

The Virginia Tech – U.S. Forest Service

June 2016

Housing Commentary: Section II



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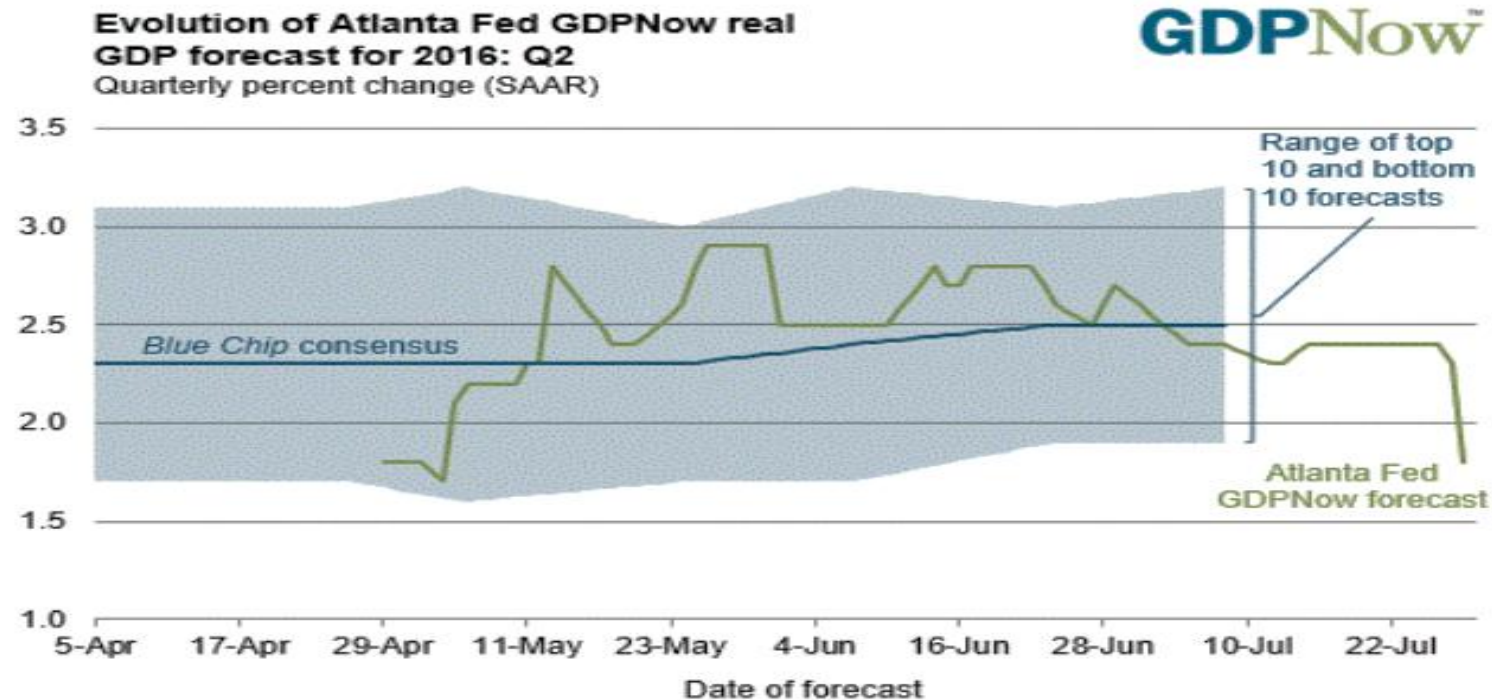
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Federal Reserve System and Private Indicators

Atlanta Fed: GDPNow™

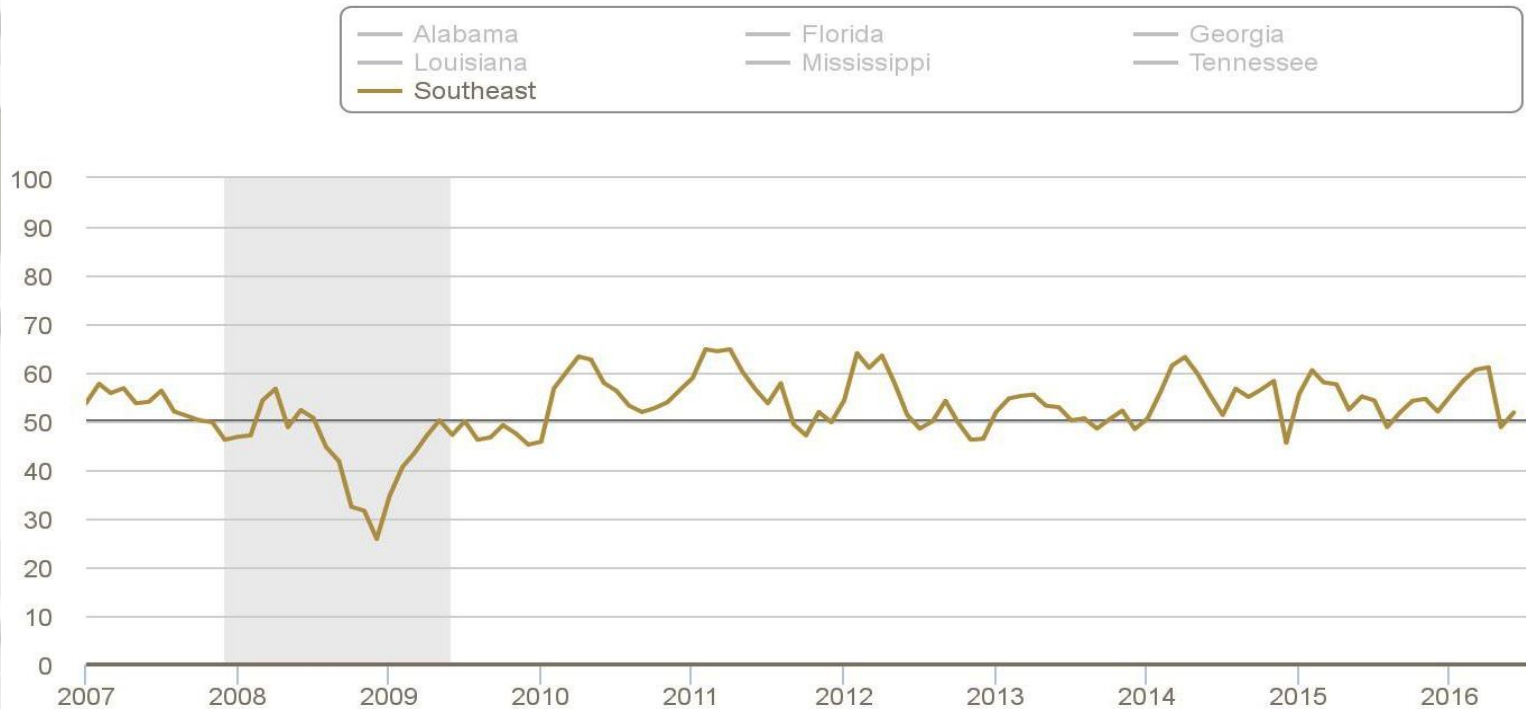


Sources: Blue Chip Economic Indicators and Blue Chip Financial Forecasts

“The final GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the second quarter of 2016 is **1.8 percent** on July 28, down from 2.3 percent on July 27. After the U.S. Census Bureau's inaugural release of its advance economic indicators report, which covers retail and wholesale inventories and foreign trade in goods, the nowcast of the contribution of net exports to second-quarter real GDP growth declined from 0.17 percentage points to -0.10 percentage points and the nowcast of the contribution of inventory investment to growth declined from -0.63 percentage points to -0.79 percentage points.” – Pat Higgins, Economist, The Federal Reserve Bank of Atlanta

U.S. Economic Indicators

Southeast Purchasing Managers Index



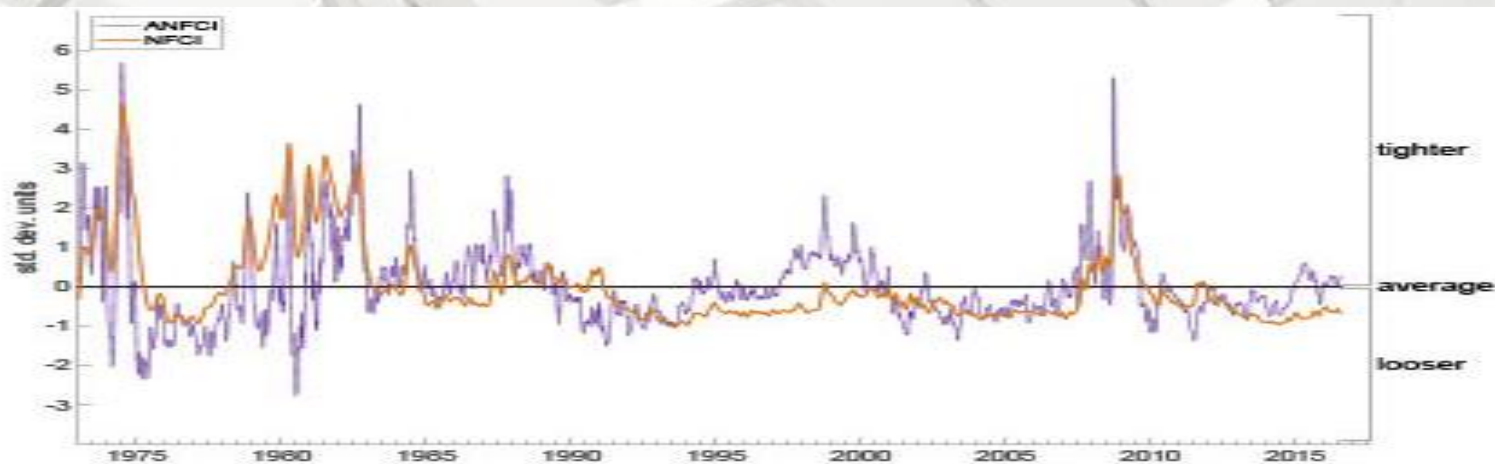
Note: 50+ = Expansion

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

The Federal Reserve Bank of Atlanta

“Kennesaw State University's Southeast Purchasing Managers Index (PMI), a composite index that measures the region's manufacturing sector based on key sector indicators, rose 3.0 points in June, to 51.8. The increase was driven by increases in nearly all underlying components. A reading over 50 indicates that manufacturing is expanding, while below 50 means the industry is contracting.” – The Federal Reserve Bank of Atlanta

U.S. Economic Indicators



Index	Current 8/5/2016	Previous 7/29/2016	1 Month Ago 7/8/2016	3 Months Ago 5/6/2016	6 Months Ago 2/5/2016	12 Months Ago 8/7/2015
NFCI	-0.67	-0.65	-0.59	-0.64	-0.52	-0.75
ANFCI	0.29	0.24	0.16	0.27	-0.00	0.18

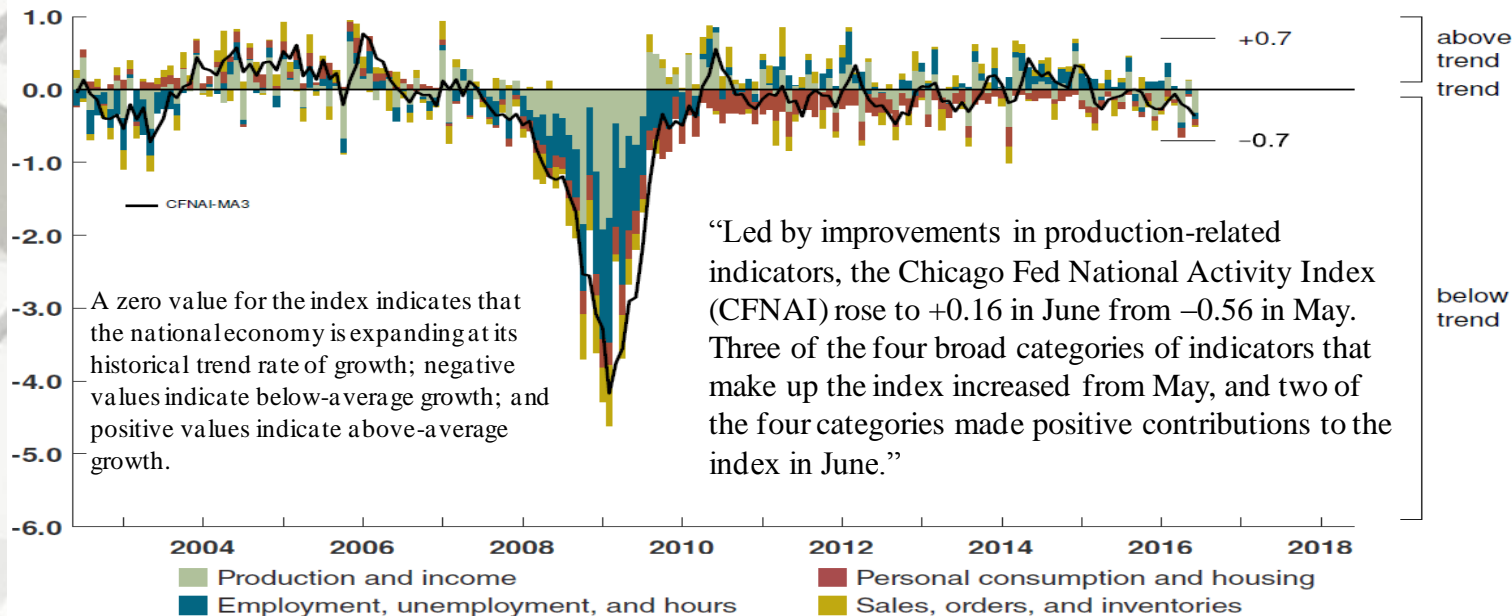
The Federal Reserve Bank of Chicago Financial Conditions Loosen Slightly in Week Ending August 5

“The NFCI edged down to -0.67 in the week ending August 5. The credit and leverage subindexes moved lower from the previous week, while the risk and nonfinancial leverage subindexes were both unchanged.

The ANFCI increased slightly to 0.29 from the previous week. The current level of the ANFCI indicates that financial conditions in the latest week were somewhat tighter than what would typically be suggested by current economic conditions as captured by the three-month moving average of the Chicago Fed National Activity Index (CFNAI-MA3) and three-month total inflation according to the Price Index for Personal Consumption Expenditures (PCE).” – Scott Brave, Economic Research, The Federal Reserve Bank of Chicago

Chicago Fed: National Activity Index

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



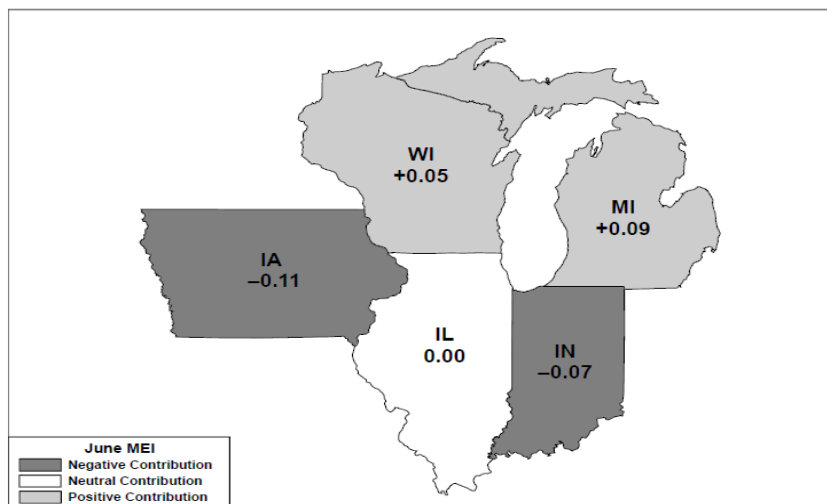
Index shows economic growth picked up in June

“The index’s three-month moving average, CFNAI-MA3, increased to -0.12 in June from -0.39 in May. June’s CFNAI-MA3 suggests that growth in national economic activity was slightly below its historical trend. The economic growth reflected in this level of the CFNAI-MA3 suggests subdued inflationary pressure from economic activity over the coming year.

The CFNAI Diffusion Index, which is also a three-month moving average, moved up to -0.16 in June from -0.38 in May. Forty of the 85 individual indicators made positive contributions to the CFNAI in June, while 45 made negative contributions. Fifty-eight indicators improved from May to June, while 27 indicators deteriorated. Of the indicators that improved, 19 made negative contributions.” – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index

MEI and the Seventh Federal Reserve District States



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

Index shows Midwest economic growth slowed in June

“The Midwest Economy Index (MEI) decreased to -0.04 in June from $+0.11$ in May. The relative MEI moved down to $+0.37$ in June from $+0.44$ in May. June’s value for the relative MEI indicates that Midwest economic growth was somewhat higher than what would typically be suggested by the growth rate of the national economy.”

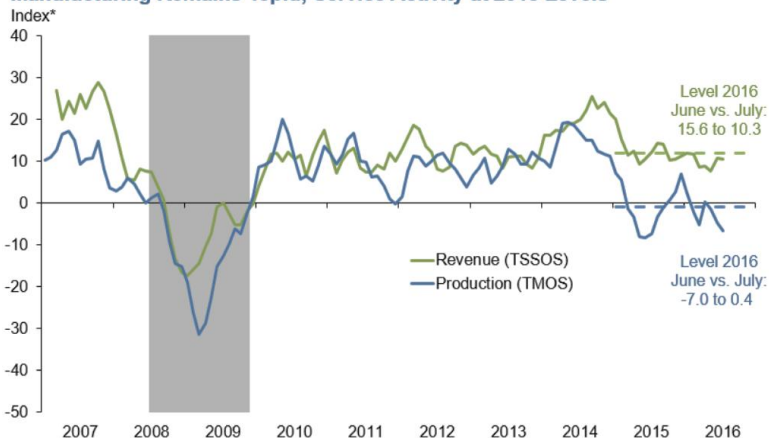
“The manufacturing sector’s contribution to the MEI decreased to -0.02 in June from $+0.02$ in May. The pace of manufacturing activity decreased in Indiana, Michigan, and Wisconsin, but increased in Illinois and was unchanged in Iowa. Manufacturing’s contribution to the relative MEI rose to $+0.21$ in June from $+0.09$ in May.

The construction and mining sector made a contribution of -0.03 to the MEI in June, down slightly from -0.01 in May. The pace of construction and mining activity was lower in Illinois, Michigan, and Wisconsin, but higher in Indiana and unchanged in Iowa. Construction and mining’s contribution to the relative MEI was $+0.08$ in June, down slightly from $+0.10$ in May.

The service sector’s contribution to the MEI decreased to -0.04 in June from $+0.04$ in May. The pace of service sector activity was down in Indiana, Michigan, and Wisconsin, but unchanged in Illinois and Iowa. The service sector’s contribution to the relative MEI declined to $+0.02$ in June from $+0.17$ in May.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

U.S. Economic Indicators

Chart 4
Manufacturing Remains Tepid; Service Activity at 2015 Levels



*Three-month moving average, seasonally adjusted.

NOTES: Shaded area represents Texas recession. Dashed lines represent 2015 averages for revenue and production.

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

Texas Employment Revised Down in First Quarter, Rebounds in Second

“Texas employment grew at a 1.1 percent annualized rate in June; however, a big downward revision to first-quarter job growth resulted in a year-to-date decline of 0.1 percent on an annual basis. The Texas unemployment rate rose slightly to 4.5 percent in June from 4.4 percent in May. Texas real GDP growth slowed to a 0.3 percent annualized rate in the first quarter from 1.4 percent in fourth quarter 2015, in line with the deceleration observed in the labor market.”

The Federal Reserve Bank of Dallas

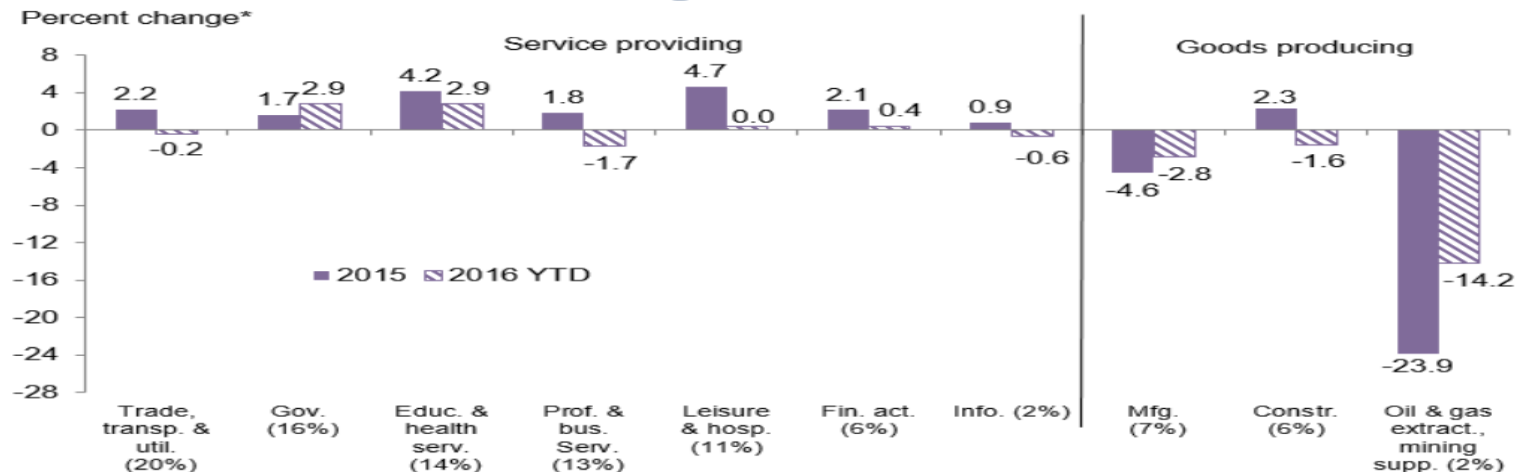
Manufacturing Improves, Services Continue to Grow

“The TMOS production index was flat in July, though the three-month-moving average is still weak (Chart 4). TMOS indexes including company outlook and general business activity also saw improvement, but both remained negative in July. The three-month moving average in the TSSOS revenue index showed the service sector continuing to expand, hovering near its 2015 average. The point estimate, however, did dip slightly from 15.6 in June to 10.3 in July.

The main risk factors going into the second half remain the possibility of even lower energy prices and the high value of the dollar along with its adverse impact on manufacturing. Steep increases in the value of the dollar since the middle of 2014 have weakened exports. The pullback in the dollar in early 2016 likely led to a spike in export activity, but with the dollar rising again, exports may be depressed further. Over 90 percent of exports from Texas are manufactured products, so further declines in exports could spell more weakness for the sector.” – Sarah Greer, Research Analyst, and Jesús Cañas, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators

Chart 2
Some Service Subsectors Showing Weakness So Far in 2016



*Seasonally adjusted, annualized rate.

NOTES: Numbers in parentheses represent shares of total Texas employment and may not equal 100 due to rounding. Last data point is June 2016.

