

The Virginia Tech – U.S. Forest Service

July 2016

Housing Commentary: Section II



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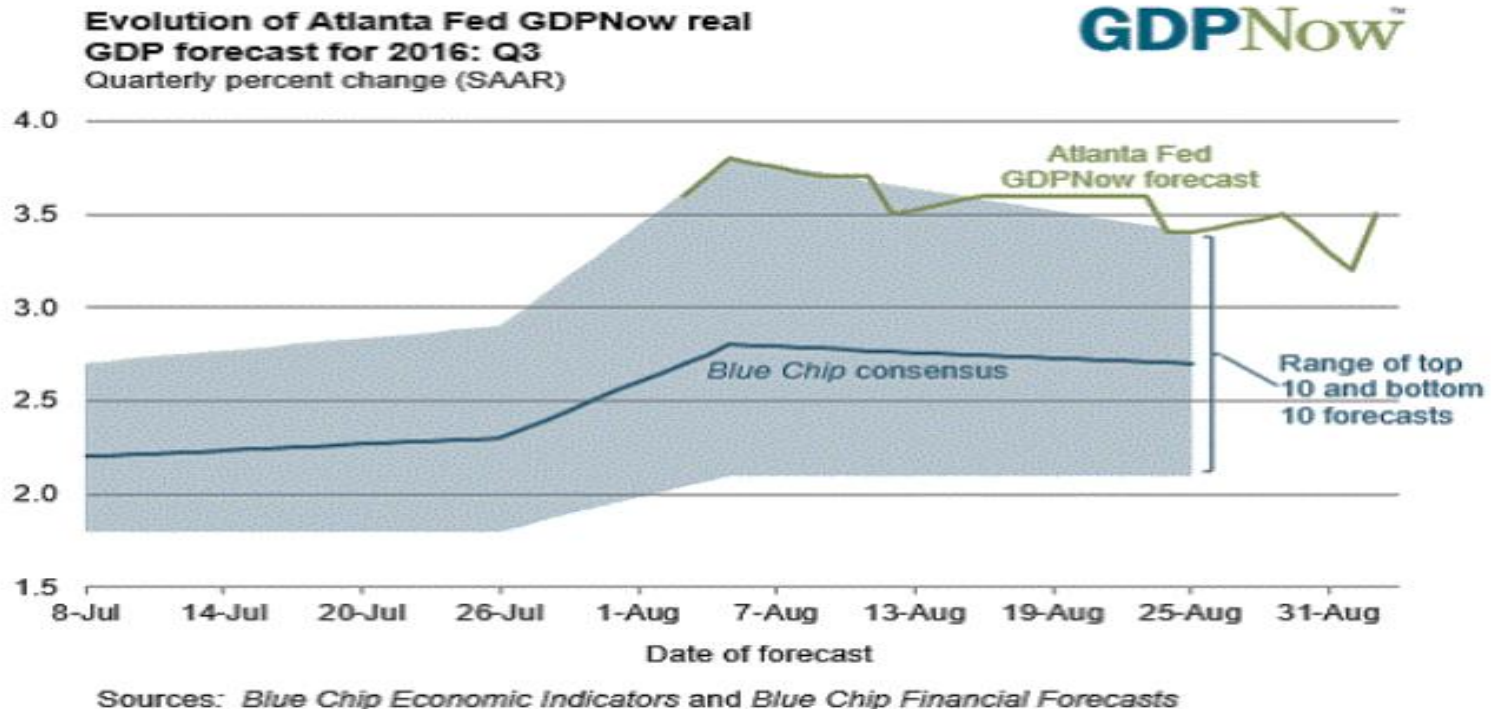
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Federal Reserve System and Private Indicators

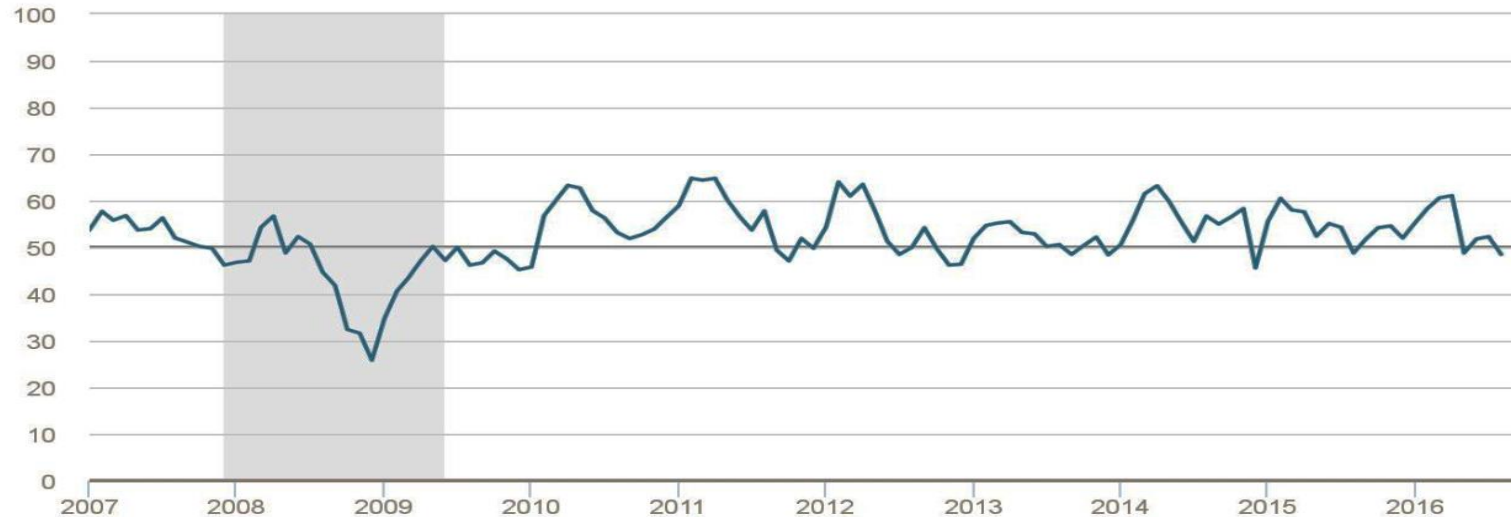
Atlanta Fed: GDPNow™



“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the third quarter of 2016 is **3.3 percent** on September 9, down from 3.5 percent on September 2. The forecasts of third-quarter real consumer spending growth and real equipment investment growth declined from 3.5 percent to 3.4 percent and from 3.3 percent to 2.0 percent, respectively, on Tuesday after the motor vehicle sales release from the U.S. Bureau of Economic Analysis and the Non-Manufacturing ISM Report On Business. The forecast of the contribution of inventory investment to third-quarter real GDP growth decreased from 0.62 percentage points to 0.57 percentage points after this morning's wholesale trade report from the U.S. Census Bureau.” – Pat Higgins, Economist, The Federal Reserve Bank of Atlanta

U.S. Economic Indicators

Southeast Purchasing Managers Index



Note: 50+ = Expansion

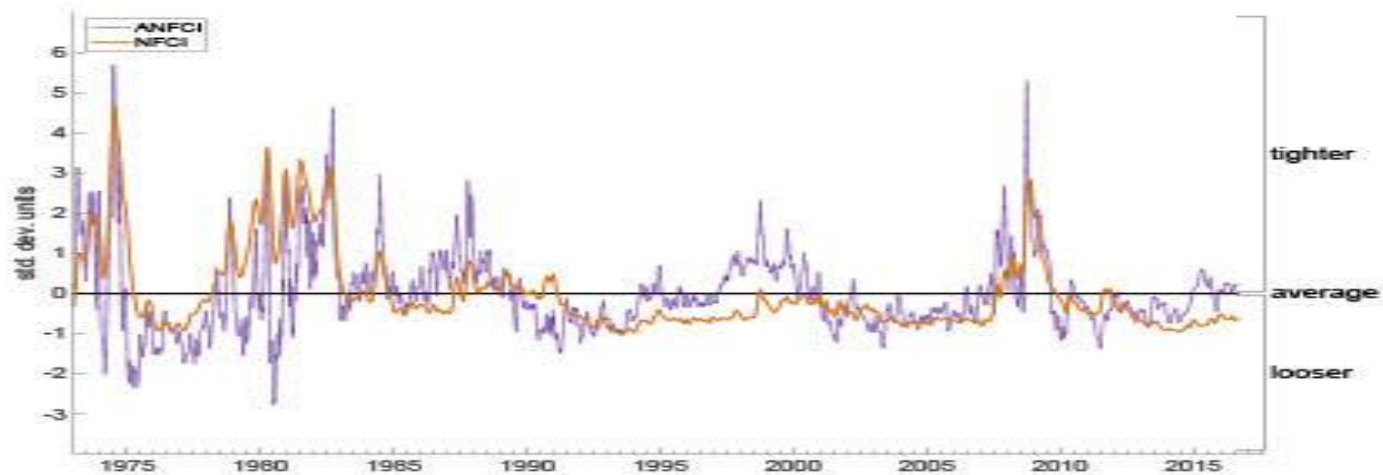
Source: Kennesaw State University, Coles College of Business Econometric Center



The Federal Reserve Bank of Atlanta Southeast Manufacturing Slows in August

“Kennesaw State University's Southeast Purchasing Managers Index (PMI), a composite index that measures the region's manufacturing sector based on key sector indicators, fell 3.8 points to 48.5 in August. The index is now in contractionary territory (a reading below 50 indicates manufacturing is contracting, while over 50 means the industry is expanding). August's decline was driven by decreases in nearly all underlying variables except new orders.” – Troy Balthrop, Senior Analyst, The Federal Reserve Bank of Atlanta

U.S. Economic Indicators



	Current	Previous	1 Month Ago	3 Months Ago	6 Months Ago	12 Months Ago
Index	9/2/2016	8/28/2016	8/5/2016	6/3/2016	3/4/2016	9/4/2015
NFCI	-0.63	-0.65	-0.67	-0.63	-0.59	-0.63
ANFCI	0.23	0.21	0.21	0.20	0.05	0.38

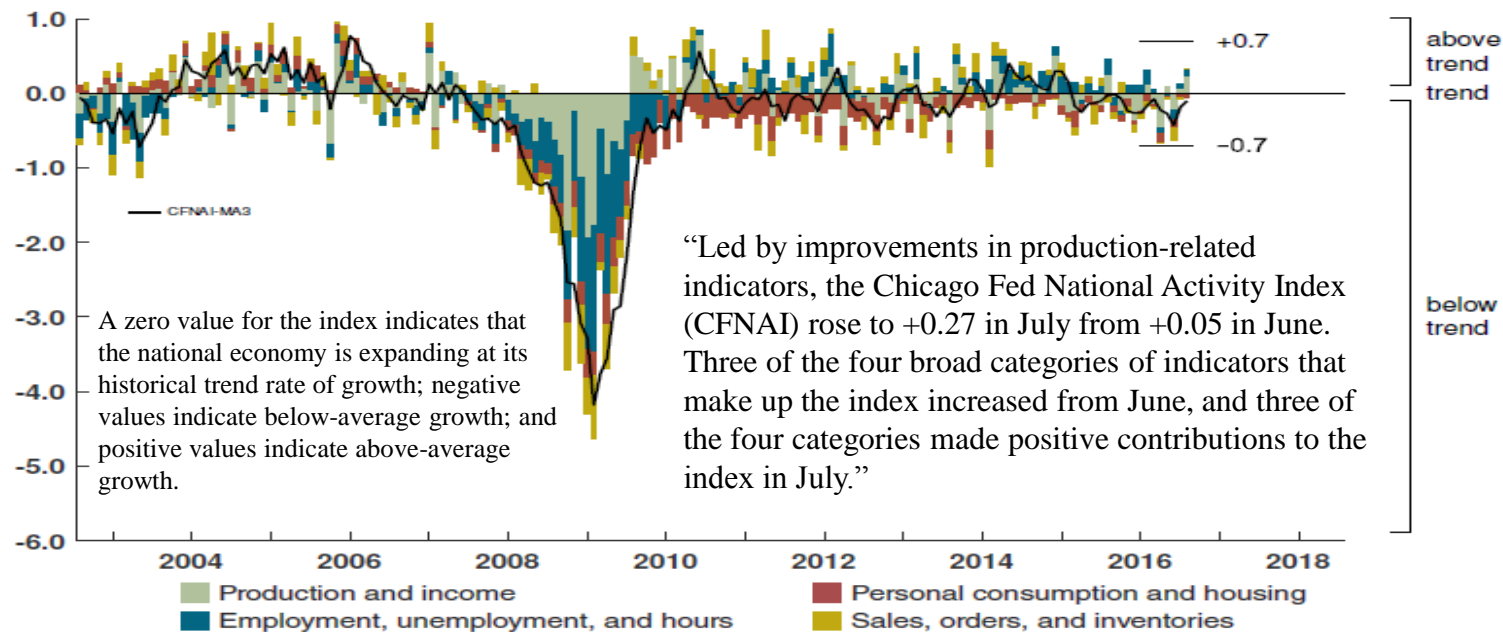
The Federal Reserve Bank of Chicago Financial Conditions Edge Tighter in Week Ending September 2

“The NFCI edged up to -0.63 in the week ending September 2. The risk and credit subindexes both ticked up, while the leverage and nonfinancial leverage subindexes were unchanged.

The ANFCI also edged up from the previous week, to 0.23 . 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



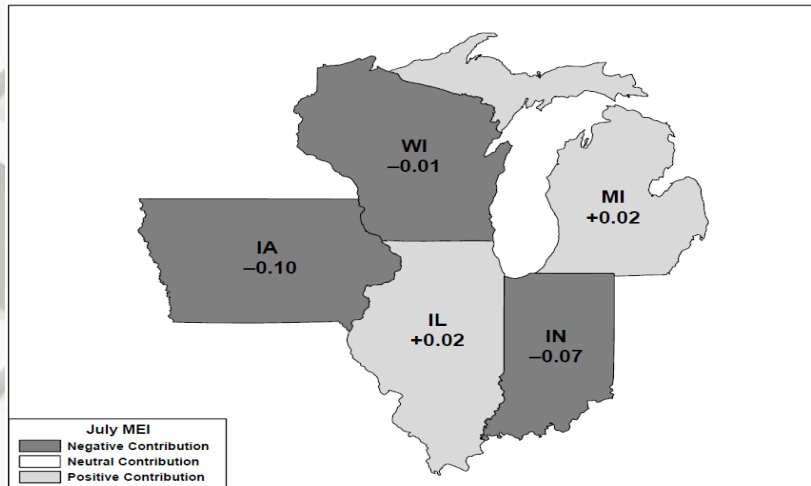
Index shows economic growth increased in July

“The index’s three-month moving average, CFNAI-MA3, increased to -0.10 in July from -0.19 in June. July’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 -0.02 in July from -0.16 in June. Fifty-three of the 85 individual indicators made positive contributions to the CFNAI in July, while 32 made negative contributions. Forty-nine indicators improved from June to July, while 36 indicators deteriorated. Of the indicators that improved, 11 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 July

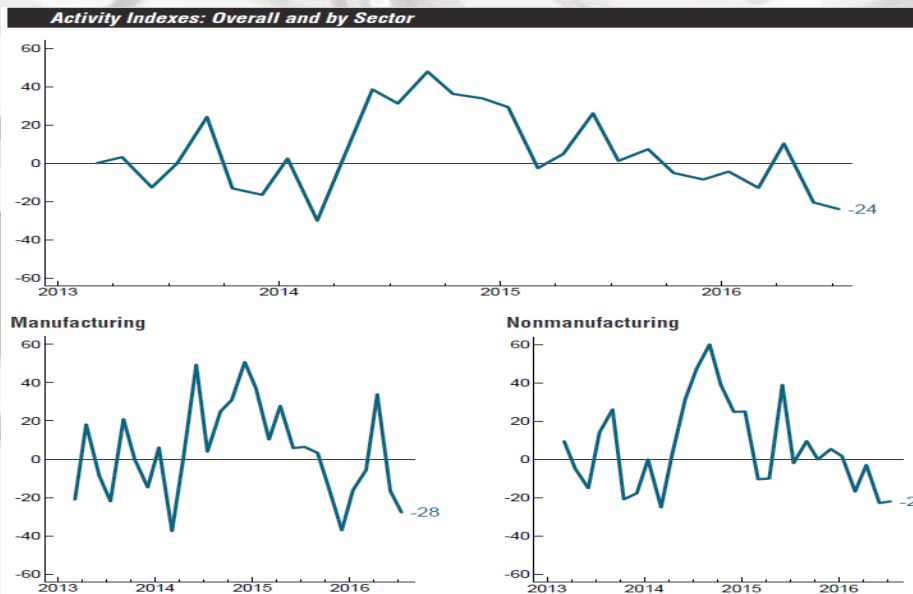
“The Midwest Economy Index (MEI) decreased to -0.14 in July from -0.04 in June. The relative MEI moved down to $+0.03$ in July from $+0.38$ in June. July's value for the relative MEI indicates that Midwest economic growth was quite close to what would typically be suggested by the growth rate of the national economy.”

“The manufacturing sector's contribution to the MEI decreased to -0.04 in July from a neutral reading in June. The pace of manufacturing activity decreased in Iowa and Michigan, but increased in Illinois and was unchanged in Indiana and Wisconsin. Manufacturing's contribution to the relative MEI fell to $+0.12$ in July from $+0.21$ in June.

The construction and mining sector made a contribution of -0.09 to the MEI in July, down from -0.04 in June. The pace of construction and mining activity was lower in Iowa and Wisconsin, but higher in Indiana and unchanged in Illinois and Michigan. Construction and mining's contribution to the relative MEI was -0.03 in July, down from $+0.08$ in June.

The contribution from consumer spending indicators to the MEI moved down to $+0.03$ in July from $+0.05$ in June. Consumer spending indicators were, on balance, down in Michigan and Wisconsin, but up in Illinois and Indiana and steady in Iowa. Consumer spending's contribution to the relative MEI decreased to $+0.02$ in July from $+0.06$ in June.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Survey of Business Conditions



Growth remained modest in late May and June

“The Chicago Fed Survey of Business Conditions (CFSBC) Activity Index decreased to -24 from -21 , suggesting that growth in economic activity remained modest in late May and June. The CFSBC Manufacturing Activity Index declined to -28 from -17 , while the CFSBC Nonmanufacturing Activity Index ticked up to -22 from -23 .”

- “Respondents’ outlooks for the U.S. economy for the next six to 12 months deteriorated and turned pessimistic on balance. Respondents with pessimistic outlooks cited elevated uncertainty due to mixed U.S. economic data, the aftermath of the UK referendum on European Union membership (Brexit), and the upcoming U.S. elections. Respondents with optimistic outlooks highlighted solid demand from U.S. consumers and continuing improvements in the labor and housing markets.
- The pace of current hiring slowed, though respondents’ expectations for the pace of hiring over the next six to 12 months picked up some. Both hiring indexes remained negative.
- The pace of current capital spending increased, though respondents’ expectations for the pace of capital spending over the next six to 12 months declined. Both capital spending indexes remained negative.
- Wage cost pressures eased some, while nonwage cost pressures moved up slightly. Both cost pressures indexes remained negative.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

U.S. Economic Indicators



Texas Manufacturing Activity Increases

“Texas factory activity increased in August, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The [production](#) index, a key measure of state manufacturing conditions, came in at 4.5 after a near-zero reading in July, suggesting output picked up this month.

