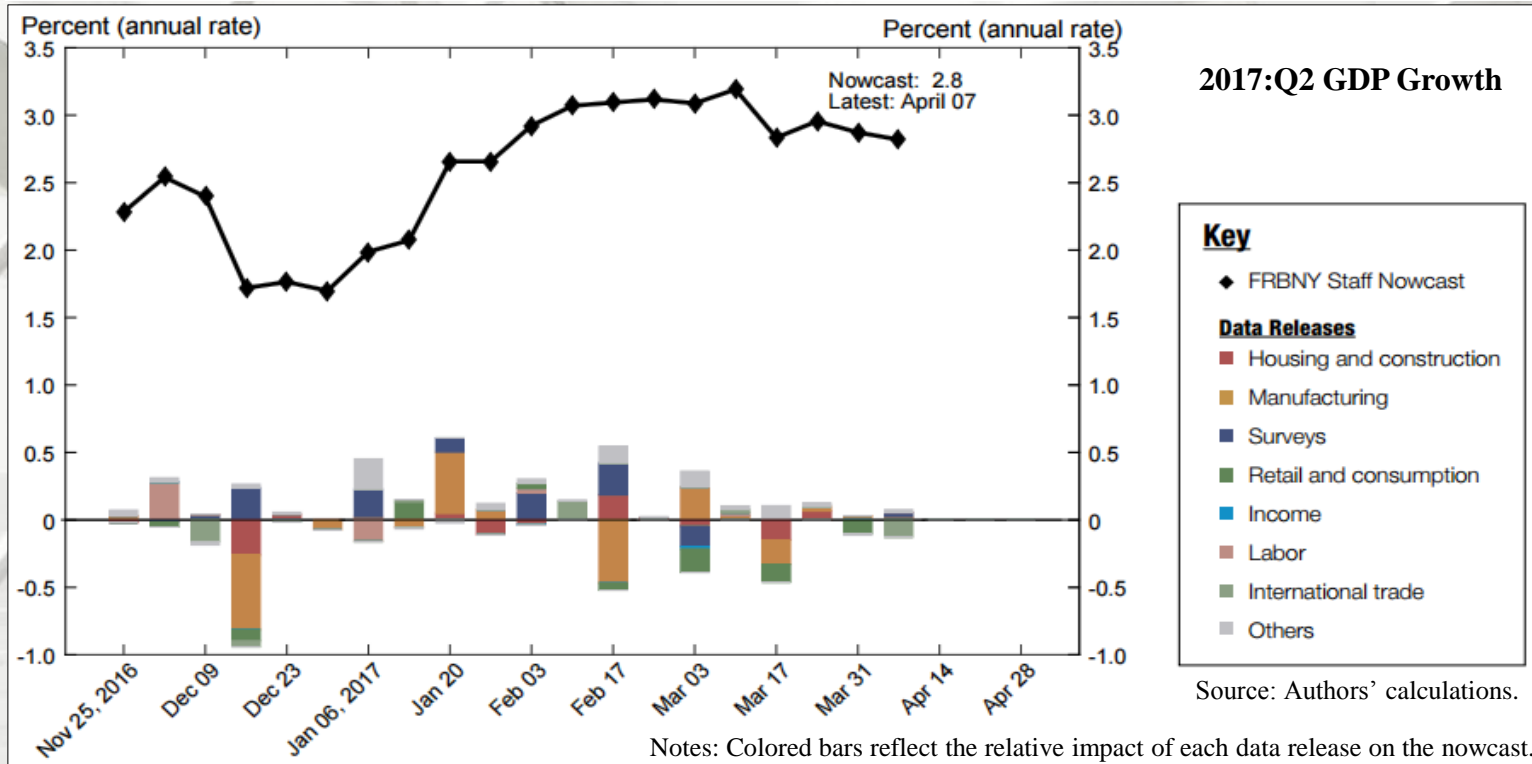
Note: The shaded area indicates a period designated a recession by the National Bureau of Economic Research.

## Employment Indexes Climb Further

“After turning positive last month, employment indexes continued to march upward, pointing to continued improvement in labor market conditions. The index for number of employees rose to 8.8, and the average workweek index rose to 15.0. Price increases slowed. The prices paid index fell seven points to 31.0, and the prices received index moved down eleven points to 8.8.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

## The Federal Reserve Bank of New York



- “The FRBNY Staff Nowcast stands at 2.8% for 2017:Q1 and 2.6% for 2017:Q2.
- News from this week’s data releases brought the nowcast for Q1 down 0.1 percentage point while the nowcast for Q2 was virtually unchanged.
- Negative contributions from both imports and exports as well as from today’s nonfarm payrolls offset the positive contribution from the ISM manufacturing employment index.”

# U.S. Economic Indicators

**Chart 1. Current and Future General Activity Indexes**  
January 2007 to March 2017



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

“Results from the March *Manufacturing Business Outlook Survey* suggest that regional manufacturing activity continued to expand. The diffusion index for general activity fell from its high reading in February, but the survey’s other broad indicators for new orders, shipments, and employment all improved or were steady this month. Price pressures also picked up, according to reporting firms. The survey’s future indicators continued to improve and reflect a broadening base of optimism about future growth in manufacturing.” – Philadelphia Fed

## March 2017 Manufacturing Business Outlook Survey Current Indicators Suggest Expansion Continues

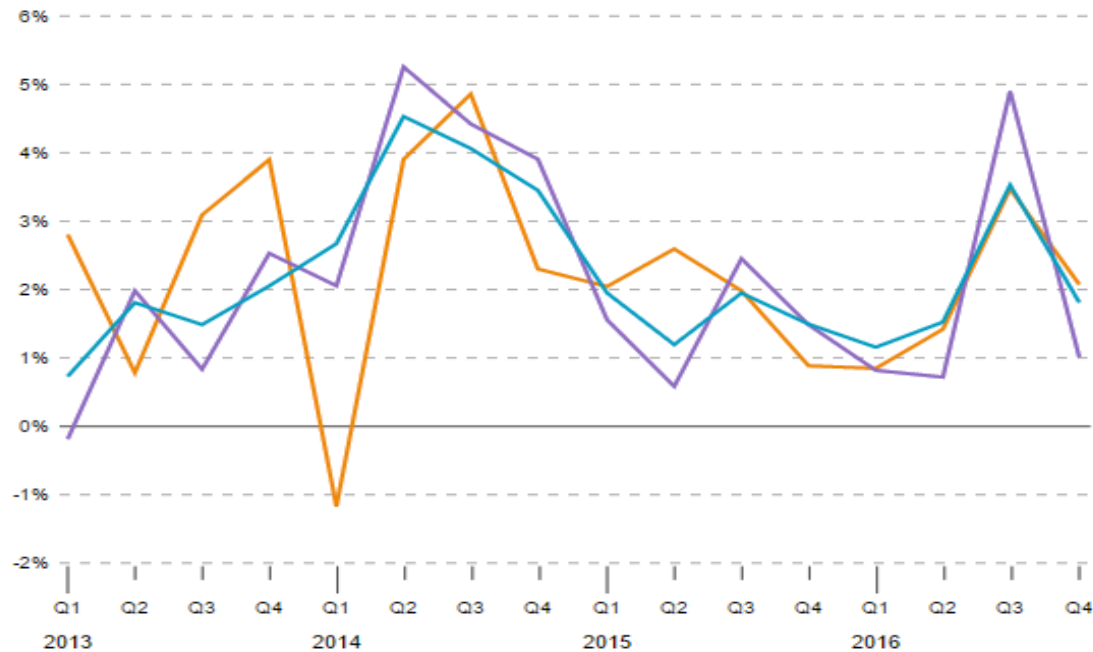
“The index for current manufacturing activity in the region decreased from a reading of 43.3 in February to 32.8 this month. The index has been positive for eight consecutive months and remains at a relatively high reading (see Chart 1). Forty-four percent of the firms indicated increases in activity in March, while 11 percent reported decreases. The current new orders and shipments indexes increased, rising 1 point and 4 points, respectively. Both the delivery times and unfilled orders indexes were positive for the fifth consecutive month, suggesting longer delivery times and an increase in unfilled orders.” – Mike Trebing, Senior Economic Analyst, Federal Reserve Bank of Philadelphia



# Philadelphia Fed: GDPplus

GDPplus: An Alternative Measure of Real U.S. Output Growth  
Last Updated: March 30, 2017

■ GDPplus ⓘ ■ Real GDP ⓘ ■ Real GDI ⓘ  
from 2013 ▼ Q1 ▼ to 2016 ▼ Q4 ▼ [Reset Time](#)



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.

# U.S. Economic Indicators

## The Federal Reserve Bank of Richmond

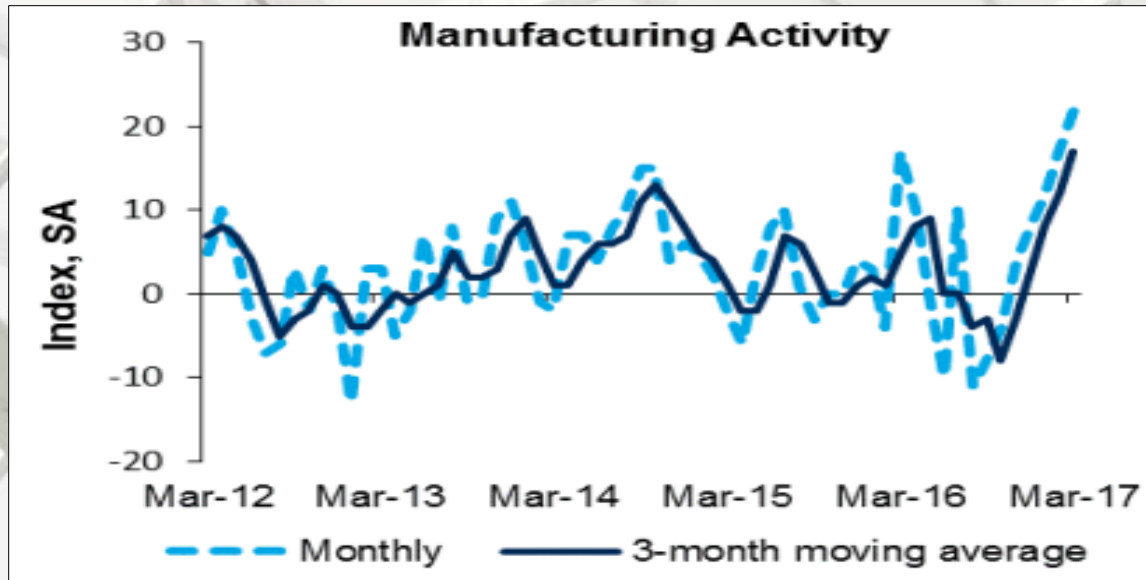
### Manufacturing Firms Upbeat in March with Shipments, New Orders, and Employment Indexes Rising

“Manufacturers in the Fifth District were generally upbeat in March, according to the latest survey by the Federal Reserve Bank of Richmond. The index for shipments and new orders both rose and employment gains were more common. This improvement led to a composite index for manufacturing that rose from 17 in February to 22 in March — the strongest reading for that index since April 2010. In addition to improvement in the employment index, more firms reported longer workweeks and wage increases appeared to be more widespread.

Looking six months ahead, manufacturing executives were generally optimistic, although for some indicators, they were less optimistic than in February. For example, the expected shipments index fell from 53 to 44 and the expected new order index fell from 53 to 48. On the other hand, some indexes rose, such as the indexes for expected employment, average workweek, and wages.

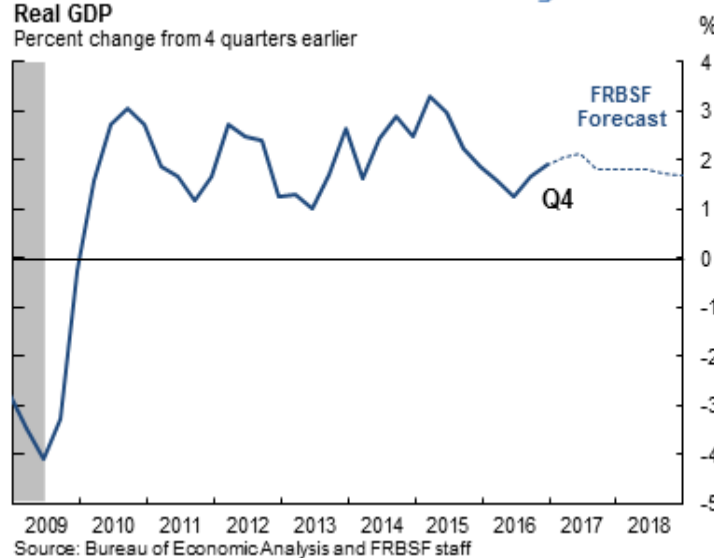
Survey respondents reported that growth in both prices paid and prices received moderated slightly, as did expectations for price growth six months ahead.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

# U.S. Economic Indicators

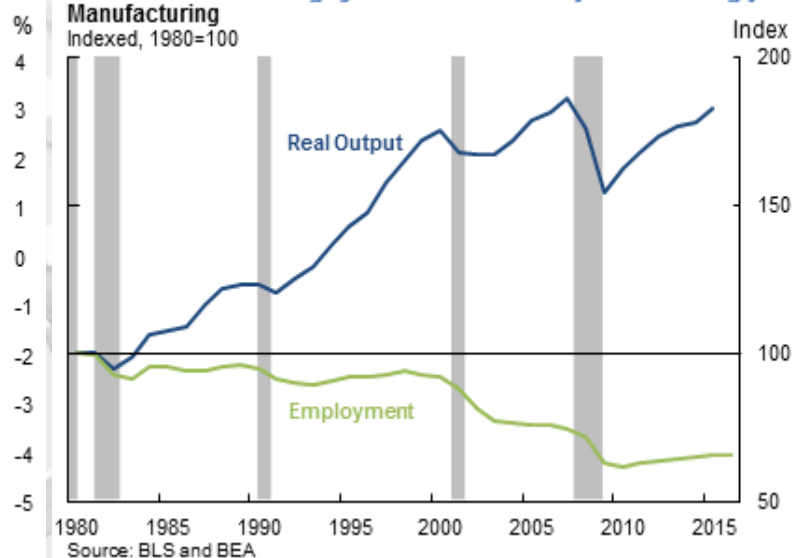


# U.S. Economic Indicators

## Continued moderate economic growth



## Manufacturing jobs affected by technology



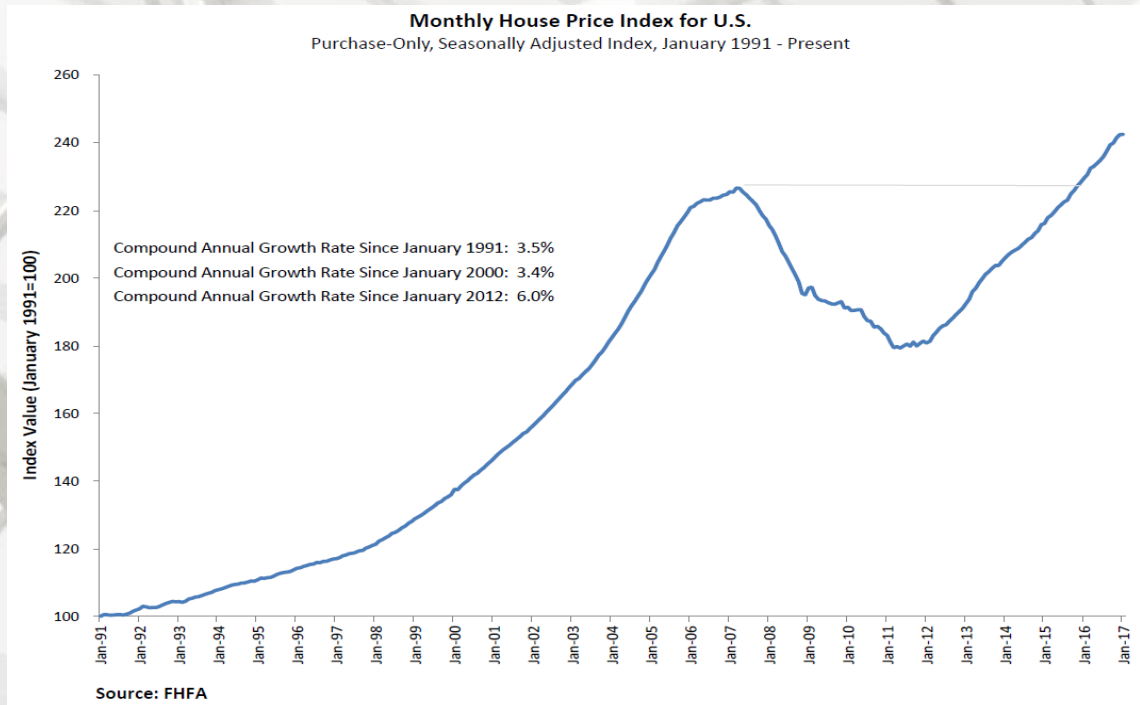
## The Federal Reserve Bank of San Francisco

“Real GDP grew at an annual pace of 1.9% in the fourth quarter of 2016, consistent with an ongoing moderate expansion. Going forward, we expect GDP growth to continue at a similar rate, between 1½% and 2% over the next couple of years.

