

# The Virginia Tech – U.S. Forest Service

## July 2017

### Housing Commentary: Section II



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2017

Virginia Polytechnic Institute and State University

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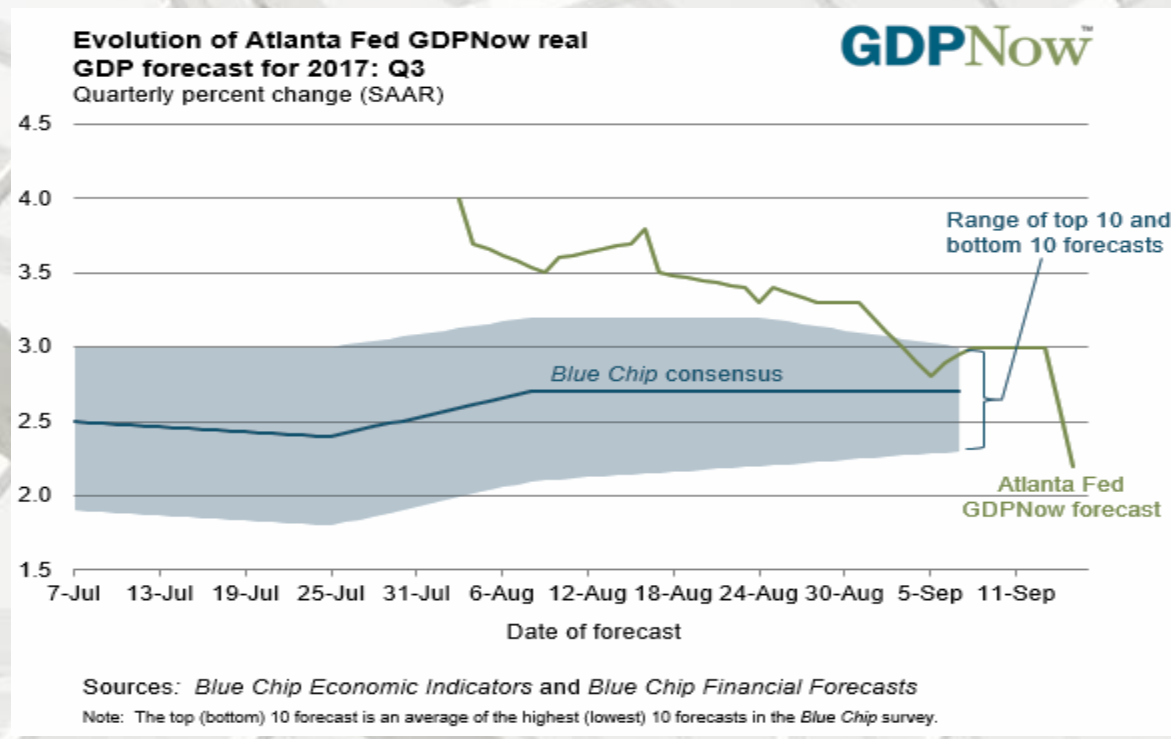
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The background of the slide is a grayscale photograph of a wooden roof structure, showing a complex network of beams and rafters. A white rectangular box is centered on the slide, containing the title text.

# **Federal Reserve System and Private Indicators**

# U.S. Economic Indicators



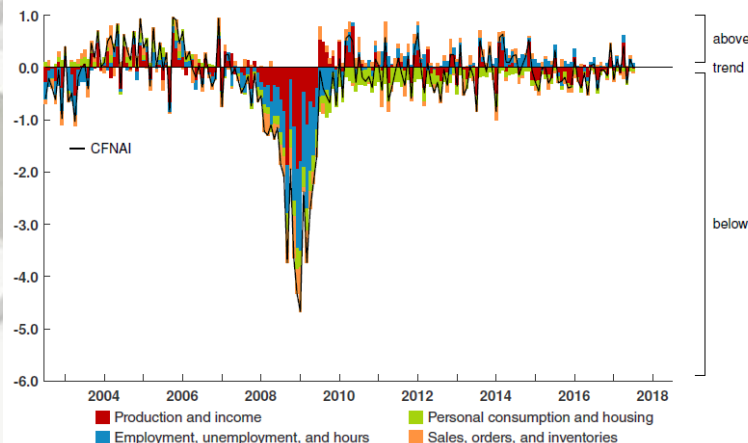
## Atlanta Fed GDPNow™

**Latest forecast: 2.2 percent — September 15, 2017**

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the third quarter of 2017 is **2.2 percent** on September 15, down from 3.0 percent on September 8. The forecasts of real consumer spending growth and real private fixed investment growth fell from 2.7 percent and 2.6 percent, respectively, to 2.0 percent and 1.4 percent, respectively, after this morning's retail sales release from the U.S. Census Bureau and this morning's report on industrial production and capacity utilization from the Federal Reserve Board of Governors.” – Pat Higgins, Economist, Federal Reserve Bank of Atlanta

# Chicago Fed: National Activity Index

Chicago Fed National Activity Index, by Categories



## Midwest Economy Index

“The Chicago Fed National Activity Index (CFNAI) moved down to  $-0.01$  in July from  $+0.16$  in June. Three of the four broad categories of indicators that make up the index decreased from June, and three of the four categories made negative contributions to the index in July. The index’s three-month moving average, CFNAI-MA3, moved down to  $-0.05$  in July from  $+0.09$  in June.” – Laura LaBarbera, Media Relations, Chicago Fed

## Index points to growth near historical trend in July

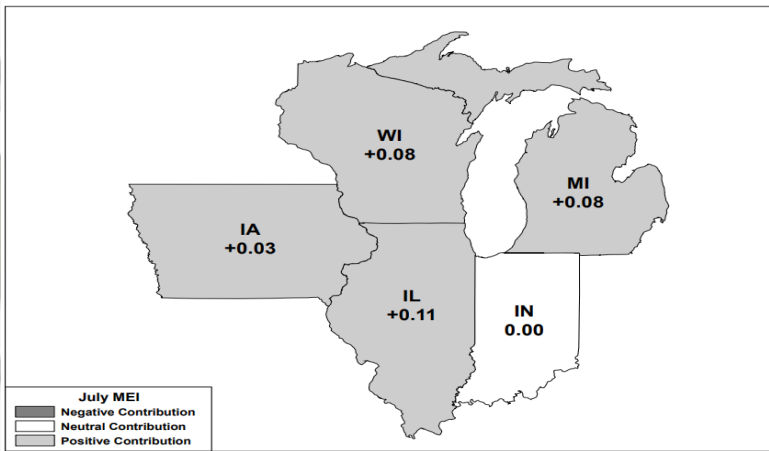
“The contribution from production-related indicators to the CFNAI decreased to  $-0.02$  in July from  $+0.03$  in June. Manufacturing industrial production decreased 0.1 percent in July after increasing 0.2 percent in June; however, total industrial production increased 0.2 percent in July after moving up 0.4 percent in June. The sales, orders, and inventories category made a contribution of  $-0.01$  to the CFNAI in July, down from  $+0.06$  in June.

Employment-related indicators contributed  $+0.09$  to the CFNAI in July, down from  $+0.13$  in June. Nonfarm payroll employment increased by 209,000 in July after rising by 231,000 in June; that said, the civilian unemployment rate ticked down to 4.3 percent in July from 4.4 percent in June.

The contribution of the personal consumption and housing category to the CFNAI edged up to  $-0.06$  in July from  $-0.07$  in June. Consumption indicators improved, on balance, pushing up the category’s overall contribution. However, housing starts decreased to 1,155,000 annualized units in July from 1,213,000 in June, and housing permits decreased to 1,223,000 annualized units in July from 1,275,000 in the previous month.” – Laura LaBarbera, Media Relations, 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) decreased to +0.29 in July from +0.43 in June. Contributions to the July MEI from three of the four broad sectors of nonfarm business activity and three of the five Seventh Federal Reserve District states declined from June. The relative MEI moved down to -0.07 in July from +0.07 in June. Contributions to the July relative MEI from all four sectors and three of the five states decreased from June.” – Laura LaBarbera, Media Relations, Chicago Fed

## Index Points to Slower Midwest Economic Growth Again in July

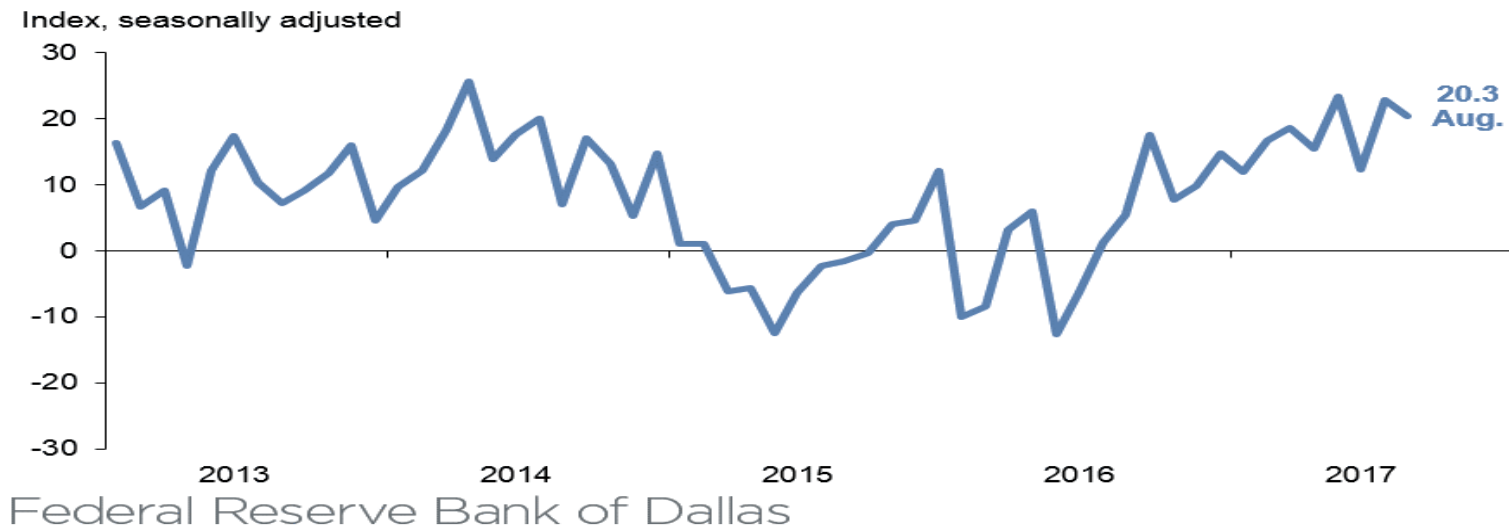
“The manufacturing sector’s contribution to the MEI edged down to +0.32 in July from +0.38 in June. The pace of manufacturing activity decreased in Indiana, Iowa, Michigan, and Wisconsin, but was unchanged in Illinois. Manufacturing’s contribution to the relative MEI ticked down to +0.27 in July from +0.28 in June. The construction and mining sector’s contribution to the MEI edged down to -0.06 in July from -0.03 in June. The pace of construction and mining activity was lower in Iowa and Michigan, but higher in Indiana and unchanged in Illinois and Wisconsin. Construction and mining made a contribution of -0.08 to the relative MEI in July, down from -0.05 in June.

The service sector made a contribution of -0.06 to the MEI in July, slightly up from -0.09 in June. The pace of service sector activity was up in Illinois, Indiana, Iowa, and Michigan, but down in Wisconsin. The service sector’s contribution to the relative MEI decreased to -0.29 in July from -0.26 in June.

The contribution from consumer spending indicators to the MEI decreased to +0.09 in July from +0.17 in June. Consumer spending indicators were, on balance, down in all five Seventh District states. Consumer spending’s contribution to the relative MEI decreased to +0.03 in July from +0.11 in June.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

# U.S. Economic Indicators

## Texas Manufacturing Outlook Survey Production Index



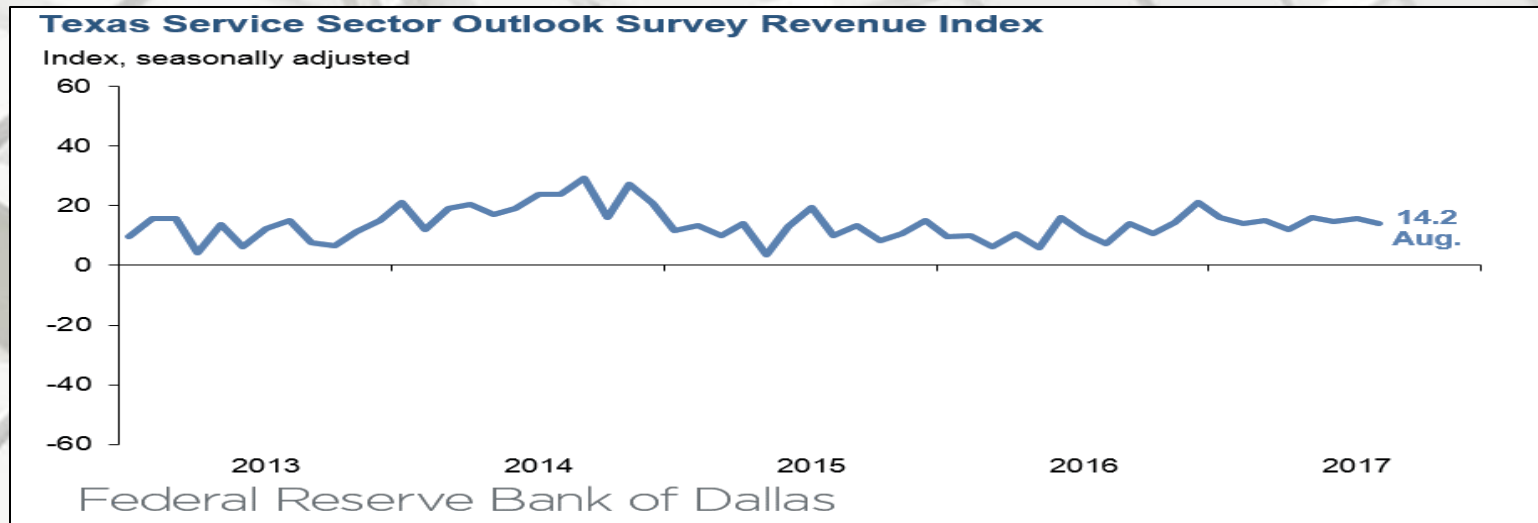
## Texas Manufacturing Activity Expands Again

“Texas factory activity continued to increase in August, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index, a key measure of state manufacturing conditions, edged down to 20.3, indicating output grew but at a slightly slower pace than in July.

Other measures of current manufacturing activity also indicated continued growth. The new orders and the growth rate of orders indexes ticked down but stayed solidly positive, coming in at 14.3 and 11.7, respectively. The capacity utilization index fell six points to 12.2, while the shipments index increased seven points to 18.1.

Perceptions of broader business conditions remained positive in August. The general business activity index was largely unchanged at a robust 17.0. The company outlook index posted its 12th consecutive positive reading but slipped 10 points to 16.3 after surging to a multiyear high last month.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

# U.S. Economic Indicators



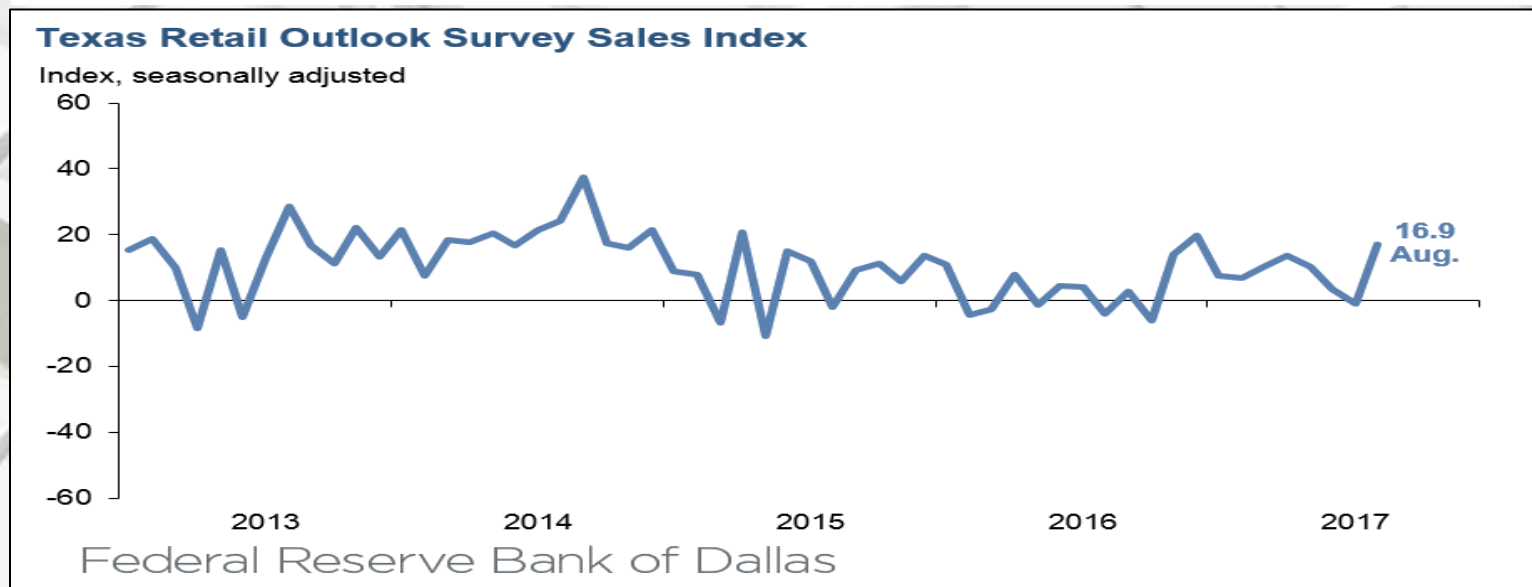
## Texas Service Sector Activity Continues to Increase

“Texas service sector activity continued to reflect expansion in August, albeit at a slightly slower pace, according to business executives responding to the Texas Service Sector Outlook Survey. The revenue index, a key measure of state service sector conditions, edged down slightly from 15.7 in July to 14.2 in August.

Labor market indicators reflected slower employment growth and longer workweeks this month. The employment index moved down three points to 4.6. The hours worked index was unchanged at 8.3.

Perceptions of broader economic conditions reflected more optimism in August. The general business activity index moved up from 10.5 to 15.1. The company outlook index advanced from 7.9 to 15.5, with 23 percent of respondents reporting that their outlook improved from last month and 8 percent noting it worsened. Respondents’ expectations regarding future business conditions continued to reflect optimism in August. The index of future general business activity fell slightly to 21.3. The index of future company outlook rose three points to 26.2. Indexes of future service sector activity, such as future revenue and employment, also continued to reflect optimism this month.” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

# U.S. Economic Indicators



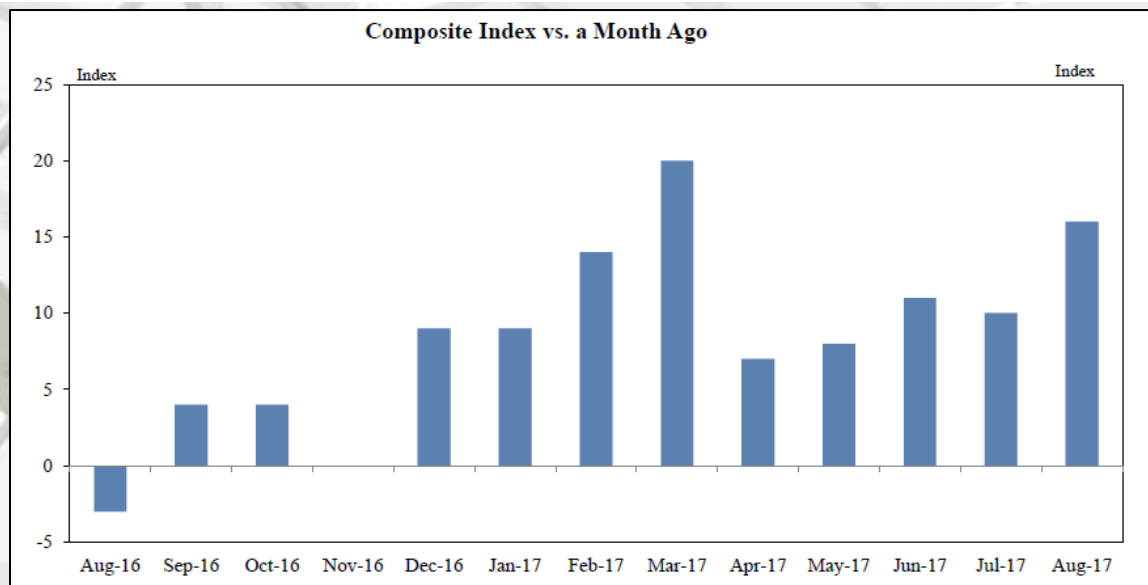
## Retail Sales Rebound

“Retail sales improved notably in August after falling last month, according to business executives responding to the Texas Retail Outlook Survey. The sales index surged 18 points to 16.9 in August. Inventories increased at a faster pace this month.

Retailers’ perceptions of broader economic conditions reflected more optimism in August. The general business activity index rose from 4.3 to 9.7. The company outlook index jumped from a reading near zero to 8.6, with 21 percent of respondents reporting that their outlook improved from last month and 12 percent noting it worsened.

Retailers’ perceptions of future broader economic conditions continued to reflect optimism in August. The index of future general business activity fell slightly from 15.4 to 11.6. The index of future company outlook moved up eight points to 17.9. Indexes of future retail sector activity reflected more optimism this month” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

# U.S. Economic Indicators



## The Federal Reserve Bank of Kansas City

### Tenth District Manufacturing Expanded Moderately

“Tenth District manufacturing activity expanded at a faster pace in August, and expectations for future activity also remained solid. Price indexes rose across the board, especially the expectations index for finished goods prices. The month-over-month composite index was 16 in July, up from 10 in July and 11 in June (Chart).” – Pam Campbell, Federal Reserve Bank of Kansas City

“Factories reported acceleration in activity in August to the fastest pace since March. Many firms also reported plans to raise finished goods prices in coming months.” – Chad Wilkerson, Vice President and Economist, Federal Reserve Bank of Kansas City

# U.S. Economic Indicators

## The Federal Reserve Bank of Kansas City

### Tenth District Manufacturing Expanded Moderately

“The year-over-year factory indexes were mixed in August. The composite index was unchanged at 23, while the production, shipments, new orders, and order backlog indexes eased slightly but remained well above zero. However, the employment index was stable at 22, and the capital expenditures index rose from 15 to 21. The raw materials inventory index increased from 10 to 18, while the finished goods inventory index was basically unchanged.

Expectations for future factory activity edged higher after easing slightly last month, and remained solid overall. The future composite index rose from 19 to 23, and the future production, shipments, new orders, and order backlog indexes all increased slightly. The future employment index was unchanged at 26, while the future capital expenditures index inched higher from 16 to 18. The future raw materials inventory index decreased from 4 to -2, and the future finished goods inventory index also fell into negative territory.

The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Factory activity increased solidly at durable goods plants, particularly for electronics, metals, and aircraft products, while nondurable goods activity rose more modestly. Most month-over-month indexes increased over the previous month. The production index jumped from 4 to 22, and shipments, new orders, and order backlog indexes rebounded strongly after falling last month. The employment index has remained basically unchanged for the past three months, while the new orders for exports index edged higher. The finished goods inventory index fell from 7 to 2, while the raw materials inventory index was unchanged.” – Pam Campbell, Federal Reserve Bank of Kansas City

# U.S. Economic Indicators

## Empire State Manufacturing Survey

### Activity Picks Up Markedly

“Business activity grew strongly in New York State, according to firms responding to the August 2017 *Empire State Manufacturing Survey*. The headline general business conditions index climbed fifteen points to 25.2, its highest level in nearly three years. The new orders index rose seven points to 20.6 and the shipments index edged up to 12.4, pointing to solid gains in orders and shipments. Delivery times continued to lengthen, and inventory levels moved lower. Labor market indicators pointed to an increase in employment and hours worked. Input prices rose at a faster clip than last month, while selling prices rose at a somewhat slower pace. Indexes assessing the six-month outlook suggested that firms were very optimistic about future conditions.