Other measures of current manufacturing activity also reflected expansion. Demand bounced back, with the [new orders](#) index rising from -8.0 to 5.3 in August and the [growth rate of orders](#) index pushing up to 2.1, its first positive reading in nearly two years. The [capacity utilization](#) index remained only barely positive at 0.9, while the [shipments](#) index rose nearly 10 points to 9.9, with nearly a third of manufacturers reporting higher volumes of shipments this month.

Perceptions of broader business conditions remained fairly pessimistic. The [general business activity](#) index was negative for a 20th month in a row and moved down from -1.3 to -6.2. The [company outlook](#) index was largely unchanged at -2.8.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

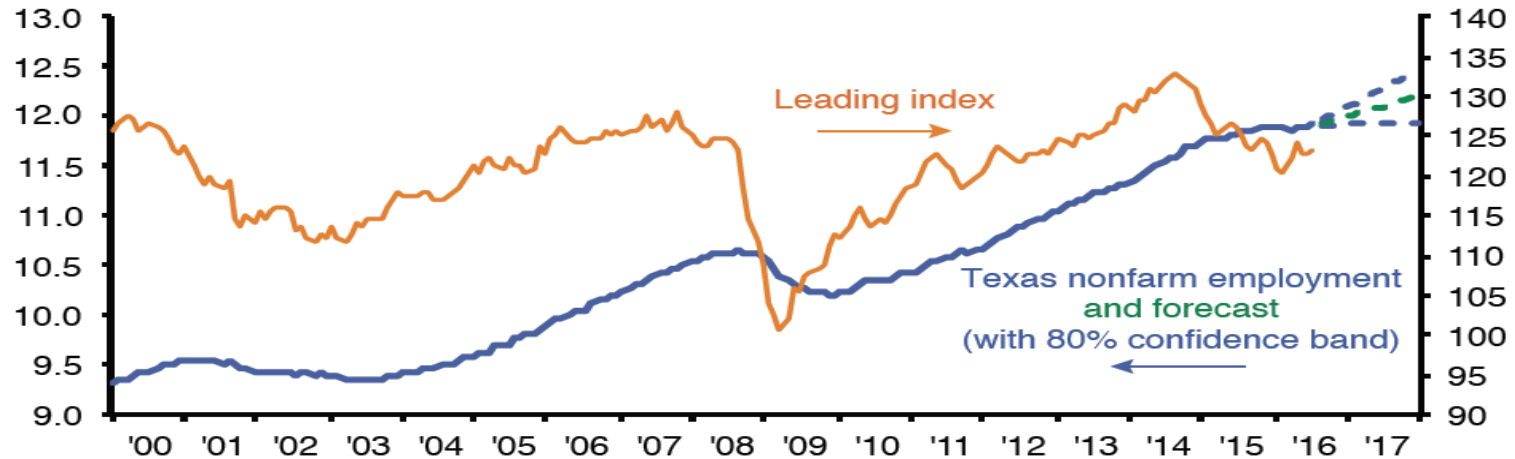
U.S. Economic Indicators

Chart 1

Latest Texas Job Forecast Predicts 0.8 Percent Growth in 2016

Millions, seasonally adjusted

Index, 1987 = 100



SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; Federal Reserve Bank of Dallas.

The Federal Reserve Bank of Dallas

Manufacturing Improves, Services Continue to Grow

“Incorporating July employment growth of 2.2 percent and new leading index data into the Texas Employment Forecast suggests jobs will grow 0.8 percent this year (December/December).

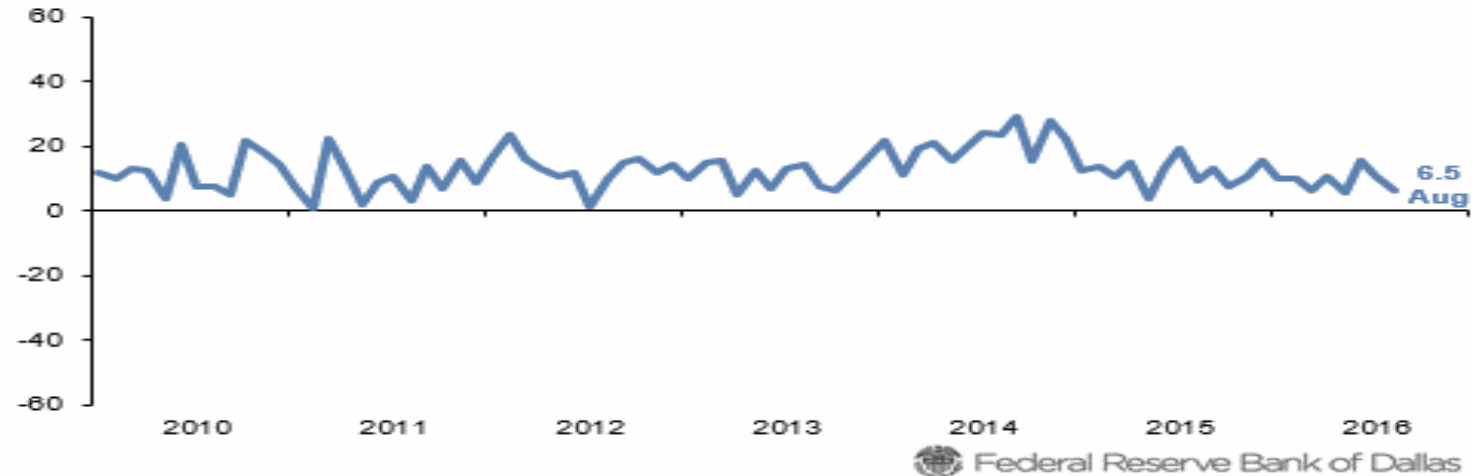
This is an increase from last month’s estimate of 0.5 percent. Based on the forecast, 96,200 jobs will be added in the state this year and employment in December 2016 will be 12.0 million (Chart 1).” – Sarah Greer, Research Analyst, and Jesús Cañas, Business Economist, The Federal Reserve Bank of Dallas

“Recent data suggest that the Texas economy has improved and that growth in the second half of the year will be much better than in the first half. The Texas Leading Index ticked up in July, led by a rebound in help wanted advertising and solid gains in the stock prices of Texas-based companies and the U.S. leading index.” – Keith Phillips, Assistant Vice President and Senior Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators

Texas Service Sector Outlook Survey Revenue Index

Index, seasonally adjusted



The Federal Reserve Bank of Dallas

Texas Service Sector Activity Expands but at a Slower Pace

“Texas service sector activity continued to reflect expansion but at a slower pace in August than in July, according to business executives responding to the *Texas Service Sector Outlook Survey*. The [revenue](#) index, a key measure of state service sector conditions, fell from 10.3 to 6.5.

Labor market indicators reflected faster employment growth and unchanged workweeks this month. The [employment](#) index edged up 2 points to 5.8. The [hours worked](#) index fell slightly to a reading near zero, indicating workweek length was the same as last month.

Perceptions of broader economic conditions were mixed again in August. The [general business activity](#) index reflected more pessimism, moving down from -1.3 to -5.0. The [company outlook](#) index reflected more optimism, edging up 2 points to 3.0, with 18 percent of respondents reporting that their outlook improved from last month and 15 percent noting it worsened.” – Sarah Greer, Research Analyst, and Jesús Cañas, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



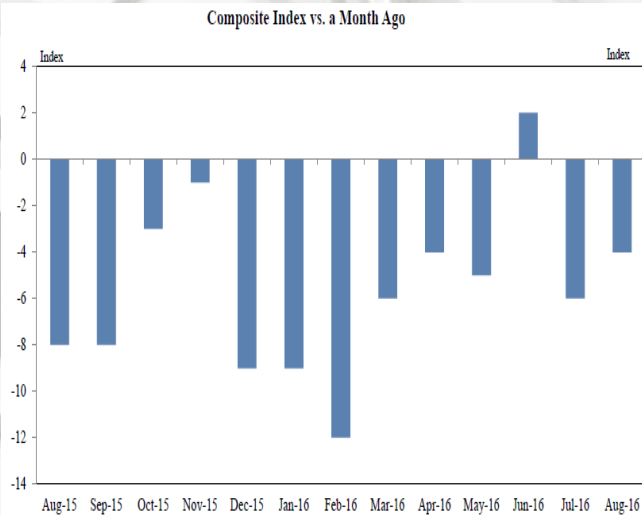
The Federal Reserve Bank of Dallas Retail Sales Decline and Outlooks Worsen

“Retail sales fell in August, according to business executives responding to the *Texas Retail Outlook Survey*. The [sales](#) index retreated from 2.9 back into negative territory to -5.3. [Inventories](#) were unchanged this month after decreasing last month.

Retailers’ perceptions of broader economic conditions worsened in August. The [general business activity](#) index fell sharply from a reading near zero to -11.8. The [company outlook](#) index plunged from 8.9 to -13.4, with 10 percent of respondents reporting that their outlook improved from last month and 23 percent noting that it worsened.

Retailers’ perceptions of future broader economic conditions were mixed in August. The index of future [general business activity](#) plunged from 16.4 to -3.5. The index of future [company outlook](#) remained positive but dropped from 16.9 to 7.4. Indexes of future retail sector activity continued to reflect optimism this month.” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



Tenth District Manufacturing Summary

“Tenth District manufacturing activity continued to decline modestly. Expectations for future activity remained solid, and the price indexes were mixed. In a special question this month, most firms reported no plans to change employee benefits for next year, but more firms expect decreases in benefits than expect increases. Year-over-year factory indexes improved slightly but remained below zero. The composite year-over-year index inched higher from -15 to -12,” – Pam Campbell, Federal Reserve Bank of Kansas City

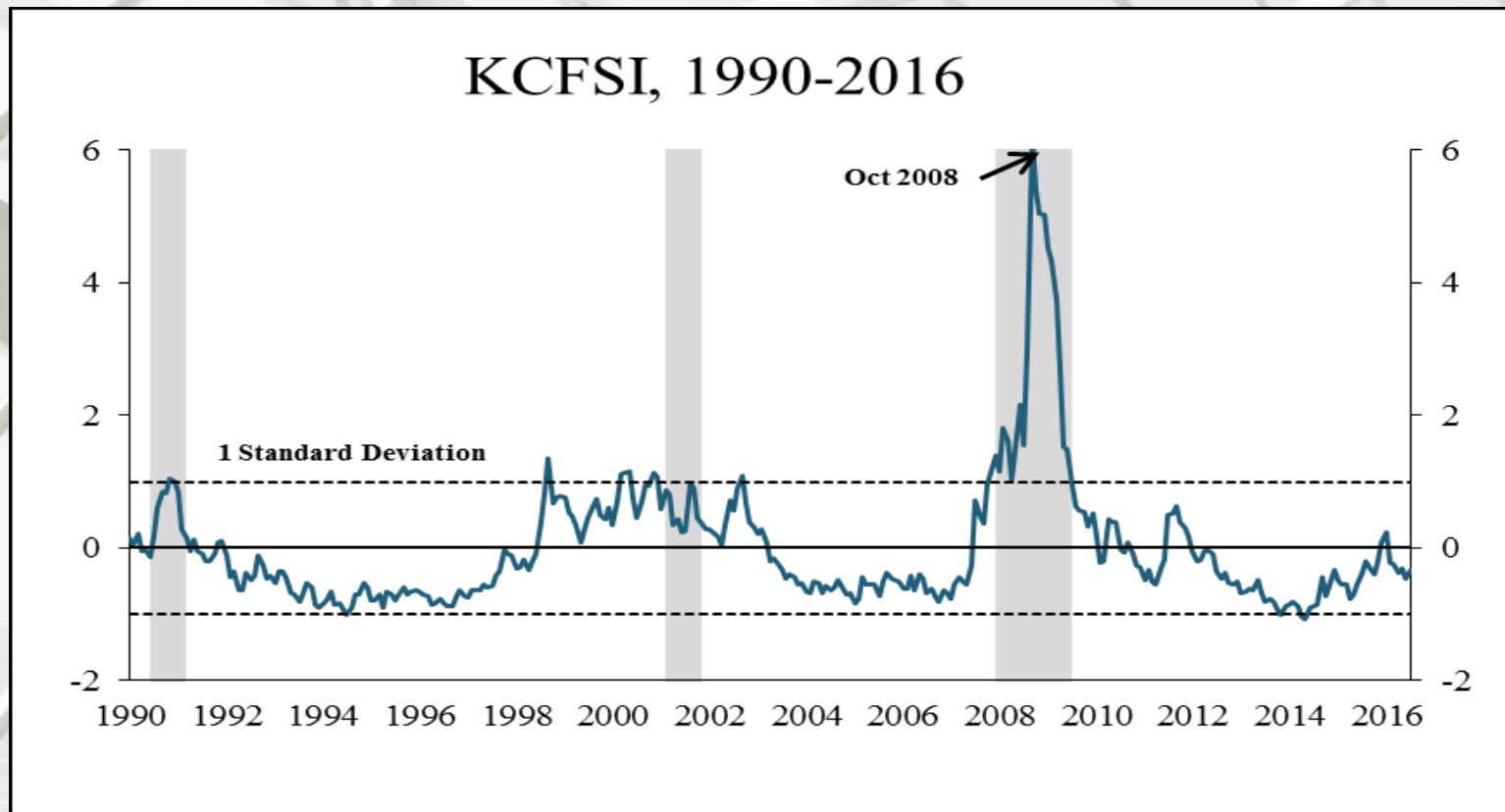
The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Activity Continued to Decline Modestly

“Firms reported another slight drop in activity in August but remained moderately optimistic about activity heading forward.” – Chad Wilkerson, Vice President and Economist, Federal Reserve Bank of Kansas City

“The month-over-month composite index was -4 in August, up from -6 in July but down from 2 in June. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Non-durable goods production continued to grow modestly, while durable goods activity was less negative than last month, particularly for machinery and electronic equipment. Most month-over-month indexes were similar to levels posted the previous month. The production index improved from -15 to -7, and the shipments index also rose somewhat. The new orders and order backlog indexes remained moderately negative, while the employment and new export orders indexes fell slightly. The raw materials inventory index increased from -7 to -1, while the finished goods inventory index fell back into negative territory.” – Pam Campbell, Federal Reserve Bank of Kansas City

U.S. Economic Indicators



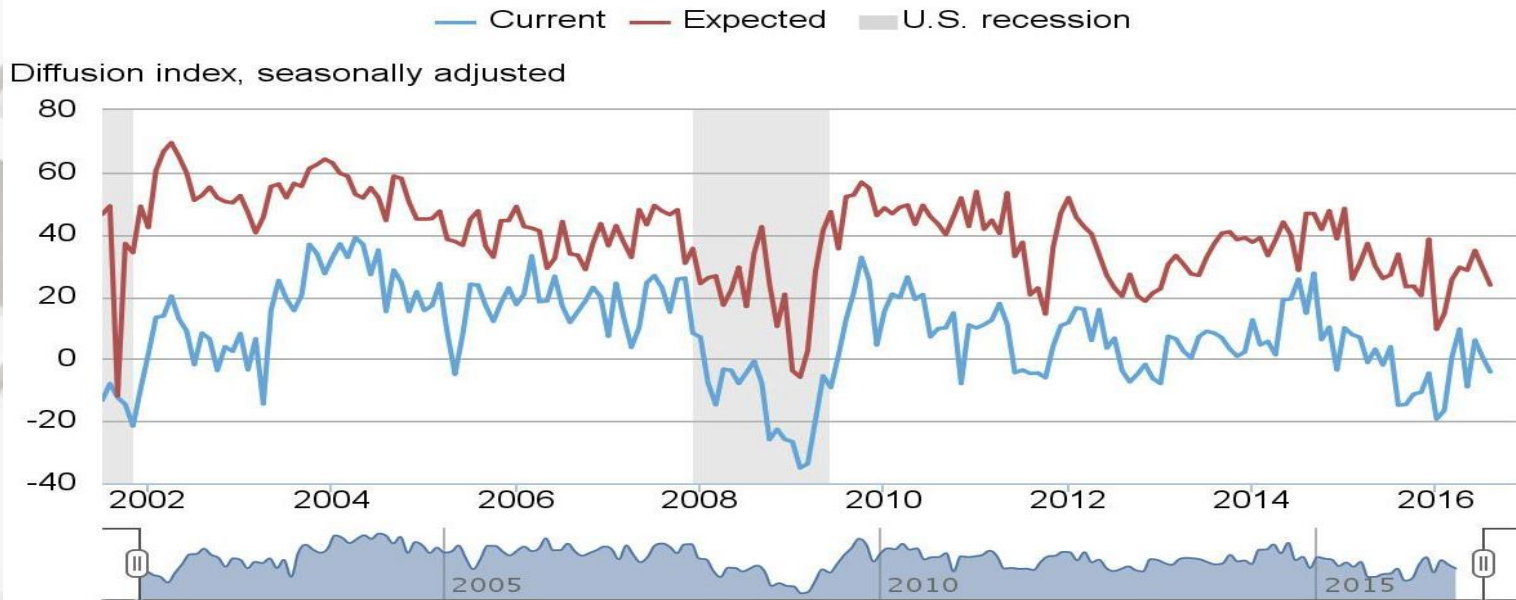
The Federal Reserve Bank of Kansas City The KCFSI suggests financial stress remains muted

“The Kansas City Financial Stress Index (KCFSI) increased slightly from -0.47 in July to -0.34 in August.