The labor market remains near its sustainable, full employment level. January’s unemployment rate of 4.8% is close to 5%, our estimate of the natural rate of unemployment. If economic growth continues at its projected pace and monetary policy continues to normalize over the next 2 to 3 years, we expect unemployment to move gradually toward 5% over this period.” – Fernanda Nechio, Research Advisor, The Federal Reserve Bank of San Francisco



# U.S. Economic Indicators



## FHFA House Price Index

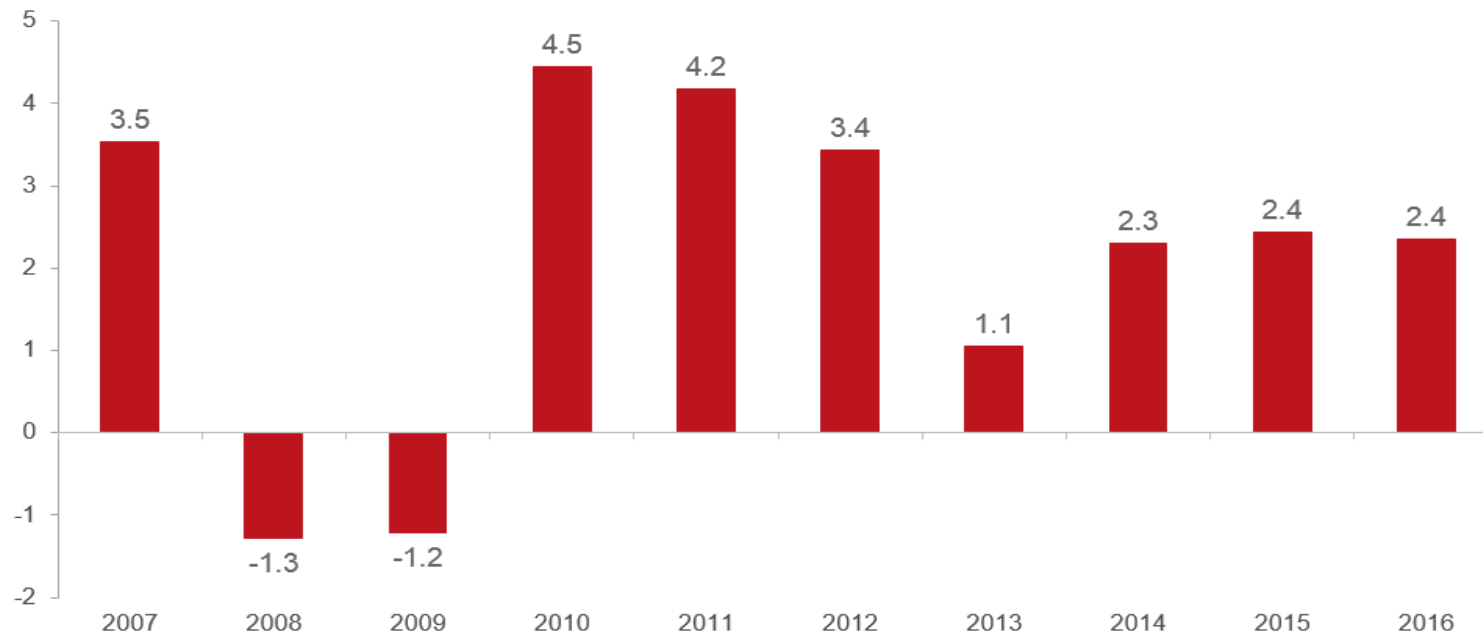
### U.S. House Prices Rise 1.5 Percent in Fourth Quarter

“U.S. house prices remained flat in January according to the Federal Housing Finance Agency (FHFA) seasonally adjusted monthly House Price Index (HPI). The HPI has reflected positive monthly increases since early 2012, except for November 2013 and January 2017, when house prices were flat on a month-over-month basis. The previously reported 0.4 percent increase in December remains unrevised. The FHFA monthly HPI is calculated using home sales price information from mortgages sold to, or guaranteed by, Fannie Mae and Freddie Mac. From January 2016 to January 2017, house prices were up **5.7 percent.**” – Stefanie Johnson and Corinne Russell, FHFA

# U.S. Economic Indicators: Global

**Chart 1**  
**Mexico Economic Growth Solid in 2016**

Percent change (Q4/Q4)

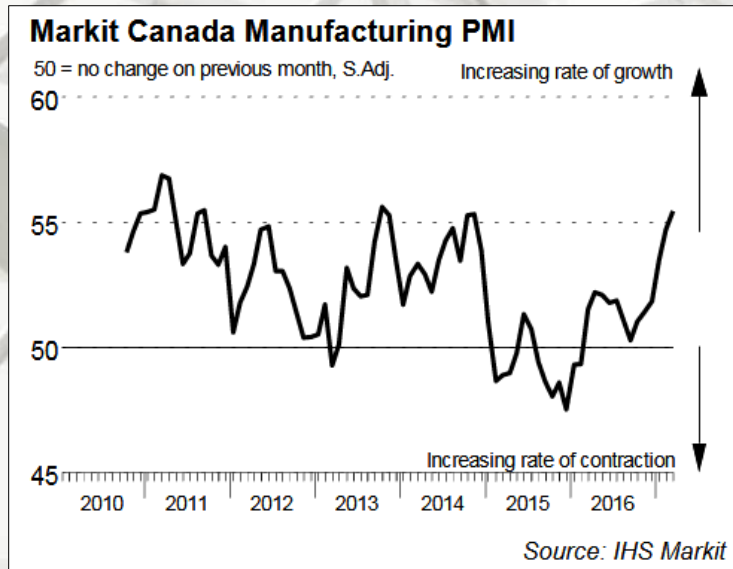


SOURCE: Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography).

## Mexico Faces Cloudy 2017 Outlook, Recent Data Mixed

“The 2.4 percent GDP increase in 2016 matched the previous year (Chart 1). Service-related activities (including trade, transportation and business services) rose 3.3 percent. Goods-producing industries (including manufacturing, construction, utilities and mining) were virtually unchanged at -0.04 percent. A 9.7 percent decline in mining activity, which includes oil and gas extraction, more than offset manufacturing growth of 2.1 percent. Agricultural output increased 6.6 percent in 2016. Fourth-quarter GDP grew at a robust 2.9 percent annualized rate— just exceeding initial estimates.” – Jesus Cañas, Senior Business Economist , The Federal Reserve Bank of Dallas

# Private Indicators: Global



## Markit Canada Manufacturing PMI™

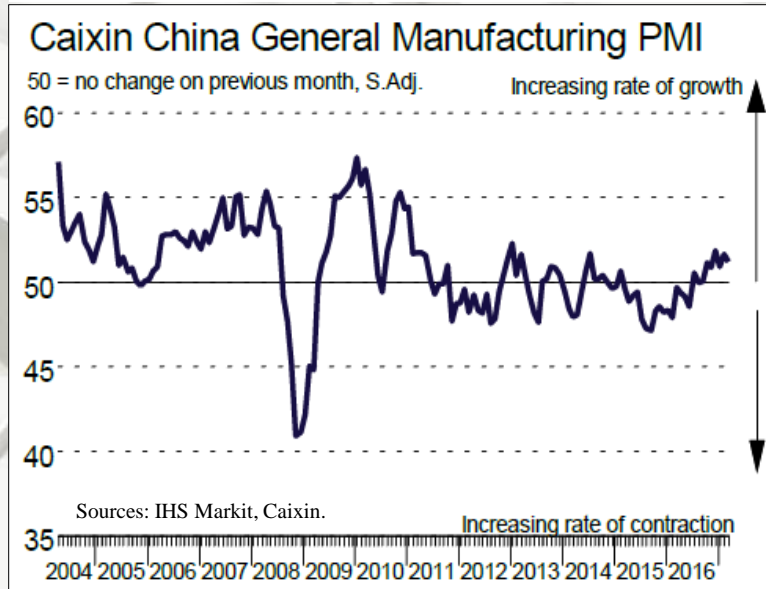
### Manufacturing business conditions improve at fastest pace since October 2013

“The seasonally adjusted **Markit Canada manufacturing Purchasing Managers’ Index™ (PMI™)** rose from 54.7 in February to 55.5 in March, to remain above the crucial 50.0 no-change value for the thirteenth consecutive month. Moreover, the latest reading signalled the fastest improvement in manufacturing business conditions since October 2013.”

“March data signalled a robust and accelerated improvement in business conditions across the Canadian manufacturing sector, driven by faster rises in production, new orders and employment. Survey respondents widely commented on a boost from stronger domestic demand in March, especially among energy sector clients. Manufacturers also reported positive sentiment regarding the year-ahead outlook, which underpinned the greatest rise in payroll numbers since June 2012.

Canada’s manufacturing sector appears to have gained momentum throughout the first quarter of this year. March’s survey highlighted that business conditions improved at the fastest pace since late-2013, helped by the supportive economic backdrop and a rebound in energy sector spending. Manufacturers reported the largest rise in new orders for almost two-and-a-half years, which led to a robust increase in employment levels and renewed efforts to boost inventories.” – Tim Moore, Senior Economist, HIS Markit

# Private Indicators: Global



## Caixin China General Manufacturing PMI™

### PMI points to slower improvement in operating conditions

“The seasonally adjusted Purchasing Managers’ Index™ (PMI™) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – posted 51.2 in March, down from 51.7 in February and signalling a further improvement in the health of the sector. Although pointing to only a modest rate of improvement, the latest index reading remained amongst the highest seen over the past four years.”

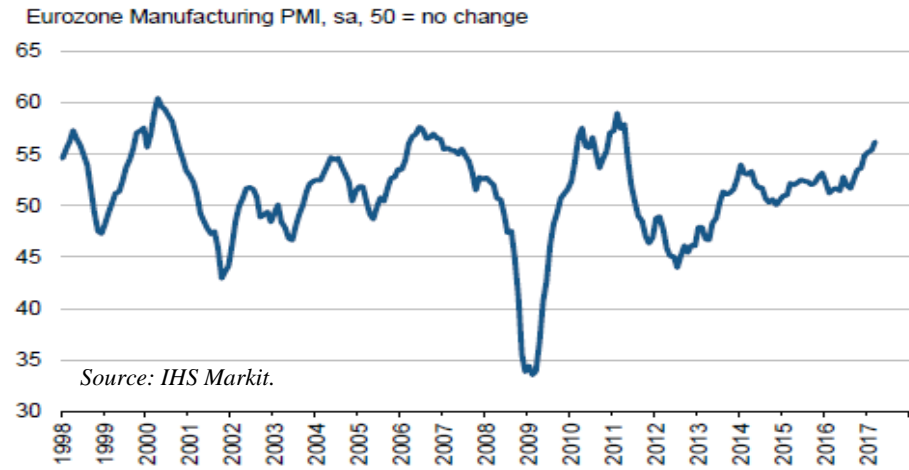
“PMI data signalled a further modest improvement in the health of China’s manufacturing sector in March. However, growth in production and new orders slowed since February, with new export sales increasing at the weakest pace in three months. Staffing levels meanwhile continued on a downward trend, though the rate of job shedding held close to February’s marginal pace. More cautionary attitudes towards inventories were highlighted in the latest survey, with falls in both stocks of inputs and finished goods recorded in March. Meanwhile, optimism towards the one-year business outlook slipped from February’s recent peak, but remained strong overall.

The Caixin China General Manufacturing PMI came in at 51.2 in March 2017, down 0.5 points from the previous month. The manufacturing industry still grew at a relatively fast rate. The output, new orders and employment sub-indices edged down, and stocks of purchases and stocks of finished goods both fell into contractionary territory. Manufacturers’ willingness to restock seemed to have declined. The sub-indices for input prices and output prices remained high, although they have dropped for three consecutive months. Overall, the Chinese manufacturing economy continued to improve, but signs of a weakening have started to emerge ahead of the second quarter. Downward pressure may further increase.” – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis, CEBM Group



# Private Indicators: Global

## Markit Eurozone Manufacturing PMI



## Markit Eurozone Manufacturing PMI®

“The final Markit Eurozone Manufacturing PMI® rose to a 71-month record of 56.2 in March, up from 55.4 in February and unchanged from the earlier flash estimate. The average PMI reading over the first quarter as a whole (55.6) was the highest since the opening quarter of 2011.”

## Eurozone Manufacturing PMI at near six-year high as growth accelerates in Germany, Italy and France

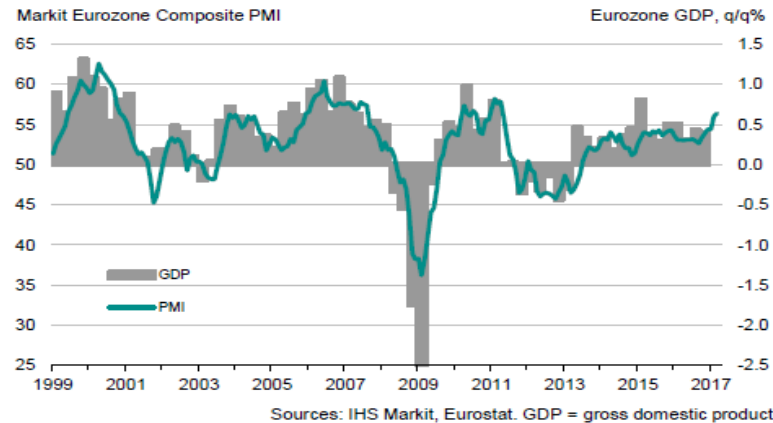
“The upturn in the eurozone manufacturing sector gathered further pace at the end of the first quarter. Rates of expansion in production and new orders accelerated to near six-year highs, as companies saw stronger inflows of new work from domestic and export clients.

Eurozone manufacturing is clearly enjoying a sweet spell as we move into spring, but it is also suffering growing pains in the form of supply delays and rising costs. All key business activity gauges – output, new order inflows, exports, backlogs of work and employment – are close to six-year highs. However, the survey is also signalling the highest incidence of supplier delivery delays for nearly six years, underscoring how suppliers are struggling to meet surging demand.

These delays send a warning signal about rising inflationary pressures, as busy suppliers are often able to hike prices. Prices charged for goods leaving the factory gate are consequently rising at the fastest rate since mid-2011, despite March seeing a drop in the price of oil and a stronger euro against the US dollar, as supplier price hikes are passed on to customers.” – Chris Williamson, Chief Business Economist, Markit®

# Private Indicators: Global

## Markit Eurozone Composite PMI



## Markit Eurozone Composite PMI®

**Eurozone growth at near six-year high as Germany and France accelerate**

“The final Markit Eurozone PMI® Composite Output Index rose to a 71-month high of 56.4 in March, up from 56.0 in February but below the flash estimate of 56.7. The index has signaled expansion in each of the past 45 months.”

“Eurozone output and new order growth accelerated to near six-year records in March, rounding off the best quarter for the currency union’s economy since the second quarter of 2011.

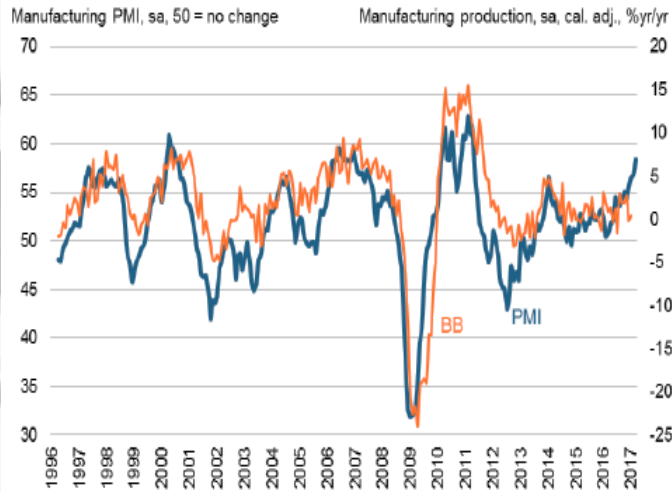
The expansion recorded by the final PMI numbers was not quite the growth spurt indicated by the flash release, but still points to an impressive rate of economic growth. The latest numbers round off the strongest quarter since the spring of 2011 and are consistent with eurozone GDP rising by 0.6% in the first three months of 2017.

This is a broad-based upturn among the euro’s largest members, with 0.6% growth signalled for both Germany and France, while Spain looks set to have enjoyed 0.8-0.9% growth in the first quarter, according to the PMI data. Growth has also perked up in Italy during the first quarter despite a slight pull-back in March, with the surveys indicating a 0.3-0.4% expansion.

Most welcome for a region still suffering near double digit unemployment is a rise in the survey’s employment index to its highest for almost a decade, suggesting we should expect to see the jobless rate fall further in coming months.” – Chris Williamson, Chief Business Economist, Markit®

# Private Indicators: Global

## Markit / BME Germany Manufacturing PMI



## Markit/BME Germany Manufacturing PMI®

### German manufacturing growth continues to strengthen

“The PMI rose for the fourth successive month in March to 58.3, from 56.8 in February. That signalled the strongest improvement in manufacturing business conditions since April 2011, with the upward movement in the headline figure reflected in all five of its components. The current 28-month period of overall growth in the goods-producing sector is the second-longest in the 21-year survey history.”

“The latest *PMI*® survey data from IHS Markit and BME pointed to a further strengthening in business conditions within the German manufacturing sector at the end of the first quarter of 2017. Output increased at the fastest rate in over three years, driven by the strongest gain in new orders in nearly six years. Moreover, new export orders grew at the strongest pace since May 2010. This led to the sharpest rise in employment in over five-and-a-half years.

German manufacturing ended Q1 with impressive growth, with new export orders in particular increasing at the fastest rate in nearly seven years in March. Overall, the PMI recorded its strongest quarterly average since Q2 2011, at 57.2. Moreover, manufacturers remain upbeat regarding the 12-month outlook for production.

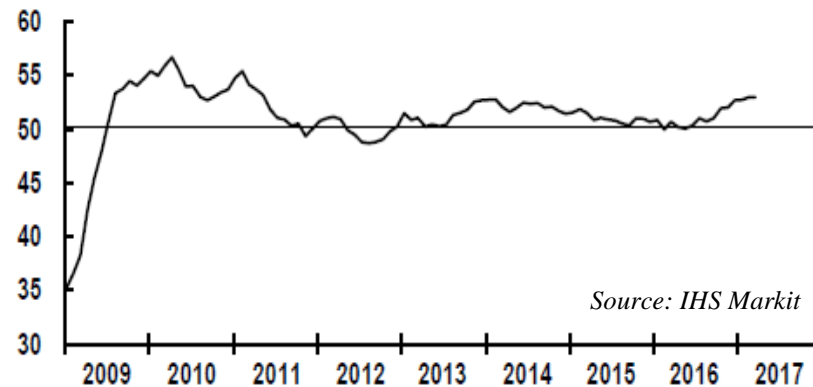
On the flipside, input prices are soaring with the rate of inflation accelerating for an unprecedented eighth consecutive month to the highest in nearly six years. Anecdotal evidence highlighted metals and chemicals as driving cost pressures during the month, a trend that tallies with the February import prices data from the FSO. Further down the supply chain, manufacturing output price inflation did not accelerate further in March but remained at an elevated level. Overall, the PMI data suggest that ECB monetary policy remains too loose for German conditions.” – Trevor Balchin, Senior Economist, IHSMarkit®

Source: <https://www.markiteconomics.com/Survey/PressRelease.mvc/7e1e883beeb1462c89bf485ee3c0afb8>; 4/3/17

# Private Indicators: Global

JPMorgan Global Manufacturing PMI

DI, sa



## JP Morgan Global Manufacturing PMI™ Global Manufacturing PMI holds steady at 69-month high in February

“The headline J.P. Morgan Global Manufacturing PMI™ – a composite index produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – posted 53.0 in March, unchanged from February’s 69-month high.”