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

The Federal Reserve Bank of Dallas First-Quarter Weakness Spreads to the Service Sector

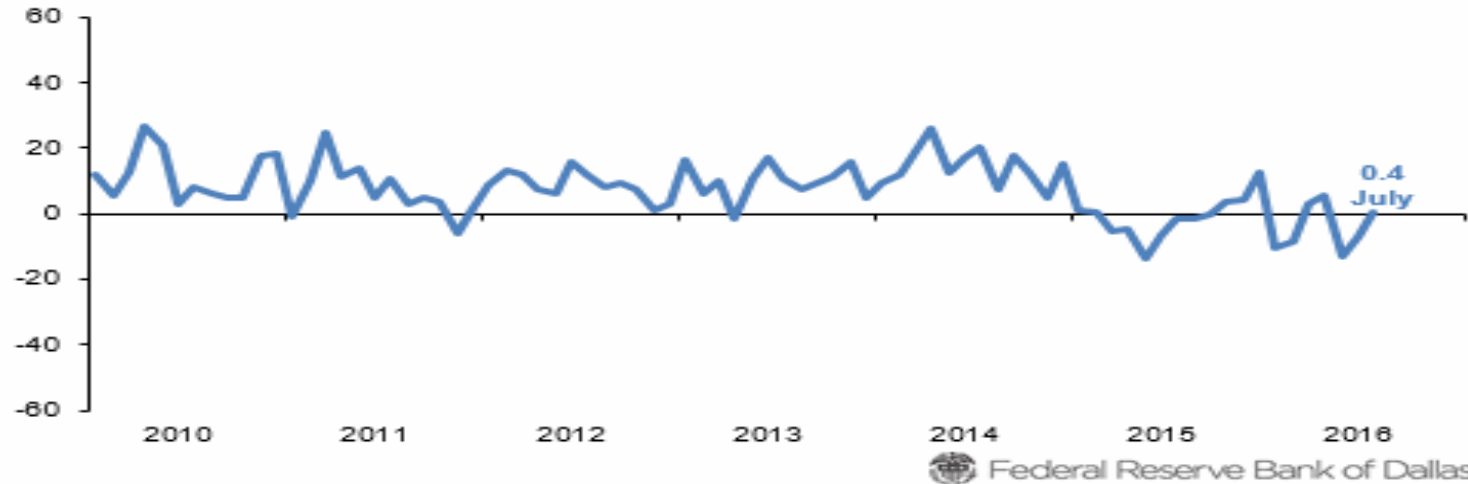
“Service sector job growth – which, at 2.6 percent, had buoyed Texas employment in 2015 – has slowed to an annualized 0.6 percent year to date in 2016. Only government and the education and health services subsector have shown strong growth (Chart 2).

The manufacturing sector, which has been losing jobs since the beginning of 2015, posted a 0.7 percent annualized gain in June. Year to date, employment in the sector is still down an annualized 2.8 percent. While Texas continues to see job losses in the oil and gas industry, the pace of decline has slowed from –23.9 percent in 2015 to an annualized –14.2 percent so far this year.” – Sarah Greer, Research Analyst, and Jesús Cañas, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



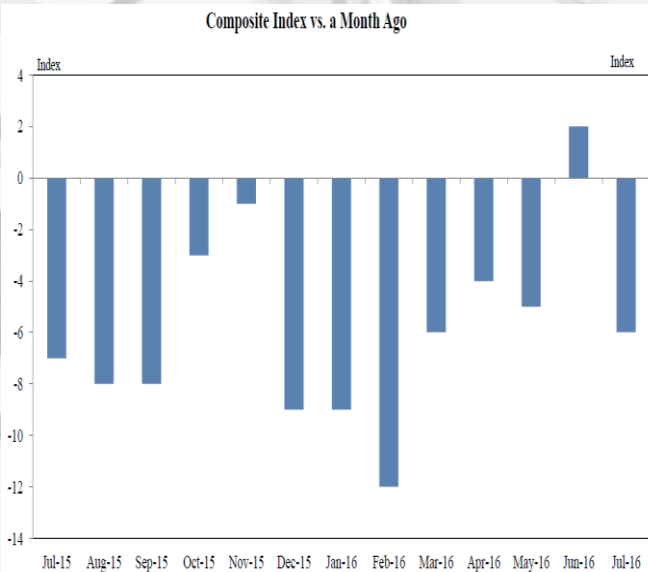
Texas Manufacturing Activity Stabilizes

“Texas factory activity held steady in July, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index, a key measure of state manufacturing conditions, came in near zero after two months of negative readings, suggesting output stopped falling this month.

Some other measures of current manufacturing activity also reflected stabilization, and demand declines abated somewhat. The capacity utilization and shipments indexes posted near-zero readings, up from negative territory in May and June. The new orders index rose six points to -8.0, while the growth rate of orders index rose nine points to -9.7.

Perceptions of broader business conditions were notably less pessimistic. While the general business activity index remained negative for a nineteenth month in a row, it jumped 17 points to -1.3 in July. The company outlook index also remained negative but rose, climbing from -11 to -2.3.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



Tenth District Manufacturing Summary

“Tenth District manufacturing activity declined modestly after last month’s rebound. Expectations for future activity continued to increase, and the price indexes were mixed. Year-over-year factory indexes were mixed but remained weak. The composite year-over-year index was flat at -15, while the production, shipments, and new orders indexes edged down slightly. The order backlog index was unchanged, and the employment index inched higher. The capital spending index fell from -3 to -14, reversing the increase reported in June. Both inventory indexes increased modestly but remained negative.” – Pam Campbell, Federal Reserve Bank of Kansas City

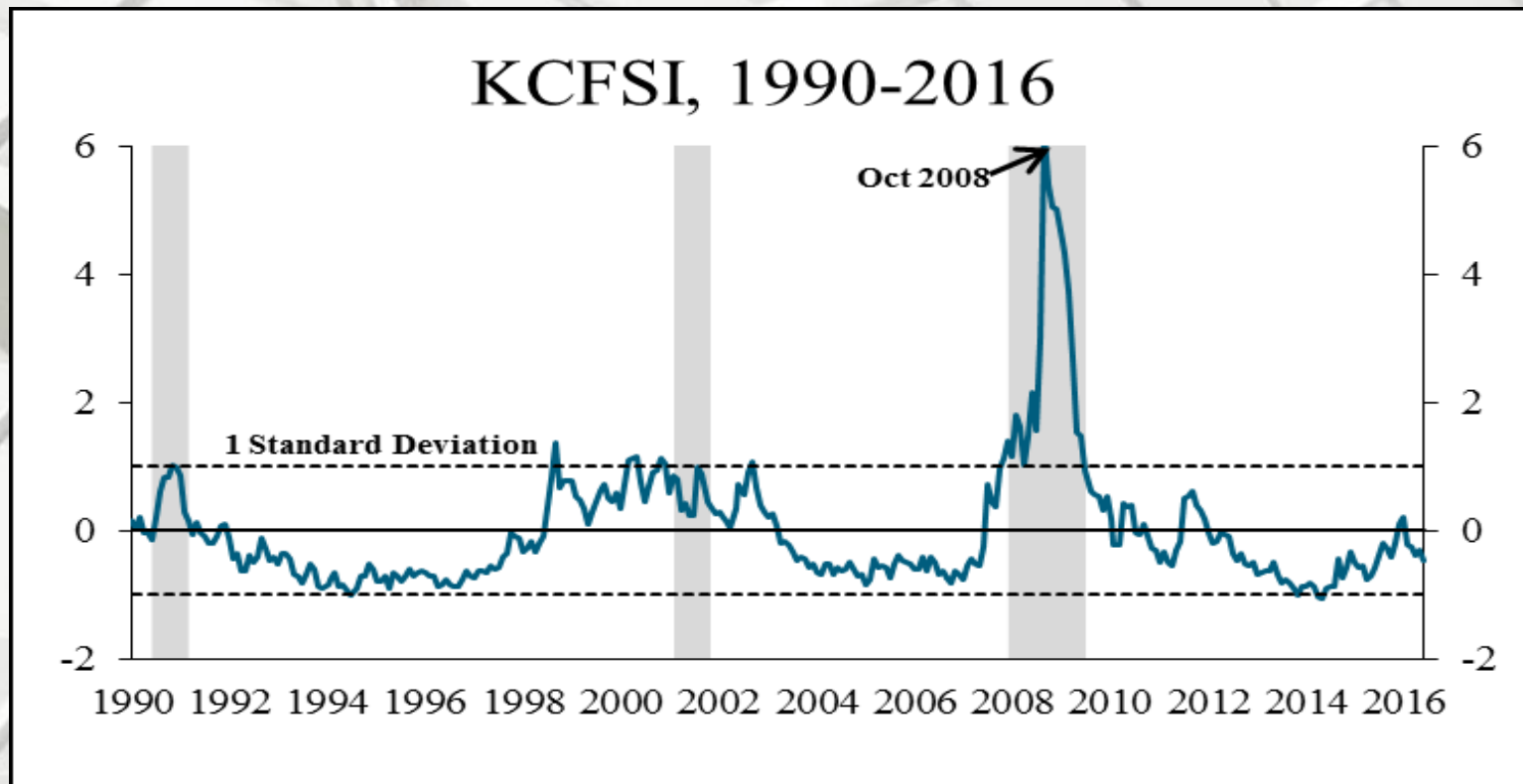
The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Activity Decreased Modestly

“Factories in our region reported a slight pullback in July following modest expansion in June. However, their expectations for future activity continued to increase.” – Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

“The month-over-month composite index was -6 in July, down from 2 in June and -5 in May (Chart). The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Non-durable goods producing plants reported a smaller decline in activity, but durable goods production dropped sharply, particularly for metals and electronic equipment. Most month-over-month indexes were lower than in June. The production index dropped from 12 to -15, and the shipments and news orders indexes also fell. The employment index inched down to -5, while the order backlog index remained unchanged. The raw materials inventory index eased further, while the finished goods inventory index increased from -5 to 5.” – Pam Campbell, Federal Reserve Bank of Kansas City

U.S. Economic Indicators



The Federal Reserve Bank of Kansas City The KCFSI suggests financial stress remains subdued

“The Kansas City Financial Stress Index (KCFSI) decreased from -0.31 in June to -0.47 in July.” – Bill Medley, Media Relations, The Federal Reserve Bank of Kansas City

“A positive value indicates that financial stress is above the long-run average, while a negative value signifies that financial stress is below the long-run average. Another useful way to assess the current level of financial stress is to compare the index to its value during past, widely recognized episodes of financial stress.”

U.S. Economic Indicators

The Federal Reserve Bank of New England

Most indicators suggest continued growth in New England

“New England economic activity in the second quarter of 2016 continued to improve year-over-year, but at a slower rate than seen in previous quarters. Despite a small month-to-month reduction in New England jobs in May 2016, the unemployment rate in the region remained at 4.4 percent, which is a 0.6 percentage point drop since May 2015. Between May 2015 and May 2016 the construction sector experienced the strongest job growth in New England. Other economic indicators, such as housing prices, continued to post increases.”

New England job growth continues, but at a slower pace

“The United States and New England have both experienced moderate payroll employment growth year-over-year. Between May of 2015 and May of 2016, all six New England states experienced job growth ranging from 1.5 percent growth in Massachusetts to about 0.25 percent growth in Rhode Island. However, all six New England states lagged behind the national pace of job gains of 1.7 percent. In May 2016, the month-to-month job growth slowed nationally, and shrank modestly in New England. About 15,000 fewer people were employed in May 2016 than in April 2016 in New England, which is counter to recent trends (Exhibit 1).”

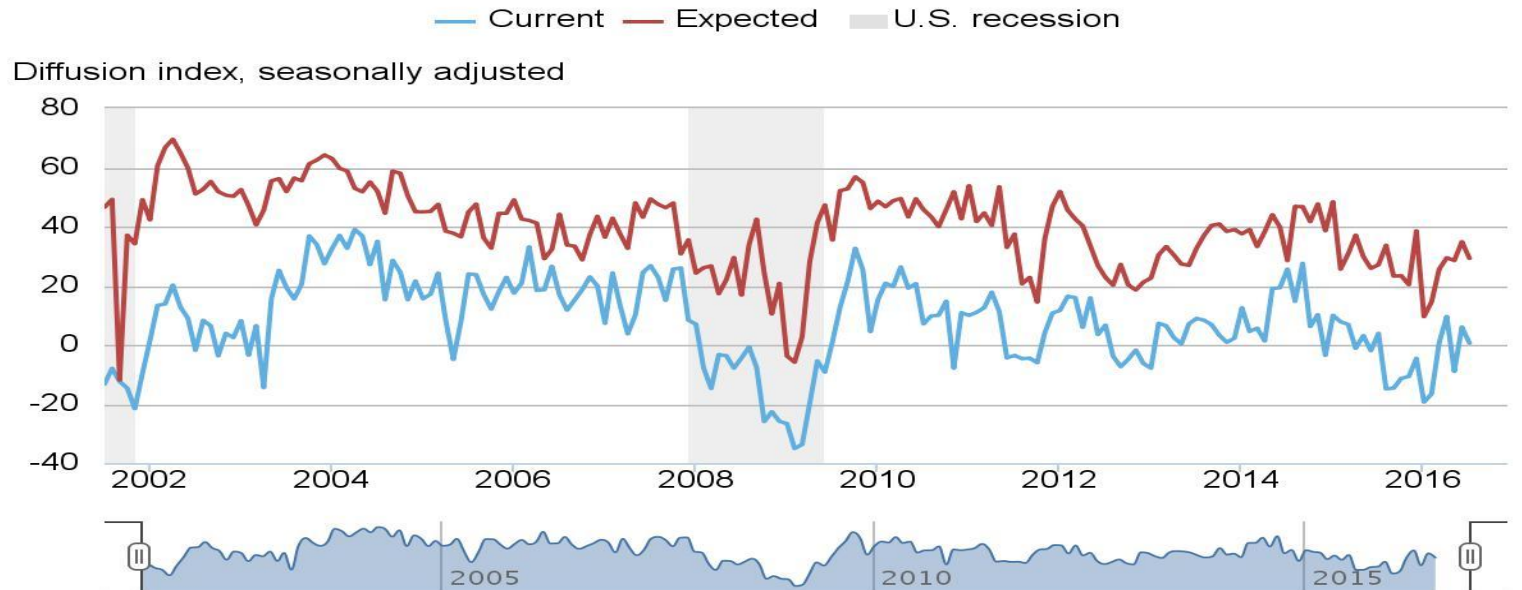
Construction leads regional job growth

“New England and the United States experienced considerable variation in job growth across supersectors (Exhibit 2). Nine of the ten supersectors recorded year-over-year job gains in the region in May 2016 with the exception of the Information supersector. The fastest growing sector in New England over this time period was Construction, increasing 4.6 percent and exceeding the 3.4 percent growth this sector experienced nationally. Employment in the Manufacturing sector declined nationally, but it increased modestly year-over-year in New England.” -- Riley Sullivan, Policy Analyst, The Federal Reserve Bank of New England

U.S. Economic Indicators

The Federal Reserve Bank of New York

General Business Conditions



Empire State Manufacturing Survey

Business Activity Levels Off

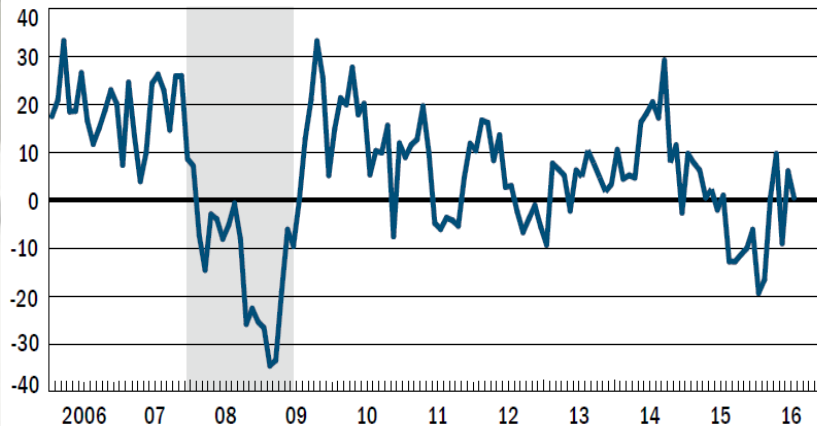
“The July 2016 *Empire State Manufacturing Survey* indicates that business activity flattened out for New York manufacturers. The headline general business conditions index fell five points to 0.6. The new orders index and the shipments index both fell to levels not far from zero — a sign that orders and shipments were little changed. Labor market indicators pointed to a small decline in employment levels and hours worked. The prices paid index held steady at 18.7, suggesting that moderate input price increases were continuing, and the prices received index held near zero, indicating that selling prices remained steady. Firms were less optimistic about future conditions compared to last month.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

General Business Conditions

Seasonally Adjusted

Diffusion index



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

Empire State Manufacturing Survey

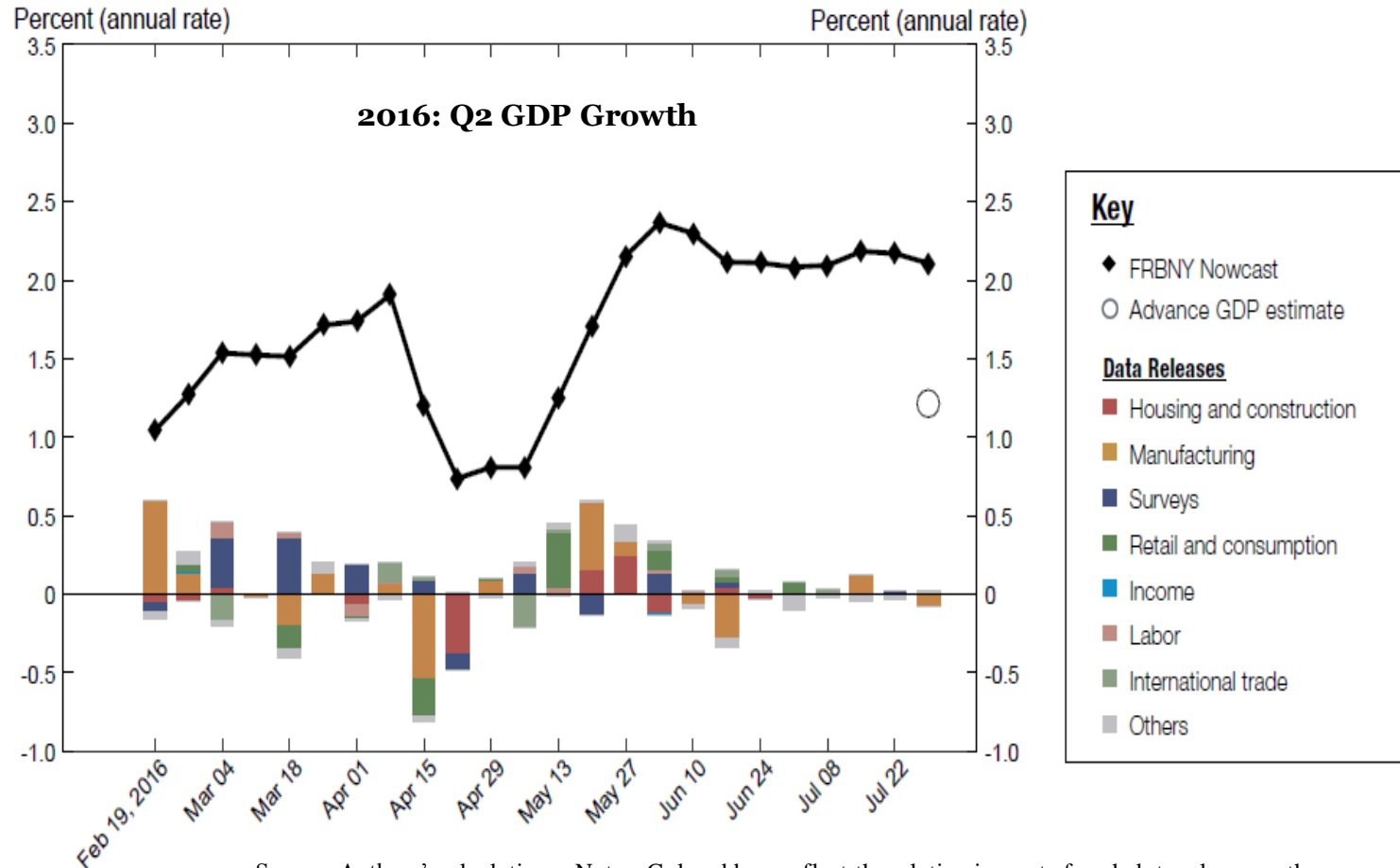
“Indexes for the six-month outlook suggested that respondents remained optimistic about future conditions, though to a lesser extent than in June. The index for future business conditions fell six points to 29.2, and indexes for future new orders and shipments were at similar levels. The index for future employment was near zero, suggesting that firms do not expect any change in employment levels in the months ahead – even so, the index for the expected average workweek fell into negative territory. The capital expenditures index was unchanged at 11.0, and the technology spending index jumped ten points to 14.3.” – The Federal Reserve Bank of New York

Outlook Remains Positive, though Less So Than Last Month

“Business activity was flat for New York manufacturing firms over the last month. The general business conditions index has been in a seesaw pattern around zero for the past several months. After rising above zero last month, the index fell back five points to 0.6. Thirty-one percent of respondents reported that conditions had improved over the month, while 30 percent reported that conditions had worsened. The new orders index fell thirteen points to -1.8, suggesting that orders were little changed. Similarly, the shipments index fell nine points to 0.7, indicating that shipments were relatively unchanged. The unfilled orders index edged down to -12.1, and the delivery time index moved up to 3.3. The inventories index remained negative at -8.8, indicating that firms continued to draw down inventories in July” – The Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York

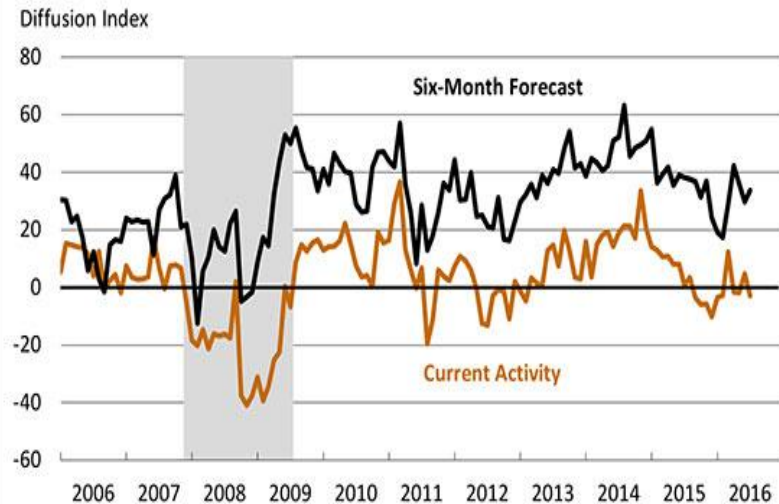


Source: Authors' calculations. Notes: Colored bars reflect the relative impact of each data release on the nowcast.

FRBNY Nowcast – 2016: Today's advance estimate of GDP growth for 2016:Q2 from the Commerce Department was 1.2%, weaker than the latest FRBNY Staff Nowcast of 2.1%. The nowcast of GDP growth for 2016:Q3 remains essentially unchanged at 2.5%.

U.S. Economic Indicators

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



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

Indicators for Current Growth Were Mixed

“The survey’s broadest measure of manufacturing conditions, the diffusion index of current activity, fell from 4.7 in June to -2.9 this month. For nine of the past 11 months, this diffusion index has been negative (see Chart 1). Twenty-two percent of the firms reported an increase in activity, 3 points lower than last month, and the percent of firms that reported decreases rose from 20 to 25. Fifty-one percent of the firms reported steady activity this month, similar to the share that reported steady activity last month.”