Yield spreads collectively added 0.03 to the KCFSI in August. The behavior of asset prices added 0.09 to the KCFSI in August.” – Bill Medley, Media Relations, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators

General Business Conditions



Empire State Manufacturing Survey

Business Activity Wanes

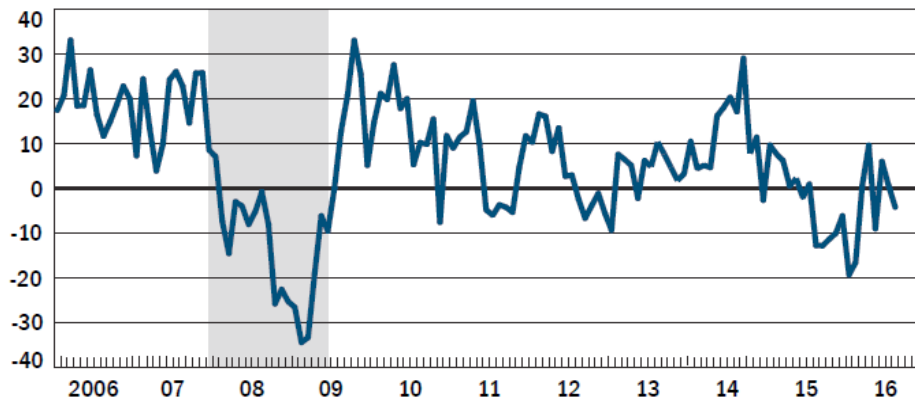
“Business activity in New York State declined slightly this month, according to firms responding to the August 2016 *Empire State Manufacturing Survey*. The headline general business conditions index fell five points to -4.2. The new orders index remained near zero, a sign that orders were little changed, while the shipments index climbed eight points to 9.0, indicating that shipments rose. Labor market indicators pointed to little change in employment levels and hours worked. The prices paid index edged down to 15.5, suggesting that input price increases remained moderate, and at 2.1, the prices received index reflected a minute increase in selling prices. Forward-looking indicators suggested that firms expected conditions to improve over the next six months, although the level of optimism diminished for a second consecutive 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

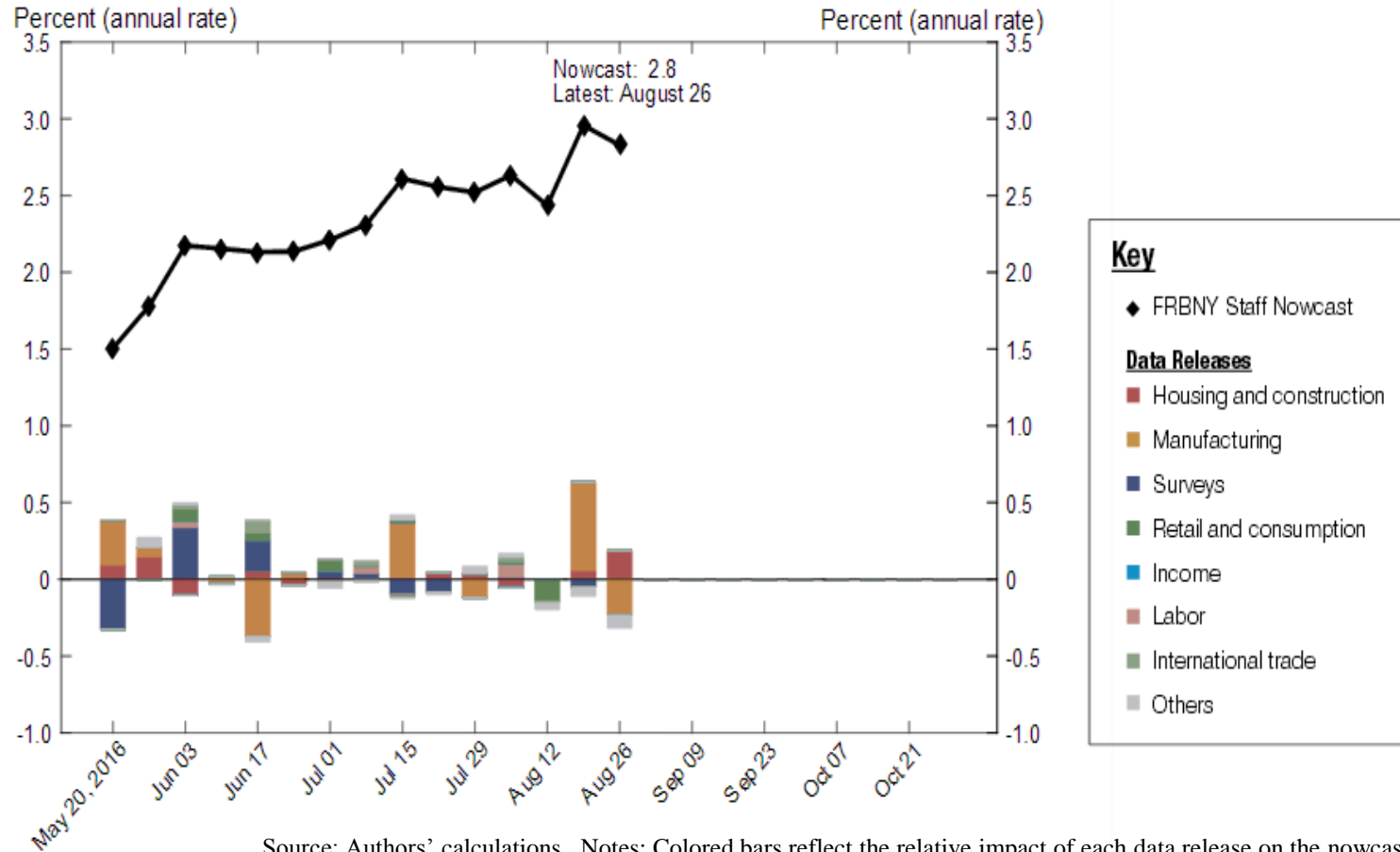
“Manufacturing firms in New York State reported a slight weakening of business activity in August. The general business conditions index moved lower for a second consecutive month, falling five points to -4.2. Twenty-six percent of respondents reported that conditions had improved over the month, while 30 percent reported that conditions had worsened.” – The Federal Reserve Bank of New York

Conditions Expected to Improve, Though Firms Are Less Optimistic

“Indexes for the six-month outlook revealed that respondents remained optimistic about future conditions, though to a lesser extent than in July. The index for future business conditions fell for a second consecutive month, dropping six points to 23.7. Indexes for future new orders and shipments also edged lower. Indexes for future employment and the average workweek were below zero, suggesting that firms expected employment and hours worked to decline in the months ahead. The capital expenditures index fell to 4.1, and the technology spending index retreated to 5.2.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

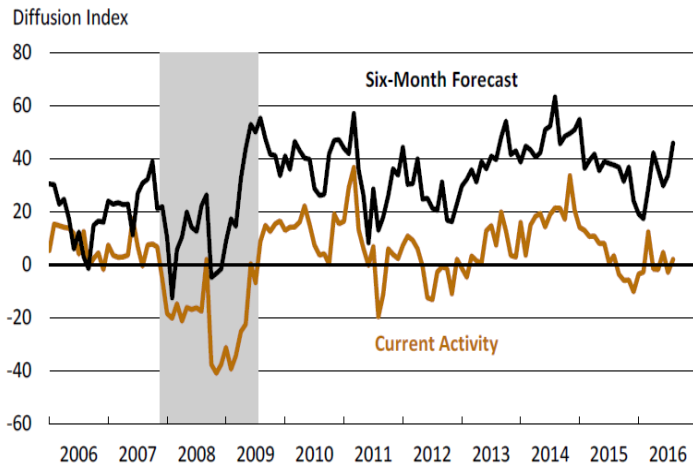
The Federal Reserve Bank of New York



“The FRBNY Staff Nowcast stands at 2.8% for 2016:Q3, slightly lower than in the previous week. Incoming data during the week provided mixed signals. Positive news came from higher than expected new single family houses sold. Negative news came from higher than expected manufacturers' inventories of durable goods, interpreted as a sign of subdued demand.”

U.S. Economic Indicators

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

Current Indicators Remain Weak

“The index for current manufacturing activity in the region rose 5 points to only 2.0 in August, as the share of firms reporting an increase in activity (35%) barely exceeded the share reporting a decrease (33%). This is only the third positive reading of the index in the current year.

Summary

The *August Manufacturing Business Outlook Survey* indicated, on balance, that growth in the region’s manufacturing sector is currently weak. The survey’s indicators for current general activity and shipments were positive, while the indicators for new orders and employment were negative. The indicators for future conditions rose sharply from last month’s readings, however.”

August 2016 Manufacturing Business Outlook Survey

“Firms responding to the *Manufacturing Business Outlook Survey* suggest that growth was positive but tenuous this month. The diffusion index for current general activity moved from a negative reading to a marginally positive reading, while the indicators for new orders and employment suggested continued general weakness in business conditions. Of the current broad indicators, the diffusion index for shipments recorded the strongest reading. The respondents were confident about future growth, as their forecasts of future activity showed notable improvement.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

Median Forecasts for Selected Variables in the Current and Previous Surveys

	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Previous	New	Previous	New	Previous	New
<i>Quarterly data:</i>						
2016:Q3	2.4	2.6	4.8	4.8	191.8	183.7
2016:Q4	2.3	2.3	4.7	4.7	176.0	169.8
2017:Q1	2.4	2.3	4.7	4.7	181.6	159.9
2017:Q2	2.4	2.3	4.6	4.6	166.5	164.9
2017:Q3	N.A.	2.1	N.A.	4.6	N.A.	159.4

The Federal Reserve Bank of Philadelphia

Third Quarter 2016 Survey of Professional Forecasters

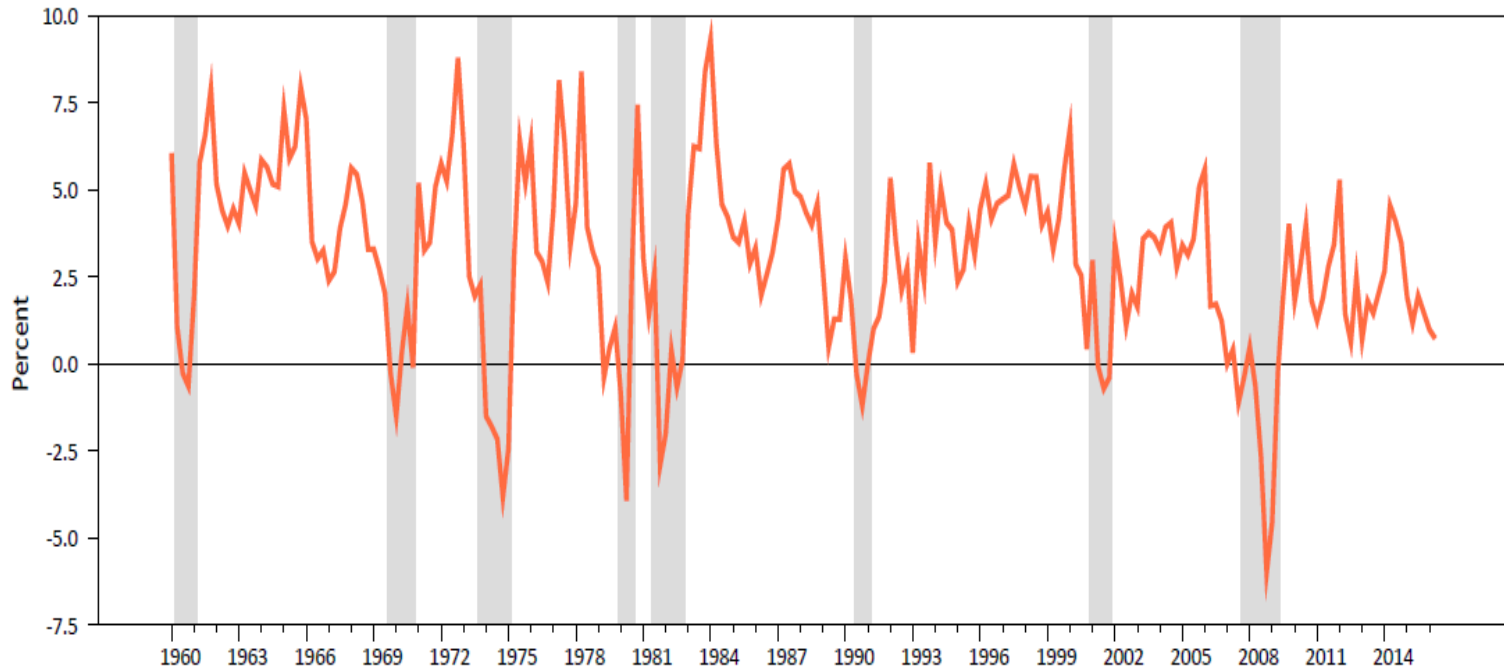
Forecasters See Weaker Outlook for Growth and Employment

“The outlook for growth in the U.S. economy over the next three years looks slightly weaker than that of three months ago, according to 40 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The panel expects real GDP to grow at an annual rate of 2.6 percent this quarter and 2.3 percent next quarter. On an annual-average over annual-average basis, the forecasters see real GDP growing 1.5 percent in 2016, down from the previous estimate of 1.7 percent. The forecasters predict real GDP will grow 2.3 percent in 2017, 2.2 percent in 2018, and 2.2 percent in 2019. The forecasts for 2016, 2017, and 2018 are slightly weaker than the previous estimates.” – Tom Stark, Assistant Director and Manager, Real-Time Data Research Center, The Federal Reserve Bank of Philadelphia

Philadelphia Fed: GDPplus

GDPplus

Last Updated: August 26, 2016



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

Source: NBER via Haver Analytics; Federal Reserve Bank of Philadelphia.

U.S. Economic Indicators

The Federal Reserve Bank of Richmond Manufacturing Sector Activity Declined; New Orders and Backlogs Decreased

“Fifth District manufacturing activity declined in August, according to the most recent survey by the Federal Reserve Bank of Richmond. New orders and shipments decreased this month, while backlogs fell. Hiring increases in the sector expanded modestly across firms, and wage increases were more widespread. Raw materials prices rose at a somewhat faster pace in August, while prices of finished goods rose at a slightly slower pace.

Looking ahead six months, producers anticipated more robust business conditions. Manufacturers expected strong growth in shipments and in the volume of new orders. Survey participants looked for backlogs to rise, and expected longer vendor lead times. Expectations were for increased capacity utilization during the next six months.

Hiring expectations across firms were strong for the months ahead, and producers anticipated future wage increases. Firms expected little change in prices paid, however anticipated somewhat faster growth in prices received in the next six months.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

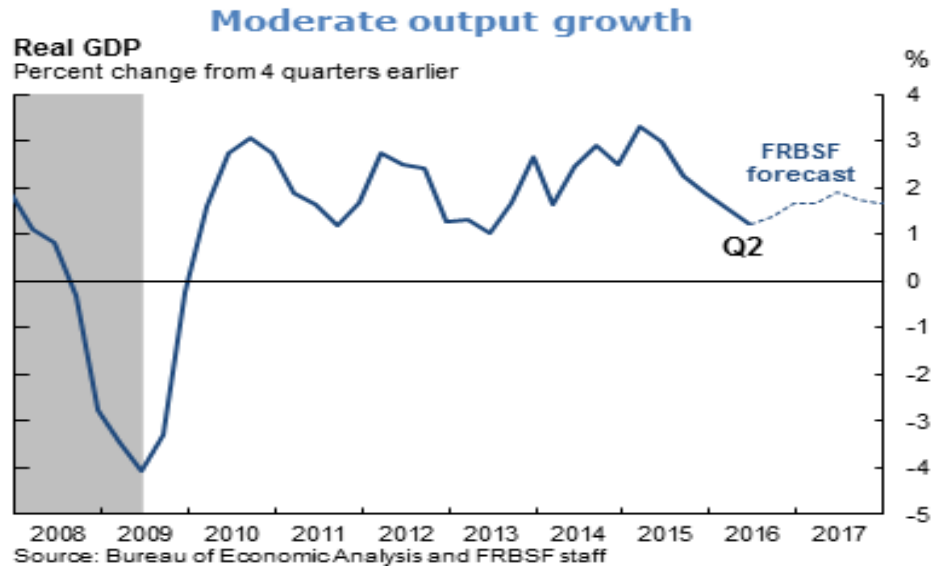
U.S. Economic Indicators



Current Activity

“Overall, manufacturing activity declined in August, with the composite index dropping to a reading of -11 , following last month's reading of 10 . The indicators for shipments and new orders decreased sharply this month. The index for shipments lost 21 points, ending at a reading of -14 , while the index for new orders fell 35 points to -20 . In addition, the index for order backlogs fell to a reading of -21 , following last month's reading of 1 . In contrast, the manufacturing employment index changed little from last month, maintaining a positive reading. That indicator gained one point to end at 7 .” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators



The Federal Reserve Bank of San Francisco

“Recent data support our view of continued moderate growth in the U.S. economy, with the labor market at or very close to full employment, and inflation increasing towards the Federal Open Market Committee’s 2% target.

Growth figures for the first half of this year have been weak. First quarter real GDP growth was recently revised down to an annualized rate of 0.8%. However, in recent years, first quarter growth estimates have tended to be understated because of incomplete adjustment for seasonal effects. Second quarter output also grew slower than expected at 1.2%, but the sizable negative contribution from inventory investment, a very volatile component of GDP, is likely to be transitory. In contrast to the weak headline figures, household spending remains strong, bolstered by low energy prices, strong balance sheets, and rising incomes. Real final sales of domestic goods have exhibited healthy growth, increasing 2.4% annualized in the second quarter.” – Michael Bauer, Senior Economist, The Federal Reserve Bank of San Francisco

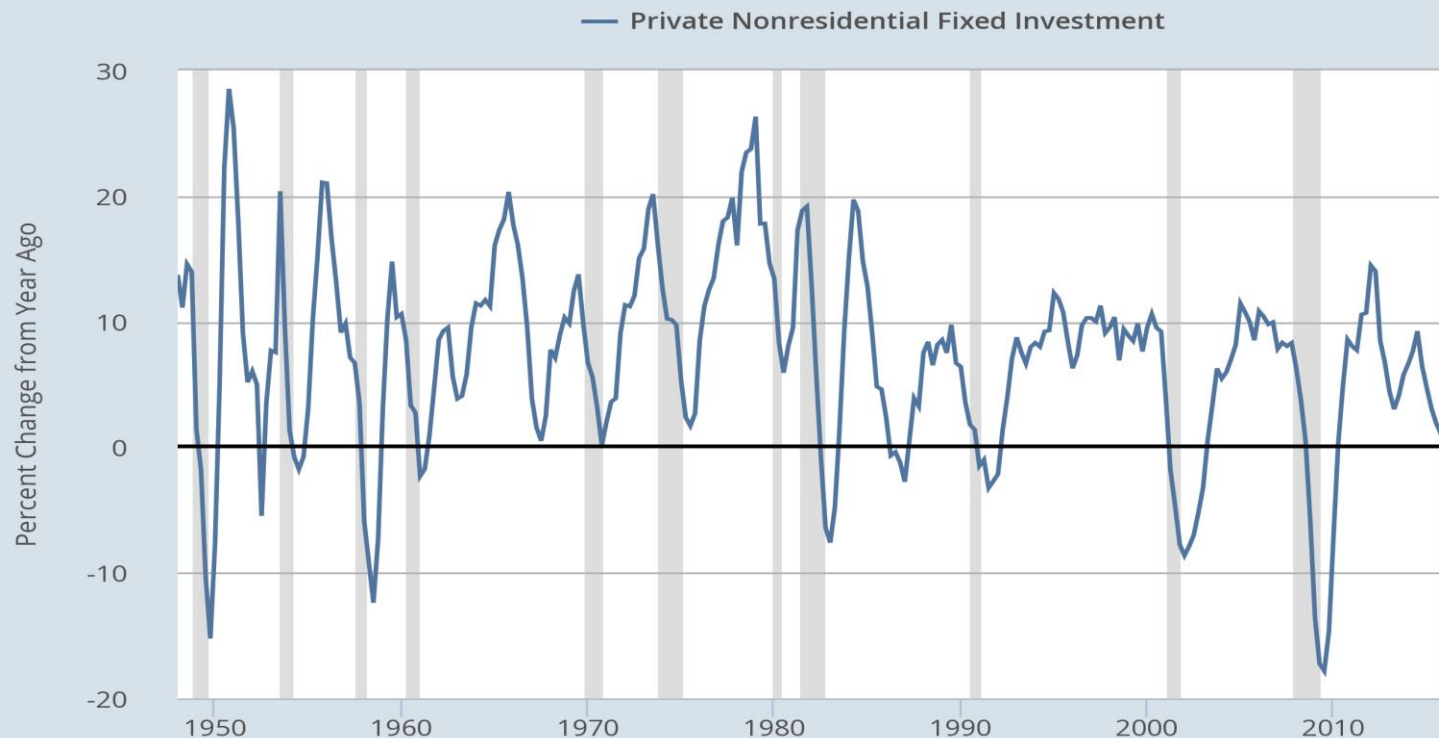
U.S. Economic Indicators



The Federal Reserve Bank of San Francisco

“We forecast moderate output growth for the second half of this year and 2017 at a rate slightly below 2%. Inventory investment is expected to increase as companies rebuild their stocks. While the outlook for investment remains weak, particularly for the energy sector, we anticipate that it will gradually improve as business profitability increases. Foreign growth remains anemic, but the passage of the United Kingdom’s “Brexit” vote to leave the European Union has not led to a noticeable downgrade in our forecast for the U.S. economy.” – Michael Bauer, Senior Economist, The Federal Reserve Bank of San Francisco

