

The Virginia Tech – U.S. Forest Service

September 2017

Housing Commentary: Section II



Urs Buehlmann

Department of Sustainable Biomaterials
College of Natural Resources & Environment

Virginia Tech
Blacksburg, VA

540.231.9759

buehlmann@gmail.com

Delton Alderman

Forest Products Marketing Unit
Forest Products Laboratory

U.S. Forest Service
Madison, WI

304.431.2734

dalderman@fs.fed.us



2017

Virginia Polytechnic Institute and State University

VCE-ANR 300NP

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg.

Table of Contents

Slide 3: [Federal Reserve System Indicators](#)

Slide 32: [Private Indicators](#)

Slide 64: [Demographics](#)

Slide 105: [Economics](#)

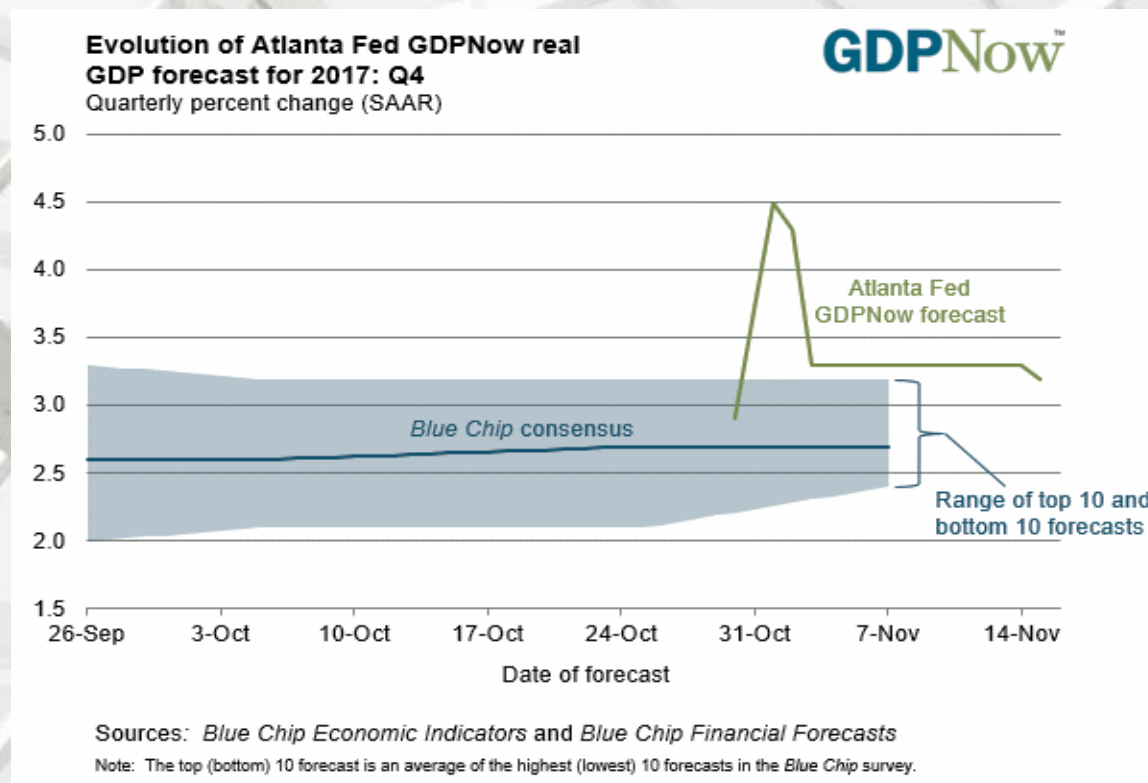
Slide 111: [Virginia Tech Disclaimer](#)

Slide 112: [USDA Disclaimer](#)



Federal Reserve System and Private Indicators

U.S. Economic Indicators

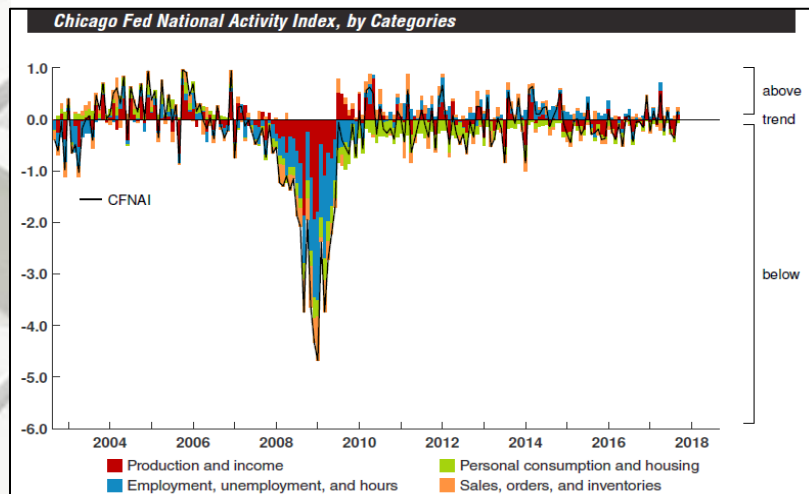


Atlanta Fed GDPNow™

Latest forecast: 3.2 percent — November 15, 2017

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the fourth quarter of 2017 is **3.2 percent** on November 15, down from 3.3 percent on November 9. After this morning's retail sales report from the U.S. Census Bureau, the forecast of real consumer spending growth remained 3.2 percent and the forecast of real residential investment growth declined from 5.0 percent to 4.2 percent.” – Pat Higgins, Economist, Federal Reserve Bank of Atlanta

Chicago Fed: National Activity Index



Midwest Economy Index

“Led by improvements in production-related indicators, the Chicago Fed National Activity Index (CFNAI) moved up to +0.17 in September from -0.37 in August. All four broad categories of indicators that make up the index increased from August, and three of the four categories made positive contributions to the index in September. The index’s three-month moving average, CFNAI-MA3, was unchanged at -0.16 in September.

Index Points to a Pickup in Economic Growth in September

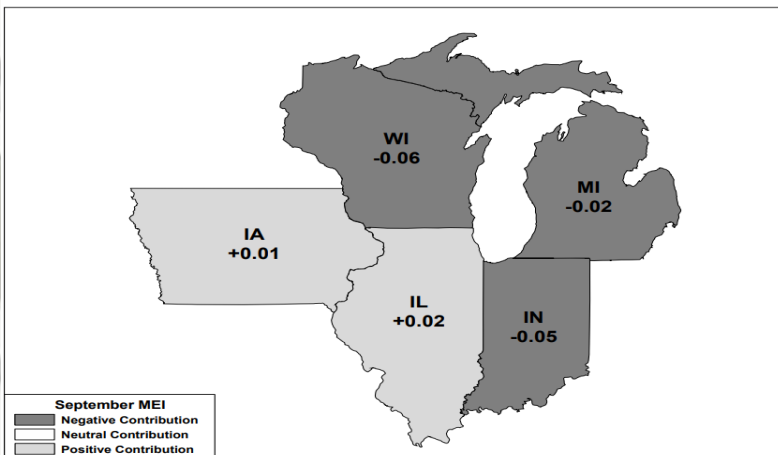
The CFNAI Diffusion Index, which is also a three-month moving average, ticked up to -0.19 in September from -0.20 in August. Forty-six of the 85 individual indicators made positive contributions to the CFNAI in September, while 39 made negative contributions. Fifty-four indicators improved from August to September, while 30 indicators deteriorated and one was unchanged. Of the indicators that improved, 17 made negative contributions.

The contribution from production-related indicators to the CFNAI increased to +0.10 in September from -0.33 in August. Total industrial production increased 0.3 percent in September after moving down 0.7 percent in August. The sales, orders, and inventories category also made a positive contribution to the CFNAI in September, edging up to +0.07 from +0.06 in August.

The contribution of the personal consumption and housing category to the CFNAI increased to -0.07 in September from -0.11 in August. Consumption indicators improved, on balance, pushing up the category’s overall contribution. However, housing starts decreased to 1,127,000 annualized units in September from 1,183,000 in August, and housing permits decreased to 1,215,000 annualized units in September from 1,272,000 in the previous month.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index

MEI and the Seventh Federal Reserve District States



Midwest Economy Index

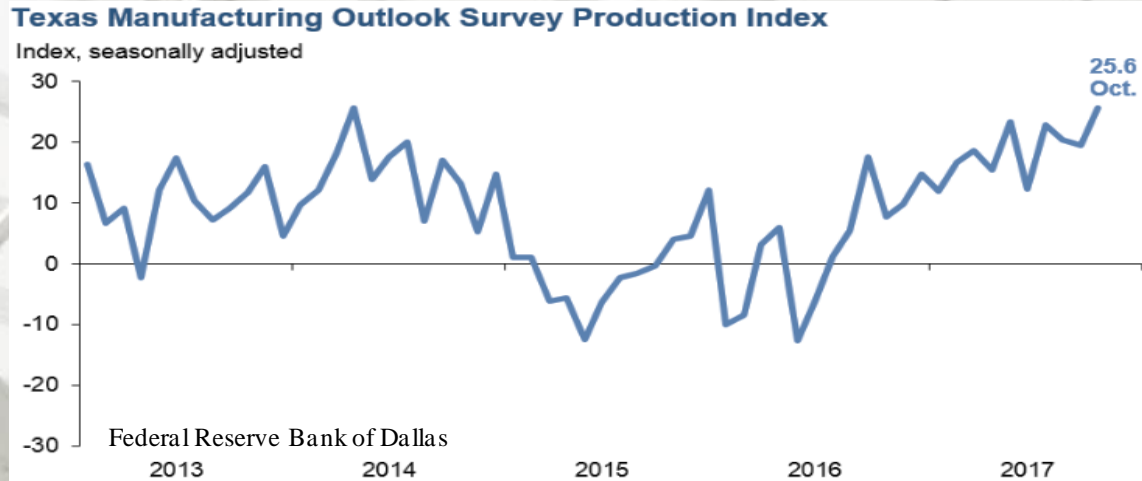
“The Midwest Economy Index (MEI) decreased to -0.09 in September from $+0.08$ in August. Contributions to the September MEI from all four broad sectors of nonfarm business activity and four of the five Seventh Federal Reserve District states declined from August. The relative MEI decreased to -0.04 in September from $+0.03$ in August. Contributions to the September relative MEI from three of the four sectors and one of the five states decreased from August.

Index Points to Slower Midwest Economic Growth Again in September

The manufacturing sector’s contribution to the MEI ticked down to $+0.23$ in September from $+0.24$ in August. The pace of manufacturing activity decreased in Illinois, Michigan, and Wisconsin, but increased in Indiana and was unchanged in Iowa. Manufacturing’s contribution to the relative MEI decreased to $+0.28$ in September from $+0.33$ in August. The construction and mining sector’s contribution to the MEI edged down to -0.12 in September from -0.09 in August. The pace of construction and mining activity was slower in Illinois, Indiana, and Iowa, but unchanged in Michigan and Wisconsin. Construction and mining made a contribution of -0.10 to the relative MEI in September, down slightly from -0.09 in August.

The service sector made a contribution of -0.08 to the MEI in September, down from -0.05 in August. The pace of service sector activity was down in Illinois and Wisconsin, but unchanged in Indiana, Iowa, and Michigan. The service sector’s contribution to the relative MEI edged up to -0.15 in September from -0.17 in August. The contribution from consumer spending indicators to the MEI decreased to -0.11 in September from -0.03 in August. Consumer spending indicators were, on balance, down in Illinois, Indiana, Michigan, and Wisconsin, but up in Iowa. Consumer spending’s contribution to the relative MEI decreased to -0.07 in September from -0.03 in August.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

U.S. Economic Indicators



Growth in Texas Manufacturing Activity Gains Momentum

“Texas factory activity expanded at a faster pace in October, according to business executives responding to the Texas Manufacturing Outlook Survey. The production index, a key measure of state manufacturing conditions, rose six points to 25.6 and reached its highest reading since April 2014. Other measures of current manufacturing activity also indicated a pickup in growth. The new orders index climbed six points to a 10-year high of 24.8, and the growth rate of orders index moved up to 12.3. The capacity utilization index also pushed to its highest level in a decade at 22.5. Meanwhile, the shipments index moved down several points but remained positive and at a well-above-average level of 20.9.

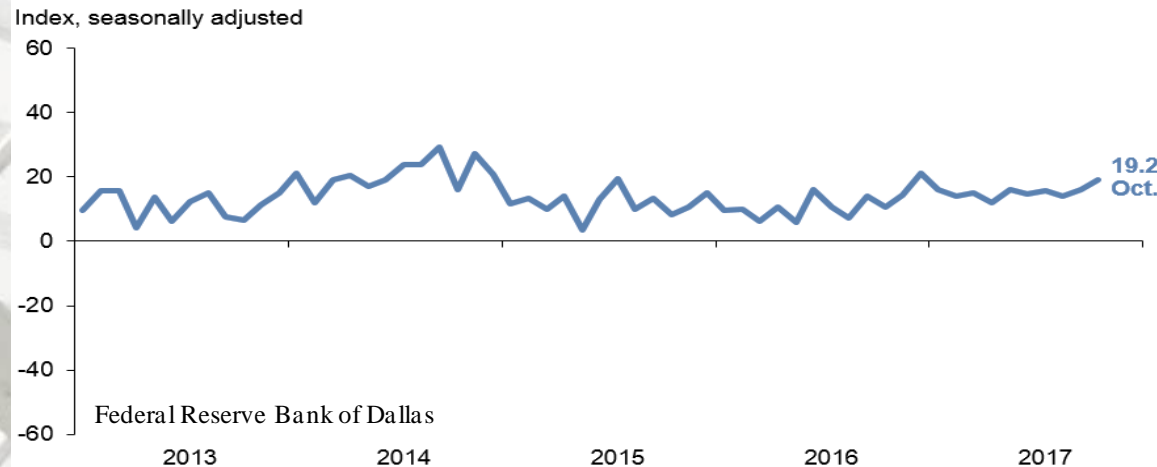
Perceptions of broader business conditions improved in October. The general business activity index increased to 27.6, its highest reading since 2006. The company outlook index posted its 14th consecutive positive reading, holding steady at an elevated 25.8.

Expectations regarding future business conditions remained highly optimistic. The index of future general business activity moved up four points to 38.5, while the index of future company outlook remained unchanged at 39.0. Other indexes of future manufacturing activity showed mixed movements but remained solidly in positive territory.” – Emily Kerr, Business Economist, The Federal Reserve

Bank of Dallas Source: <https://www.dallasfed.org/research/surveys/tmos/2017/17010.aspx>; 10/30/17

U.S. Economic Indicators

Texas Service Sector Outlook Survey Revenue Index



Texas Service Sector Activity Picks Up

“Texas service sector activity increased again in October, according to business executives responding to the Texas Service Sector Outlook Survey. The revenue index, a key measure of state service sector conditions, rose from 15.9 in September to 19.2 in October, its highest reading this year.

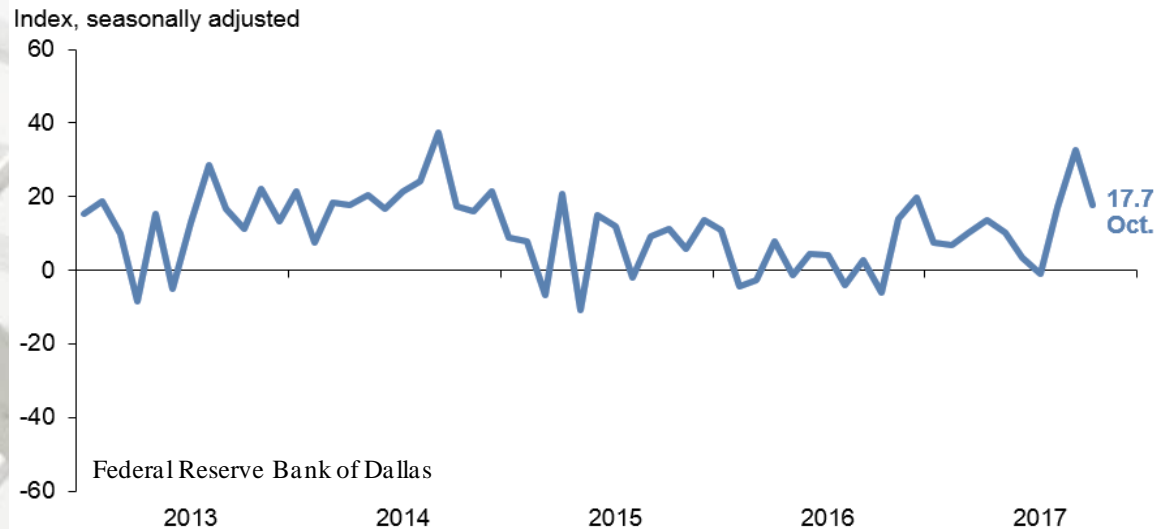
Labor market indicators reflected faster employment growth and longer workweeks this month. The employment index moved up from 3.5 to 8.3. The hours worked index rose five points to 7.8.

Perceptions of broader economic conditions reflected more optimism in October. The general business activity index advanced six points to 18.6. The company outlook index rose from 7.7 to 16.4, with 22 percent of respondents reporting that their outlook improved from last month and 5 percent noting it worsened.