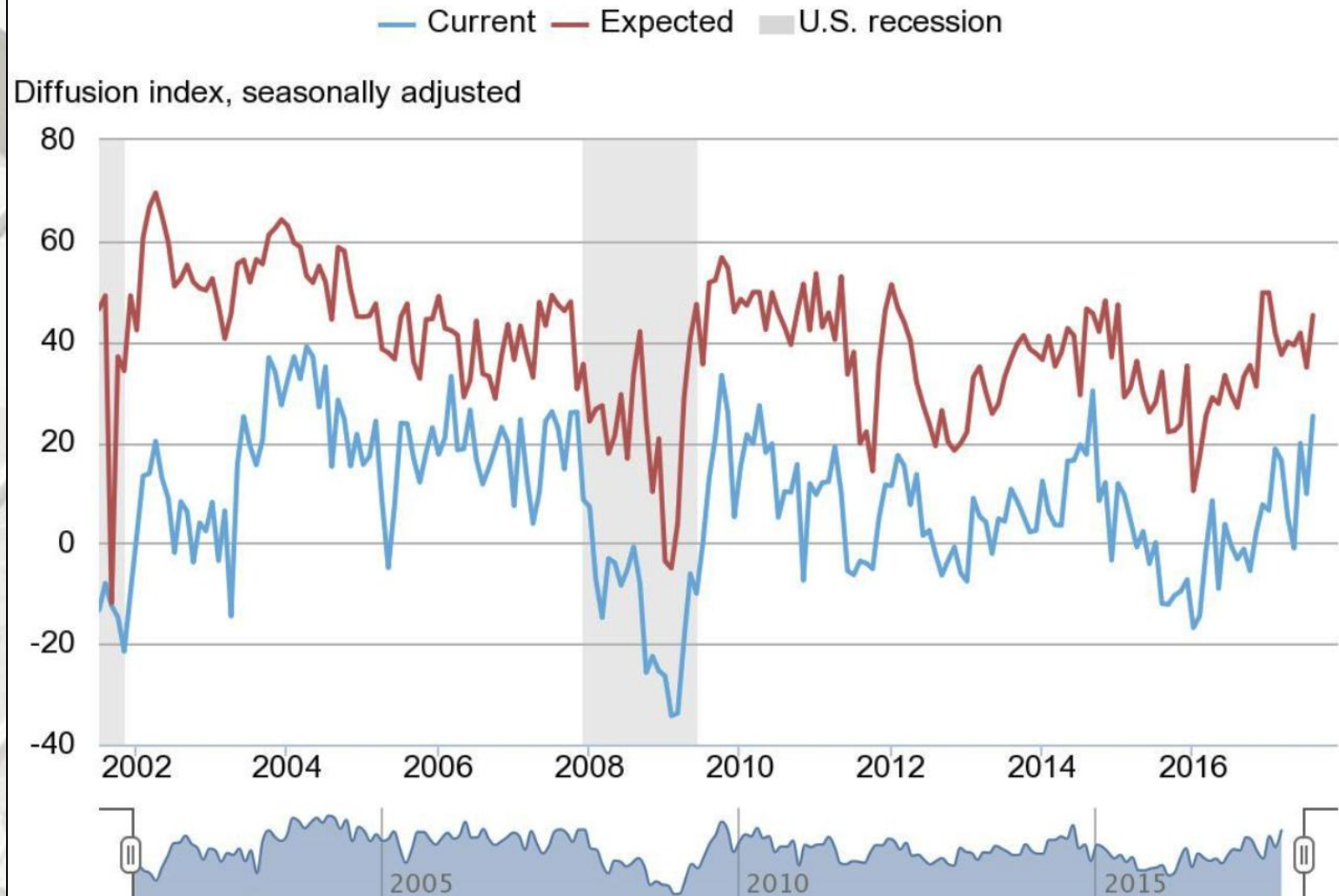
Manufacturing firms in New York State reported that business activity expanded strongly in August. The general business conditions index rose fifteen points to 25.2, its highest level since September 2014. Forty-two percent of respondents reported that conditions had improved over the month, while 17 percent reported that conditions had worsened. The new orders index climbed seven points to 20.6, pointing to a solid increase in orders, and the shipments index rose slightly to 12.4. The unfilled orders index held steady at -4.7. The delivery time index was little changed at 5.4, pointing to somewhat longer deliver times, and the inventories index fell to -3.1, indicating that inventory levels were slightly lower.

### Firms Very Optimistic

Indexes assessing the six-month outlook suggested that firms were quite optimistic about future conditions. The index for future business conditions rose ten points to 45.2, and the index for future new orders moved up eight points to 41.3. Employment was expected to increase modestly, though the average workweek was expected to decline slightly. The capital expenditures index slipped to 11.6, and the technology spending index fell to 9.3.” – Federal Reserve Bank of New York

# U.S. Economic Indicators

## General Business Conditions



# U.S. Economic Indicators

## Business Leaders Survey

“Activity in the region’s service sector picked up, according to firms responding to the Federal Reserve Bank of New York’s August 2017 *Business Leaders Survey*. The survey’s headline business activity index climbed twelve points to 11.7, its highest level in more than a year. The business climate index remained negative at -6.1, signaling that respondents on balance continued to regard the business climate as worse than normal, though this view was somewhat less widely shared than in July. The employment index, down two points to 7.5, pointed to a continued increase in employment levels, and the wages index held steady at 33.3, suggesting that wages rose at a pace similar to last month’s. Price indexes were positive and close to their July levels, indicating that both input prices and selling prices increased at about the same pace observed last month. Capital spending continued to grow modestly. Indexes assessing the six-month outlook suggested that firms remained fairly optimistic about future business conditions

### Activity Grows, though Business Climate Remains Unfavorable

Business activity in the region’s service sector expanded in August. The headline business activity index advanced twelve points to 11.7, its highest level since March 2016. Thirty-six percent of respondents reported that conditions had improved over the month, while 24 percent said that conditions had worsened. The business climate index rose seven points, but remained negative at -6.1, suggesting that, on balance, firms continued to view the business climate as worse than normal, though to a lesser extent than in July.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

## Employment Increases Modestly

“The employment index dipped two points to 7.5, a reading that reflected continued modest growth in employment levels. The wages index held steady at 33.3, suggesting that wages increased at about the same pace as in July. Both price indexes were little changed, a sign that prices increased at a pace similar to last month’s: the prices paid index edged down to 36.3, and the prices received index edged up to 13.8. The capital spending index held steady at 10.8.

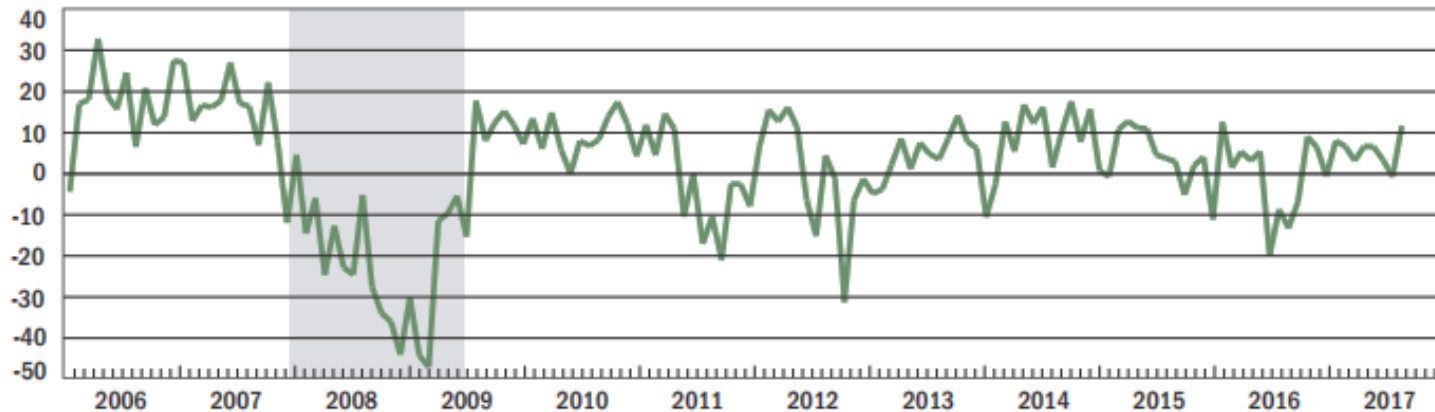
## Firms Fairly Optimistic

Respondents assessing the six-month outlook continued to convey optimism about future conditions, though they were somewhat less positive than in recent months. The index for future business activity increased three points to 31.3, and the index for future business climate was little changed at 15.5. The index for expected employment climbed sixteen points to 28.5, suggesting that employment is expected to increase in the months ahead, and the index for planned capital spending rose six points to 20.5. ” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

## Business Activity

Diffusion index

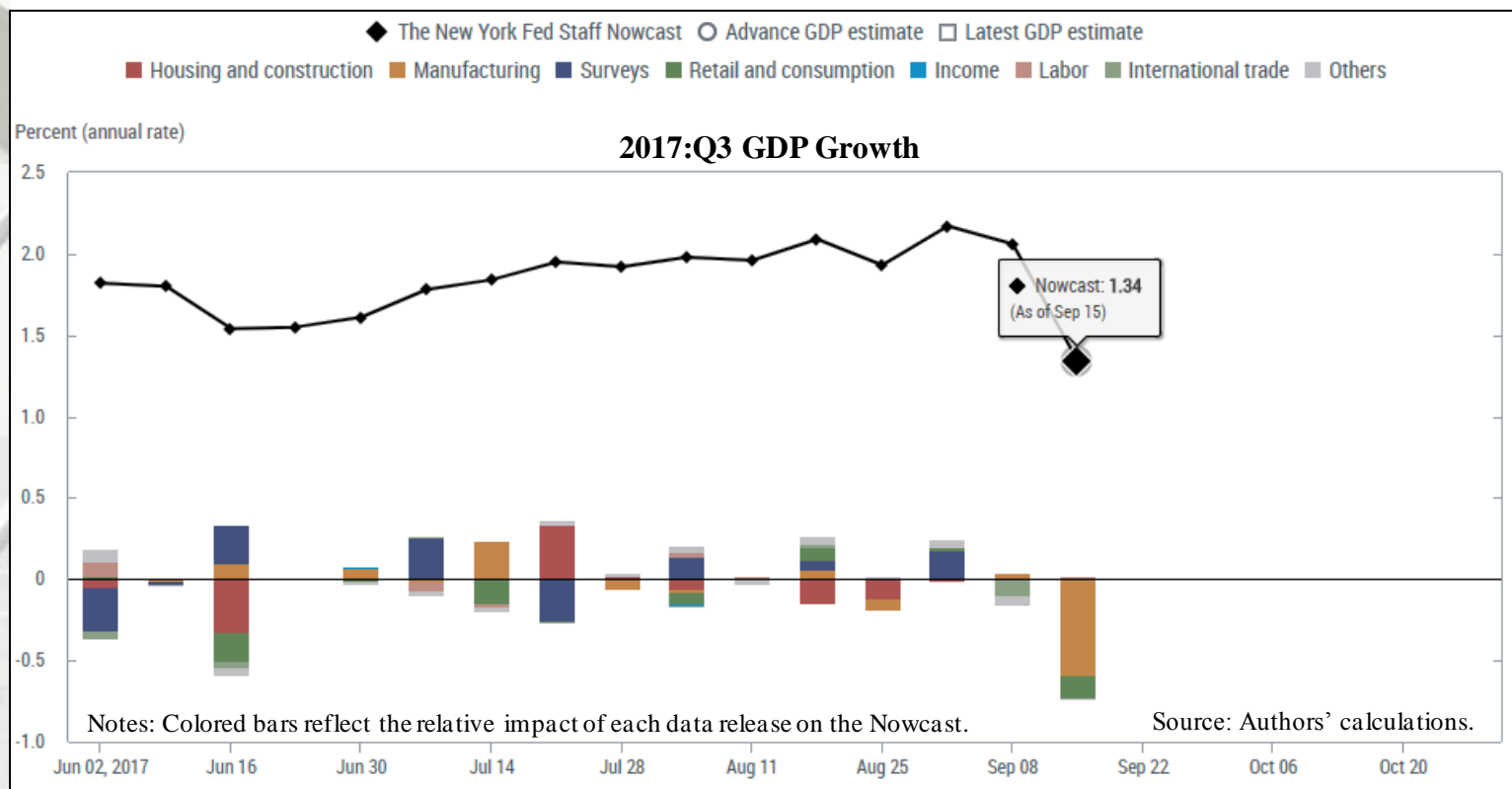


Note: The shaded area indicates a period designated a recession by the National Bureau of Economic Research.

*Editor's note: When this report was first published, the August reading for the future business activity index was given as 31.1 in the text. This figure has been corrected to 31.3. (August 16, 11:40 a.m.)*

# U.S. Economic Indicators

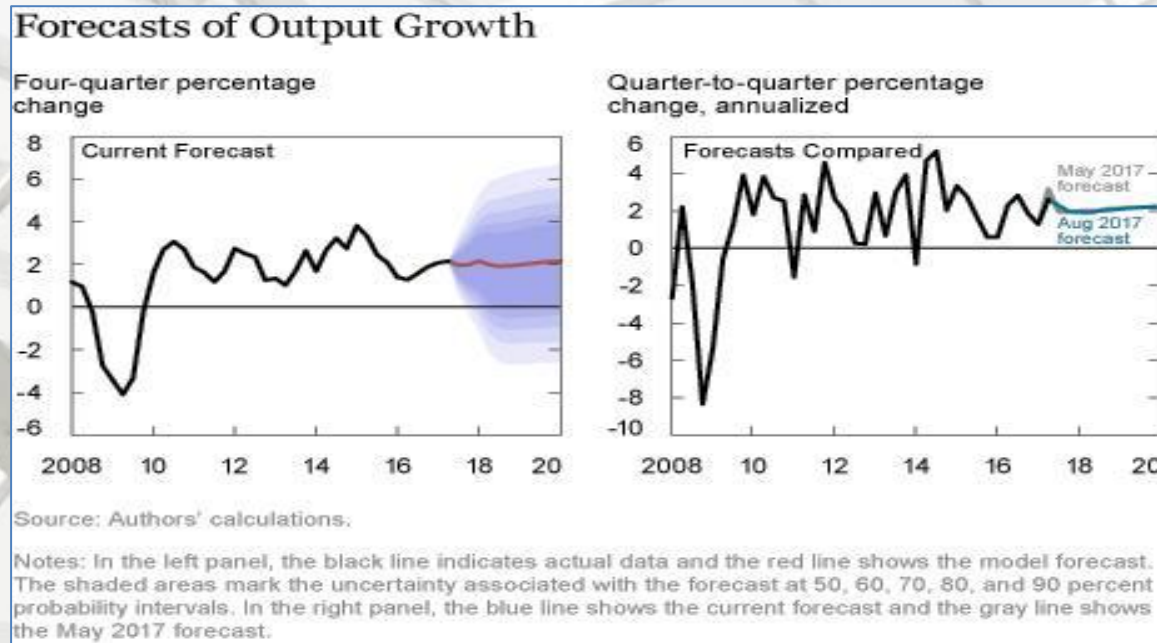
## The Federal Reserve Bank of New York



### September 15, 2017: Highlights

- “The New York Fed Staff Nowcast stands at 1.3% for 2017:Q3 and 1.8% for 2017:Q4.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators



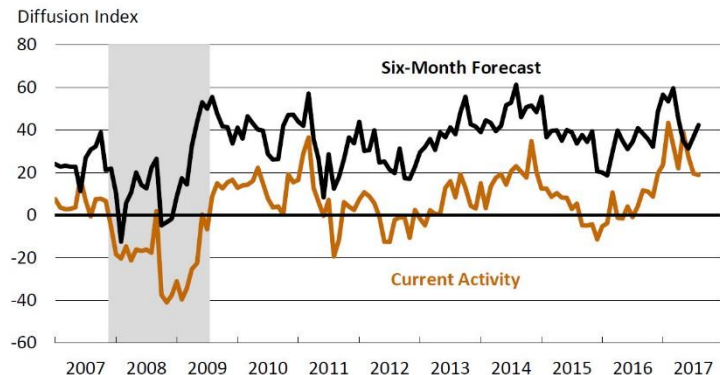
Model Forecast	2017		2018		2019		2020	
	Aug	May	Aug	May	Aug	May	Aug	May
GDP growth (Q4/Q4)	2.0	1.9	1.9	2.1	2.1	2.2	2.2	2.2
Core PCE inflation (Q4/Q4)	1.3	1.5	1.3	1.5	1.5	1.6	1.6	1.7
Real natural rate of interest (Q4)	0.5	0.7	0.8	1.0	1.0	1.1	1.2	1.2

## The New York Fed DSGE Model Forecast — August 2017

“The current GDP growth forecast is essentially in line with May’s projection. GDP growth is projected to be about 2.0 percent in 2017 and 2018 (in Q4/Q4 terms) and to pick up modestly in the following years.” – Michael Cai, Marc Giannoni, Abhi Gupta, Pearl Li, and Argia Sbordone, The Federal Reserve Bank of New York

# U.S. Economic Indicators

Current and Future General Activity Indexes  
January 2007 to August 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.

“Manufacturing conditions in the region continued to advance in August, according to firms responding to this month’s *Manufacturing Business Outlook Survey*. The diffusion index for general activity fell slightly but continued to reflect growth. There was a notable improvement in the new orders and shipments indexes, and overall employment expansion continued among the reporting firms. The survey’s indexes of future activity indicate that firms expect a continuation of growth in the region’s manufacturing sector over the next six months.

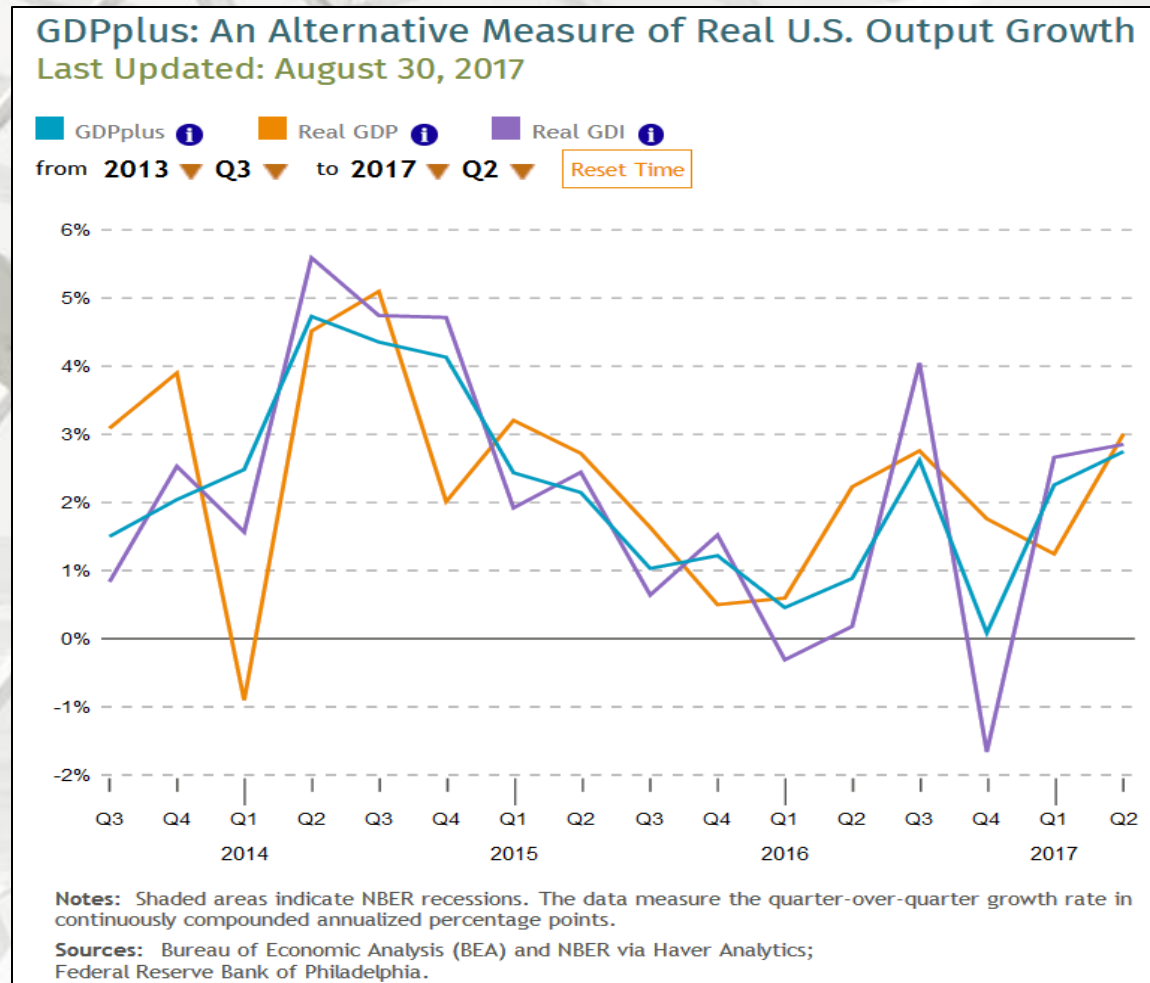
## August 2017 Manufacturing Business Outlook Survey

### Current Indicators All Remain Positive

The survey’s broadest measure of manufacturing conditions, the diffusion index of current activity, fell slightly from 19.5 in July to 18.9 in August. The index has been positive for 13 consecutive months (see Chart). Despite the fallback in the general activity index, the demand for manufactured goods, as measured by the survey’s current new orders index, showed notable improvement: The diffusion index increased from 2.1 to 20.4. Firms reported that shipments also continued to rise. The current shipments index increased 17 points to 29.4.