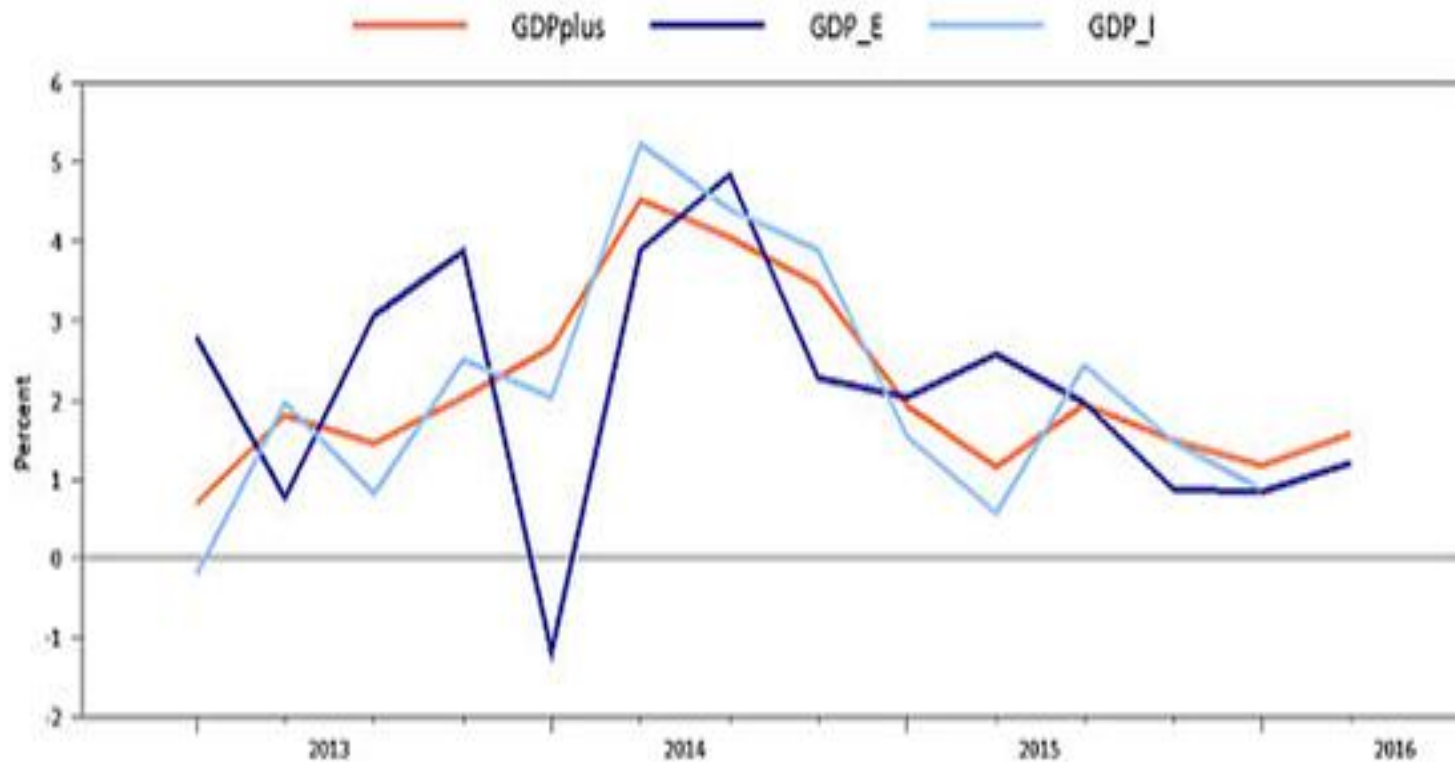
June 2016 Manufacturing Business Outlook Survey

“Manufacturing activity in the region fell slightly in July, according to firms responding to this month’s *Manufacturing Business Outlook Survey*. Although the indicator for current general activity turned negative, indicators for new orders and shipments were positive. Employment was flat at the reporting firms this month. Firms reported higher prices paid for materials and other inputs in July, but prices received for manufactured goods were relatively steady. The survey’s index of future activity improved slightly, and firms expect growth in new orders and shipments over the next six months.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

Philadelphia Fed: GDP Growth

GDPplus Components: Alternative Measures of Real Output Growth

Last Updated on July 29, 2016.



U.S. Economic Indicators

The Federal Reserve Bank of Richmond

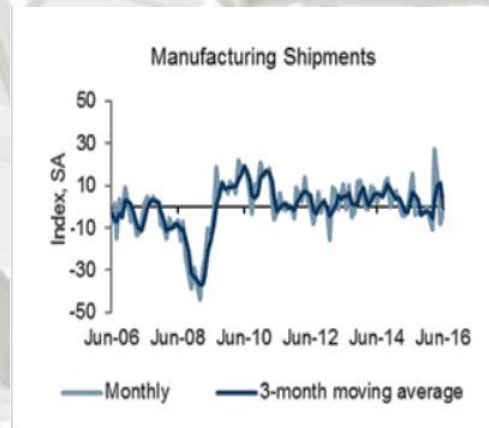
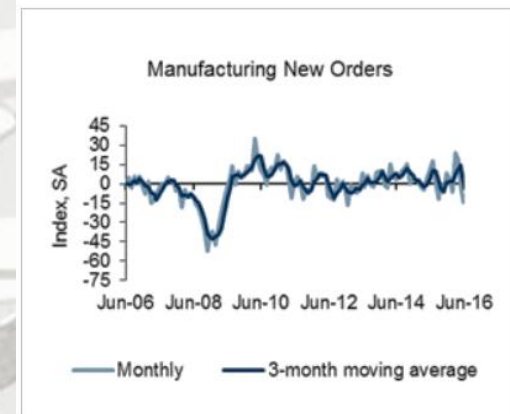
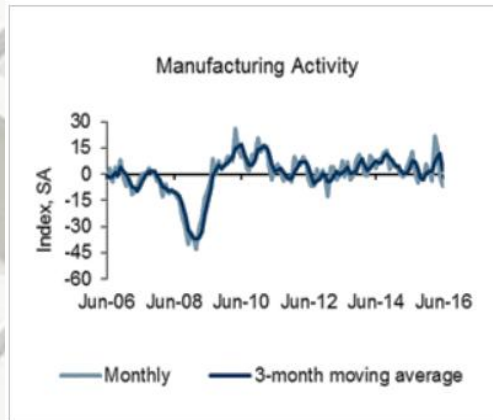
Manufacturing Sector Activity Declined; New Orders Decreased, Firms Continued to Increase Wages

“Fifth District manufacturing activity weakened in June, according to the most recent survey by the Federal Reserve Bank of Richmond. New orders and shipments declined this month, while backlogs decreased further compared to last month. Manufacturing employment softened, while firms continued to increase wages. Prices of raw materials rose somewhat more slowly this month and finished goods prices rose slightly faster in June, compared to last month.

Manufacturers' positive expectations faded in June. Producers anticipated mild growth in shipments and in the volume of new orders in the next six months. Compared to last month's outlook, backlogs and capacity utilization were expected to level off. Firms looked for vendor lead times to lengthen slightly during the six months ahead.

Looking ahead, more survey participants expected slower growth in the number of employees and a shorter average workweek. However, an increasing number of firms anticipated wage increases. Producers expected faster growth in prices paid and received.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators

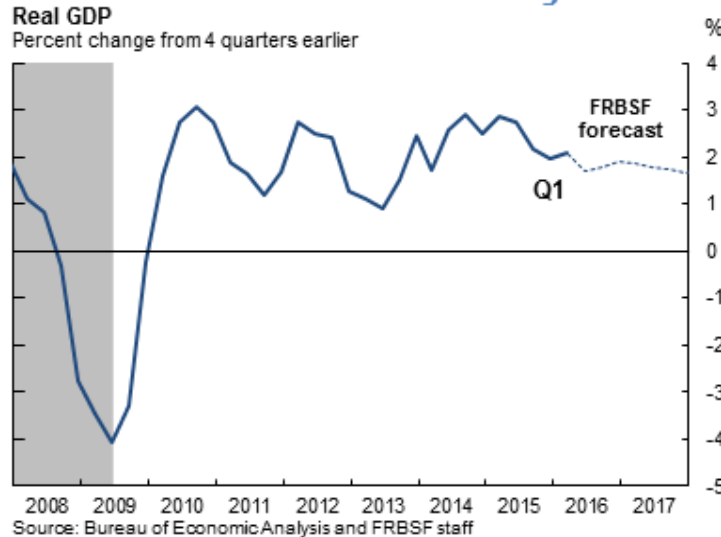


Current Activity

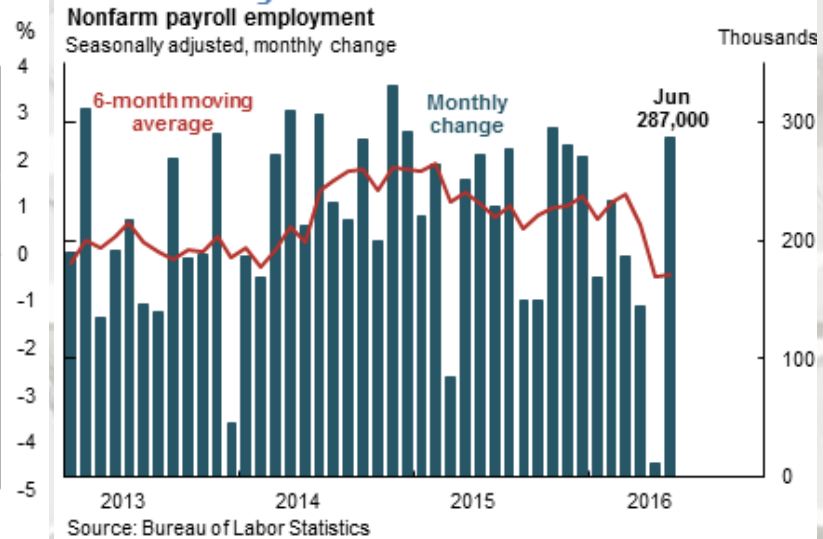
“Overall, manufacturing conditions weakened in June. The composite index for manufacturing dropped to a reading of -7 . The indicators for shipments and order backlogs remained in negative territory this month. Those indexes ended at readings of -3 and -17 , respectively. The volume of new orders dropped sharply in June; the index lost 14 points, ending at -14 . Additionally, the third component of the composite index, the employment index, flattened this month. That indicator moved down five points to end -1 .” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators

Continued moderate economic growth



Job gains rebounded in June



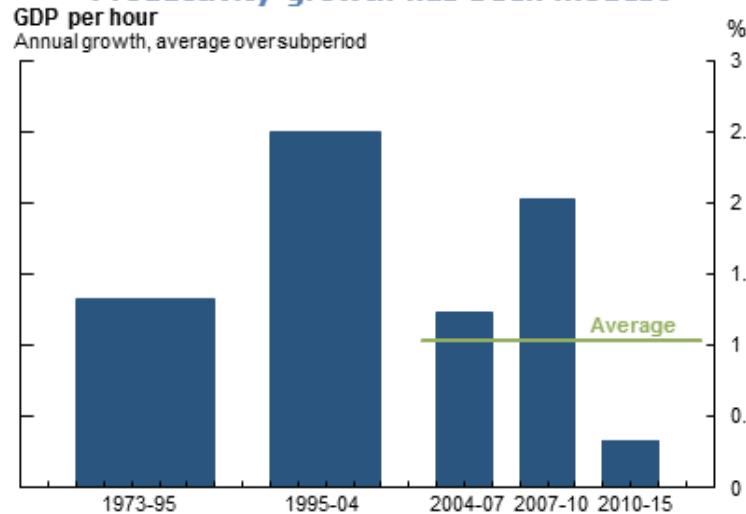
The Federal Reserve Bank of San Francisco

“Going forward, the most likely case is that GDP per hour will grow in the 1% to 1¼% range, similar to the range over the past forty years (with the exception of the 1995-2004 period). Of course, even attaining 1% productivity growth would require a pickup from its subdued pace over the past five years. Though productivity might surprise and accelerate beyond that pace, history suggests that such accelerations do not occur frequently.

The June employment report showed a sharp rebound in job gains following anemic gains in May. The May figure was held down by transitory factors, including a major strike, and the June rebound was consistent with continuing momentum for the U.S. economy. Looking past the month-to-month volatility, the six-month moving average shows a gradual slowdown in employment gains as the economy approaches full employment.” – John Fernald, Senior Research Advisor, The Federal Reserve Bank of San Francisco

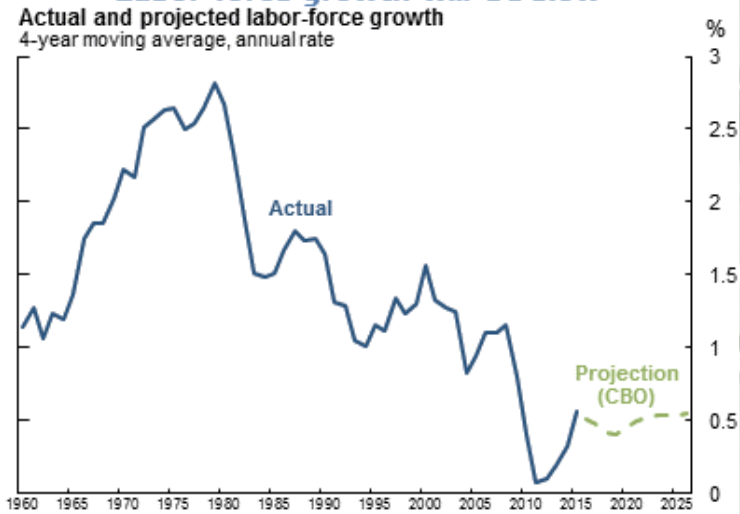
U.S. Economic Indicators

Productivity growth has been modest



Source: Bureau of Economic Analysis / Bureau of Labor Statistics

Labor-force growth will be slow



Source: Bureau of Labor Statistics / Congressional Budget Office

The Federal Reserve Bank of San Francisco

“The slowdown in productivity growth after 2004 does not simply reflect the effects of the Great Recession, since productivity growth slowed prior to 2007. Nor does the slowdown appear to reflect a rising problem in the mismeasurement of growth. Mismeasurement is not new; it has always been a challenge to capture the effects of new goods and the improving quality of existing goods. Recent research, however, finds little evidence that measurement problems have gotten worse. Rather, the post-2004 slowdown appears to reflect a “return to normal” after an exceptional period of IT-related innovation and reorganization. Overall, the effects of IT on businesses have been more incremental over this period, rather than transformative.

Reflecting demographic factors, the labor force will grow slowly relative to its historical pace. In the 1970s and 1980s, the labor force grew quickly as baby boomers hit working age and female labor-force participation rose. However, baby boomers are now retiring and labor force growth is slowing. Going forward, the Congressional Budget Office projects that the U.S. labor force will grow at about a 0.5% pace.” – John Fernald, Senior Research Advisor, The Federal Reserve Bank of San Francisco

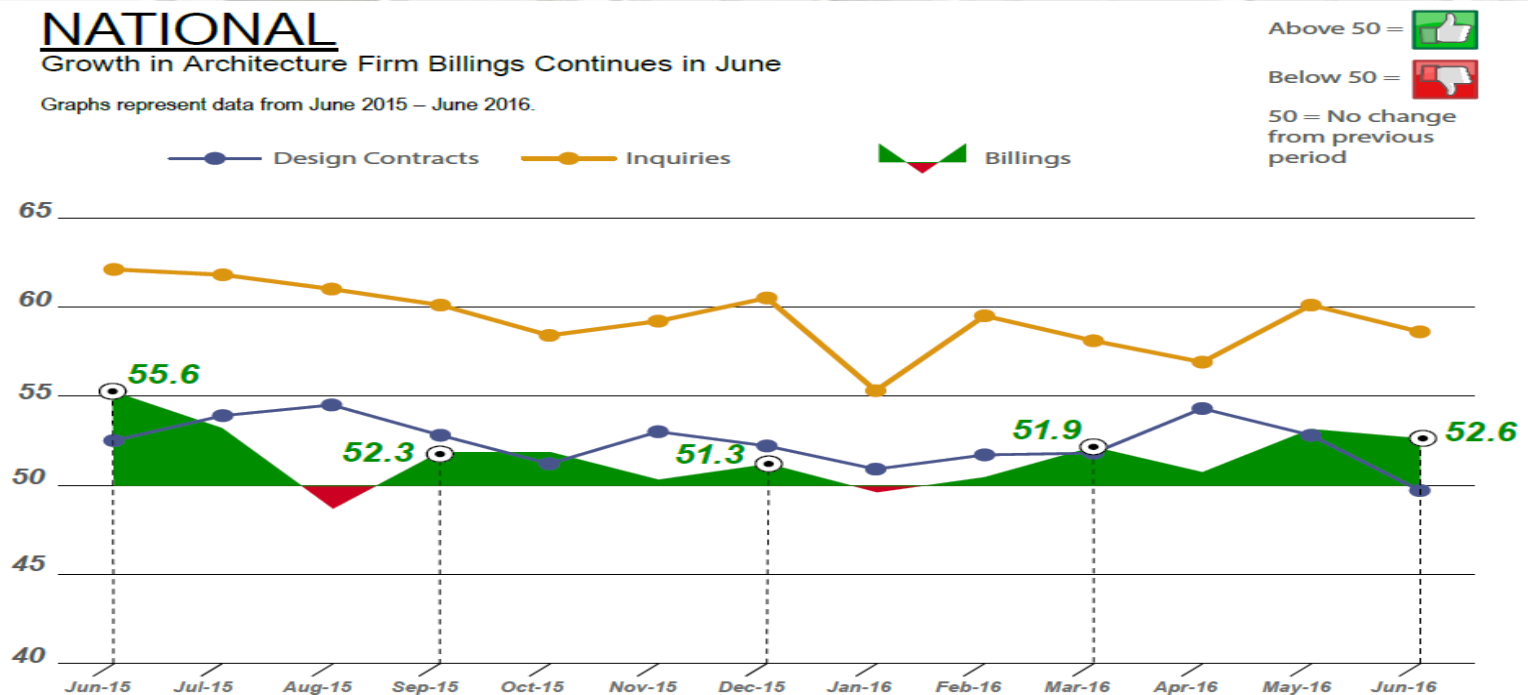
Private Indicators

American Institute of Architects (AIA)

June Architecture Billings Index

Firm billings increase at slower pace

“The majority of architecture firms continued to report improving business conditions in June, starting the summer off on a positive note. The Architecture Billings Index (ABI) score for the month was 52.6, indicating moderate billings growth at firms, although the pace of that billings growth declined slightly from May. Firms also reported a modest decline in their average backlog of work, down from approximately 5.8 months to 5.7 months, although backlogs still remain at their highest level in several years.” – Kermit Baker, Hon. AIA, Chief Economist, AIA



Private Indicators: AIA

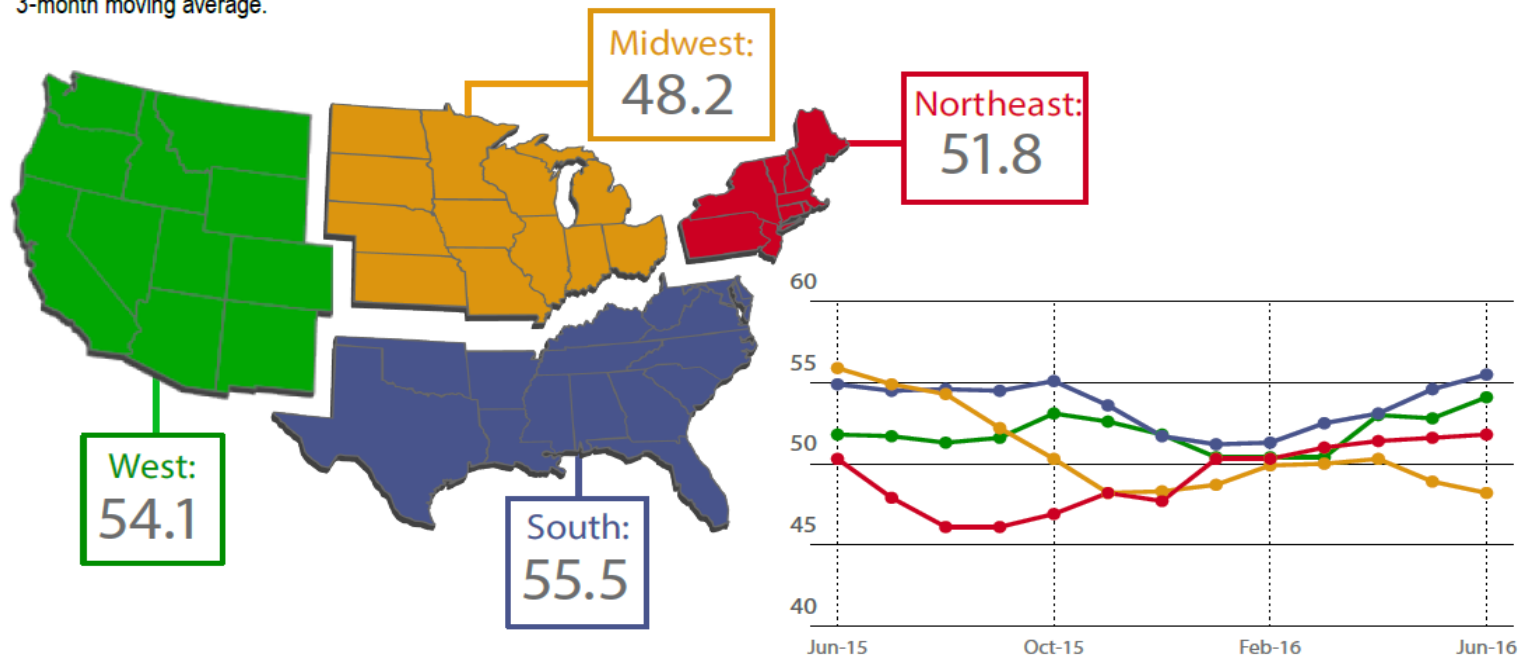
“Business conditions were positive across much of the country as well in June, with only firms located in the Midwest reporting a decline in firm billings. Billings at firms in the Midwest have been soft since late 2015, but will hopefully start to rebound shortly. Billings continued to improve at firms located in the West, and were also particularly strong at firms located in the South, while firms located in the Northeast saw more moderate growth.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

REGIONAL

Business Conditions Soft in the Midwest, Improving in Other Parts of the Country

Graphs represent data from June 2015 – June 2016 across the four regions.

50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Private Indicators: AIA

“Growth in architecture firm billings was also reported at firms of all specializations. Firms with a residential specialization saw particularly strong growth in their billings in June, although growth was essentially flat at firms with a commercial/industrial specialization. Business conditions also continued to pick back up at firms with an institutional specialization, after a period of declining billings in late 2015 and early 2016.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

SECTOR

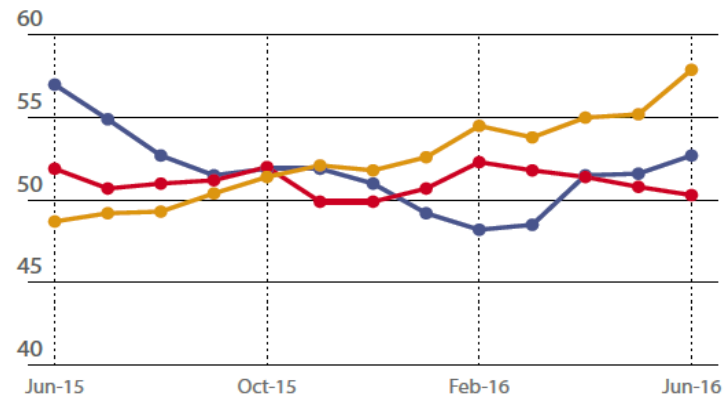
All Specializations of Architecture Firms See Billings Growth to Start the Summer

Graph represents data from June 2015 – June 2016 across the three sectors.

50 represents the diffusion center.

A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease.

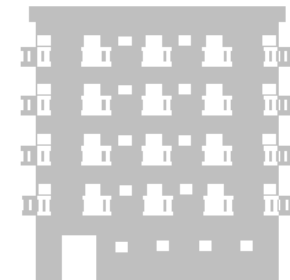
3-month moving average.