Respondents’ expectations regarding future business conditions reflected more optimism in October. The index of future general business activity rose slightly from 28.0 to 30.5. The index of future company outlook moved up three points to 32.4. Indexes of future service sector activity, such as future revenue and employment, reflected more optimism this month.” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators

Texas Retail Outlook Survey Sales Index



Retail Sales Growth Slows, but Remains Solid

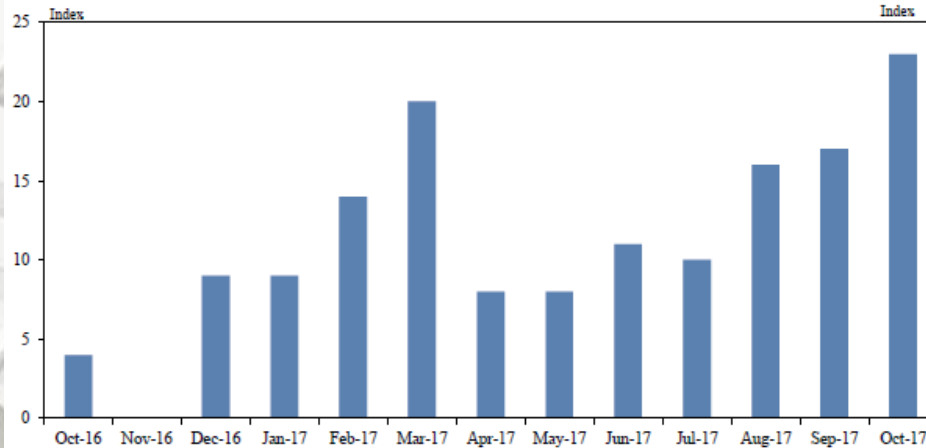
“Retail sales continued to expand in October, albeit at a slower pace than last month, according to business executives responding to the Texas Retail Outlook Survey. The sales index remained positive but fell 15 points to 17.7 in October. Inventories increased at the same pace as last month.

Labor market measures indicated faster employment growth and longer workweeks this month. The employment index rose seven points to 8.0, suggesting retailers added jobs on net. The hours worked index edged up from 5.1 to 7.5. Retailers’ perceptions of broader economic conditions continued to reflect optimism in October. The general business activity index rose slightly from 19.3 to 22.0. The company outlook index edged down three points to 19.6, with 23 percent of respondents reporting that their outlook improved from last month and 3 percent noting it worsened.

Retailers’ perceptions of future broader economic conditions reflected less optimism in October. The index of future general business activity dipped from 31.2 to 26.7. The index of future company outlook moved down from 31.1 to 25.5. 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

Chart 1. Composite Index vs. a Month Ago



The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Activity Posts Strong Growth

“Tenth District manufacturing activity posted strong growth, and expectations for future activity improved further. Raw materials price indexes increased modestly, while indexes for selling prices were mixed. Most year-over-year factory indexes eased somewhat in October from high readings in September. The production index fell from 56 to 41, and the shipments and capital expenditures indexes were modestly lower. The order backlog and new orders indexes inched down, and the composite and new orders for exports indexes were mostly unchanged. The employment index stayed flat. The raw materials inventory index increased to 30, its highest reading since May 2007, and the finished goods inventory index rose from 2 to 15.” – Pam Campbell, Federal Reserve Bank of Kansas City

“Factory activity accelerated further in our region this month, posting its highest composite reading since 2011.” – Chad Wilkerson, Vice President and Economist, Federal Reserve Bank of Kansas City

U.S. Economic Indicators

The Federal Reserve Bank of Kansas City

“The month-over-month composite index was 23 in October, the highest since March 2011, up from 17 in September and 16 in August. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Factory activity increased strongly at both durable and non-durable goods plants, particularly for food, plastics, computer and electronic products. Month-over-month indexes were mostly higher. The new orders index increased moderately, and the order backlog index increased to its highest reading since March 2011. The employment and new orders for exports indexes increased slightly. However, the shipments index was unchanged, and the production index eased somewhat but remained high. The finished goods inventory index jumped back into positive territory, and the raw materials inventory index also increased moderately.

Future factory activity expectations improved for a second consecutive month. The future new orders and employee workweek indexes increased considerably, and the future order backlog, capital expenditures, employment, and production indexes rose moderately. The future composite index increased from 26 to 32, and shipments and new orders for exports improved modestly. In contrast, the supplier delivery time index fell to its lowest reading since January 2017. The future raw materials inventory index inched higher from 19 to 22, and the future finished goods inventory index increased moderately.

Most price indexes increased further in October. The month-over-month finished goods price index was unchanged, and the raw materials price index inched higher. The year-over-year finished goods price index eased from 38 to 33, and the year-over-year raw materials price index increased to its highest since May 2014. The future finished goods price index rose from 29 to 32, and the future raw materials price index edged up to 43.” – Pam Campbell, Federal Reserve Bank of Kansas City

U.S. Economic Indicators

Q3 2017: Snapshot of the New England Economy through October 10, 2017

Economic activity continued to improve throughout 2017

“In the first half of 2017, economic conditions continued to improve in both New England and the United States along several indicators. Payroll employment increased, home prices rose, and wage and salary income were higher relative to one year prior, although the changes in economic conditions varied across the New England states. Over this period, the unemployment rate declined in five of the six New England states, and the unemployment rate in the region remained below the national average.

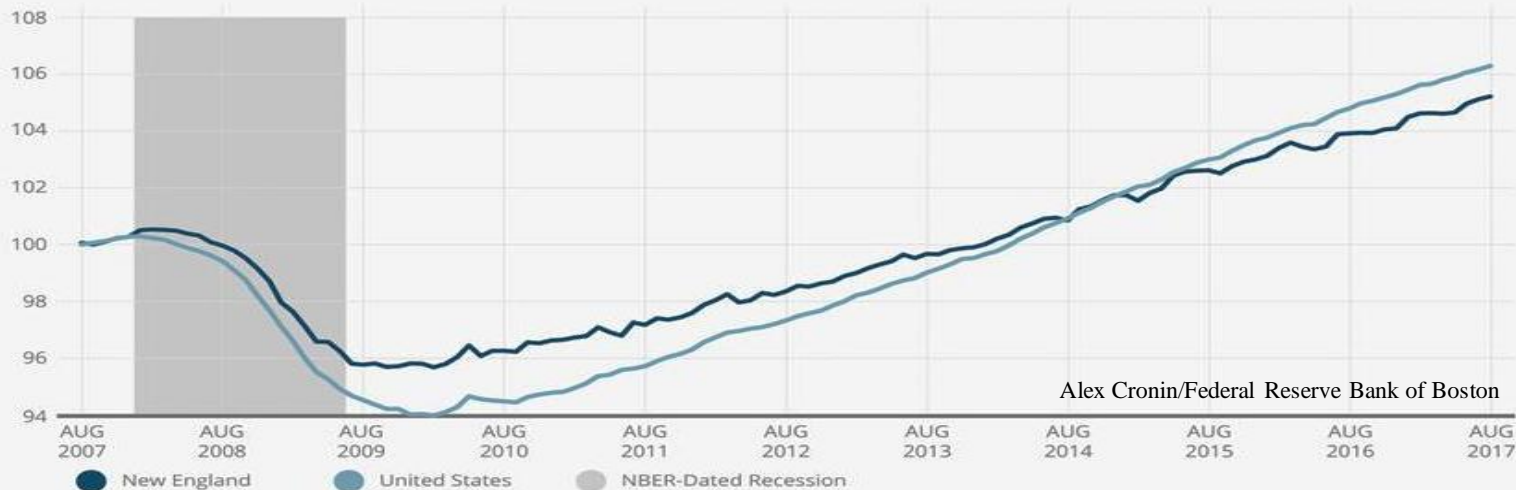
Employment gains in 2017

The United States and New England continued to post job gains through August 2017. Between August 2016 and August 2017, payroll employment increased 1.4 percent nationally and 1.2 percent regionally (Exhibit 1). Although employment increased since August 2016 in each New England state, job growth rates over that period varied across those states. Within New England, New Hampshire posted the strongest year-over-year job gains through August 2017 (increasing 2.1 percent), and along with Rhode Island (1.9 percent) and Massachusetts (1.6 percent) exceeded the national job growth pace during that time period. Connecticut posted the slowest employment growth in the region, with job gains of just 0.4 percent over this time period.” – Riley Sullivan, The Federal Reserve Bank of Boston

U.S. Economic Indicators

EXHIBIT 1
Nonagricultural Employment
August 2007 – August 2017

Index 2007 = 100



Alex Cronin/Federal Reserve Bank of Boston

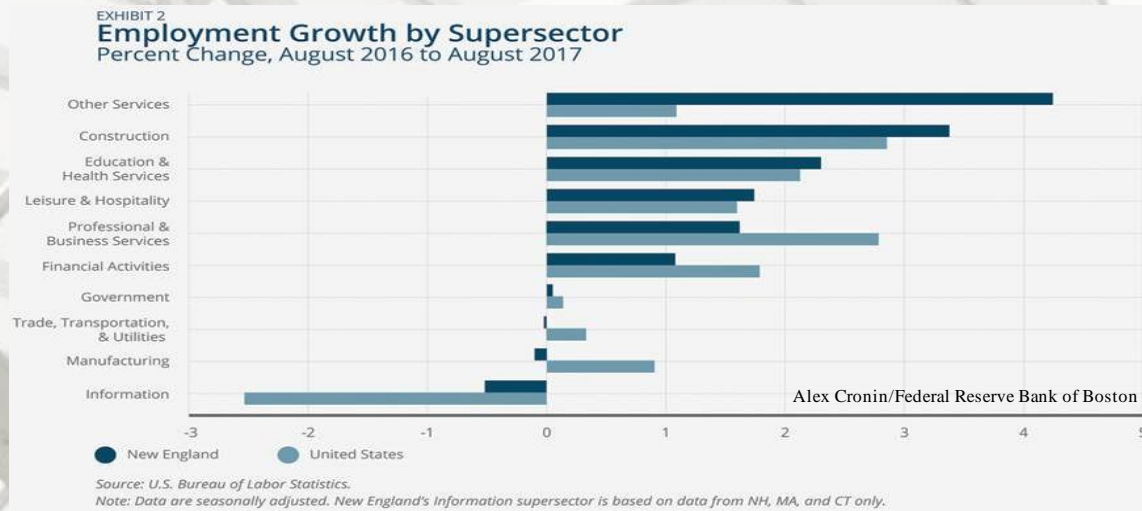
Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted.

Q3 2017: Snapshot of the New England Economy through October 10, 2017

Manufacturing sees job losses in New England despite adding jobs in U.S.

“From August 2016 to August 2017, Construction, Education & Health Services, and Other Services in New England outpaced employment growth in those supersectors nationally (Exhibit 1, 2). For that time period, Manufacturing employment shrank in the region by 0.1 percent despite growth nationally of 0.9 percent. Manufacturing employment decreased in four of six New England states, while both Rhode Island (up 2.0 percent) and New Hampshire (up 0.4 percent) experienced increases in manufacturing employment. Employment in Information dropped 2.2 percent year-over-year nationally, but in New England the supersector had a more modest 0.5 percent decline.” – Riley Sullivan, The Federal Reserve Bank of Boston

U.S. Economic Indicators



Wage and salary income growth continues

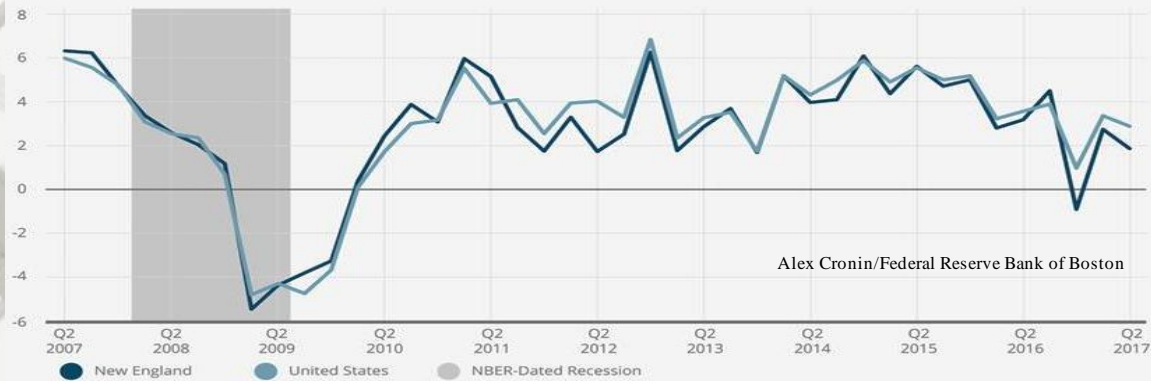
“Incomes in New England and the United States continued to grow at a moderate pace through the first half of 2017. Wage and salary disbursements, the largest component of income, increased year-over-year by 2.9 percent nationally and 1.9 percent regionally in Q2 2017. Wages and salary growth in the New England states ranged from 1.2 percent in Rhode Island to 3.1 percent in Massachusetts. Connecticut was the sole New England state to report a decrease in wage and salary disbursements, down 1.0 percent in the period considered.

Massachusetts records fastest house price growth in the region

Home prices continued to rise both nationally and regionally, with national growth rates continuing to exceed regional rates. Between Q2 2016 and Q2 2017, home prices increased 6.4 percent nationally and 4.8 percent regionally. All six New England states reported positive house price growth year-over-year, but with the exception of Massachusetts (6.7 percent) and Rhode Island (6.6 percent), these gains trailed the national growth rate. House price growth in Connecticut was the lowest in the region over the same period, at 1.7 percent.” – Riley Sullivan, The Federal Reserve Bank of Boston

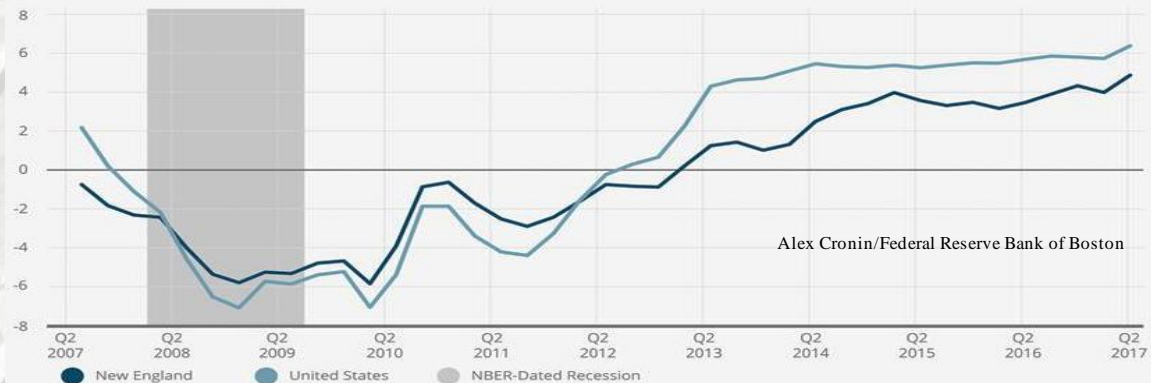
U.S. Economic Indicators

EXHIBIT 4
Wage & Salary Disbursements
 Percent Change From Year Earlier



Source: Federal Housing Finance Agency.

EXHIBIT 5
FHFA House Price Index
 Percent Change From Year Earlier



Source: Federal Housing Finance Agency.

U.S. Economic Indicators

Empire State Manufacturing Survey

Growth Accelerates

“Business activity grew at a robust pace in New York State, according to firms responding to the October 2017 *Empire State Manufacturing Survey*. The headline general business conditions index climbed six points to 30.2, its highest level in three years. The new orders index came in at 18.0 and the shipments index rose eleven points to 27.5 — readings that pointed to ongoing solid gains in orders and shipments. Delivery times were slightly longer, and inventory levels decreased. Labor market indicators reflected a strong increase in employment and little change in hours worked. Both input prices and selling prices rose at a somewhat slower pace than last month. Indexes assessing the six-month outlook suggested that firms remained optimistic about future conditions.

Manufacturing firms in New York State reported that business activity continued to expand strongly in October. The general business conditions index climbed six points to 30.2, its highest level since 2014. Forty-four percent of respondents reported that conditions had improved over the month, while 14 percent reported that conditions had worsened. The new orders index fell seven points, but at 18.0, pointed to solid gains in orders. The shipments index advanced eleven points to 27.5, its highest level in several years. The unfilled orders index moved down seven points to 2.3. The delivery time index fell twelve points to 3.1, a level indicating slightly longer delivery times, and the inventories index fell fourteen points to -7.8, a sign that inventory levels declined modestly.