U.S. Economic Indicators



Source: US. Bureau of Economic Analysis
fred.stlouisfed.org

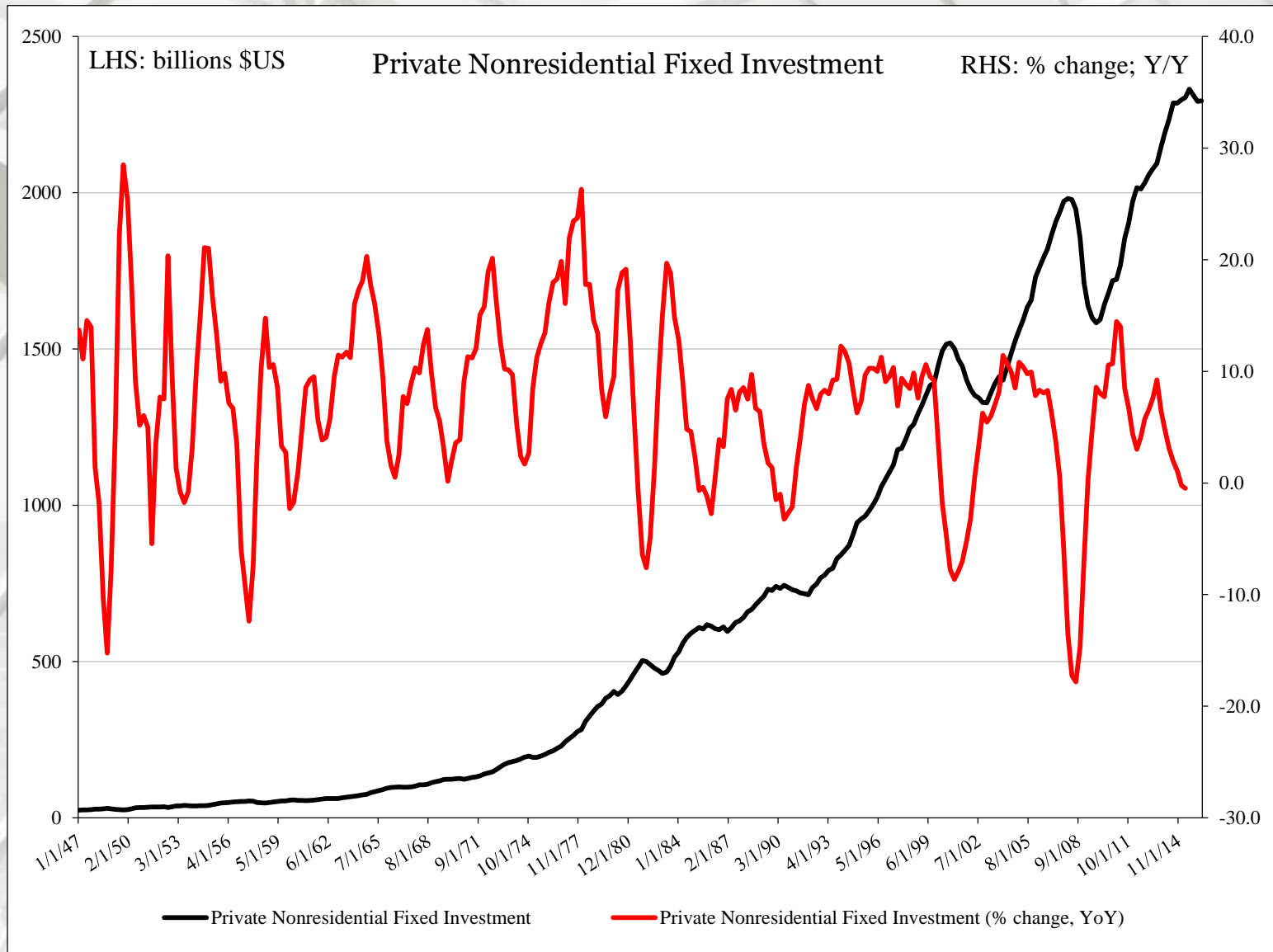
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Private Nonresidential Fixed Investment

Private nonresidential investment is primarily expenditures for plants and equipment.

“Over the last 50 years, there has usually been just one reason that businesses have slashed investment levels for prolonged periods of time – because the economy was down in the dumps. Not this time. Private, nonresidential fixed investment decreased 1.3 percent in real terms over the previous year in the second quarter of 2016, the third consecutive quarterly decline. Reaching back to 1970, the only other time that has happened in a non-recessionary period was in 1986-87.” – *The Financialist*, Credit Suisse, Global Markets Team

U.S. Economic Indicators



Source: <https://fred.stlouisfed.org/series/PNFI/>; 9/8/16

U.S. Economic Indicators

FRED 

— Change in Labor Market Conditions Index



Source: Board of Governors of the Federal Reserve System (US)
fred.stlouisfed.org

myf.red/g/6ZaI

Federal Reserve Board of Governors: Labor Market Conditions Index

The Labor Market Conditions Index (LMCI) assesses changes in the U.S. labor market. As of September 1, the LMCI was -0.7, a decrease from July 1's 1.3 reading.

“A positive value indicates that labor market conditions are above their long-run average, while a negative value signifies that labor market conditions are below their long-run average.”

Private Indicators

American Institute of Architects (AIA)

July Architecture Billings Index

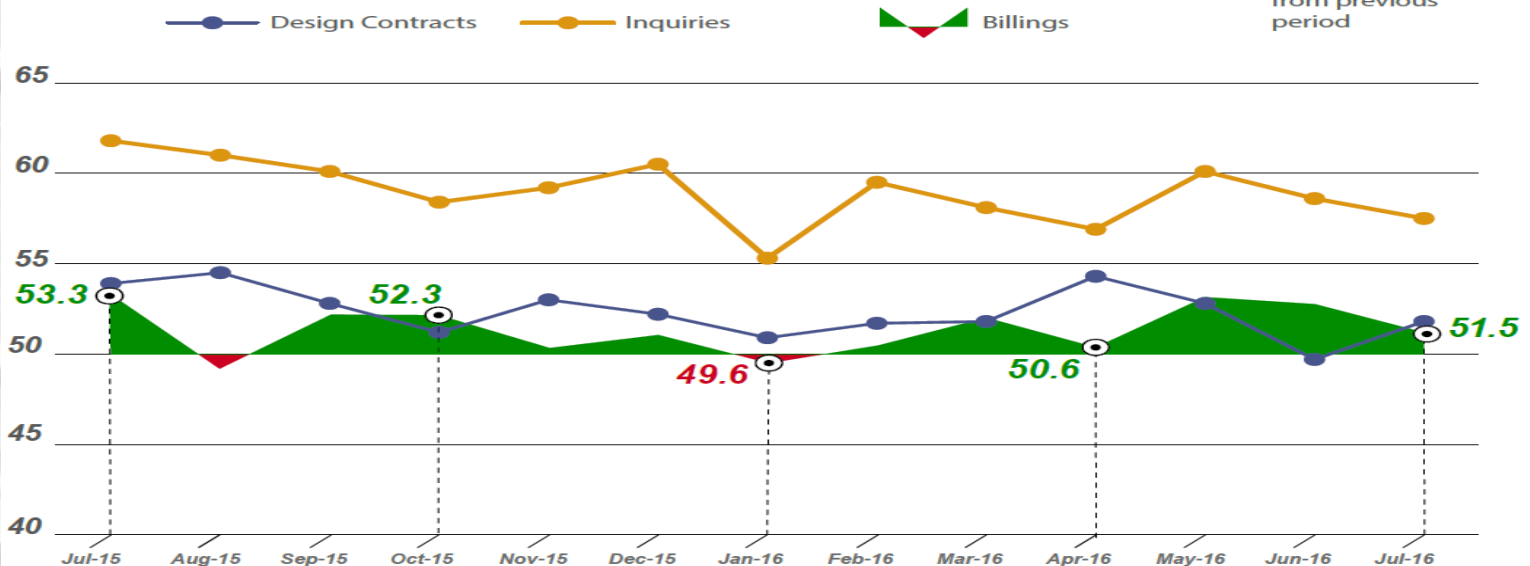
Design activity remains at healthy levels

“Moving into the second half of the year, and more importantly heading into an increasingly contentious presidential election season, U.S. architecture firms continued to report solid business conditions. The AIA’s Architecture Billings Index (ABI) was 51.5 for July, down somewhat from the pace of growth of the prior two months but just above the average score over the first six months of the year. New project inquiries fell somewhat from their pace of growth in June, but remained at healthy levels. New design contracts rebounded in July after a surprising dip – the first decline in over two years – in June.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

NATIONAL

July Shows Another Month of Healthy Increase in Firm Billings

Graphs represent data from July 2015 – July 2016.



Private Indicators: AIA

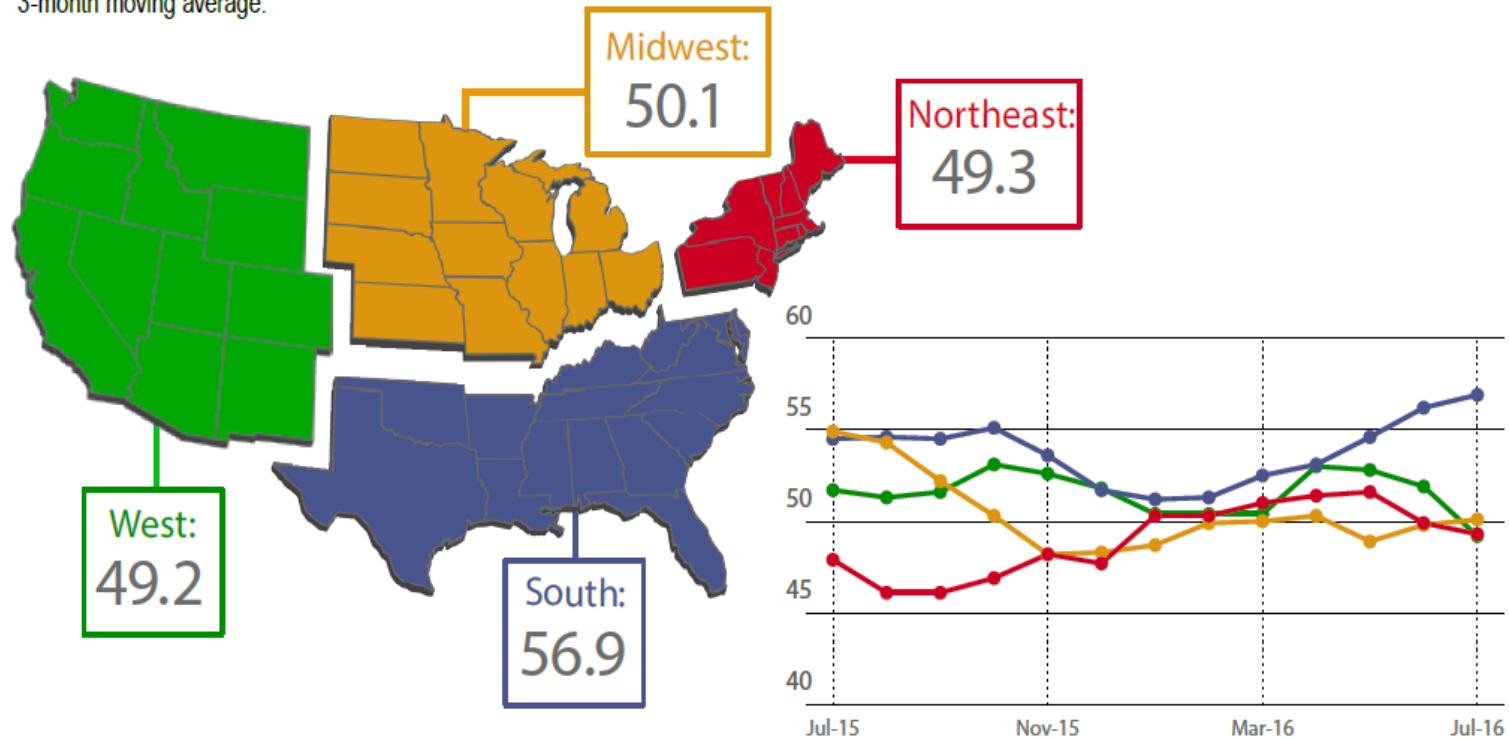
“Regionally, firms in the South accounted for virtually all of the billings gains for the month; firms in the Northeast and West posted minor declines, and firms in the Midwest saw hardly any increase.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

REGIONAL

Recent Growth Concentrated at Firms in South

Graphs represent data from July 2015 – July 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

“By sector, residential firms continued to report strong growth in billings as commercial/industrial and institutional firms saw only modest growth during the month.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

SECTOR

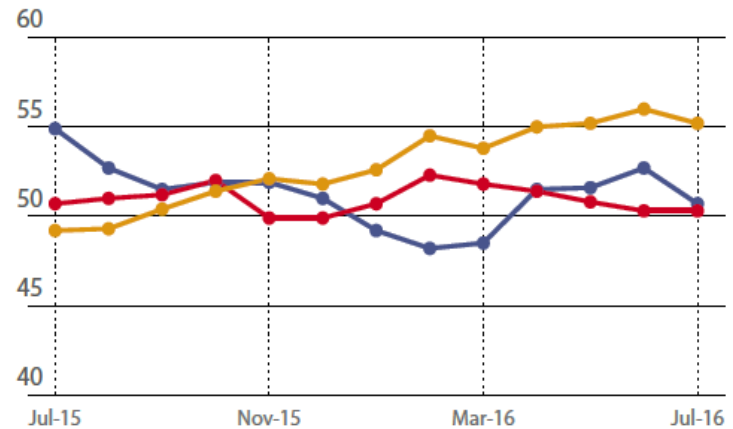
Residential Firms Continue to Report Strongest Upturn in Revenue

Graph represents data from July 2015 – July 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.

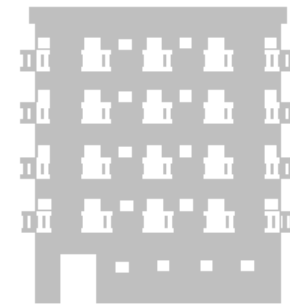
3-month moving average.



Commercial/Industrial: 50.3

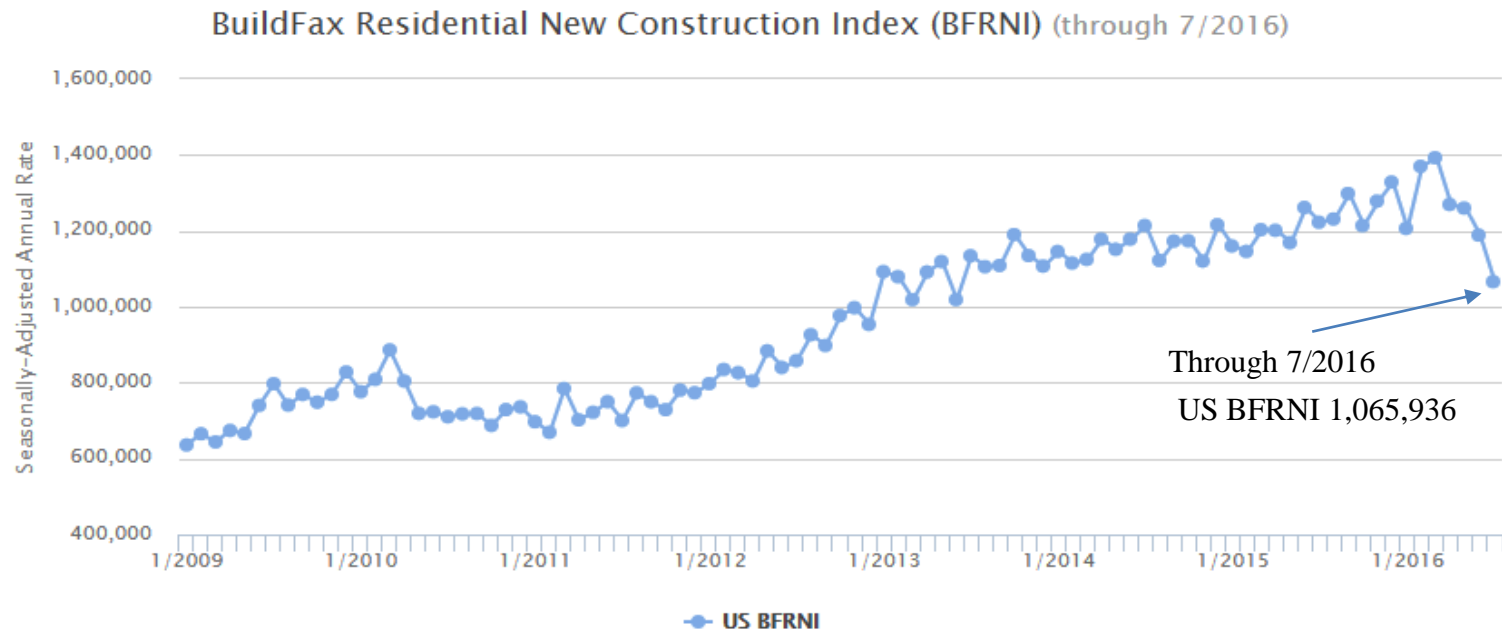


Institutional: 50.7



Residential: 55.2

Private Indicators



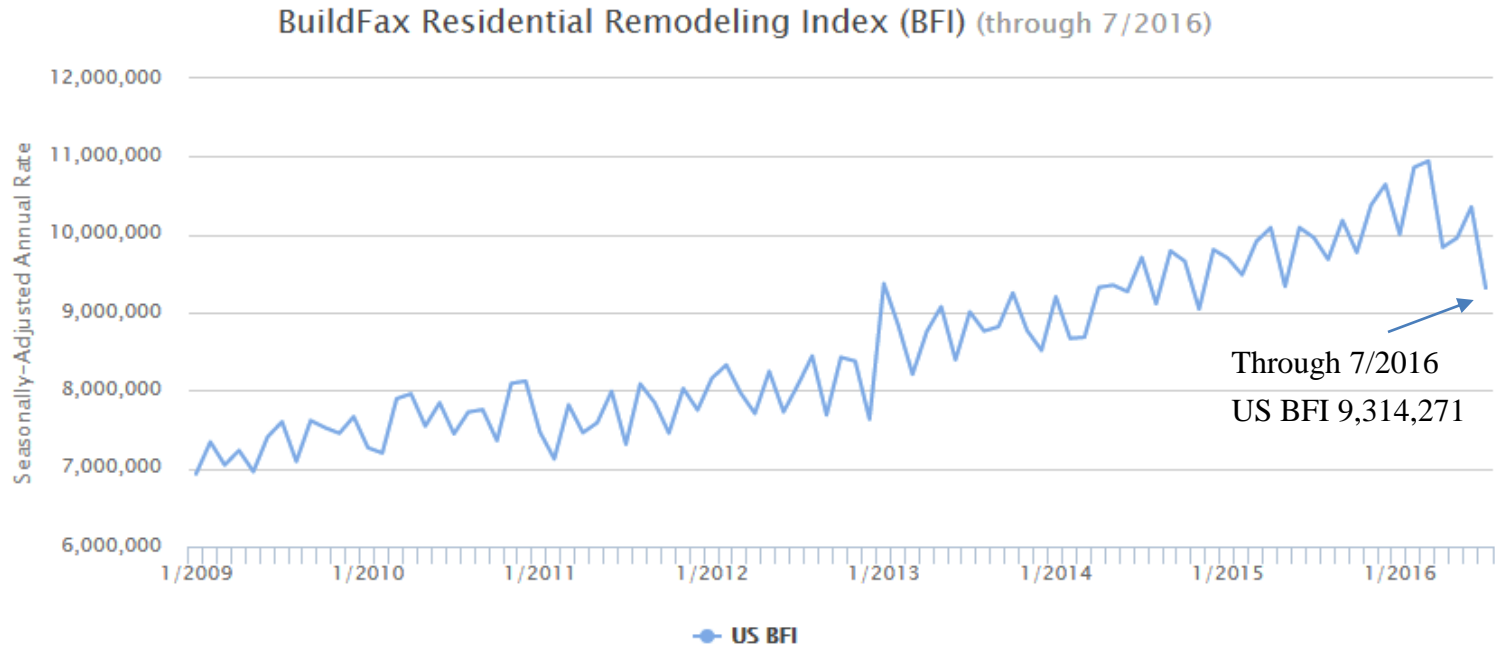
BuildFax Residential New Construction Index

“Residential new construction authorized by building permits in the United States in July were at a seasonally-adjusted annual rate of 1,065,936. This is 10% below the revised June rate of 1,188,655 and is 13% below the revised July 2015 estimate of 1,222,614. 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 July 2016 are estimated as follows: Northeast, 62,388 (up 1% from June and up 99% from July 2015); South, 548,680 (down 16% from June and down 21% from July 2015); Midwest, 196,655 (down 16% from June and down 13% from July 2015); West, 257,912 (down 7% from June and down 3% from July 2015).”