Responses to the August Manufacturing Business Outlook Survey suggest continued growth for the region’s manufacturing sector, as all of the broad current indicators remained positive. Firms reported a notable expansion in new orders and shipments this month. The survey’s future indexes indicate that respondents continue to expect growth over the next six months.” – Mike Trebing, Senior Economic Analyst, Federal Reserve Bank of Philadelphia

# Philadelphia Fed: GDPplus

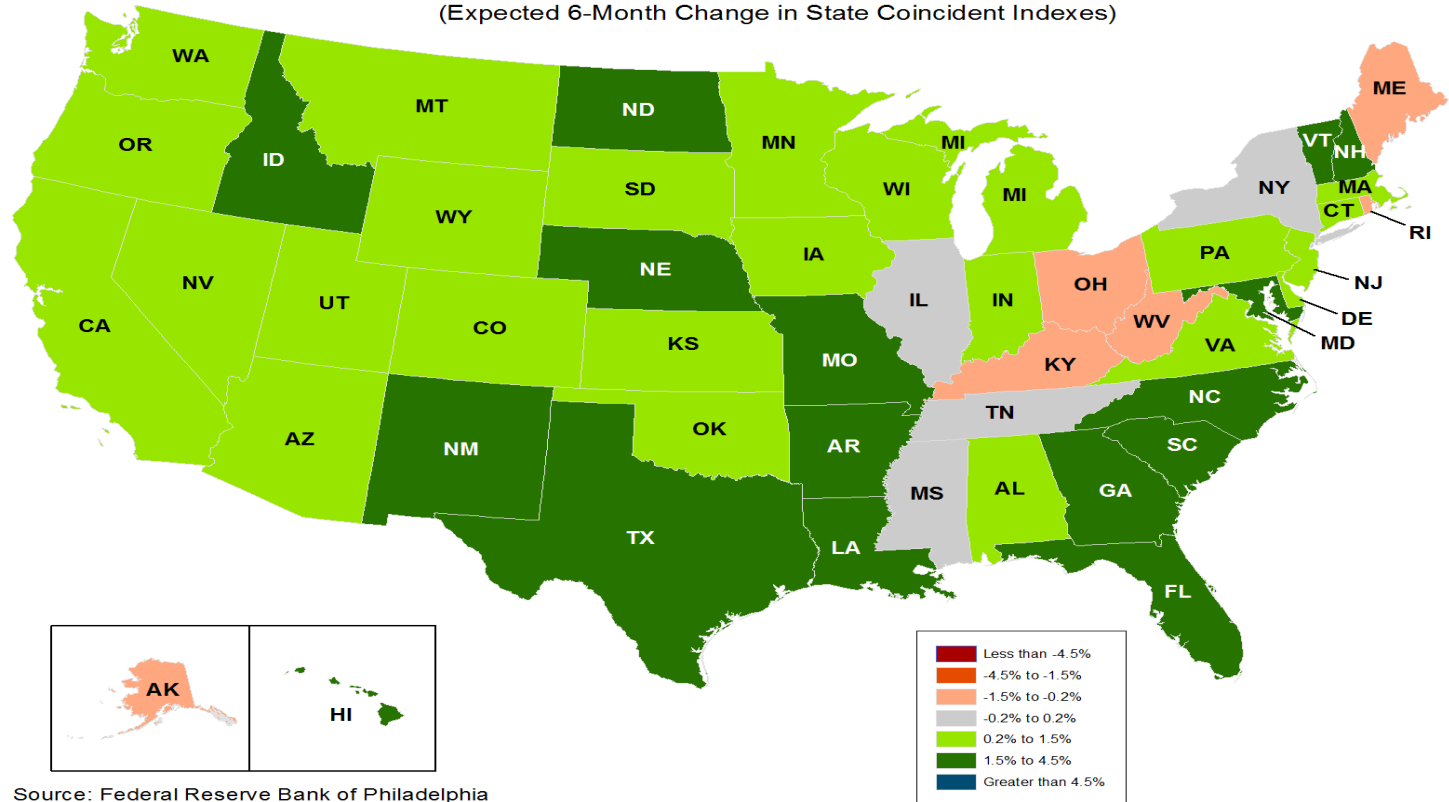


“Real GDP Q2 2017: 3.0%; Real GDI Q2 2017: 2.8%; and Real GDPplus Q2 2017: 2.7%.” – The Federal Reserve Bank of Philadelphia

# Philadelphia Fed

## July 2017 State Leading Indexes

(Expected 6-Month Change in State Coincident Indexes)



“The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for July 2017. The indexes are a six-month forecast of the state coincident indexes (also released by the Bank). Forty-three state coincident indexes are projected to grow over the next six months, and seven are projected to decrease. For comparison purposes, the Philadelphia Fed has also developed a similar leading index for its U.S. coincident index, which is projected to grow 1.2 percent over the next six months.” – Daneil Mazone, The Federal Reserve Bank of Philadelphia

# U.S. Economic Indicators

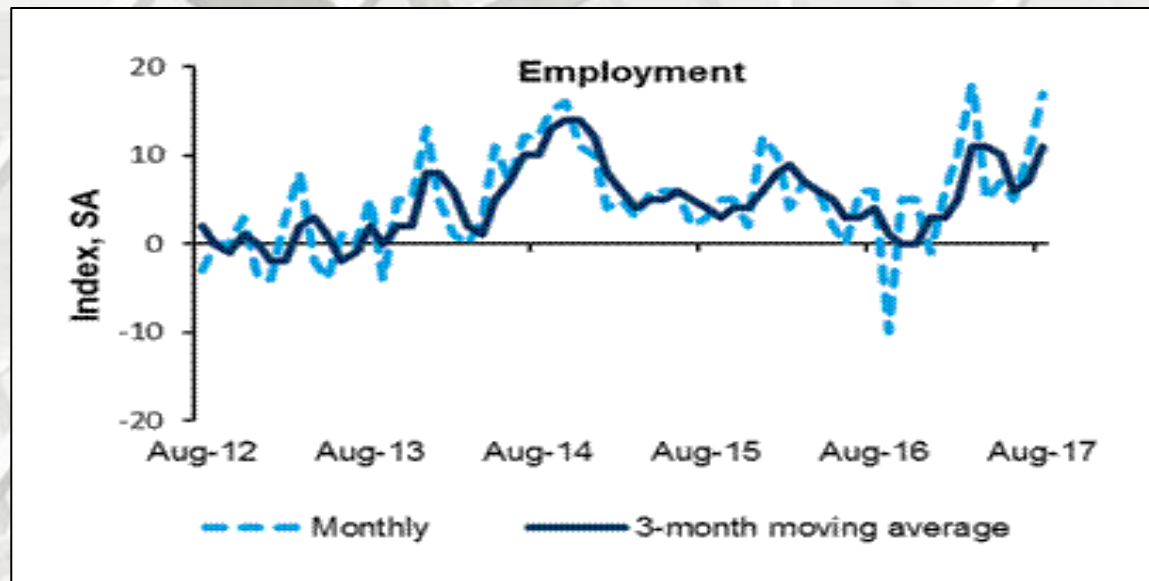
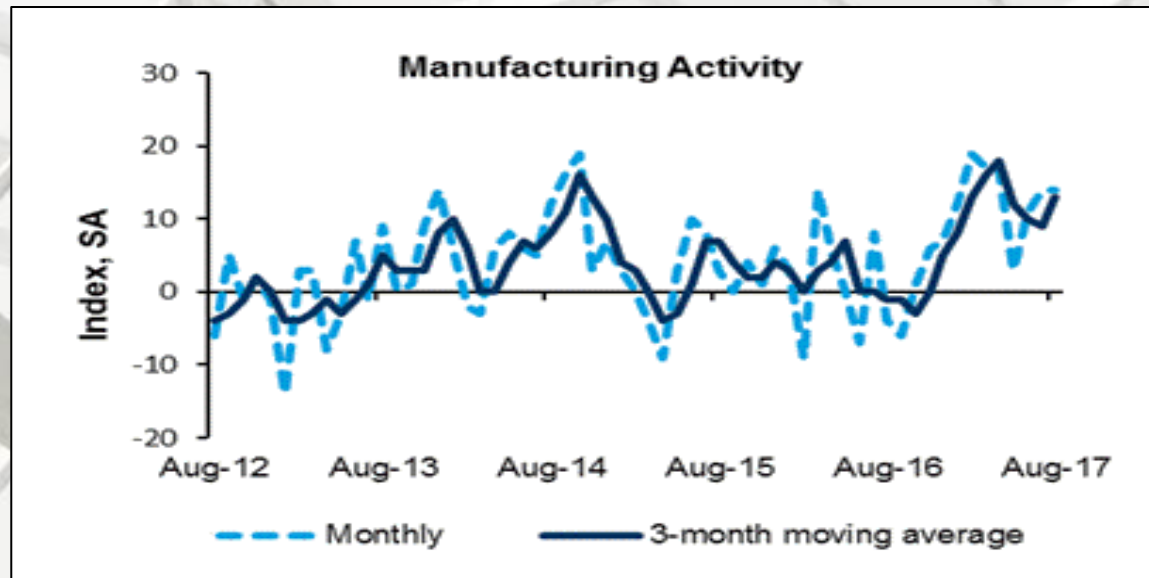
## The Federal Reserve Bank of Richmond

### Reports on Fifth District Manufacturing Activity in August Remained Little Changed from July

“Reports on Fifth District manufacturing activity were largely unchanged in August, according to the latest survey by the Federal Reserve Bank of Richmond. The composite index remained at 14 in August, with an increase in the employment index offsetting a decrease in the shipments index and a very slight decline in the new orders metric. Although the employment index rose from 10 to 17 in August, other measures of labor market activity — wages and average workweek — were largely unchanged. Expectations around manufacturing activity six months ahead were somewhat tempered from July, but manufacturers remained optimistic. Every index for expected activity was well into positive territory, although almost all of the indexes declined from July to August. The one exception was the measure for expected lead time, which rose from 7 in July to 10 in August.

Survey responses show that growth in both prices paid and prices received moderated in August. Meanwhile, reports on inventory levels were little changed, with the index for finished goods inventories down from 17 to 15 and the index for raw materials inventories rising from 17 to 19.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

# U.S. Economic Indicators



# U.S. Economic Indicators



# U.S. Economic Indicators

## The Federal Reserve Bank of San Francisco

### FRBSF FedViews

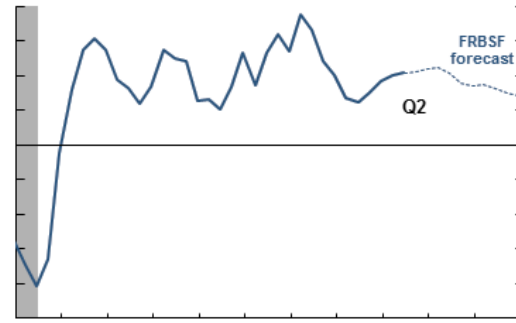
“The U.S. economy continues to grow at a moderate pace. After a relatively weak first quarter with real GDP growing at an annualized rate of 1.2%, the economy in the second quarter rebounded, growing at 2.6%, supported by robust consumer spending as well as greater inventory investment. We expect output growth to average about 2% for 2017, followed by a gradual transition over the next two years back to our estimate for potential output growth of 1½ to 1¾%.

Ongoing moderate economic growth has been accompanied by further strengthening of the labor market which appears to be at or even beyond full employment. Nonfarm payroll employment increased by 209,000 in July, and gains have averaged about 180,000 over the past six months. This pace of job creation is well above the rate necessary to absorb new entrants into the labor force, which we estimate at around 80,000 to 100,000 jobs per month. The unemployment rate fell to 4.3% in July, after having ticked up a touch in June. The current reading reflects the robust pace of job creation and is below our estimate of the natural rate of unemployment which we put at 4.8%. Over the medium term, we expect the unemployment rate to gradually revert towards its natural rate.

The ratio of household net worth to disposable personal income provides a valuation measure of for a broader set of asset classes. Household net worth, which depends on the value of bonds and real estate as well as equities, has risen faster than disposable income in recent years, as equity values and also long-term bond and housing prices have been increasing. Currently, the ratio of household net worth to disposable personal income stands at a record high of about 6.7, compared to its historical average of 5.3 since 1960. Similar to the price-earnings ratio, this valuation measure tends to revert back to its historical average. However, valuation measures are noisy signals of trends in financial markets and the economy and need to be combined with other available data.” – Thomas Mertens, Research Advisor, The Federal Reserve Bank of San Francisco

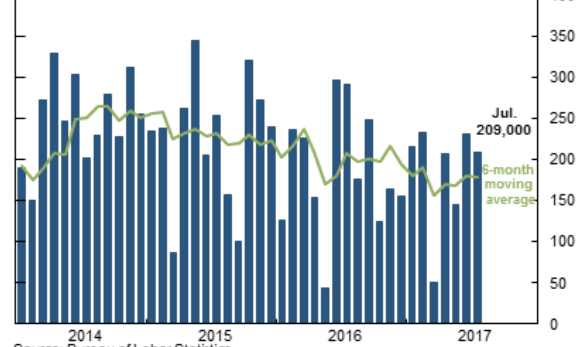
# U.S. Economic Indicators

**Moderate growth expected to continue**  
Real GDP  
Percent change from 4 quarters earlier



Source: Bureau of Economic Analysis and FRBSF staff

**Job growth remains strong**  
Nonfarm payroll employment  
Monthly change; seasonally adjusted



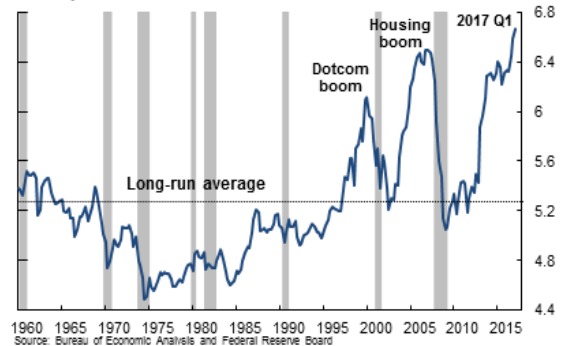
Source: Bureau of Labor Statistics

**Unemployment dipping below natural rate**  
Unemployment rate and forecast  
Seasonally adjusted monthly observations, forecast is quarterly average



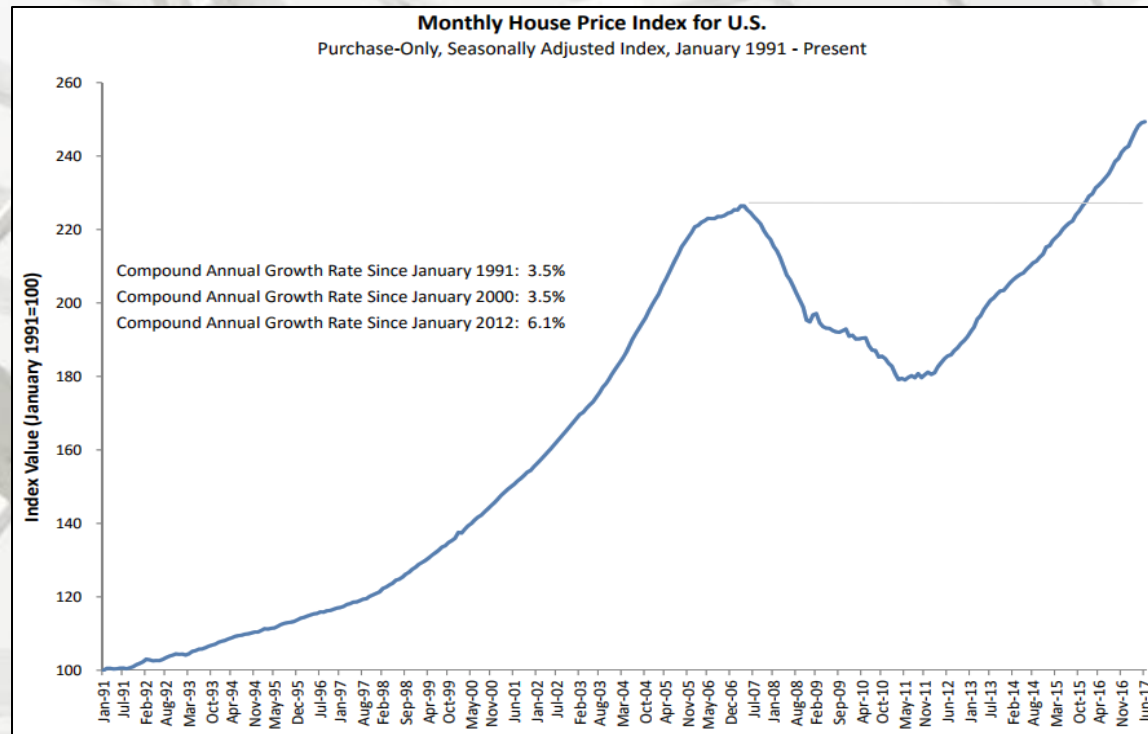
Source: Bureau of Labor Statistics and FRBSF staff

**Net worth / income at all-time high**  
Ratio of household net worth to disposable personal income  
Quarterly



Source: Bureau of Economic Analysis and Federal Reserve Board

# U.S. Economic Indicators



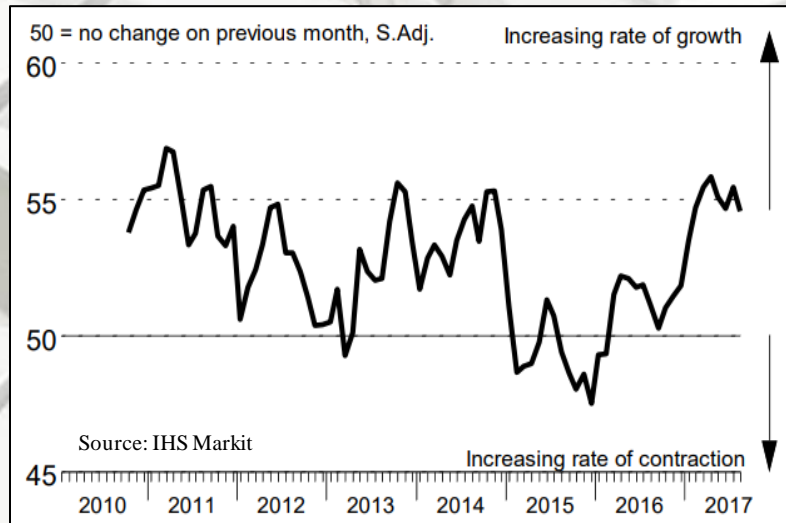
## FHFA House Price Index

### U.S. House Prices Rise 1.6 Percent in Second Quarter

“U.S. house prices rose **1.6 percent** in the second quarter of 2017 according to the Federal Housing Finance Agency (FHFA) House Price Index (HPI). House prices rose **6.6 percent** from the second quarter of 2016 to the second quarter of 2017. FHFA's seasonally adjusted monthly index for June was up **0.1 percent** from May.” – Stefanie Johnson and Corinne Russell, FHFA

“U.S. house prices rose in most states during the second quarter. New home sales are climbing but, relative to the overall population, they still remain low from a historical perspective. The tight inventory is a major explanation for why house prices have been increasing every quarter over the last six years.” – William Doerner, Senior Economist, FHFA

# Private Indicators: Global



## Markit Canada Manufacturing PMI™

### Rate of jobs growth hits series-record peak

“The headline seasonally adjusted **IHS Markit Canada Manufacturing Purchasing Managers’ Index® (PMI™)** registered 54.6 in August, to remain above the neutral 50.0 threshold for the eighteenth consecutive month. Although down slightly from 55.5 in July, the index signalled a rate of improvement that remained above the long-run series average.

The rate of improvement in business conditions at Canadian manufacturers lost some momentum in August, but remained marked nonetheless. The latest data signalled further robust expansions in production and new business, which in turn contributed to the sharpest round of job creation in the series history. Meanwhile, input price inflation softened to a ten-month low but remained steep overall, leading to another sharp rise in average selling prices amid rising client demand.

The latest PMI data pointed to a slight moderation in the overall rate of growth of the Canadian manufacturing sector. The slowdown largely reflected weaker rises in output and new orders, which in turn led to a softer expansion in purchasing activity. Nonetheless, growth rates remained impressive and above their respective long-run averages.

Manufacturers remained firmly optimistic that the resurgence in output growth seen so far in 2017 would be maintained over the coming 12 months. This, combined with robust client demand, contributed to the sharpest round of job creation in the series history, thereby providing a strong indication that the renaissance in the Canadian manufacturing sector has far from run its course.” – Alex Gill, Economist, Survey Compilers, IHS Markit

# Private Indicators: Global



Sources: IHS Markit, Caixin.

## Caixin China General Manufacturing PMI™

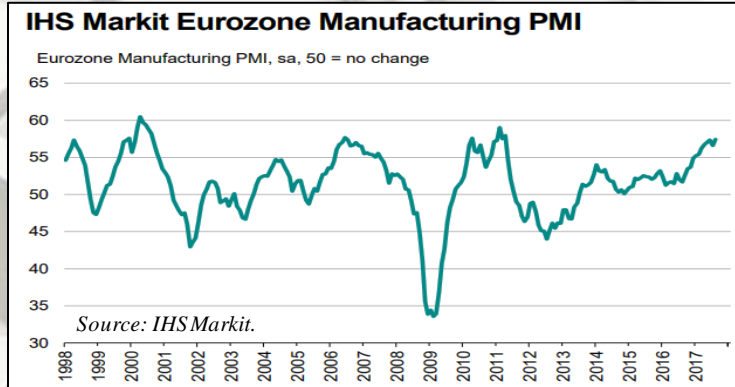
### New business rises at quickest rate for over three years

“The seasonally adjusted Purchasing Managers’ Index™ (PMI™) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – registered 51.6 in August, up from 51.1 in July to signal an improvement in overall operating conditions. The health of China’s manufacturing sector has now strengthened in each of the past three months, with the latest upturn the strongest since February.

China’s manufacturing sector remained in expansion territory in August, fuelled by the strongest increase in new business for just over three years. Firmer foreign demand was a key driver of new order growth, with export sales rising to the greatest extent in over seven years in August. As a result, companies expanded their production schedules and buying activity, while business confidence rose to its highest for five months. However, stricter environmental policies were a key factor leading to longer delivery times, whilst inflationary pressures intensified as input costs and output charges both rose at faster rates.

The Caixin China General Manufacturing PMI rose 0.5 points to 51.6 in August, the second-highest reading of this year so far. It was also the third consecutive month that the index had posted in expansionary territory. Among the sub-indices: the output index dropped slightly but new orders continued growing. Both input costs and output prices rose further, with the latter hitting an eight month high. Inventories of finished goods dropped further and at a faster pace, but stockpiles of procured goods continued expanding in August. Overall operating conditions of the manufacturing sector improved further as market demand strengthens, but if prices rise too quickly the profitability of companies in the middle of a supply chain may be under pressure.” – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis, CEBM Group

# Private Indicators: Global



## Markit Eurozone Manufacturing PMI®

“The final IHS Markit Eurozone Manufacturing PMI® rose to 57.4, up from 56.6 in July and equalling June’s 74-month high. The PMI has remained above the 50.0 no-change mark for 50 successive months, with the latest reading unchanged from its earlier flash estimate.

### Eurozone manufacturing growth remains among strongest seen since 2011

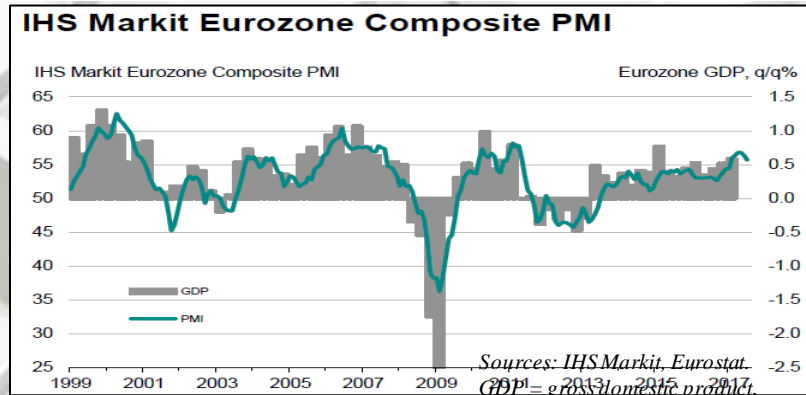
“The eurozone’s impressive manufacturing upturn regained momentum in August, with a summer surge in factory activity suggesting rising goods production will support another strong GDP reading in the third quarter. The survey indicates that euro area manufacturing output is growing at an annual rate of approximately 4%. Producers across the region are benefitting from rising domestic demand as economic recoveries gain momentum, as well as surging export sales.

The recent strengthening of the euro may curb export growth from its current six-and-a-half year high, and optimism about the year ahead has cooled since earlier in the summer, notably in France. However, the still-elevated level of confidence suggests that firms generally expect the current strong growth spell has further to run.

Firms are also struggling to cope with existing demand: backlogs of uncompleted work are rising at the fastest rate for 11 years, and supply chains are being stretched to a degree not seen for over six years. There’s therefore a good chance that the record hiring trend will be sustained for some time to come as factories and their suppliers continue to boost capacity.

Capacity issues are translating into both higher input costs and rising factory gate prices as demand exceeds supply for many products. The key question for policymakers is the extent to which these price pressures will feed through to consumers and wages.” – Chris Williamson, Chief Business Economist, Markit®

# Private Indicators: Global



## Markit Eurozone Composite PMI®

“Eurozone economic growth remained solid and steady in August. This was signalled by the final **IHS Markit Eurozone PMI® Composite Output** Index matching July’s reading of 55.7, down only marginally from the flash estimate of 55.8.” – IHS Markit

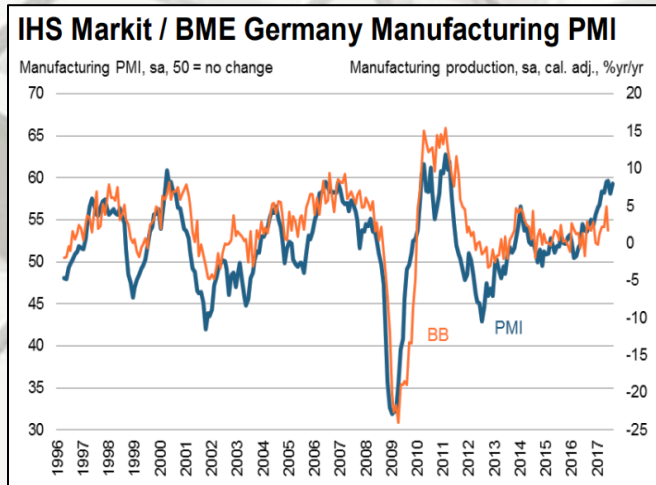
### Strong manufacturing sector underpins solid growth of euro area economy

“On current trend, output growth so far in the third quarter is slightly below its second quarter high, but remains among the best seen over the past seven years. August saw a strong expansion of manufacturing production, with the pace of increase regaining most of the momentum ceded in July. Service sector activity growth eased to a seven-month low, but remained above its long-term trend.