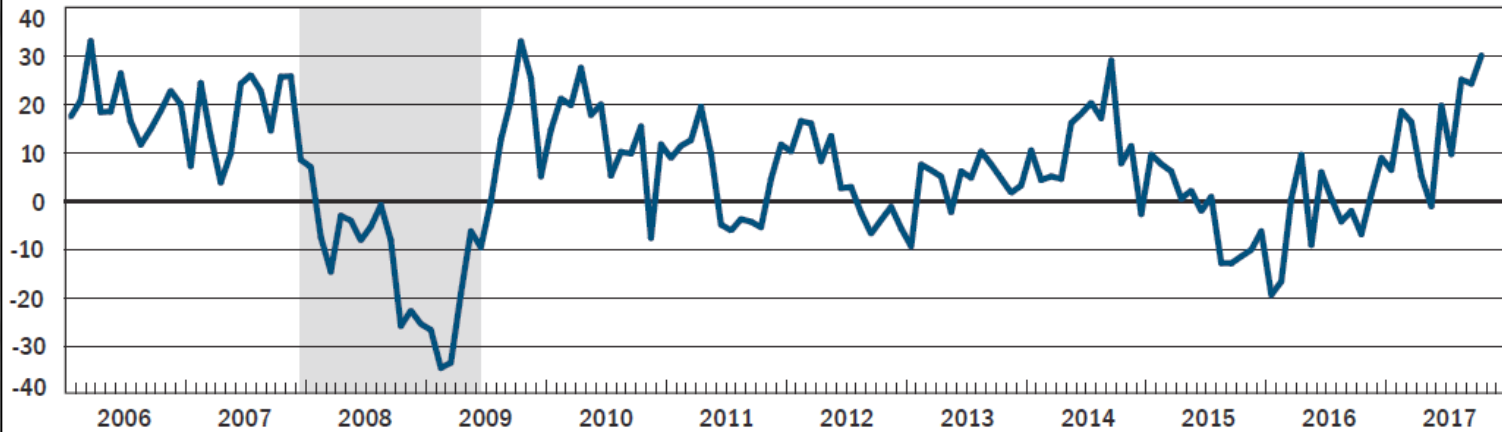
Firms Remain Optimistic

Indexes assessing the six-month outlook suggested that firms continued to be optimistic about future conditions. The index for future business conditions climbed six points to 44.8, and the index for future new orders also came in at 44.8. Employment was expected to increase modestly. The capital expenditures index edged down three points to 21.9, and the technology spending index was little changed at 16.4.” – Federal Reserve Bank of New York

U.S. Economic Indicators

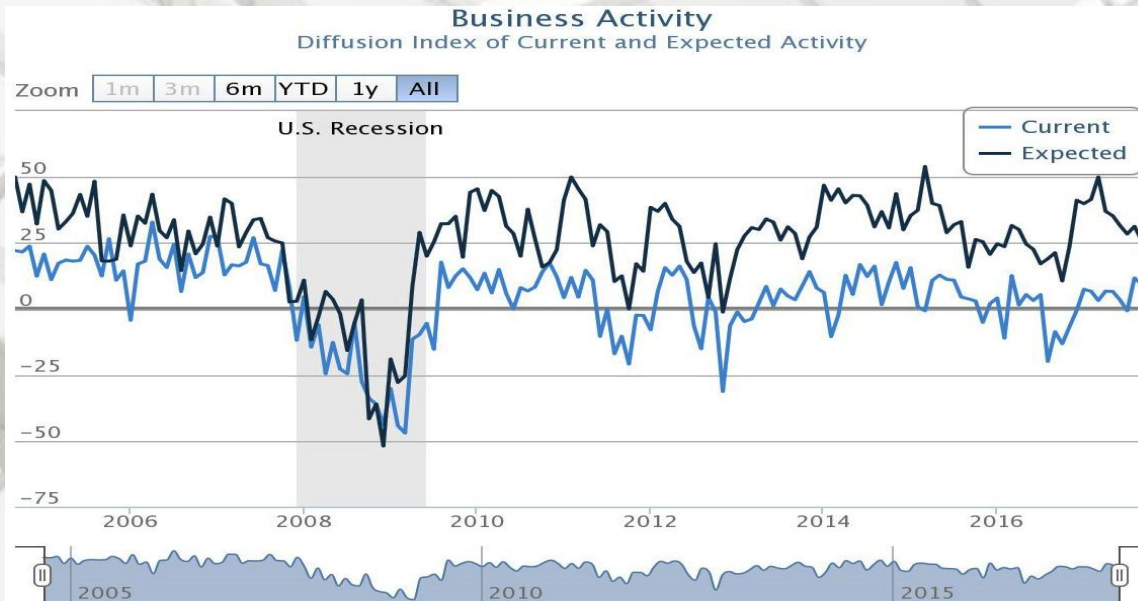
General Business Conditions Seasonally Adjusted

Diffusion index



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

U.S. Economic Indicators



Business Leaders Survey (Services)

“Activity in the region’s service sector continued to expand modestly, according to firms responding to the Federal Reserve Bank of New York’s October 2017 *Business Leaders Survey*. The survey’s headline business activity index moved down four points to 5.7, indicating a slower pace of growth than in September. The business climate index remained negative at -5.7, a sign that firms, on balance, continued to regard the business climate as worse than normal. The employment index climbed seven points to 18.1, indicating that employment increased at a solid clip, and the wages index was little changed at 36.2, suggesting that wages grew at about the same pace as last month. Input price increases were little changed, while selling prices rose at a somewhat slower pace. Capital spending continued to increase modestly. The index for future business activity fell again in October, suggesting that optimism about future conditions continued to wane.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

Business Leaders Survey Activity Grows More Slowly

“Business activity in the region’s service sector grew modestly in October. The headline business activity index moved down for a second consecutive month, falling four points to 5.7. Thirty-four percent of respondents reported that conditions improved over the month, while 28 percent said that conditions worsened. The business climate index was little changed at -5.7, signaling that, on balance, firms continued to view the business climate as worse than normal.

Employment Picks Up

The employment index climbed seven points to 18.1, pointing to a significant increase in employment levels. The wages index came in at 36.2, indicating that wages rose at about the same pace as in recent months. The prices paid index was little changed at 41.6, indicating that the pace of input price increases held steady, and the prices received index fell three points to 15.9, suggesting that selling prices increased at a somewhat slower pace. The capital spending index held steady at 7.1.

Optimism Continues to Wane

Optimism about the six-month outlook fell in October. The index for future business activity has been trending lower in recent months, and it fell another ten points in October to 16.0, representing a cumulative decline of 34 points since March. The index for future business climate edged up to 3.8. At 25.5, the index for future employment suggested that respondents expected employment to increase in the months ahead. The index for planned capital spending was 22.9.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York

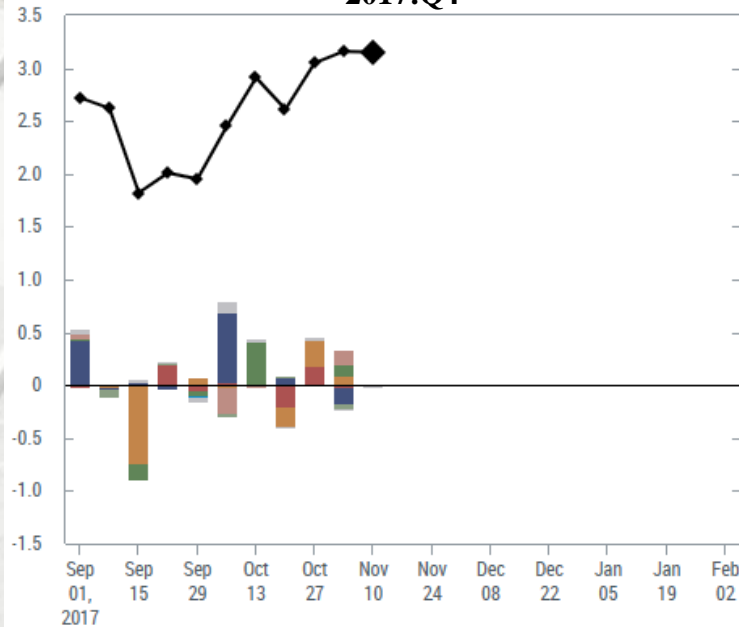
◆ The New York Fed Staff Nowcast ○ Advance GDP estimate □ Latest GDP estimate

■ Housing and construction ■ Manufacturing ■ Surveys ■ Retail and consumption ■ Income ■ Labor ■ International trade ■ Others

Percent (annual rate)

2017:Q4

Expand



Data Flow (Nov 10, 2017)

Model Update	Release Date	Data Series	Actual	Impact	Nowcast GDP Growth
Nov 10					3.15
	10:00AM Nov 07	JOLTS: Total job openings	3.00	0.00	
		Data revisions		-0.01	
Nov 03					3.16

Source: Authors' calculations, based on data accessed through Haver Analytics.

Notes: We start reporting the Nowcast for a reference quarter about one month before the quarter begins; we stop updating it about one month after the quarter closes.

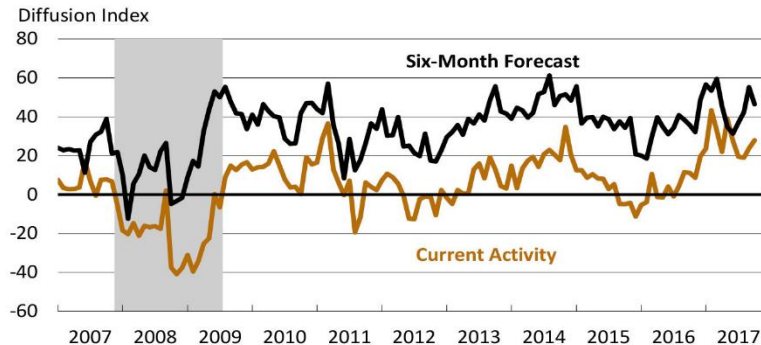
Colored bars reflect the impact of each broad category of data on the Nowcast; the impact of specific data releases is shown in the accompanying table.

November 12, 2017: Highlights

- “The New York Fed Staff Nowcast for 2017:Q4 stands at 3.2%.
- News from this week's data releases left the Nowcast broadly unchanged.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

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



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

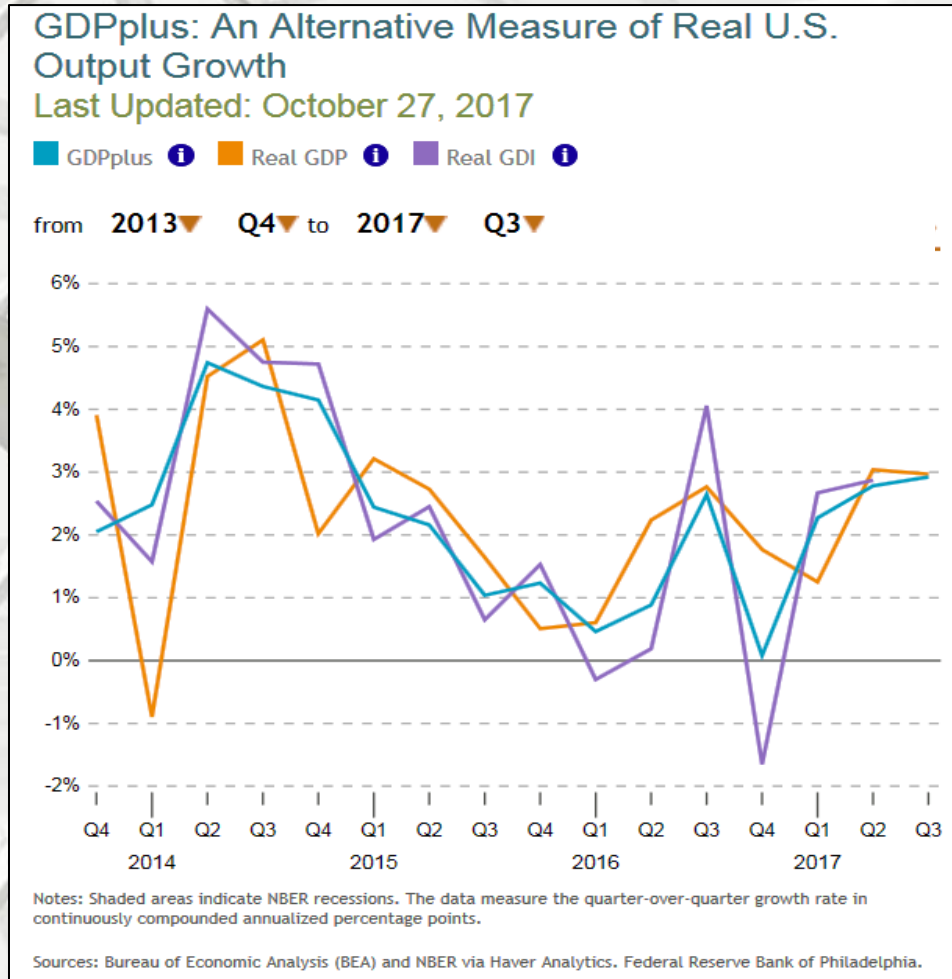
“Manufacturing firms reported continued growth in regional manufacturing in October. The survey’s current indicators for general activity, new orders, shipments, and employment all remained positive this month. Both of the survey’s current labor market indicators showed notable improvement. The indexes assessing the six-month outlook suggest that firms remained optimistic about future growth.

October 2017 Manufacturing Business Outlook Survey Current Indicators Suggest Continued Growth

The index for current manufacturing activity in the region increased 4 points to a reading of 27.9 and is now at its highest reading since May (see Chart 1). More than 39 percent of the firms indicated increases in activity this month, while 11 percent reported decreases. Both the new orders and shipments indexes remained positive but fell this month, decreasing 10 points and 13 points, respectively. Both the unfilled orders and delivery times indexes were positive for the 12th consecutive month, suggesting longer delivery times and an increase in unfilled orders.

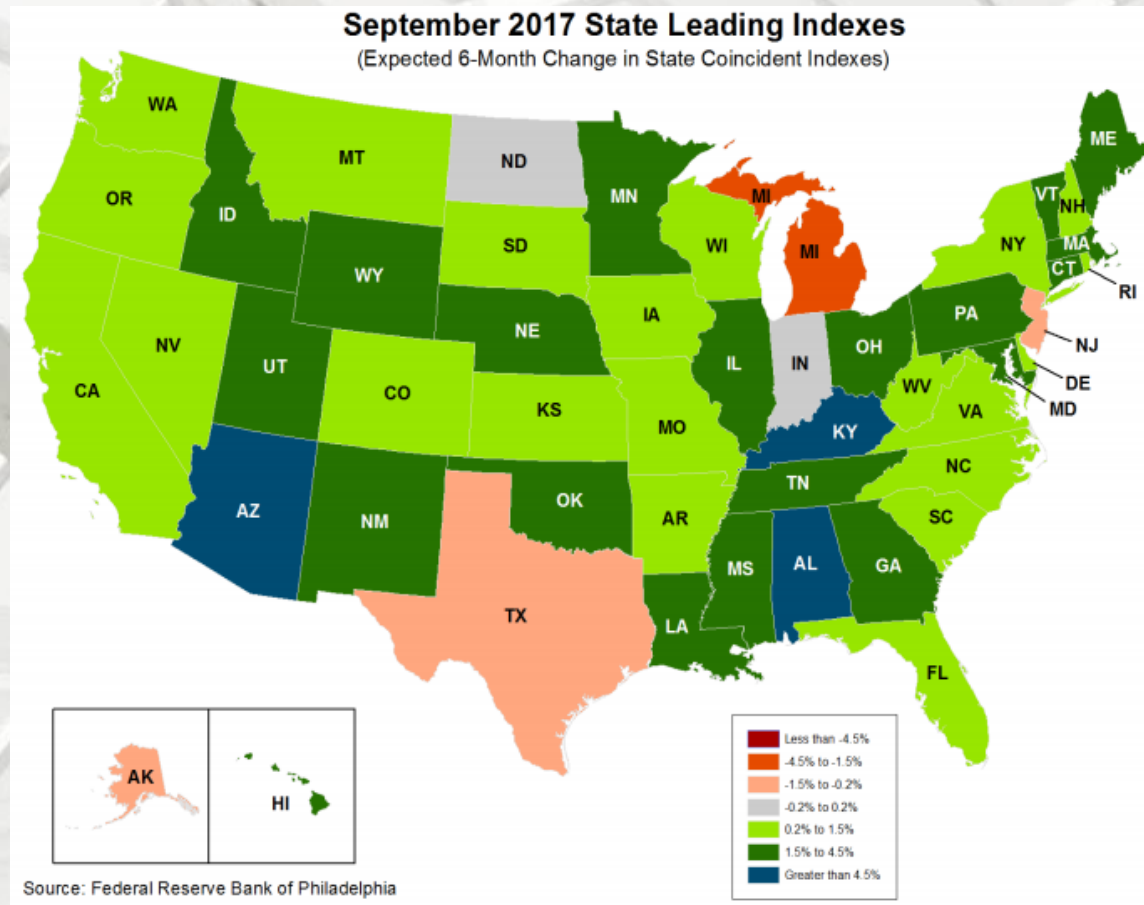
Firms reported, on balance, an increase in manufacturing employment and longer workweeks this month. Nearly 31 percent of the firms reported higher employment this month compared with 18 percent last month. No firms reported decreases in employment this month. The current employment index increased 24 points to a record high reading of 30.6. The average workweek index also increased 8 points, its highest reading in four months.” – Mike Trebing, Senior Economic Analyst, Federal Reserve Bank of Philadelphia

Philadelphia Fed: GDPplus



“Real GDP Q2 2017: 3.0%; Real GDI Q2 2017: 2.9; and Real GDPplus Q2 2017: 2.9%.” – The Federal Reserve Bank of Philadelphia

Philadelphia Fed



“The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for September 2017. The indexes are a six-month forecast of the state coincident indexes (also released by the Bank). Forty-six state coincident indexes are projected to grow over the next six months, and four are projected to decrease. For comparison purposes, the Philadelphia Fed has also developed a similar leading index for its U.S. coincident index, which is projected to grow 0.9 percent over the next six months.” – Daneil Mazone, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

The Federal Reserve Bank of Richmond Reports on Fifth District Manufacturing Activity Remained Positive in October

“Reports on Fifth District manufacturing activity remained positive in October, according to the latest survey by the Federal Reserve Bank of Richmond. The composite index dropped, affected by a notable decline in the shipments index, which fell from 22 to 9, but it remained positive across all components, indicating continued growth. While most manufacturing indexes fell in October, the wage index increased from 17 to 24, which is the highest it has been since May of 2000.