“The global manufacturing sector continued to expand at a solid pace during March. Rates of increase in production and new orders were either at, or close to, February’s recent highs, leading to further jobs growth.

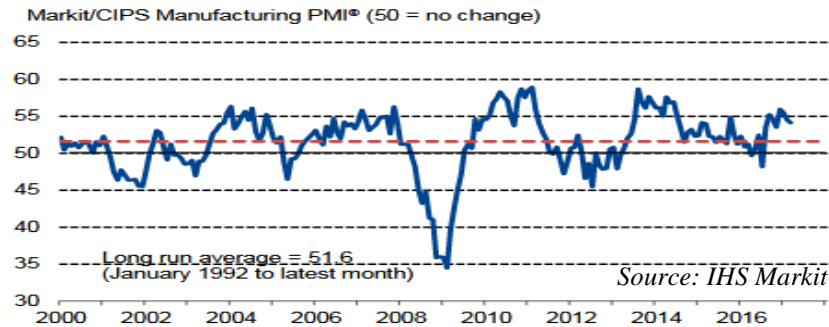
The PMI has remained above the neutral 50.0 mark throughout the past 13 months. The average reading over the first quarter as a whole (52.9) was the best outcome since the second quarter of 2011.

The global manufacturing sector recorded its fastest rate of quarterly expansion for almost six years over the first quarter as a whole. The March PMI survey suggests little change in March, with rates of expansion in output and new orders still either at, or near to, February’s highs.” – Joanna Vickers, Corporate Communications, IHS Markit Press Office



# Private Indicators: Global

## Markit/CIPS UK Manufacturing PMI



## Markit/CIPS UK Manufacturing PMI™

“The seasonally adjusted Markit/CIPS Purchasing Managers’ Index® (PMI®) slipped to a four-month low of 54.2 in March, down from 54.5 in February, but stayed above the neutral mark of 50.0 for the eighth successive month.”

### Expansion of UK manufacturing production and new orders continues in March

“The performance of the UK manufacturing sector remained solid at the end of the first quarter. Although rates of expansion in output and new orders lost further impetus following recent highs, they remained above the respective long-run averages. The domestic market was a key source of new business wins. The boost to export competitiveness from the weak sterling exchange rate also contributed to new work inflows.

The survey data suggest that the goods-producing sector made a solid contribution to GDP during the opening quarter of 2017. However, it’s clear that the expansion will be less than the buoyant 1.3% rise seen in the fourth quarter of last year. With growth losing further momentum in March, that weaker trend is likely to continue into the second quarter. The latest survey also clearly shows that high costs and weak wage growth are sapping the strength of consumers, with rates of expansion in output and new orders for these products slowing further.

Despite the confident mood, the depreciation in Sterling which has supported exporters has come at a price. The reduced buying power of the Pound has led to the 11th consecutive rise in input costs with consumers feeling the effects in the form of higher prices on the high street. Supplier delivery times have also begun to lag, clogging up the supply chains of British manufacturing. With the rate of new order growth showing early signs of easing in March, manufacturers must act to ensure they are not locked into costly contracts. Now is not the time for manufacturers to rest on their laurels.” – Rob Dobson, Director & Senior Economist, IHS Markit

# Private Indicators

## American Institute of Architects (AIA)

### February Architecture Billings Index

#### Architecture Billings Index rebounds into positive territory

“The Architecture Billings Index (ABI) returned to growth mode in February, after a weak showing in January. As a leading economic indicator of construction activity, the ABI reflects the approximate nine to twelve month lead time between architecture billings and construction spending.

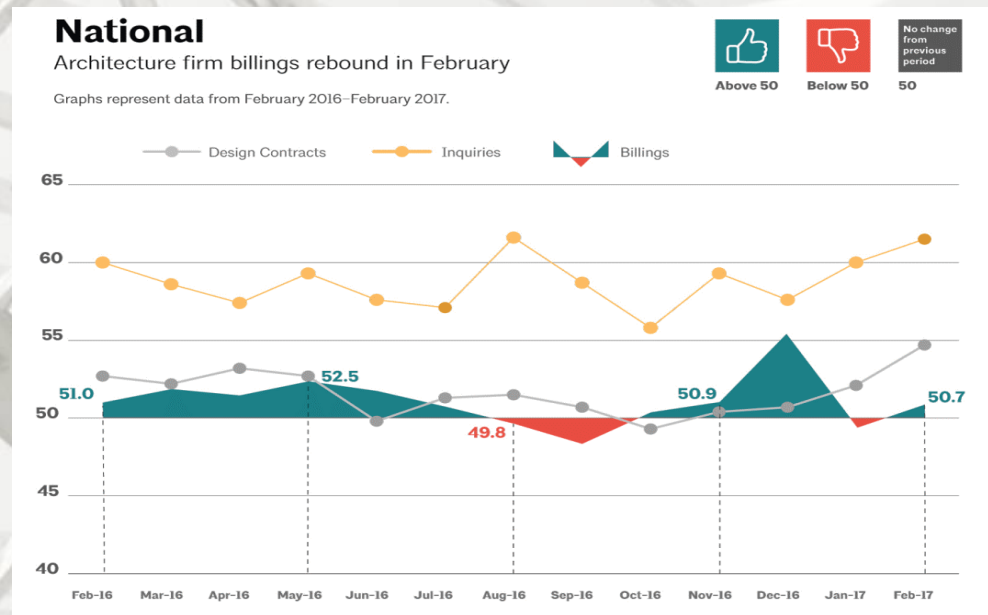
The sluggish start to the year in architecture firm billings should give way to stronger design activity as the year progresses. New project inquiries have been very strong through the first two months of the year, and in February new design contracts at architecture firms posted their largest monthly gain in over two years.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

#### “Key February ABI highlights:

- Regional averages: Midwest (52.4), South (50.5), Northeast (50.0), West (47.5)
- Sector index breakdown: institutional (51.8), multi-family residential (49.3), mixed practice (49.2), commercial / industrial (48.9)
- Project inquiries index: 61.5
- Design contracts index: 54.7”

# Private Indicators

## American Institute of Architects (AIA)



## February Architecture Billings Index

### Business conditions bounce back

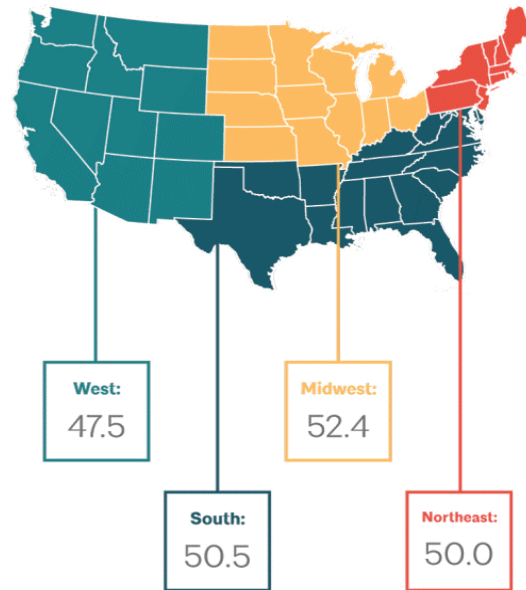
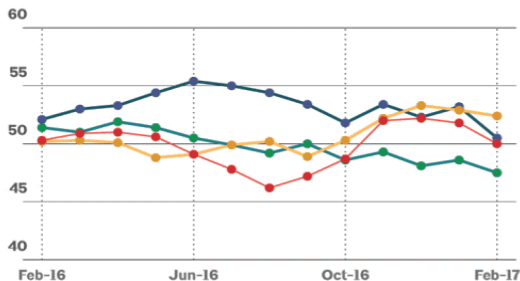
“The American Institute of Architects (AIA) reported the February ABI score was 50.7, up from a score of 49.5 in the previous month. Inquiries into new projects remained strong, and the largest share of firms in more than two years reported an increase in the value of new design contracts as new work in the pipeline continues to ramp up.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

# Private Indicators: AIA

## Regional

Business conditions continue to improve at firms located in the Midwest

\*Graphs represent data from February 2016–February 2017 across the four regions. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



## Business conditions continue to improve at firms located in the Midwest

“Graphs represent data from February 2016–February 2017 across the four regions. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.

Business conditions at architecture firms improved in three of the four regions of the country in February, but growth was sluggish in the Northeast and South. Firms located in the Midwest reported stronger growth, while firms located in the West reported declining firm billings for the seventh month out of the last eight.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

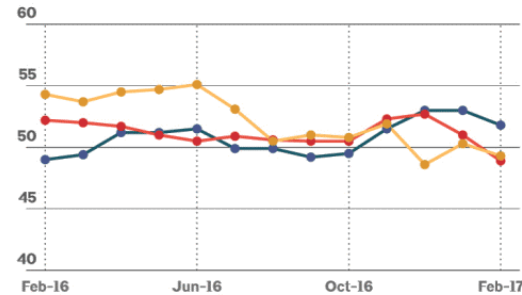


# Private Indicators: AIA

## Sector

Billings soften at firms with commercial/industrial, residential specializations

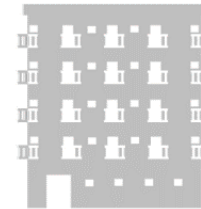
\*Graphs represent data from February 2016–February 2017 across the three sectors. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Commercial/Industrial: 48.9



Institutional: 51.8



Residential: 49.3

## Billings soften at firms with commercial/industrial, residential specializations

“In addition, firm billings softened at firms with a residential specialization, as well as those with a commercial/industrial specialization. Firms with an institutional specialization continued to see growth, but at a modestly slower pace than in the last two months.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

# Private Indicators

## Dodge Data & Analytics

### February Construction Starts Advance 2 Percent

“At a seasonally adjusted annual rate of \$706.4 billion, new construction starts in February rose 2% from the previous month, according to Dodge Data & Analytics. This was the second straight monthly increase, following a 15% hike in January, as construction starts regained the upward track following four consecutive monthly declines to close out 2016. Much of February’s advance came from a strong performance by the public works sector. . . . The electric utility/gas plant category also strengthened . . . . At the same time, nonresidential building made a partial retreat after its strong January performance, yet still remained slightly above its average monthly pace during 2016. Residential building in February also settled back, due to a slide for multifamily housing. During the first two months of 2017, total construction starts on an unadjusted basis were \$98.5 billion, down 4% from the same period a year ago, which included elevated amounts for the often volatile manufacturing plant and electric utility/gas plant categories. Excluding manufacturing plants and electric utilities/gas plants, total construction starts during this year’s January-February period would be up 7% compared to last year.

The first two months of 2017 provide evidence that construction starts are still trending upward, even with the loss of momentum that occurred towards the end of 2016. The subdued performance by public works and electric utilities in recent months had restrained the level of total construction starts, so their improved activity in February is a welcome development. Also welcome during the first two months of 2017 is the strength shown by nonresidential building, and especially its institutional segment. . . . Earlier, the institutional portion of nonresidential building had joined the construction expansion in 2014, after a five-year decline, but then basically plateaued during 2015 and 2016. The strength shown by institutional building so far in 2017 suggests that it will now make a more substantial contribution towards keeping the upturn for nonresidential building going.” – Robert Murray, Chief Economist, McGraw Hill Construction

# Private Indicators

“**Residential building** in February slipped 3% to \$300.2 billion (annual rate). The decline was due to a 23% retreat for multifamily housing, which follows 24% growth over the previous two months. February featured 5 multifamily projects valued at \$100 million or more, compared to 13 such projects that reached groundbreaking in January. ... Through the first two months of 2017, the top five metropolitan areas in terms of the dollar amount of multifamily starts were the following – New York NY, Los Angeles CA, Chicago IL, Washington DC, and Atlanta GA. Single family housing in February grew 5%, moving upward for the fifth straight month after receding during last year’s third quarter. By region, single family housing in February showed growth in all five major regions relative to January – the Midwest, up 12%; the South Central, up 6%; the West, up 4%; the South Atlantic, up 3%; and the Northeast, up 2%.

The 4% slide for total construction starts on an unadjusted basis for the first two months of 2017 compared to last year was the result of mixed behavior by major sector. Nonbuilding construction year-to-date fell 31%, with public works down 3% and electric utilities/gas plants down 71%. **Residential building year-to-date receded 1%, with multifamily housing down 20% while single family housing grew 9%.** Nonresidential building was the one major sector to report a year-to-date gain, climbing 21%, with institutional building up 62%, commercial building down 3%, and manufacturing building down 32%. By geography, total construction starts for the January-February period of 2017 showed two regions with year-to-date declines – the South Central, down 26%; and the Midwest, down 4%. Total construction year-to-date gains were reported for the South Atlantic, up 4%; the West, up 7%, and the Northeast, up 8%.” – Robert Murray, Chief Economist, McGraw Hill Construction

# Private Indicators

## Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

### Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>February 2017</u>	<u>January 2017</u>	<u>% Change</u>
Nonresidential Building	\$238,500	\$261,338	-9
Residential Building	300,194	309,481	-3
Nonbuilding Construction	<u>167,740</u>	<u>124,546</u>	<u>+35</u>
Total Construction	\$706,434	\$695,365	+2

### The Dodge Index

Year 2000=100, Seasonally Adjusted

February 2017 .....149

January 2017.....147

### Year-to-Date Construction Starts

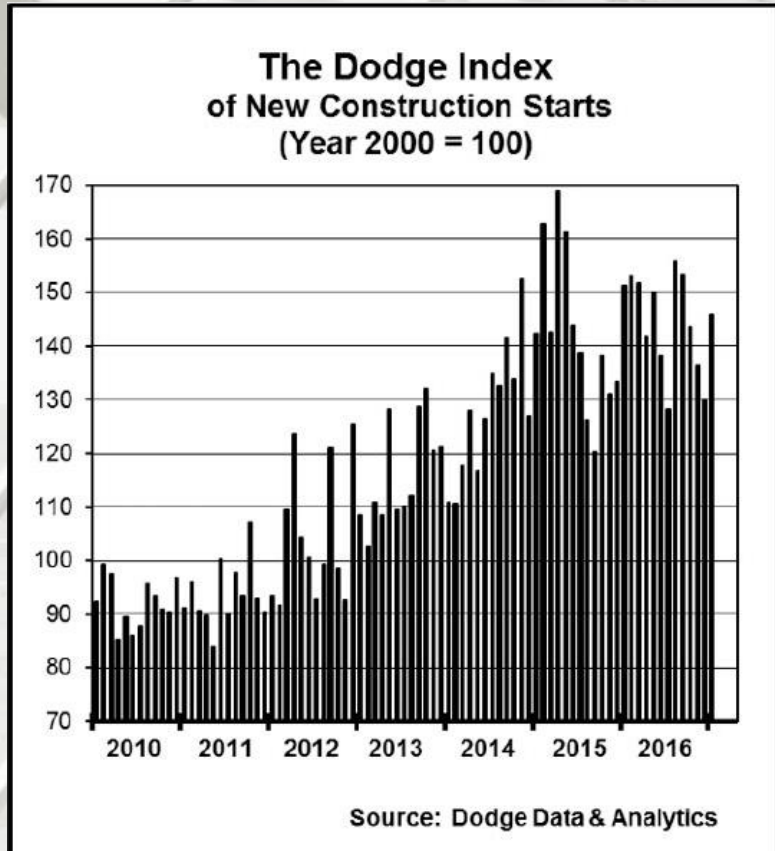
Unadjusted Totals, in Millions of Dollars

	<u>2 Mos. 2017</u>	<u>2 Mos. 2016</u>	<u>% Change</u>
Nonresidential Building	\$35,534	\$29,293	+21
Residential Building	41,227	41,760	-1
Nonbuilding Construction	<u>21,698</u>	<u>31,659</u>	<u>-31</u>
Total Construction	\$98,459	\$102,712	-4
Total Construction, excluding manufacturing buildings and electric utilities/gas plants	\$92,657	\$86,656	+7



# Private Indicators

## February 2017 Construction Starts



### Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

#### Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>January 2017</u>	<u>December 2016</u>	<u>% Change</u>
Nonresidential Building	\$261,465	\$225,933	+16
Residential Building	307,619	304,757	+1
Nonbuilding Construction	121,112	84,215	+44
<b>Total Construction</b>	<b>\$690,196</b>	<b>\$614,905</b>	<b>+12</b>

#### The Dodge Index

Year 2000=100, Seasonally Adjusted

January 2017 .....146

December 2016 .....130

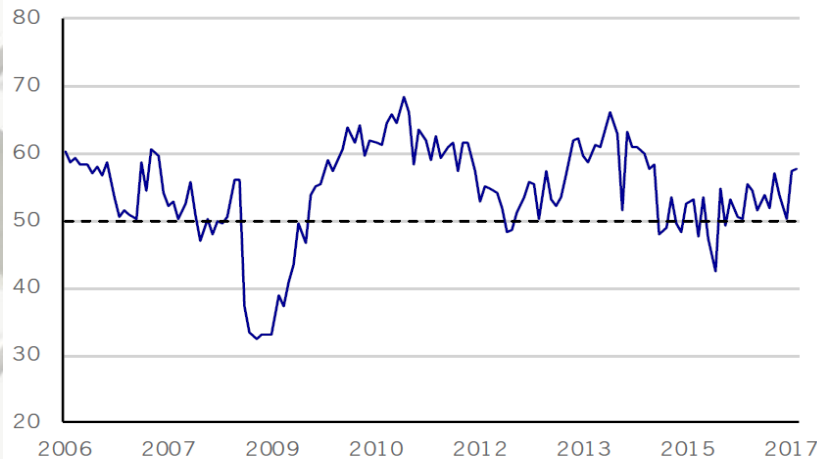
#### Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>1 Mo. 2017</u>	<u>1 Mo. 2016</u>	<u>% Change</u>
Nonresidential Building	\$18,927	\$14,891	+27
Residential Building	20,235	20,043	+1
Nonbuilding Construction	9,299	14,838	-37
<b>Total Construction</b>	<b>\$48,461</b>	<b>\$49,772</b>	<b>-3</b>
<b>Total Construction, excluding manufacturing buildings and electric utilities/gas plants</b>	<b>\$46,649</b>	<b>\$42,288</b>	<b>+10</b>

# Private Indicators

Chicago Business Barometer™



## March Chicago Business Barometer

### Strongest Quarterly Performance Since Q4 2014

“The MNI Chicago Business Barometer rose by 0.3 points to 57.7 in March from 57.4 in February. Following a strong February firms remained upbeat in March, with the increase led by four of the five components.” – Shaily Mittal, Senior Economist, MNI Indicators

### Chicago Business Barometer Up 0.3 Points in March

“Following a strong February, firms remained upbeat this month, with the increase led by four of the five components of the Barometer, as only Employment receded. March’s positive outturn left the Q1 calendar quarter average at 55.1, the highest level since Q4 2014. Demand continued to grow, rising for the second month in a row. New orders rose by 1.2 points, to touch a four month high. To keep pace with rising demand, Production also increased, up 1.4 points to a 14-month high of 61.7 in March. Order Backlogs rose for the third consecutive month, but remained just below the breakeven level, where it has sat for the previous three months. Suppliers took longer to deliver key inputs, with the respective indicator 1.6 points higher at 54.4 in March. Employment slipped back into contraction after rising above 50 briefly last month.