The summer months have seen eurozone economic growth moderate only slightly from the rapid pace seen in the spring. The solid PMI readings for July and August set the scene for another strong GDP number for the third quarter, with the surveys running at a level historically consistent with 0.6% growth. With such robust growth being sustained into August, the region is on course to see GDP rise by 2.1% in 2017, which would represent the best performance since 2007.

There’s good reason to be optimistic that the current spurt growth has further to run: forward-looking indicators such as new order inflows and future expectations have dipped to levels seen back at the turn of the year, but remain sufficiently elevated to suggest that any potential slowdown in growth in coming months will be only very modest.” – Chris Williamson, Chief Business Economist, Markit®

# Private Indicators: Global



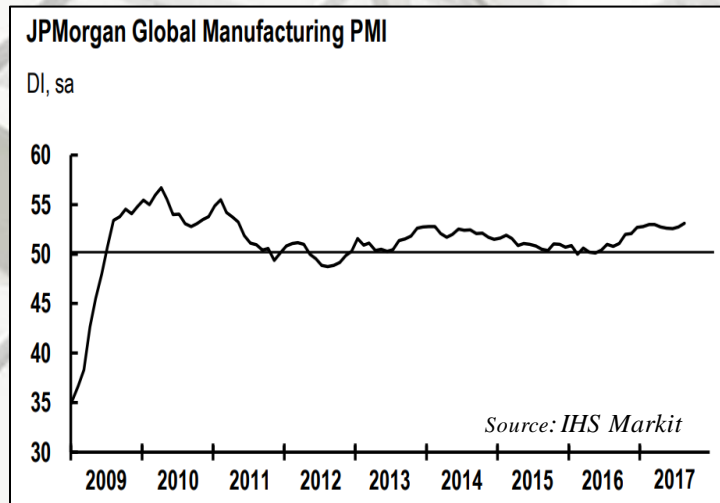
## Markit/BME Germany Manufacturing PMI® Manufacturing growth regains momentum

“The PMI rose to 59.3 in August, from July’s five month low of 58.1. This was the third-highest level since April 2011, and signalled a marked overall improvement in manufacturing business conditions in the manufacturing sector of the eurozone’s largest economy. The upward movement in the PMI reflected faster increases in output and new orders as well as a greater lengthening in suppliers’ delivery times. The current 33-month period of overall growth is the second-longest in the 21-year survey history.

German manufacturing posted a stronger performance in August following July’s slight loss of momentum, according to the latest PMI® survey data from IHS Markit and BME. Overall operating conditions improved at a pace close to the six-year highs seen in May and June. Output, new orders and new export business all rose more sharply than in July, with the latter expanding at the fastest rate since May 2010. Suppliers remained under pressure, with lead times lengthening to the greatest extent since April 2011.

Capacity pressures continued to build as suppliers’ delivery times lengthened to the greatest extent since April 2011 and backlogs rose at one of the fastest rates in the survey history. The final manufacturing data for August support IHS Markit’s view that economic growth in Germany will be stronger than previously expected in 2017. IHS Markit now expects calendar-adjusted GDP growth to reach 2.3% in 2017 and 2.1% in 2018.” – Trevor Balchin, Senior Economist, IHSMarkit®

# Private Indicators: Global



## JP Morgan Global Manufacturing PMI™

“August saw a further acceleration in the rate of expansion of the global manufacturing sector. The J. P. Morgan Global Manufacturing PMI™ – a composite index produced by J. P. Morgan and IHS Markit in association with ISM and IFPSM – rose to a 75-month high of 53.1, up from 52.7 in July, and has now remained above the neutral 50.0 mark throughout the past one-and-a-half years.

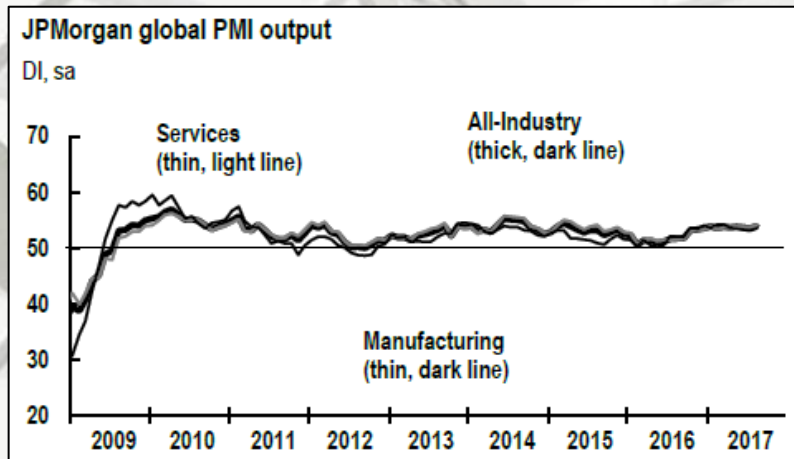
### Global Manufacturing PMI at 75-month high in August

Growth was evenly distributed across the consumer, intermediate and investment goods sectors during August, with similar PMI readings registered for each of these categories. Moreover, rates of improvement picked up in all three cases.

Global manufacturing production rose at the fastest pace in four months, underpinned by the steepest upturn in new work since March. International trade flows also strengthened, as new export business rose at the fastest pace in almost six-and-a-half years.

The upturn in the global manufacturing sector is gathering pace in the third quarter, with August seeing the Manufacturing PMI rise to its highest level in over six years. Rates of expansion in output and new orders also accelerated, underpinning a further solid bounce in job creation. Although price pressures and supply-side constraints are rising, the sector should have sufficient momentum to sustain its current robust expansion.” – David Hensley, Global Economist, J.P. Morgan

# Private Indicators: Global



## JP Morgan Global Composite PMI™

“The J.P. Morgan Global All-Industry Output Index – which is produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – posted 53.9 in August, up from 53.6 in July and above the neutral mark of 50.0 for the fifty-ninth month in a row.

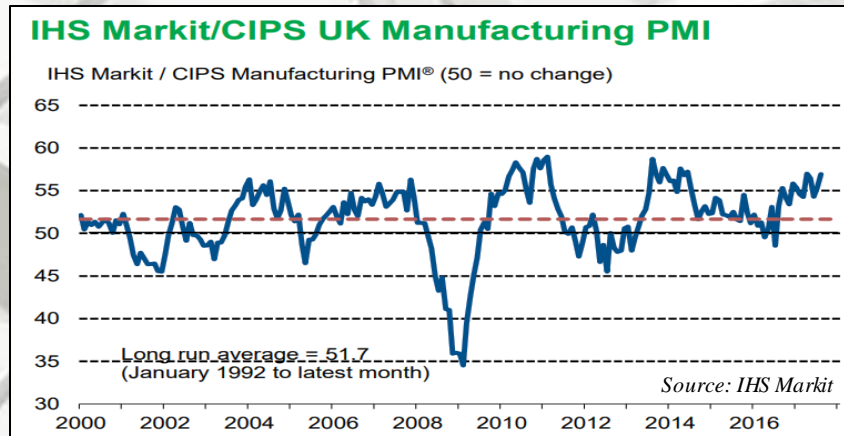
### Global economy expands at fastest pace since early-2015

Global economic growth gathered momentum in August, with output rising at the quickest pace since April 2015. Rates of increase improved in the manufacturing and service sectors, reflecting ongoing expansions at consumer, intermediate and investment goods producers and across business, consumer and financial services.

Developed nations continued to outperform (on average) relative to emerging markets. The euro area saw a further solid gain in economic output, with the pace of increase matching that registered in July. Stronger growth of manufacturing production was offset by a softer increase in service sector activity. Within the currency union, faster growth was seen in Germany and Ireland.

The August PMI signalled a broad and accelerated expansion of global economic output. Overall growth was the quickest since April 2015, underpinned by expansions across the six main categories of manufacturing and services covered by the survey. With new order inflows strengthening, backlogs rising and jobs growth accelerating, the economy looks set to perform well in the coming months.” – David Hensley, Global Economist, J.P. Morgan

# Private Indicators: Global



## Markit/CIPS UK Manufacturing PMI™

“The rate of expansion in the UK manufacturing sector accelerated again in August. This was highlighted by the seasonally adjusted IHS Markit/CIPS Purchasing Managers’ Index® (PMI®) posting 56.9, up from 55.3 in July, to its second highest level in over three years.

### Manufacturing growth gathers pace as new order inflows strengthen

All five of the PMI components – output, new orders, employment, suppliers’ delivery times and stocks of purchases – were consistent with a stronger performance for the manufacturing industry during August. The UK manufacturing sector continued to show signs of solid progress during the third quarter, with rates of expansion in output, new orders and employment all gathering pace in August.

The key question is whether this positive start to the second half of the year can be sustained. This is looking increasingly likely during the near-term, given the breadth of the expansion. Business conditions improved across the three main subsectors – consumer, intermediate and investment goods – and at smaller and large-scale producers alike. Business confidence also rose to one of its highest levels in over a year.

There are increasing signs of supply-side issues leading to raw material and staff shortages, which could become a constraint on output growth going forward, while also leading to higher costs.

However, at the moment, the survey data suggest that the manufacturing economy remains in good health despite Brexit uncertainty, and should help support on-going growth in the economy in the third quarter, which will add fuel to hawkish policymakers’ calls for higher interest rates” – Rob Dobson, Director & Senior Economist, IHS Markit

# **Private Indicators**

## **American Institute of Architects (AIA)**

### **July Architecture Billings Index**

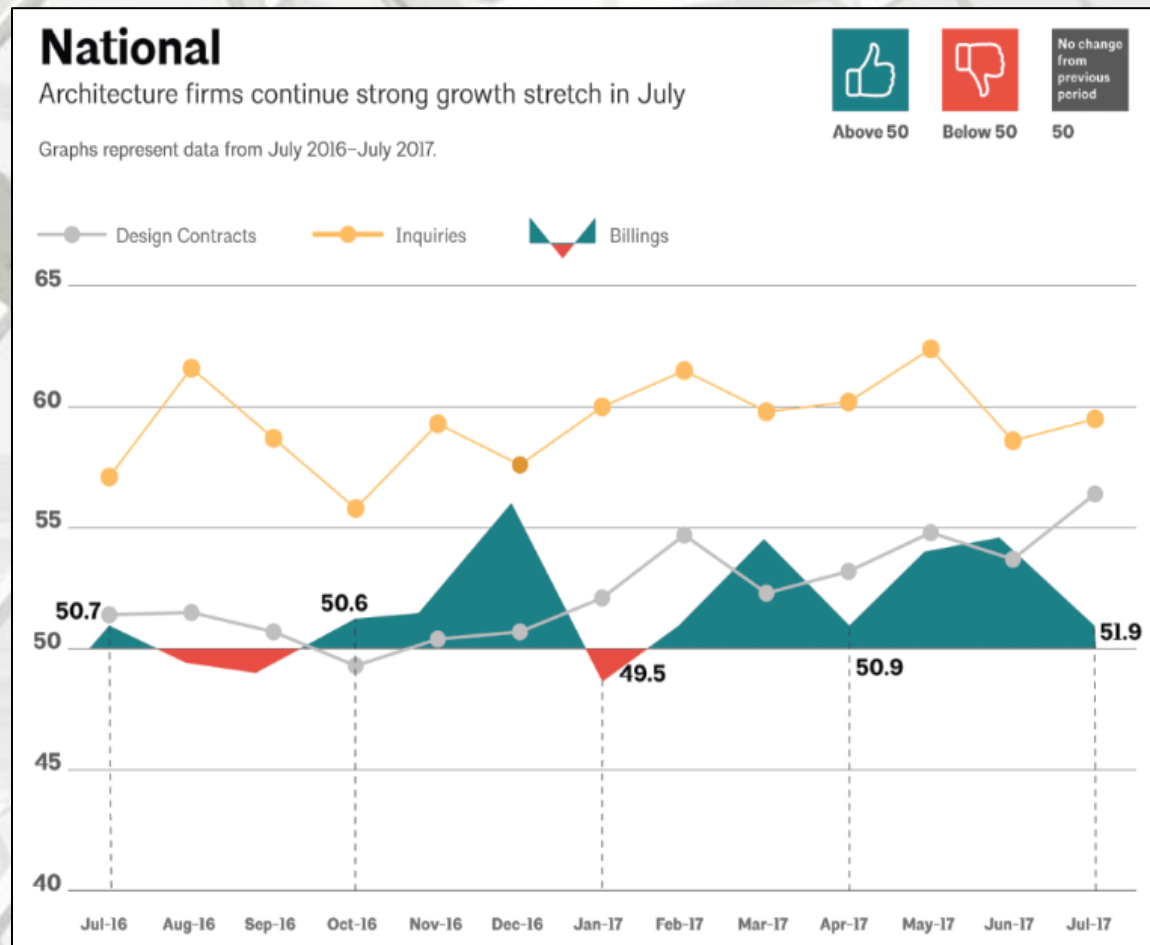
#### **ABI July 2017: Upturn at architecture firms continues**

“Following on the heels of a strong spring season, billings at US architecture firms continued their upward trajectory in July. AIA’s Architecture Billings Index (ABI) was 51.9 for the month, a bit below the 52.1 average for the first six months of the year but still signifying healthy growth. The ABI has now been reflecting gains in billings for six straight months, after a modest decline in January.

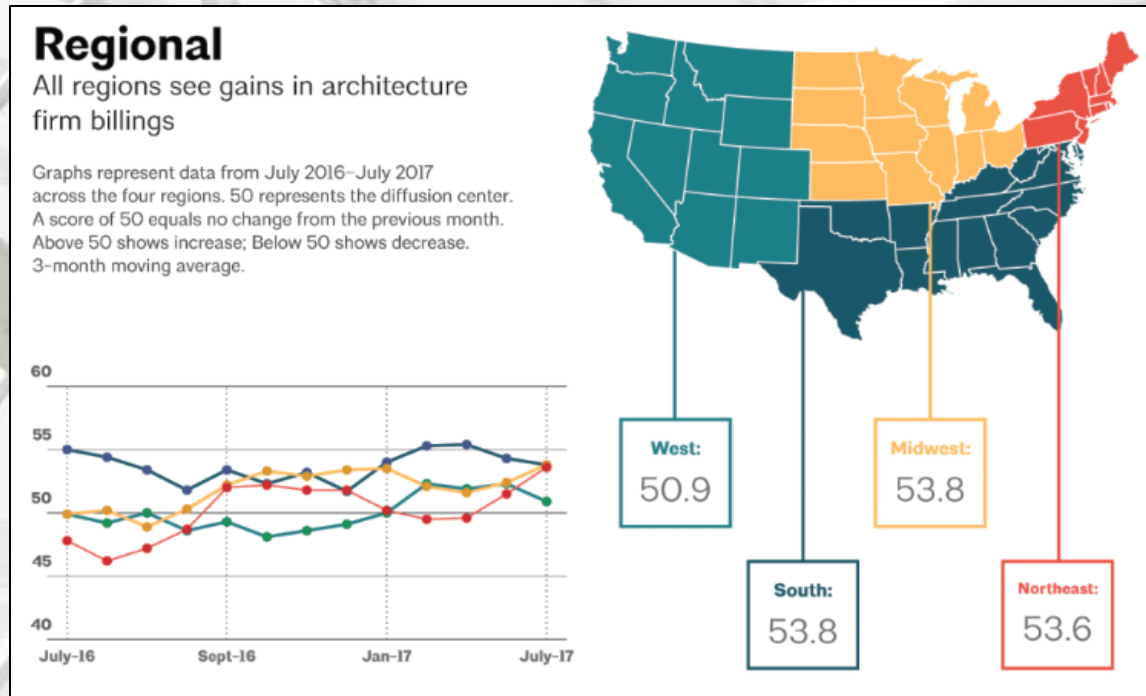
Index scores for project inquiries and new design contracts have been just as positive. The reading for new design contracts was 56.4 in July, its highest reading for the year. Given that new project work is mostly growing faster than billings this year, architecture firms have been building up backlogs in recent months.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

# Private Indicators

## American Institute of Architects (AIA)



# Private Indicators: AIA



## Region

“The upward trend in billings has pushed up ABI scores at firms in all regions of the country recently. In July, ABI scores in the Northeast, Midwest, and South were all approaching 54, while remaining less positive at firms in the West.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

# Private Indicators: AIA



## Sector

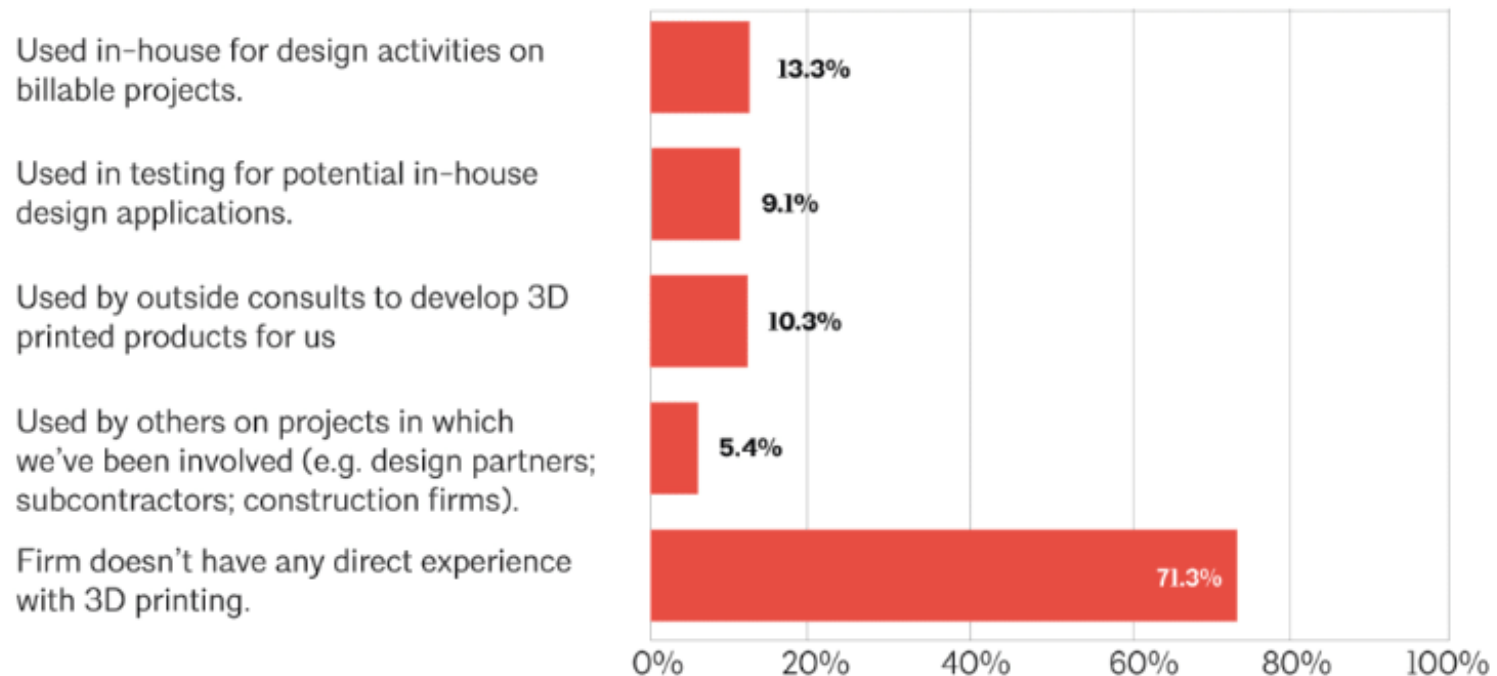
“Firms with all building type specializations have been benefiting from the healthy business conditions. Multifamily residential as well as commercial/industrial firms posted average scores in excess of 55 for the month, for both specialties the highest readings in three years. Even institutional firms were seeing relatively healthy conditions with a July score of 52.0 for firms with this specialization, just below their average for the first six months of the year.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

# Private Indicators: AIA

## Practice

Significant minority of architecture firms have direct experience with 3D printing technology

Units: direct experience with 3D printing technology, % of firms (multiple responses allowed, so responses total to more than 100%)



# Private Indicators

## Dodge Data & Analytics July Construction Starts Increase 6 Percent

“The value of new construction starts in July advanced 6% from the previous month to a seasonally adjusted annual rate of \$728.1 billion, it was reported by Dodge Data & Analytics. Leading the way was a 26% jump by the nonbuilding construction sector, which reflected an improved level for public works and the start of two massive power plants, located respectively in California and New York.

**Residential building** in July increased 8%, as multifamily housing rebounded after three consecutive monthly declines. Running counter was a 7% slide for nonresidential building following its 14% hike in June, as both office buildings and hotels retreated from June’s elevated activity, outweighing a sharp rise for healthcare facilities in July. During the first seven months of 2017, total construction starts on an unadjusted basis were \$411.9 billion, down 1% from the same period a year ago. Dampening the year-to-date performance for total construction was a steep 44% decline for the electric utility/gas plant category, even with the two massive power plants reported as July starts. If the electric utility/gas plant category is excluded, total construction starts in this year’s January-July period would be up 3% from a year ago.

July’s data lifted the Dodge Index to 154 (2000=100), compared to an upwardly revised 145 for June. After this year’s strong first quarter, the Dodge Index had receded 11% in the second quarter. July’s total construction gain brings activity back to within 2% of the first quarter’s pace. July’s increase means the third quarter began on a healthy note, which should help to maintain the up-and-down pattern on a quarterly basis that’s been present for construction starts over the past year. Within that up-and-down pattern there remains a modest upward trend, as it appears that construction starts are still in the process of reaching a peak, as opposed to having already reached a peak. Public works construction, after sluggish activity earlier in the year, is showing hesitant signs of improvement. It’s true that residential building is now seeing generally decreased activity for multifamily housing, but the monthly declines continue to be mixed in with monthly gains, such as what took place in July. For nonresidential building, growth is being supported by its institutional segment, while commercial building is leveling off due to varied behavior by its individual project types.” – Robert Murray, Chief Economist, McGraw Hill Construction

# Private Indicators

## Dodge Data & Analytics

### July Construction Starts Increase 6 Percent

“The 1% slippage for total construction starts on an unadjusted basis during the January-July period of 2017 was due to diminished activity for nonbuilding construction, as both residential building and nonresidential building managed to post gains. Nonbuilding construction dropped 15% year-to-date, with electric utilities/gas plants down 44% and public works down 2%. **Residential building** year-to-date was up 1%, with a 9% increase for single family housing slightly outweighing a 14% slide for multifamily housing. Nonresidential building year-to-date climbed 8%, with institutional building up 12% while commercial building held steady, combined with a 27% increase for manufacturing building that marks a shift from this category’s sharp declines in 2015 and 2016. By geography, total construction starts during the January-July period showed this pattern relative to a year ago – the South Atlantic, up 8%; the Northeast, up 6%; the West, up 2%; the South Central, down 7%; and the Midwest, down 14%. The 7% year-to-date decline in the South Central reflected in part the comparison to the first seven months of 2016 that included \$6.2 billion for two liquefied natural gas terminals, while the 14% year-to-date decline in the Midwest reflected in part the comparison to the first seven months of 2016 that included the \$3.8 billion Dakota Access pipeline.” – Robert Murray, Chief Economist, McGraw Hill Construction

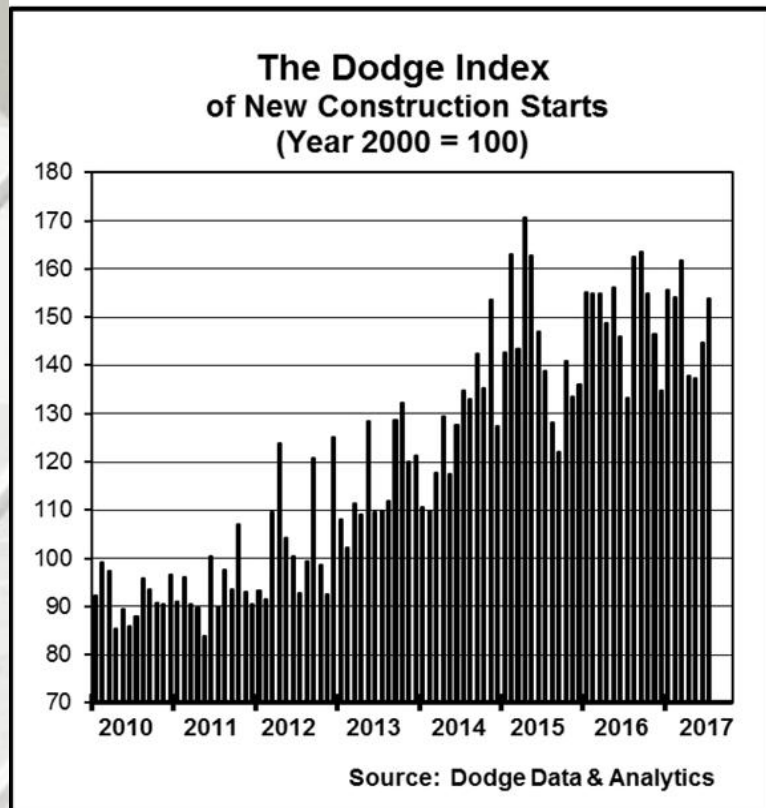
# Private Indicators

“**Residential building** in July was \$301.1 billion (annual rate), up 8%. Multifamily housing increased 30%, strengthening after three monthly declines in a row. There were 9 multifamily projects valued at \$100 million or more that reached groundbreaking in July, led by the \$360 million Wolf Point East apartment tower in Chicago IL, the \$225 million multifamily portion of the \$280 million mixed-use redevelopment of the Domino sugar factory in Brooklyn NY, and a \$225 million condominium tower in Honolulu HI.