Commercial/Industrial: 50.3

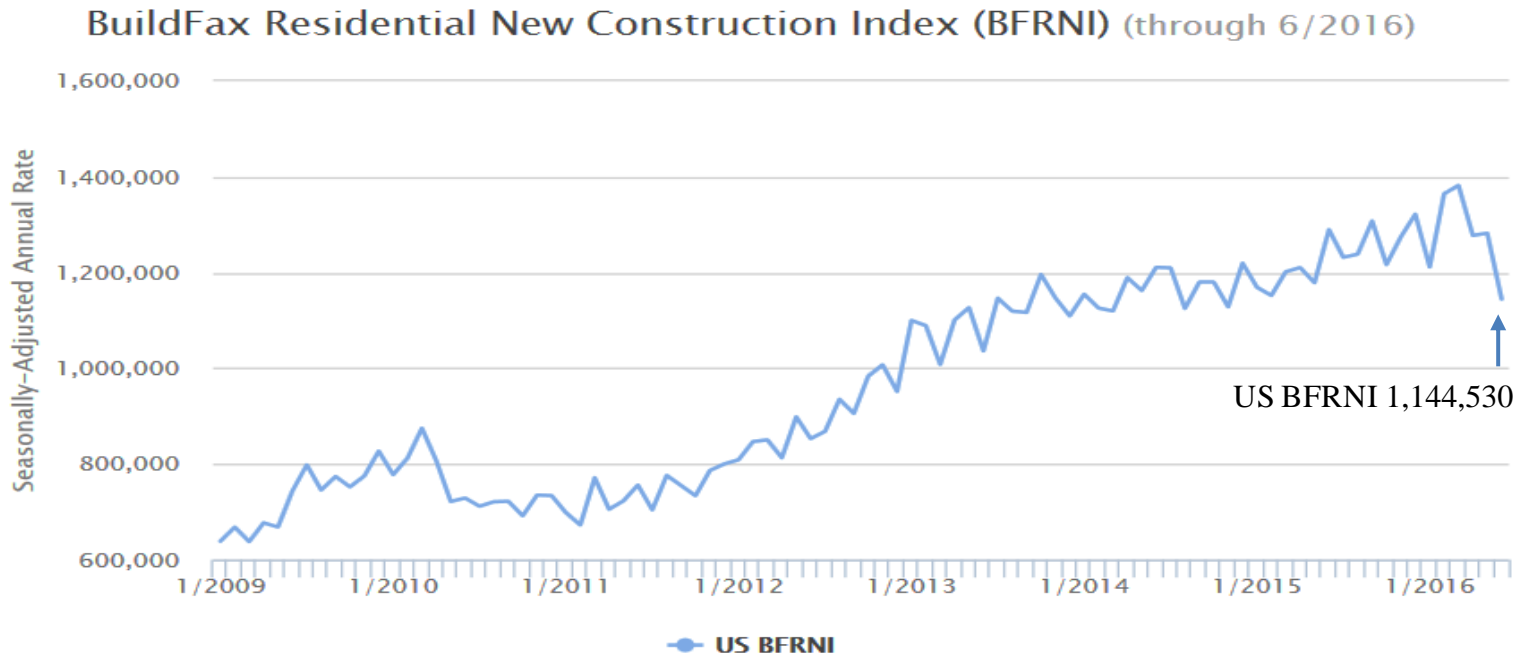


Institutional: 52.7



Residential: 57.9

Private Indicators



BuildFax Residential New Construction Index

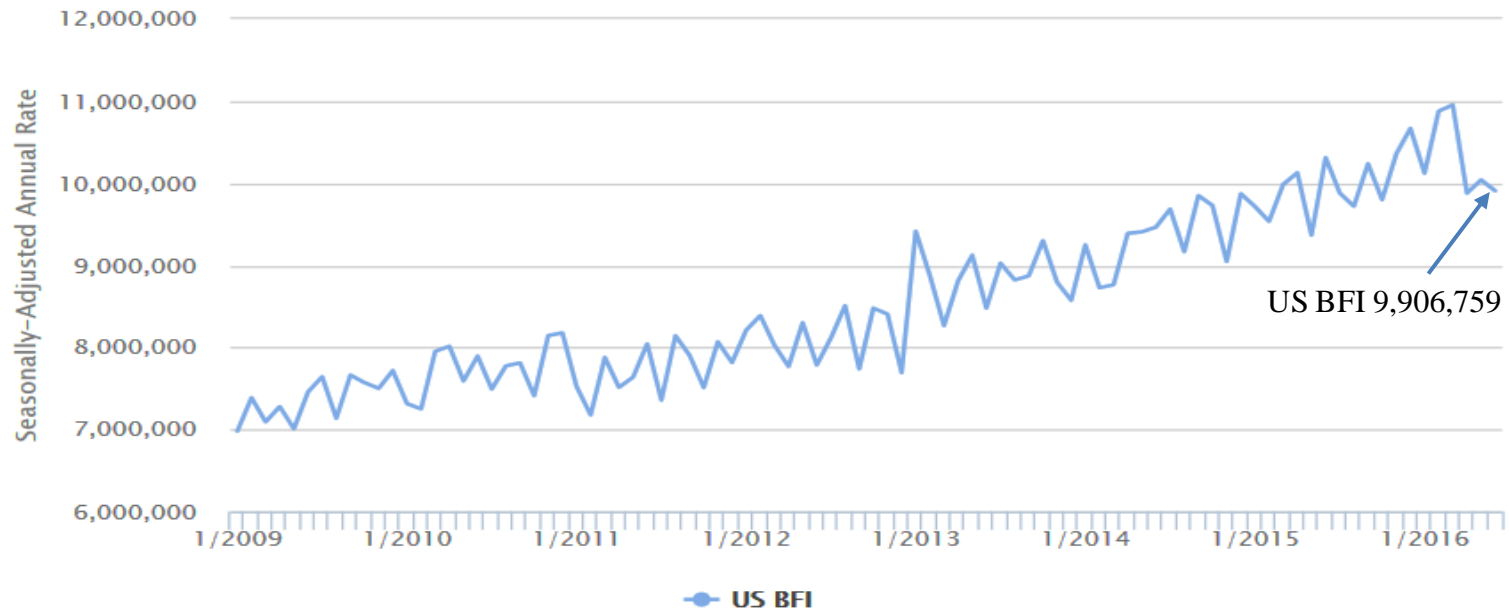
“Residential new construction authorized by building permits in the United States in June were at a seasonally-adjusted annual rate of 1,144,530. This is 11% below the revised May rate of 1,282,380 and is 11% below the revised June 2015 estimate of 1,289,693. BuildFax reports on total new residential projects, this is unlike the U.S. Census that reports total number of housing units.”

Regional Residential New Construction

“Seasonally-adjusted annual rates of residential new construction across the country in June 2016 are estimated as follows: Northeast, 65,244 (up 15% from May and up 93% from June 2015); South, 568,370 (down 18% from May and down 28% from June 2015); Midwest, 212,194 (down 7% from May and down 7% from June 2015); West, 312,519 (up 6% from May and up 19% from June 2015).”

Private Indicators

BuildFax Residential Remodeling Index (BFI) (through 6/2016)



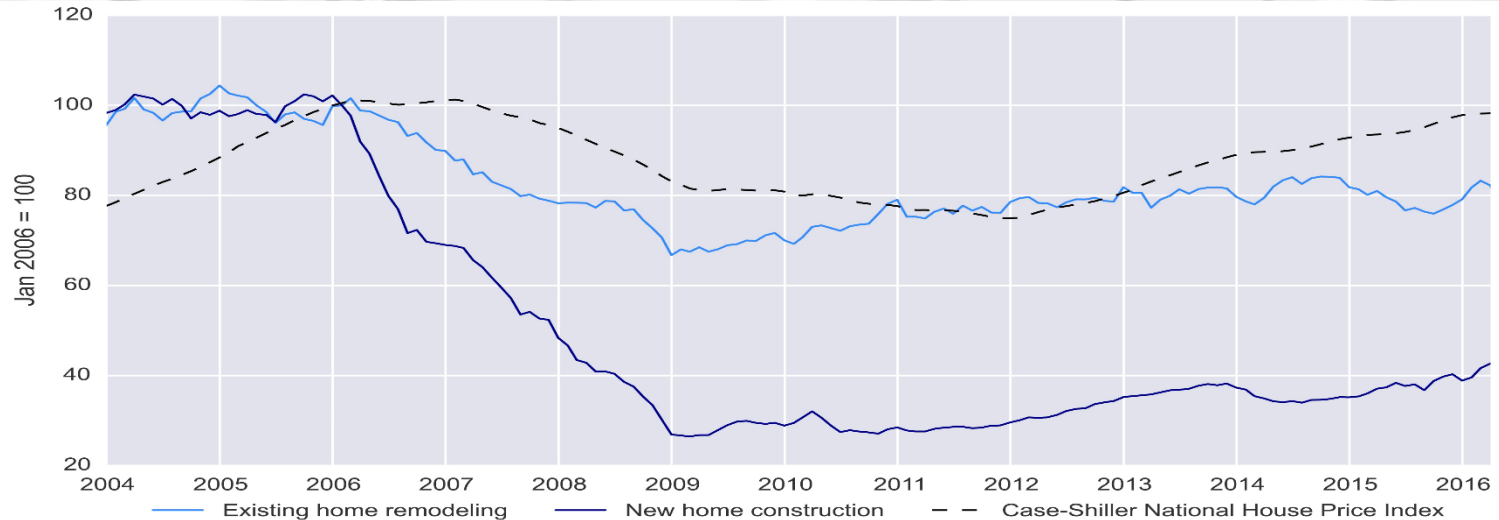
BuildFax Residential Remodeling Index

“Residential remodels authorized by building permits in the United States in June were at a seasonally-adjusted annual rate of 9,906,759. This is 1% below the revised May rate of 10,040,033 and is 4% below the revised June 2015 estimate of 10,312,078.”

Regional Residential Remodeling

“Seasonally-adjusted annual rates of residential remodeling across the country in June 2016 are estimated as follows: Northeast, 866,800 (up 1% from May and up 20% from June 2015); South, 4,570,684 (down 3% from May and down 9% from June 2015); Midwest, 1,845,852 (down 6% from May and down 13% from June 2015); West, 2,604,629 (up 5% from May and up 8% from June 2015).”

Private Indicators



	Last 12 months vs. 2005	Last 12 months vs. 2009	Year-on-year change ¹
--	----------------------------	----------------------------	-------------------------------------

Construction of New Homes	(2)	(2)	(4)
Remodeling of Existing Homes ²	-60.7%	+38.0%	+14.2%
	-20.3%	+13.9%	+2.0%

1 Year-on-year change is calculated on a quarterly basis, i.e. the last 3 months vs. the same period last year.

2 Throughout the report, the term remodeling is used broadly to include home improvement, maintenance and repair.

Source: BuildZoom.

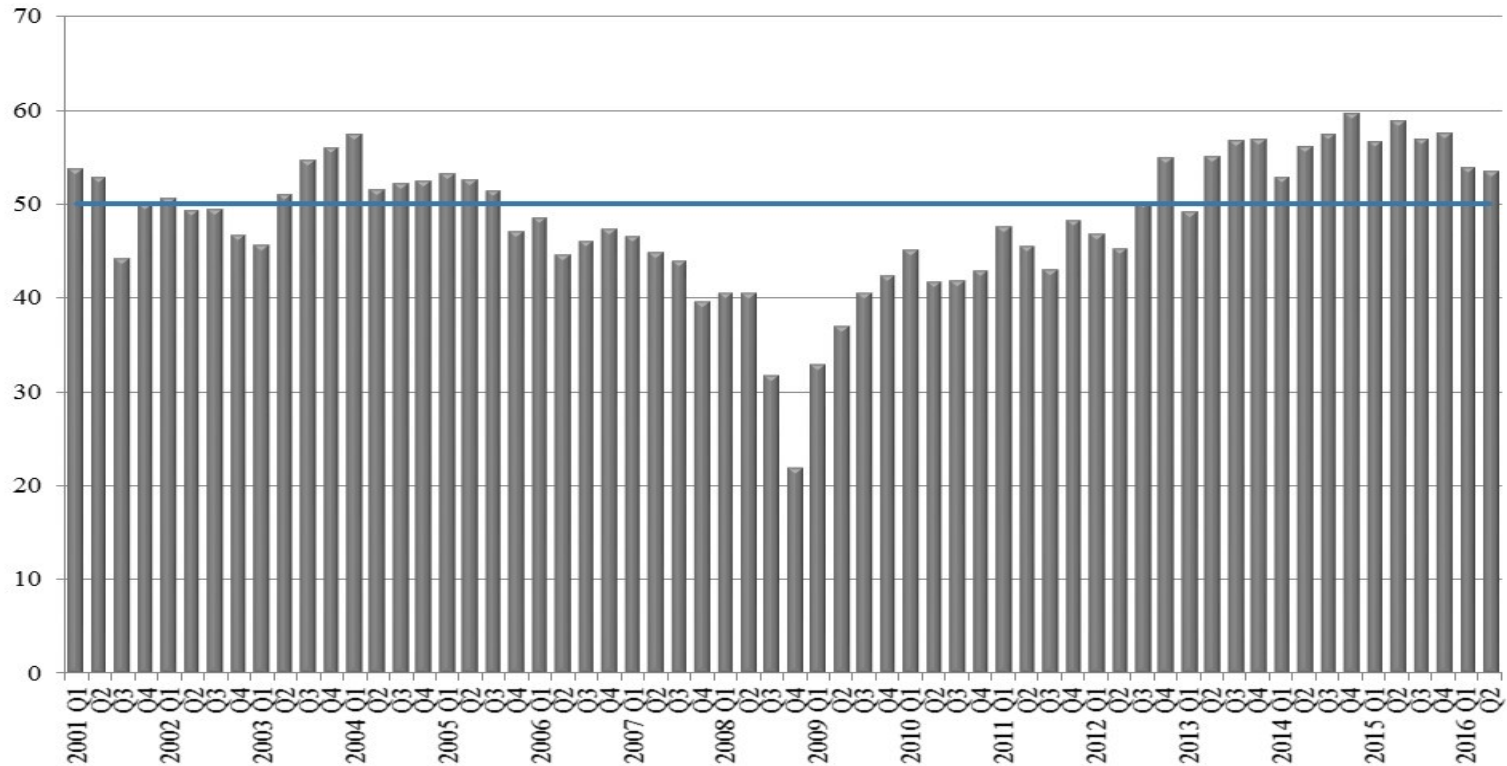
The BuildZoom and Urban Economics Lab Index: First Quarter 2016

- “Residential remodeling is arguably a better indicator of consumer sentiment than new construction, and is of similar importance as an indicator of national economic health.
- Revised estimates indicate that remodeling of existing homes is 13.7% above its 2009 housing bust level, but remains 20.4% below its 2005 housing boom level, and that new home construction is 39.3% above its 2009 level, but remains 60.3% below its 2005 level.
- Year-over-year, residential new construction increased by 14.1% and residential remodeling increased by 1.3%.” – Jack Cookson, Author, BuildZoom

Private Indicators



Remodeling Market Index (RMI)
Overall RMI



NAHB: Remodeling Market Index Holds Steady in Second Quarter

“The National Association of Home Builder’s Remodeling Market Index (RMI) dropped one point to 53 in the second quarter of 2016. Although the index dropped slightly, this quarter marks the 13th quarter in which the index is above the breakeven point of 50. An RMI above 50 indicates that more remodelers report market activity is higher (compared to the prior quarter) than report it is lower (Figure 1).” – Carmel Ford, Research Associate, NAHB

Private Indicators

Joint Center for Housing Studies

Above-Average Gains in Home Renovation and Repair Spending Expected to Continue

“Over the coming year, homeowner remodeling activity is projected to accelerate, keeping the rate of growth above its long-term trend, according to our latest Leading Indicator of Remodeling Activity. The LIRA anticipates growth in home improvement and repair expenditures will reach 8.0 percent by the start of 2017, well in excess of its 4.9 percent historical average.

A healthier housing market, with rising house prices and increased sales activity, should translate into bigger gains for remodeling this year and next. As more homeowners are enticed to list their properties, we can expect increased remodeling and repair in preparation for sales, coupled with spending by the new owners who are looking to customize their homes to fit their needs.

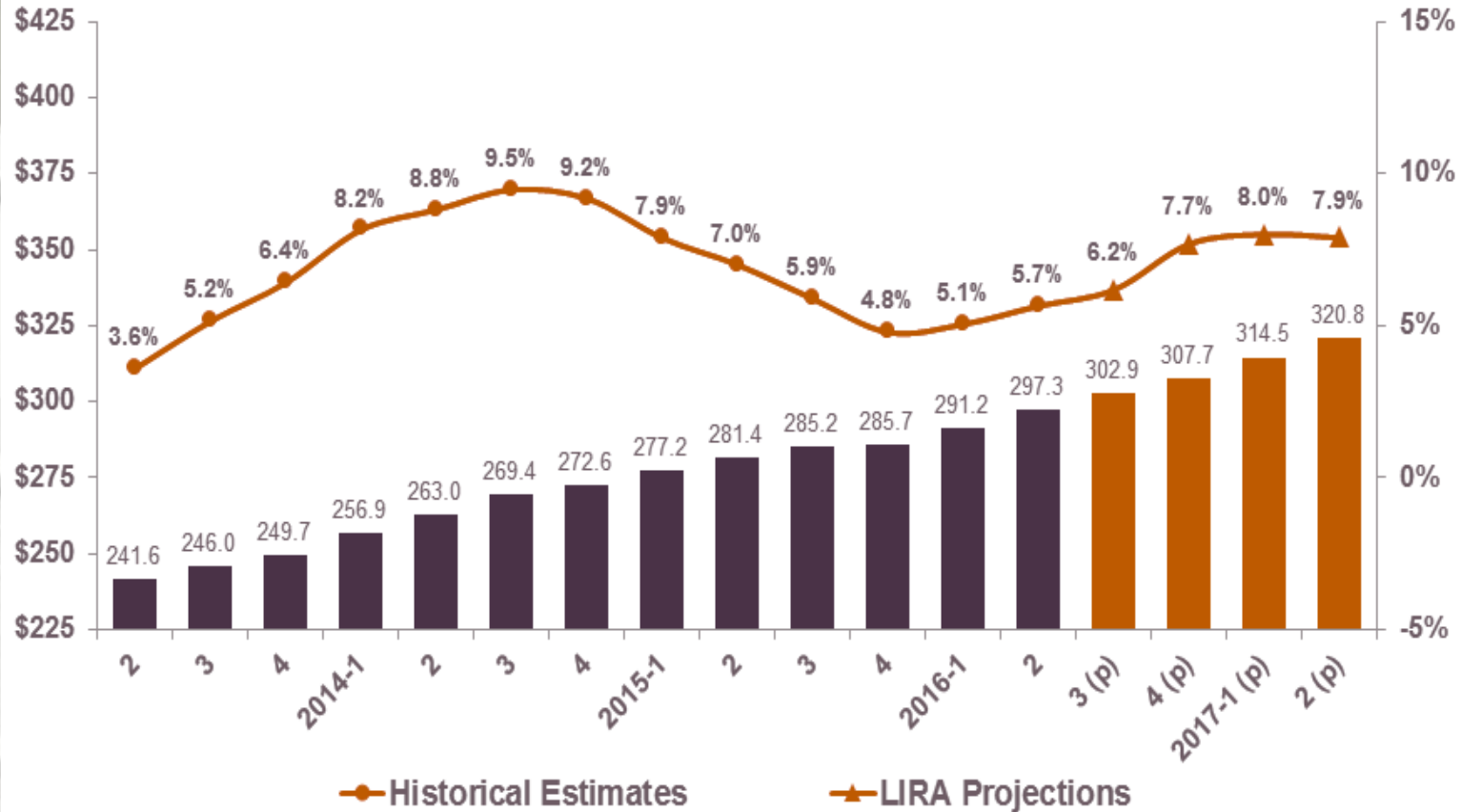
By the middle of next year, the national remodeling market should be very close to a full recovery from its worst downturn on record. Annual spending is set to reach \$321 billion by then, which after adjusting for inflation is just shy of the previous peak set in 2006 before the housing crash.” – Abbe Will, Research Analyst, Harvard Joint Center for Housing Studies

Private Indicators

Leading Indicator of Remodeling Activity – Second Quarter 2016

Homeowner Improvements & Repairs
Four-Quarter Moving Totals
Billions

Four-Quarter Moving
Rate of Change

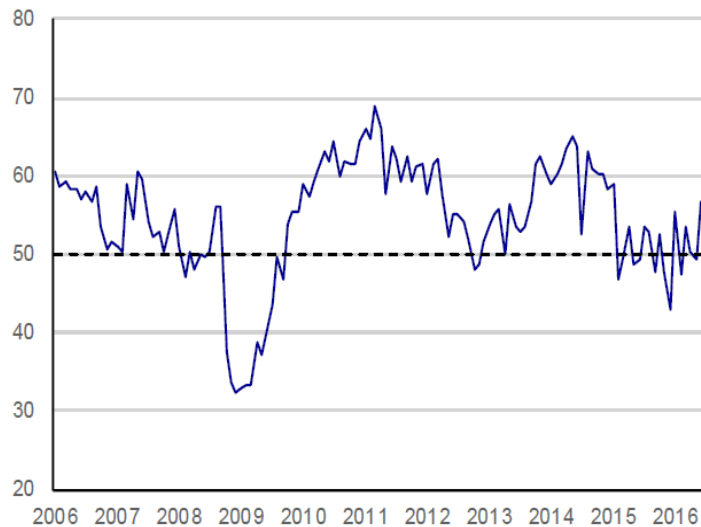


Notes: The former LIRA modeled homeowner improvement activity only, while the re-benchmarked LIRA models home improvement and repair activity. Historical estimates are produced using the LIRA model until American Housing Survey data become available.

Source: Joint Center for Housing Studies of Harvard University.

Private Indicators

Chicago Business Barometer™



June Chicago Business Barometer Down 1 Point to 55.8

“The MNI Chicago Business Barometer fell 1 point to 55.8 in July from the 1½-year high of 56.8 in June, led by a fall in New Orders. Smaller declines were seen in Production and Order Backlogs, which offset a strong increase in the Employment component.

The Barometer’s three-month average, though, which provides a better picture of the underlying trend in economic activity, rose to 54.0 from 52.2 in Q2, the highest since February 2015.”

New Orders Expand at a Slower Rate; Employment Back Above 50

“Following strong gains in the previous month, Production, New Orders and Order Backlogs declined somewhat in July, but remained above May’s levels, when they all fell into contraction territory. New Orders fell 3.9 points to 59.3, but held most of June’s gain that had left the indicator at the highest level since October 2014. Order Backlogs, which last month rose to the highest since March 2011, managed to remain above 50 following a 16-month run of sub-50 readings.”