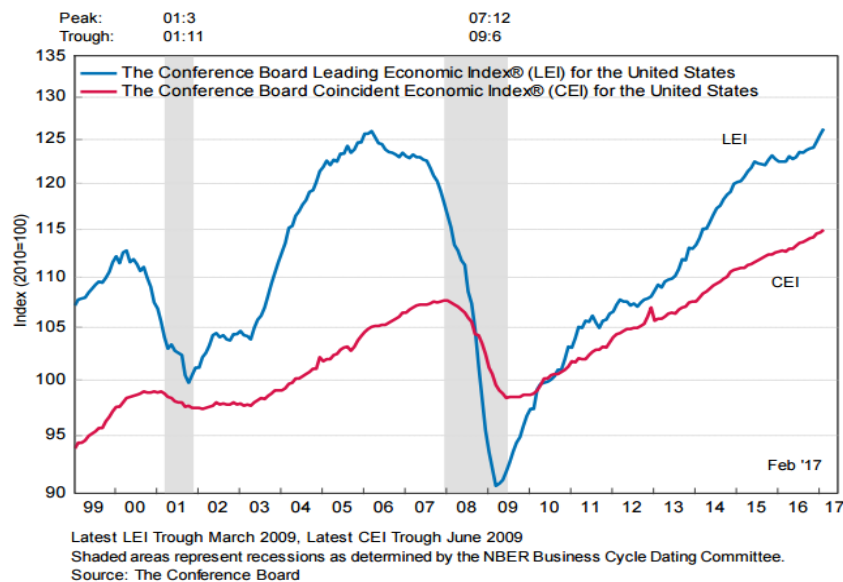
The March Chicago report echoed last month’s upbeat tone of general business conditions. Though the Barometer was little changed, the underlying trend for many key indicators shows improvement, with a shift away from firms reporting worsening to that of remaining at the same level as last month.” – Shaily Mittal, Senior Economist, MNI Indicators

# Private Indicators

**The Conference Board Leading Economic Index® (LEI)** for the U.S. increased 0.6 percent in February to 126.2 (2010 = 100), following a 0.6 percent increase in January, and a 0.6 percent increase in December.

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

The Conference Board Leading Economic Index® (LEI) for the U.S. Increased in February



## Index at Highest Level in Over a Decade

“After six consecutive monthly gains, the U.S. LEI is at its highest level in over a decade. Widespread gains across a majority of the leading indicators points to an improving economic outlook for 2017, although GDP growth is likely to remain moderate. Only housing permits contributed negatively to the LEI in February, reversing gains over the previous two months.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

“**The Conference Board Coincident Economic Index® (CEI)** for the U.S. increased 0.3 percent in February to 114.9 (2010 = 100), following a 0.1 percent increase in January, and a 0.4 percent increase in December.

**The Conference Board Lagging Economic Index® (LAG)** for the U.S. increased 0.2 percent in February to 123.5 (2010 = 100), following a 0.2 percent increase in January, and a 0.3 percent increase in December.

# Private Indicators

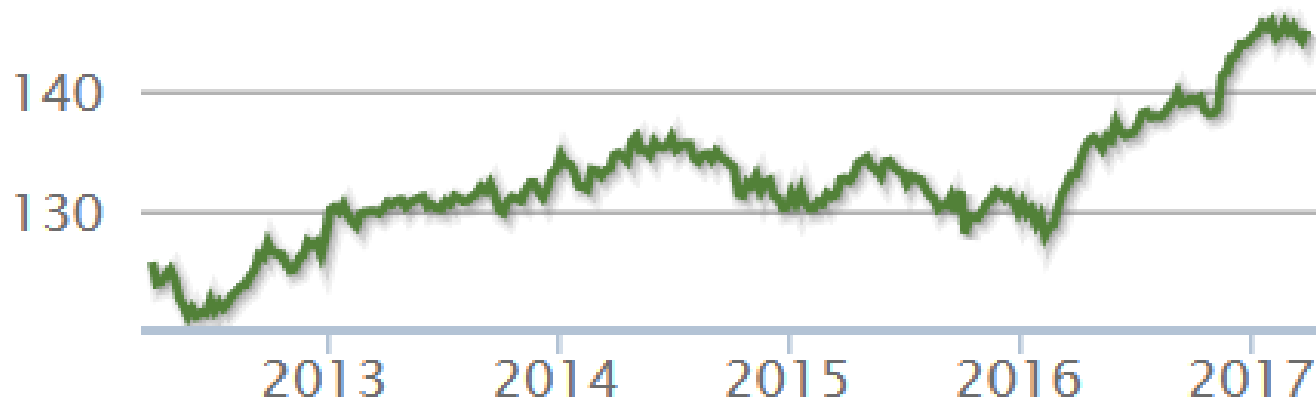
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1 YR

3 YRS

5 YRS

LEVEL



## U.S. Weekly Leading Index (WLI)

The U.S. WLI increased to 145.0 from 144.0.

The growth rate ticked up to 7.8% from 7.5%.

# Private Indicators

■ % Gallup Good Jobs



## GALLUP DAILY

REAL UNEMPLOYMENT  
Department of Labor (U-6)

9.2% -0.2

GALLUP GOOD JOBS  
Percent of Adult Population

44.9% +0.2

ENGAGED AT WORK

30.7% -0.2

ECONOMIC CONFIDENCE

3 -1

CONSUMER SPENDING

\$118 +4

## US Gallup Good Jobs Rate 44.4% in February

- “GGJ up to 45.1% in March from 44.4% in February
- Workforce participation up to 67.8% in March from 67.4% in February
- Unemployment rate held steady at 5.6%

The Gallup Good Jobs rate rose to 45.1% in March from 44.4% in February. Although down from its peak of 47.1% in July of 2016, it is currently higher than the 44.4% recorded in March of 2016. The GGJ is at its highest point since November 2016 (45.7%).” – RJ Reinhart, Consulting Associate, Gallup



# Private Indicators

## March 2017 Manufacturing ISM® Report On Business®

**March NMI® at 57.2%**

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

“Economic activity in the **manufacturing sector** expanded in March, and the overall economy grew for the 94th consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

The March PMI® registered 57.2 percent, a decrease of 0.5 percentage point from the February reading of 57.7 percent.

The New Orders Index registered 64.5 percent, a decrease of 0.6 percentage point from the February reading of 65.1 percent.

The Production Index registered 57.6 percent, 5.3 percentage points lower than the February reading of 62.9 percent.

The Employment Index registered 58.9 percent, an increase of 4.7 percentage points from the February reading of 54.2 percent.

Inventories of raw materials registered 49 percent, a decrease of 2.5 percentage points from the February reading of 51.5 percent.

The Prices Index registered 70.5 percent in March, an increase of 2.5 percentage points from the February reading of 68 percent, indicating higher raw materials prices for the 13th consecutive month.

Consistent with generally positive comments from the panel, all 18 industries reported growth in new orders for the month of March” – Bradley Holcomb, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

# Private Indicators

## March 2017 Non-Manufacturing ISM® Report On Business®

**March NMI® at 55.2%**

**Business Activity Index at 58.9%, New Orders Index at 58.9%,  
Employment Index at 51.6%**

“Economic activity in the **non-manufacturing sector** grew in March for the 87th consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**.

“The NMI® registered 55.2 percent, which is 2.4 percentage points lower than the February reading of 57.6 percent. This represents continued growth in the non-manufacturing sector at a slower rate.

The Non-Manufacturing Business Activity Index decreased to 58.9 percent, 4.7 percentage points lower than the February reading of 63.6 percent, reflecting growth for the 92nd consecutive month, at a slower rate in March.

The New Orders Index registered 58.9 percent, 2.3 percentage points lower than the reading of 61.2 percent in February.

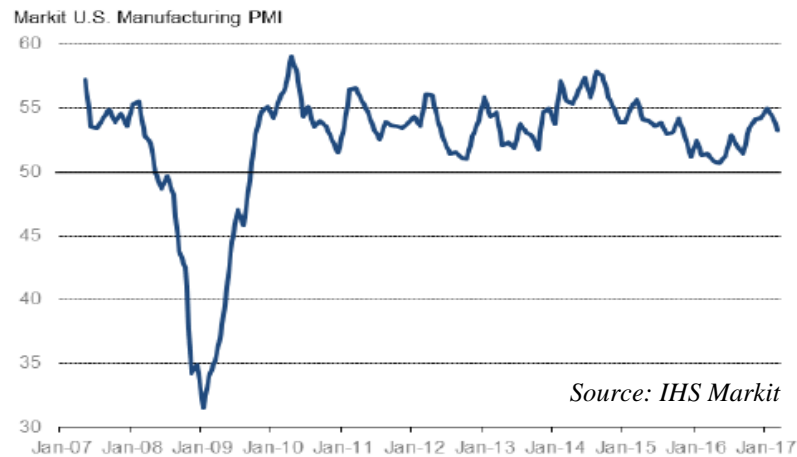
The Employment Index decreased 3.6 percentage points in March to 51.6 percent from the February reading of 55.2 percent.

The Prices Index decreased 4.2 percentage points from the February reading of 57.7 percent to 53.5 percent, indicating prices increased for the 12th consecutive month, at a slower rate in March.

According to the NMI®, 15 non-manufacturing industries reported growth in March. The sector continues to reflect growth; however, the rate of growth has declined since last month. The majority of respondents' comments indicate a positive outlook on business conditions and the overall economy. There were several comments about the uncertainty of future government policies on health care, trade and immigration, and the potential impact on business.” – 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 (seasonally adjusted)



## Markit U.S. Manufacturing PMI™ Manufacturing growth slows to six-month low in March

“At 53.3 in March, down from 54.2 in February, the seasonally adjusted Markit final US Manufacturing Purchasing Managers’ Index™ (PMI™) eased further from the 22-month peak recorded at the start of 2017 (55.0). The latest reading was the lowest since September 2016.”

“Business conditions continued to improve across the manufacturing sector in March, but the latest upturn was the weakest recorded for six months. The loss of momentum reflected softer rates of output and new order growth, alongside a slower rise in payroll numbers. Manufacturers sought to adjust their inventory strategies in response to more subdued sales growth, with stocks of finished goods reduced for the first time in six months.

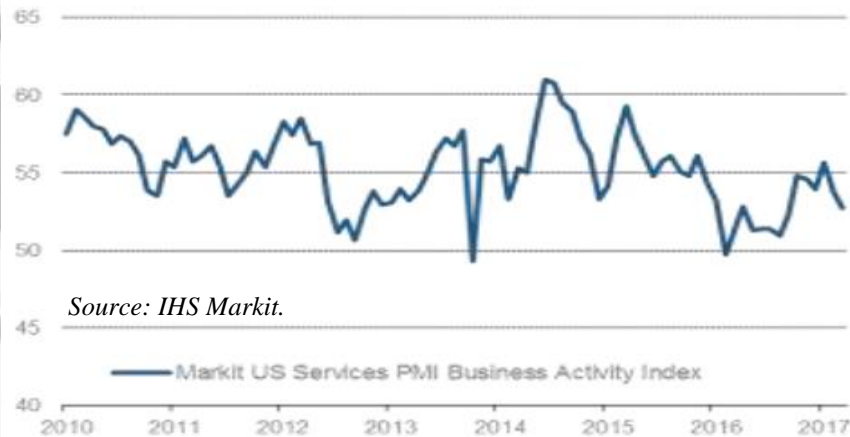
Meanwhile, higher raw material prices resulted in the strongest rate of cost inflation since September 2014. Factory gate charges also increased at the fastest pace for around two-and-a-half years.

The post-election resurgence of the manufacturing sector seen late last year is showing signs of losing steam. Output growth slowed to a six-month low in March, optimism about the outlook has waned and hiring has slowed accordingly.

While the survey data suggest that the goods producing sector enjoyed a relatively good first quarter on the whole, the loss of momentum seen in February and March bodes ill for the second quarter.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators

**Service sector business activity** (seasonally adjusted)  
Markit US Services PMI Business Activity Index



Source: IHS Markit.

## Markit U.S. Services PMI™

### March sees slowest growth of US service sector for six months

“The seasonally adjusted Markit U.S. Services Business Activity Index remained above the 50.0 no-change mark in March to extend the current period of growth to 13 months.

However, the index continued to fall from January’s recent peak, reaching a six-month low of 52.8 (February: 53.8).”

“Growth of the US service sector was maintained during March, albeit to a lesser degree than in the previous month as volumes of incoming business rose at a slower rate. Companies were subsequently able to make some further inroads into their work outstanding, with these efforts supported by a modest increase in payroll numbers. Latest data also showed input costs rising at a solid rate, although a desire to strengthen profitability meant higher costs were passed onto clients wherever possible.

The March PMI numbers add to the picture of a relatively modest opening quarter to 2017 for the US economy. The surveys of manufacturing and services are running at levels consistent with GDP expanding by 1.7% in the first quarter.

The loss of momentum is linked to weaker inflows of new work, with the surveys providing some evidence that demand is being dented in part by higher prices. However, business confidence, although up on February, has failed to regain the levels seen at the start of the year, suggesting a less ebullient mood has developed among companies than seen in the immediate aftermath of the presidential election.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators

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

### Flagging Enthusiasm Could Show Up in Otherwise Strong March Credit Managers' Index

“The combined score for the CMI dipped a little from 55.4 to 54.3, despite a small gain in the unfavorable category. The very high readings in the favorable categories seen last month have faded somewhat, although most of the subcategories are still above 60. The combined favorable readings are at 60.6 after reaching 63.6 last month. This remains the third-highest reading in the last 12 months. The combined score for the unfavorable reading was 50.2, a very slight improvement over the 50 score last month. As usual, the interesting information lies in the specific subcategories.

The bloom may have started to fade a bit, but the Credit Managers' Index (CMI) numbers continue to be reasonably strong. As has been pointed out over the last few months, the economy has been in a state of expectation, allowing more growth and expansion than might have been expected otherwise. The markets have certainly been frothy with anticipation, but now there seems to be some disappointment setting in.” – Nicholas Stern, Senior Editor, NACM

“The index survey for March was taken prior to the ACA defeat in Congress and suggests there had been some reduction in enthusiasm even prior to the legislative setback to the Trump agenda. This is typical of a boom fed by expectations — patience wears thin as fast as it develops. The fact is, good numbers still dominate — they are just not quite as good as they had been.” – Chris Kuehl, Ph.D., Economist, NACM



# Private Indicators

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

“The sales score was 61.2, down just a bit from the 62.6 notched in February. This remains the third-highest reading in the last year. The new credit applications reading slipped from 62 to 60.5, but all three months this year have been over 60. That contrasts with the previous year when that 60 barrier was never broken. The dollar collections score took the biggest hit as it went from 63 to 56.4. This is worrisome, as it suggests that a good number of companies are suddenly struggling to pay their debts. It is expected this will start to show up in the unfavorable numbers sooner than later. The amount of credit extended also fell, but is still the second-highest reading in the last year, as it went from 66.8 to 64.4. For the last several months, all the good news has been coming from the favorable readings, but this month these scores were generally lower. The encouraging data was coming from the unfavorable categories.