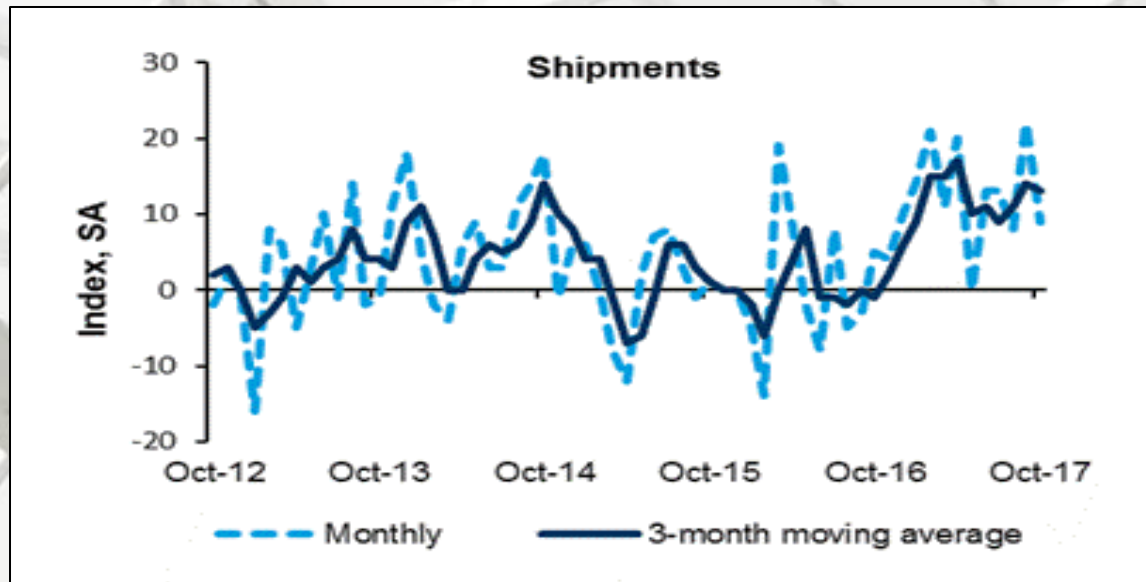
Manufacturing firms remained optimistic about growth in the next six months. Most expectations indexes rose, with the exception of employment and average workweek, which both remained positive and were well above current values.

District manufacturing firms reported that prices grew in October, although at a slightly lower rate than during September. They expect price growth to accelerate in the coming six months.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators



U.S. Economic Indicators



U.S. Economic Indicators

The Federal Reserve Bank of San Francisco

FRBSF FedViews

- “Gross Domestic Product (GDP) continues to grow at a moderate pace. Estimated second quarter growth, revised up to 3.1% at an annualized rate, was very strong though it partially represents a bounce back from weak first quarter growth of 1.2%. Going forward, we expect GDP growth will be disrupted in the third quarter by the hurricanes, but will rebound in the fourth quarter due to offsetting recovery spending. Recent indicators, including factory orders, vehicle sales, and business sentiment, point to continued momentum in the economy. We expect output growth to average somewhat above 2% for 2017, and transition back gradually over the next two years to our estimate for potential growth of 1½ to 1¾% as more monetary policy accommodation is removed.
- The recent hurricanes have pushed down nonfarm payrolls. The September report indicated a loss of 33,000 jobs, mostly in the leisure and hospitality sector as workers there tend not to be paid when conditions temporarily shut down businesses. However, these effects are expected to be transitory. The job market looks strong over the longer run.
- Technological change, particularly digital innovation, has transformed the nature of the products and services used by consumers. According to surveys by the Pew Research Center, more than 95% of people now own a cell phone, most of which are smartphones, 80% own a computer, and almost 70% own a tablet device. Though still small — less than two percent — purchases of computer equipment, software, and telephone devices is a growing portion of total consumer spending.” – Reuven Glick, Group Vice President, The Federal Reserve Bank of San Francisco

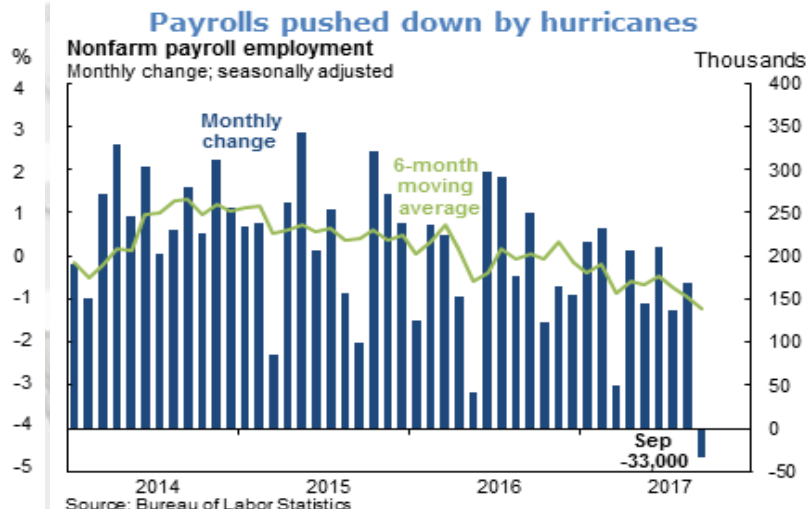
U.S. Economic Indicators

The Federal Reserve Bank of San Francisco

FRBSF FedViews

- “The increased use of digital devices has affected the composition of the services used to exchange information, as cellular and internet service usage steadily displaces telephone landline use. In addition, digital innovation has affected the sources of the entertainment that is viewed. In particular, spending on entertainment supplied by cable and satellite has declined recently as more people have “cut the cord” and are spending more instead on internet access and computer games. Spending on video disc rentals have also declined as consumers have turned to greater use of internet downloads and streaming.
- The U.S. Bureau of Economic Analysis, which calculates GDP data, faces several ongoing challenges in measuring spending on digital devices and related services. First, it must keep up with changing spending patterns as new devices replace older products. Second, it must properly adjust price data for quality changes in digital products. To the extent price increases reflect quality improvement, measured prices overstate true inflation. Using true lower prices raises the estimated quantity of spending adjusted for inflation. This issue also affects the measurement of business investment in computers and software.” – Reuven Glick, Group Vice President, The Federal Reserve Bank of San Francisco

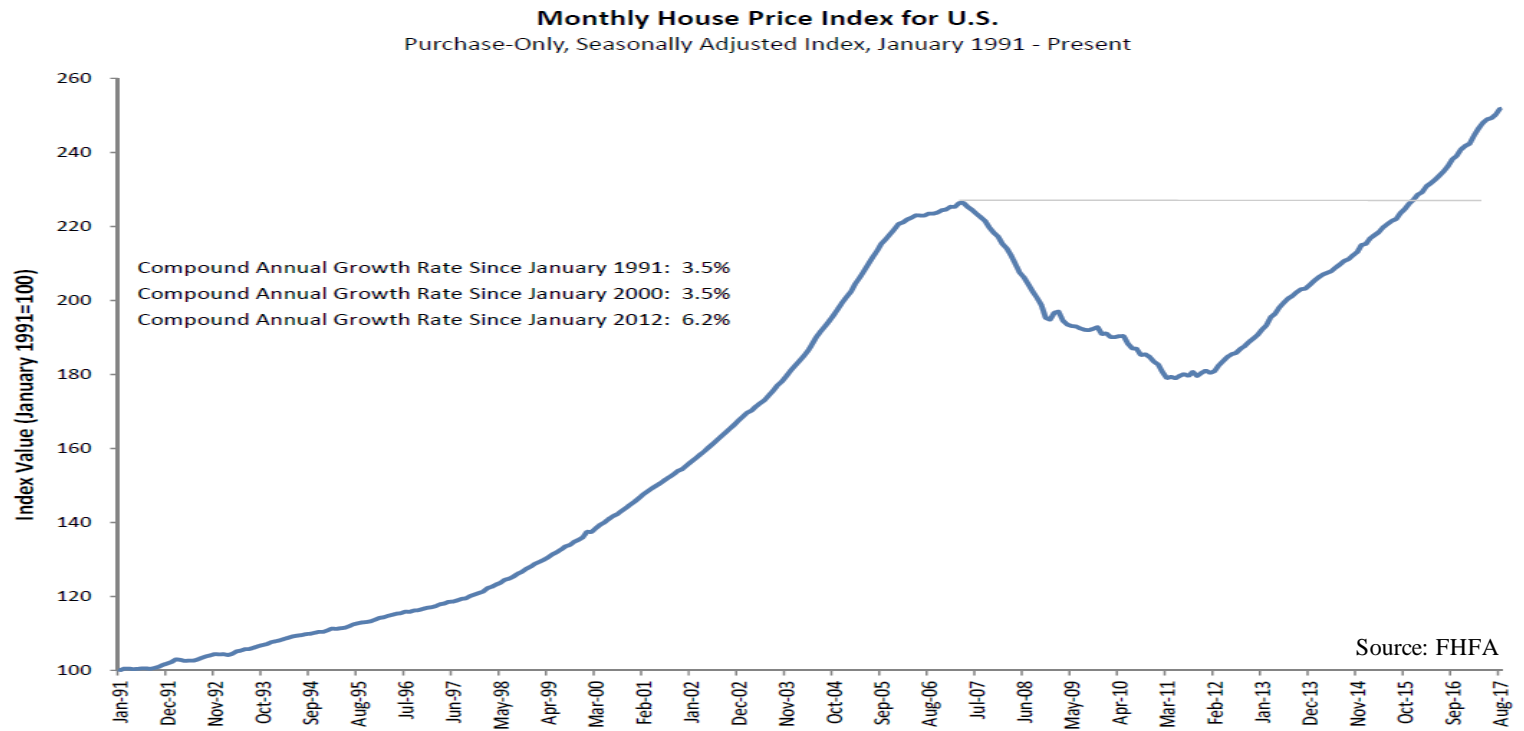
U.S. Economic Indicators



The Federal Reserve Bank of San Francisco FRBSF FedViews

- “A third concern relates to whether or not communications services provided by, for example, social media, web searching, and mapping applications should be included in the GDP accounts. Current methodology practice excludes such services because households are not directly charged for these activities, even though they provide benefits to consumers. Since most providers of such “free” services charge advertisers, advertising-supported content is indirectly included in GDP to the extent that advertising costs are reflected in the prices paid by consumers for the items being advertised. Some debate exists about how much each of these considerations might contribute to possible under-measurement of GDP and productivity growth. However, most estimates of the estimated magnitudes of these effects tend to be relatively small.” – Reuven Glick, Group Vice President, The Federal Reserve Bank of San Francisco

U.S. Economic Indicators



FHFA House Price Index

U.S. House Price Index Up 0.2 Percent in July

“The FHFA House Price Index (HPI) reported a **0.7 percent** increase in U.S. house prices in August from the previous month. From August 2016 to August 2017, house prices were up 6.6 percent. For the nine census divisions, seasonally adjusted monthly price changes from July 2017 to August 2017 ranged from -0.1 percent in the New England division to +1.4 percent in the Pacific division. The 12-month changes were all positive ranging from +5.0 percent in the Middle Atlantic division to +9.3 in the Pacific division.” – Stefanie Johnson and Corinne Russell, FHFA

U.S. Global Economic Indicators

Chart 1
Mexico Output Growth Stalls

Index, January 2007 = 100*

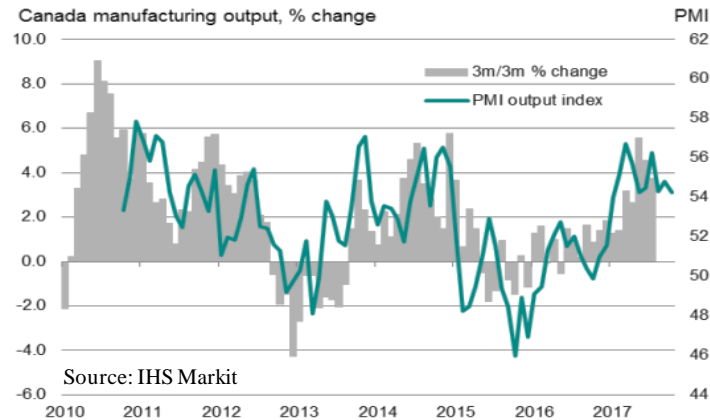


*Seasonally adjusted, three-month moving average; real pesos.

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

Private Indicators: Global

IHS Markit Canada Manufacturing PMI



Markit Canada Manufacturing PMI™

Slowest rise in new orders in year-to-date

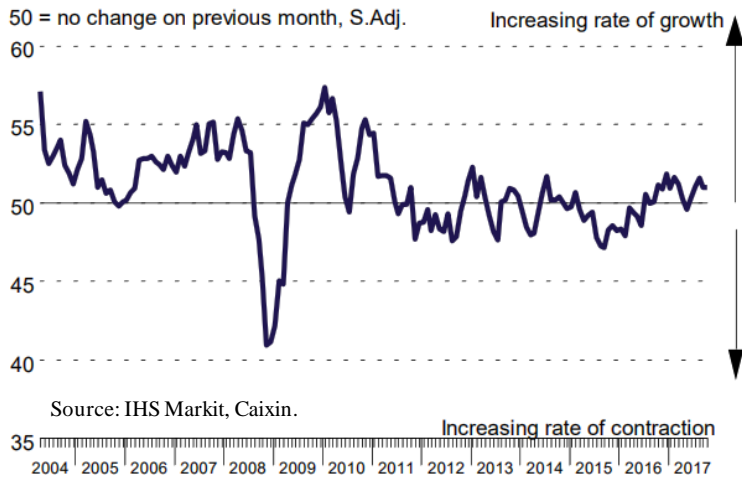
“The seasonally adjusted IHS Markit Canada Manufacturing Purchasing Managers’ Index® (PMI™) dipped to 54.3 in October from 55.0 in September. Although continuing to signal stronger business conditions at the start of the fourth quarter, the latest improvement in the health of the sector was the weakest since January.

Growth in the Canadian manufacturing sector showed signs of easing in October, with both output and new orders rising at weaker rates. New export orders decreased for the first time in a year. Both output and new orders rose at slower rates during October. Production increased for the twelfth successive month, but at the weakest pace since January. Where output rose, this was mainly linked to higher new orders. Total new business expanded for the thirteenth month running. In contrast, new export orders declined, the first reduction for a year. That said, the rate of contraction was fractional.

Business conditions improved at a slower pace in the manufacturing sector at the start of the fourth quarter, as softer rises in output and new order volumes dragged down the headline PMI figure. Weaker growth in manufacturing workloads in part reflected a dip in export sales for the first time since October 2016. In contrast to export sales, domestic demand remained on an upward path during October, helped by greater spending among oil and gas companies. The improvement in sales to energy related clients meant that Western Canada continued to outperform. Manufacturers based in Alberta & British Columbia saw another robust improvement in business conditions during October, which was underpinned by the steepest rate of job creation since the third quarter of 2011.” – Tim Moore, Associate Director at Survey Compilers, IHS Markit

Private Indicators: Global

Caixin China General Manufacturing PMI



Caixin China General Manufacturing PMI™

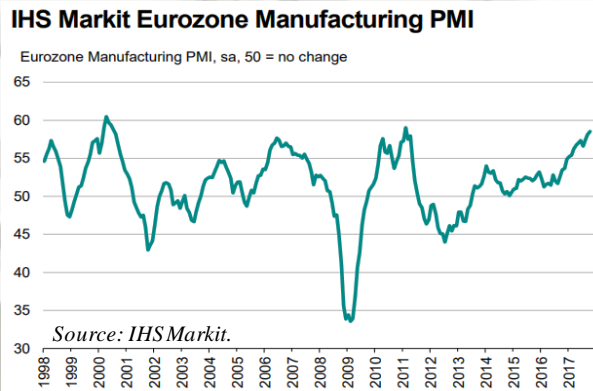
Production increases at weakest pace since June

“The seasonally adjusted Purchasing Managers’ Index™ (PMI™) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – was unchanged from September’s reading of 51.0 in October to signal a further marginal improvement in the health of the sector. Operating conditions have now strengthened in each of the past five months.

October survey data signalled a further marginal improvement in manufacturing operating conditions across China. While new orders rose at a slightly quicker pace, production increased at the softest rate for four months. At the same time, companies continued to shed staff amid reports of company-downsizing policies and efforts to raise efficiency. This in turn contributed to a further increase in outstanding business, which rose solidly. Strict environmental policies meanwhile contributed to a sharp rise in input costs and weighed on vendor performance. As a result, companies raised their factory gate prices at a solid pace.