In July, the top five metropolitan areas in terms of the dollar amount of multifamily starts were – New York NY, Chicago IL, Los Angeles CA, Boston MA, and Atlanta GA. Through the first seven months of 2017, the top five metropolitan areas, with their percent change from a year ago, were – New York NY, down 20%; Los Angeles CA, up 16%; Chicago IL, down 2%; San Francisco CA, up 27%; and Washington DC, up 6%. **Single family housing** in July was flat with the previous month, not yet showing renewed growth after settling back 4% in the second quarter following its first quarter 6% gain. By geography, single family housing in July performed as follows relative to June – the Northeast, up 3%; the South Central, up 2%; the South Atlantic, up 1%; the West, unchanged; and the Midwest, down 3%.” – Robert Murray, Chief Economist, McGraw Hill Construction

# Private Indicators

## July 2017 Construction Starts



## July 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>July 2017</u>	<u>June 2017</u>	<u>% Change</u>
Nonresidential Building	\$231,232	\$249,353	-7
Residential Building	301,088	279,606	+8
Nonbuilding Construction	<u>195,771</u>	<u>155,220</u>	<u>+26</u>
Total Construction	\$728,091	\$684,179	+6

### The Dodge Index

Year 2000=100, Seasonally Adjusted

July 2017 ..... 154

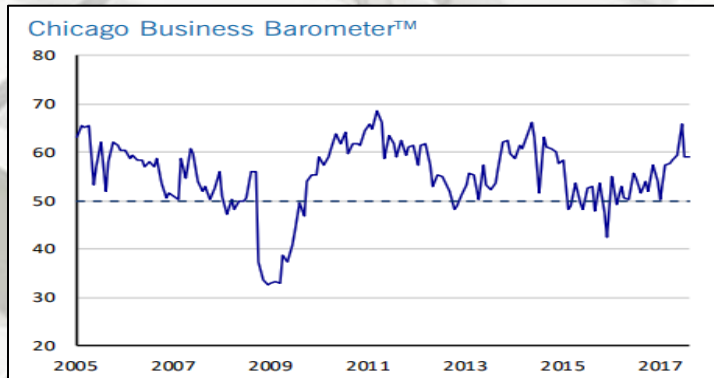
June 2017 ..... 145

### Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>7 Mos. 2017</u>	<u>7 Mos. 2016</u>	<u>% Change</u>
Nonresidential Building	\$142,049	\$131,823	+8
Residential Building	175,522	173,018	+1
Nonbuilding Construction	<u>94,286</u>	<u>110,644</u>	<u>-15</u>
Total Construction	\$411,857	\$415,485	-1
Total Construction, excluding electric utilities/gas plants	\$392,870	\$381,410	+3

# Private Indicators



## **MNI Chicago August Chicago Business Barometer Unchanged at 58.9**

“The MNI Chicago Business Barometer remained stable at July’s level of 58.9, the joint-lowest level since April.” – Jamie Satchi, Economist, MNI Indicators

## **Both Employment, Inventories Below 50**

“While marking the eighteenth consecutive above-50 reading, this month’s unchanged result follows July’s sharp decline that snapped a run of five straight monthly increases in sentiment. Apart from Employment, all other components of the Barometer were above their respective levels seen last August with all of them were above their January levels, pointing to robust confidence among US firms.

The stability in sentiment was the result of gains in production and demand being offset by losses in backlogs, employment and supplier deliveries. Both New Orders and Production increased slightly, following hefty falls last month. Firms also saw the level of backlogs fall in August. The Order Backlogs indicator fell for the second consecutive month following the 23-year high set in June. Suppliers took slightly less time to deliver key inputs, with the respective indicator down to hit 59.3, a four-month low.” – Jamie Satchi, Economist, MNI Indicators

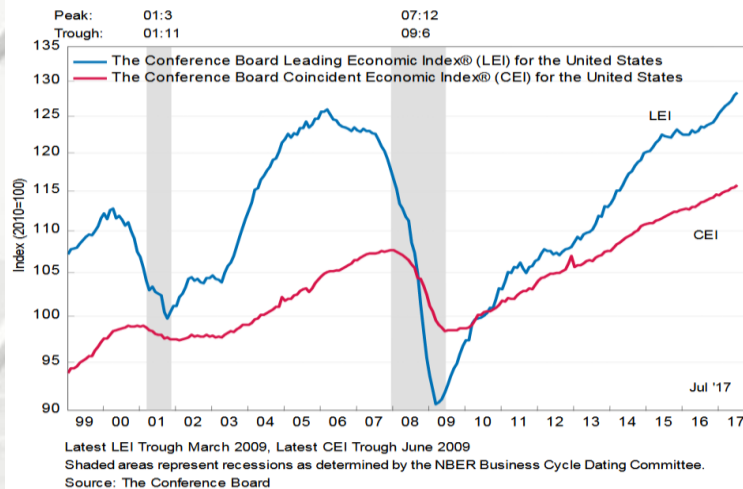
“Following the sharp rise in the Barometer to a more than three-year high in June it isn’t too surprising to see activity subsequently ease somewhat. However, overall, the trend remains firm, consistent with the growth story of the US. The disappointment comes from the employment indicator which once again contracted, the sixth time in the last 12 months, with fewer firms expecting an increase in hiring.” – Shaily Mittal, Senior Economist, MNI Indicators

# Private Indicators

**The Conference Board Leading Economic Index® (LEI)** for the U.S. increased 0.3 percent in July to **128.3** (2010 = 100), following a 0.6 percent increase in June, and a 0.3 percent increase in May.

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

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



## Expansion in Economic Activity to Continue Through Second Half

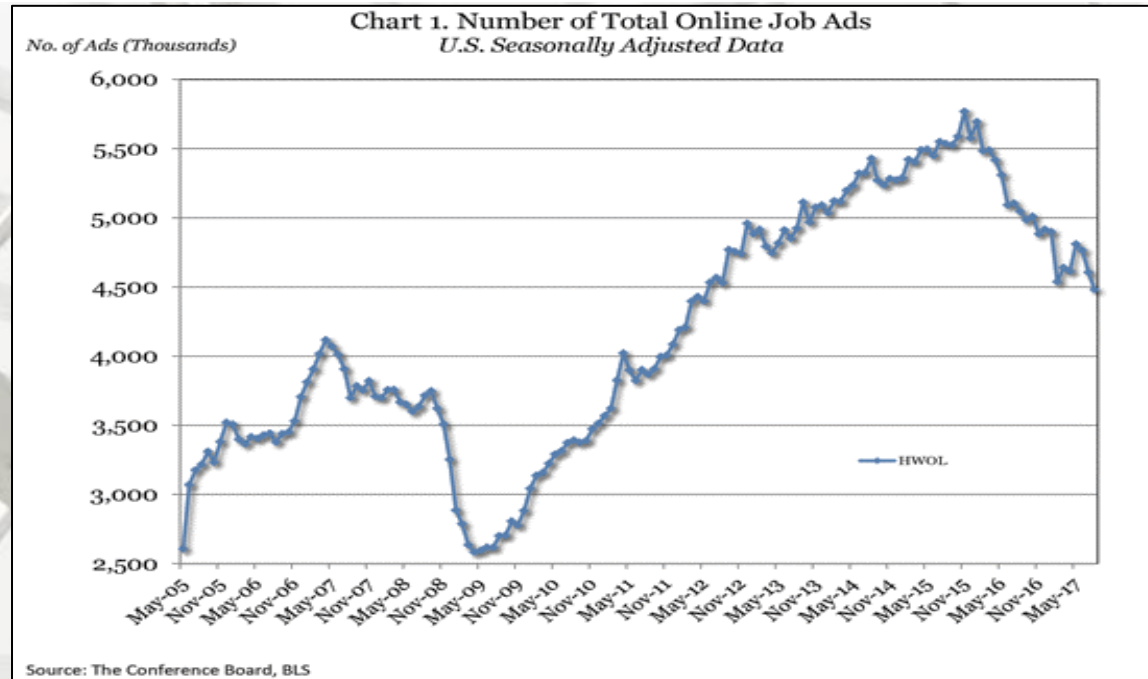
“The U.S. LEI improved in July, suggesting the U.S. economy may experience further improvements in economic activity in the second half of the year. The large negative contribution from housing permits, a reversal from June, was more than offset by gains in the financial indicators, new orders and sentiment.”

– 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 July to 115.7 (2010 = 100), following a 0.1 percent increase in June, and a 0.3 percent increase in May.

**The Conference Board Lagging Economic Index® (LAG)** for the U.S. increased 0.1 percent in July to 124.8 (2010 = 100), following a 0.2 percent increase in June and a 0.2 percent increase in May.”

# Private Indicators



## The Conference Board Help Wanted OnLine® (HWOL) Online Job Ads Decreased 125,900 in August

- “Loss widespread across most States and MSAs
- Majority of occupations showed losses over the month

Online vacancies decreased 125,900 to 4,479,800 in August, according to *The Conference Board Help Wanted OnLine® (HWOL) Data Series*. The July Supply/Demand rate stands at 1.52 unemployed for each advertised vacancy, with a total of 2.4 million more unemployed workers than the number of advertised vacancies. The number of unemployed was approximately 7.0 million in July.

The Professional occupational category saw losses in Education (-13.9) and Computer and Math (-11.3). The Services/Production occupational category saw losses in Sales (-33.7), Office and Administrative Support (-29.3), and Installation (-11.5). “ – Carol Courter, The Conference Board

# **August 2017 Manufacturing ISM® Report On Business®**

## **August NMI® at 58.8%**

**New Orders; Production, Backlog of Orders and Employment Continue Growing; Supplier Deliveries Slowing; Raw Materials Inventories Growing; Customer Inventories Too Low; Prices Increasing at Same Rate**

“Economic activity in the **manufacturing sector** expanded in July, and the overall economy grew for the 99<sup>th</sup> consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

“The August PMI® registered 58.8 percent, an increase of 2.5 percentage points from the July reading of 56.3 percent.

The New Orders Index registered 60.3 percent, a decrease of 0.1 percentage point from the July reading of 60.4 percent.

The Production Index registered 61 percent, a 0.4 percentage point increase compared to the July reading of 60.6 percent.

The Employment Index registered 59.9 percent, an increase of 4.7 percentage points from the July reading of 55.2 percent.

The Supplier Deliveries Index registered 57.1 percent, a 1.7 percentage point increase from the July reading of 55.4 percent.

The Inventories Index registered 55.5 percent, an increase of 5.5 percentage points from the July reading of 50 percent.

The Prices Index registered 62 percent in August, the same reading as July, indicating higher raw materials’ prices for the 18<sup>th</sup> consecutive month.

Comments from the panel reflect expanding business conditions, with new orders, production, employment, backlog and exports all growing in August, as well as supplier deliveries slowing (improving) and inventories increasing during the period. The Customers’ Inventories Index experienced a sharp decline in August compared to July.” – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

# Private Indicators

## **August 2017 Non-Manufacturing ISM® Report On Business®**

**August NMI® at 55.3 %**

**Business Activity Index at 57.5%, New Orders Index at 57.1%,  
Employment Index at 56.2%**

“Economic activity in the non-manufacturing sector grew in August for the 92nd consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**.

“The NMI® registered 55.3 percent, which is 1.4 percentage points higher than the July reading of 53.9 percent. This represents continued growth in the non-manufacturing sector at a faster rate.

The Non-Manufacturing Business Activity Index increased to 57.5 percent, 1.6 percentage points higher than the July reading of 55.9 percent, reflecting growth for the 97th consecutive month, at a faster rate in August.

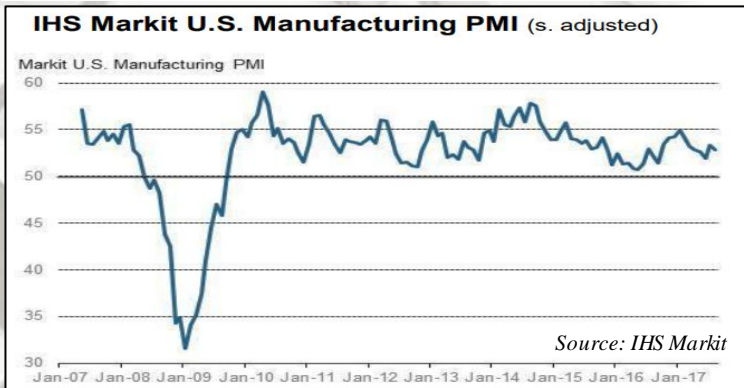
The New Orders Index registered 57.1 percent, 2 percentage points higher than the reading of 55.1 percent in July.

The Employment Index increased 2.6 percentage points in August to 56.2 percent from the July reading of 53.6 percent.

The Prices Index increased 2.2 percentage points from the July reading of 55.7 percent to 57.9 percent, indicating prices increased in August for the third consecutive month.

According to the NMI®, 15 non-manufacturing industries reported growth. The non-manufacturing sector has rebounded from the prior month's cooling-off period. The majority of respondents are optimistic about business conditions going forward.” – 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™

“The seasonally adjusted IHS Markit final **US Manufacturing Purchasing Managers’ Index™ (PMI™)** registered 52.8 in August, down slightly from July’s reading of 53.3. Nonetheless, the latest index figure signalled an ongoing improvement in operating conditions across the US manufacturing sector.

### Manufacturing output expands at weakest pace since June 2016

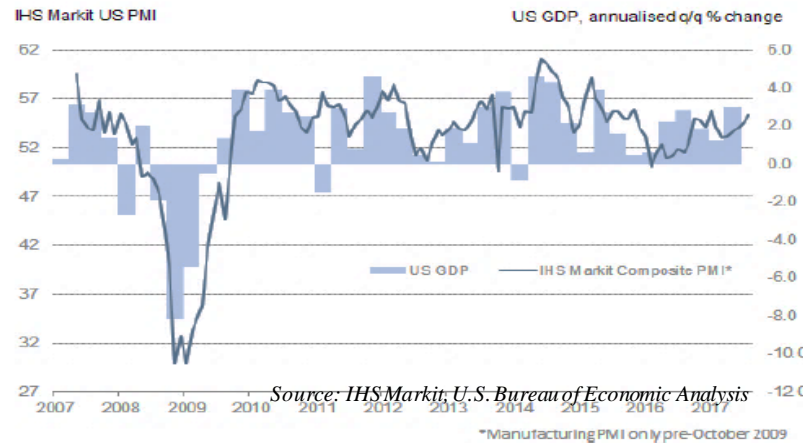
August’s PMI reading signalled a further improvement in operating conditions among US manufacturing firms. The upturn was partly driven by an increase in new orders. In line with rising client demand, workforce numbers grew at the fastest pace in 6 months. However, production levels increased at the weakest rate since June 2016. As a result, the level of outstanding business rose for the first time since April. Inflationary pressures intensified, with input prices and output charges both rising at faster rates. Business confidence remained robust, but softened slightly since July.

Although still above the 50 ‘no change’ level, the decline in the PMI shows signs of a renewed stuttering of the manufacturing economy during August. The latest reading indicates one of the weakest improvements in the overall health of the sector seen over the past year, and translates into disappointing signals for comparable official data. The drop in the output index indicates that manufacturing could act as a drag on the economy in the third quarter, with exports dampening order book growth.

The survey brings more encouraging signs of improved domestic demand, however, with orders for both consumer goods and investment goods such as plant and machinery on the rise, boding well for the wider economy to continue to expand as we move through the second half of 2017.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators

## IHS Markit Composite PMI and U.S. GDP



## Markit U.S. Services PMI™

“The seasonally adjusted **IHS Markit U.S. Services Business Activity Index** registered 56.0 in August, up from July’s reading of 54.7. The latest survey extended the current sequence of activity growth to 18 months. Moreover, the upturn was the fastest since November 2015, with a number of panellists stating that higher activity was underpinned by a greater willingness to spend among clients and improving market conditions.

## Business activity growth hits 21-month high

August data signalled an accelerated upturn in business activity across the US service sector. New orders also expanded at a quicker rate, with growth reaching a 25-month high. Higher activity and new business prompted firms to add to their payrolls again in August, and at the quickest rate for nearly two years. On the prices front, both input costs and output charges increased again, with rates of inflation reaching 26- and 35-month highs, respectively. Meanwhile, business confidence was the strongest since January, with firms encouraged by greater client demand.

The US service sector moved up a gear in August, providing a welcome boost to the economy after the sister PMI survey showed slower manufacturing growth. The two PMI surveys collectively point to the fastest rate of economic expansion since January as businesses enjoyed a summer growth spurt.

With new orders growth accelerating, backlogs of work rising and job creation buoyant, the surveys clearly point to an economy that’s generally in expansion mode.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators

## Metlife & U.S. Chamber of Commerce

### Small Business Index – Q3 2017

“A more bullish outlook on the economy and increasing confidence in the health of their businesses led to a 1.7 point increase in the MetLife & U.S. Chamber of Commerce Small Business Index, which rose from 60.6 in the second quarter of 2017 to 62.3 in the third quarter. That means 62.3% of small business owners have a positive outlook for their companies and the environment in which they operate.

#### **Q3 Index Highlights:**

- Companies’ financial health is strong. Almost two-thirds (61%) of all small businesses report being in good financial health. More than half of small businesses with more than 20 employees report that they are in very good health.
- Economic outlook is brightening. Many small businesses are optimistic about the overall trajectory of the economy, which corresponds with a surging stock market, higher second quarter GDP, and declining unemployment rates. However, plans to increase hiring or reinvestment in their businesses dropped slightly from the second quarter.
- Time spent on regulatory compliance is increasing for a quarter of small businesses. Nearly one in four small businesses report spending more time on licensing, compliance, and regulations over the last six months.
- Lack of qualified workers could be impacting hiring. An inability to find appropriately skilled or trained workers appears to be impacting small businesses’ plans to increase staff over the coming year.
- Almost 60% of small businesses are concerned about cybersecurity. In addition, small businesses with 20–99 employees are more likely to be concerned (62%) – with one in five (18%) feeling very concerned – than companies with fewer than 20 employees.” – MetLife & U.S. Chamber of Commerce

# Private Indicators



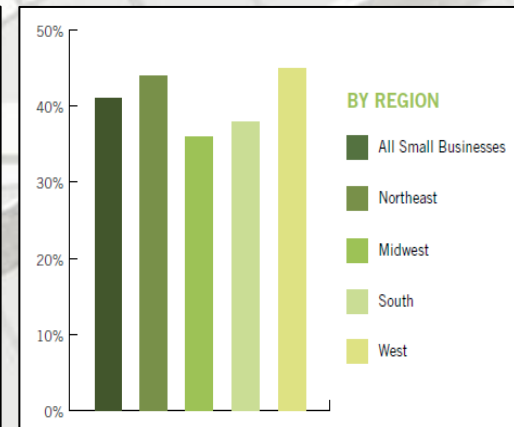
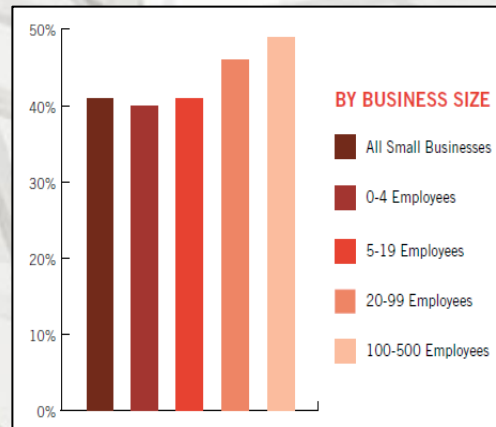
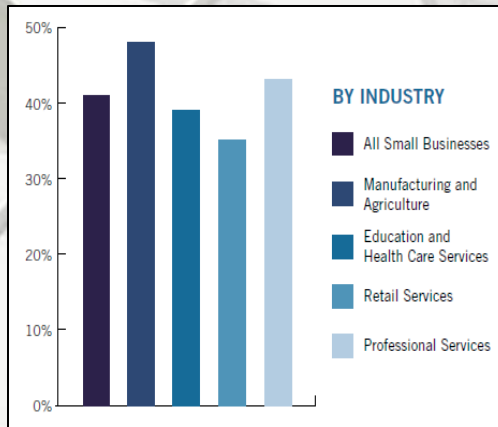
## Small Business Index – Q3 2017

### Key Findings

- “Lack of qualified workers a major challenge.
- Companies’ financial health is strong.
- Economic outlook is brightening.
  - Small businesses rating the health of the U.S. economy as very or somewhat good.
- Time spent on regulatory compliance is increasing for a quarter of small businesses.
- Staffing increases have stalled.
- Almost 60% of small businesses are concerned about cybersecurity.” – MetLife & U.S. Chamber of Commerce

# Private Indicators

## Economic Outlook is Brightening



Percentage of small businesses spending an increased amount of time completing licensing, compliance, or government requirements



**25%**  
MANUFACTURING AND RESOURCES



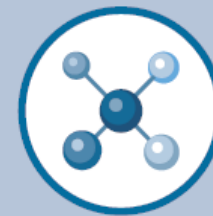
**25%**  
PROFESSIONAL SERVICES



**21%**  
RETAIL



**15%**  
EDUCATION, HEALTH CARE,  
AND RECREATION



**23%**  
ALL SMALL  
BUSINESSES

# Private Indicators

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

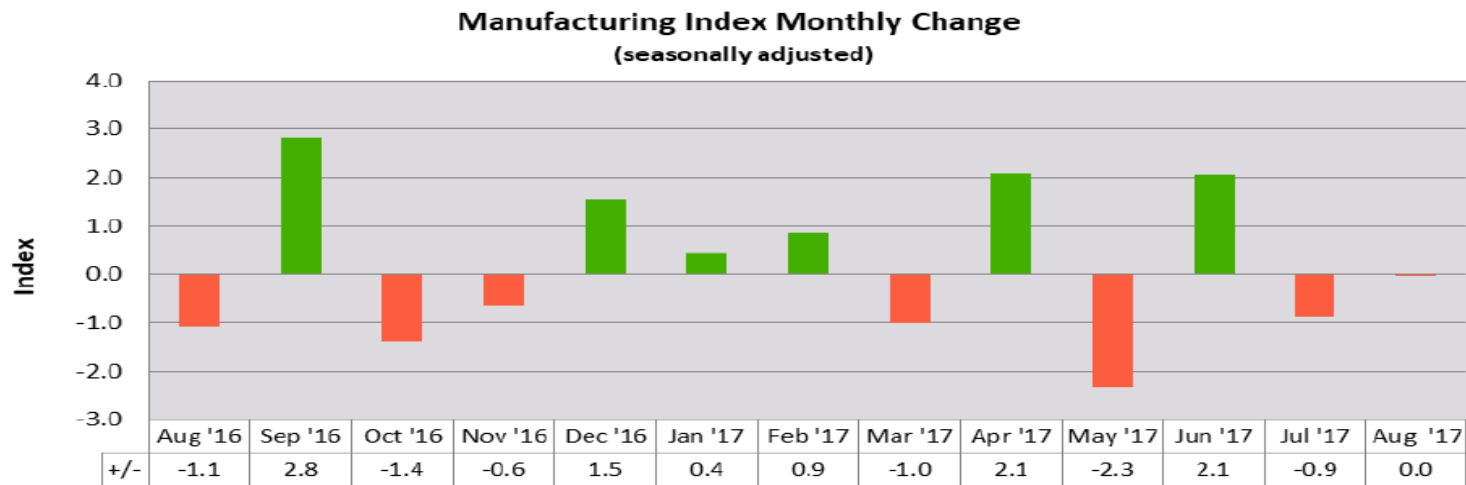
“The combined index for the CMI was better than it was last month with a reading of 55.1 as compared to 54.6. This is a respectable level as compared to the year as a whole. There have been three months that have seen readings above this and the rest have been below. The months that have exceeded 55.1 include February, April and June. There was an increase in the index of favorable factors from 61.7 to 62.2, while the index of unfavorable factors increased just slightly from 50 to 50.3.