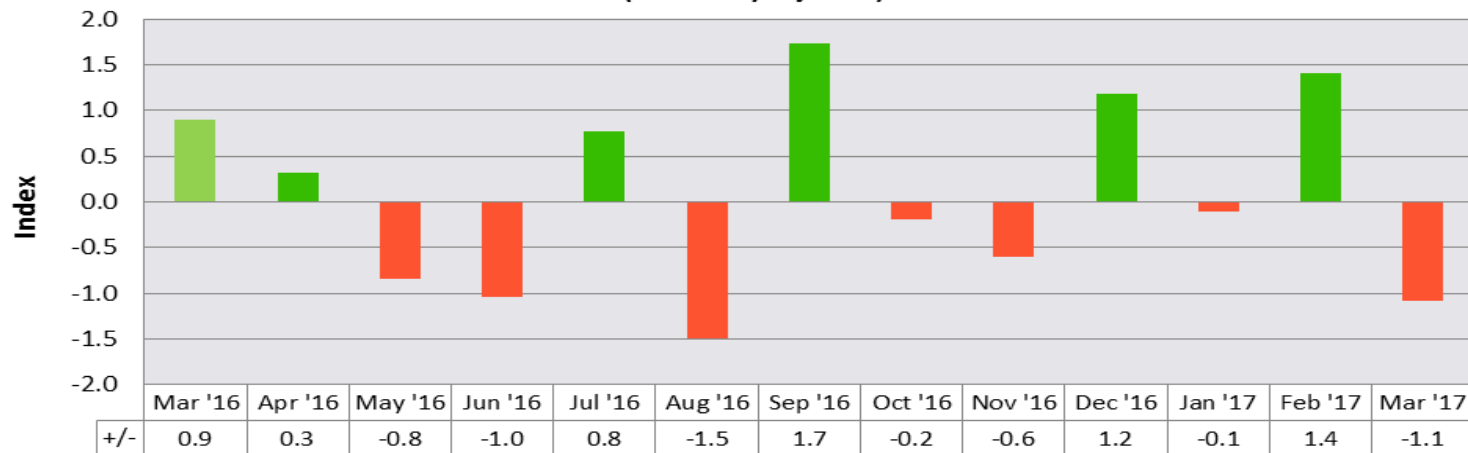
### **Manufacturing Sector**

The scores for the manufacturing sector slipped a bit as far as the favorable categories are concerned, but there was a minor (but encouraging) improvement in the unfavorable categories. The combined score for the manufacturing sector was 54.1, down from 55.1. This is still a good number, but the trend is not heading in the right direction. The combined score for the favorable factors slipped quite a bit from last month's 63.4 to this month's 60.2. It is still above 60, but only barely. The combined unfavorable reading improved slightly from 49.6 to 50, but it is certainly encouraging to get back to expansion territory — if only by a slim margin.” – Nicholas Stern, Senior Editor, NACM

“In general, the manufacturing news has been positive — at least as far as the data from the Purchasing Managers' Index is concerned, but the CMI data is exposing weakness that is likely to show up later this year. Much of the expansion has been anticipatory, built on the hope that the big infrastructure plan will come to fruition and right now that is a risky bet.” – Chris Kuehl, Ph.D., Economist, NACM

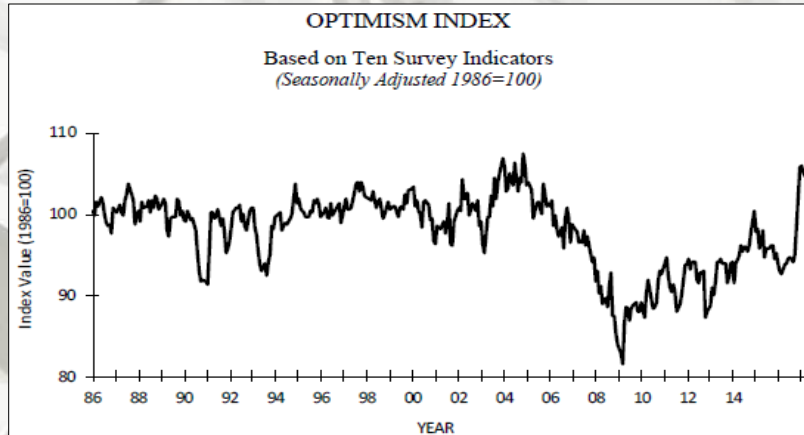
# Private Indicators

Combined Index Monthly Change  
(seasonally adjusted)



<b>Manufacturing Sector (seasonally adjusted)</b>	Mar '16	Apr '16	May '16	Jun '16	Jul '16	Aug '16	Sep '16	Oct '16	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17
Sales	57.6	56.3	53.9	56.1	58.4	52.4	58.2	54.4	58.5	58.7	61.7	60.7	61.7
New credit applications	56.8	55.3	56.8	54.7	56.5	55.8	59.2	56.9	51.6	56.1	61.8	61.6	59.7
Dollar collections	58.2	54.9	55.0	57.5	58.8	54.1	57.5	56.1	65.5	59.3	55.3	64.1	56.1
Amount of credit extended	60.2	58.4	58.4	55.4	61.8	58.8	61.4	58.3	60.4	60.2	63.0	67.2	63.4
<b>Index of favorable factors</b>	<b>58.2</b>	<b>56.2</b>	<b>56.0</b>	<b>55.9</b>	<b>58.9</b>	<b>55.3</b>	<b>59.1</b>	<b>56.4</b>	<b>59.0</b>	<b>58.5</b>	<b>60.5</b>	<b>63.4</b>	<b>60.2</b>
Rejections of credit applications	51.1	51.8	51.7	53.3	50.8	51.1	53.3	52.7	49.3	51.5	51.6	52.3	52.1
Accounts placed for collection	48.2	50.3	51.8	49.7	48.7	48.3	50.2	49.0	45.0	50.1	51.9	47.4	50.6
Disputes	49.4	48.7	50.7	48.9	45.0	46.5	47.7	49.2	44.5	48.8	45.7	47.4	47.4
Dollar amount beyond terms	51.9	51.4	50.1	50.2	48.3	45.4	50.5	50.0	43.0	50.1	49.4	52.1	48.2
Dollar amount of customer deductions	48.2	49.5	51.4	48.5	48.0	48.1	51.9	48.5	49.4	49.2	48.7	46.1	49.2
Filings for bankruptcies	51.6	53.7	52.1	50.0	49.8	54.5	53.0	54.3	55.6	54.4	53.5	52.3	52.7
<b>Index of unfavorable factors</b>	<b>50.1</b>	<b>50.9</b>	<b>51.3</b>	<b>50.1</b>	<b>48.4</b>	<b>49.0</b>	<b>51.1</b>	<b>50.6</b>	<b>47.8</b>	<b>50.7</b>	<b>50.1</b>	<b>49.6</b>	<b>50.0</b>
<b>NACM Manufacturing CMI</b>	<b>53.3</b>	<b>53.0</b>	<b>53.2</b>	<b>52.4</b>	<b>52.6</b>	<b>51.5</b>	<b>54.3</b>	<b>52.9</b>	<b>52.3</b>	<b>53.8</b>	<b>54.3</b>	<b>55.1</b>	<b>54.1</b>

# Private Indicators



## March 2017 Report: Small Business Economic Trends

“The remarkable surge in small business optimism that began in November of last year was sustained in March, according to the **National Federation of Independent Business (NFIB)** [Small Business Economic Trends Report](#), released today.”

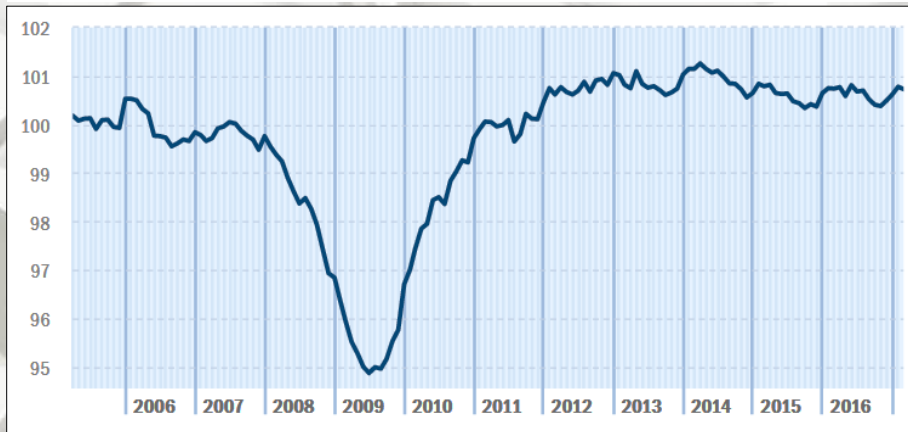
### SMALL BUSINESS OPTIMISM SUSTAINED IN MARCH

“The Index slipped 0.6 points in March to 104.7, still a very strong reading. Actual earnings, capital expenditure plans, and job-creation plans posted gains in March. Sales expectations, which have been flying high for months, dropped by 8 points, a sign that the Optimism Index could be moderating after a strong run.”

“By historical standards, this is an excellent performance, with most of the components of the Index holding their gains. The increases in capital expenditure plans and actual earnings are signs of a healthier economy, and we expect job creation to pick up in future months. ... while the overall Index remained strong in March, a significant increase in the Uncertainty Index, a subset of data on how small business owners see the near-term future, could indicate trouble on the horizon. The Uncertainty Index hit 93 in March, which is the second highest reading in the survey’s history. More small business owners are having a difficult time anticipating the factors that affect their businesses, especially government policy.” – William Dunkelberg, Chief Economist, National Federation of Independent Business

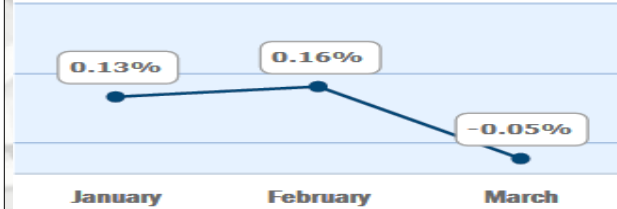
“Small business owners remain optimistic about the future of the economy and the direction of consumer confidence. We are encouraged by signs that optimism is translating into economic activity, such as capital investment and job creation.” – Juanita Duggan, President and CEO, National Federation of Independent Business

# Private Indicators



## 0.0.024% 3-Month National Trend

“Following three months of positive gains, the index maintained its high level with a slight 0.05 percent decrease in March.”



## The Paychex | IHS Small Business Jobs Index

“At 100.73, the current pace of small business job growth is essentially unchanged from last year. Furthermore, the national index averaged 100.71 during the first quarters of 2016 and 2017, signaling strong and steady small business job growth to begin the past two years. Small businesses have seen positive and consistent employment gains as the national index has now been above the 100 baseline for five and half years, dating back to September 2011.

Though the West South Central remains ranked last among regions and below 100, it has seen positive movement since hitting a seven-year low in November. The West South Central has improved 1.56 percent since November, best among regions, and it has the strongest one-month gain in March, 0.41 percent, possibly marking an energy sector rebound. Hitting a new record level and ranked first among regions at 103.83, neighboring East South Central had nearly as strong of a gain in March, 0.40 percent. Central regions have increased the pace of small business employment the fastest during the first quarter of 2017. The Atlantic and Pacific regions have shown the least movement, with the Middle Atlantic actually losing pace, down 0.35 percent during the past three months.

Adding to the strong rebound seen since late 2016, small business jobs momentum continued in March.” – James Diffley, Chief Regional Economist, IHS Markit



# Private Indicators

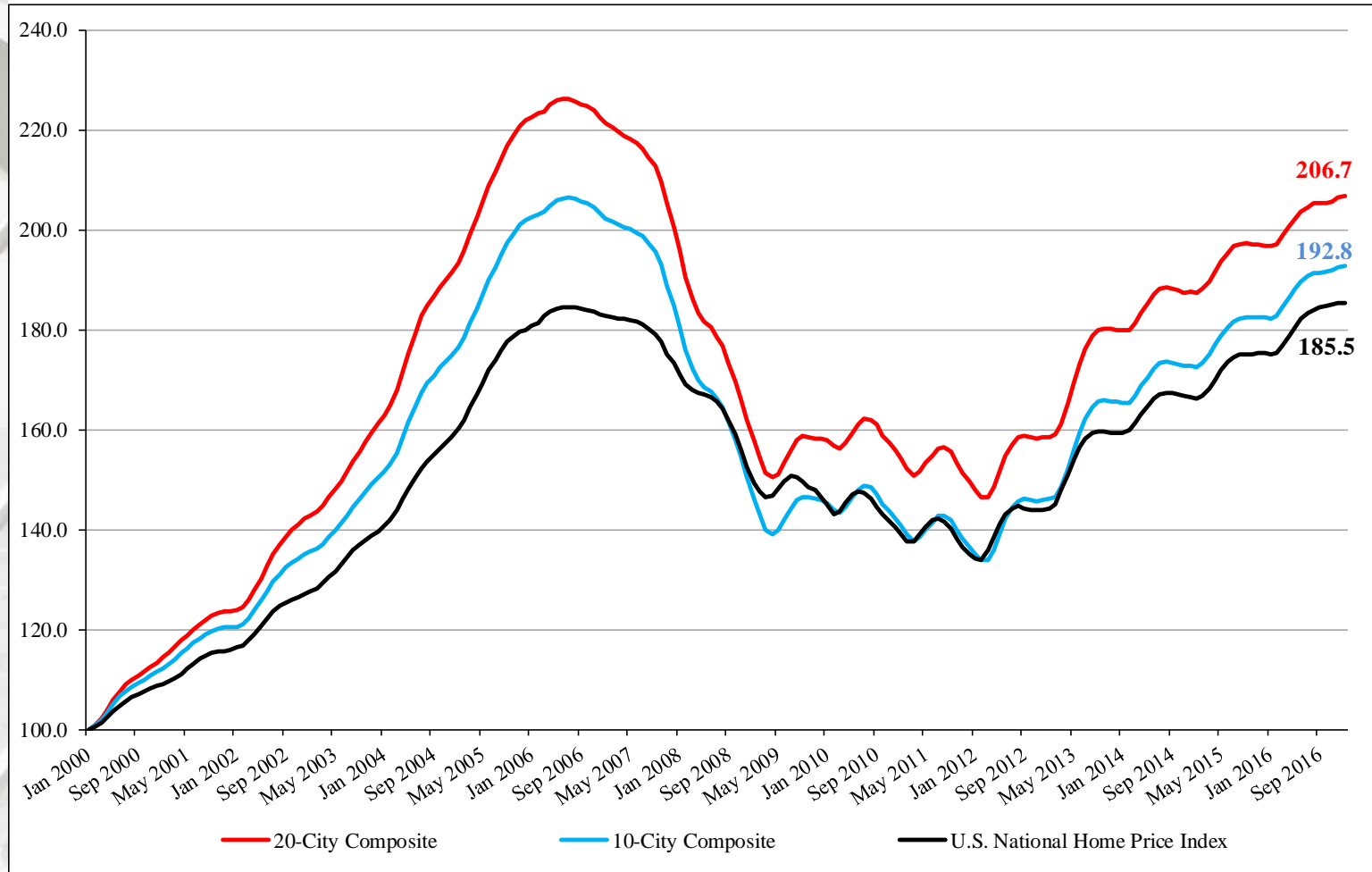
## **The S&P Corelogic Case-Shiller National Index Annual Return Sets 31-Month High**

“Housing and home prices continue on a generally positive upward trend. The recent action by the Federal Reserve raising the target for the Fed funds rate by a quarter percentage point is expected to add less than a quarter percentage point to mortgage rates in the near future. Given the market’s current strength and the economy, the small increase in interest rates isn’t expected to dampen home buying. If we see three or four additional increases this year, rising mortgage rates could become concern.

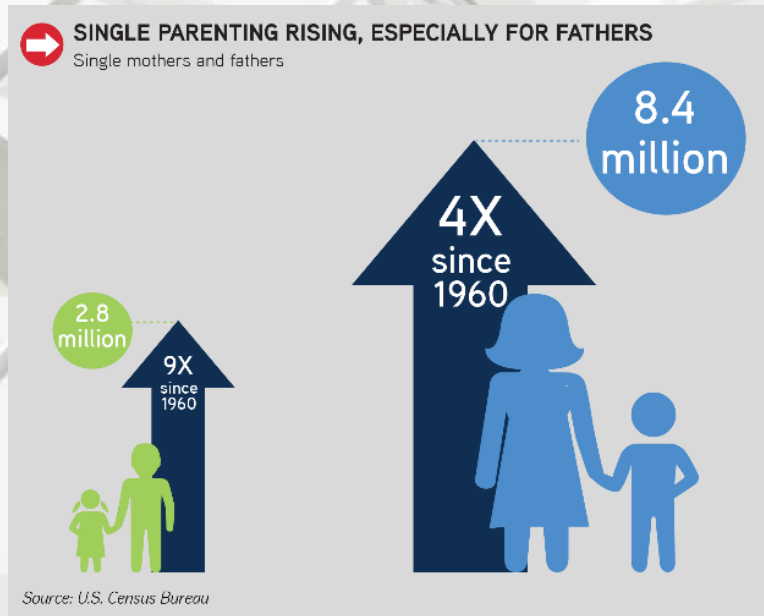
While prices vary month-to-month and across the country, the national price trend has been positive since the first quarter of 2012. In February, the inventory of homes in the market represented 3.7 months of sales, lower than the long-term average of six months. Tight supplies and rising prices may be deterring some people from trading up to a larger house, further aggravating supplies because fewer people are selling their homes. The prices also hurt affordability as higher prices and mortgage rates shrink the number of households that can afford to buy at current price levels. At some point, this process will force prices to level off and decline – however we don’t appear to be there yet.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

# Private Indicators

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



# Demographics



## Shifting Family Structure Hurting Homeownership

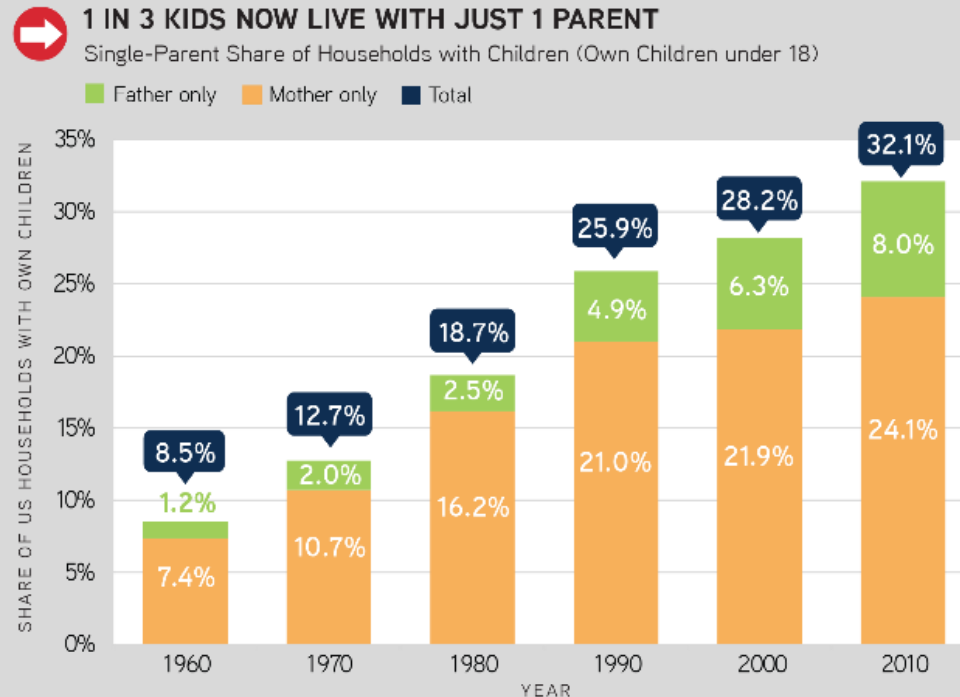
“24% of kids live primarily with mom (a 400% increase since 1960), and 8% of kids live with dad (a 900% increase since 1960).” – John Burns, CEO, John Burns Real Estate Consulting LLC

“With 68% of families having only one parent, we assume that most struggle to save even the 3.5% down payment required for FHA financing. We also assume that many of these parents aren’t willing to commute very far, making them more likely to live in the more expensive areas closer to employment centers. Therefore, they rent.