The Caixin China General Manufacturing PMI was 51.0 in October, unchanged from September and remaining in expansionary territory. The sub-index for output fell for the third straight month in October and was weaker than the average seen over the first 10 months of the year, even though growth in new orders picked up. The sub-indices for input costs and output prices both moderated from the previous month but remained at rather high levels. Stocks of finished goods and stocks of purchases lingered in contraction territory, although their paces of decline eased moderately from September. China’s manufacturing sector expanded steadily in October. But the stringent production curbs imposed by the government to reduce pollution and relatively low inventory levels have added to cost pressures on companies in midstream and downstream industries, which could have a negative impact on production in the coming months.” – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis, CEBM Group

Private Indicators: Global



Markit Eurozone Manufacturing PMI®

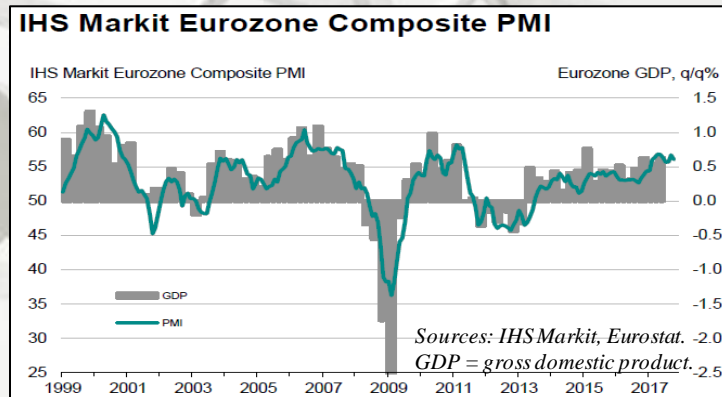
“The final IHS Markit Eurozone Manufacturing PMI® rose to an 80-month high of 58.5 in October, up from 58.1 in September and slightly below the earlier flash estimate of 58.6. The headline PMI has signalled expansion in each month since July 2013.

Eurozone Manufacturing PMI rises to 80-month high in October

The eurozone manufacturing sector started the final quarter on a strong footing. Growth of both output and new orders remained elevated, while the pace of job creation accelerated to a survey-record high. Eurozone factories started the fourth quarter with increased vigour, with the sector’s growth spurt showing no sign of abating. October’s PMI was the highest since February 2011 and the second-highest in over 17 years. The overall performance of the manufacturing sector so far this year has been the strongest since 2000. It’s especially encouraging to see employment growing at a survey-record pace as firms seek to boost capacity in response to fuller order books. Export order growth remains encouragingly solid, suggesting little impact from the strengthening of the euro this year, and domestic demand continues to improve across the region

However, with inflows of new work rising at an increased pace, factories and their suppliers are struggling to meet demand. Outstanding orders rose to a degree never before exceeded in the series’ 15-year history and supply chains are being stretched to the greatest extent since 2011, suggesting that pricing power is shifting towards a sellers’ market. Factory input costs and selling prices consequently rose at faster rates. With output, demand and price pressures all rising, the survey data support the ECB’s recent shift in policy towards lower asset purchases in 2018.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit Eurozone Composite PMI®

“The final **IHS Markit Eurozone PMI® Composite Output Index** posted 56.0 in October, down from 56.7 in September, but above the earlier flash estimate of 55.9. The headline index has signalled expansion in each of the past 52 months.

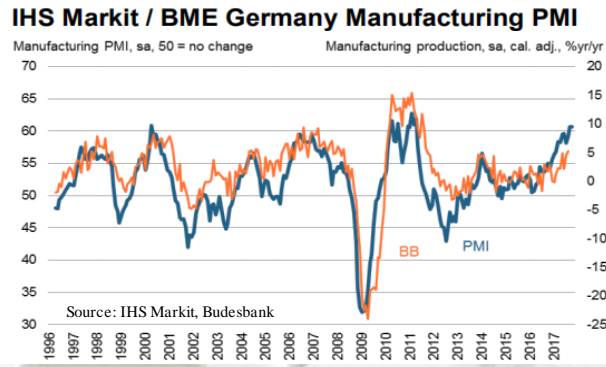
Eurozone economic growth accelerates at end of third quarter

The eurozone economy made a strong start to the final quarter. Although the rate of output growth eased slightly, it remained among the fastest registered over the past six-and-a-half years, while the pace of job creation was the best in over a decade. Both were underpinned by the strongest inflows of new business since April 2011.

The manufacturing sector continued to record sharper rates of increase in output, new orders and employment than its services counterpart in October. Nonetheless, the latter continued to register strong increases in all three measures. The euro area service sector remained a positive spur for broader economic growth in October.

The eurozone growth spurt retained strong momentum at the start of the fourth quarter. The October headline PMI reading matched the average seen in the third quarter and puts the region on course for another 0.6-0.7% expansion in the closing quarter of 2017. With new business growth ticking higher, November should also prove a good month for business activity.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit/BME Germany Manufacturing PMI®

Manufacturing PMI holds at six-and-a-half year high in October

“October’s PMI reading was 60.6, unchanged on September’s 77-month high. The intermediate and investment goods sectors were again the best performers, with the consumer goods category continuing to lag behind.

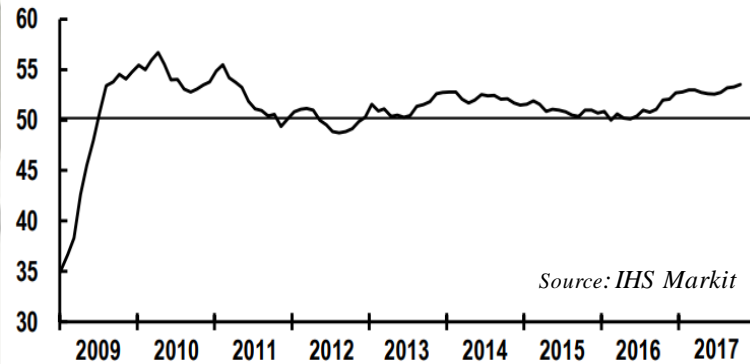
Germany’s manufacturing sector continued to grow strongly at the start of the fourth quarter, according to the latest PMI® survey data from IHS Markit and BME. Production and new orders rose sharply in October, and goods producers upped the rate of job creation to the fastest since April 2011 in order to support the higher level of activity. Supply chain pressures further intensified, however, with the incidence of delivery delays among the most widespread on record and manufacturers facing sharply rising purchase prices.

The German manufacturing sector has started the fourth quarter where it left off in the third, recording strong growth in production and adding more new jobs to the economy. The rate of job creation reached the best in six-and-a-half years in October as goods producers looked to expand output capabilities to meeting rising demand both at home and abroad. Such was the pressure on capacity that backlogs continued to accumulate and manufacturers faced one of the greatest increases in input lead times on record. If they haven’t already done so, supply chain constraints have the potential to cap growth as manufacturers struggle to source the goods they need to keep up with demand. Indeed, the survey found a high number of items in short supply, and there are signs of more and more firms building safety stocks to guard against shortages. Although remaining elevated by historical standards, firms’ confidence towards future performance dipped slightly in October to a seven month low, perhaps another tell-tale sign that the sector’s growth is close to terminal velocity. The PMI has only ever breached the 60 mark on a handful of occasions, and never for more than five months in a row.” – Trevor Balchin, Senior Economist, IHSMarkit®

Private Indicators: Global

JPMorgan Global Manufacturing PMI

DI, sa



JP Morgan Global Manufacturing PMI™

“The upturn in the global manufacturing sector gathered pace in October. This was signalled by the J.P. Morgan Global Manufacturing PMI™ – a composite index produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – rising to a six-and-a-half year high of 53.5, up from September’s 53.3.

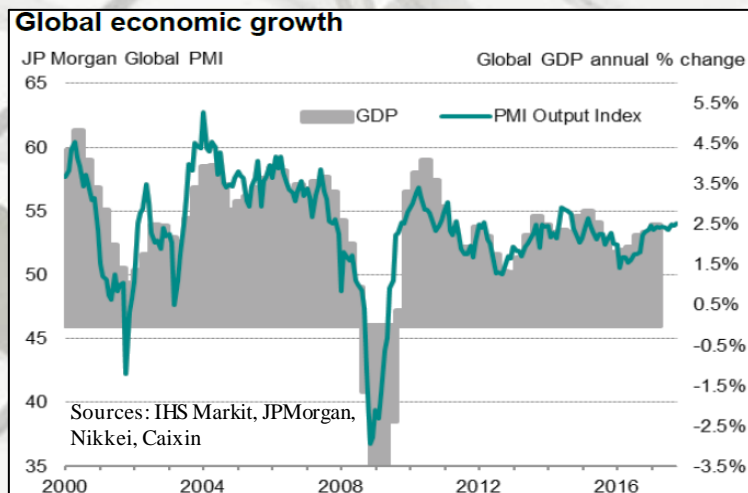
Global Manufacturing PMI at 78-month high in October

Business conditions improved across the consumer, intermediate and investment goods sectors. The steepest rate of expansion was signalled in the latter, with growth picking up to the highest since March 2011. An acceleration was also registered at intermediate goods producers (78-month high), whereas a deceleration was seen in the consumer goods category (four-month low).

US manufacturing business conditions improved at the quickest pace since January, while accelerations were also signalled for the UK, Italy, Spain and Australia. Among the larger emerging markets, the China PMI held steady at 51.0, expansions slowed in India and Russia, while a mild growth uptick was signalled in Brazil. The Mexico PMI signalled contraction.

The global manufacturing PMI points to continued robust gains in production. The output PMI was little changed at an elevated level while the index of new orders moved up. Furthermore, the PMI indicates that output growth remains broad-based across the consumer, intermediate and investment goods sectors.” – David Hensley, Global Economist, J.P. Morgan

Private Indicators: Global



JP Morgan Global Composite PMI™

“The headline JP Morgan PMI, compiled by IHS Markit, inched higher to 54.0 in October from 53.9 in September, matching the August level which had in turn been the highest since March 2015. Historical comparisons suggest that the latest PMI indicates that global GDP (measured at market prices) is rising at a solid annual rate of just over 2.5%.

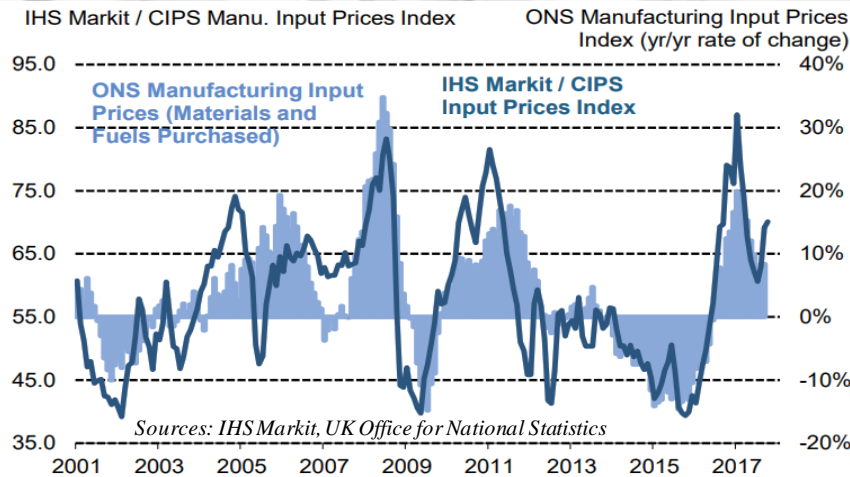
Worldwide PMI surveys start fourth quarter on a strong note

Global economic growth edged up to the joint-highest in two-and-a-half years in October, continuing the steady pace of expansion seen throughout the year to date, according to the latest PMI™ surveys. However, an improved performance in the developed world was in part offset by a second successive monthly slowing in emerging markets.

Overall global job creation picked up further momentum to reach its joint-highest since December 2007. Faster jobs growth in the developed world was led by strong factory hiring alongside further solid service sector job gains.

Growth slowed in the emerging markets for a second successive month, down to the joint-lowest since last November, with malaise broad-based across the four major economies. The fastest expansion was seen in Russia, despite growth slipping to a 13-month low amid weaker rates of improvement in both manufacturing and services. Growth also disappointed in China, with the Caixin PMI down to its weakest since June of last year thanks to a drop in factory output growth and still-modest service sector expansion. Employment also continued to more or less stagnate.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit/CIPS UK Manufacturing PMI™

“The seasonally adjusted IHS Markit/CIPS Purchasing Managers’ Index® (PMI®) registered 56.3 in October, up from 56.0 in September (revised from the original reading of 55.9). The headline PMI has now signalled expansion for 15 consecutive months. ...

UK manufacturing makes positive start to final quarter despite rising price pressures

The UK manufacturing sector started the final quarter of the year on a solid footing. Production and new order volumes continued to rise at robust rates, as companies benefited from strong domestic market conditions and rising inflows of new export business. Price pressures remained elevated, however, with rates of inflation in input costs and output charges both accelerating and staying well above historical series averages.

The solid performance of the manufacturing sector was again reflected in the labour market. Job creation was registered for the fifteenth successive month, with the pace of growth improving to a 40-month high.

UK manufacturing made an impressive start to the final quarter of 2017 as increased inflows of new work encouraged firms to ramp up production once again. The sector looks to be achieving a quarterly rate of expansion close to 1%, therefore sustaining the solid pace of growth signalled by the official ONS estimate for the third quarter. The domestic market remained strong, whereas new export orders increased at a slightly slower pace, the latter showing signs of being hit by the recent strengthening of sterling.” – Rob Dobson, Director & Senior Economist, IHS Markit

Private Indicators

American Institute of Architects (AIA)

September Architecture Billings Index

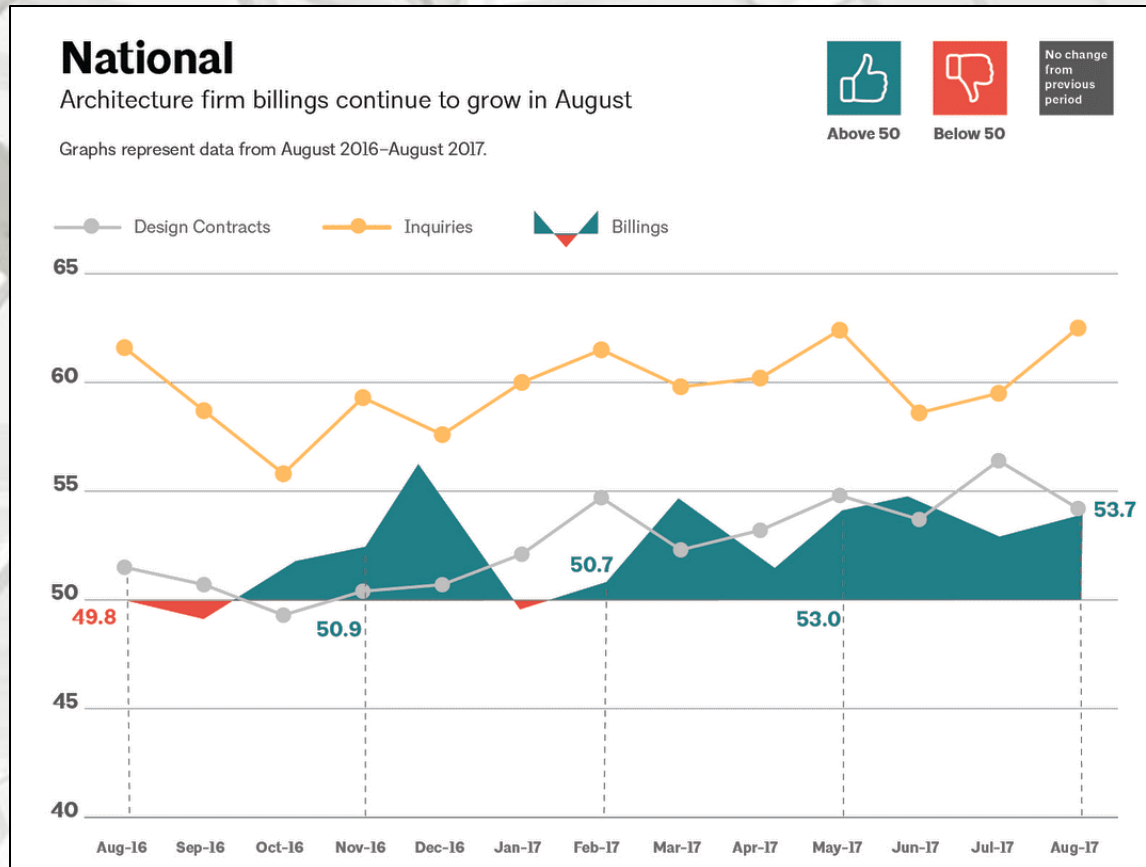
**Firms across the country see billings growth
More than one-third of firms report an increase
in change orders in the last five years**

“Architecture firm billings increased for the seventh consecutive month in August, with the Architecture Billings Index (ABI) score rising to 53.7, as more firms reported improving business conditions in August than in July. Inquiries into new projects remained strong as well, and firms continued to report an increase in the value of new design contracts.