“Demand and output softened somewhat in July following a solid showing in June but still outperformed the very weak results seen earlier in the year. On the upside, it was the first time since January 2015 that all five Barometer components were above 50. Looking at the three-month average, the Chicago Business Barometer so far suggests economic activity running at a healthier pace in Q3. Another positive came from the Employment Indicator. Although it’s still relatively weak, should July’s increase hold then it could be read as a tentative sign of growing business confidence about economic growth ahead.” – Lorena Castellanos, Senior Economist, MNI Indicators

Private Indicators

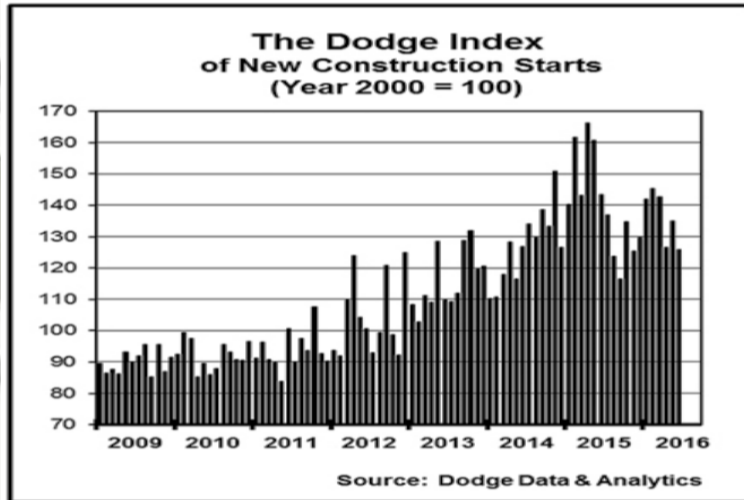
New Construction Starts in June Drop 7 Percent

“New construction starts in June decreased 7% from the previous month to a seasonally adjusted annual rate of \$595.1 billion, according to Dodge Data & Analytics. ... Residential building in June edged down with reduced activity reported for both single family and multifamily housing. At the same time, nonresidential building registered moderate growth in June after sliding back in April and May. Through the first six months of 2016, total construction starts on an unadjusted basis were \$318.1 billion, down 11% from the same period a year ago. ... In contrast, the January-June period of 2016 included only four projects valued at \$1 billion or more. If these exceptionally large projects are excluded, total construction starts during the first half of 2016 would be down a slight 2% from last year.

The construction start statistics on a monthly basis continue to show an up-and-down pattern. This has often been due to the presence or absence of very large projects for a given month, which most recently applies to the May and June behavior for public works and electric utilities. Over a broader time frame, the year-to-date comparisons during the first half of 2016 were skewed by a number of exceptionally large projects (defined as projects valued at \$1 billion or more) that reached the construction start stage in last year’s first half. There were fewer such projects during the second half of 2015, which should help the year-to-date comparisons as 2016 proceeds. In addition, last year’s third quarter witnessed a broader slowdown for construction starts, as investment grew more cautious due to mounting concerns about the global economy and the continued drop in energy prices at that time. The generally weaker third quarter of 2015 will also help the year-to-date comparisons for construction starts as 2016 proceeds. While investment remains cautious, some uncertainty has been alleviated with energy prices stabilizing during this year’s first half. In addition, the anxiety created in late June by Great Britain’s vote to leave the European Union has eased, as shown by the recent rebound in stock prices. There continue to be several supportive factors worth noting for construction activity this year – long term interest rates have moved lower, commercial development is being financed by multiple sources, construction bond measures are providing funding for institutional building and public works projects, and the multiyear federal transportation bill is in place.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

June 2016 Construction Starts



Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	June 2016	May 2016	% Change
Nonresidential Building	\$180,828	\$169,877	+6
Residential Building	268,581	274,610	-2
Nonbuilding Construction	145,672	192,914	-24
Total Construction	\$595,081	\$637,401	-7

The Dodge Index
Year 2000=100, Seasonally Adjusted
June 2016126
May 2016.....135

Year-to-Date Construction Starts

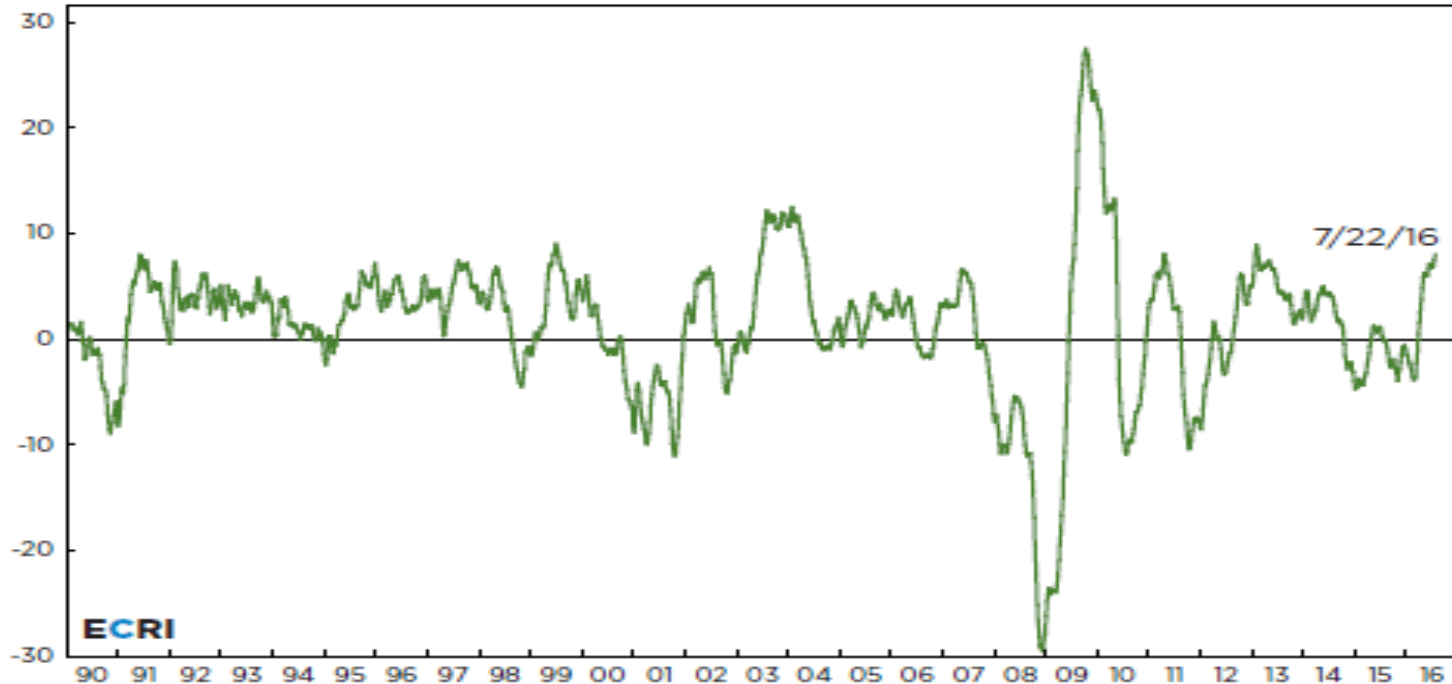
Unadjusted Totals, in Millions of Dollars

	6 Mos. 2016	6 Mos. 2015	% Change
Nonresidential Building	\$93,889	\$115,849	-19
Residential Building	139,537	134,076	+4
Nonbuilding Construction	84,713	108,113	-22
Total Construction	\$318,139	\$358,038	-11
Total Construction, excluding projects valued at \$1 billion or greater	\$304,409	\$311,688	-2

“**Residential building**, at \$268.6 billion (annual rate) slipped 2% in June, with slightly diminished activity for both single family and multifamily housing relative to May. Single family housing in June settled back 1%, which essentially maintains the plateau that’s been present in the first half of 2016 after the improved activity registered during the closing months of 2015. The first half of 2016 showed this regional pattern for the dollar amount of single family construction compared to last year – the Midwest, up 14%; the Northeast, up 9%; the South Atlantic and West, each up 8%; and the South Central, up 3%. Multifamily housing in June retreated 5% after climbing 16% in May. There were ten multifamily projects valued each at \$100 million or more that reached groundbreaking in June... . Through the first six months of 2016, New York NY continued to be the leading metropolitan area in terms of the dollar amount of multifamily starts, followed by Los Angeles CA, Miami FL, Chicago IL, and Boston MA. Metropolitan areas ranked six through ten during this period were Washington DC, San Francisco CA, Dallas-Ft. Worth TX, Atlanta GA, and Denver CO. Of these ten metropolitan areas, seven showed greater activity compared to a year ago, while three showed declines – New York NY, down 27%; Washington DC, down 18%; and Denver CO, down 2%.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

Weekly Leading Index, Growth Rate (%)



U.S. Weekly Leading Index Ticks Down

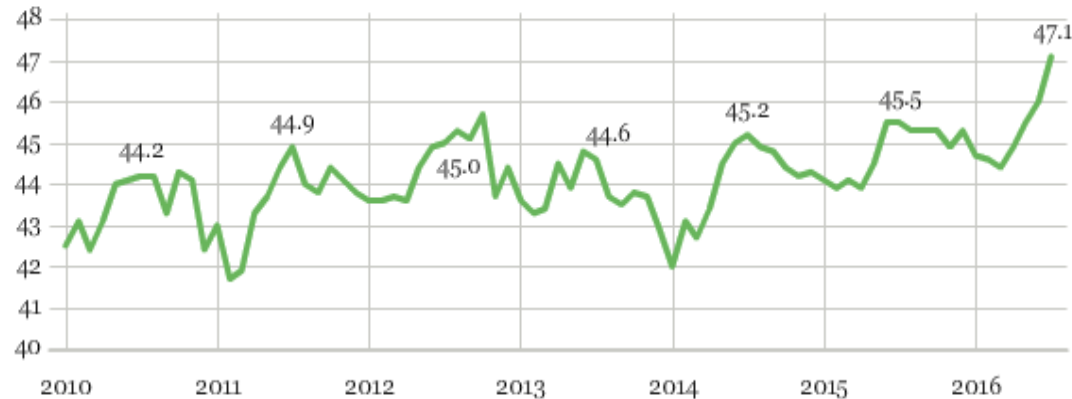
“The U.S. Weekly Leading Index (WLI) slipped to 138.0 from 138.1. The growth rate increased to 8.0% from 7.5%. The U.S. economic slowdown is set to continue, as the latest WLI upturn is not sufficiently pronounced, pervasive and persistent – the three P’s – to qualify as a true cyclical upturn. Rather, it partly reflects the run-up in the markets as the early-2016 recession fears among the consensus faded, with the Fed backing off its rate hike plans, the dollar weakening, and some data beating significantly lowered expectations.” – Lakshamn Achuthan, Chief Operations Officer, ECRI

Private Indicators

U.S. Gallup Good Jobs Employment Rates

Monthly trend, January 2010-July 2016

■ % of adult population employed full time for an employer



Note: Numbers shown are July readings for each year

Gallup Daily tracking

GALLUP

GALLUP DAILY

REAL UNEMPLOYMENT

Department of Labor (U-6)

9.6% -0.1

GALLUP GOOD JOBS

Percent of Adult Population

47.2% +0.1

ENGAGED AT WORK

33.6% +0.1

ECONOMIC CONFIDENCE

-6 +1

U.S. Gallup Good Jobs Rate Climbs to New High Again in July

- 47.1% is the highest Gallup Good Jobs rate in six years of measurement
- 5.1% is the lowest unemployment Gallup has measured in same period
- Workforce participation at 67.8%, highest since June 2013

“The Gallup Good Jobs (GGJ) rate in the U.S. was 47.1% in July, an improvement from June’s 46.0%, which had been the highest monthly rate Gallup has recorded since measurement began in 2010. The current rate is also 1.6 percentage points higher than in July 2015, suggesting an underlying increase in full-time work beyond seasonal changes in employment.” – Ben Ryan, Consultant Specialist, Gallup

Private Indicators

July 2016 Manufacturing ISM® Report On Business®

PMI® at 52.6%

New Orders and Production Growing – Employment and Inventories Contracting – Supplier Deliveries Slowing

“Economic activity in the **manufacturing sector** expanded in July for the fifth consecutive month, while the overall economy grew for the 86th consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

July PMI® = 52.6 percent, a decrease of 0.6 percentage point from the June reading of 53.2 percent.

New Orders = 56.9 percent, a decrease of 0.1 percentage point from the June reading of 57 percent.

Production = 55.4 percent, 0.7 percentage point higher than the June reading of 54.7 percent.

Employment = 49.4 percent, a decrease of 1 percentage point from the June reading of 50.4 percent.

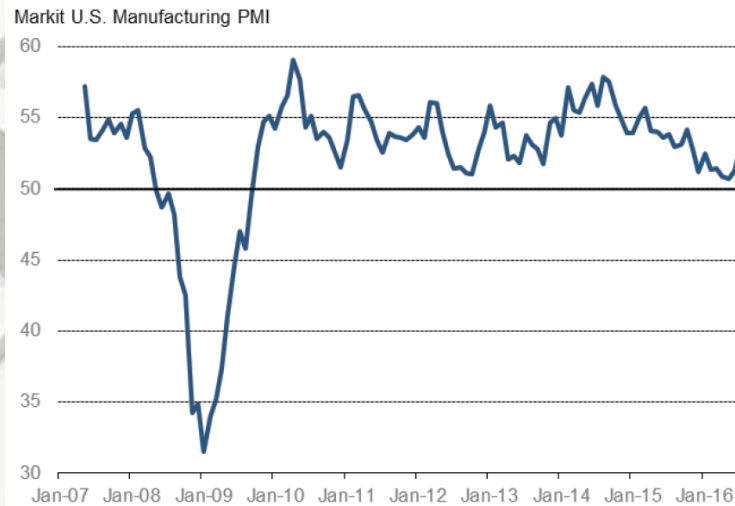
Inventories of raw materials = 49.5 percent, an increase of 1 percentage point from the June reading of 48.5 percent.

Prices = 55 percent, a decrease of 5.5 percentage points from the June reading of 60.5 percent, indicating higher raw materials prices for the fifth consecutive month.

Manufacturing registered growth in July for the fifth consecutive month, as 12 of our 18 industries reported an increase in new orders in July (same as in June), and nine of our 18 industries reported an increase in production in July (down from 12 in June).” – Bradley Holcomb, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

Private Indicators

Markit U.S. Manufacturing PMI (seasonally adjusted)



Source: IHS Markit.

Markit U.S. Manufacturing PMI™

Manufacturing output growth accelerates to eight-month high

- Manufacturing PMI rises to 52.9 in July
- Faster growth of output, new orders and employment
- Subdued rates of input cost and prices charged inflation continue

“U.S. manufacturers signalled a relatively strong start to the third quarter of 2016. Output growth picked up markedly since June, driven by a robust and accelerated expansion of incoming new work.”

“The seasonally adjusted Markit final U.S. Manufacturing **Purchasing Managers’ Index™** (PMI™) registered 52.9 in July, up from 51.3 in the previous month and comfortably above the post crisis low seen in May (50.7). The final PMI reading for July was unchanged from the earlier ‘flash’ reading (52.9). Improving business conditions reflected stronger rates of output, new order and employment growth during the latest survey period.

“The stronger manufacturing PMI survey data for July fuel hopes that the sector will act as less of drag on the economy in the third quarter after a disappointing first half of the year. Having signalled the sector’s worst performance for over six years in the second quarter, contributing to a sluggishness in the economy that was later seen in the soft GDP numbers, the improvement in July suggests that manufacturers and exporters will have helped lift the economy at the start of the third quarter.

Job creation has also picked up, hopefully in a sign that producers are seeing a brighter picture, coping with a strong dollar and having put the worst of the energy sector’s restructuring behind them.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Service sector business activity (seasonally adjusted)

Markit US Services PMI Business Activity Index



Source: IHS Markit.

Markit U.S. Services PMI™

U.S. service sector activity expands at sluggish pace in July

Key findings:

- “Business activity rises for the fifth consecutive month, faster than flash estimate
- Growth of new work edges up to its fastest so far in 2016
- Business confidence rebounds from June’s survey-record low” – Markit®

“July data suggested that growth in the U.S. service sector remained muted, with activity rising at the weakest pace in the current five-month sequence of expansion. A slower increase in new business was also recorded. On a more positive note, the rate of job creation picked up slightly and business sentiment improved markedly from June’s record low. On the price front, slower increases were registered for both input costs and output prices during the month.

The seasonally adjusted Markit final U.S. Services PMI™ Business Activity Index registered 51.4 in July (earlier ‘flash’ estimate: 50.9), which was unchanged from the figure recorded in June and above the neutral 50.0 threshold for the fifth consecutive month. However, the latest reading remained indicative of only a very modest expansion of business activity that was softer than the post-crisis trend (55.4).

Those looking for signs of the US economy moving up a gear in the third quarter will be disappointed by the PMI readings for July. The surveys are indicating that the pace of economic growth has held at around 1% at the start of the third quarter, largely unchanged on the signals sent by PMIs for the first and second quarters.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Markit U.S. Composite PMI™ Output Index



Source: Markit, US. Bureau of Economic Analysis.

Markit Composite PMI™
Marginal growth was recorded for ... manufacturing production in June (index at 50.4)

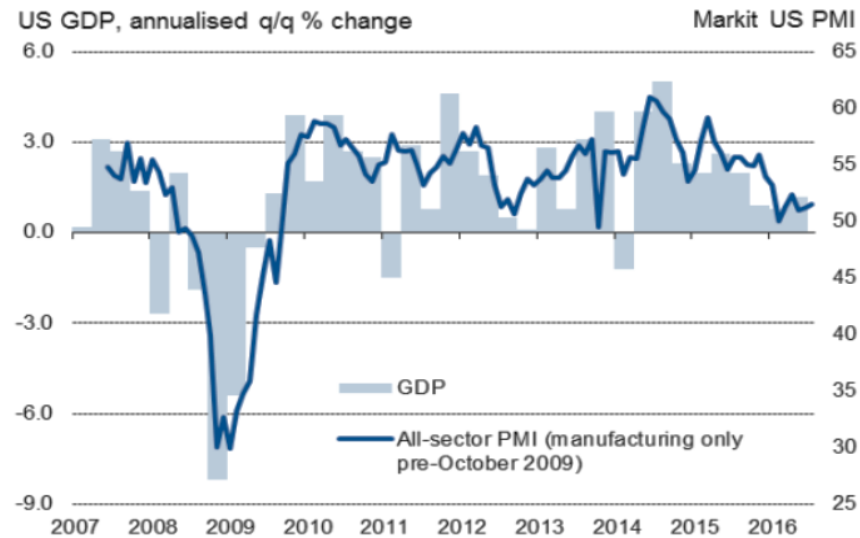
- “Business confidence drops to a fresh survey-record low” – Markit®

“The final seasonally adjusted **Markit U.S. Composite PMI™ Output Index** registered 51.2 in June, unchanged from the earlier flash figure, to signal a further marginal expansion of private sector output. The latest reading was up from 50.9 in June but still well below the post-crisis average.”

“Rebound, what rebound? The final PMI numbers confirm the earlier flash PMI signal that the pace of US economic growth remained subdued in the second quarter. While volatile official GDP numbers are widely expected to show a rebound from a lacklustre start to the year, the PMIs suggest the underlying malaise has not gone away. The surveys point to an annualized pace of economic growth of just 1% in the second quarter.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Markit PMI v GDP



Markit PMI™

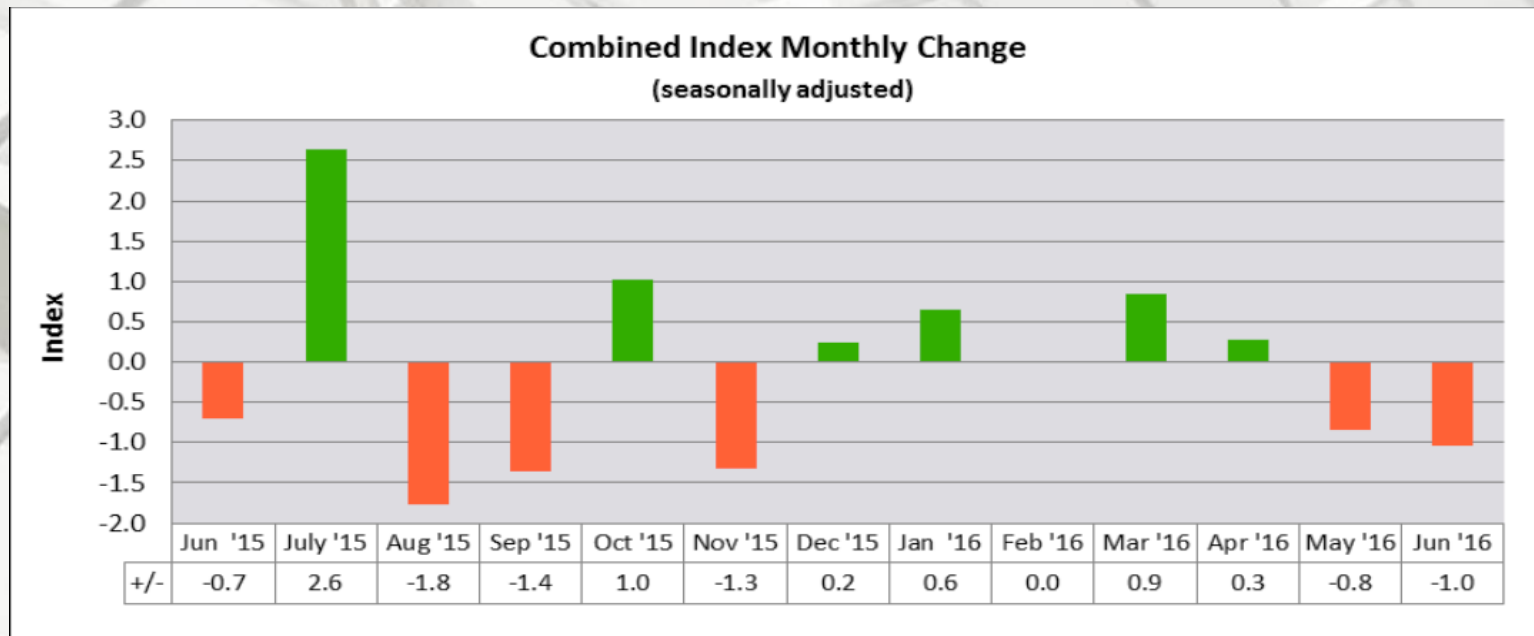
US economic growth fails to rebound in second quarter

“US economic growth failed to gain momentum in the second quarter, with GDP data signalling a pace of expansion which looks especially underwhelming when looked at in the context of the sluggish start to the year.” – Markit®

“Gross domestic product rose at an annualised rate of 1.2% in the second quarter after a downwardly revised 0.8% increase in the first three months of the year, according to the first estimate from the Commerce Department.

The solid labour market has therefore helped to boost consumer spending, and joins other tailwinds such as low inflation and low oil prices, as well of course as low interest rates. It’s not surprising, therefore, given the different headwinds and tailwinds, to see growth being driven largely by the consumer. Household spending rose at a 4.2% annualised rate in the second quarter, its strongest increase since the end of 2014. Likewise, it’s no real shock to see that business investment spending on equipment fell for a third successive quarter, albeit with the rate of contraction showing a welcome easing from 3.5% to 9.5%.” – Chris Williamson, Chief Economist, Markit®

Private Indicators



National Association of Credit Management NACM's Credit Managers' Index

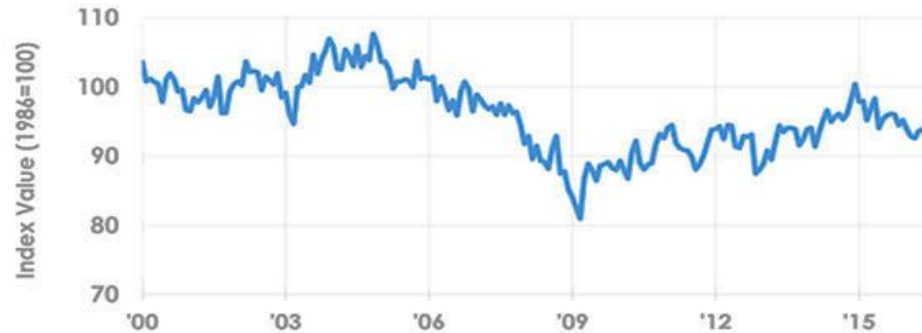
“That nice little run of steady improvement in NACM's Credit Managers' Index seems to have come to an end, or at least it has stalled. Although there has been no collapse, as the overall numbers in June remained in the expansion zone, they are falling again. The combined reading for the CMI slipped from June's 53.8 to 52.7, the lowest it has been since November's 52.6. Since data have all been collected prior to the Brexit vote explosion, all eyes will be on the data coming in a month or so.”