Private Indicators



BuildFax Residential Remodeling Index

“Residential remodels authorized by building permits in the United States in July were at a seasonally-adjusted annual rate of 9,314,271. This is 10% below the revised June rate of 10,352,840 and is 6% below the revised July 2015 estimate of 9,960,798.”

Regional Residential Remodeling

“Seasonally-adjusted annual rates of residential remodeling across the country in July 2016 are estimated as follows: Northeast, 780,463 (down 12% from June and up 12% from July 2015); South, 4,546,000 (down 6% from June and down 5% from July 2015); Midwest, 1,736,898 (down 17% from June and down 15% from July 2015); West, 2,266,843 (down 10% from June and down 7% from July 2015).”

Private Indicators

July Construction Starts Slip 2 Percent

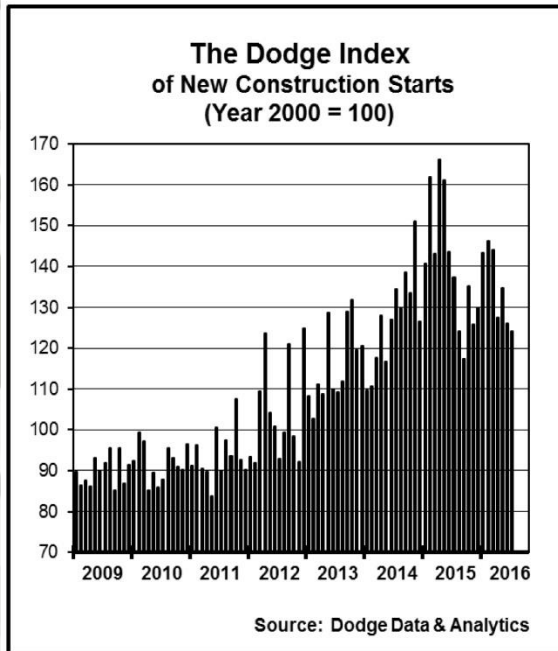
“At a seasonally adjusted annual rate of \$586.3 billion, new construction starts in July fell 2% from the previous month, according to Dodge Data & Analytics. . . . During the first seven months of 2016, total construction starts on an unadjusted basis were \$372.2 billion, down 11% from the same period a year ago. The July data lowered the Dodge Index to 124 (2000=100), down from 126 in June. After the improved pace reported during the first three months of 2016, the construction start statistics showed an up-and-down pattern during the April-June period, and June’s 7% slide has now been followed by the 2% drop in July.

June’s retreat for total construction reflected a pullback by public works after a strong performance in May, and July’s retreat for total construction reflected a subdued amount of electric utility starts for that month. At the same time, nonresidential building was able to register moderate growth in June and July, while residential building can be viewed as essentially stable when taking the average of June and July.

The 11% decline for total construction starts on an unadjusted basis during the January-July period of 2016 was due to diminished activity for both nonbuilding construction and nonresidential building from their heightened levels of a year ago. Residential building was the one major sector to show a year-to-date increase, rising 2% with single family housing up 7% while multifamily housing retreated 9%. By geography, total construction starts during the first seven months of 2016 revealed this pattern relative to a year ago – the South Central, down 31%; the Northeast, down 16%; the West, down 2%; the South Atlantic, down 1%; and the Midwest, up 3%.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

July 2016 Construction Starts



Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>July 2016</u>	<u>June 2016</u>	<u>% Change</u>
Nonresidential Building	\$187,883	\$180,954	+4
Residential Building	276,732	268,168	+3
Nonbuilding Construction	<u>121,689</u>	<u>146,490</u>	<u>-17</u>
Total Construction	\$586,304	\$595,612	-2

The Dodge Index

Year 2000=100, Seasonally Adjusted

July 2016124

June 2016.....126

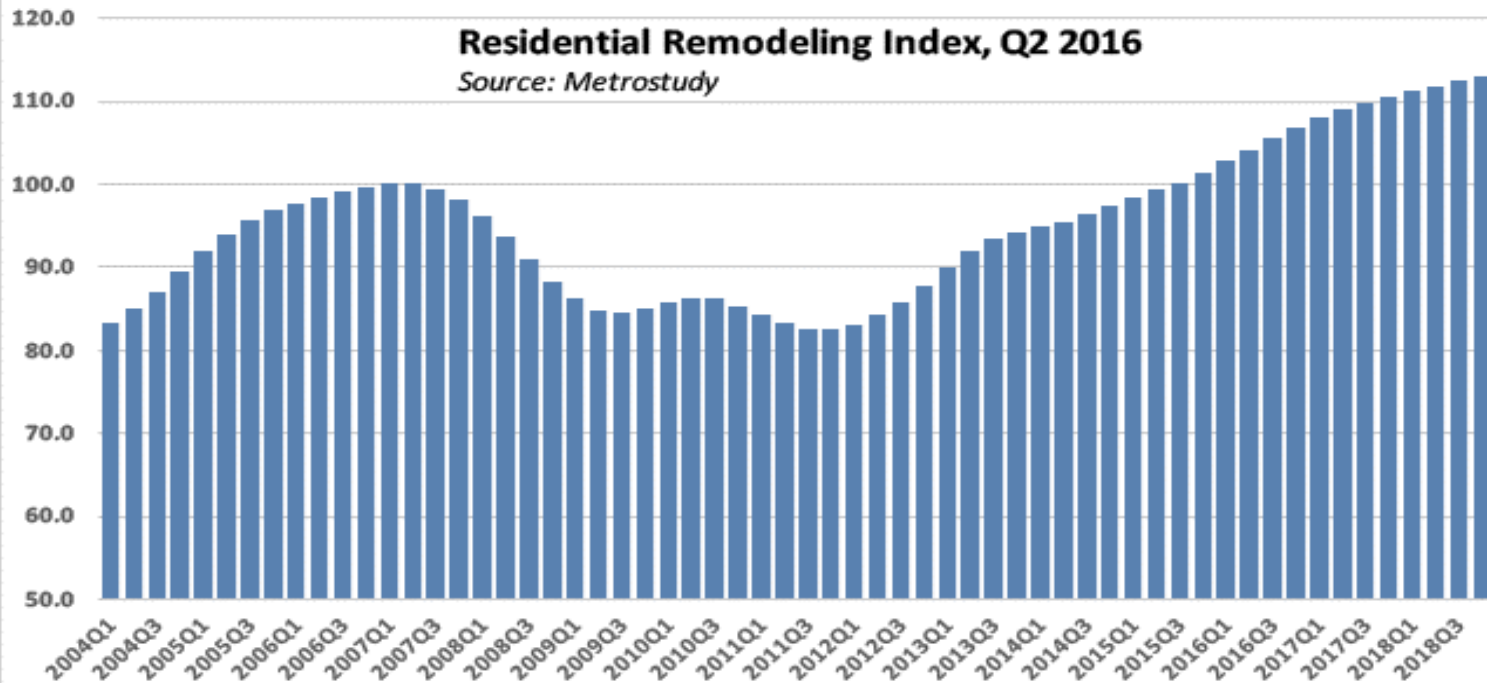
Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>7 Mos. 2016</u>	<u>7 Mos. 2015</u>	<u>% Change</u>
Nonresidential Building	\$111,800	\$135,864	-18
Residential Building	163,577	160,679	+2
Nonbuilding Construction	<u>96,852</u>	<u>122,577</u>	<u>-21</u>
Total Construction	\$372,229	\$419,120	-11
Total Construction, excluding projects valued at \$1 billion or greater	\$357,344	\$372,527	-4

“**Residential building** in July increased 3% to \$276.7 billion (annual rate), rebounding after the 3% decline reported in June. Multifamily housing provided the upward push, rising 9%. ... Single family housing in July increased 1%, basically extending the plateau present during the first half of 2016. The regional pattern for single family housing in July showed increases in three regions – the Northeast, up 8%; the West, up 6%; and the South Atlantic, up 2%; while declines were reported in the Midwest, down 2%; and the South Central, down 5%.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators



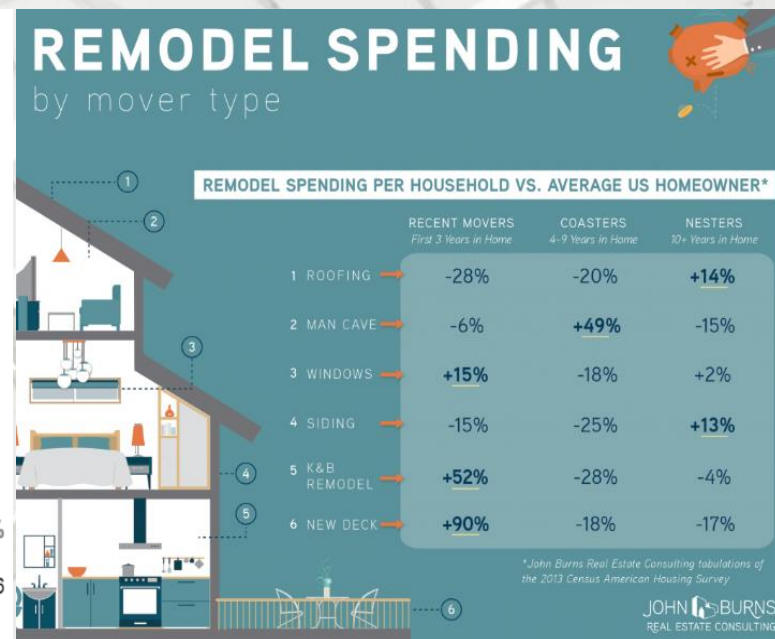
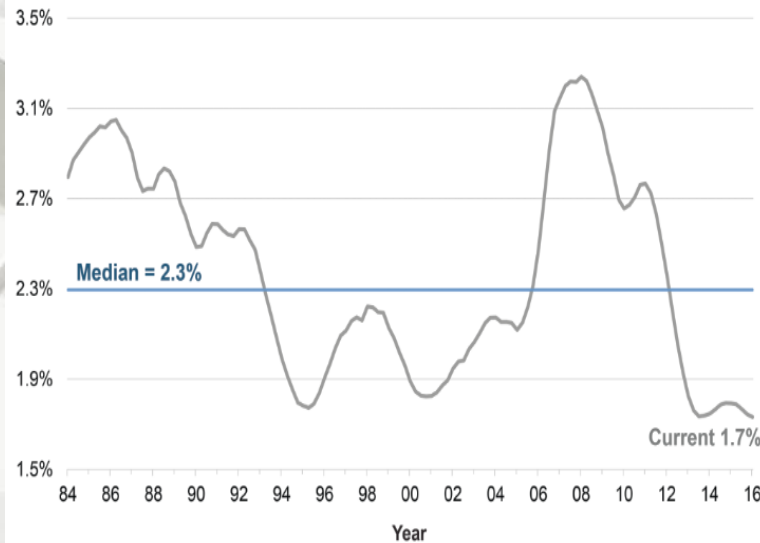
Remodeling's Growth Pace Quickened in 2Q

“...The national RRI Activity Index came in at 104.2 in second quarter 2016, which is a new all-time high, and marks an increase of 4.9 percent from one year earlier and 1.4 percent gain from the previous quarter.” – Craig Webb, Editor-in-Chief, REMODELING

“Most of the remodeling activity currently taking place is for projects that offer greater return on investment, like large-scale renovations meant to upgrade kitchens and bathrooms, or add rooms. Smaller projects for deferred maintenance, or maintenance projects that were put on hold in the aftermath of the recession, are also increasing as more people now have means and confidence to catch-up on maintenance. We are expecting steady expansion for the remodeling market over the next few years, as the trend of investing in current homes increases, especially once mortgage rates lift-off from current lows.” – Mark Boud, Chief Economist, Metrostudy

Private Indicators

For-Sale Listings as % of Occupied Households
Trailing 12 Months



Home Owners Remodeling Rather than Moving

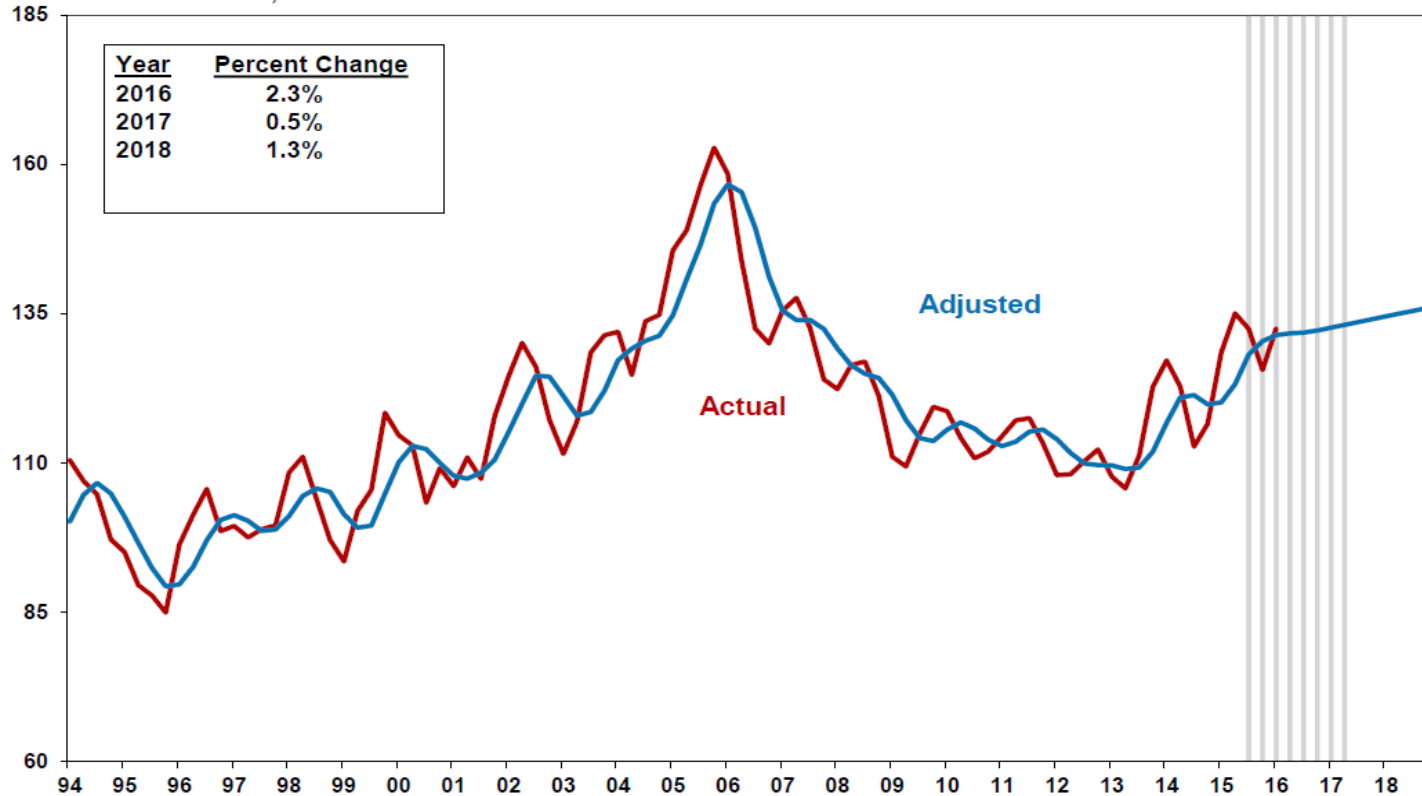
Home owners are remodeling rather than moving (above left). We know this because “big-ticket” remodeling revenue is surging, while homes for sale as a percentage of occupied households has hit an all-time low. Home builders and resale agents voice frustrations, while remodeling contractors have never been this busy. Home owners are on pace to spend more than \$215 billion on remodeling this year — \$73 billion on big projects (above \$5,000 per project) and the remainder on small projects.

The graphic (above right) illustrates the big discrepancies in spending between someone who has recently moved, has been in their home 4–9 years, or has been in the home ten years or longer.” – Todd Tomalak, Vice President, John Burns Real Estate Consulting

Private Indicators

Residential Remodeling

Billions 2009 USD, SAAR

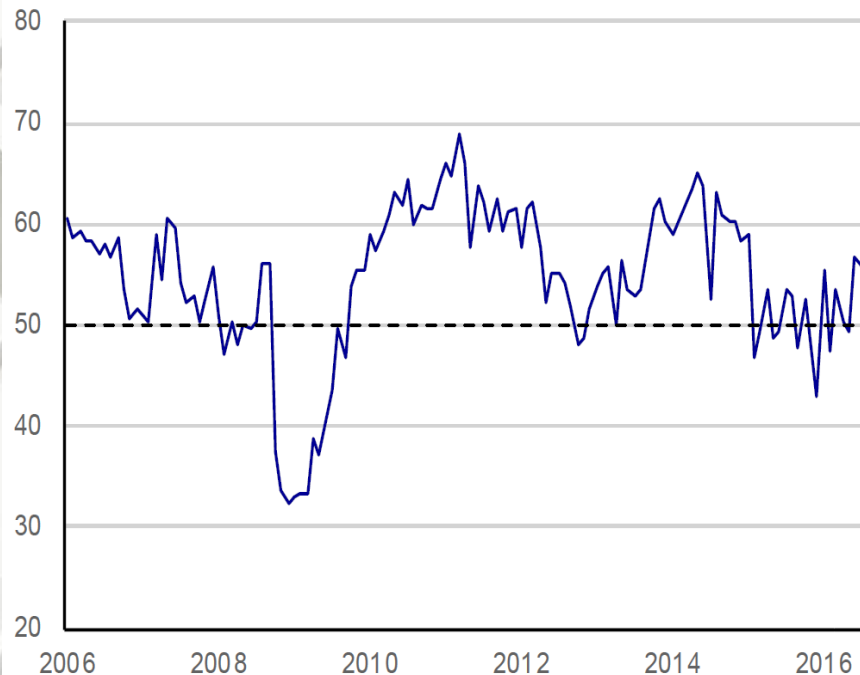


National Association of Home Builders



Private Indicators

Chicago Business Barometer™



August Chicago Business Barometer Down 4.3 Points to 51.5

“The MNI Chicago Business Barometer fell 4.3 points to 51.5 in August from 55.8 in July, led by a large setback in Order Backlogs and a deceleration in New Orders.