Billings also remained strong at firms across the country, with firms in all four regions seeing growth for the third month in a row.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators

American Institute of Architects (AIA)

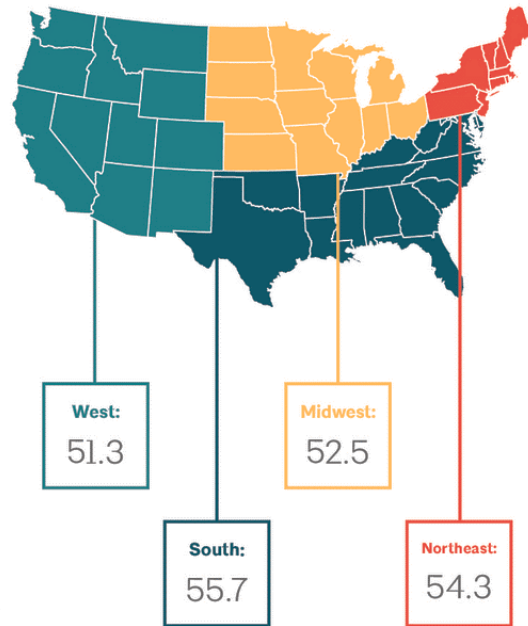
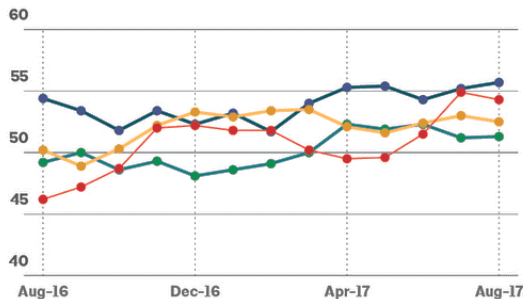


Private Indicators: AIA

Regional

Business conditions improve in all regions of the country for third consecutive month

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



Region

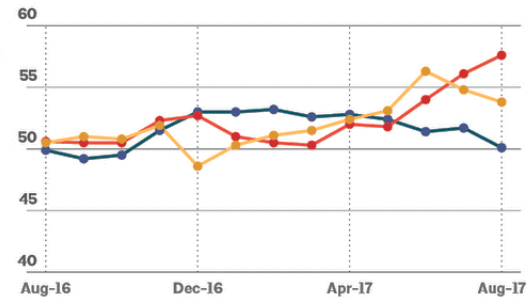
“Since this survey covered August billings, it was too early to see an impact from Hurricanes Harvey and Irma; these disasters may potentially affect billings in the south over the next few months.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators: AIA

Sector

Firms of all specializations continue to report billings growth

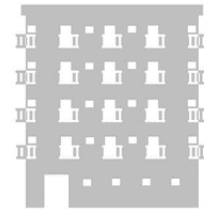
Graphs represent data from August 2016–August 2017 across the three sectors. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Commercial/Industrial: 57.6



Institutional: 50.1



Residential: 53.8

Sector

“... firms of all specializations reported improving business conditions this month, continuing the strong growth trend that has been seen all year.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators

Dodge Data & Analytics

New Construction Starts Jump 14 Percent in September

“The value of new construction starts in September soared 14% from the previous month to a seasonally adjusted annual rate of \$814.8 billion, according to Dodge Data & Analytics. September’s data produced a reading of 172 for the Dodge Index (2000=100), up from 151 in August, and the highest level so far in 2017. The nonresidential building sector strengthened for the second month in a row, climbing 37% . . . Residential building in September edged up 1%, as both single family and multifamily housing registered modest gains. Running counter in September was a 3% drop for nonbuilding construction, with decreased activity for its public works segment. Through the first nine months of 2017, total construction starts on an unadjusted basis were \$557.7 billion, essentially matching the corresponding amount from a year ago. The year-to-date dollar volume for total construction was dampened by a 38% decline for the electric utility/gas plant category. If the electric utility/gas plant category is excluded, total construction starts during the first nine months of 2017 would be up 3% compared to the same period last year.” – Benjamin Gorelick, Spector & Associates

Private Indicators

Dodge Data & Analytics

New Construction Starts Jump 14 Percent in September

“The pattern of construction starts on a monthly basis has occasionally been subject to ‘spikes’, due to the presence of unusually large projects in a given month, and September certainly qualifies as one of those monthly ‘spikes’. Looking at the data on quarterly basis helps to ease the volatility present in the monthly statistics, and it shows the third quarter rebounding 8% after a 9% decline in the second quarter, returning the level of activity to within 2% of the strong pace achieved during the first three months of this year. As the current expansion for construction has matured, there’s been more of an up-and-down pattern on a quarterly basis, including what’s been reported so far during 2017.

What does stand out about the construction industry in 2017 is the strength shown by nonresidential building, led by such institutional project types as transportation terminals and educational facilities. On the commercial side, office buildings and warehouses continue to see growth, although hotel construction appears to have peaked and store construction has generally weakened. And, with this year’s pickup in petrochemical plant starts, following a steep two-year decline, the manufacturing building category is no longer exerting a downward pull on the nonresidential building total.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

Dodge Data & Analytics

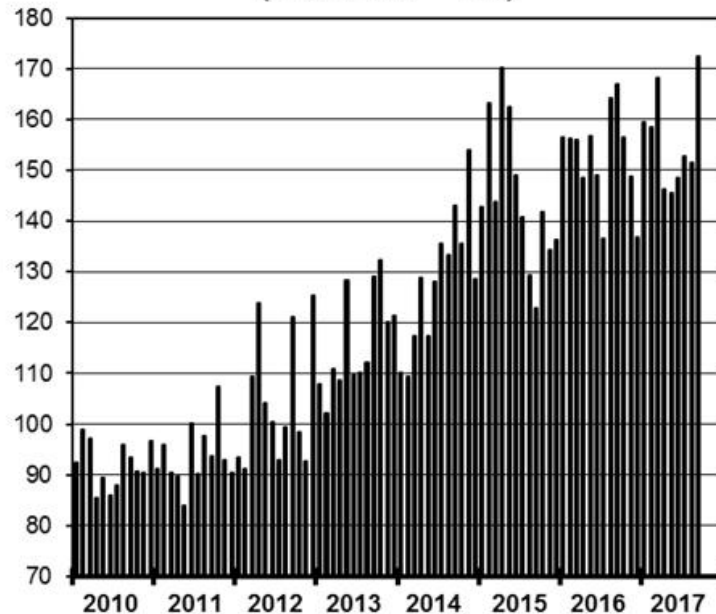
“**Residential building** improved a slight 1% in September to \$298.9 billion (annual rate), with modest increases for single family housing, up 1%; and multifamily housing, up 2%. **Single family housing appeared to lose momentum in late spring**, but now seems to be stabilizing with gains in August and September. By geography, single family housing showed growth in four of the five major regions in September – the Midwest, up 5%; the Northeast, up 4%; the West and South Central, each up 2%. The South Atlantic was the one major region to register a September decline, sliding 4%.

Multifamily housing has shown an up-and-down pattern so far during 2017, as its 2% increase in September followed an 8% drop in August. There were seven multifamily projects valued at \$100 million or more that reached groundbreaking in September, led by the \$235 million multifamily portion of a \$290 million mixed-use building in New York NY, a \$200 million multifamily high-rise in San Diego CA, and a \$189 million multifamily high-rise in Jersey City NJ. In September, the top five metropolitan markets ranked by the dollar volume of multifamily starts were – New York NY, Dallas-Ft. Worth TX, Philadelphia PA, Seattle WA, and Boston MA. During the first nine months of 2017, the top five metropolitan markets ranked by the dollar amount of multifamily starts, with their percent change from a year ago, were – New York NY, down 7%; Los Angeles CA, down 13%; Chicago IL, down 27%; San Francisco CA, up 1%; and Washington DC, down 12%. Metropolitan areas ranked 6 through 10 for multifamily housing in the first nine months of 2017 were – Atlanta GA, up 37%; Boston MA, down 25%; Miami FL, down 46%; Seattle WA, down 27%; and Philadelphia PA, up 65%.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

September 2017 Construction Starts

**The Dodge Index
of New Construction Starts
(Year 2000 = 100)**



Source: Dodge Data & Analytics

September 2017 Construction Starts

Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>September 2017</u>	<u>August 2017</u>	<u>% Change</u>
Nonresidential Building	\$368,818	\$269,799	+37
Residential Building	298,942	294,906	+1
Nonbuilding Construction	<u>147,071</u>	<u>151,367</u>	<u>-3</u>
Total Construction	\$814,831	\$716,072	+14

The Dodge Index

Year 2000=100, Seasonally Adjusted

September 2017...172

August 2017.....151

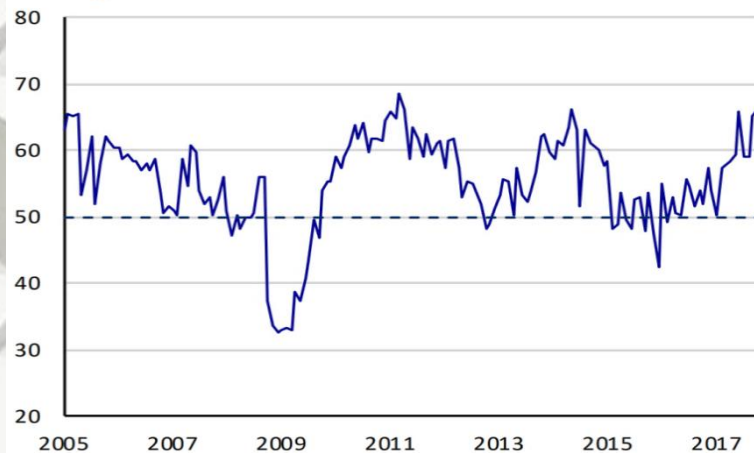
Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>9 Mos. 2017</u>	<u>9 Mos. 2016</u>	<u>% Change</u>
Nonresidential Building	\$203,711	\$188,598	+8
Residential Building	228,388	226,573	+1
Nonbuilding Construction	<u>125,596</u>	<u>141,541</u>	<u>-11</u>
Total Construction	\$557,695	\$556,712	-0-
Total Construction, excluding electric utilities/gas plants	\$533,088	\$516,866	+3

Private Indicators

Chicago Business Barometer™



MNI Chicago Barometer Hits Six-and-a-Half-Year High; Backlogs Highest in 43 Years

- “Chicago Business Barometer Highest Since March 2011
- Prices Paid Recede but Remain Steep
- Order Backlogs Highest Since February 1974

MNI Chicago Business Barometer Climbs to 66.2 in October

The MNI Chicago Business Barometer rose to 66.2 in October, up from 65.2 in September, hitting the highest level since March 2011. After a bullish September showing, firms’ optimism regarding the business landscape found further room to grow as they entered the final quarter of the year. Of the five Barometer sub-components, only Employment and Supplier Deliveries slipped from their respective September levels.

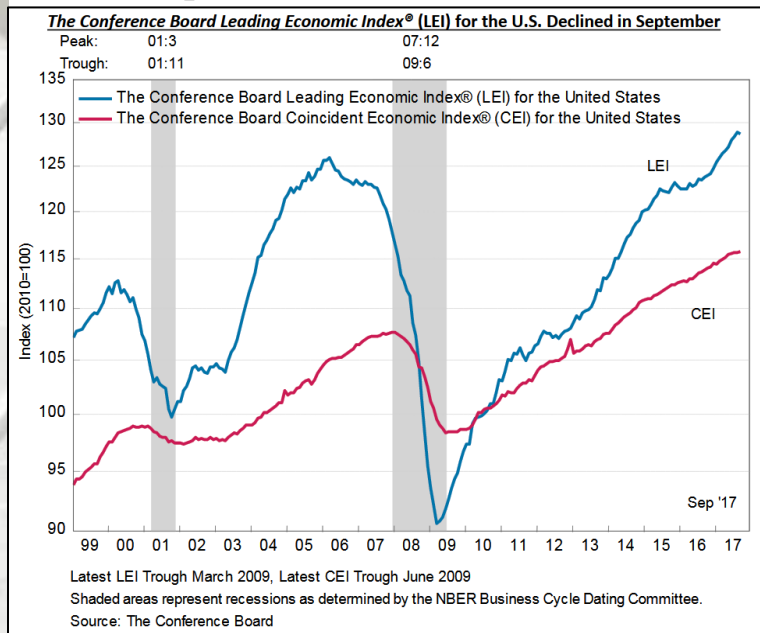
Steering the month’s result, both demand and output climbed for the third straight month to robust levels. New Orders rose to its highest level since June and the second highest since May 2014 while Production hit its highest level since August 2014. Together, both indicators account for 60% of the Barometer.

Firms kicked off Q4 in buoyant mood with only 12% expecting activity to decline between now and the close of the year. Despite the MNI Chicago Business Barometer hitting a six-and-a-half year high, and output and demand in seemingly rude health, concerns remain over firms’ inability to attract and retain skilled workers.” – Jamie Satchi, Economist, MNI Indicators

Private Indicators

The Conference Board Leading Economic Index® (LEI) for the U.S. declined 0.2 percent in September to 128.6 (2010 = 100), following a 0.4 percent increase in August, and a 0.3 percent increase in July.

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



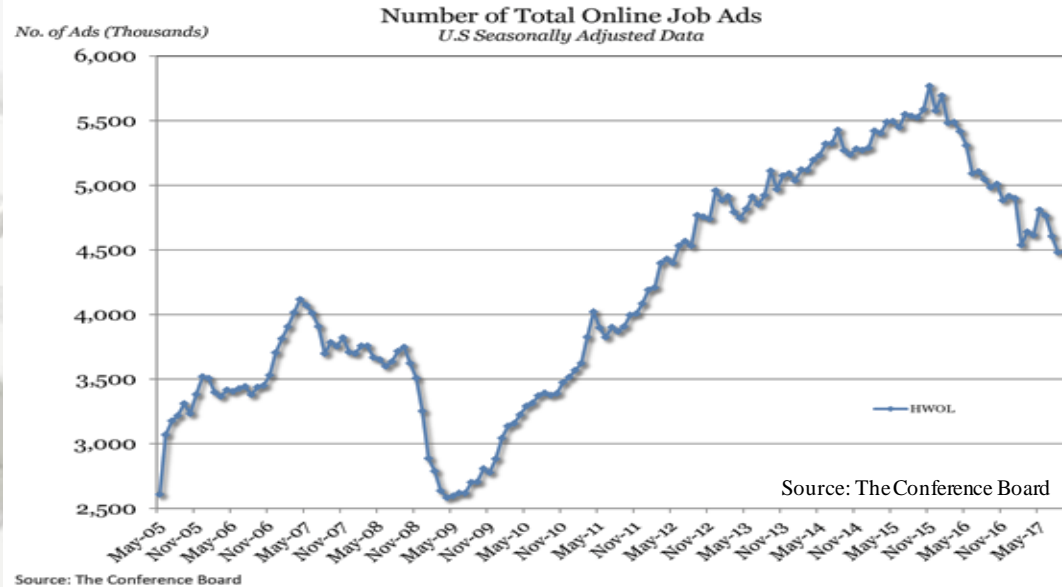
First Decline in a Year, Partly Due to Impact of Hurricanes

“The US LEI declined slightly in September for the first time in the last twelve months, partly a result of the temporary impact of the recent hurricanes. The source of weakness was concentrated in labor markets and residential construction, while the majority of the LEI components continued to contribute positively. Despite September’s decline, the trend in the US LEI remains consistent with continuing solid growth in the US economy for the second half of the year.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

“The Conference Board Coincident Economic Index® (CEI) for the U.S. increased 0.1 percent in September to 115.7 (2010 = 100), following no change in August, and a 0.1 percent increase in July.

The Conference Board Lagging Economic Index® (LAG) for the U.S. declined 0.1 percent in September to 125.2 (2010 = 100), following a 0.4 percent increase in August and a 0.1 percent increase in July.”

Private Indicators



The Conference Board Help Wanted OnLine® (HWOL) Online Job Ads Increased 81,500 in October

- “All four regions experienced gains led by the South
- Most occupations showed gains over the month

Online advertised vacancies increased 81,500 to 4,563,800 in October, according to The Conference Board Help Wanted OnLine® (HWOL) Data Series, The September Supply/Demand rate stands at 1.52 unemployed for each advertised vacancy, with a total of 2.3 million more unemployed workers than the number of advertised vacancies. The number of unemployed was approximately 6.8 million in September.

The Professional occupational category saw gains in Management (8.5) and Business and Financial (6.7). The Services/Production occupational category saw gains in Transportation (32.1), Office and Administrative Support (15.7), and Food Preparation and Serving (11.0).” – Carol Courter, The Conference Board

Source: <https://www.conference-board.org/data/helpwantedonline.cfm>; 1/1/17

October 2017 Manufacturing ISM® Report On Business®

September NMI® at 58.7%

New Orders, Production, Backlog of Orders & Employment Continue Growing; Supplier Deliveries Slowing at Slower Rate; Raw Materials Inventories Contracting, Customers' Inventories Too Low; Prices Increasing at Slower Rate

“Economic activity in the **manufacturing sector** expanded in October, and the overall economy grew for the 101st consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

The October PMI® registered 58.7 percent, a decrease of 2.1 percentage points from the September reading of 60.8 percent.

The New Orders Index registered 63.4 percent, a decrease of 1.2 percentage points from the September reading of 64.6 percent.

The Production Index registered 61 percent, a 1.2 percentage point decrease compared to the September reading of 62.2 percent.

The Employment Index registered 59.8 percent, a decrease of 0.5 percentage point from the September reading of 60.3 percent.

The Supplier Deliveries Index registered 61.4 percent, a 3 percentage point decrease from the September reading of 64.4 percent.

The Inventories Index registered 48 percent, a decrease of 4.5 percentage points from the September reading of 52.5 percent.

The Prices Index registered 68.5 percent in October, a 3 percentage point decrease from the September level of 71.5, indicating higher raw materials prices for the 20th consecutive month.

Comments from the panel reflect expanding business conditions, with new orders, production, employment, order backlogs and export orders all continuing to grow in October, supplier deliveries continuing to slow (improving) and inventories contracting during the period. Prices continue to remain under pressure. The Customers’ Inventories Index remains at low levels.” – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

Private Indicators

October 2017 Non-Manufacturing ISM® Report On Business®

October NMI® at 60.1 %

**Business Activity Index at 62.2%, New Orders Index at 62.8%,
Employment Index at 57.5%**

“Economic activity in the non-manufacturing sector grew in October for the 94th consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**. The NMI® registered 60.1 percent, which is 0.3 percentage point higher than the September reading of 59.8 percent. This represents continued growth in the non-manufacturing sector at a slightly faster rate. This is the highest NMI® reading since the index's debut in 2008. The highest reading among pre-2008 composite index calculations is 61.3 percent in August 2005.