This significant shift in homeownership demand was less apparent in the mid-2000s when families were not required to document their income. Today, this shift in demand is quite apparent.

Single-family rental landlords have benefitted tremendously from this shift in demand.” – John Burns, CEO, John Burns Real Estate Consulting LLC

# Demographics



Note: An unmarried partner could be helping raise kids. In joint custody situations, the child is counted at the residence where they live and sleep most of the time.

Source: John Burns Real Estate Consulting, LLC calculations of U.S. Census Bureau Decennial Census

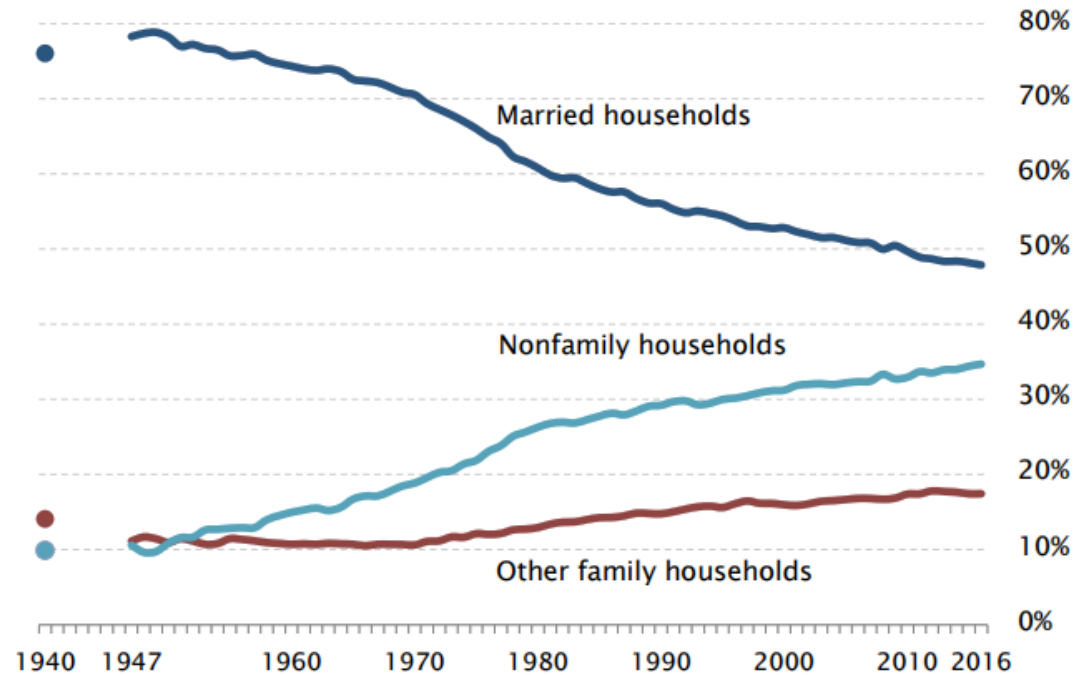
## Shifting Family Structure Hurting Homeownership

“When researching our new book *Big Shifts Ahead*, we learned that 40% of all kids are born to an unmarried mom and 32% of all kids live with only one parent. The expenses of raising children alone make it very difficult to become a homeowner.” – John Burns, CEO, John Burns Real Estate Consulting LLC



# Demographics

**Figure HH-1**  
**Percent of households by type**



*Source:* U.S. Census Bureau, Decennial Census, 1940, and Current Population Survey, Annual Social and Economic Supplements, 1968 to 2016.

# Demographics

## Not-So-Empty Nests

### Where (and Why) Millennials Are Still Living At Home

“Millennials are breaking a lot of records: According a report from the Council of Economic Advisers, Millennials are the largest generation in the U.S., comprising about one-third of the population; the most diverse generation; and the most educated generation, with more than 60% of adult Millennials having attended college.

But Millennials are also setting a less-positive record when it comes to housing: This generation of 18- to 34-year-olds is more likely to be living with their parents than to be in any other living situation — such as cohabitation with a spouse or significant other, or living alone or with roommates — for the first time in more than 130 years.

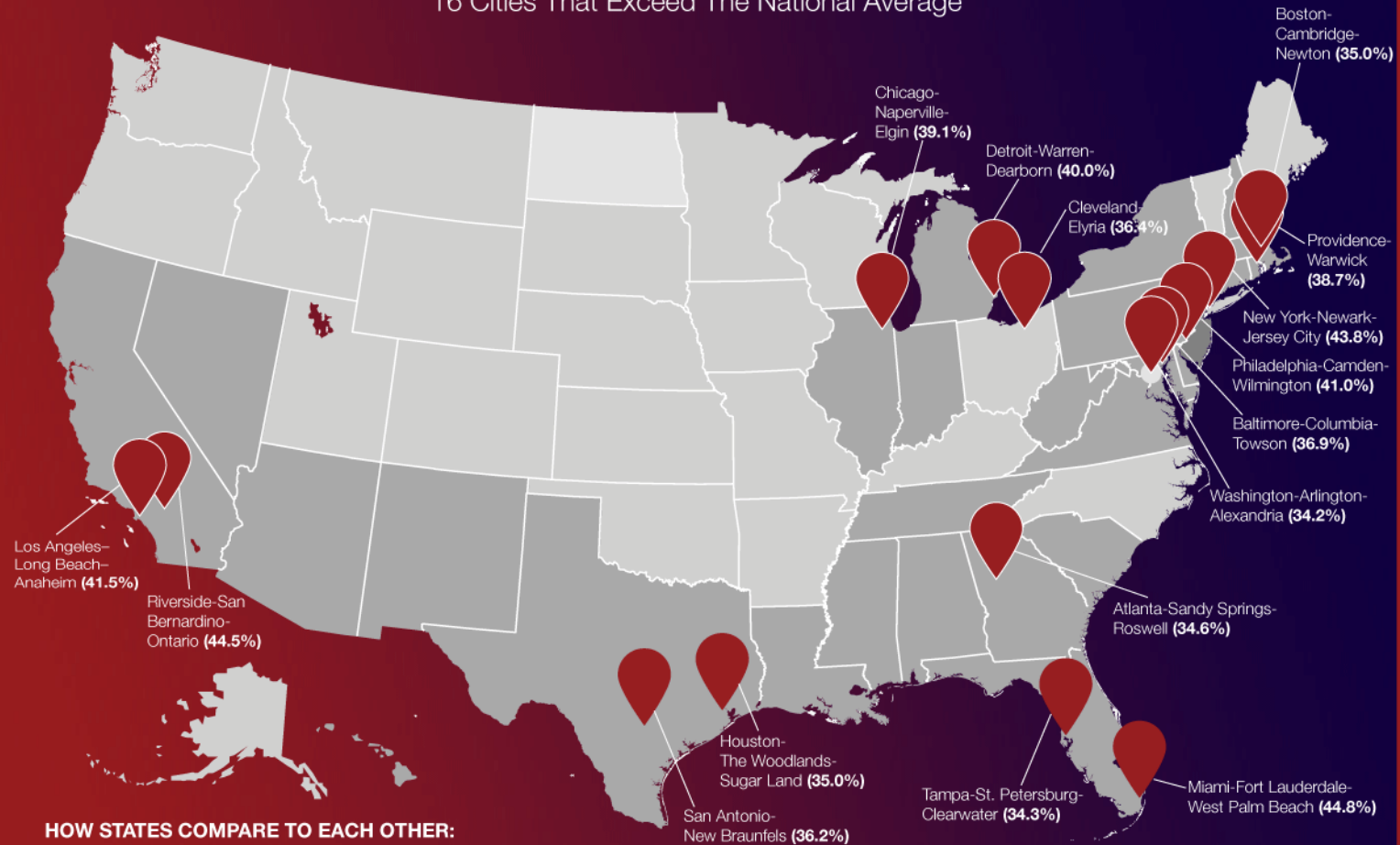
ABODO’s analysis of U.S. Census data found that 34.1% of Millennials nationwide have yet to fly the coop. But why? To find out, we’ve taken a closer look at the 16 Metropolitan Statistical Areas (with a population of at least 1 million) that exceed the national average — some of which have nearly 45% still living with parents — to see who those Millennials are, and what is keeping them in the nest.

The 16 MSAs with the highest percentage of Millennials living at home are scattered all across the country. Number one is Miami-Fort Lauderdale-West Palm Beach, FL, where a whopping 44.8% of 18- to 34-year-olds live with their parents. Close behind are Riverside-San Bernardino-Ontario, CA, at 44.5%, and New York-Newark-Jersey City, at 43.8%. All three MSAs are located in states with a higher than average percentage of Millennials living at home. Miami-Fort-Lauderdale-West Palm Beach and Riverside-San Bernardino-Ontario each exceed their state’s percentages of 37.9% and 38.4%, respectively. New York-Newark-Jersey City’s percentage exceeds the New York state average (39.6%) but is actually below New Jersey’s state figure of 45.8%, which is the highest state figure by a wide margin of about 6 percentage points” – Sam Radbil, ABODO

# Demographics

## WHERE THE MOST MILLENNIALS LIVE AT HOME

16 Cities That Exceed The National Average



### HOW STATES COMPARE TO EACH OTHER:



\*Data from U.S. Census Bureau 2015 American Community Survey 1-year estimates



# Demographics

## Not-So-Empty Nests

### Age & Education

“Of all Millennials living at home, most (54%) are male, even though men represent just 50% of the Millennial population. And the ages mainly break down as you’d expect: 41% are 18 to 21 years old and haven’t had much time or income to make the move into their own space.

Naturally, the next-youngest group, ages 22 to 25, is the next most likely to be living at home, comprising 29.8% of Millennials living with parents. What’s a bit more surprising is that nearly 30% are Millennials age 26 or older, a third of whom are between ages 31 and 34.

Those age 26 and older would be at least eight years out of high school, but — if they’re among the majority who chose to pursue higher education — would be only about two years beyond a four-year degree, which actually take an average of six years to complete.

One might expect an inverse relationship between educational attainment and the choice to live at home. But the reality is more complicated.

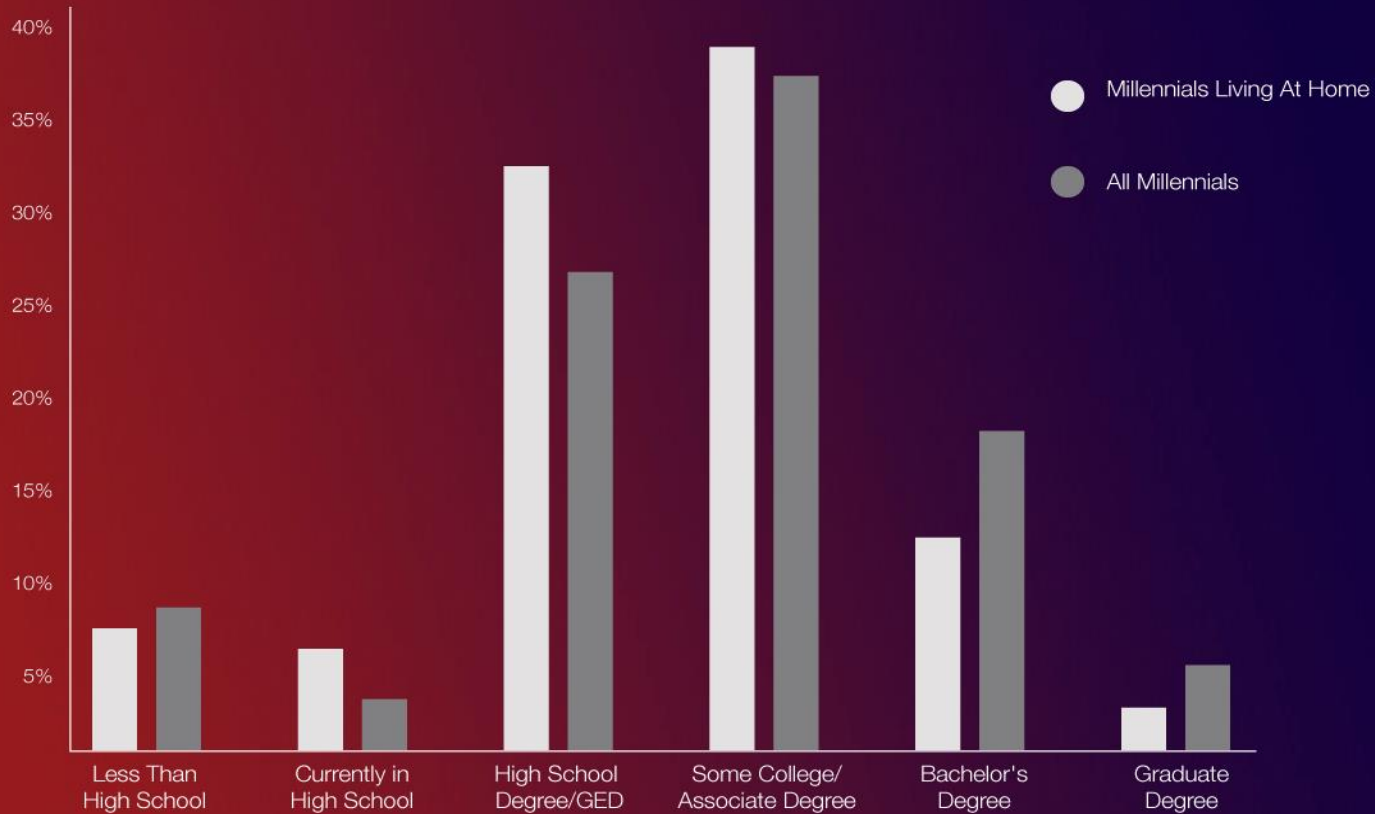
In fact, the percentage of Millennials living at home who only have a high school degree — 32.4% — is lower than the 38.9% of Millennials living at home who have an associate degree, have attended some college, or are currently in college. And both of those figures exceed the percentage of all Millennials — regardless of home situation — with similar educational credentials. In the case of a high school degree or GED, the difference is notable: almost 6%.

The popular narrative of Millennials moving back in with their parents after majoring in English might be also slightly overstated: Only 12% of Millennials living at home listed a bachelor’s degree as the pinnacle of their education, though 18% of Millennials as a whole stopped after their four-year degree. And maybe there are fewer Buster Bluths than *Arrested Development* led us to believe: While 6.3% of American Millennials hold a graduate degree, only 2.1% of Millennials living at home do.” – Sam Radbil, ABODO

# Demographics

## EDUCATIONAL ATTAINMENT

Impact on Millennials Moving Out



\*Data from U.S. Census Bureau 2015 American Community Survey Public Use Microdata Sample 1-year estimates





# Demographics

## Not-So-Empty Nests Conclusion

“Millennials — the largest, most educated generation in history — are increasingly living with parents in lieu of striking out on their own. They already account for the majority of the workforce, they’re expected to comprise [75% of it by 2030](#). So why is this economically powerful generation choosing to stay home?

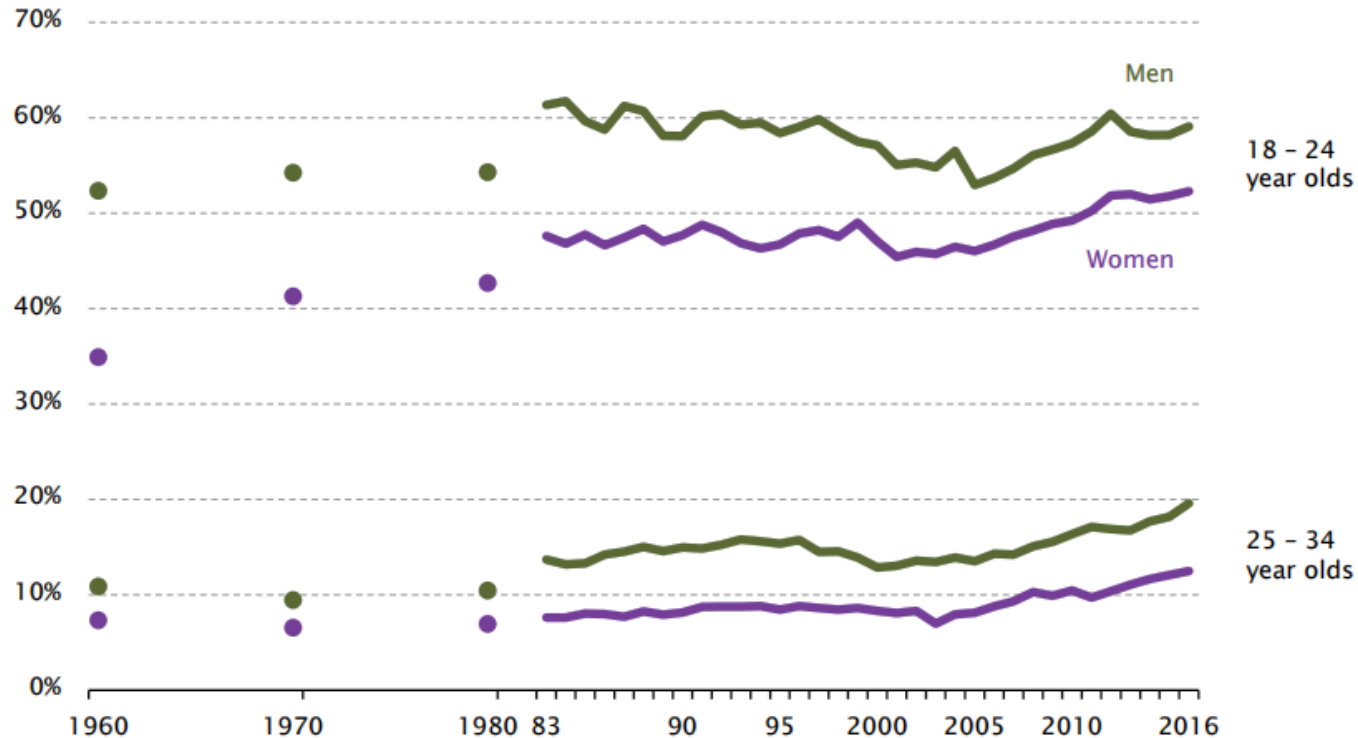
The problem isn’t just high rent, or just lack of education, or just unemployment, or just low pay. Often, it’s a combination. Millennials are not only [earning less](#) than their parents did as young adults, but the majority of Millennials who pursue post-secondary education also graduate saddled with an average student loan debt hovering [around \\$30,000](#).