“The dark clouds on the manufacturing horizon include a decline in the sales of new cars and the potential drop in export demand as the dollar gains a lot more strength against the pound and the euro. How this will all play out remains to be seen. Year-over-year numbers have not been encouraging of late. The service sector is leading that decline after some months of good news. The summer has not yet been a positive experience, and global issues are depressing the average business and consumer even more.” – Chris Kuehl, Ph.D, Economist, NACM

Private Indicators

Small Business Optimism Index Increases 0.1 to 94.6

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



NFIB.COM/sbet

NFIB survey shows sluggish recovery in this “so-called expansion”

“The Index of Small Business Optimism rose one-tenth of a point in July to 94.6, a meager increase showing no real enthusiasm for expansion, expected sales, and making capital outlays, according to the **National Federation of Independent Business (NFIB).**”

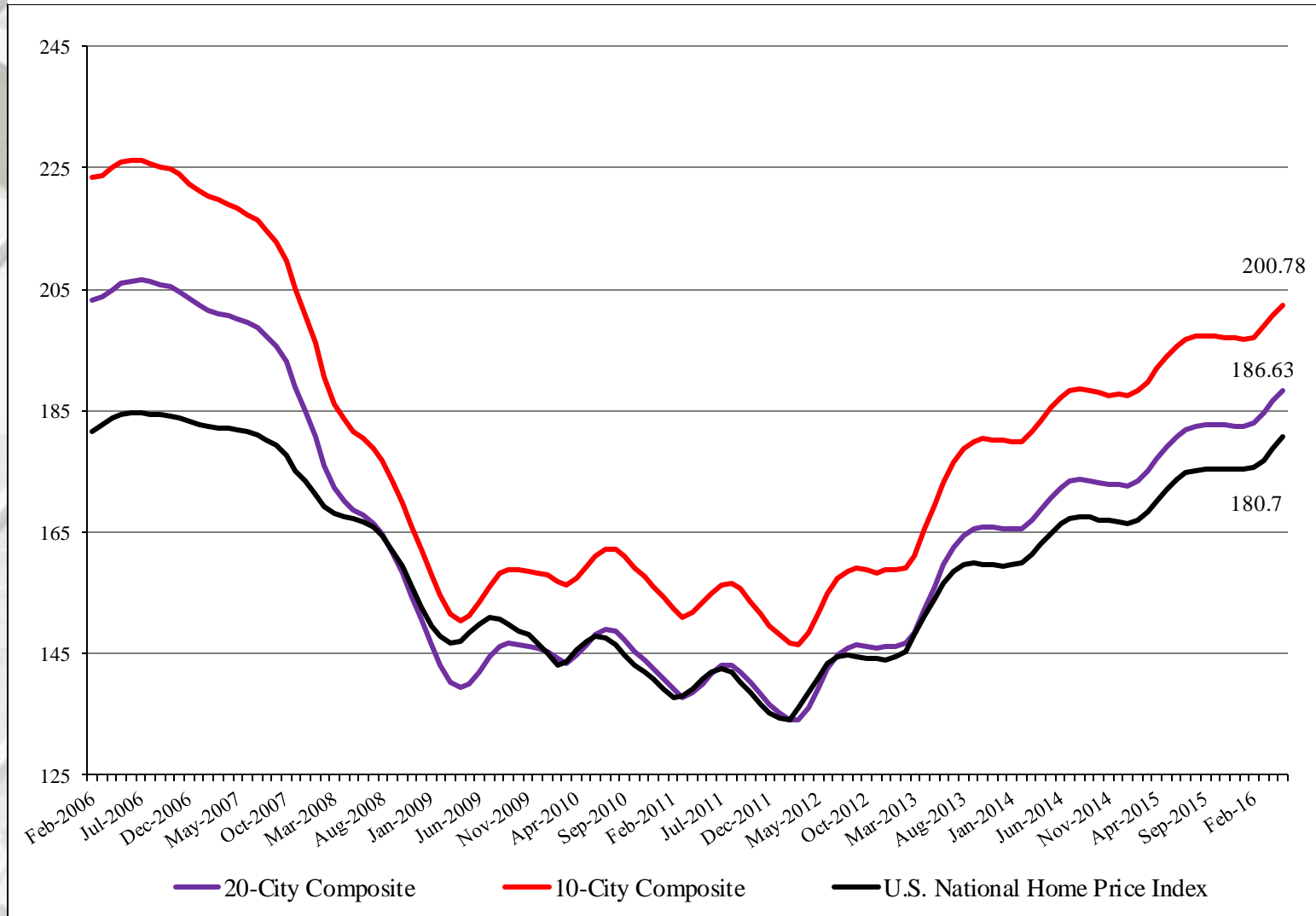
“At 94.6, the Index remains well below the 42-year average of 98. Four of the 10 Index components posted a gain, four declined, and two were unchanged. The outlook for business conditions in the next six months continued to improve, gaining 16 percentage points since January, but still more owners still expect conditions to be worse than expect improvement.

Owners are still reporting that they cannot find qualified workers and cite it as their third “Single Most Important Business Problem.” Earnings trends and expectations of higher sales also worsened. And the political climate continues to be the second most frequently cited reason for why owners think the current period is a bad time to expand after economic conditions.

Small business optimism was pretty much unchanged during the month of July and small businesses continue to be in maintenance mode. Uncertainty is high, expectations for better business conditions are low, and future business investments look weak. Our data indicates that there is little hope for a surge in the small business sector anytime soon.” – William Dunkelberg, Chief Economist, National Federation of Independent Business

Private Indicators

S&P/Case-Shiller Home Price Indices



Private Indicators

S&P/Case-Shiller Home Price Indices

Home Price Gains Lead Housing

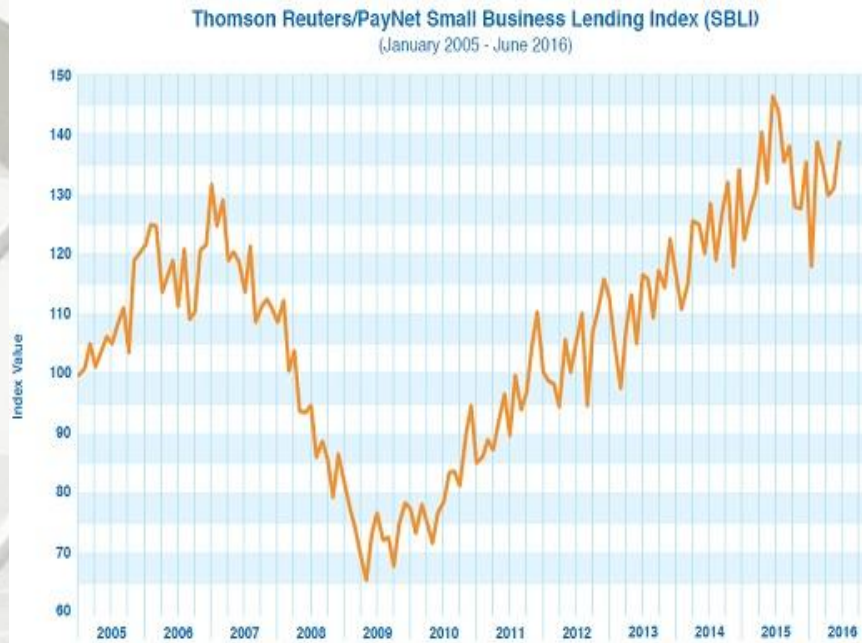
“As home prices continue rising, they are sending more upbeat signals than other housing market indicators. Nationally, single family home price increases have settled into a steady 4%-5% annual pace following the double-digit bubbly pattern of 2013. Over the next two years or so, the rate of home price increases is more likely to slow than to accelerate. Prices are increasing about twice as fast as inflation or wages. Moreover, other housing measures are less robust. Housing starts are only at about 1.2 million units annually, and only about half of total starts are single family homes. Sales of new homes are low compared to sales of existing homes.

First time homebuyers are the weak spot in the market. First time buyers provide the demand and liquidity that supports trading up by current home owners. Without a boost in first timers, there is less housing market activity, fewer existing homes being put on the market, and more worry about inventory. Research at the Atlanta Federal Reserve Bank argues that one should not blame millennials for the absence of first time buyers. The age distribution of first time buyers has not changed much since 2000; if anything, the median age has dropped slightly. Other research at the New York Fed points to the size of mortgage down payments as a key factor. The difference between a 5% and 20% down payment, particularly for people who currently rent, has a huge impact on buyers’ willingness to buy a home. Mortgage rates are far less important to first time buyers than down payments.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

Private Indicators

Thomson Reuters/PayNet Small Business Lending Index

U.S. small business borrowing rose in June: PayNet



“U.S. small business borrowing rose in June, data released on Thursday showed, but not enough to reverse three straight months of decline, pointing to sluggish economic growth ahead.

The Thomson Reuters/PayNet Small Business Lending Index rose to 138.9 in June, from May's upwardly revised 131.1. It was down 5 percent from a year earlier, as borrowing by companies in all major industry groups sagged. The PayNet index typically corresponds to U.S. gross domestic product growth one or two quarters ahead.”

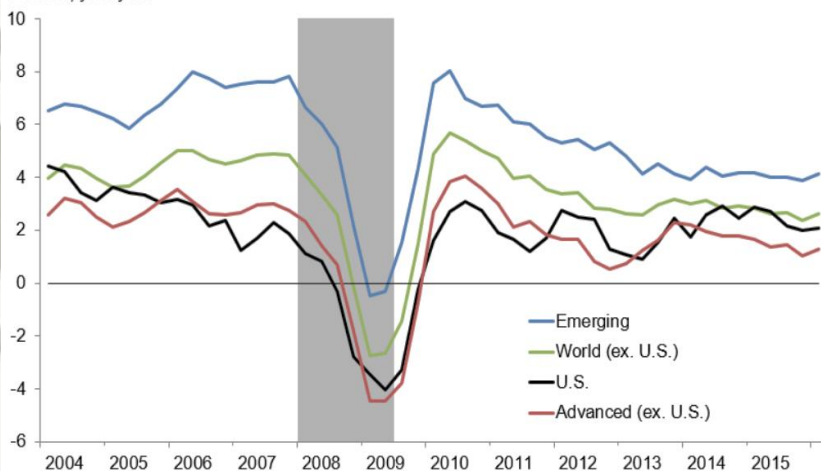
“Small business borrowing is a key barometer of growth because small companies tend to do much of the hiring that drives economic gains. The figures released Thursday suggest “no big contribution to GDP from private companies,” said Bill Phelan, PayNet's president. The U.S. economy grew just 1.2 percent last quarter, a government report showed last week, after registering a meager 0.8 percent in the first quarter.

Meanwhile, companies appeared to be having more difficulty paying back existing loans. Loans more than 30 days past due rose in June to 1.56 percent, the highest since October 2014, separate data from PayNet showed.” – Ann Saphir, PayNet

Federal Reserve Indicators: Global

Chart 1
First Quarter 2016 Growth Increases Slightly Before Brexit Vote

Percent, year/year



NOTES: Aggregated using U.S. trade weights. Shaded bar indicates global recession. Last data point is first quarter 2016.

SOURCES: Database of Global Economic Indicators; Haver Analytics; author's calculations.

The Federal Reserve Bank of Dallas

Brexit Uncertainty Influencing the Global Economy

“The strong dollar, along with disappointing growth performance in foreign economies and the global slowdown in world trade, is exerting negative pressure on the U.S. trade deficit. Because the full effects of Brexit on the fragile global economy are still unknown, world leaders will be keeping a close eye on developments. In addition, the possibility of a Chinese hard landing still exists.”

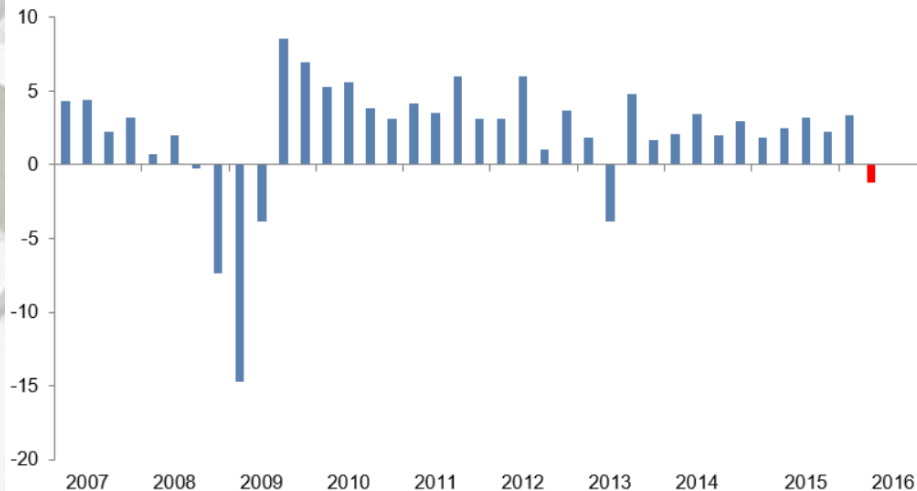
The Federal Reserve Bank of Dallas Global Growth Outlook Still Uneven

“The economic consequences of the Brexit vote are still unclear, and this has obstructed current investment and spending decisions as well as financial valuations for the U.K. and the euro area. Some economists are convinced the U.K. will enter recession in 2017, while others have predicted minor negative effects. The International Monetary Fund’s World Economic Outlook for July revised 2016 and 2017 U.K. growth downward by 0.2 and 0.9 percentage points, respectively, from April’s projections. Although India was also revised down slightly, it is still expected to have strong growth of 7.4 percent both this and next year. Japan is likely to have slightly better growth than previously predicted because the start date of a planned consumption tax hike was pushed back and fiscal stimulus is expected following elections to Japan’s upper house. The former will contribute to the deflation problem.” – Arthur Hinojosa, Research Assistant, The Federal Reserve Bank of Dallas.

Federal Reserve Indicators: Global

Chart 1
Mexico's Gross Domestic Product Falls in Second Quarter 2016

Annualized growth rate (percent)



NOTE: GDP for second quarter 2016 is the advance estimate and is subject to revision.

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

The Federal Reserve Bank of Dallas

Mexico Posts Negative Growth in Second Quarter

“Mexico’s GDP contracted at a 1.2 percent annualized rate in the second quarter after growing 3.3 percent in the first (Chart 1). This is the first quarterly decline in output since second quarter 2013. Growth over the first half of 2016 averaged about 1 percent, similar to the U.S.”

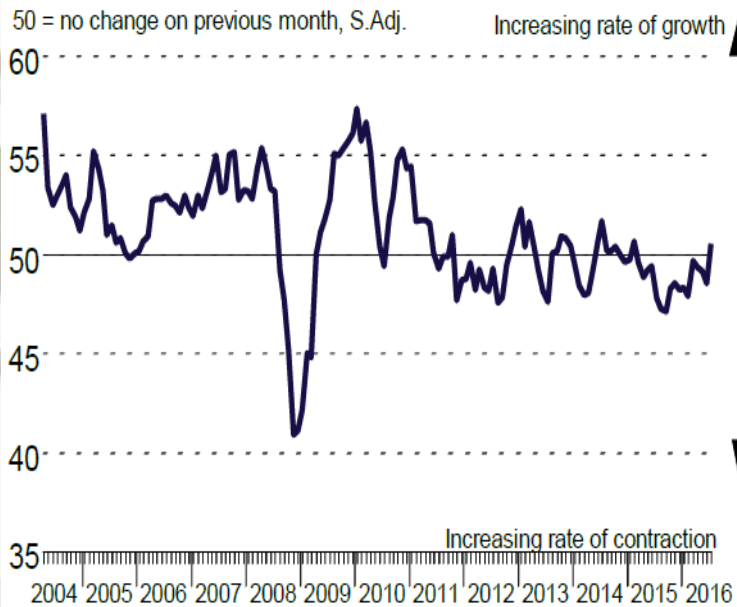
Output Falls for First Time in Three Years

“Mexico’s economy contracted slightly in the second quarter. Gross Domestic Product (GDP) fell 1.2 percent after expanding 3.3 percent in the first quarter. Despite weaker quarterly output, more recent monthly data on exports, employment, industrial production and retail sales show improvement. Inflation appears firmly under control, and the peso edged up against the dollar in July. The consensus 2016 GDP growth forecast edged down from 2.4 percent in June to 2.3 percent in July.

Service-related activities (including trade and transportation) registered no growth in the second quarter, while output from goods-producing industries (including manufacturing, construction and utilities) fell 6.6 percent. Agricultural output dipped 0.4 percent.” – Jesús Cañas, Business Economist, The Federal Reserve Bank of Dallas.

Private Indicators: Global

Caixin China General Manufacturing PMI



Sources: IHS Markit, Caixin.

Caixin China General Manufacturing PMI™

Operating conditions improve for first time since February 2015

“July survey data signalled a renewed upturn in operating conditions faced by Chinese manufacturers, with output, new orders and buying activity all returning to growth. However, employment continued to decline and at a solid pace, which in turn contributed to the quickest rise in outstanding business since March 2011. Meanwhile, increased prices for raw materials led to a marked rise in average input costs, which companies generally passed on to clients in the form of higher output charges.”

- Renewed expansions in output, new orders and purchasing activity
- Payrolls cut again and a solid rise in backlogs of work was recorded
- Marked increases in input costs and output charges

“The Caixin China General Manufacturing PMI came in at 50.6 for July, up significantly by 2.0 points from the reading for June, marking the first expansion since February 2015. The sub-indexes of output, new orders and inventory all surged past the neutral 50-point level that separates growth from decline. This indicates that the Chinese economy has begun to show signs of stabilizing due to the gradual implementation of proactive fiscal policy. But the pressure on economic growth remains, and supportive fiscal and monetary policies must be continued.” – Dr. He Fan, Chief Economist, Caixin Insight Group

Private Indicators: Global

Markit Eurozone PMI and GDP



Markit Eurozone Composite PMI® – final data

Stronger German economic expansion edges eurozone growth higher

Key findings:

- Final Eurozone Composite Output Index: 53.2 (Flash: 52.9, June Final: 53.1)
- Final Eurozone Services Business Activity Index: 52.9 (Flash: 52.7, June Final: 52.8)

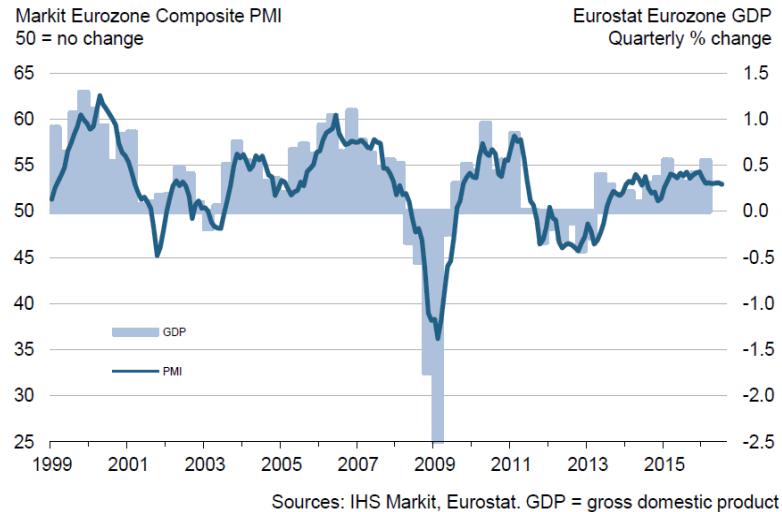
“The rate of eurozone economic expansion ticked higher at the start of the third quarter. This was signalled by the final **Markit Eurozone PMI® Composite Output Index** rising to a six-month high of 53.2 in July, above the earlier flash estimate of 52.9. The headline index has now signalled growth for 37 successive months.

A welcome uptick in the final PMI numbers presents a slightly better picture than the slowing signalled by the earlier flash reading, and is especially encouraging as it suggests the region saw little overall contagion from the UK’s ‘Brexit’ vote. However, the survey is still indicating only a modest 0.3% quarterly rate of economic growth at the start of the third quarter. Such a meagre pace of expansion will inevitably fuel speculation about what the ECB could and should do to boost growth, and when.

Greater comfort can be gained from the upturn in employment growth to a pace which has not been exceeded since February 2008. The improved hiring trend suggests firms have gained sufficient confidence in the durability and sustainability of the upturn to expand capacity in increasing numbers. However, if growth in Spain and Italy continues to weaken, this impressive hiring trend will inevitably come under pressure.” – Chris Williamson, Chief Economist, Markit®

Private Indicators: Global

Markit Eurozone PMI and GDP



Markit Eurozone PMI®

Eurozone growth edges down to one-and-a-half year low

- “Flash Eurozone PMI Composite Output Index at 52.9 (53.1 in June). 18-month low.
- Flash Eurozone Services PMI Activity Index at 52.7 (52.8 in June). 18-month low.
- Flash Eurozone Manufacturing PMI at 51.9 (52.8 in June). 2-month low.
- Flash Eurozone Manufacturing PMI Output Index at 53.6 (53.9 in June). 2-month low.”

“Euro area business activity growth edged lower in July, according to the Markit Eurozone Flash PMI®, dropping to an 18-month low. July’s flash PMI reading of 52.9 compared to 53.1 in the prior two months and signalled only a marginal easing in the rate of growth of output across both manufacturing and services.

... The overall rate of economic growth is largely unchanged, suggesting GDP is growing at a sluggish but reasonably steady annual rate of around 1.5%. It’s especially encouraging to see employment growth continuing to improve, with firms’ appetite to hire seemingly so far unaffected by the uncertainty caused by the Brexit vote, especially in Germany.