What is interesting is that there has been some discernible improvement in the overall economy, but not enough to push much activity for the credit managers. A steady state is good news as long as it has steadied at a relatively high rate, and that seems to be the case this month. There have been sectors that have improved over the last few months, but more of them have shown declines. This has been the pattern for months — strong performance in the favorable categories and weak performance in the unfavorable readings.

The bottom line is that there is stability, but at a relatively low level and there are plenty of questions as far as the months to come. The sense is that there will be growth in the third quarter as there has been in previous years, but there is also an expectation that this growth will fade in the fourth quarter again.

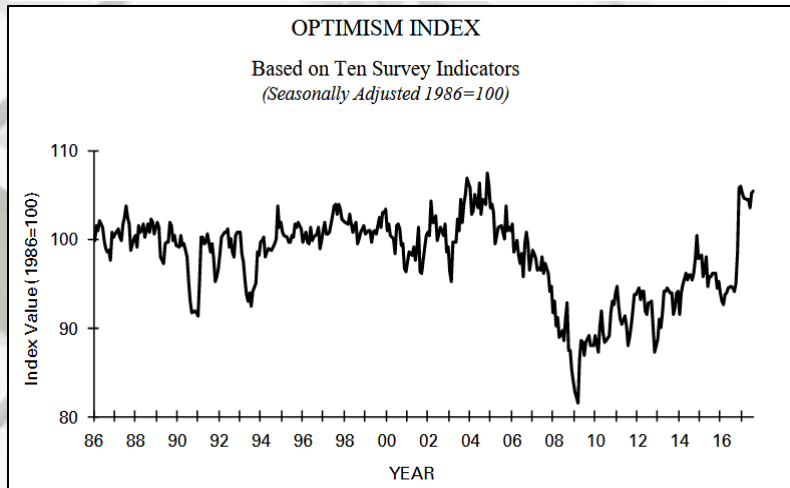
The amount of credit extended trended up from 64.5 to 66.1. This suggests the majority of the creditors are larger accounts seeking bigger amounts and bigger projects. Generally speaking, the manufacturing sector has been somewhat more stable than it was earlier in the year, but has stabilized at a relatively weak level. The fear is that an interruption in overall growth will manifest pretty quickly.” – Dr. Chris Kuehl, Economist, NACM

# Private Indicators



Manufacturing Sector (seasonally adjusted)	Aug '16	Sep '16	Oct '16	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17	Apr '17	May '17	Jun '17	Jul '17	Aug '17
Sales	52.4	58.2	54.4	58.5	58.7	61.7	60.7	61.7	64.7	59.5	66.9	64.0	60.8
New credit applications	55.8	59.2	56.9	51.6	56.1	61.8	61.6	59.7	61.4	58.6	59.8	60.6	61.8
Dollar collections	54.1	57.5	56.1	65.5	59.3	55.3	64.1	56.1	61.3	57.3	61.0	61.1	59.3
Amount of credit extended	58.8	61.4	58.3	60.4	60.2	63.0	67.2	63.4	67.8	63.4	67.4	64.5	66.1
<b>Index of favorable factors</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>	<b>63.8</b>	<b>59.7</b>	<b>63.8</b>	<b>62.5</b>	<b>62.0</b>
Rejections of credit applications	51.1	53.3	52.7	49.3	51.5	51.6	52.3	52.1	52.9	52.6	53.3	52.9	52.8
Accounts placed for collection	48.3	50.2	49.0	45.0	50.1	51.9	47.4	50.6	50.1	49.5	49.8	49.8	49.7
Disputes	46.5	47.7	49.2	44.5	48.8	45.7	47.4	47.4	49.2	48.0	49.6	47.8	47.3
Dollar amount beyond terms	45.4	50.5	50.0	43.0	50.1	49.4	52.1	48.2	51.5	48.1	49.3	49.4	49.2
Dollar amount of customer deductions	48.1	51.9	48.5	49.4	49.2	48.7	46.1	49.2	49.1	48.6	48.7	47.6	48.0
Filings for bankruptcies	54.5	53.0	54.3	55.6	54.4	53.5	52.3	52.7	54.1	53.1	53.6	53.0	55.5
<b>Index of unfavorable factors</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>51.1</b>	<b>50.0</b>	<b>50.7</b>	<b>50.1</b>	<b>50.4</b>
<b>NACM Manufacturing CMI</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>	<b>56.2</b>	<b>53.9</b>	<b>55.9</b>	<b>55.1</b>	<b>55.0</b>

# Private Indicators



## August 2017 Report: Small Business Optimism Holds its Altitude in August

“The percentage of small business owners planning to make capital expenditures in the next three to six months reached its highest level since 2006, according to the **National Federation of Independent Business (NFIB) Index of Small Business Optimism**, ...” – Holly Wade, NFIB

## Surge in capital spending and high sales expectations keeps NFIB Index at near record level heading into the fall

“The NFIB Index rose 0.1 points to 105.3. Five of the components increased, while five declined. The lofty reading keeps intact a string of historically high performances extending back to last November.

Consumer demand is very strong, and the regulatory relief has been dramatic. Small business owners still expect progress on tax reform and healthcare, and they will be watching closely.” – William C. Dunkelberg, Chief Economist, NFIB

“This is a sign of economic health that we’ve been expecting based on the soaring optimism that began last year. Higher optimism resulted first in higher employment activity, and now we’re seeing more small business owners making capital investments. Consumer demand is driving optimism, and optimism is driving business activity. Substantial regulatory relief is also a big factor because it creates a much more hospitable business climate.” – Juanita Duggan, President & CEO, NFIB

# Private Indicators

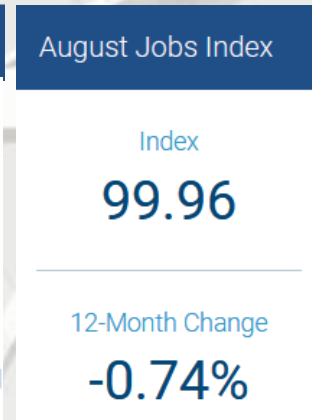
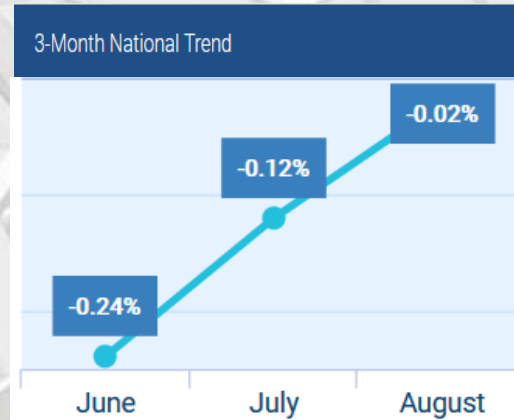
## COMMENTARY

“Productivity” increased 0.1% in the first quarter and 0.9% in the second quarter (annual rates). Did workers get that much better in three months? Not likely. Defined as a change in “output per hour worked,” its measurement has occupied economists for decades. Consider the productivity of an employee at a burger joint. The number of burgers served per hour measures productivity. But this varies with the economy; in good times, there are more customers and in bad time fewer. But the fundamental skills of the burger server do not change. These “skills” and the available capital equipment will determine over the long run what the worker’s productivity CAN be. What it WILL be depends on how many customers actually buy a burger. There was no amazing improvement in worker skills from the first quarter to the second, just a change in demand which resulted in more sales per hour for the existing employees.

*Small firms are now making long-term investments in new machines, equipment, facilities, and technology. That’s a real sign of strength, and it will be interesting to see if the August result becomes a trend.*

Some argue that sluggish productivity growth can slow economic growth and prevent wages from rising much. For the burger worker, it is slow economic growth that reduces the number of burgers purchased per hour, it is not the employee’s ability to deliver burgers. Only if the demand for burgers reaches the limits of the worker to deliver them could the employee’s productivity limit growth, a “supply” problem that can be alleviated by hiring another worker or getting a machine or a reorganization of the burger production line (management skills).” – William C. Dunkelberg, Chief Economist, NFIB

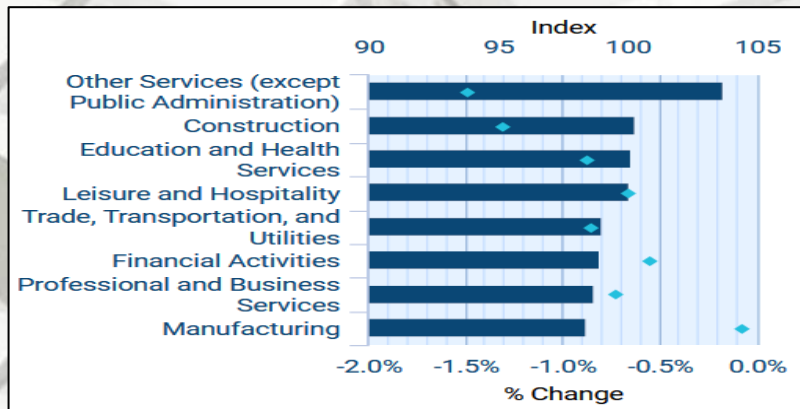
# Private Indicators



## The Paychex | IHS Small Business Jobs Index National Jobs Index

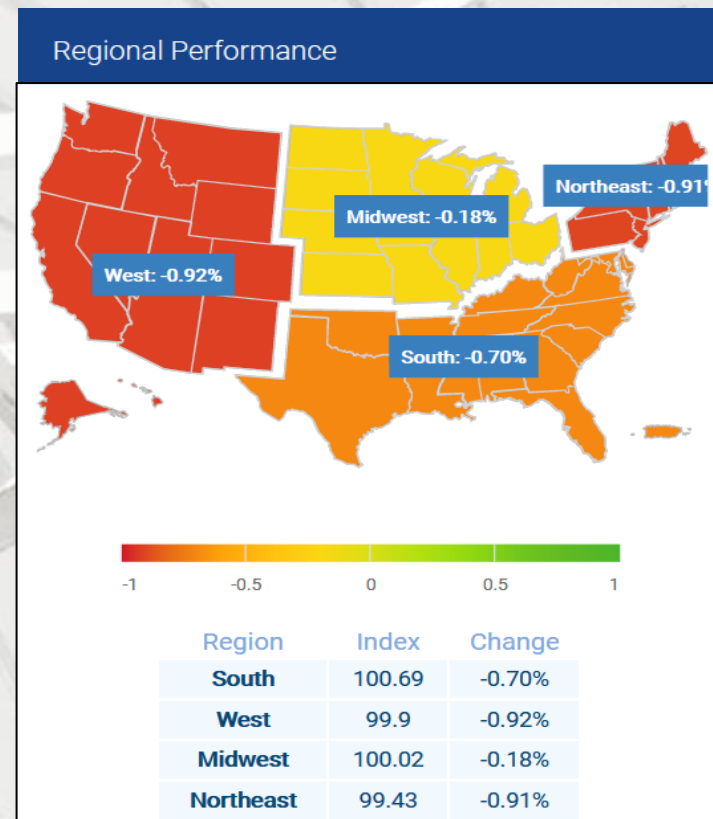
- “At 99.96, the national index declined for the sixth consecutive month and is 0.74 percent lower than a year ago. Down 0.38 percent during the past quarter, the month-to-month decreases are getting smaller as the national index is leveling off.”  
– James Diffley, Chief Regional Economist, IHS Markit

# Private Indicators



## Industry

- “Industry sectors showed little movement as employment growth conditions were relatively unchanged in August. Slowly declining, Financial Activities fell below 100 late in 2015 and is now below 99 for the second consecutive month.”—James Diffley, Chief Regional Economist, IHS Markit



## The Paychex | IHS Small Business Jobs Index

### Regional Highlights

- “Declining 0.19 percent from July, the Northeast had the biggest slow down among regions, with most of the decline occurring in the Middle Atlantic. The Midwest has the best one-month and 12-month growth rates and is the only region to average stronger employment growth in 2017 year-to-date than during 2016.”—James Diffley, Chief Regional Economist, IHS Markit

# Private Indicators

“The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 5.8% annual gain in June, up from 5.7% the previous month. The 10-City Composite posted a 4.9% annual increase, down from 5.0% the previous month. The 20-City Composite reported a 5.7% year-over-year gain, the same as the previous month. June 2017 shows that home prices continued their rise across the country over the last 12 months.” – David Blitzer, S&P Dow Jones

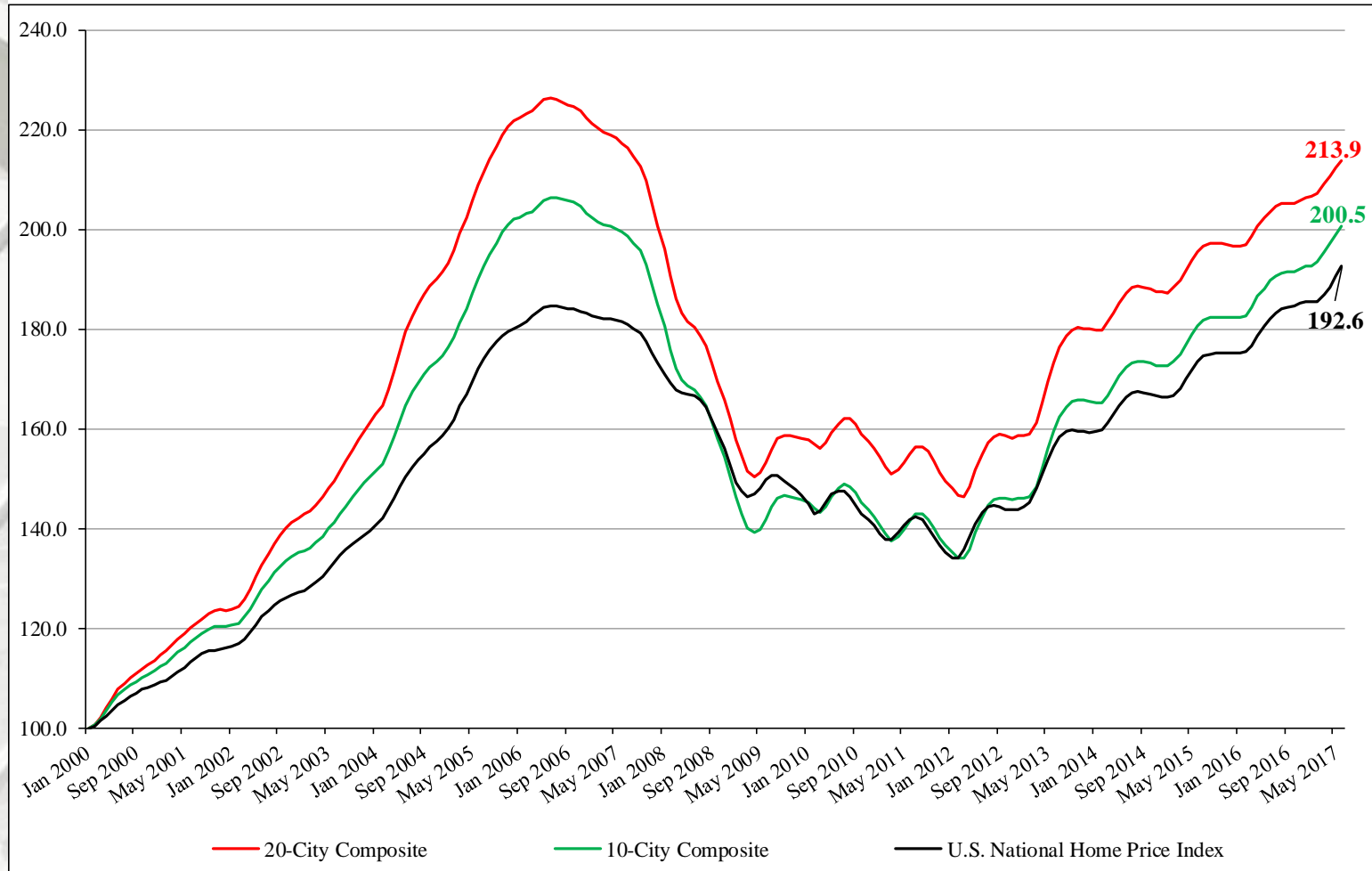
## **The S&P Corelogic Case-Shiller National Home Price NSA Index Rises Again To All Time High**

“The trend of increasing home prices is continuing. Price increases are supported by a tight housing market. Both the number of homes for sale and the number of days a house is on the market have declined for four to five years. Currently the months-supply of existing homes for sale is low, at 4.2 months. In addition, housing starts remain below their pre-financial crisis peak as new home sales have not recovered as fast as existing home sales.”

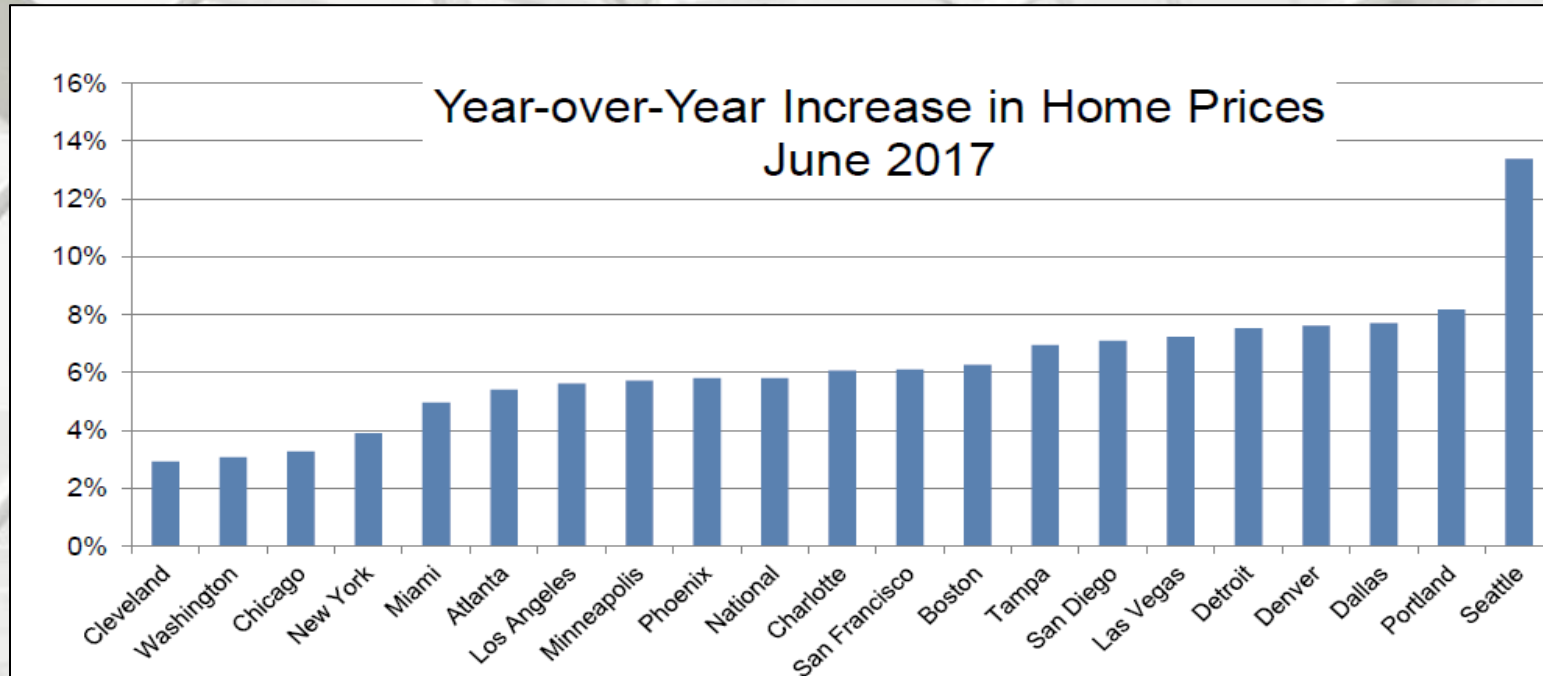
Rising prices are the principal factor driving affordability down. However, other drivers of affordability are more favorable: the national unemployment rate is down, and the number of jobs created continues to grow at a robust pace, rising to close to 200,000 per month. Wages and salaries are increasing, maintaining a growth rate a bit ahead of inflation. Mortgage rates, up slightly since the end of 2016, are under 4%. Given current economic conditions and the tight housing market, an immediate reversal in home price trends appears unlikely.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

# Private Indicators

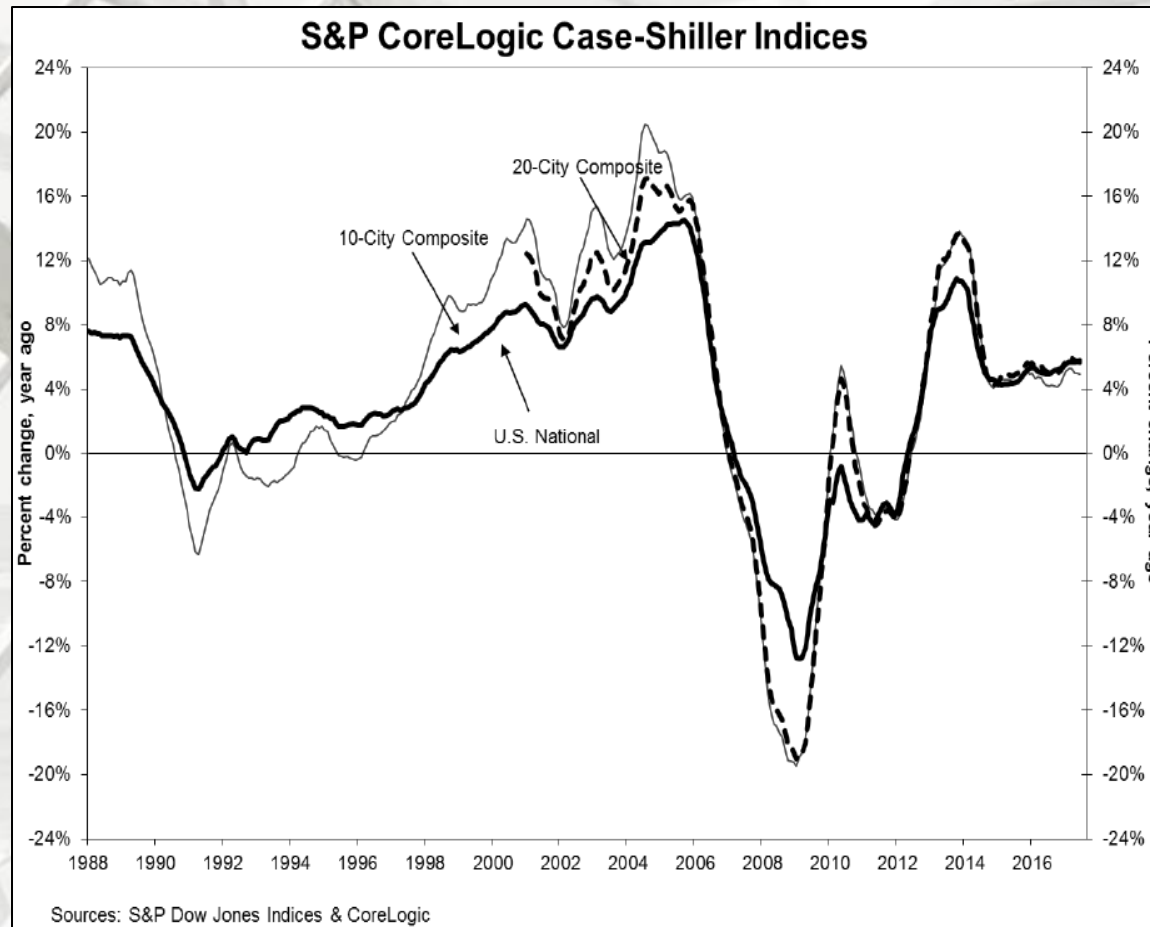
## S&P/Case-Shiller Home Price Indices



# Private Indicators



# Private Indicators



# Demographics

## Here's Why More Americans Don't Want to Be Homeowners

“If you’re house hunting, it can feel like the market is moving quickly and everyone is buying. An index of homes under contract, known as pending home sales, jumped a higher-than-expected 1.5% in June, according to the National Association of Realtors.