The Non-Manufacturing Business Activity Index increased to 62.2 percent, 0.9 percentage point higher than the September reading of 61.3 percent, reflecting growth for the 99th consecutive month, at a slightly faster rate in October.

The New Orders Index registered 62.8 percent, 0.2 percentage point lower than the reading of 63 percent in September.

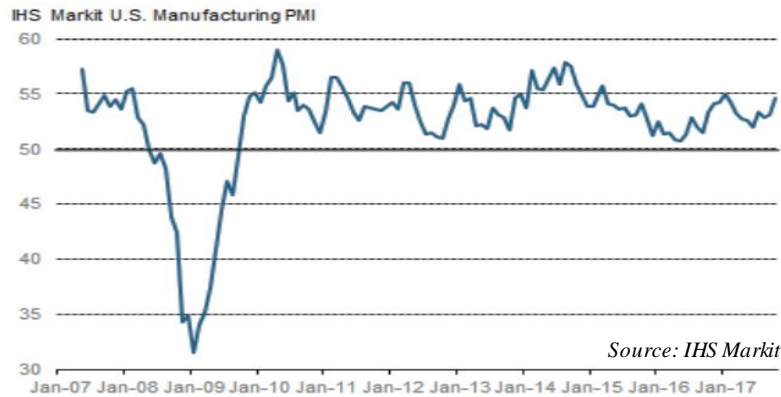
The Employment Index increased 0.7 percentage point in October to 57.5 percent from the September reading of 56.8 percent.

The Prices Index decreased by 3.6 percentage points from the September reading of 66.3 percent to 62.7 percent, indicating prices increased in October for the fifth consecutive month.

According to the NMI®, 16 non-manufacturing industries reported growth. The non-manufacturing sector has reflected the third consecutive month of strong growth. Respondent comments continue to indicate a positive outlook for business conditions, and the economy as we begin the fourth quarter.” – Anthony Nieves, CPSM, C.P.M., CFPM, Chair of the Institute for Supply Management® (ISM®) Non-Manufacturing Business Survey Committee

Private Indicators

IHS Markit U.S. Manufacturing PMI (s. adjusted)



Markit U.S. Manufacturing PMI™

“The seasonally adjusted **IHS Markit final US Manufacturing Purchasing Managers’ Index™ (PMI™)** registered 54.6 in October, up from 53.1 in September. The latest index figure indicated a solid improvement in manufacturing operating conditions, that was the fastest seen since the start of the year.

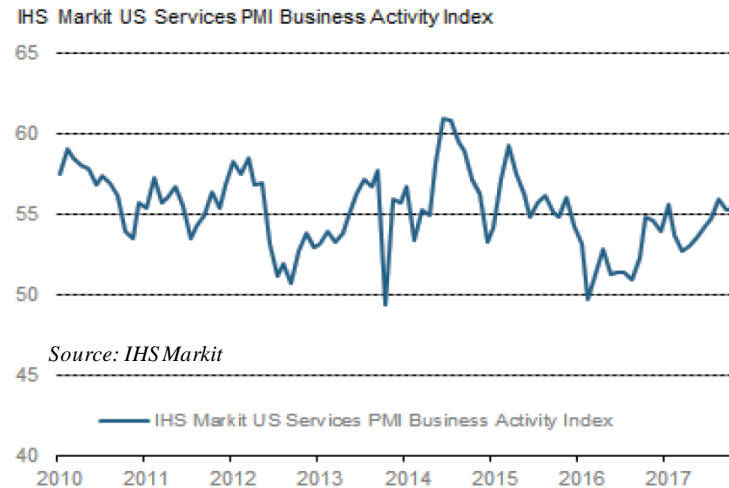
Operating conditions improve at quickest rate for nine months

October survey data signalled a strong improvement in operating conditions across the US manufacturing sector. The health of the sector improved to the greatest extent since January, supported by accelerated expansions in output and new orders. Moreover, export sales increased at the quickest pace since August 2016. Meanwhile, inflationary pressures remained marked despite the rate of input price inflation softening from September. Notably, employment rose at the strongest pace since June 2015.

US manufacturing stepped up a gear at the start of the fourth quarter, boding well for higher factory production to support robust economic growth in the closing months of 2017. Production volumes jumped higher on the back of a substantial improvement in order book inflows, in part due to supply chains returning to normal after the hurricanes but also reflecting a combination of strong underlying demand. Factory jobs growth has also picked up to one of the strongest since the global financial crisis, underscoring the improvement in optimism about future trading among manufacturers. An important change in October was the broadening out of the expansion to smaller firms, which have lagged behind the strong growth reported by larger rivals throughout much of the year to date but under-performed to a lesser extent in October.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Service sector business activity (seasonally adjusted)



Markit U.S. Services PMI™

“The seasonally adjusted **IHS Markit U.S. Services Business Activity Index** registered 55.3 in October, unchanged from that seen in September. The latest index figure indicated a strong increase in overall business activity across the US service sector. Moreover, the rate of expansion was slightly faster than the long-run series average. Anecdotal evidence linked the rise in output to robust client demand and more favourable business conditions.

Service sector business activity growth remains strong in October

October survey data indicated a further rise in business activity across the US service sector. The rate of expansion was in line with that seen in September and strong overall. New business, however, grew at a weaker pace and signalled the softest upturn since April. Meanwhile, employment levels expanded at a solid rate, and backlogs also continued to rise. On the prices front, input costs and output charges rose further but eased to seven- and six-month lows, respectively. The latest survey data signalled robust business confidence, with the degree of optimism rising from that seen in September.

The services PMI survey highlights the dilemma facing the Fed as it seeks to determine the right policy course amid signs of solid growth but soft inflation. Together with the manufacturing PMI, which rose higher in October as hurricane-related supply chain disruptions eased, the latest services survey is consistent with underlying growth in the economy of approximately 3%, as well as buoyant jobs growth.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

National Association of Credit Management – Credit Managers' Index

NACM's October CMI Scores One for the Ghosts and Goblins

“The upward trend seems to have stalled at just two months duration, but the decline was not deep. The overall score for the combined sectors is still at 55.5, in the same ballpark as the other high points. Last month's 56.5 was the highest level reached in over two years; it is not too surprising there was a slight retreat. As mentioned last month, there will be some challenges as far as interpreting data for the next month or so. The division between the performance of the favorable and the unfavorable factors remains stark. The index of favorables improved from 63.5 to 63.8, a very healthy number. The unfavorable combined score retreated a little from 51.8 to 50. This reading remains in the expansion category (anything above 50), but only by the narrowest of margins. Most of the good news is coming from the favorable categories.

The sales numbers fell back a bit, but they remain very high at 66.8. Last month, they were 67.3. The last two months have seen readings that are close to six points higher than they have been in over a year. In June, the reading jumped to 66.5, but prior to that, the range was from 56.9 to 63.8. The current reading is down from last month, but still ranks as the second-best reading in a year. The new credit applications reading improved from 60.5 to 62.8, a genuinely good sign as it indicates a greater demand for credit and thus a desire to grow and expand. In addition, there was a modest gain in the dollar collections category as it moved from 60 to 60.2. There was a slight decline in the amount of credit extended, but the numbers stayed high at 65.5. The previous month saw a reading of 66.3.” – Adam Fusco, Associate Editor, NACM

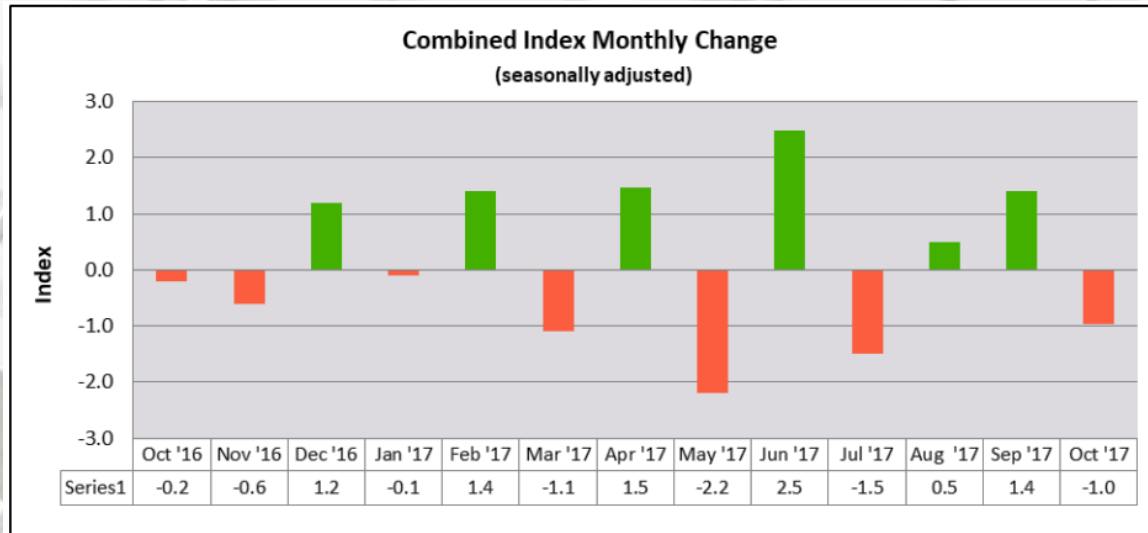
Private Indicators

National Association of Credit Management – Credit Managers’ Index

“It was not the same story as far as the unfavorable factors are concerned. The dip was not severe — the overall reading stayed at the 50 level as opposed to sliding back into contraction territory. The rejections of credit applications slipped from 52.5 to 51.8, but at least it is still in expansion territory. The category of accounts placed for collection fell out of the expansion zone by dropping from 50.3 to 49.5. This is actually back to the pattern that has been observed all year as last month was the first in nearly two years to be above 50. There was a big decline in the numbers for disputes as well — last month the reading was 51.7. This month, it tumbled all the way to 47.6. The numbers for dollar amount beyond terms took another dive and ended up at 47.3 after having been at 50.4 the previous month. There was also a decline in the category of dollar amount of customer deductions. It was at 49.8 last month and fell to 48.7 this month. Likewise, there was a dip in the readings for filings for bankruptcies, although the numbers stayed comfortably in the expansion zone at 55.3. It was at 56.2 the month prior.” – Adam Fusco, Associate Editor, NACM

“The storms altered a lot of economic patterns. That has been seen in everything from volatile job numbers, changes in the rate of housing starts and even internal migration patterns for skilled workers. There are already signs of shifts as reconstruction gets thoroughly underway. Even with the small areas of retreat, the numbers for the favorable sectors remained in very solid territory. The volatility that has characterized the CMI for the last several months has been largely attributed to the vagaries of the slow pay. The bad news is that readings for the unfavorable factors were nearly all in expansion territory last month with only one reading in the 40s. This month the situation is reversed, with only two categories in the expansion zone and both of these also saw some decline from the month before.” – Dr. Chris Kuehl, Economist, NACM

Private Indicators

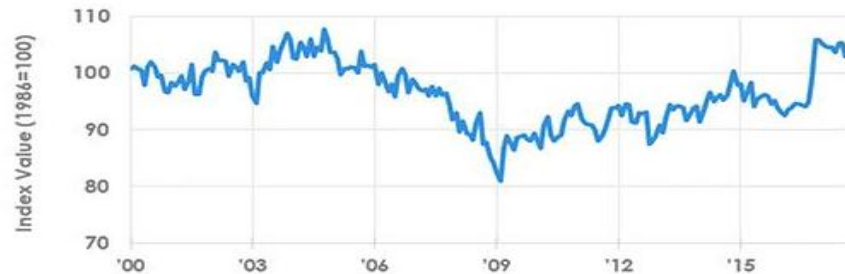


Combined Manufacturing and Service Sectors (seasonally adjusted)	Oct '16	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17	Apr '17	May '17	Jun '17	Jul '17	Aug '17	Sep '17	Oct '17
Sales	56.9	61.8	58.6	60.1	62.6	61.2	63.8	60.6	66.5	62.8	62.2	67.3	66.8
New credit applications	58.0	54.5	57.0	60.8	62.0	60.5	62.0	59.3	59.8	59.7	61.2	60.5	62.8
Dollar collections	57.0	63.5	59.5	58.2	63.0	56.4	61.2	56.7	62.5	60.2	58.9	60.0	60.2
Amount of credit extended	61.5	61.4	61.4	64.1	66.8	64.4	67.2	63.6	66.8	64.1	66.7	66.3	65.5
Index of favorable factors	58.4	60.3	59.1	60.8	63.6	60.6	63.6	60.0	63.9	61.7	62.2	63.5	63.8
Rejections of credit applications	51.8	48.9	51.3	50.6	51.4	51.6	52.1	52.4	52.6	51.9	52.2	52.5	51.8
Accounts placed for collection	48.1	45.8	49.7	49.4	48.2	49.8	49.0	48.5	49.3	48.9	48.7	50.3	49.5
Disputes	49.9	47.7	49.8	46.0	48.7	48.5	49.1	47.9	50.4	48.8	49.1	51.7	47.6
Dollar amount beyond terms	49.0	44.9	49.3	48.4	51.0	47.4	51.0	45.9	50.4	48.3	47.4	50.4	47.3
Dollar amount of customer deductions	49.5	47.9	49.8	48.7	47.6	49.8	49.2	48.7	49.1	48.1	49.2	49.8	48.7
Filings for bankruptcies	53.8	53.0	55.0	53.9	53.2	53.8	53.5	52.7	53.4	53.6	55.3	56.2	55.3
Index of unfavorable factors	50.3	48.0	50.8	49.5	50.0	50.2	50.6	49.3	50.9	49.9	50.3	51.8	50.0
NACM Combined CMI	53.5	52.9	54.1	54.0	55.4	54.3	55.8	53.6	56.1	54.6	55.1	56.5	55.5

Private Indicators

Small Business Optimism Index Maintains at 103.8

Based on 10 survey indicators, seasonally adjusted, Jan. '00 – Oct. '17



NFIB.com/sboi

OCTOBER 2017 Report: Small Business Optimism Maintains Lofty Level

“More small business owners last month said they expect higher sales and think that now is a good time to expand, according to the October **NFIB Index of Small Business Optimism...**” – Holly Wade, NFIB

National Federation Of Independent Business (NFIB) Optimism Index Inches Up In October As More Owners Expect Better Sales and Say It's A Good Time To Expand

“Owners became much more positive about the economic environment last month, which suggests a longer-run view. In the nearer term, they are more optimistic about real sales growth and improved business conditions through the end of the year.” – William C. Dunkelberg, Chief Economist, NFIB

“The October Index rose to 103.8, up from 103 the previous month. The historically strong performance extends the streak of positive months dating back to last November, when it shot up immediately following the election.

Four of the Index components rose last month. Five declined slightly, while one remained unchanged. Outlook for expansion and sales expectations each jumped six points, while job openings increased by five points.” – Holly Wade, NFIB

Private Indicators

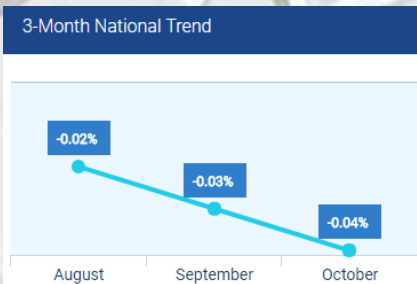
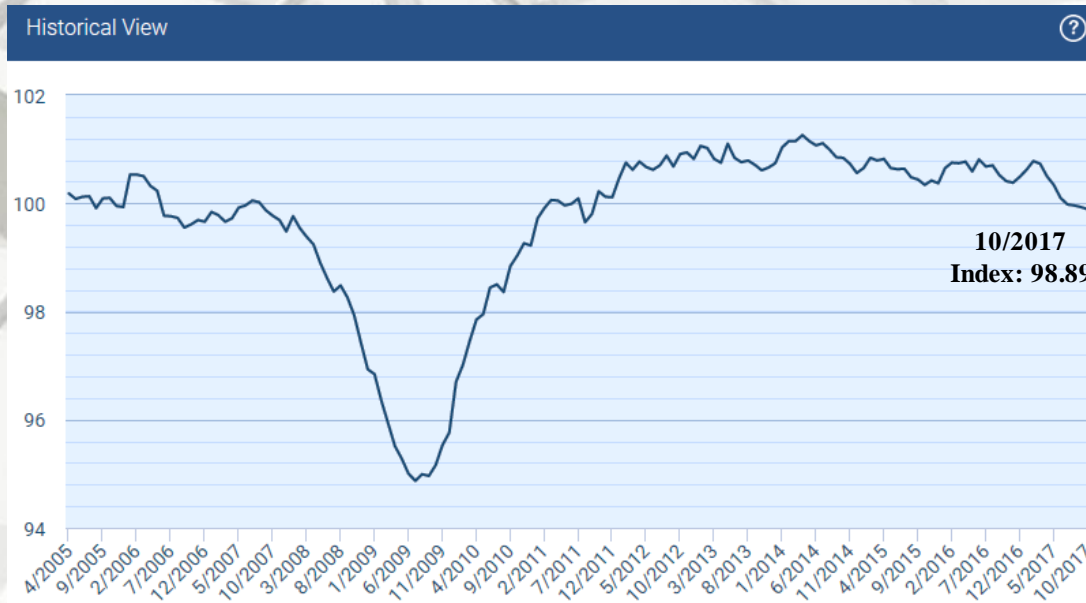
COMMENTARY

“Owners became much more positive about the economic environment last month, which suggests a longer-run view.