However, business confidence about the outlook in the service sector has deteriorated to the worst for just over one-and-a-half years, linked primarily to the political and economic instability induced by the UK referendum, pointing to near-term downside risks for an already-lacklustre eurozone economy...” – Chris Williamson, Chief Economist, Markit®

Private Indicators: Global



JPMorgan Global PMI Global PMI lifts to three-month high on back of stronger emerging market growth

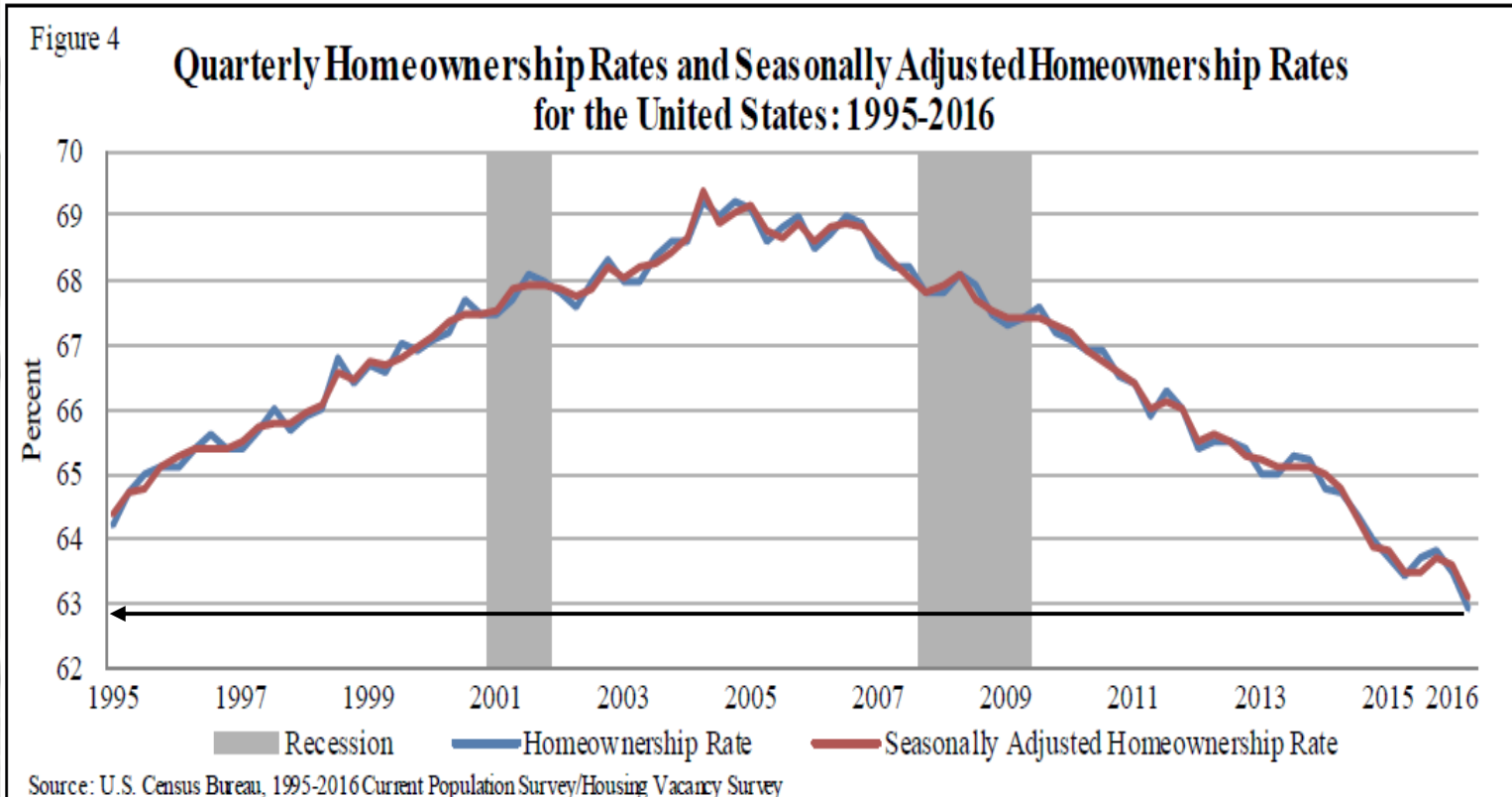
“The JPMorgan Global PMI™, compiled by Markit from its worldwide business surveys, held steady at 51.1 in June, rounding off the weakest quarter since the fourth quarter of 2012. Global economic growth edged higher at the start of the third quarter, but failed to break out of the rut of sluggish expansion that has been evident since February.”

“The JPMorgan Global PMI, compiled by IHS Markit from its various national surveys, rose from 51.2 in June (revised marginally from 51.1) to a three-month high of 51.4. While the PMI continues to signal a modest annual global GDP growth rate of only 1.5%, the survey has at least indicated a marginal improvement in the rate of growth for two successive months.

The July upturn was driven by [manufacturing](#), which saw the best improvement in business conditions for eight months, though the rate of service sector expansion held steady at one of the weakest seen over the past three-and-a-half years.

Most encouraging was an upturn in the rate of growth signalled by the emerging markets PMI to the highest since February of last year. At 51.7, the emerging market PMI in fact rose above the equivalent developed world index for the first time since April 2013, a time when emerging markets ‘decoupled’ from the developed world’s ongoing expansion and subsequently underperformed. Upturns were seen in both manufacturing and services across the emerging markets as a whole, in both cases showing the largest monthly gains since the early months of 2015.” – Chris Williamson, Chief Economist, Markit®

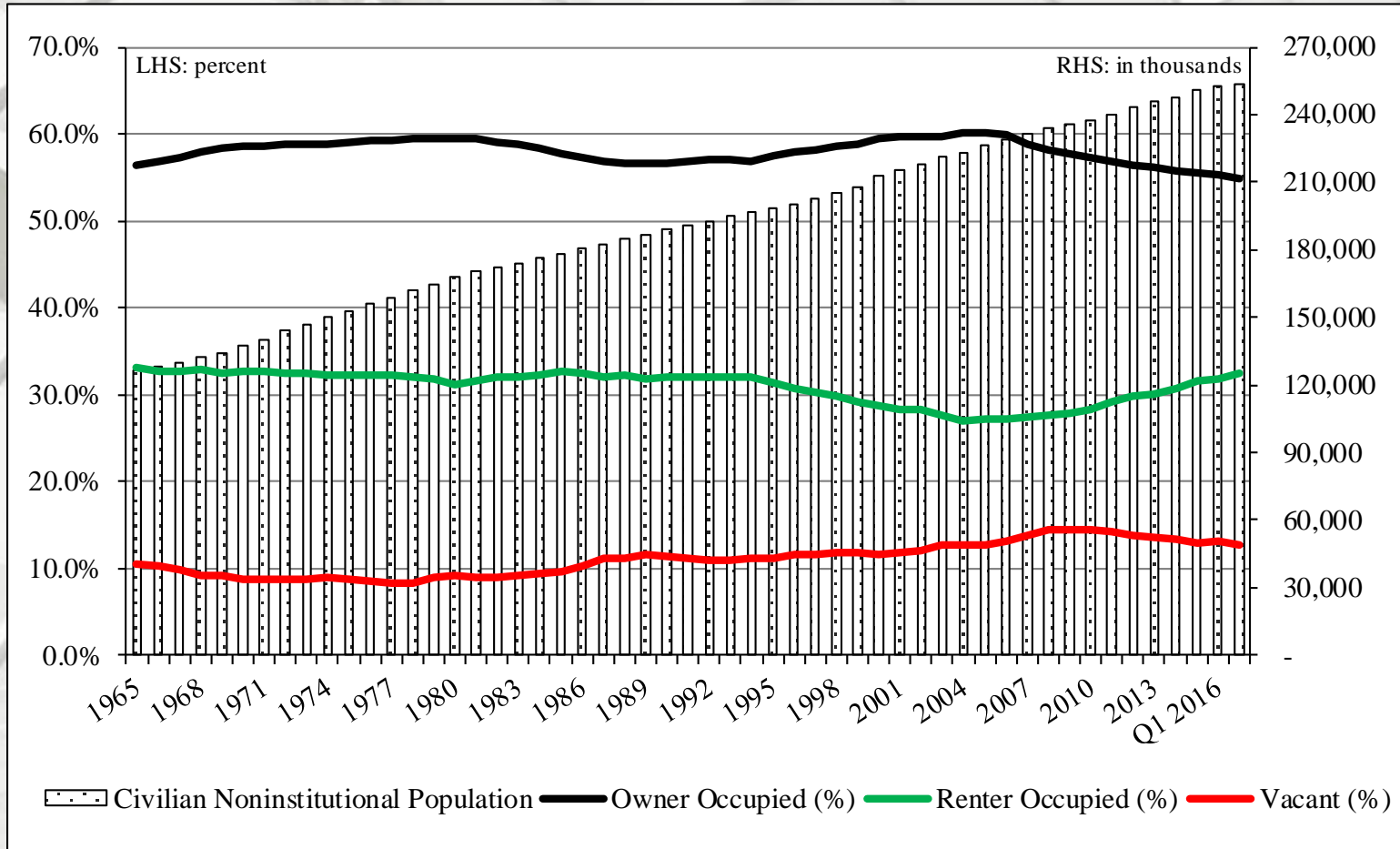
Home Ownership



Homeownership in the Second Quarter 2016

“The homeownership rate of 62.9 percent was 0.5 percentage points lower than the second quarter 2015 rate (63.4 percent) and 0.6 percentage points lower than the rate in the first quarter 2016 (63.5 percent).” – Robert Callis and Melissa Kresin, Social, Economic and Housing Statistics Division, U.S. Department of Commerce-Census Bureau

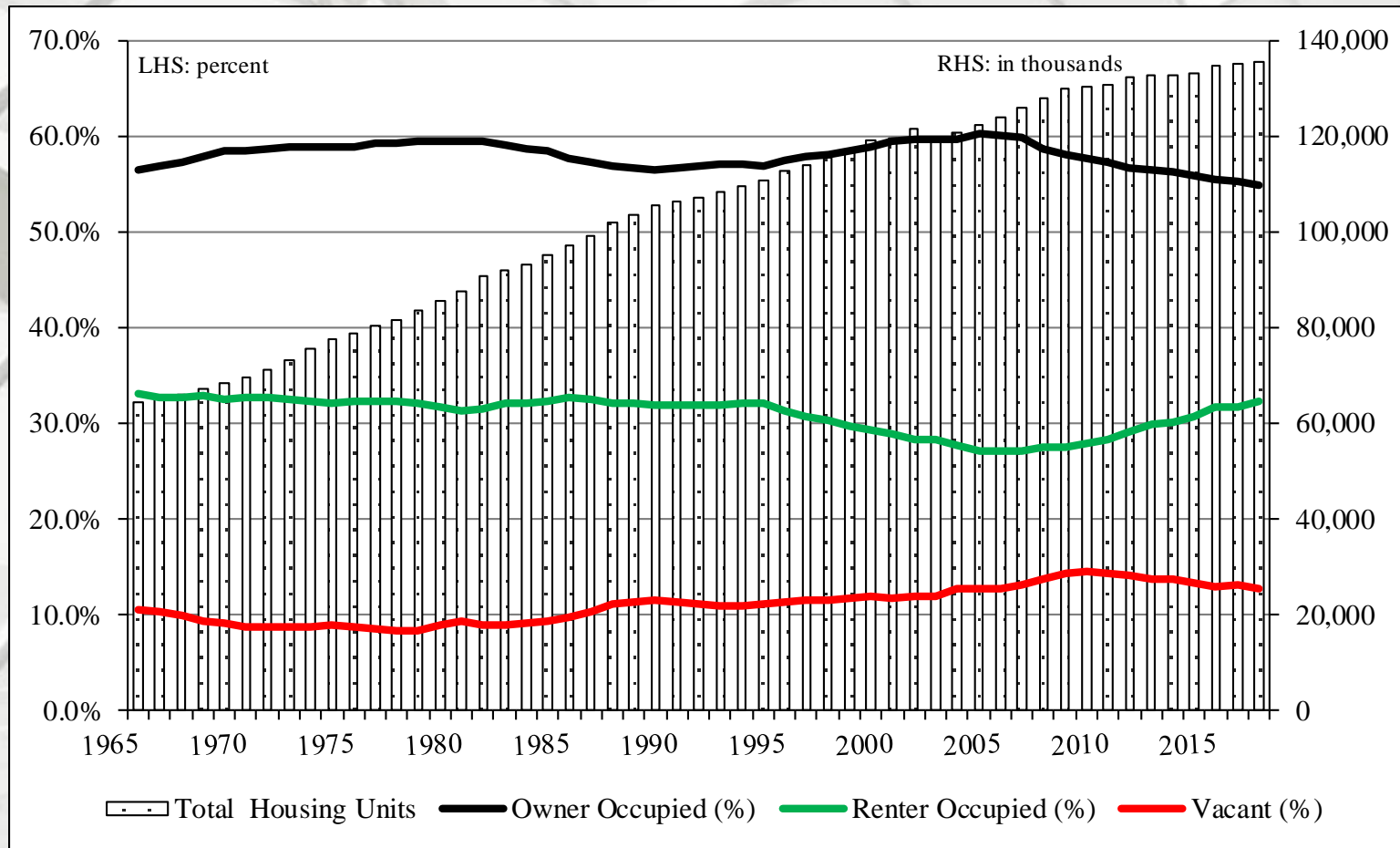
Home Ownership



Home Ownership

The home ownership rate of 62.9 percent – the least since 1965. Owner-occupied homes have been decreasing steadily since 2007-2008. Renter occupied homes, vacant homes, and the civilian noninstitutionalized population have increased in the same time-period.

Home Ownership

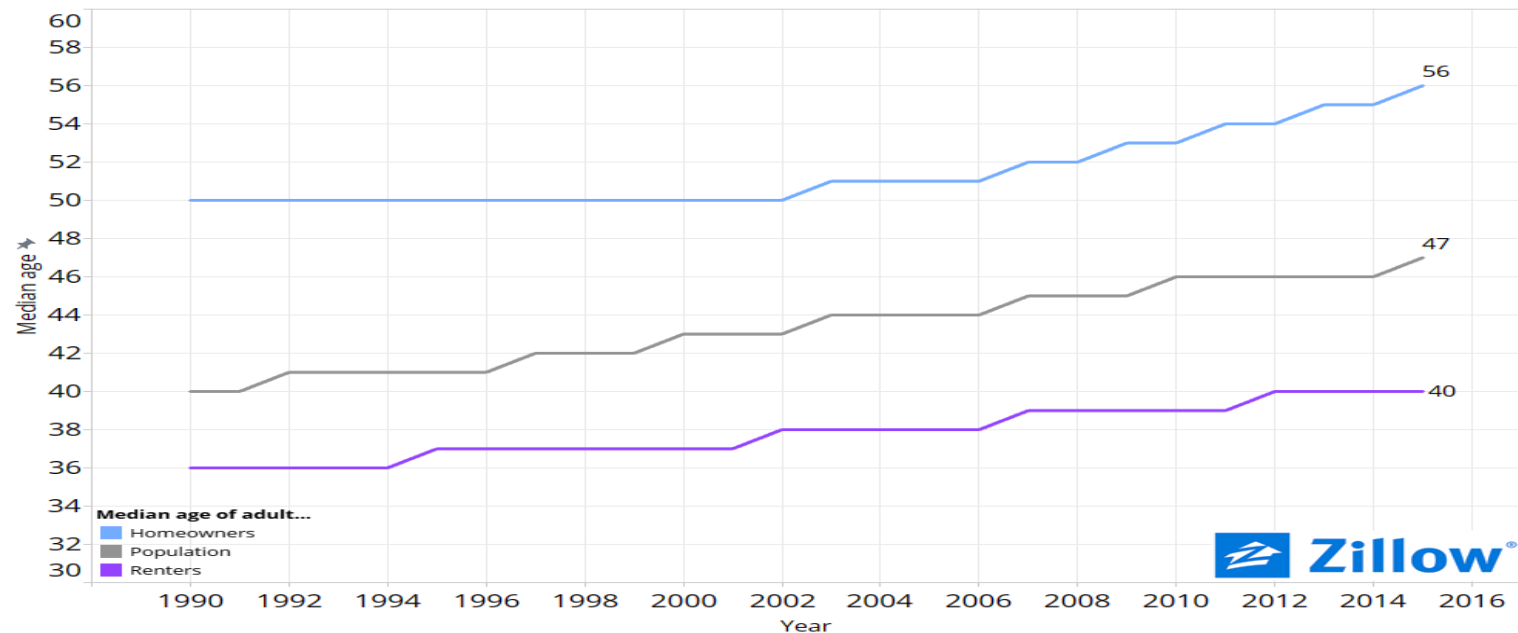


Home Ownership

In 1965, owner-occupied houses were 56.4% of occupied houses and 54.9% in Q2_2016 of total housing units.

Home Ownership

Figure 1: A widening gap in age among homeowners since the start of the recession



Source: Zillow analysis of the U.S. Census Bureau, Current Population Survey, 1990 - 2015, made available by IPUMS-CPS, University of Minnesota, www.ipums.org.

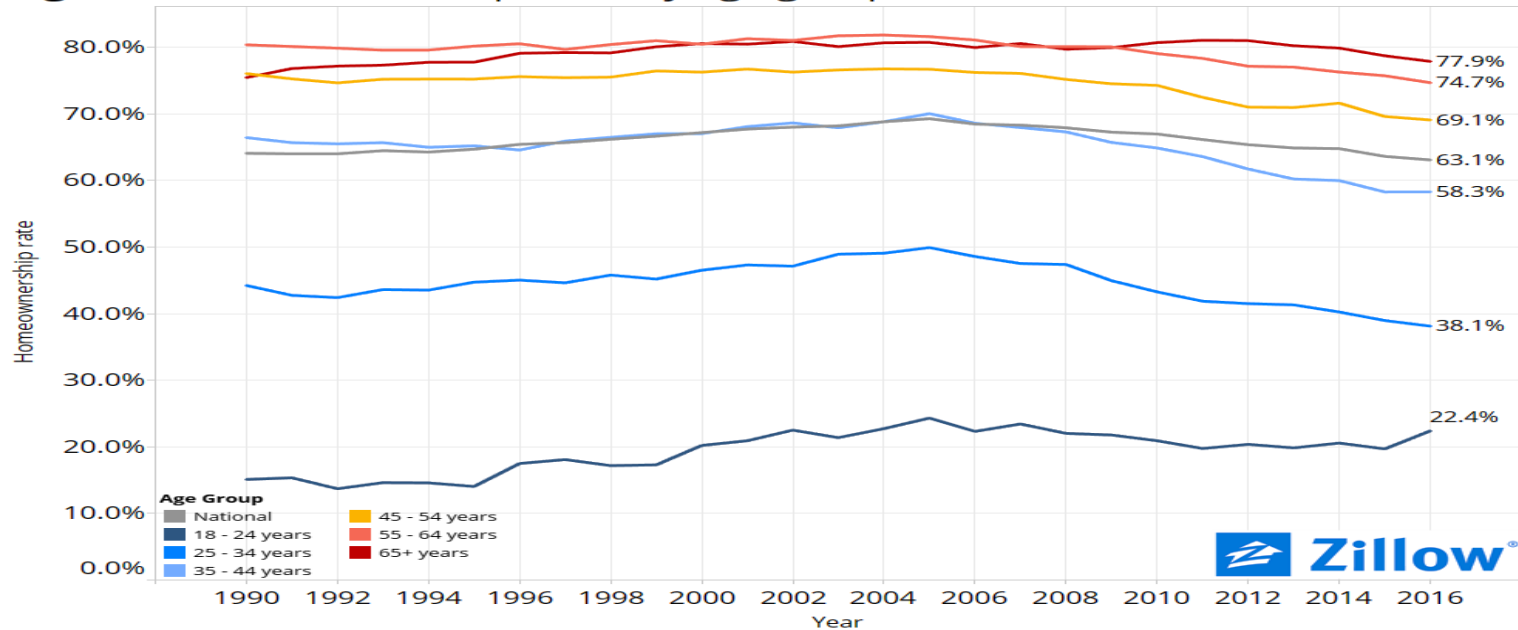
What the Homeownership Rate Really Tells us About U.S. Housing

“Since the housing bubble, older Americans have been more likely to hold onto – or purchase – homes relative to younger Americans, driving up the typical age of the American homeowner.

Americans are living longer. In 1990, the typical adult was 40 years old; today, they are 47. As the adult population ages, so do renters and homeowners (fig.1). But even though typical renters and homeowners both have gotten older, their respective trajectories over the past 25 years have been different. Renters in the United States have steadily gotten older, closely mirroring the trajectory of the adult population overall. This could suggest that more Americans who turned to renting when first starting out are staying renters longer, either because of financial constraints or simply lifestyle choices that preclude the need to own a home” – Sarah Mikhitarian, Economic Analyst, Zillow

Home Ownership

Figure 2: Homeownership rates by age groups



Source: Zillow analysis of the U.S. Census Bureau, Current Population Survey, 1990 - 2015, made available by IPUMS-CPS, University of Minnesota, www.ipums.org, and the U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey, 2016Q2.

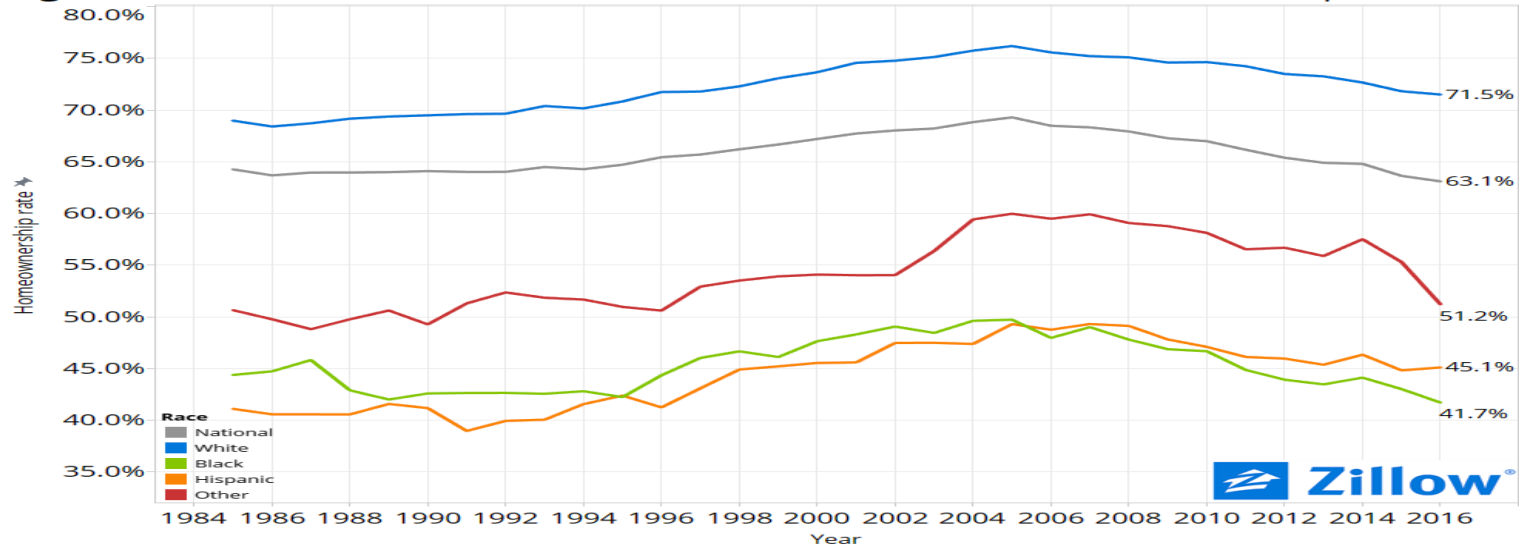
What the Homeownership Rate Really Tells us About U.S. Housing

“The typical age of a homeowner, however, stayed constant around 50 or 51 – right up until the peak of the housing bubble in 2006, when the age of a typical homeowner started rising rapidly. This tells us that throughout the housing bust and subsequent recovery, those Americans most able to successfully buy or hold onto a home have largely been older. ... And a good part of the recent surge in median homeowner age is attributable to retirees (aged 65 and older), the lone age group in which homeownership has stayed more or less constant since the height of the housing bubble (figure 2). But at roughly the same time in 2005-2006, a notable drop in the homeownership rate among 25-to-44 year olds began to take hold, which has continued into today. It is likely the younger members of this age group, just entering early adulthood, were naturally inclined to rent.”

– Sarah Mikhitarian, Economic Analyst, Zillow

Home Ownership

Figure 3: Racial and ethnic minorities continue to have lower homeownership rates



Source: Zillow analysis of the U.S. Census Bureau, Current Population Survey, 1990 - 2015, made available by IPUMS-CPS, University of Minnesota, www.ipums.org, and the U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey, 2016Q2.