But according to a recent Experian survey, fewer people are planning on buying: 27% of consumers are not planning to purchase a home in the next 5-10 years, an increase of 8% from 2016. The survey findings also show some consumers have frustrations with the home buying process, especially first-time homebuyers and those who don’t have high incomes. We dive into the survey findings here:

### So who’s waiting to buy?

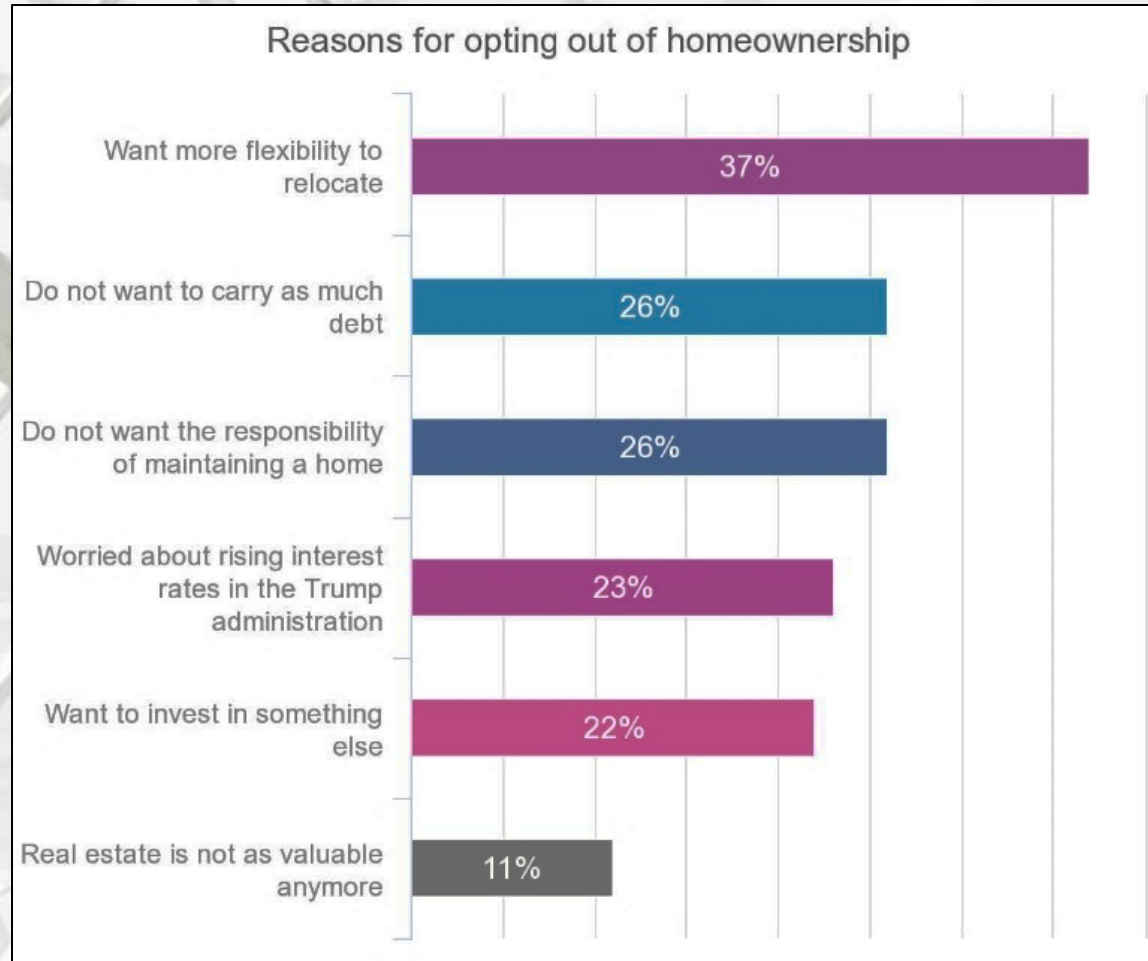
Younger consumers and those in the West are most likely to wait to purchase a home. In fact, 34% of consumers ages 18-34 say they will opt-out of homeownership. Regionally, consumers in the Northeast had the biggest jump among those opting out of buying a home: 26% in 2017 vs. 13% in 2016. With prices soaring in California, Seattle, and Portland, 32% of consumers in the West are deciding not to buy a home this year, an increase of 8% from last year.

One of the reasons may be that many consumers surveyed (54%) say homes are less affordable. Again, it was higher among those respondents from the West, with 62% agreeing the housing market is more expensive today while 57% are from the South and 53% in the Northeast.

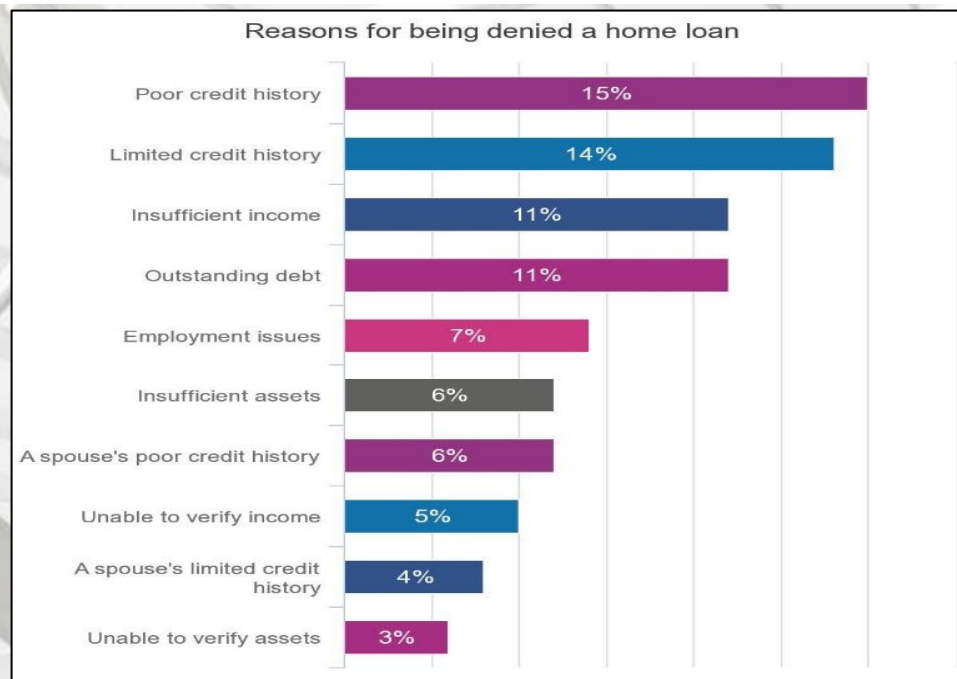
Additional reasons cited for not purchasing a home include wanting more flexibility to relocate (37%) and almost 30% do not want to carry so much debt. One-third of millennial survey respondents want to invest in something else.

Contrary to conventional wisdom that limited supply is restraining home purchases, 64% of people surveyed say there are enough houses on the market to choose from.” – Sandra Bernardo, Experian

# Demographics



# Demographics



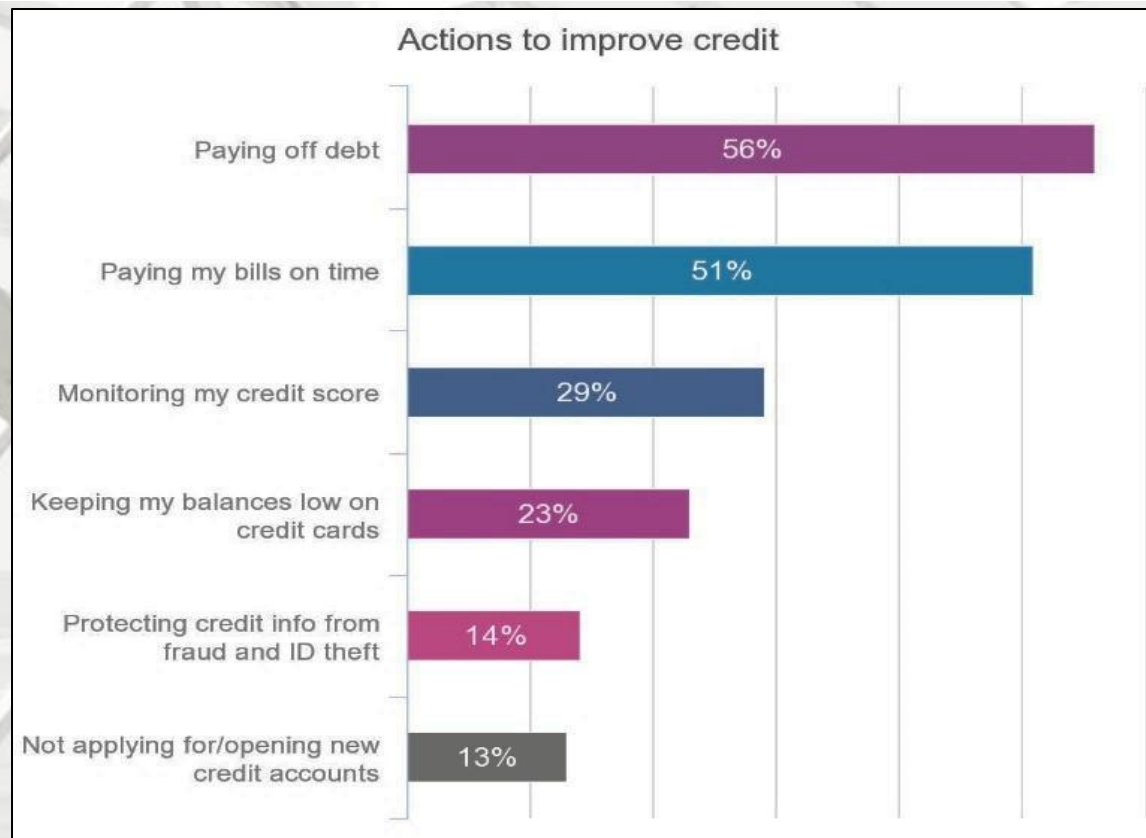
## Here's Why More Americans Don't Want to Be Homeowners

### Credit concerns with the loan process

“While a majority of consumers (71%) understand the importance of credit when buying a home, 63% agree that their credit score, in particular, has impacted or will impact their home-buying experience. Among those who already purchased a home in the past year, 65% agree that their credit score affects the interest rate to refinance their home.

However, 43% of survey respondents say they were denied a home loan with more than half attributing the denial to a poor or limited credit history. In fact, 56% overall say they are working to improve their credit to qualify for a better home loan rate. Additionally, 54% have delayed purchasing a home to improve their credit to get a better interest rate.” – Sandra Bernardo, Experian

# Demographics



## Here's Why More Americans Don't Want to Be Homeowners

### Credit concerns with the loan process

“Among those who are trying to better their credit, some of the steps they are taking include paying off debt and paying bills on time.” – Sandra Bernardo, Experian

# Demographics

## Why Homeownership Rates May Never Rise

“One of the great markers of success is homeownership. Whether the property is big or small, own a house and people understand that you’ve achieved a certain level of financial capacity. You’re part of the landed gentry; you’ve gotten part of the American dream.

It follows that one measure of our success as a society is reflected by the homeownership rate. Higher is better, but in recent years, [the homeownership rate](#) has fallen from 69.2% in the second quarter of 2004 to 63.6% in the first quarter of this year.

Where did everyone go? With the stock market at record highs and unemployment near long-time lows, what happened to homeownership? Why is it that [mortgage rates](#) have dropped from an average of 5.84% in 2004 to 3.65% in 2016, a record low, yet ownership is down?

...rising home values are surely a positive marketplace development unless, of course, you’re a buyer. It’s not just a shortage of inventory that’s knocked down home sales, it’s also that constant price increases shrink the pool of potential buyers.” – Peter Miller, Contributing Writer, Ten-X

# Demographics

## Why Homeownership Rates May Never Rise

### Mortgage Interest Rates and Labor

“Interest rates worldwide have been in a ditch, something obvious to see. As an example, \$6.5 trillion was invested with negative interest rates in June according to [Bloomberg Markets](#). If you want to pump up affordability and spark home sales, just knock down interest rates. For real estate, low rates are central to higher prices and more sales, assuming wages remain steady or increase. But, whoops, that assumption about wages is highly suspect.

According to a new study by [the Roosevelt Institute](#), “GDP remains well below both the long-run trend and the level predicted by forecasters a decade ago. In 2016, real per capita GDP was 10% below the Congressional Budget Office’s (CBO) 2006 forecast, and shows no signs of returning to the predicted level.”

“Despite the broad-based strength in measures of employment,” said the [Federal Reserve](#) in July, “wage growth has been only modest, possibly held down by the weak pace of productivity growth in recent years.”

To say that wage growth has “been only modest” understates the obvious issue: How is it possible that we have shrinking levels of unemployment and also stagnant, if not falling, real wages? If unemployment is low, then shouldn’t employers pay more for scarce workers?” – Peter Miller, Contributing Writer, Ten-X

# Demographics

## Why Homeownership Rates May Never Rise

### Mortgage Interest Rates and Labor

“According to the [Economic Policy Institute](#), “In the three decades following World War II, hourly compensation of the vast majority of workers rose 91%, roughly in line with productivity growth of 97%. But for most of the past generation (except for a brief period in the late 1990s), pay for the vast majority lagged further and further behind overall productivity. From 1973 to 2013, hourly compensation of a typical (production/nonsupervisory) worker rose just 9% while productivity increased 74%. This breakdown of pay growth has been especially evident in the last decade, affecting both college- and non-college-educated workers as well as blue- and white-collar workers. This means that workers have been producing far more than they receive in their paychecks and benefit packages from their employers.”

“The pay that workers take home has risen a little since the depths of the recession, but not much,” reported [The Washington Post](#) in May. “Once you factor in inflation, wage growth is so low that workers are hardly better off than they were a year ago.”

Actually, a lot of workers have never caught up with the wages they received long ago. [The Census Bureau reported that](#) “median household income was \$56,516 in 2015, a 5.2% increase from the 2014 median in real terms, but 1.6% lower than the median in 2007, the year before the most recent recession, and 2.4% lower than the median household income peak that occurred in 1999.” – Peter Miller, Contributing Writer, Ten-X

# Demographics

## Why Homeownership Rates May Never Rise

### Homeownership and Wage Growth

“Could it be that the lack of real wage growth – the lack of increased buying power – is holding back homeownership levels, even though mortgage rates are near historic lows? The answer has to be yes.

Here’s why:

First, people are no longer able to save. How can potential buyers set aside even a meager 3% down payment when 69% of us have less than \$1,000 in savings, according to a 2016 study by [GoBankingRates.com](http://GoBankingRates.com)?

Second, rental rates are soaring, vacuuming up potential down payment capital and arguably driving some people into outright homelessness. According to [RentCafe](http://RentCafe), “a whopping 84% of America’s 250 biggest cities experienced rent growth. Just 30 cities saw rents flat-line, while 10 cities had rents decreases.”

“Rising rents in the nation’s booming urban areas are [creating crisis levels of homelessness](#) that will continue or even accelerate as rents rise,” reported [Zillow](http://Zillow) in August. “The connection between homelessness and increasing rents is especially strong in places that are already facing rapidly growing homeless populations: New York, Los Angeles, Washington, D.C., and Seattle.” – Peter Miller, Contributing Writer, Ten-X

# Demographics

## Why Homeownership Rates May Never Rise

“Third, debts have grown substantially. “According to the Federal Reserve Bank of New York, non-housing debt totaled \$2.1 trillion during the first quarter of 2004,” said Rick Sharga, executive vice president at [Ten-X.com](http://Ten-X.com), the online real estate marketplace. “Now it amounts to \$3.64 trillion, an increase of more than \$1.5 trillion. More than a trillion dollars in new debt is in the form of student loans, a huge burden which limits the ability of many younger people to buy homes.”

Fourth, for many potential buyers the bloom is off the rose. “About half of adults believe that having a full-time job and being able to financially support a family are extremely important to becoming an adult,” said the [Census Bureau](http://Census Bureau) in an April report. “Despite the prominence given to economic security, only a quarter of Americans think that moving out of the parents’ home is a very important part of adulthood.”

Translation: *Three-quarters of Americans **DON'T think** moving out of the parents' home is a very important part of adulthood.*

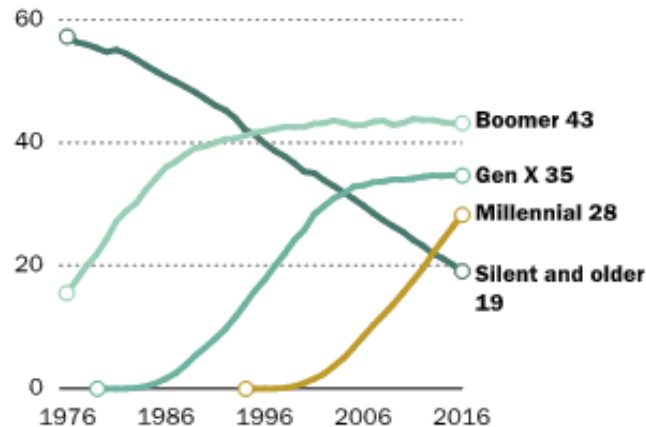
Lastly, things could get worse for the homeownership rate. There are now serious proposals on Capitol Hill to reform the tax system, proposals that would increase the standard deduction to \$24,000 for married couples and \$12,000 for singles. If such plans pass, it means that huge numbers of people who now itemize will instead take the standard deduction; they won't deduct or care about mortgage interest or property tax write-offs. With effective tax benefits gone, a lot of renters are likely to look at ownership and think, why bother?” – Peter Miller, Contributing Writer, Ten-X

# Demographics

## 5 facts about Millennial households

**Though Millennials are the largest adult population, they do not head the largest number of households**

*U.S. households, in millions*



Note: There are a relatively small number of households (about 200,000) headed by a person who was younger than 18 in 2016 that are not shown. Households are categorized on the basis of the characteristics of the head of household.

Source: Pew Research Center analysis of 1976-2016 Current Population Survey Annual Social and Economic Supplement (IPUMS).

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“Millennials are the [largest living generation](#) by population size (79.8 million in 2016), but they trail Baby Boomers and Generation Xers when it comes to the number of households they head. Many Millennials [still live under their parents’ roof](#) or are in a college dorm or some other shared living situation. As of 2016, Millennials (ages 18 to 35 in 2016) headed only 28 million households, many fewer than were headed by Generation X (ages 36 to 51 in 2016) or Baby Boomers (ages 52 to 70).

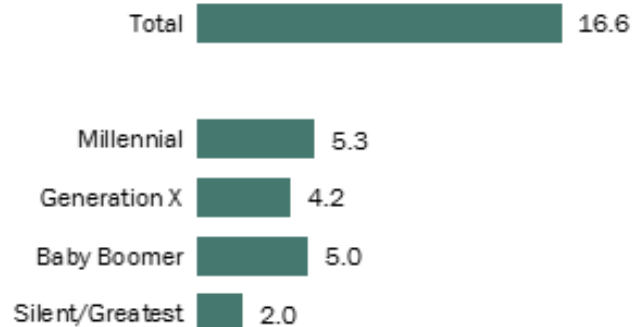
Even so, the latest available Census Bureau data indicate that Millennial-run households represent the largest group in some key categories, such as the number of households living in poverty.

Looking at households is important because many economic and spending decisions, such as whether to own or rent a home, tend to revolve around the household rather than the individual adult. Here are five facts about Millennial households:” – Richard Fry, Senior Researcher, Pew Research Center

# Demographics

## More households headed by a Millennial are in poverty than other generations

*U.S. households in poverty, in millions (2016)*



Note: Households are categorized on the basis of the characteristics of the head of household. There are a relatively small number of households headed by a person younger than 18 that are not shown but are included in the total.

Source: Pew Research Center analysis of 2016 Current Population Survey Annual Social and Economic Supplement (IPUMS).

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## 5 facts about Millennial households

**“1 More Millennial households are in poverty than households headed by any other generation.** In 2016, an estimated 5.3 million of the nearly 17 million U.S. households living in poverty were headed by a Millennial, compared with 4.2 million headed by a Gen Xer and 5.0 million headed by a Baby Boomer. The relatively high number of Millennial households in poverty partly reflects the fact that the [poverty rate among households](#) headed by a young adult has been rising over the past half century while dramatically declining among households headed by those 65 and older. In addition, Millennials are [more racially and ethnically diverse](#) than the other adult generations, and a greater share of Millennial households are headed by minorities, who tend to have [higher poverty rates](#). Millennial heads of households are also more likely to be unmarried, which is associated with higher poverty.” – Richard Fry, Senior Researcher, Pew Research Center

# Demographics

## 5 facts about Millennial households

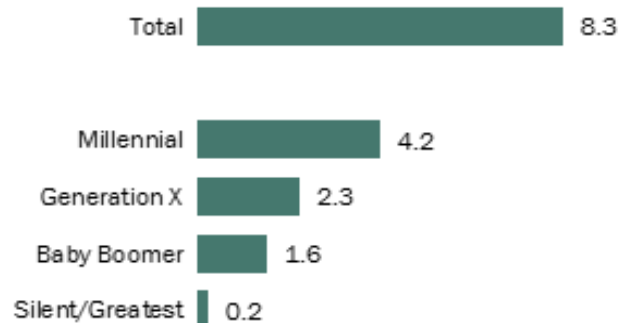
**“2 Millennial households dominate the ranks of the nation’s renters.** Last year, Millennials headed 18.4 million of the estimated 45.9 million households that rent their home. By comparison, only 12.9 million Generation X and 10.4 million Boomer households were renters. Among households headed by a member of the Silent or Greatest generation, 4.1 million were renters.

Millennials’ prominence among renters reflects more than their youth. They are also [significantly less likely to own their home](#) than prior generations of young adults when they were the same age. For example, in 1982, 41% of households headed by those younger than 35 (the approximate age of Boomers at the time) owned their homes. In 1999, 40% of households in this younger age bracket (then Gen Xers) owned their dwelling. By 2016, the share had dropped to 35%. The Great Recession did lead to a widespread [increase in renting](#) across households of all ages, but homeownership declined [most among younger households](#).” – Richard Fry, Senior Researcher, Pew Research Center

# Demographics

## Millennials head roughly half of all cohabiting-couple households

*Household heads in U.S. who have an unmarried partner, in millions (2016)*



Note: There are a relatively small number of households headed by a person younger than 18 that are not shown but are included in the total.

Source: Pew Research Center analysis of 2016 Current Population Survey Annual Social and Economic Supplement (IPUMS).

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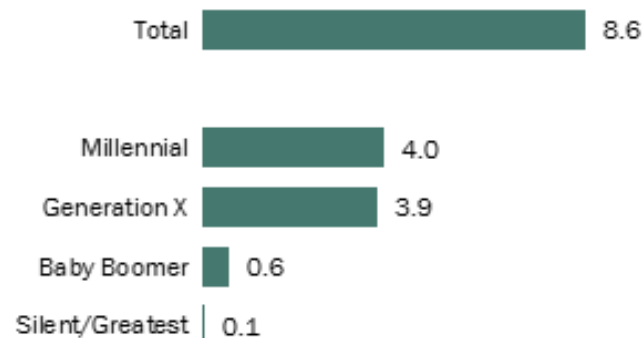
## 5 facts about Millennial households

**“3 About half of cohabiting-couple households are headed by a Millennial.** Since 2011, Millennials have headed more households made up of unmarried partners than any other adult generation. By 2016, Millennials were heads of 4.2 million of an estimated 8.3 million cohabiting-couple households. The greater prevalence of cohabitation among Millennial households partly reflects that Millennials are more likely to live with a romantic partner than earlier generations of young adults. For example, in 2012, among women ages 25 to 29 who were living with a spouse or partner, [37% were cohabiting](#). By comparison, in 1987 – when Boomers were at a comparable age to Millennials – just 10% of 25- to 29-year-old women in a union were cohabiting.” – Richard Fry, Senior Researcher, Pew Research Center

# Demographics

## The largest number of single-mother households are headed by a Millennial

*Unmarried female household heads in U.S. who have a child younger than 18, in millions (2016)*



Note: Single or unmarried refers to household heads who do not have a spouse present. A child refers to the child of the household head and includes stepchildren and adopted children as well as biological children. There are a relatively small number of households headed by a person younger than 18 that are not shown but are included in the total.