Four of the five Barometer components fell between July and August. Only Employment increased, hitting a 16-month high. The latest fall left the Barometer, New Orders and Production running at the slowest pace since May, when they all slipped below 50.”

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

“Order Backlogs fell 14.5 points to 41.7, moving back into contraction territory to the lowest level since April. Backlogs were above 50 for only two months following a 16-month run of sub-50 readings. New Orders and Production also subtracted from the Barometer. Although both remained in expansion, they were much softer than at the end of Q2.”

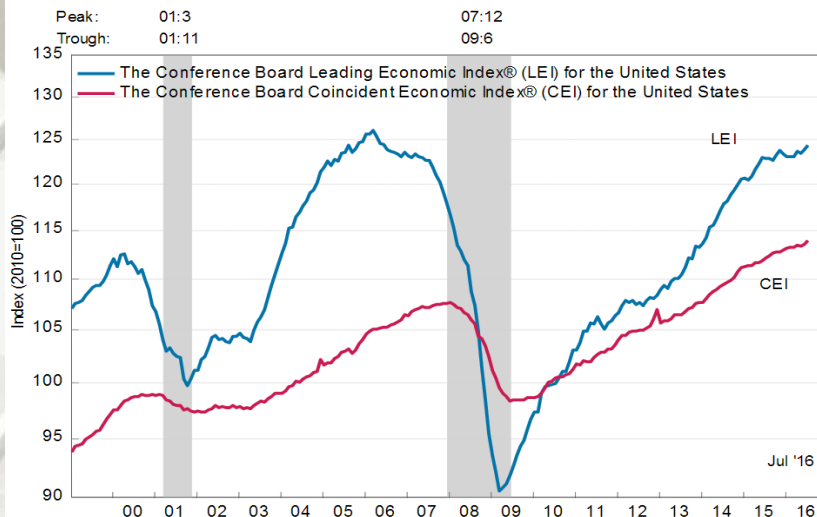
“Economic activity slowed down into the summer, suggesting June’s momentum was only a temporary revival in activity. Overall, it wasn’t a rosy month, with Employment the only measure that gained traction. On a trend basis, though, the July-August growth rates paint a slightly better picture – albeit still weak – than that seen earlier in the year.” – Lorena Castellanos, Senior Economist, MNI Indicators

Private Indicators

The Conference Board Leading Economic Index®

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

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



Peak: 01:3 07:12
Trough: 01:11 09:6
Latest LEI Trough March 2009, Latest CEI Trough June 2009
Shaded areas represent recessions as determined by the NBER Business Cycle Dating Committee.
Source: The Conference Board

The Index increased 0.4 percent in July to 124.3

“The U.S. LEI picked up again in July, suggesting moderate economic growth should continue through the end of 2016. There may even be some moderate upside growth potential if recent improvements in manufacturing and construction are sustained, and average consumer expectations don’t deteriorate further.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

“**The Conference Board Leading Economic Index® (LEI)** for the U.S. increased 0.4 percent in July to 124.3 (2010 = 100), following a 0.3 percent increase in June, and a 0.2 percent decline in May..

The Conference Board Coincident Economic Index® (CEI) . for the U.S. increased 0.4 percent in July to 113.9 (2010 = 100), following a 0.2 percent increase in June, and a 0.1 percent decline in May.

The Conference Board Lagging Economic Index® (LAG) for the U.S. increased 0.1 percent in July to 121.8 (2010 = 100), following a 0.1 percent decline in June, and a 0.4 percent increase in May.

Private Indicators

The U.S. Economic Forecast

THE CONFERENCE BOARD ECONOMIC OUTLOOK, 2015-2017
Percentage Change, Seasonally Adjusted Annual Rates
(except where noted)

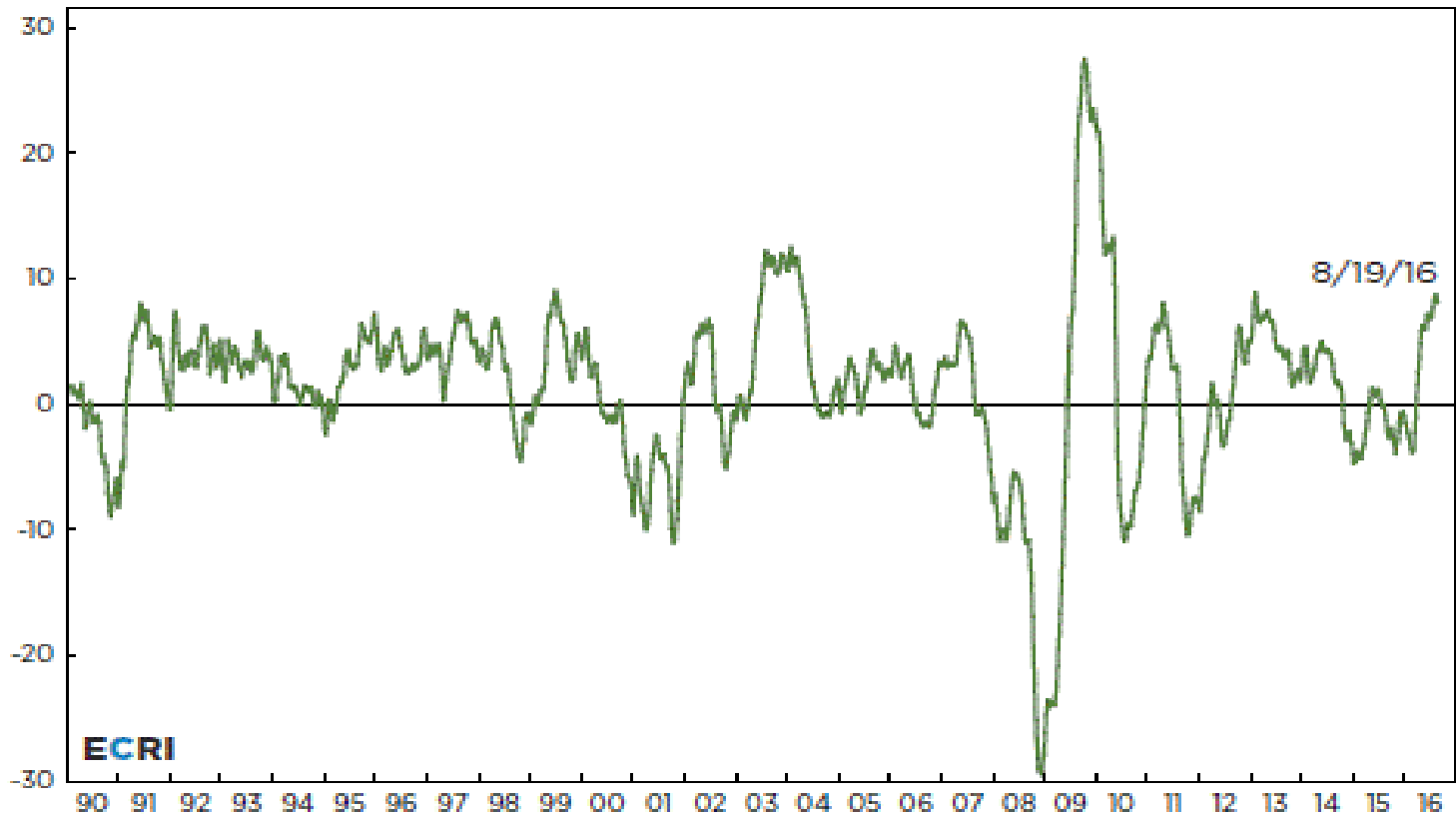
	II Q*	2016 III Q	IV Q	I Q	2017 II Q	2015 ANNUAL	2016 ANNUAL	2017 ANNUAL
Real GDP	1.2	2.0	1.9	1.9	1.7	2.6	1.4	1.8
Real Consumer Spending	4.2	2.0	2.2	2.2	2.1	3.2	2.5	2.2
Housing Starts Mil. Units	1.16	1.22	1.24	1.26	1.28	1.11	1.19	1.29
Real Capital Spending	-2.3	0.3	0.8	1.5	2.0	2.1	-1.3	1.2
Net Exports * actual value	-556.2	-577.1	-597.1	-618.6	-639.8	-539.9	-574.1	-645.5

The Conference Board Economic Forecast for the U.S. Economy U.S. economic expansion remains subdued

“Economic growth in the first half of 2016 was weaker than expected as output growth was held back by a large inventory run off. Business investment in capital equipment continued to be very sluggish. Business seems to think demand is likely to remain soft for some time. The new wrinkle is higher short-term uncertainty. While some of the uncertainty may go away, there are structural reasons for the weakness in business investment to remain. It is also unlikely that inventory building will strongly rebound and be much of a growth source in a slow growing economy. Consumer spending then remains the main source of growth -- expected to grow at a moderate 2% rate in the second half of this year and perhaps continuing into the early months of 2017. Sustained job growth, modest wage acceleration, even improving housing market conditions, all support consumer demand. But higher labor costs are negative for corporate margins. Nonetheless, with tightening labor market conditions, there is at least the possibility of the Federal Reserve raising short-term interest rates, conceivably even as early as September. A post-election hike is more likely, or even putting it off until the first half of 2017. Raising rates almost certainly would lead to some dollar appreciation, increasing the burden on making and shipping goods abroad. For the moment at least, post-Brexit, financial markets, the dollar, even non-energy commodity prices all remained relatively quiet.” – Bart van Ark, Chief Economist, The Conference Board

Private Indicators

Weekly Leading Index, Growth Rate (%)



U.S. Weekly Leading Index Ticks Down

“The U.S. Weekly Leading Index (WLI) increased to 138.1 from 137.8. The growth rate edged down to 8.1% from 8.4%.” – Lakshamm 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)

9.7% -

GALLUP GOOD JOBS
Percent of Adult Population

46.5% -0.1

ENGAGED AT WORK

33.1% +0.4

ECONOMIC CONFIDENCE

-11 -

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

“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

August 2016 Manufacturing ISM® Report On Business®

August PMI® at 49.4%

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

“Economic activity in the manufacturing sector contracted in August following five consecutive months of expansion, while the overall economy grew for the 87th consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

August PMI® = registered 49.4 percent, a decrease of 3.2 percentage points from the July reading of 52.6 percent.

New Orders Index = registered 49.6 percent, 5.8 percentage points lower than the July reading of 55.4 percent.

Production Index = registered 49.6 percent, 5.8 percentage points lower than the July reading of 55.4 percent.

Employment Index = registered 48.3 percent, a decrease of 1.1 percentage points from the July reading of 49.4 percent.

Inventories of raw materials = registered 49 percent, a decrease of 0.5 percentage point from the July reading of 49.5 percent.

Prices Index = registered 53 percent, a decrease of 2 percentage points from the July reading of 55 percent, indicating higher raw materials prices for the sixth consecutive month.

Manufacturing contracted in August for the first time since February of this year, as only six of our 18 industries reported an increase in new orders in August (down from 12 in July), and only eight of our 18 industries reported an increase in production in August (down from nine in July).” – 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™

Solid increase in manufacturing production, but new order growth eases in August

- “Output growth unchanged from July’s eight month high
- Slower rises in new order volumes and employment
- Input price inflation eases to five-month low”

“At 52.0 in August, the seasonally adjusted Markit final U.S. Manufacturing Purchasing Managers’ Index™ dropped from 52.9 in July but remained comfortably above the neutral 50.0 value.”

“Despite the PMI falling in August, the survey suggests the third quarter is shaping up to be the best quarter so far this year for manufacturing, with output growth picking up compared to the first half of the year on the back of improved export sales.

The overall rate of expansion remains only modest, however, and the upturn fragile. Weak domestic demand remains a drag on order books. Concerns about the outlook have also resulted in a marked reduction in the rate of job creation.

There’s anecdotal evidence to suggest that this at least in part reflects a slowing in the economy in the lead up to the presidential election, meaning there’s scope for growth to revive later in the year. In the meantime, the overall sluggish pace of expansion signalled by the survey, and the slacking of inflationary pressures, provides support to those arguing that interest rates should remain on hold.”

– Chris Williamson, Chief Economist, Markit®

Private Indicators

Service sector business activity (seasonally adjusted)



Source: IHS Markit.

Markit U.S. Services PMI™ Business activity growth eases to six-month low in August

Key findings:

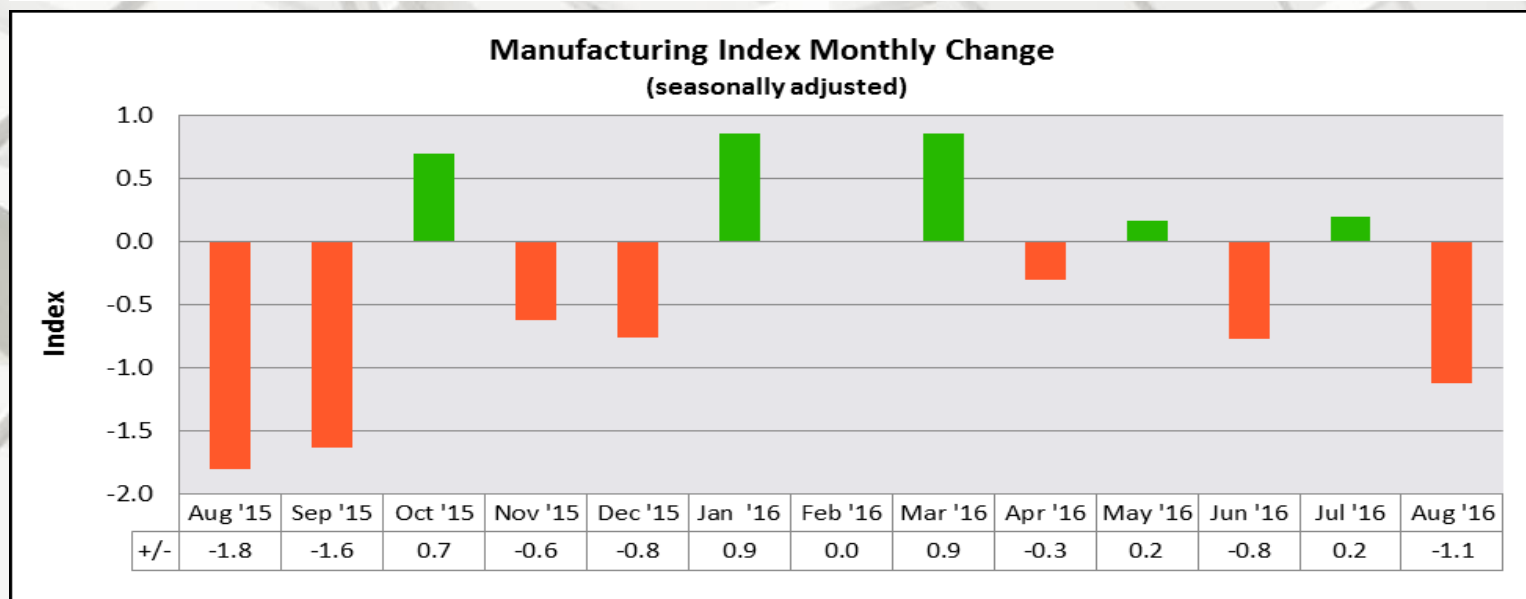
- “Marginal expansion of service sector activity
- New business growth remains subdued
- Payroll numbers rise at weakest pace since December 2014” – Markit®

“August data indicated that the U.S. service sector continued to struggle for momentum, with both business activity and incoming new work expanding at slightly slower rates than in the previous month. This contributed to a moderation in job creation to its weakest since December 2014. Meanwhile, service providers are upbeat overall about the 12-month outlook for business activity, and the degree of positive sentiment remained comfortably above the survey-record low seen in June.

At 51.0 in August, the seasonally adjusted Markit final U.S. Services Business Activity Index dropped from 51.4 in July but remained above the 50.0 no-change value for the sixth consecutive month. The latest reading signalled only a marginal increase in business activity, and the pace of expansion was the weakest seen since the upturn began in March. Survey respondents noted that relatively subdued client demand and uncertainty ahead of the presidential election had acted as growth headwinds in August.

The weak PMI readings send a downbeat note on economic growth in the third quarter. Taken together, the manufacturing and services PMIs are pointing to an annualised GDP growth rate of a mere 1%, similar to the subdued pace signalled by the surveys throughout the year to date, suggesting that those looking for a strengthening in the rate of economic growth will be disappointed once again.” – Chris Williamson, Chief Economist, Markit®

Private Indicators



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

“The first piece of good news is that the August Credit Managers’ Index (CMI) shows a combined overall score above 50, meaning it still remains in expansion territory. The second piece of good news is that the index of favorable factors is also above 50. That is about the end of the good news items, however.

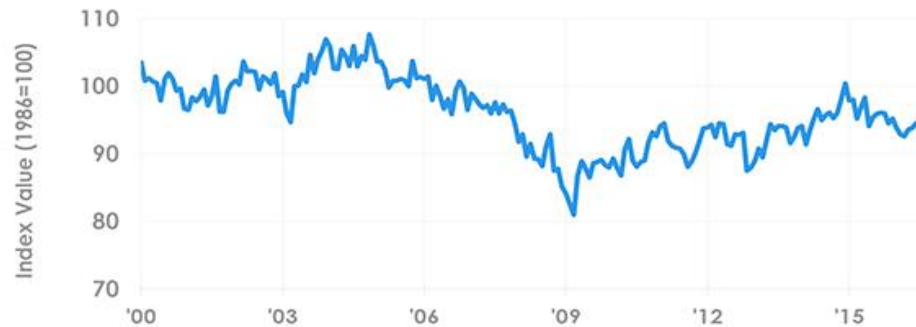
This month’s combined index of the manufacturing and service sectors, while above 50, decline from 53.5 to 52.0, as low as it has been in more than two years. The score reflects the deterioration in the combined favorable categories reading (56.4). In July, it was as high as it was in March (60.0). The categories in the favorable sector were lower than they had been last month, and some by quite a lot. The index of combined unfavorable factors also dropped (49.2 to 49.1), but not as dramatically.”

“The best that can be said about the decline is that it was bad and hasn’t gotten much worse.” – Chris Kuehl, Ph.D, Economist, NACM

Private Indicators

Small Business Optimism Index Decreases 0.2 to 94.4

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



NFIB.COM/sbet

August 2016 Report: Small Business Economic Trends

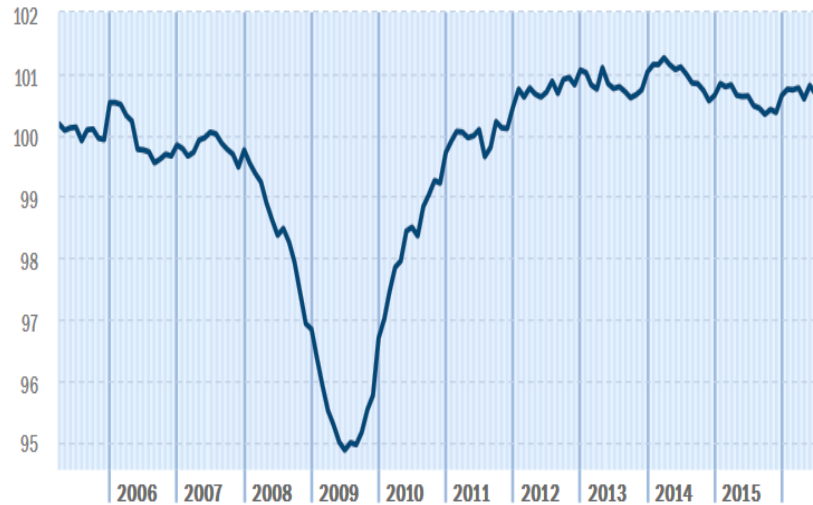
“The Index of Small Business Optimism declined two-tenths of a point in August to 94.4, with owners refusing to expand; expecting worse business conditions; and unable to fill open positions, according to the **National Federation of Independent Business (NFIB).**”

Outlook for business conditions drops sharply, pushing index lower in August

“At 94.4, the Index remains well below the 42-year average of 98. Five of the 10 Index components posted a gain, four declined, and one remained unchanged. The outlook for business conditions in the next six months had the most dramatic change, dropping seven points. Setting an all-time high for the survey, 39 percent of business owners cited the political climate as a reason not to expand. Uncertainty about the economy and government policy also hit record highs among small business owners.