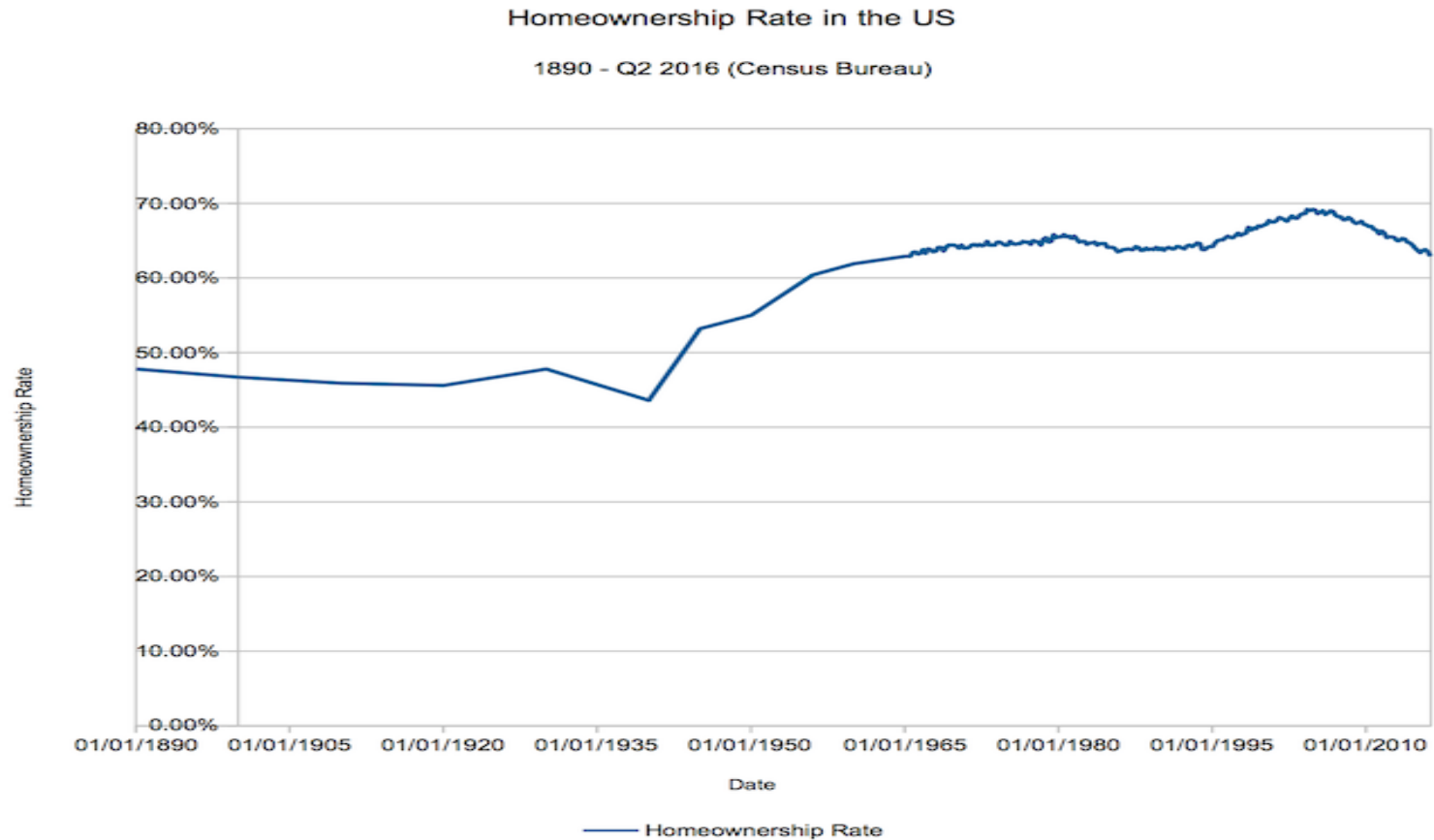
What the Homeownership Rate Really Tells us About U.S. Housing

“Although the homeowner population has aged, its racial and ethnic composition has not changed much. Whites remain far more likely to own a home than members of any other race or ethnicity. There is a striking and persistent gap in homeownership between whites and other races and ethnicities. This gap is starkest for blacks and Hispanics, who have [traditionally had the lowest homeownership rates](#) (figure 3).

The homeownership rate for both groups is lower today than in 2006, but the Hispanic homeownership rate is higher than it was two decades ago while the current black homeownership rate is slightly lower.

This shift in the homeownership trend could be driven by several factors. For example, Hispanics are [more likely to live in multi-generational households](#) than blacks, and pooling resources among families may make it easier to save for a down payment and successfully buy a home.” – Sarah Mikhitarian, Economic Analyst, Zillow

Home Ownership



Is The Homeownership Rate In America The Lowest In History?

“As you probably assumed anyway, due to Betteridge's Law, we aren't currently in a homeownership trough. The recent homeownership rate posting of 62.9% for the second quarter of 2016 is not the lowest in history, nor is it even the lowest in recorded US history. However, it is the lowest post in 51 years (!) – not since the third quarter of 1965 have we seen homeownership rates this low.” – DQYDJ

Home Ownership

New Housing Headwind Looms as Fewer Renters Can Afford to Own

Some forecast demographic changes will help lead to a decline in homeownership rate

“Last decade’s housing crisis could give way to a new one in which many families lack the incomes or savings needed to buy homes, creating a surge of renters and a shortage of affordable housing. The latest problem looks very different from the subprime mania of the early 2000s, but it shares one trait: Policy makers in Washington appear either unaware or unwilling to do much about it.

Conventional wisdom says the rate, at 63.7%, is leveling off to where it was for decades before the housing-market peak. But this is probably wrong, according to research from the Urban Institute, which predicts homeownership will continue to slip for at least 15 years.

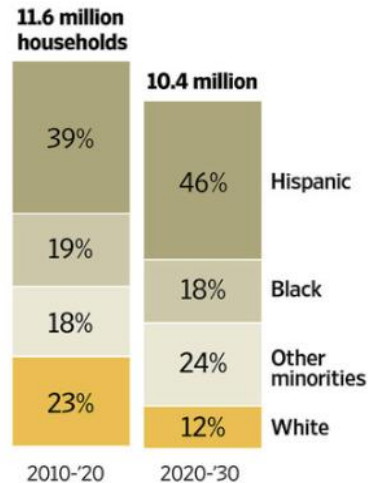
Urban Institute researchers predict that more than 3 in 4 new households this decade, and 7 of 8 in the next, will be formed by minorities. These new households – nearly half of which will be Hispanic – have lower incomes, less wealth and lower homeownership rates than the U.S. average.

The upshot is that fewer than half of new households formed this decade and the next will own homes. By contrast, almost three-quarters of new households in the 1990s became homeowners. The downtrend would push homeownership below 62% in 2020, and it would hold the rate near 61% in 2030, below the lowest level since records began in 1965.” – Nick Timiraos, Reporter, *Wall Street Journal*

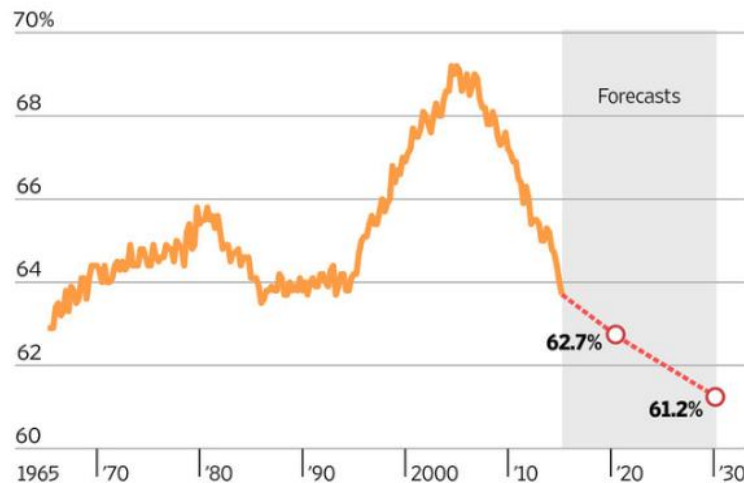
Home Ownership

Home Builders

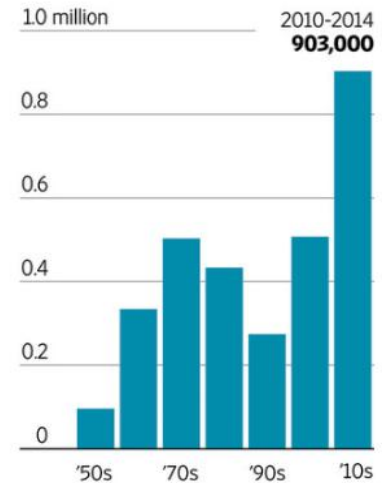
Minorities, who will account for more household-formation growth...
Net new households



...are less likely to own homes, which will drag down the U.S. homeownership rate...



...as rental growth surges.
Average annual net growth in renter households



Sources: Urban Institute (household formation, homeownership rate forecasts); Commerce Department (homeownership rate); Harvard Joint Center for Housing Studies (renting households)
THE WALL STREET JOURNAL.

New Housing Headwind Looms as Fewer Renters Can Afford to Own

The declines reflect a surge of new renter households, which is boosting rents. Together with tougher mortgage-qualification rules, this will leave households stuck between homes they can't qualify to purchase and rentals they can't afford, says Ron Terwilliger, who spent two decades running Trammell Crow Residential, one of the nation's largest apartment developers.

As rent takes a larger share of income, families could face greater challenges in saving for a down payment. This could restrain a housing market that has failed to provide any real lift to the economy in the current expansion.” – Nick Timiraos, Reporter, *Wall Street Journal*

Demographics

Bunk Bed Generation

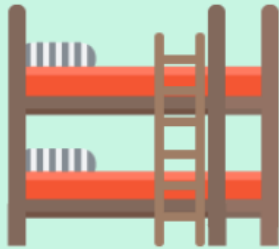
Renters, especially those living with children in the nation's top rental markets, are squeezed into smaller spaces

“... across America, space is gradually getting tighter. In the nation's largest 100 metro areas, 14.7% of households had less bedrooms than family members, up 0.5 percentage points from 14.2% in 2009.

Nationwide, Renters Face Tighter Squeeze Than Homeowners

- The difference between owners and renters is stark – only 8.1% of households who own experience space crunch. On the other hand, 26.4% of households who rent experience space crunch.
- The percentage of owner-households experiencing space crunch was 0.3 percentage points higher at 8.4% in 2009. So owner-households squeezed for space actually decreased from 2009 to 2014. The percentage of renter-households experiencing space crunch rose 0.6 percentage points from 25.8% in 2009.
- Strikingly, the average family size for renter households (2.3) is lower than that for homeowner households (2.6), and yet renter households were crunched for space more often than homeowner households were.
- Renters who have at least one child living with them are squeezed the most. Almost half, or 49.6%, of such renter-households with children experience space crunch.” – Mark Uh, Data Scientist, Trulia

Demographics



Where Kids Are More Likely to Share a Room

Northeast

% Space Crunched
0 10 20 30

New York, NY

25.2%

Boston, MA

14.3%

South

% Space Crunched
0 10 20 30

Tampa, FL

10.7%

Atlanta, GA

11.5%

Midwest

% Space Crunched
0 10 20 30

Chicago, IL

17.1%

St. Louis, MO

10.5%

West

% Space Crunched
0 10 20 30

Los Angeles, CA

29.2%

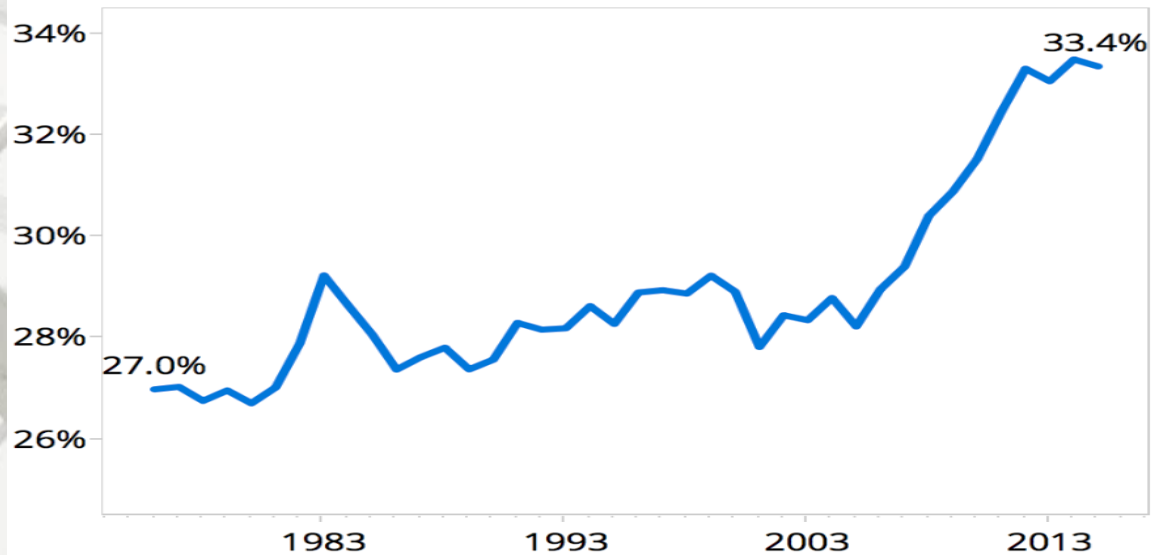
San Francisco, CA

22.4%



Demographics

Figure 1: Share of Young Adults Age 18-34 Living With a Parent



Source: Zillow analysis of U.S. Census Bureau, Current Population Survey, March Supplement, made available by the University of Minnesota, IPUMS-USA.

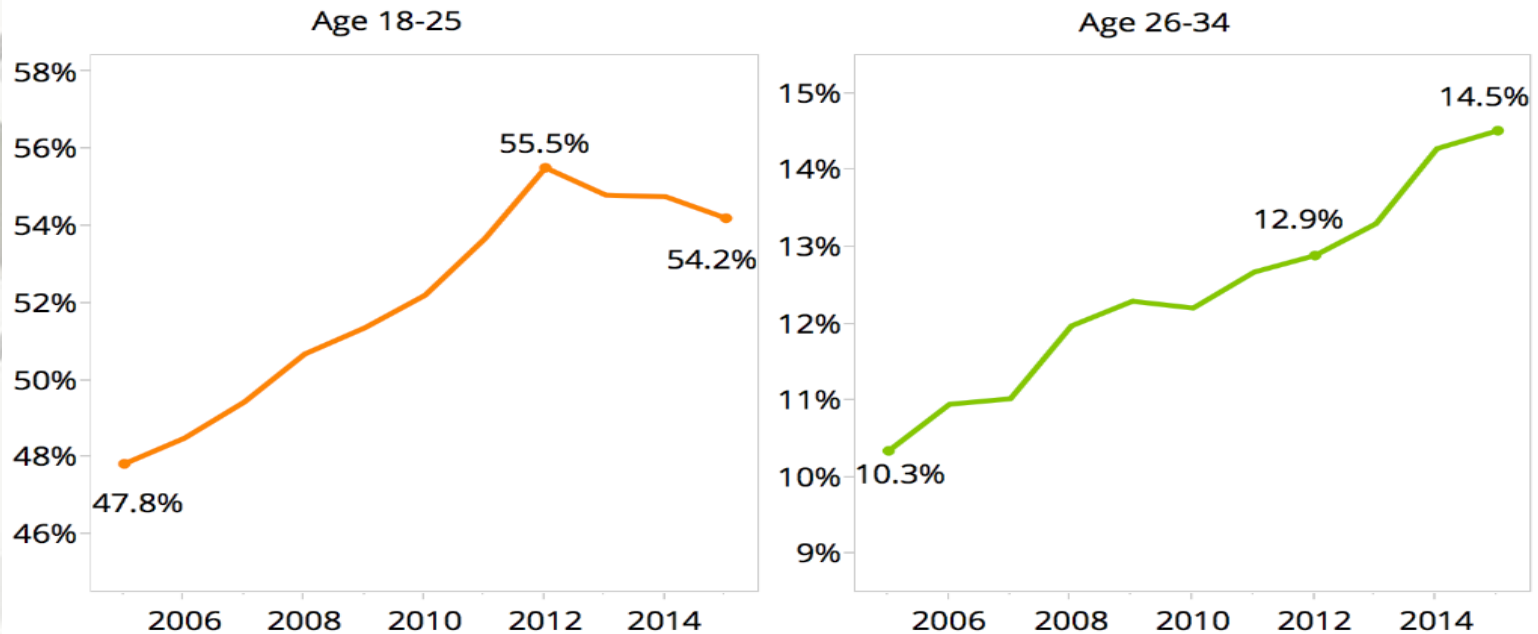
Older Millennials Driving Increase in Young Adults Living at Home

“Over the past decade, there has been a sharp increase in the share of young adults living with their parents. But lately, the increase isn’t necessarily because the youngest adults aren’t leaving the nest – instead, it’s being driven by their older brothers and sisters in their late 20s and early 30s.

In 2005, the eve of the Great Recession, 28.2 percent of young adults aged 18-to-34 lived with a parent, step/foster parent or grandparent, according to an analysis of U.S. Census data. The share shot up to 33.5 percent by 2012, and has largely stabilized at that level since (figure 1). This increase in the share of young adults living with their parents between 2005 and 2012 was more than three times larger than the increase in the share of young adults living with their parents during the early 1980s recession.” – Aaron Terrazas, Senior Economist, Zillow

Demographics

Figure 2: Share of Young Adults Living With a Parent, by Age Group



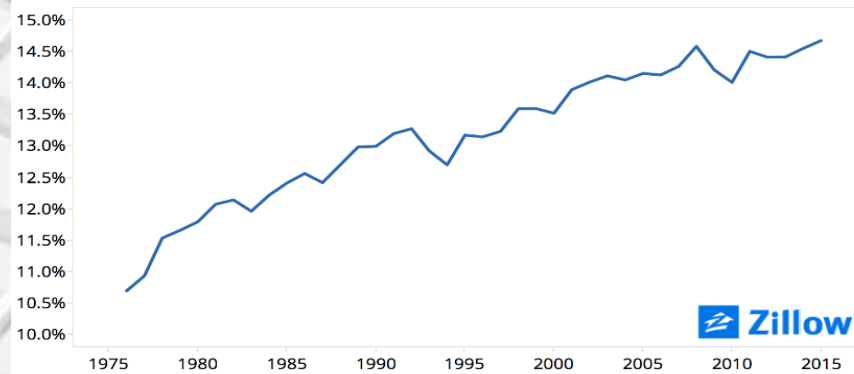
Source: Zillow analysis of U.S. Census Bureau, Current Population Survey, March Supplement, made available by the University of Minnesota, IPUMS-USA.

Older Millennials Driving Increase in Young Adults Living at Home

“From 2005 to 2012, the share of younger adults living with a parent increased by 7.7 percentage points, peaking at 55.5 percent. Among older young adults, the share increased by 2.5 percentage points over the same period, reaching 12.9 percent by 2012. And during the Recession, the share of younger adults (aged 18-to-25) living with a parent increased more sharply than the share of older young adults (aged 26-to-34). But in the years since 2012, the share of 18-to-25-year-olds living with a parent has started to decline, while it has continued increasing among 26-to-34-year-olds (figure 2).” – Aaron Terrazas, Senior Economist, Zillow

Demographics

Figure 1: Share of Adults Living Alone, 1976-2015



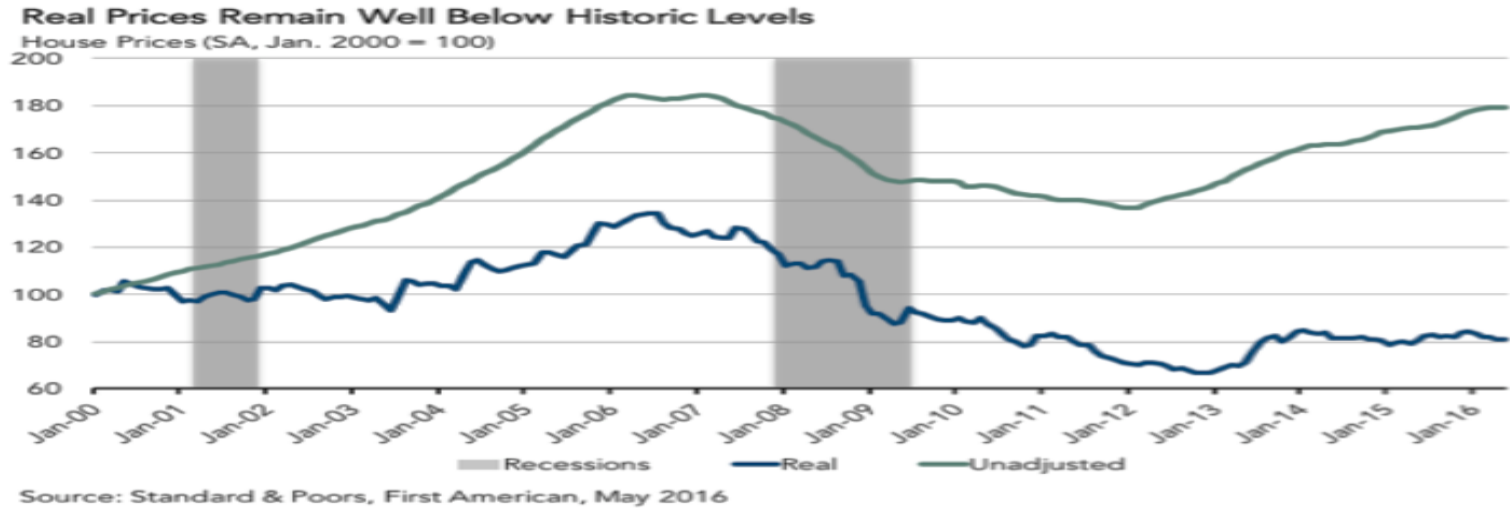
Source: Zillow analysis of U.S. Census Bureau, Current Population Survey, March Supplement, 1976-2015 and American Community Survey, 2005-2015 made available by the University of Minnesota, IPUMS-USA.

All Ages Welcome: Why Living Alone Isn't Just for America's Young and Old Anymore

- “Once relegated to the beginning and end of their adult lives, more middle-aged Americans are living alone than ever before.
- Young adults are no more or less likely to live alone today than a generation ago, with the possible exception of young women in their mid-20s.
- Growth in the number of Americans living alone has been driven by more divorcees, partially offset by fewer widows.

After increasing steadily for decades, the share of Americans living alone has been essentially stable over the past five years or so, and has only recently begun to tick up again. As of the end of 2015, almost 15% of U.S. adults lived alone, up from less than 11% in 1976 (figure 1) but roughly flat from highs reached during the middle years of last decade, according to a Zillow analysis of U.S. Census data. Historically, Americans tend to live alone toward the beginnings and ends of their adult lives. For young adults gaining their first taste of autonomy, living alone is a hallmark of independence. For those nearing the end of their lives, living alone is likely more ambivalent – a sign that many have outlived their loved ones.” – Aaron Terrazas, Senior Economist, Zillow

Demographics



Economist: This is why homeownership hit an all-time low

“So why is the homeownership rate at a half-century low? Two words: [Millennial renters](#). Since the beginning of the recession, the amount of rental households has increased by 22%. That’s 8.4 million new rental households. In contrast, there are 2% fewer owner-occupied households today. That’s 1.5 million fewer owner-occupied households. A challenge to be sure, but not the reason that the homeownership rate is at a half-century low. The homeownership rate is so low because there are so many more renters – not because we have lost millions of home owners.

And why so many new rental households? As the biggest demographic group in American history finishes their education and gets jobs, they are naturally doing what so many generations before them have done – renting a place to live. Will they stay renters forever? Doubtful. Surveys suggest that the dream of homeownership is far from tarnished, just possibly delayed.

In the meantime, the homeownership rate may yet decline further. But make no mistake, once Millennial renters decide to become homeowners it will be a housing boom of a different kind.” – Mark Fleming, Chief Economist, First American Financial Corporation

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