Source: Pew Research Center analysis of 2016 Current Population Survey Annual Social and Economic Supplement (IPUMS).

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## 5 facts about Millennial households

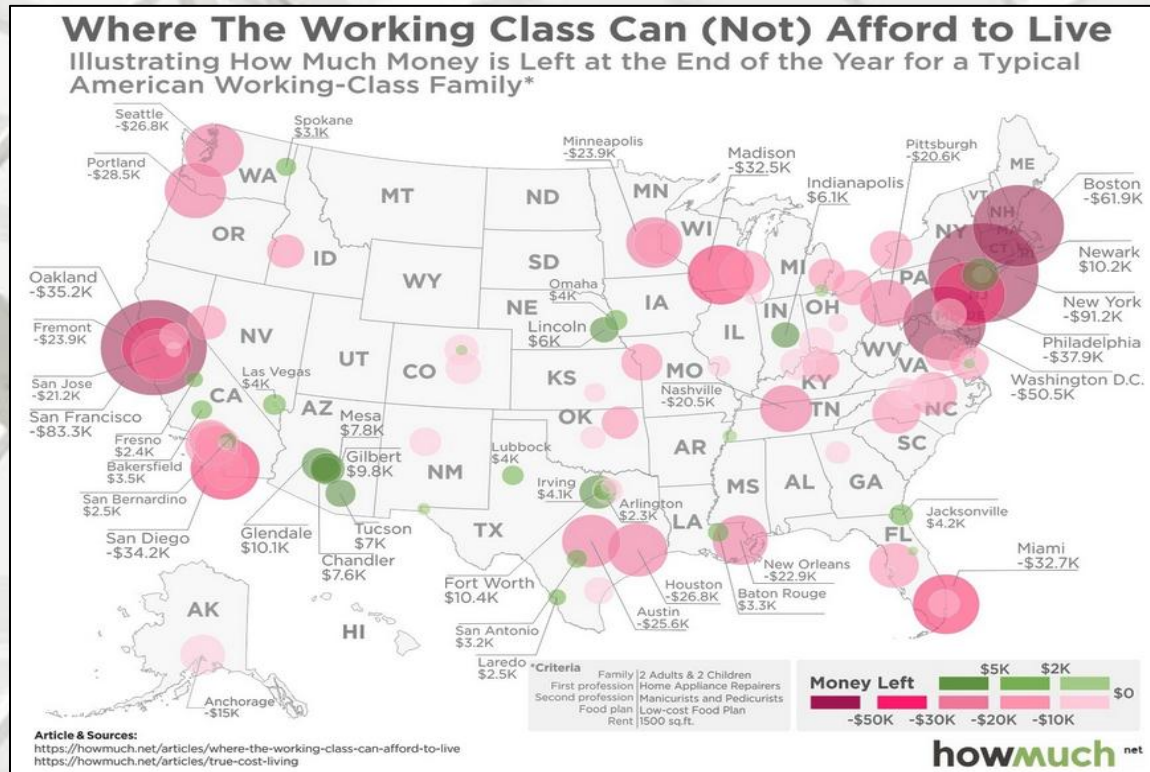
**“4 In 2016, Millennials for the first time surpassed all other generations in number of household heads who were single mothers.** Last year, 8.6 million households were headed by a single mother who lived with a child younger than 18. About 4 million of these mothers were Millennials, slightly outnumbering the 3.9 million Gen Xers heading single-mother households. Baby Boomers who were single mothers with young children and heading a household numbered only 0.6 million. The incidence of single parenthood [has increased markedly](#) since 1980. That year, 19% of children lived in a single-parent family; by 2014, 34% did.” – Richard Fry, Senior Researcher, Pew Research Center

# Demographics

## 5 facts about Millennial households

**“5 Among heads of household, Millennials in 2016 became the generation with the largest number identifying as multiracial. Multiracial Americans are [among the nation’s youngest](#) racial and ethnic populations, with a median age of only 19 as of 2015. Many of them have yet to form households, but among those who have, Millennials are now the most prevalent. Around 630,000 multiracial Millennials headed a household in 2016, compared with about 540,000 multiracial Gen Xers and a similar number of multiracial Boomers.”** – Richard Fry, Senior Researcher, Pew Research Center

# Economics



# The Working Class Can't Afford the American Dream

“The national conversation in the U.S. is focused squarely on improving the lives of people in the working class. The debate revolves around exactly how to do that. Politicians and pundits have all sorts of ideas, from efforts to [save jobs](#), [create tax cuts](#), [subsidize housing](#), and [provide universal healthcare](#). Thing is, [people don't even agree](#) on how to define the working class, much less how their living conditions stack up across the country. We created a data visualization to illustrate this complex situation.” – Raul Amoros, HowMuch.net

# Economics

## The Working Class Can't Afford the American Dream

“Each bubble represents a city (see slide). The color corresponds to the amount of money a typical working-class family would have left over at the end of the year after paying for their living costs, like housing, food and transportation. The darker the shade of red, the worse off you are. The darker the shade of green, the better off you are. The size of the bubble also fits on a sliding scale — large and dark red means the city is totally unaffordable. Bigger dark green bubbles likewise indicate a city where the working class can get by.

This map tells us several things about the working class in America. Of the ten most populous cities in the country, the only place where you can enjoy a decent standard of living without taking on debt is San Antonio. Out of the top 50 largest cities, only 12 are considered affordable. Low-wage workers are better off in smaller cities.

The geography of affordable cities is also remarkable. Newark, NJ, Chesapeake, VA and Jacksonville, FL are the only coastal locations where a worker can support his or her family. There are exactly zero affordable cities on the West Coast. Matter of fact, inexpensive locales tend to be far away from the coasts and can be found in the interior of the country. This is especially true in the southwest in states like Arizona and Texas.

So where are the best places from a financial perspective for a working-class family to live? **Here are the top five cities with the net surplus remaining after living expenses:**

1. Fort Worth, TX (\$10,447)
2. Newark, NJ ((\$10,154)
3. Glendale, AZ (\$10,120)
4. Gilbert, AZ (\$9,760)
5. Mesa, AZ (\$7,780).” – Raul Amoros, HowMuch.net

# Economics

## The Working Class Can't Afford the American Dream

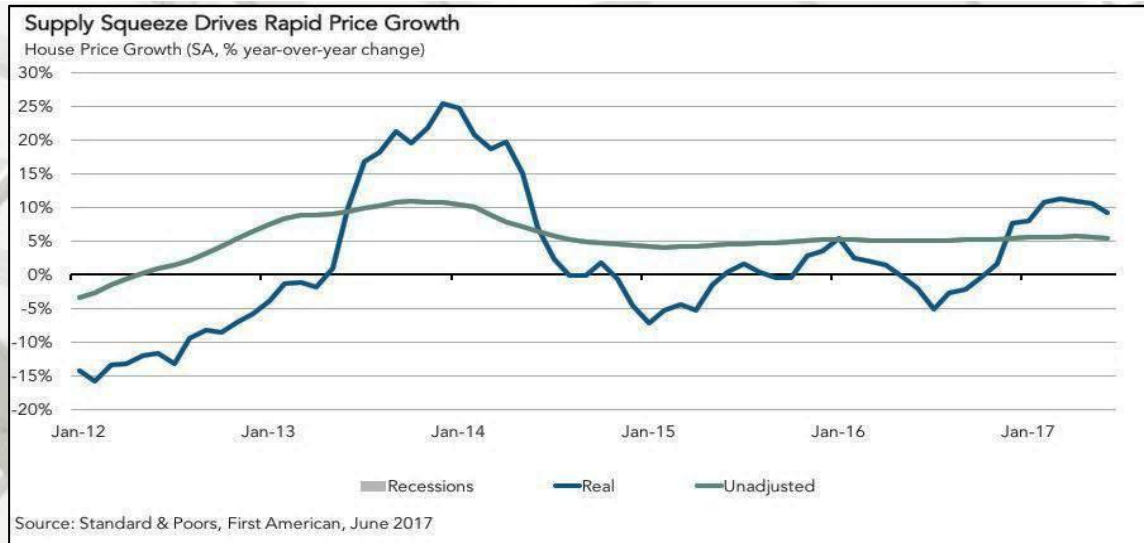
“Arizona dominates the list. If we were to keep going, the Grand Canyon State would take #6 and #7 too. The Sun Belt clearly has an economic advantage for workers.

The worst places for working class folks to live shouldn't surprise anyone who has been paying attention to the affordable housing crises in New York and California. **Here are the five worst cities:**

1. New York, NY (-\$91,184)
2. San Francisco, CA (-\$83,272)
3. Boston, MA (-\$61,900)
4. Washington, DC (-\$50,535)
5. Philadelphia, PA (-\$37,850)

You read that correctly. The typical working-class family would need an additional \$91K+ per year in New York City just to break even on a reasonable standard of living.” – Raul Amoros, HowMuch.net

# Economics



## What Are the Prospects for Future Homeownership Demand?

“The underlying fundamental issue is an overwhelming lack of supply. With current homeowners facing a [prisoner's dilemma](#) and unwilling to list their homes for sale, little relief is expected in the supply of existing homes. The supply of newly constructed homes is also sagging, adding to the supply challenges. Over the last eight years, housing demand has increased by 5.9 million, but the net new number of housing units has only increased by 3.5 million. This supply shortage will continue to put pressure on affordability and strain first-time home buyers entering the market.

The [RHPI](#) offers an alternative view of the change over time of house prices at the national, state and metropolitan area level. The traditional perspective on house prices is fixated on the actual prices and the changes in those prices, which overlooks what really matters to potential buyers—their purchasing power, or how much they can afford to buy. The [RHPI](#) adjusts prices for purchasing power by considering how income levels and interest rates influence the amount one can borrow.” – Mark Fleming, Chief Economist, First American

# Economics

## **Cost-Burdened Renters: Not Who You Think**

*Millennials comprise the nation's largest renter population, and are at the beginning of their careers. Yet ABODO Apartments says that doesn't tell the whole story*

“With 43 million Americans renting rather than owning their homes, it stands to reason that the non-ownership model cuts across generations. As this population grows, it stands to reason that the numbers of cost-burdened renters – those who spend more than 30% of their income on housing – will also increase.

Which generation is most likely to face such a cost burden? The answer may not be what you'd think, according to a new study from ABODO Apartments. Nearly two-thirds of Millennials rent rather than own, and since the oldest Millennials have yet to reach their 35th birthdays, it's safe to say they're at or near the beginning of their careers. Their lower earning power, in theory, translates into a higher hurdle for meeting the monthly rent check.

However, ABODO says, on the whole that isn't the case. Slightly over 30% of Millennials overall face a housing cost burden, while 46.5% of Millennial renters do. Baby Boomers are far less likely to rent – with just 23.3% of them doing so, although that number is expected to grow significantly – but among renting Boomers, 49% are cost-burdened.

ABODO attributes this largely to the fixed incomes that come with retirement or semi-retirement. At an average of \$890 per month – compared to \$980 for Millennials and \$1,050 for Gen Xers – Boomers pay the lowest median rents. That's fortunate, ABODO says, “...considering they earn the lowest median household income by nearly \$7,000.” Renting Boomer households live on an income of \$33,000, lower than the \$39,900 median income earned by Millennials and \$44,700 by Gen X.” – Paul Bubny, Managing Editor, Globe Street

# Economics

## Cost-Burdened Renters: Not Who You Think

“We may see more Boomers running up against this cost hurdle. “According to the [\*State of the Nation’s Housing 2017\*](#) report by Harvard’s Joint Center for Housing Studies, 44% of renter growth between 2005 and 2016 was due to households aged 55 and older,” states an ABODO report. “A [\*Freddie Mac survey\*](#) projects that number will grow, finding that 71% of those aged 55 and older expect to rent their next home, and 60% cite affordability as a main factor in their housing decisions.”

The youngest of the three generations, Millennials are alternately praised and scolded for their financial management. However, ABODO cites a recent study showing that “Millennials are concerned about their money, too: [\*67% say their financial stress\*](#) plagues their thoughts and productivity at work. Considering that 80% of Millennials [\*want to become homeowners\*](#) – though only about [\*a third\*](#) have been able to hurdle the down payment – and are still falling below the cost burden mark in such high numbers, that stress seems inevitable.”

The cost burden isn’t distributed evenly around the country, of course, although one metropolitan area appears to be home to the highest percentage of cost-burdened renters across the three generations. That would be Miami-Fort Lauderdale-West Palm Beach, where 59% of Millennials, 58.1% of Gen Xers and 60.9% of Boomers are faced with a cost burden.

Other metro areas where more than 50% of renters among each generation are cost-burdened include Stockton-Lodi, CA; Oxnard-Ventura-Thousand Oaks, CA; Fresno, CA; Riverside-San Bernardino-Ontario, CA; Los Angeles-Long Beach-Anaheim, CA; San Diego; Orlando-Kissimmee-Sanford, FL; and Virginia Beach-Norfolk-Newport News, VA. Although Honolulu has the nation’s highest percentage of cost-burdened renters among Millennials at 68.9%, the percentages are below the national averages for both Boomers and Gen X.” – Paul Bubny, Managing Editor, Globe Street

# Economics

## Who Owns Rental Properties, and is it Changing?

“Institutional investors own a growing share of the nation's 22.5 million rental properties and a majority of the 47.5 million units contained in those properties, according to the US Census Bureau's recently released [2015 Rental Housing Survey \(RHFS\)](#). The changes are notable because virtually all of the household growth since the financial crisis has occurred in rental units, with more than half of the growth occurring in single-family rental units.

According to the RHFS, individual investors were the biggest group in the rental housing market in 2015, accounting for 74.4 percent, or 16.7 million rental properties, followed by limited liability partnerships (LLPs), limited partnerships (LPs), or limited liability companies (LLCs) (14.8 percent); trustees for estates (4.1 percent); and nonprofit organizations (1.6 percent) (Table 1). However, because the share of rental properties owned by individual investors tends to decrease with the property size, individual investors owned less than half (47.8 percent) of rental units, followed by LLPs, LPs, or LLCs (33.2 percent), trustees for estates (3.3 percent), real estate corporations (3.3 percent), and nonprofit organizations (3.2 percent).

When combined with data from the 2012 RHFS and the 2001 Residential Finance Survey (RFS), the new data also show that the number and share of rental properties owned by institutional investors increased for all types of properties between 2001 and 2015 (Figure 1). For example, while about a third of properties with 5 to 24 units were owned by non-individual investors in 2001, that share soared to 47 percent in 2012 and about two-thirds in 2015. Similarly, about 66.1 percent of properties with 25 to 49 units were owned by institutional entities in 2001, which rose to 77 percent in 2012 and about 81 percent in 2015.” – Hyojung Lee, Postdoctoral Fellow, Joint Center for Housing Studies

# Economics

**Table 1. Number and share of rental properties by units in structure and type of owner, 2015**

**A. Number of Rental Properties (in thousands)**

	Number of properties by units in structure					Total	
	1 unit	2 to 4	5 to 24	25 to 49	50+	Properties	Units
Total Properties	19,283	2,551	478	116	91	22,519	47,543
Individual investor	14,568	1,989	181	22	7	16,747	22,739
Trustee for estate	772	111	30	5	1	919	1,591
LLP, LP or LLC	2,668	360	188	62	55	3,333	15,786
Tenant in common	163	25	1	1	1	191	338
General partnership	104	26	22	7	5	164	1,306
REIT	163	9	6	1	3	182	857
Real estate corporation	87	9	15	6	5	122	1,576
Housing cooperative org.	0	8	0	1	1	10	187
Nonprofit organization	324	8	14	8	8	360	1,545
Other	254	26	6	3	2	291	820
Not reported	180	0	15	2	2	199	798

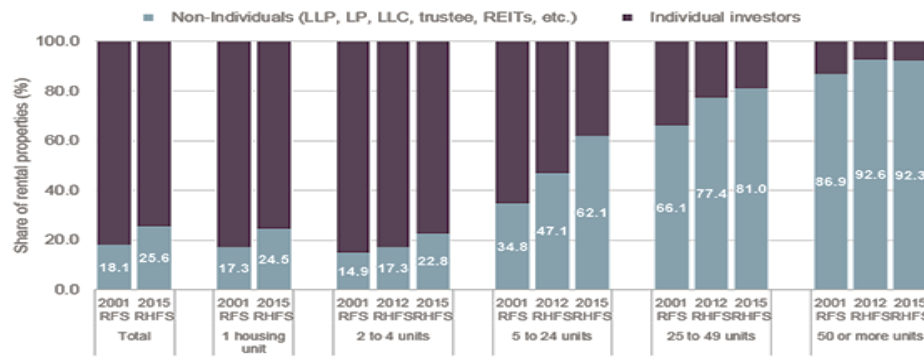
**B. Share of Rental Properties (percent)**

	Number of properties by units in structure					Total	
	1 unit	2 to 4	5 to 24	25 to 49	50+	Properties	Units
Total Properties	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Individual investor	75.5	77.2	37.9	19.0	7.7	74.4	47.8
Trustee for estate	4.0	4.4	6.3	4.3	1.1	4.1	3.3
LLP, LP or LLC	13.8	14.1	39.3	53.4	60.4	14.8	33.2
Tenant in common	0.8	1.0	0.2	0.9	1.1	0.8	0.7
General partnership	0.5	1.0	4.6	6.0	5.5	0.7	2.7
REIT	0.8	0.4	1.3	0.9	3.3	0.8	1.8
Real estate corporation	0.5	0.4	3.1	5.2	5.5	0.5	3.3
Housing cooperative org.	0.0	0.3	0.0	0.9	1.1	0.0	0.4
Nonprofit organization	1.7	0.3	2.9	5.2	8.8	1.6	3.2
Other	1.3	1.0	1.3	2.6	2.2	1.3	1.7
Not reported	0.9	0.0	3.1	1.7	2.2	0.9	1.7

Source: Rental Housing Finance Survey, 2015

# Economics

**Figure 1. Share Of Rental Properties by Ownership Entity, 2001, 2012, and 2015**



Source: Residential Finance Survey, 2001; Rental Housing Finance Survey, 2012 and 2015.

Note: The condominiums and mobile homes the 2001 RFS were excluded as they are excluded in the 2012 and 2015 RHFS. Single-family units were not counted in the 2012 RHFS.

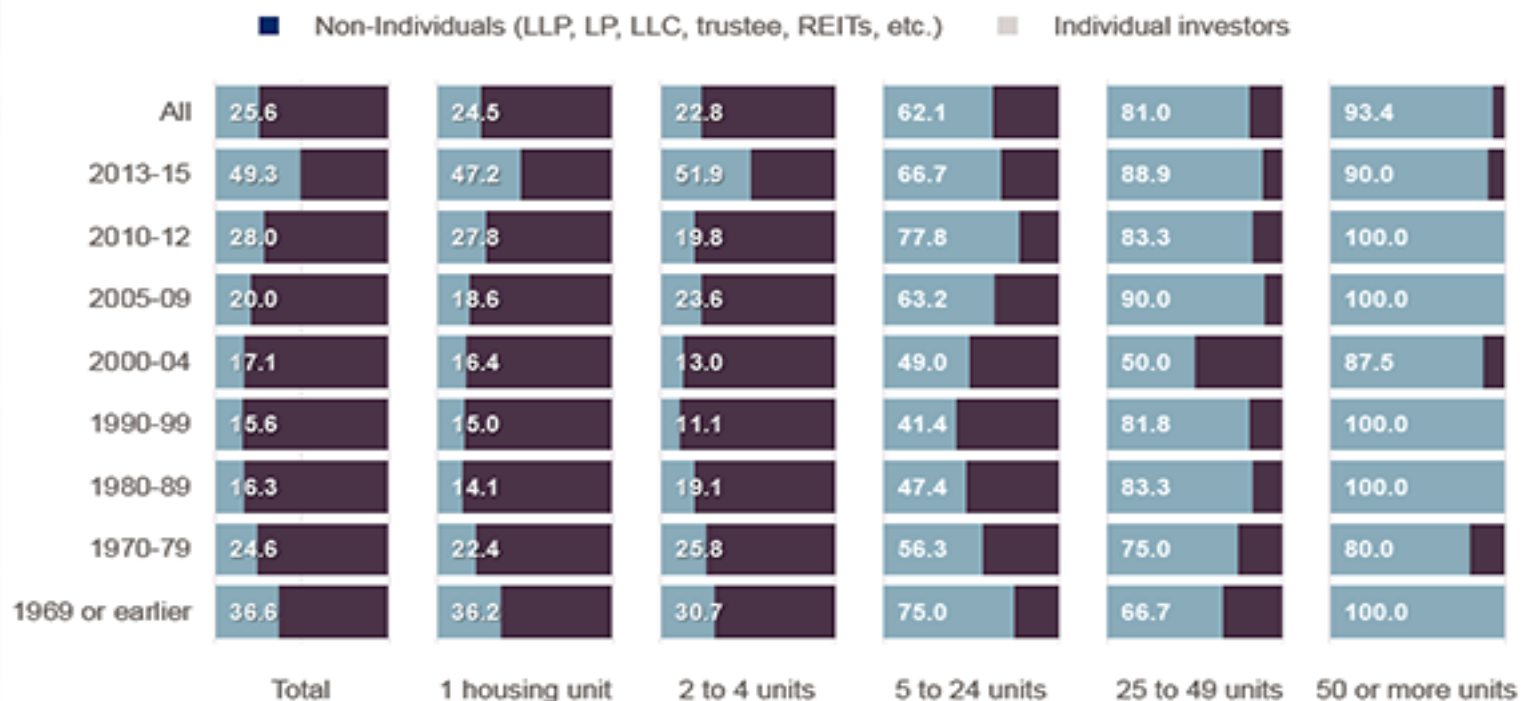
## Who Owns Rental Properties, and is it Changing?

“When combined with data from the [2012 RHFS](#) and the [2001 Residential Finance Survey \(RFS\)](#), the new data also show that the number and share of rental properties owned by institutional investors increased for all types of properties between 2001 and 2015 (**Figure 1**). For example, while about a third of properties with 5 to 24 units were owned by non-individual investors in 2001, that share soared to 47 percent in 2012 and about two-thirds in 2015. Similarly, about 66.1 percent of properties with 25 to 49 units were owned by institutional entities in 2001, which rose to 77 percent in 2012 and about 81 percent in 2015.

While individual investors (often called "mom-and-pop landlords") still owned about three-quarters of all single-family rental properties in 2015, the share of those properties owned by institutional investors rose from 17.3 percent in 2001 to 24.5 percent in 2015. However, during this time, many individual landlords reportedly created their own LLCs and transferred ownership of their property to protect themselves from liabilities and take advantage of tax benefits. As a result, the figures for single-family rentals may understate the number of mom-and-pop landlords.” – Hyojung Lee, Postdoctoral Fellow, Joint Center for Housing Studies

# Economics

**Figure 2. Share of Rental Properties by Ownership Entity and Year Property Acquired, 2015**



# Economics

## Who Owns Rental Properties, and is it Changing?

“Finally, the 2015 RHFS also provides useful information about when these changes occurred. Overall, non-individual investors accounted for about 16 percent of rental properties acquired from 1980 to 2004. That changed dramatically in the years after the financial crisis. Non-individual investors bought 28 percent of rental properties sold between 2010 and 2012 and 49.3 percent sold between 2013 and 2015 (**Figure 2**). Moreover, this shift was particularly pronounced for properties with 1 to 4 units (compared to those with 5 or more units).

Despite potential implications for both renters and the broader housing market, there have been relatively few studies assessing the impacts of changing ownership patterns for rental properties. However, some research suggest that the changes are more than just paperwork. Illustratively, [a 2016 discussion paper published by the Federal Reserve Bank of Atlanta](#) reported that large corporate landlords and private equity investors of single-family rental homes in Fulton county, Georgia were far more likely to file eviction notices than small landlords in the county. Hopefully, the changes documented in the 2015 RHFS will spur additional research on how ownership patterns affect such key issues as rental affordability, housing instability, and the upkeep of rental units.” – Hyojung Lee, Postdoctoral Fellow, Joint Center for Housing Studies

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