Once again, the NFIB survey showed no signs of strength in the small business sector. Uncertainty seems to be the major enemy of economic progress and the political climate is a major contributor to the high levels of uncertainty that we’ve seen. The current economic environment is not a good one for strong or sustained growth.” – William Dunkelberg, Chief Economist, National Federation of Independent Business

Private Indicators



The Paychex | IHS Small Business Jobs Index

“The Paychex | IHS Small Business Jobs Index has plateaued this year, albeit at a solid pace of employment gains. At 100.70, the August index moved up just 0.02 percent from July and is off 0.01 percent from the 2016 average of 100.71. Despite a setback in July, paired with a flat August, the 3-month trend is up 0.11 percent due to the large increase in June.”

“Indicating consistent growth in small business jobs, at 100.70, the national index has maintained a very stable level in 2016. The national index is up 0.22 percent from last August, following slower job growth in the second half of 2015. During the past 12-months, employment conditions strengthened, as strong gains in the Atlantic regions offset a moderate slowdown in the Pacific.

There was little movement among industries in August, as Financial Activities had the strongest gain, 0.23 percent. Unable to maintain the baseline index level associated with moderate employment growth, Trade, Transportation, and Utilities fell below 100 from July to August. Trade, Transportation and Utilities was the only industry sector to increase in July, and the only industry besides Construction to decrease in August. At 101.63, Construction still ranks second among industries and is trending at the level of growth seen during the second half of 2015.

Essentially unchanged in August, Manufacturing is the lowest-ranked industry at 98.47, down 0.85 percent year-over-year. Financial Activities, 99.48, and Professional and Business Services, 99.47, are the next lowest industries, yet are a full point ahead of Manufacturing.” – James Diffley, Chief Regional Economist, IHS

Private Indicators

Thomson Reuters/PayNet Small Business Lending Index

U.S. small businesses borrowing less, delinquencies rise: PayNet

Thomson Reuters/PayNet Small Business Lending Index (SBLI)
(January 2005 - July 2016)



Small Business Lending Index:
121.5

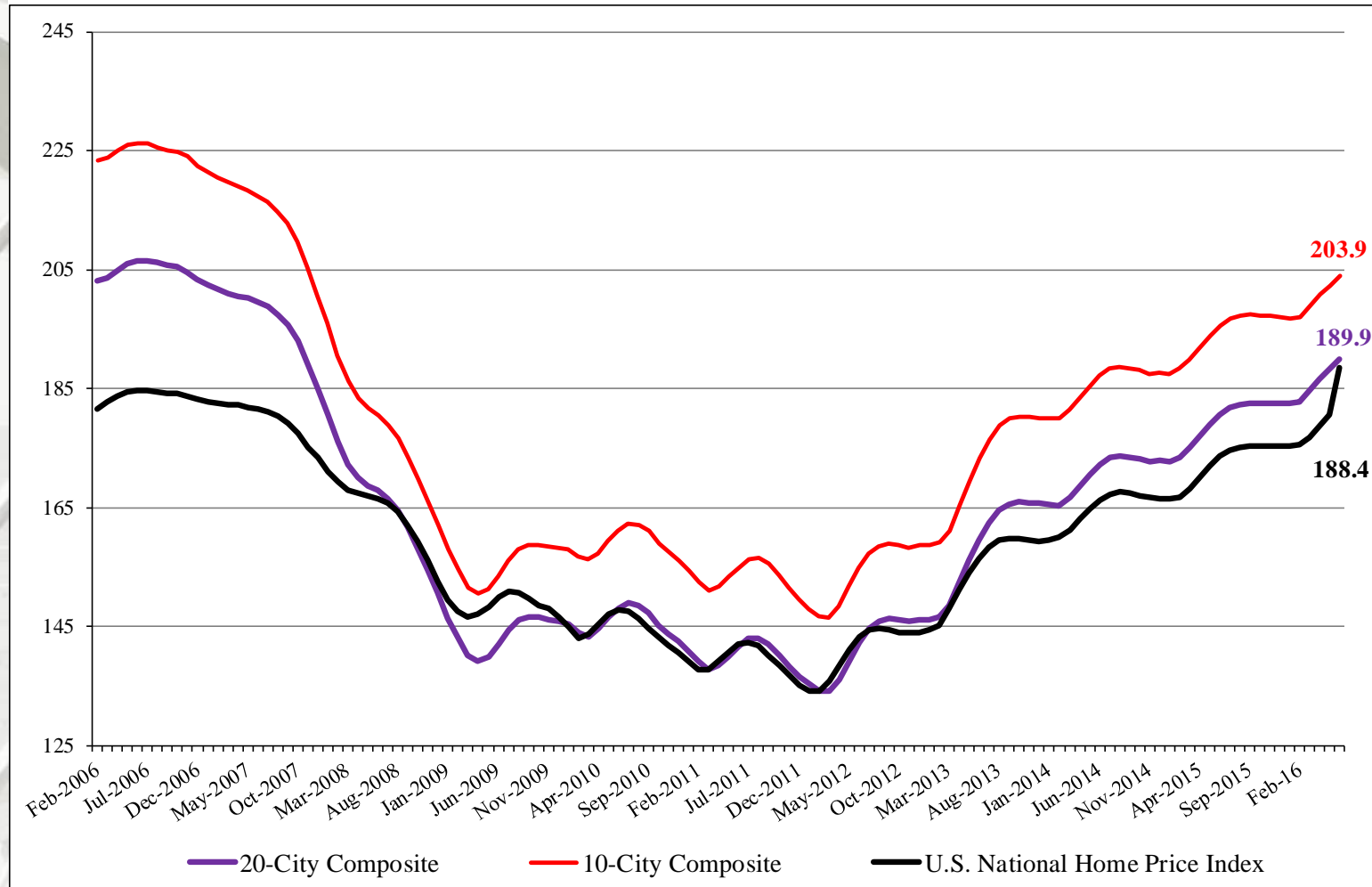
“The Thomson Reuters/PayNet Small Business Lending Index fell to 121.5 in July, the lowest level since January and down from an upwardly revised 139.2 in June. Borrowing fell 16 percent from a year earlier, driven by declines in all major industry groups and the 10 biggest states.”

“Borrowing by U.S. small businesses sank in July, and more firms were late on repaying existing loans, data released on Thursday showed, both trends pointing to softer economic growth ahead. Companies also struggled to pay back existing debts. Loans more than 30 days past due rose in July to 1.63 percent, the fourth straight monthly increase and the highest delinquency rate since December 2012, separate data from PayNet showed.” – Ann Saphir, PayNet

“The thing that scares us is the rise in delinquencies. Every one of these months where investment is down and delinquencies are up is one step more toward contraction.” – Bill Phelan, President, PayNet

Private Indicators

S&P/Case-Shiller Home Price Indices



Private Indicators

S&P/Case-Shiller Home Price Indices

Home Price Gains in June Concentrated in South and West

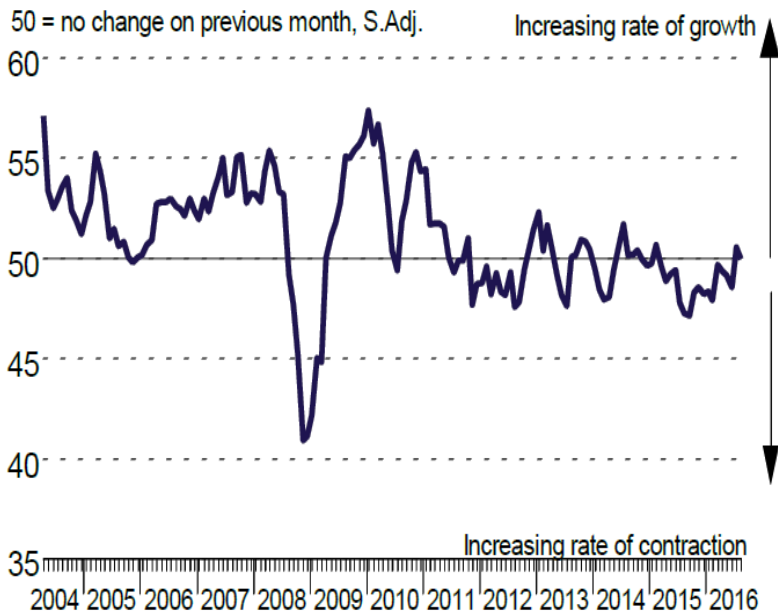
“The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 5.1% annual gain in June, unchanged from last month. The 10-City Composite posted a 4.3% annual increase, down from 4.4% the previous month. The 20-City Composite reported a year-over-year gain of 5.1%, down from 5.3% in May.’

“Home prices continued to rise across the country led by the west and the south. In the strongest region, the Pacific Northwest, prices are rising at more than 10%; in the slower Northeast, prices are climbing a bit faster than inflation. Nationally, home prices have risen at a consistent 4.8% annual pace over the last two years without showing any signs of slowing.

“Overall, residential real estate and housing is in good shape. Sales of existing homes are at running at about 5.5 million units annually with inventory levels under five months, indicating a fairly tight market. Sales of new single family homes were at a 654,000 seasonally adjusted annual rate in July, the highest rate since November 2007. Housing starts in July topped an annual rate of 1.2 million units. While the real estate sector and consumer spending are contributing to economic growth, business capital spending continues to show weakness.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

Private Indicators: Global

Caixin China General Manufacturing PMI



Sources: IHS Markit, Caixin.

Caixin China General Manufacturing PMI™ Manufacturing sector stagnates in August

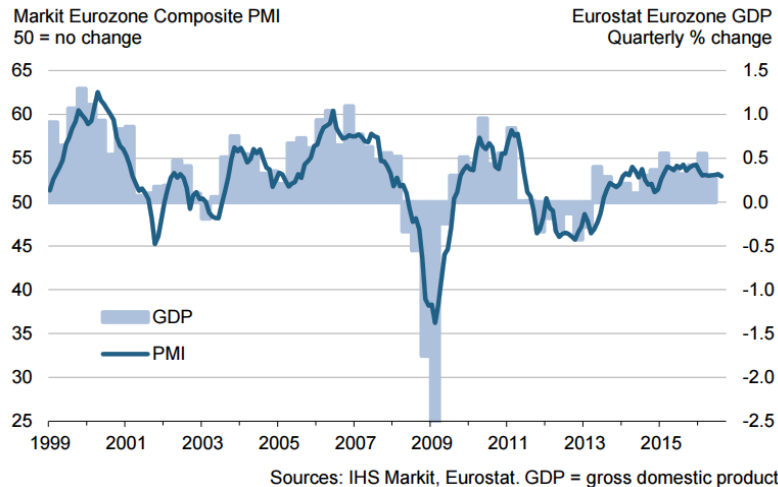
“Operating conditions stagnated across China’s manufacturing sector during August, after a marginal improvement in the previous month. Production and total new orders both rose at slower rates, while export sales continued to decline. Job shedding meanwhile persisted, though the latest reduction in payrolls was the slowest seen in 2016 to date. This in turn contributed to a further rise in backlogs of work. Price pressures eased, with both input costs and prices charged increasing at weaker rates than seen in July.”

- Growth in output and new work eases
- Employment contracts again, albeit at slowest rate in 2016 to date
- Inflationary pressures weaken

“The Caixin China General Manufacturing PMI for August slipped to 50.0, after a short-lived uptick in July. The index readings for output, new orders and stocks of purchases all declined from the previous month, with the index for inventories of purchases falling back to the territory of contraction. The stagnation that follows tentative signs of recovery in July may have been caused by a temporary tightening of proactive fiscal policies. Downward pressure on China’s economy remains and government support to stabilize growth must continue.” – Dr. He Fan, Chief Economist, Caixin Insight Group

Private Indicators: Global

Markit Eurozone Composite PMI



Markit Eurozone Composite PMI® – final data

Eurozone PMI at 19-month low as German economic growth slows

- Final Eurozone Composite Output Index: 52.9 (Flash: 53.3, July Final: 53.2)
- Final Eurozone Services Business Activity Index: 52.8 (Flash: 53.1, July Final: 52.9)
- French downturn continues and Italy slips into contraction

“The eurozone economy continued to expand at a broadly steady pace in August. The rate of increase edged down to a 19-month low, however, mainly due to a weaker rate of expansion in Germany.

The final Markit Eurozone PMI® Composite Output Index posted 52.9 in August, down from 53.2 in July and below the earlier flash estimate of 53.3. The rate of growth in new order inflows was also the weakest in just over one-and-half years.

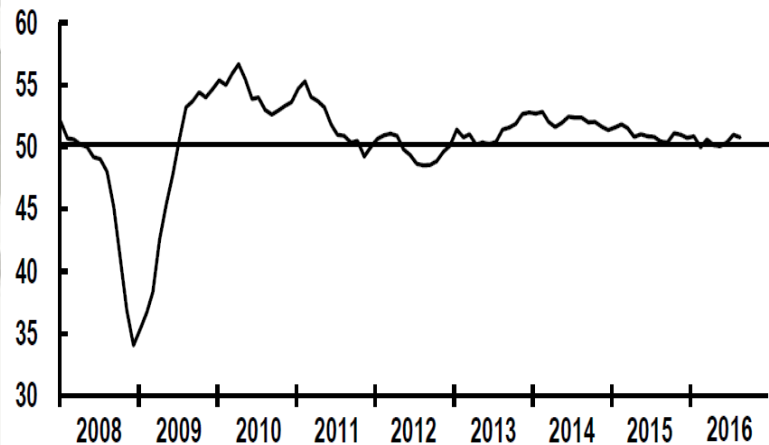
The slowdown in Germany is perhaps the biggest source of concern, with the PMI pointing to a risk of a further slowing of GDP growth to just 0.3% in the third quarter.

It’s clearly disappointing to see the final PMI has come in weaker than the initial flash estimate. While the overall picture is one of steady but sluggish 0.3% growth in the third quarter, the revised figures indicate that the economy is losing rather than gaining momentum. ” – Chris Williamson, Chief Economist, Markit®

Private Indicators: Global

JPMorgan Global Manufacturing PMI

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JPMorgan Global PMI

Global manufacturing remained in low growth gear in August

“At 50.8 in August, down from 51.0 in July, the J.P. Morgan Global Manufacturing PMI™ – a composite index produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – signalled a further moderate improvement in global manufacturing operating conditions.

Global manufacturing production increased for the third successive month in August, with the rate of expansion ticking up to its highest since November of last year.”

“North America and Europe remained the prime drivers of the expansion of the global manufacturing sector, as conditions in Asia stagnated. Among the Asian manufacturing sectors covered by the survey, Japan, South Korea, Malaysia, Thailand and Myanmar all saw contractions and China stagnated. Expansions were seen in Taiwan, India, Indonesia, Vietnam and the Philippines.”

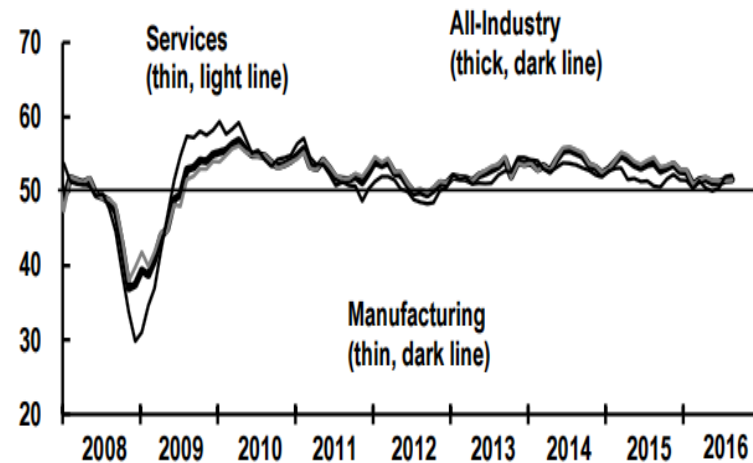
Further growth was seen in the US, Mexico and Canada, although only the latter nation saw an improved rate of expansion. The pace of increase slowed in the euro area, reflecting weaker growth in Germany and Austria and contractions in France and Italy. The UK, meanwhile, rebounded strongly from July’s contraction. The downturn in Brazil continued, whereas Russia expanded.

The PMI points to some acceleration in global manufacturing this quarter. However, the August survey was a bit of a disappointment since it failed to deliver on improvements from July. The sluggish trends in new orders remains the main constraint and this will need to improve if global IP growth is to progress in the latter part of this year.” – David Hensley, Director of Global Economic Coordination, J.P. Morgan

Private Indicators: Global

JPMorgan global PMI output

DI, sa



JP Morgan Global Manufacturing & Services PMI™ Global economic growth remains subdued in August

“August PMI data signalled a further incremental improvement in the rate of global economic expansion. 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 – has edged higher in each of the past three months. However, at 51.6 in August, the latest reading was only slightly above February’s 40-month low of 50.8.”

“Further highlighting the generally subdued performance of the global economy during the year-to-date, the highest index reading so far in 2016 was below the lowest figure registered during the whole of 2015.

Rates of growth ticked higher in both the manufacturing and service sectors in August. Within manufacturing, production volumes increased across the consumer, intermediate and investment goods categories. For services, growth of activity at business services and financial services providers more than offset a minor decrease in consumer services output.