Additionally, wages aren’t increasing at the same rate as rents. In all of the cities we examined — MSAs with more than 1 million residents — Millennials living at home earned a median monthly income of \$1,121 — nearly \$1,000 less than the median monthly income of all Millennials, which was \$2,023. Do they earn less because they don’t need to be paying rent? Or are they staying with parents because median rents account for nearly their entire paycheck?

For many of these 18- to 34-year-olds, living with parents isn’t simply a lifestyle choice, but a necessity brought on by high rent prices and relatively low incomes. It’s not hard to see why moving out isn’t an attractive possibility.” – Sam Radbil, ADODO

# Demographics

**Figure AD-1**  
**Young adults living in the parental home**



Source: U.S. Census Bureau, Decennial Censuses, 1960 to 1980, and Current Population Survey, Annual Social and Economic Supplements, 1983 to 2016.

Note: Unmarried college students living in dormitories are counted as living in group quarters in decennial data but as living in their parental home in CPS data.



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

# Demographics

## Student Loan Update

“Aggregate student loan balances have continued to increase and stood at about \$1.3 trillion at the end of 2016, an increase of about 170 percent from 2006. Aggregate student debt is increasing because more students are taking out loans, the loans are for larger amounts, and the speed with which borrowers repay their debts has slowed down. New debt originations continue to increase: 2015 graduates with student loans left school with about \$34,000, up from only \$20,000 just ten years before.

While about 36 percent of student debt holders owed less than \$10,000, and 65 percent owed less than \$25,000, only about 5 percent of student debt holders owed more than \$100,000 in debt in 2016. Yet these big-balance borrowers account for nearly 30 percent of the total balances outstanding, so their outcomes and repayment success have a disproportionate influence on the overall picture.

Student loan default and delinquency rates appear to have leveled off, albeit at a relatively high level. Defaults peaked in 2012, and have stabilized since 2013; the 2009-11 cohorts saw the highest default rates, with some improvement among more recent cohorts.” – Rajashri Chakrabarti, Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw; Research and Statistics Group; The Federal Reserve Bank of New York

# Demographics

## Student Loan Update

“We have noted in the past that delinquency and default rates are lower among higher-balance borrowers; however, the default rates among higher-balance borrowers have worsened notably in recent years. Further, payment progress is slower among those who borrowed more. Ten years later, over 70 percent of the original balance has been repaid among those who had borrowed less than \$5,000 when they left college in 2006, compared to a reduction of only 25 percent among students who borrowed more than \$100,000.

Higher balances, increasing participation in student loan programs, and slower repayment are pushing up aggregate student loan balances. Although defaults are improving, the pay down progress of recent cohorts continues to decline.

## Homeownership

The final portion of the press briefing was on educational attainment, student loans, and homeownership, using education records from the National Student Clearinghouse that were newly matched with credit records from the Consumer Credit Panel. These findings are presented in greater detail in a separate post. New analysis shows that college education is associated with markedly higher homeownership rates regardless of debt status, which increases at each additional level of college attainment. However, having student loans dampens homeownership rates at every level of education, and higher debt balances are associated with even lower homeownership rates.” – Rajashri Chakrabarti, Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw; Research and Statistics Group; The Federal Reserve Bank of New York

# Demographics

## Diplomas to Doorsteps: Education, Student Debt, and Homeownership

“ ...

By age twenty-six, both groups of college attendees have higher homeownership rates than non-attendees do, regardless of debt status — a homeownership gap that grows steadily with age. Reflecting their earlier entry into the workforce, the homeownership rate of associate degree students is initially higher than that of bachelor’s-plus students. From age twenty-five on, bachelor’s-plus students own homes at a higher level than associate degree students, regardless of debt status, with the gap between degree types widening with age (first figure).

At any given age, holding debt is associated with a lower rate of homeownership, irrespective of degree type. While the homeownership gap between debt-holding and non-debt-holding bachelor’s-plus students remains relatively constant, that for associate degree students expands with age. Associate degree students who take on debt buy homes at almost the same rate as those who never went to college until they reach age twenty-five, when their homeownership rate rises above that of those who never went to college. At age thirty-three, the non-college-goers are almost 4 percentage points behind their peers who enrolled in associate degree programs and took on student debt, while lagging behind debt-free bachelor’s-plus students by 25 percentage points.

The figure (2) below distinguishes college attendees not only by student debt status, but also by graduation status. Graduation, measured by highest degree attained, is associated with markedly higher homeownership rates, irrespective of debt status. Among both graduates and non-graduates, those with student debt are again less likely to be homeowners. While initially indistinguishable, by age thirty-three the homeownership rate for those who did not attend college is about two years behind that of those who attended college with debt but did not graduate.” – Rajashri Chakrabarti, Nicole Gorton, and Wilbert van der Klaauw; Research and Statistics Group; The Federal Reserve Bank of New York

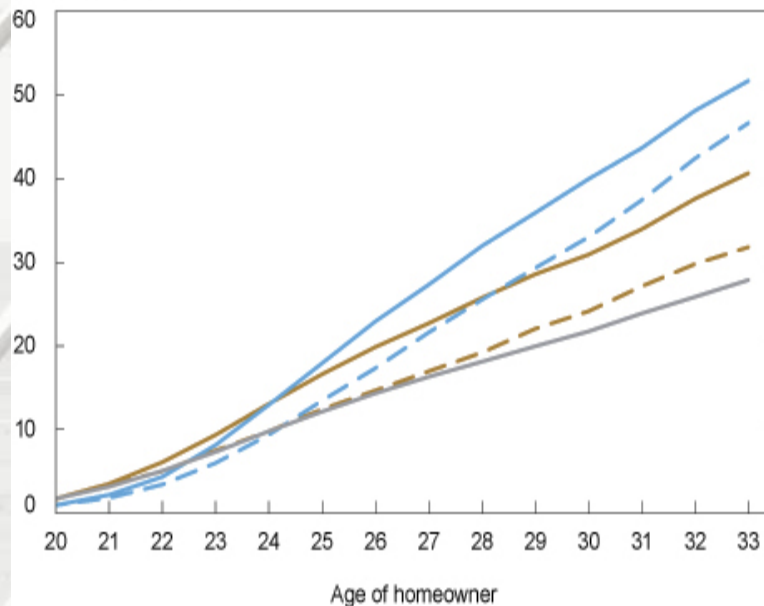


# Demographics

**Bachelor's-Plus Students More Likely to Own Homes Than Those with Associate Degrees, Regardless of Student Debt Status**

- Bachelor's or higher, no student debt
- Bachelor's or higher, with student debt
- No college
- Associate degree, no student debt
- Associate degree, with student debt

Homeownership, percentage



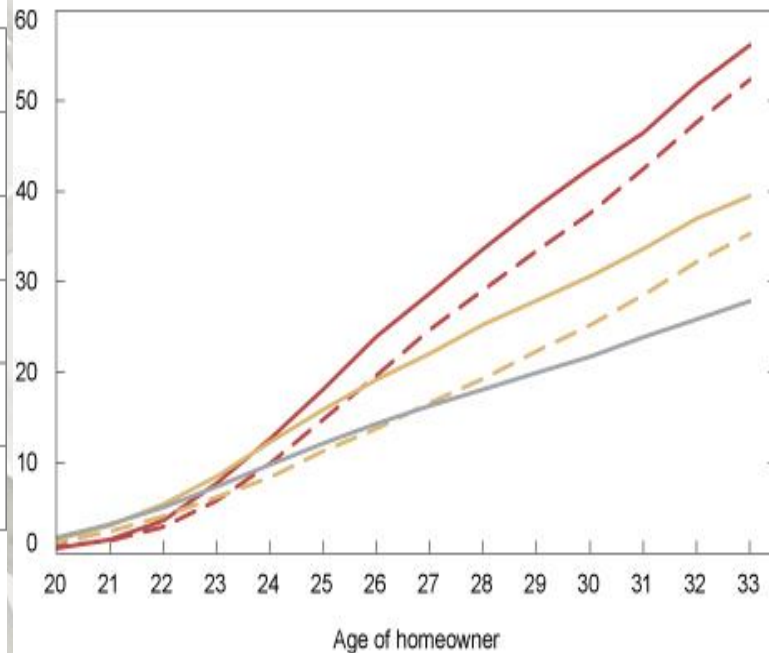
Sources: New York Fed Consumer Credit Panel / Equifax and National Student Clearinghouse.

Note: Bachelor's-plus includes those with bachelor's and higher-level degrees.

**College Graduates More Likely to Own Homes—Even if They Hold Student Debt**

- College graduate, no student debt
- College graduate, with student debt
- No college
- Some college, no student debt
- Some college, with student debt

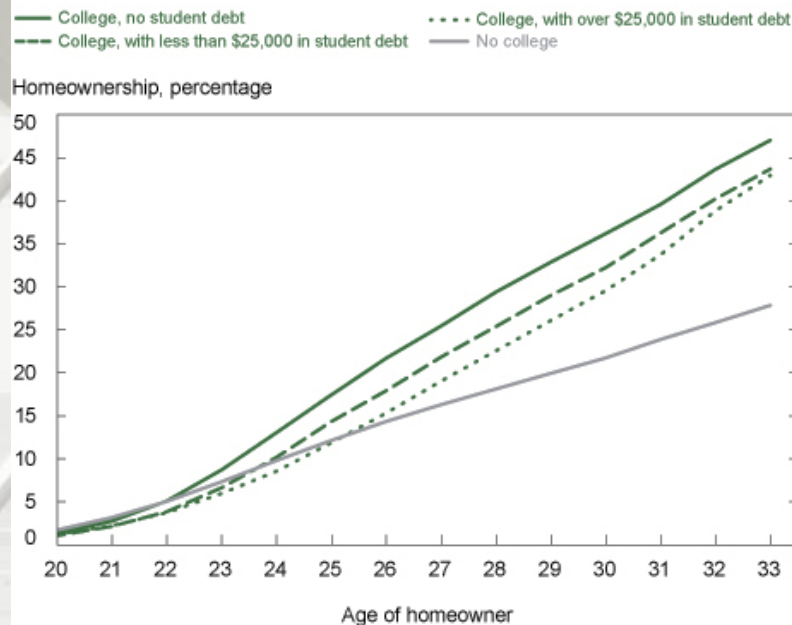
Homeownership, percentage



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

# Demographics

## Higher Student Debt Balance Is Associated with Lower Homeownership Rates



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

## Diplomas to Doorsteps: Education, Student Debt, and Homeownership

“We next examine whether the amount of student debt, measured as the maximum level of student debt incurred by age thirty, is related to homeownership. The chart below shows that those holding more than \$25,000 of debt (a value between the average and median debt levels observed among borrowers) are generally less likely to own homes than those with smaller amounts of debt. Because the amount of student debt held is somewhat correlated with degree program, with those entering bachelor’s and post-graduate programs typically incurring larger debts, the patterns shown – larger debt balances associated with lower homeownership rates – are likely to somewhat understate the importance of the amount of debt.” – Rajashri Chakrabarti, Nicole Gorton, and Wilbert van der Klaauw; Research and Statistics Group; The Federal Reserve Bank of New York

# Demographics

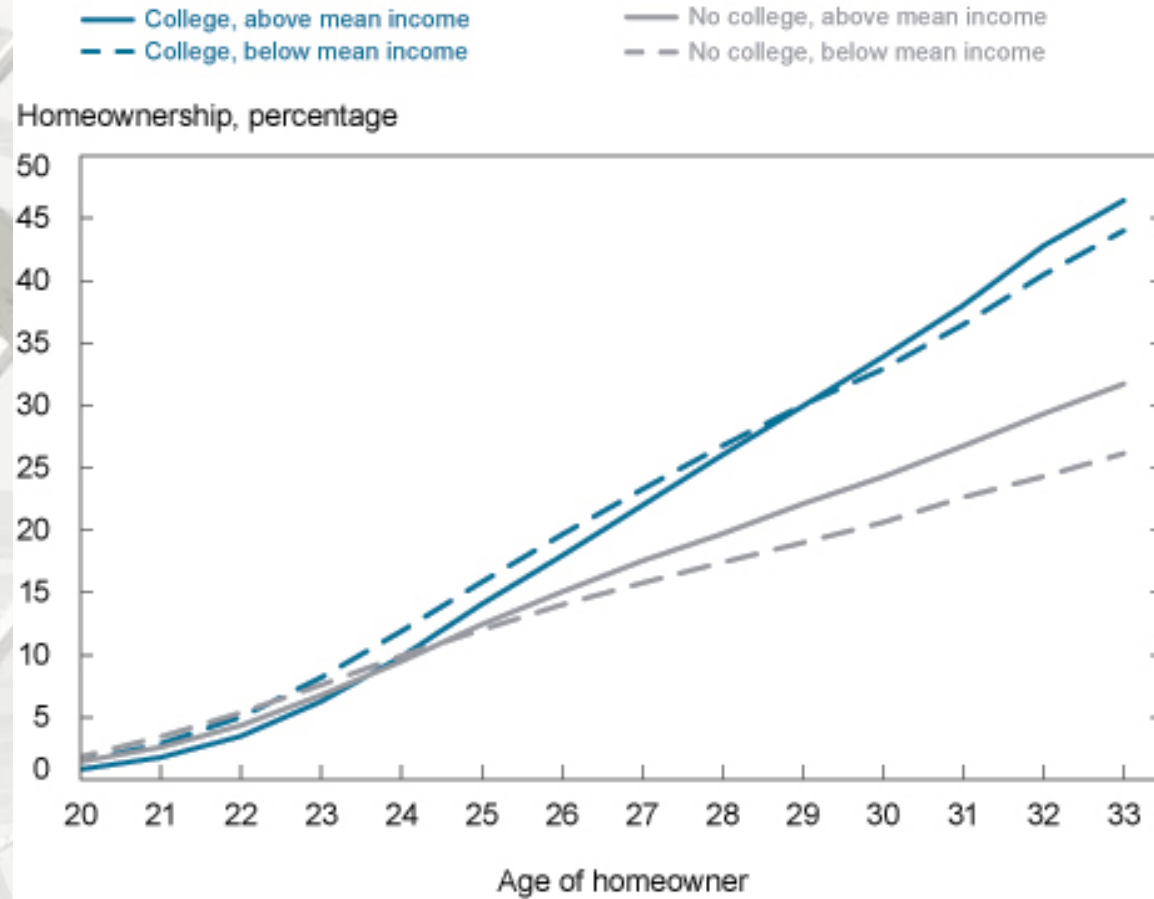
## **Diplomas to Doorsteps: Education, Student Debt, and Homeownership**

“One might expect those from wealthier areas, who presumably have greater financial resources, to own homes at a higher rate. However, we find that homeownership rates among college attendees are quite similar for both income groups. Thus, in terms of homeownership, college appears to be effective in “leveling the playing field” across students from different socioeconomic backgrounds (insofar as young adult neighborhood income captures socioeconomic backgrounds).

Of course, these comparable homeownership rates do not necessarily mean that individuals in each group own similar homes, put up similar down payments, or take out similar-sized mortgages. Indeed, a closer look at the mortgage balances of these groups reveals that the average mortgage balance at age thirty for college attendees from lower-income areas is approximately \$150,000, compared to around \$200,000 for those from higher-income areas. For non-college-goers, mortgage balances average \$131,000 among those from lower-income areas and \$191,000 among those from higher-income areas. Such differences likely reflect different location choices combined with differences in local home prices. Our [slide deck](#) contains much more detail on the relationship between homeownership, student debt, and education, including homeownership rates for the above groups over time.” – Rajashri Chakrabarti, Nicole Gorton, and Wilbert van der Klaauw; Research and Statistics Group; The Federal Reserve Bank of New York

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## College Attendance Appears to Mitigate the Importance of Family Background



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

Note: Family background is proxied by the 2010 mean income for the earliest zip code of residence we observe for each individual in our survey panel. Mean income is \$55,000.



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## **Diplomas to Doorsteps: Education, Student Debt, and Homeownership**

“While our analysis highlights the complex interactions between educational attainment, debt, and homeownership, there are some overarching themes to take away. Homeownership is positively associated with educational attainment — in terms of both degrees pursued and degrees completed. This finding underscores the critical importance of making college financially accessible. While going to college without debt is ideal, doing so is often a financial impossibility. Given a rising reliance on student debt for financing and gaining access to higher education, our findings highlight the increased importance of federal grant and loan programs.