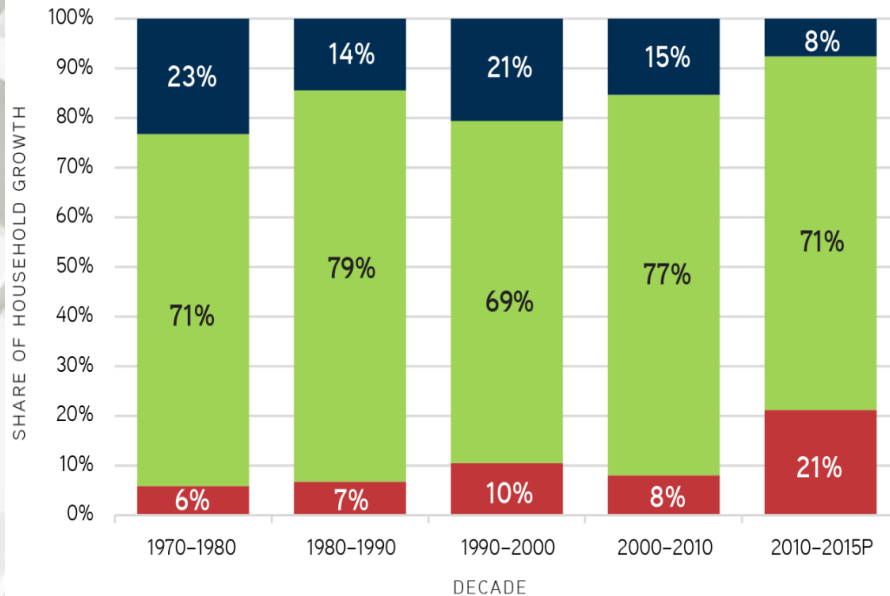
Global employment rose again in August, extending the current sequence of job creation to six-and-a-half years. However, the rate of increase was the weakest since April 2013. Staffing levels rose in the eurozone, the US and the UK, but were reduced in China, Japan, Russia and Brazil. No change was signalled in India.” – David Hensley, Director of Global Economic Coordination, J.P. Morgan

Demographics



SHARE OF HOUSEHOLD GROWTH BY DECADE

Today's Urban Today's Suburbs Today's Rural



Source: John Burns Real Estate Consulting, LLC based on US Census Bureau data

Declining Rural Life, Despite Technology Improvements

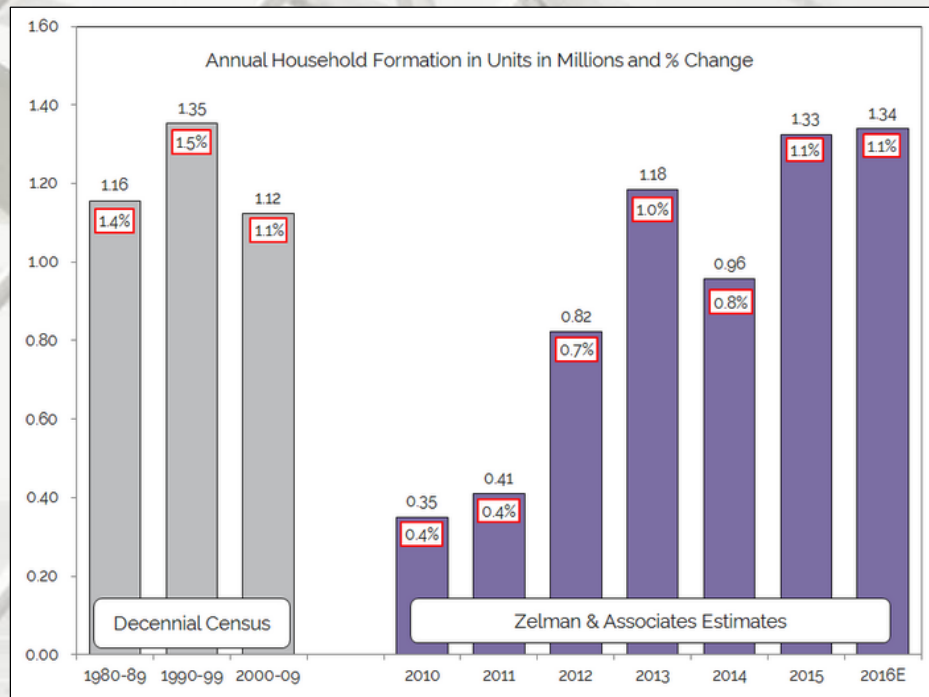
“Only half as many households as normal choose to live in rural areas these days. Using our definitions, only 8% of household growth occurred in rural areas over the last five years, compared to the usual 17% of growth over the prior 30 years. Over the last five years, urban captured 21% of growth compared to the 30-year norm of 8%.”

“Now, I know that many cool, creative jobs are in urban areas, that big cities have spent billions redeveloping their downtowns into entertainment hubs, and millennials who are delaying families can hold off on the need to live in a good school district longer. However, consider the following:

- More people than ever are retiring, and retiree growth has historically been strong in affordable, rural areas.
- More knowledge workers than ever can telecommute from anywhere (we need a new term that doesn't use the prefix tele in it), including “retirees” who continue to work part-time.
- Online shopping has brought the best of retail to everyone with a postal address.” – John Burns, CEO, John Burns Real Estate Consulting LLC

Demographics

Zelman's 2016 Household Formation Estimate Stands 75% Higher than Census

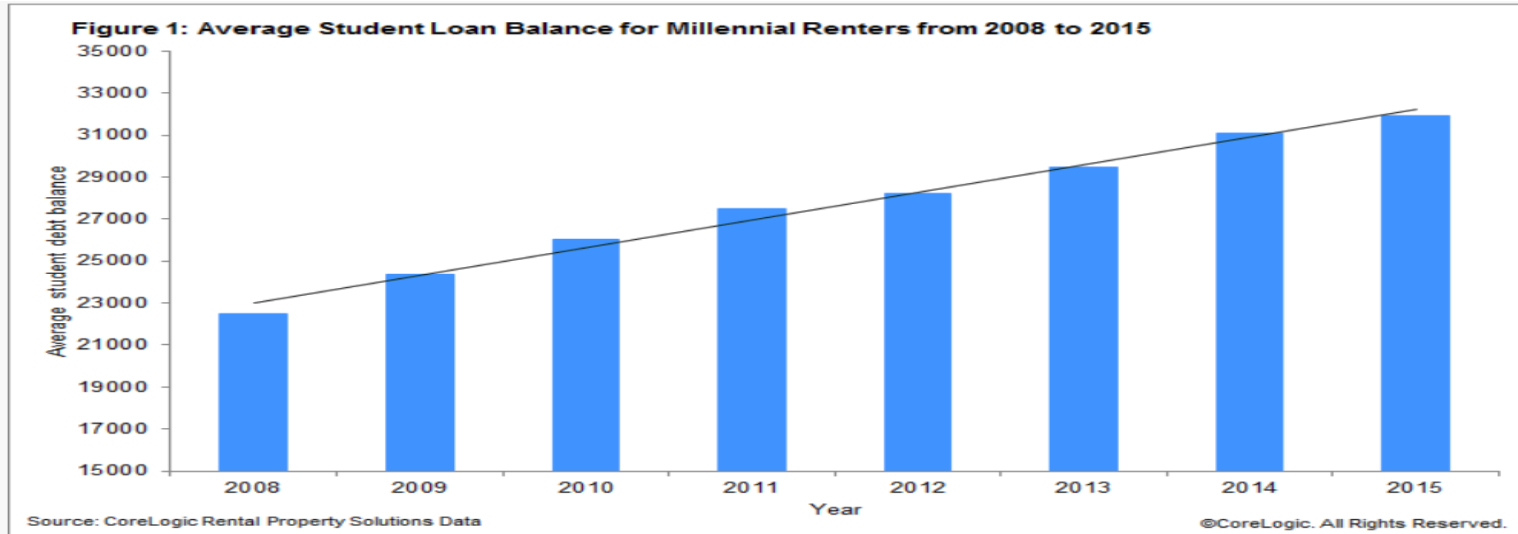


“... More specifically, in 2Q16, the HVS implied household formation of 944,000 from 2Q15 was a step higher from just 577,000 for the year ended 1Q16 and left the 1H16 average at 760,000. However, this pace would be down 43% from 2015, according to the Census Bureau, a conclusion that we cannot validate with any other industry measure. Unfortunately, such a large year-to-year shift in the HVS time series is not uncommon as the median change over the last 15 years has been 36%.”

“Meanwhile, based on public electric utility provider results, which aggregate to a 30 million unit sample, residential electric customer counts were up 1.3% year over year in 2Q16, four basis points stronger than in 1Q16 and setting another recovery high. In fact, the year-over-year rate of growth for this subset has improved each quarter since 1Q13 and for 17 out of the last 18. Speaking to the more stable data set, the median change in national customer counts over the last 15 years was a smaller 22%. Contrary to the HVS conclusion, we expect household formation to average 1.34 million in 2016, relatively steady with 2015 as the highest years of the recovery thus far.” – The Zelman Report, Zelman & Associates

Demographics

Increasing Student Loan Debt Affecting Millennial Renters



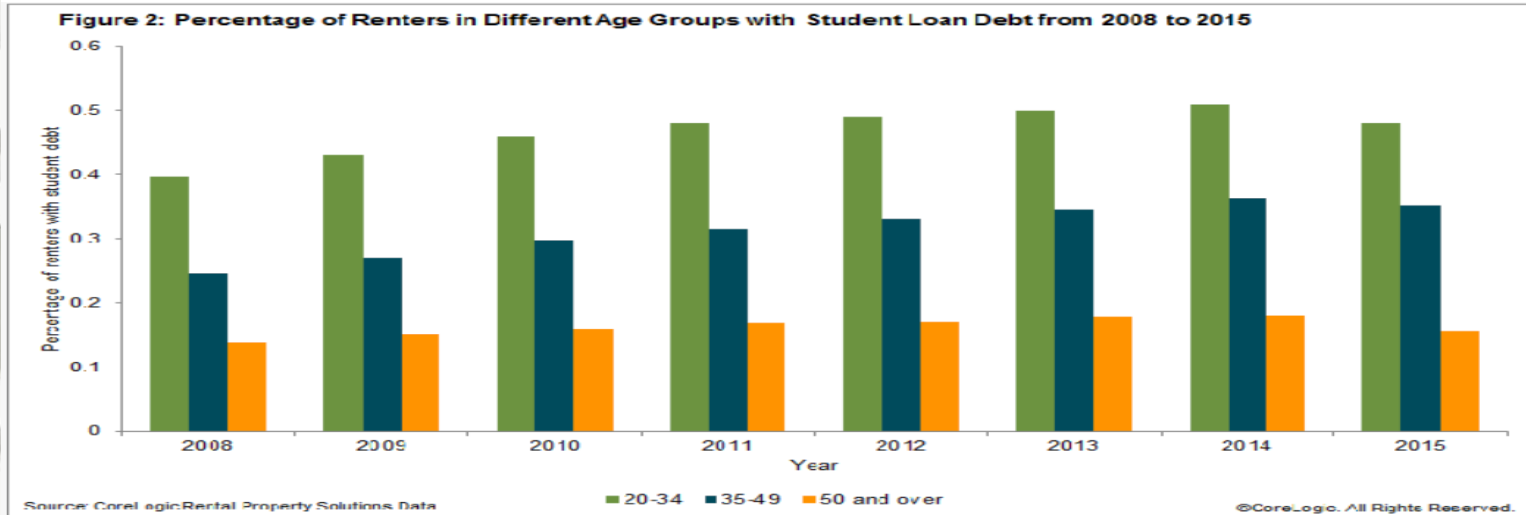
- “60 percent of rental housing applicants from 2011 to 2015 were millennials
- 48 percent of millennial rental applicants had student loan debts in 2015
- Average student loan balance of millennial rental applicants reached \$31,900 in 2015

Homeownership is on the decline, especially among the younger age group, while rental household formation has been rising, and millennials are a major share of this growing rental population. CoreLogic Rental Property Solutions tracks rental applicant data, and new analysis reveals that 60 percent of rental housing applicants applying from 2011-2015 were millennials.

Student loan debt has become a growing burden nationwide, particularly with millennials, many of whom are trying to rent an apartment, condo or home. The aggregated outstanding student loan debt in the U.S. has more than tripled over the past decade, increasing from \$380 billion in 2004 to \$1.3 trillion in 2015, which is the second-highest level of consumer debt only behind mortgages.”

– Jianjun Xie, Director of Analytics, CoreLogic

Demographics



“CoreLogic data shows that the average student loan balance reached \$31,900 in 2015 for age group 20-34 (Figure 1). This is a 41.8 percent increase compared with the average balance of \$22,500 in 2008. At the same time, the median student loan balance for the same age group increased 53.7 percent to \$18,600 in 2015 from \$12,100 in 2008. The Joint Center for Housing Studies at Harvard University published the 2013 student loan balance of U.S. households. The average balance and median balance of renter households for age group 20-39 was \$28,173 and \$16,000, respectively. CoreLogic data shows the average student loan balance in 2013 for rent applicants in the same age group was \$30,263 and the median balance was \$16,400. These numbers are very close to each other.

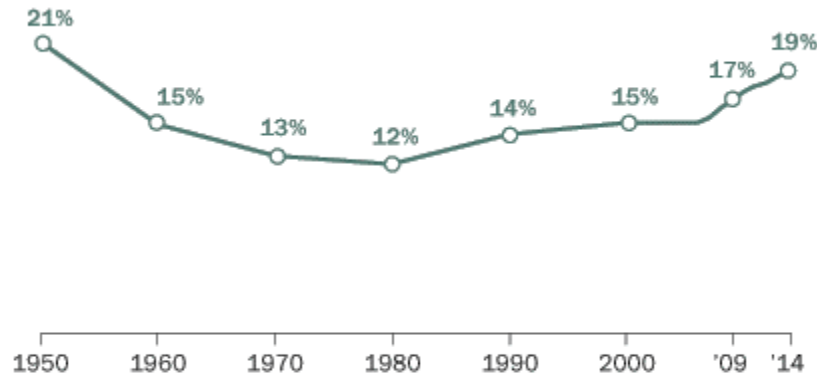
Similar to the outstanding student loan balance, the portion of millennial renters age 20-34 who had student loans also increased every year but one since 2008, as shown in Figure 2. This is a 21 percent increase from 2008, when it stood at 38 percent, to 2015, when it stood at 48 percent. We can see from Figure 2 that indeed millennials have the highest percentage of student loan debt compared with older age groups. Considering the declining homeownership rate and the increasingly hot rental market, the growth of student loan debt is likely an important factor preventing millennials from saving for a down payment to buy a home and maintaining their rental status for a longer period of time.” – Jianjun Xie, Director of Analytics, CoreLogic

Demographics

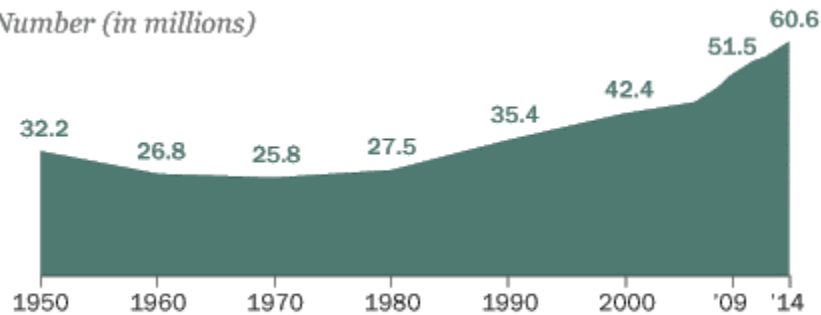
Sharer Nation

Nearly one-in-five Americans lives in a multigenerational household

% of population living in a household with two or more adult generations or one that includes grandparents and grandchildren



Number (in millions)



Source: Pew Research Center analysis of U.S. Decennial Census data, 1950-2000, and 2006-2014 American Community Survey (IPUMS).

PEW RESEARCH CENTER

A record 60.6 mil Americans live in multigenerational households

“In 2014, a record 60.6 million people, or 19% of the U.S. population, lived with multiple generations under one roof, according to a new Pew Research Center analysis of census data.

Multigenerational family living – defined as a household that includes two or more adult generations, or one that includes grandparents and grandchildren – is growing among nearly all U.S. racial groups as well as Hispanics, among all age groups and among both men and women. The share of the population living in this type of household declined from 21% in 1950 to a low of 12% in 1980.

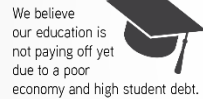
In 2012, 57 million Americans – 18% of the U.S. population – were part of multigenerational homes, according to the last major Pew Research Center analysis of this data.” – D’Vera Cohn and Jeffrey Passel, Pew Research Center

Sharer Nation

The 1980s Sharers



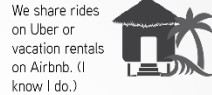
We share our likes and location on social media. (This is sometimes me.)



We believe our education is not paying off yet due to a poor economy and high student debt.



Many of us share a home with our parents and are delaying marriage and children, thus delaying household formation and homeownership by 5+/- years. (No and yes for me.)



We share rides on Uber or vacation rentals on Airbnb. (I know I do.)



While the Great Recession made us more educated, practical, and thrifty, we are less likely to commit—especially when it comes to home purchases. (Certain of these characteristics certainly describe me.)



We are close to our parents. This is in part due to the advent of the birth control pill, which was approved in 1960 and resulted in a sharp drop in the number of children per household. (I am definitely close to my parents.)



MIKE WILLINGER
Senior Consultant and 1980s Sharer

JOHN BURNS
REAL ESTATE CONSULTING

- “We believe our education is not paying off yet due to a poor economy and high student debt. While the Great Recession made us more educated, practical, and thrifty, we are less likely to commit – especially when it comes to home purchases. (Certain of these characteristics certainly describe me.)
- Many of us share a home with our parents and are delaying marriage and children, thus delaying household formation and home ownership by 5+/- years. (No and yes for me.)
- We are close to our parents. This is in part due to the advent of the birth control pill, which was approved in 1960 and resulted in a sharp drop in the number of children per household. (I am definitely close to my parents.)”

The Sharers: We Are Tired of “Sharing” Our Parents’ Spare Bedroom!

“[As Sharers, we are an important demographic decade that will greatly impact the housing industry.](#) In 2015, we headed 18.8 million households in the US, including 7.4 million owned homes and 11.4 million rented homes.

While most of us have been more likely to rent and live urban – due to delayed marriage/kids and huge improvements in big city living – we are becoming more prevalent in the housing market today. Builders are starting to tailor homes for our decade (see Adam Artunian’s blog [Starter Home Solutions in Expensive Markets](#)), but the big boom will likely come when we move to the suburbs for affordability and schools.” – Mike Willinger, Senior Consultant, John Burns Real Estate Consulting

Demographics

Few Millennials Are Engaged at Work

Millennials Who Are Engaged In Their Jobs: 29%

- Millennials differ in significant ways from other generations
- Yet they share basic employee needs with older workers
- Understanding millennials is the first step toward engaging them

“Much of what matters to organizations -- from performance to customer service to stock prices -- hinges on a deep understanding of how their millennial employees live and work. That's because millennials -- the youngest of whom are college-aged -- will grow to dominate the workplace. Millennial workers currently make up 38% of the U.S. workforce. Some estimate that they will make up as much as 75% of it by 2025.

The report, [*How Millennials Want to Work and Live*](#), revealed that only 29% of millennials are engaged at work, with the remaining 71% either not engaged or actively disengaged. What's more, six in 10 millennials say they're open to different job opportunities, and only 50% plan to be with their company one year from now.

This low engagement is troubling, as Gallup's latest meta-analysis shows that business units in the top quartile of [employee engagement](#) are 17% more productive, suffer 70% fewer safety incidents, experience 41% less absenteeism, have 10% better customer ratings and are 21% more profitable compared with business units in the bottom quartile.” – J. Brandon Rigoni, Associate Director for Selection and Development and Bailey Nelson, Writer and Editor, Gallup

Demographics

Millennials make up increasing segment of Bay State homeless

“Millennials and baby boomers are increasingly at risk of falling into homelessness in the Bay State, a social policy expert warned state officials yesterday.” – Kathleen McKiernan, Reporter, Boston Herald

“We have this growing problem of homelessness with people under the age of 30. It is important to identify that it is not just a youth homelessness problem. It’s really a millennial homelessness problem that will probably age into adulthood.

Facing a daunting labor market, mental health issues and opioid addiction, millennial men in particular are rapidly falling into homelessness. They join the second half of the baby boom, those ages 52 to 62, who have dominated the homeless population in the past 30 years. The two populations — and a burgeoning number of homeless families — are going to strain social service systems across the country.

Shelter is not the end game. It is just one other resource that is accessed in support of the objective, which is to resolve the housing instability.” – Dennis Culhane, expert in homelessness and housing, University of Pennsylvania

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