In addition, our analysis shows that for any given level of educational attainment, those with student debt are less likely to own a home in their early thirties than those who completed their education without taking on as much — or any — debt. To the extent that the statistical associations we uncovered reflect a causal impact of debt on homeownership, they have important implications for the housing market and future spending behavior. Homeownership represents an important means of wealth accumulation, with housing equity being the principal form of wealth for most households. So, changes in the way we finance higher education, with an increased reliance on student debt, may have important implications for the housing market and the distribution of wealth. We expect to report new findings from ongoing research on this topic in the future.” – Rajashri Chakrabarti, Nicole Gorton, and Wilbert van der Klaauw; Research and Statistics Group; The Federal Reserve Bank of New York



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## **More than 1.1 million borrowers defaulted on their federal student loans last year**

“On average, more than 3,000 borrowers default on their federal student loans every day. The number of people who have defaulted on their federal student loans increased 17 percent from 2015 to 2016, according to a Consumer Federation of America analysis of U.S. Department of Education data.

“Despite a booming stock market and unemployment falling, student loan borrowers are struggling,” said Rohit Chopra, a senior fellow at the Consumer Federation of America and a former student loan ombudsman at the Consumer Financial Protection Bureau.

Last year, 42.4 million Americans owed \$1.3 trillion in federal student loans. More than 4.2 million borrowers were in default as of the end of 2016, up from 3.6 million in 2015. In all, 1.1 million more borrowers went into or re-entered default last year.

People who have defaulted on their student loans “are going to have a tougher time passing an employment verification check, saving for retirement or ever buying a home,” Chopra said. Borrowers in default can also have their wages garnished and their tax funds seized.

The increasing student loan default rate may have more to do with whether students finish their degrees than the rising cost of higher education. “We don't have a student loan problem, we have a college completion problem. Students who drop out of college are four times more likely to default on their loans,” said Mark Kantrowitz, vice president of strategy for college and scholarship search site Cappex.com.” – Tom Anderson, Personal Finance Writer, CNBC

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## **Students In Distress: Labor Market Shocks, Student Loan Default, and Federal Insurance Program**

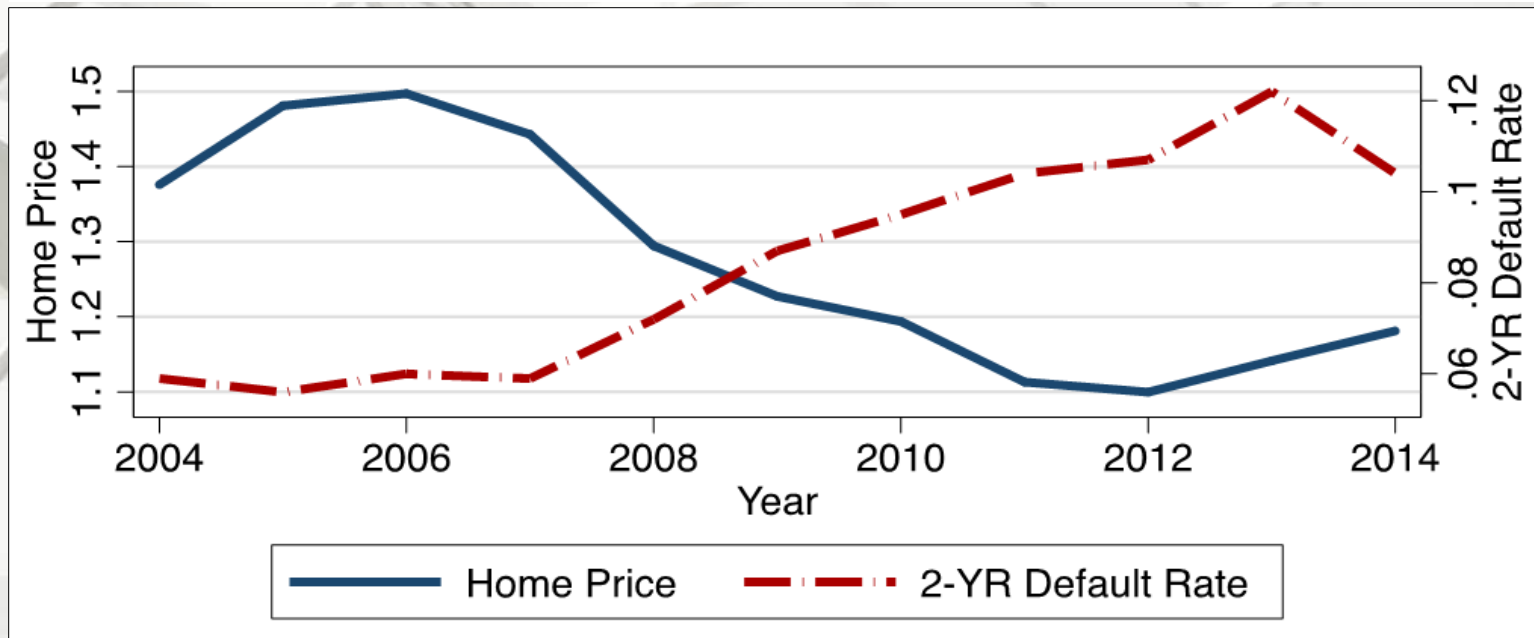
“The collapse in home prices during the Great Recession triggered a sharp drop in consumer demand by households, leading to massive employment losses.

....

Student loan default rates have been soaring since the onset of the Great Recession. A leading explanation is that the rise in student loan defaults is largely driven by compositional shifts toward “non-traditional” student borrowers attending community colleges and, especially, for-profit institutions. Our paper informs this debate by focusing on adverse labor market shocks. As prior research has shown, the collapse in home prices during the Great Recession triggered a sharp drop in consumer demand by households, leading to massive employment losses. Our estimates suggest that the collapse in home prices accounts for approximately 24 to 32 percent of the rise in student loan defaults, operating primarily through an aggregate labor market channel.”

– Holger Mueller and Constantine Yannelis, Stern School of Business, New York University

# Demographics



**Figure 1. Time Series Evidence**

“This figure shows the relationship between home prices and student loan defaults based on aggregated U.S. time series data. The solid line depicts the Zillow Home Value Index, which is normalized to one in 1996. The dashed line depicts the two-year cohort default rate, defined by the last year in which the cohort has been in repayment for two years. A student loan goes into default if it is more than 270 days past due. When a loan goes into default, the loan servicer has up to 90 days to report the default to the NSLDS. Accordingly, there is approximately a one-year time lag between when a payment is missed and when a default is recorded in the NSLDS. Cohort default rates are based on a four percent random sample of the NSLDS.” – Holger Mueller, and Constantine Yannelis, Stern School of Business, New York University

# Demographics

## **Boomers: House of Horrors or Empty Nest in Paradise?**

- “A decade after the housing bust, homeownership and real estate assets for Boomers have yet to recover, limiting real estate equity to tap in retirement.
- The expected wave of Boomer downsizing remains a ways off.”

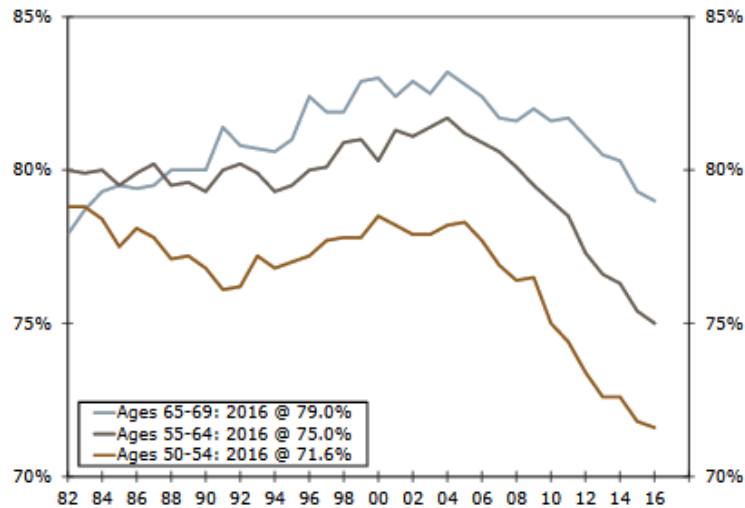
### **“Fewer Homeowners and Still Holding Debt as Retirement Looms”**

“As Baby Boomers transition to retirement, their changing housing needs will ripple through the real estate market. The desire to be closer to family, cut down on maintenance or even upsize are all factors that will shape housing decisions. The Boomers are now of the age when homeownership rates tend to peak. However, homeownership among 55-64 year olds is the lowest in decades and indicates this generation’s relationship with housing will be different from prior retirees (chart 1).

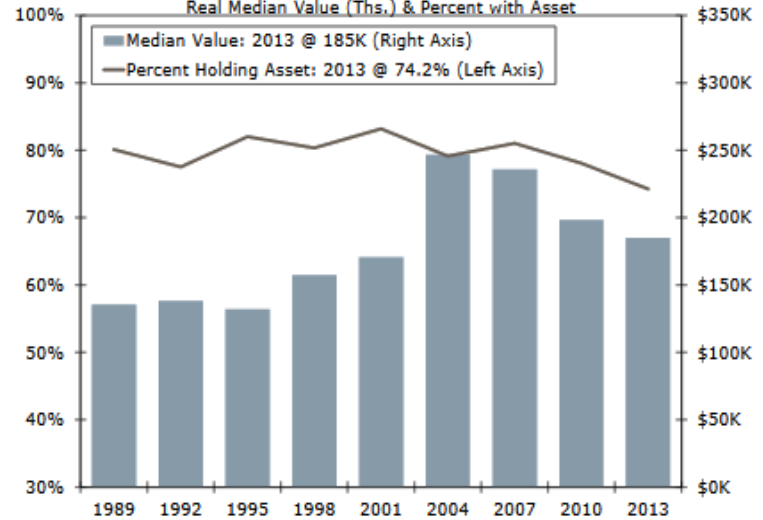
Lower homeownership implies a smaller share of Boomers will have home equity to tap in retirement. For most households, their home is their largest asset, but home values for the typical Boomer have yet to fully recover (middle chart). Moreover, fewer Boomers own their home free and clear as they near retirement. In 2013, only one-third of homeowners ages 55-64 had no debt on their primary residence compared to 54 percent in 1989.” – John Silvia, Chief Economist, Sarah House, Economist, and Michael Pugliese, Economic Analyst, Economics Group, Wells Fargo LLC

# Demographics

**Fewer Boomers Own a Home**  
Homeownership Rate By Age

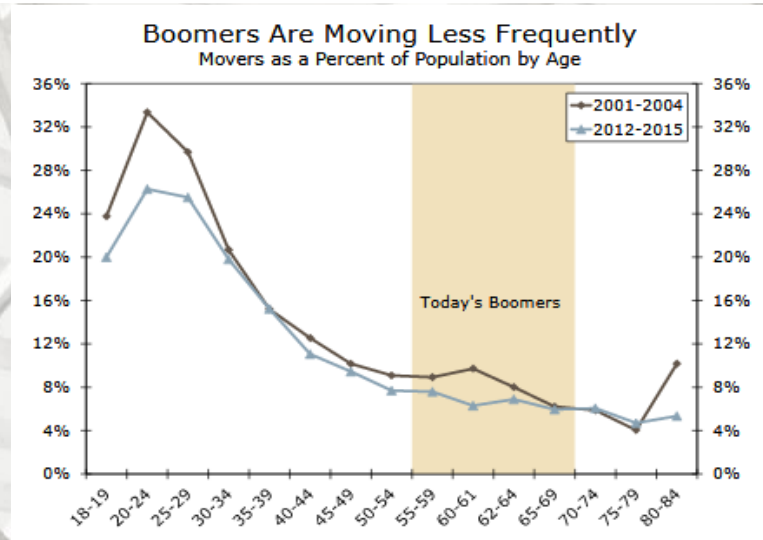


**Boomer Home Values Have Yet to Recover**  
Primary Residences for Households Ages 55-64  
Real Median Value (Ths.) & Percent with Asset





# Demographics



## Downsizing, Upsizing, or Staying Put?

It's a common assumption that as Baby Boomers reach retirement they will downsize to smaller, more manageable and affordable housing. However, a 2015 study by Fannie Mae found little evidence of Boomers downsizing as home sizes among this group had ticked up in recent years. Similarly, the Demand Institute found that nearly half of Boomers planning to move actually intended to upsize, although the vast majority — nearly two-thirds — of Boomers had no plans to move.

Downsizing may not be entirely off the table for Boomers, but, like major housing decisions for Millennials, the time horizon may be pushed back. Many Boomers are working longer (the topic of our next note) or have less equity than they thought at this point in their lives following the housing bust. In addition, the elevated share of adult children living at home is likely hindering some Boomers from downsizing.” – John Silvia, Chief Economist, et al, Wells Fargo LLC

# Demographics

## Downsizing, Upsizing, or Staying Put?

With fewer Boomers planning to downsize, fears that there will not be enough trade-up buyers to purchase their homes may be overdone. With the majority of Boomers wanting to age in-place, single-family home inventories look set to remain tight, barring a meaningful pickup in new construction. In addition, there have been few signs of retirement-age households moving into multifamily housing in recent years, with the share of households age 65 and over living in single-family homes (owned or rented) edging up between 2010 and 2015.

Like younger households, Boomers are moving less than prior generations (bottom chart). For Boomers who do move, job-related reasons and the desire for cheaper housing have taken on greater importance over the past decade. However, the share citing the main reason for moving was to own, not rent, has moved up since the mid-2000s, signaling the housing bust has not led Boomers to fully give up on homeownership.” – John Silvia, Chief Economist, Sarah House, Economist, and Michael Pugliese, Economic Analyst, Economics Group, Wells Fargo LLC

# Demographics

## **Boomer Spending: Bracing for the Slowdown**

“Most Boomers are now of an age where household spending begins to decline, which has begun to weigh on consumer spending.

Healthcare and housing are accounting for a growing share of senior spending.”

## **Consumer Spending: Boomers Shift from Tailwind to Headwind**

“Spending follows a predictable pattern as consumers age. As earnings rise and families grow, household spending increases through middle-age before falling as the kids move out and the house (ideally) gets paid off. Over the past few decades, falling outlays among older households were masked by the rising earning and spending power of the Boomers as they entered their prime working years. With adults age 65+ expected to rise from 20 percent of the adult population to 25 percent over the next 10 years, there is no offset to the slowdown in senior spending this time around.

More than three quarters of the Boomers are already over the age of 55, when household spending begins to decline (chart I). With retirement age households spending 25 percent less than younger households, the aging of the Boomers stands to weigh on consumer spending, the powerhouse of the U.S. economy, in the years ahead. Spending could be hampered further in the near term if Boomer households try to shore up their retirement savings by putting more money away now, although this at least would limit the drag on spending further down the road.” – John Silvia, Chief Economist, Sarah House, Economist, and Michael Pugliese, Economic Analyst, Economics Group, Wells Fargo LLC

# Demographics

## **Boomer Spending: Bracing for the Slowdown**

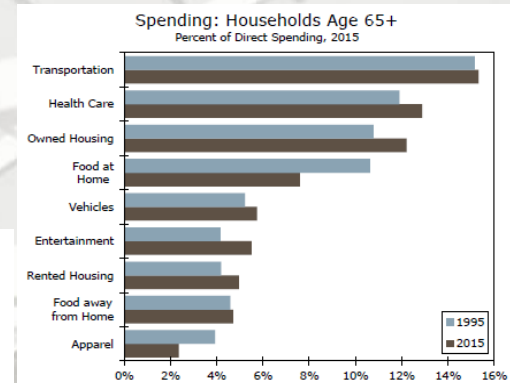
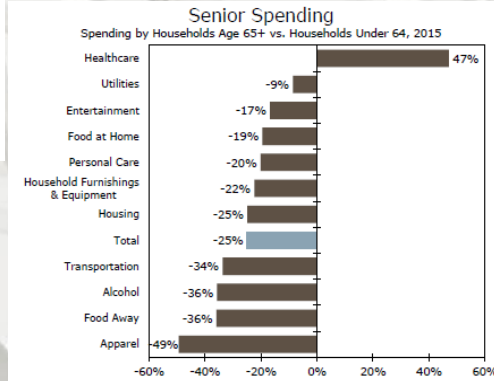
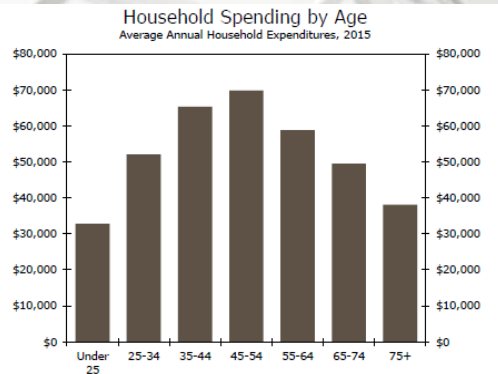
### **What Areas of Spending Will Be Hit Hardest?**

“The degree to which businesses will need to brace for the spending slowdown as more Boomers reach retirement age varies by industry. Not surprisingly, one segment where spending rises with age is healthcare (out-of-pocket and government). In every other major category, however, spending among households over the age of 65 falls. Apparel, dining out and transportation (vehicles purchases, finance charges and gasoline) see the largest drop off, with average annual expenditures for households 65 and over falling by at least than one-third (chart II).

### **Discretionary Spending Pressured by Healthcare and Housing**

But will Boomers spend the same way as older generations after turning 65? Healthcare looks set to account for a greater share of spending among Boomers than previous generations. Rising insurance premiums have more than offset out-of-pocket savings on prescription drugs due to Medicare Part D. Of course, a substantial share of healthcare spending is paid for by the government, and, with the rising number of beneficiaries, total healthcare spending is likely to remain one of the strongest segments of consumer spending in the years ahead.” – John Silvia, Chief Economist, Sarah House, Economist, and Michael Pugliese, Economic Analyst, Economics Group, Wells Fargo LLC

# Demographics



## Boomer Spending: Bracing for the Slowdown

### Discretionary Spending Pressured by Healthcare and Housing

“Housing is also taking up a higher share of senior spending as more households reach age 65 without having paid off their home or are renting, leaving them exposed to future price increases (chart III). In contrast, seniors are saving at grocery and clothing stores, helped by relatively low inflation in these categories the past two decades. This should limit the hit to discretionary spending, but won’t change the fact that Boomers will still be spending less overall, generating a drag on consumer spending.” – John Silvia, Chief Economist, Sarah House, Economist, and Michael Pugliese, Economic Analyst, Economics Group, Wells Fargo LLC



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