Consumer sentiment surged based on optimism about jobs and incomes, an encouraging development as consumers account for 70 percent of GDP. We expect a pickup in auto spending as people in Texas and Florida continue to replace cars that were damaged in the hurricanes. We expect the same increase in home improvement spending, partly because of the hurricanes, but also because of the skyrocketing price of homes.” – William C. Dunkelberg, Chief Economist, NFIB

“The tight labor market got tighter for small business owners last month, continuing a year-long trend. Fifty-nine percent of owners said they tried to hire in October, with 88 percent of them reporting no or few qualified applicants. Hiring activity was particularly high in Florida and Georgia, as construction firms are still trying to meet higher demand caused by the recent hurricane.” – Holly Wade, NFIB

Private Indicators

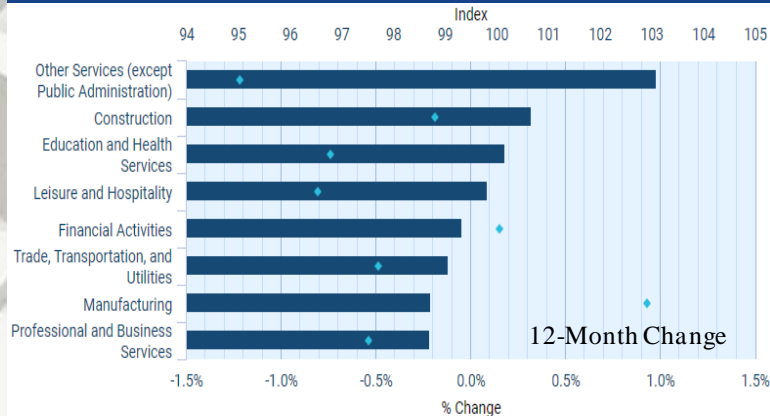


The Paychex | IHS Small Business Jobs Index National Jobs Index

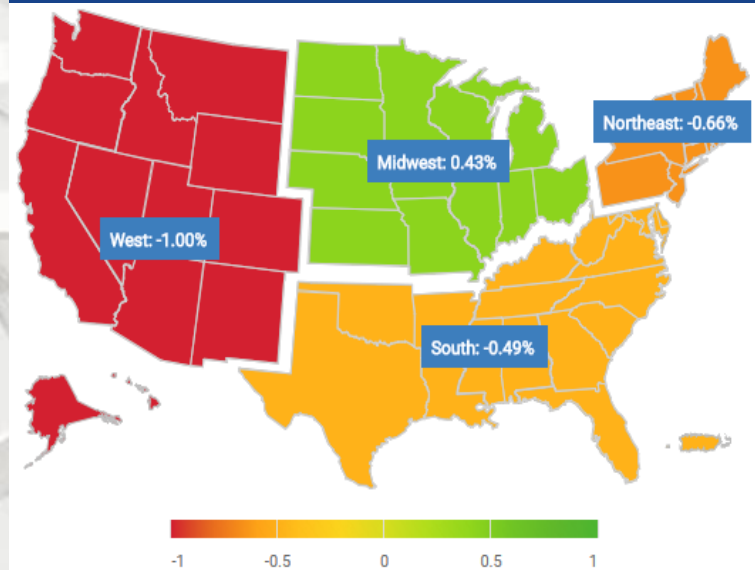
- “The national index is just 0.11 below 100, yet this represents the lowest level since September 2011.
- Though it’s declined over the past three months, the jobs index has moved just 0.09 percent since July, representing the most stable quarter in the history of the jobs index.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

Industry Performance



Regional Performance



Industry

- “With its fourth consecutive gain, Construction improved to 100.67 in October.
- At 98.71, Professional and Business Services declined to the last-ranked industry in October, where Manufacturing had resided for 31 straight months.” – James Diffley, Chief Regional Economist, IHS Markit

The Paychex | IHS Small Business Jobs Index

Regional Highlights

- “At 100.58, the South was the only region to improve in October, remaining the strongest region for small business employment growth and the top-ranked region for 18 consecutive months.
- Declining to 99.49, the West is down a full percentage point from a year ago.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

“The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 6.1% annual gain in August, up from 5.9% in the previous month. The 10-City Composite annual increase came in at 5.3%, up from 5.2% the previous month. The 20-City Composite posted a 5.9% year-over-year gain, up from 5.8% the previous month.

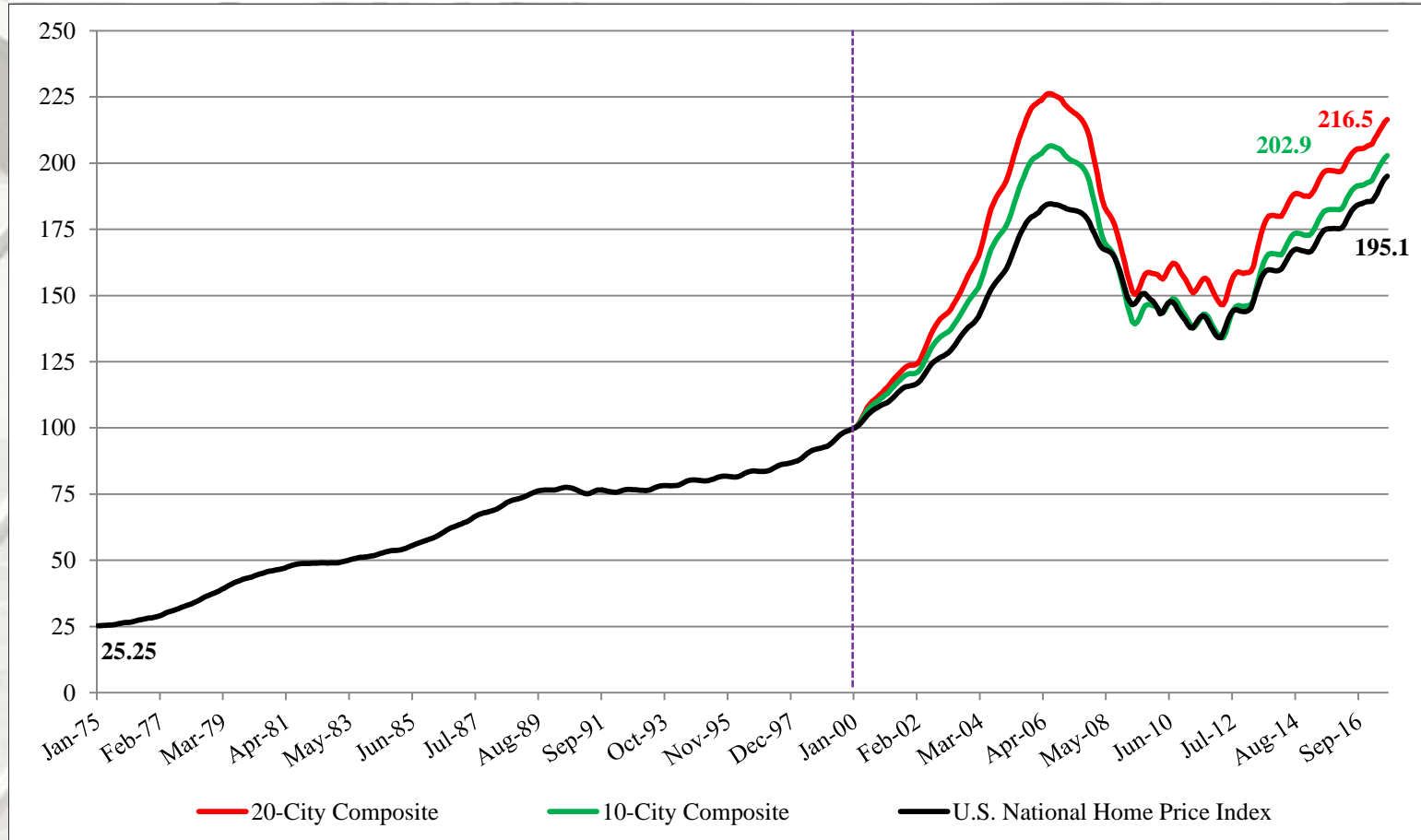
The S&P CoreLogic Case-Shiller National Home Price NSA Index Reaches New High As Momentum Continues

Home price increases appear to be unstoppable. August saw the National Index annual rate tick up to 6.1%; all 20 cities followed in the report were up year-over-year while one, Atlanta, saw the seasonally adjusted monthly number slip 0.2%. Most prices across the rest of the economy are barely moving compared to housing. Over the last year the consumer price index rose 2.2%, driven largely by energy costs. Aside from oil, the only other major item with price gains close to housing was hospital services, which were up 4.6%. Wages climbed 3.6% in the year to August.

The ongoing rise in home prices poses questions of why prices are climbing and whether they will continue to outpace most of the economy. Currently, low mortgage rates combined with an improving economy are supporting home prices. Low interest rates raise the value of both real and financial long-lived assets. The price gains are not simply a rebound from the financial crisis; nationally and in nine of the 20 cities in the report, home prices have reached new all-time highs. However, home prices will not rise forever. Measures of affordability are beginning to slide, indicating that the pool of buyers is shrinking. The Federal Reserve is pushing short term interest rates upward and mortgage rates are likely to follow over time, removing a key factor supporting rising home prices.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&PDow Jones

Private Indicators

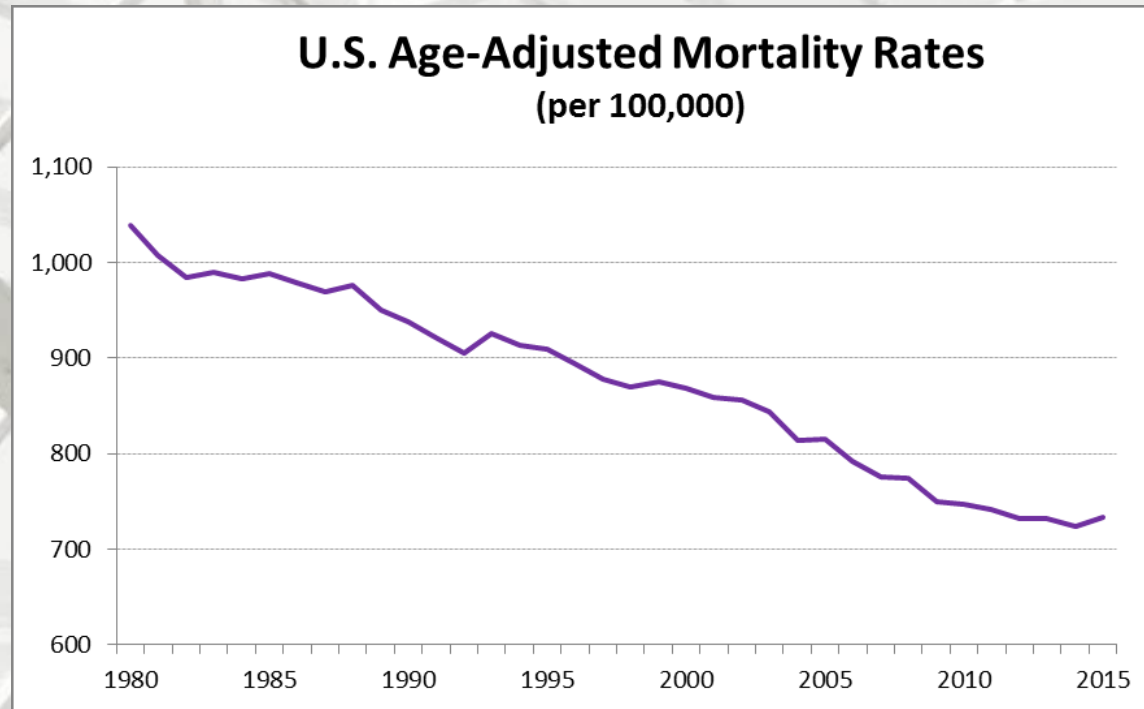
S&P/Case-Shiller Home Price Indices



“The indices have a base value of 100 in January 2000; thus, for example, a current index value of 150 translates to a 50% appreciation rate since January 2000 for a typical home located within the subject market.” – S&P CoreLogic

Sources: S&P Dow Jones Indices and CoreLogic; Data through August 2017

Demographics

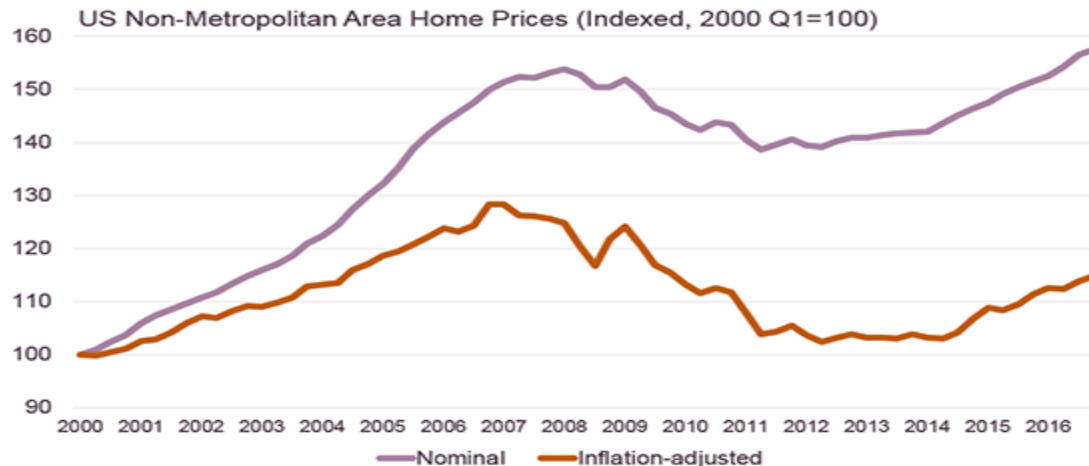


Mortality Improvement Scale MP-2017

“The age-adjusted mortality rate for 2015 was 733.1 (per 100,000), an increase of 1.2% over the 2014 rate of 724.6. This was the first year-over-year increase in the age-adjusted U.S. mortality rates since 2005, and only the seventh year-over-year increase since 1980. In fact, the only other time since 1980 that an annual age-adjusted mortality rate increased by more than 1.0% was in 1993, when the rate increased 2.3% over the 1992 rate.” – Society of Actuaries

Demographics

Figure 1: Outside of Metropolitan Areas, Home Prices Are Back Above Past Peaks Nominally, but not After Adjusting for Inflation



Note: The US non-metro index is a weighted-average of state non-metro HPIs, with each state's value weighted by its share of non-metro detached single family housing units. Real home prices are adjusted for inflation using the CPI-U for All Items less shelter. All figures.

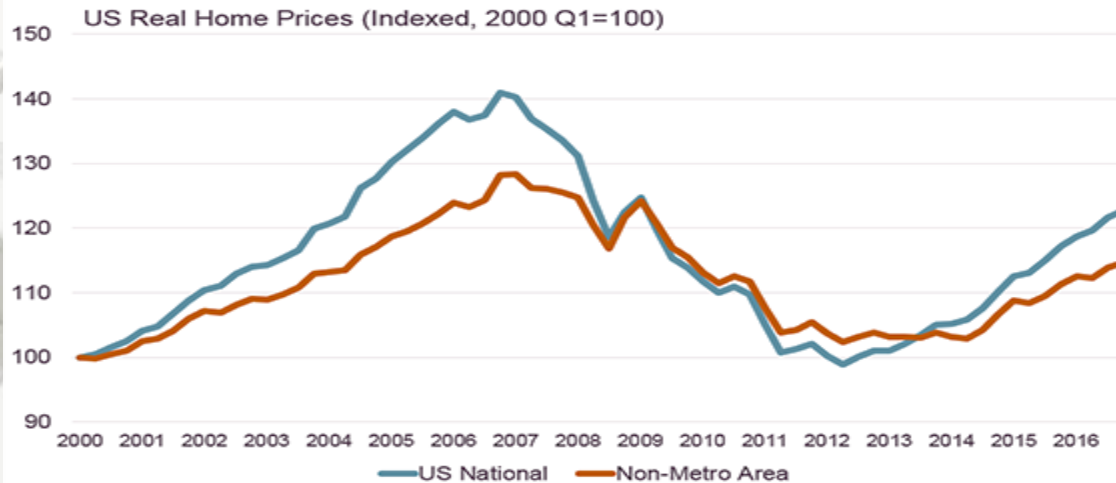
Source: JCHS tabulations of the Federal Housing Finance Agency, All-Transactions House Price Index.

“Several key findings emerge from this analysis, most notably:

- Rather than stagnating, home prices outside the metropolitan areas grew considerably between 2000 and 2016. In nominal terms, non-metro home prices grew 58 percent and real non-metro home prices grew nearly 15 percent. Moreover, by the fourth quarter of 2016, nominal non-metro and rural home prices were two percent above their pre-recession peak — the same as national home prices at the same point. However, when adjusted for inflation, home prices in non-metro areas were still 11 percent below their peak, which again, is somewhat similar to national patterns (Figure 1).” – Alexander Hermann, Research Assistant, Harvard U. Joint Center for Housing Studies

Demographics

Figure 2: Home Price Growth Outside of Metro Areas Has Been More Moderate than Price Growth for the Nation as a Whole



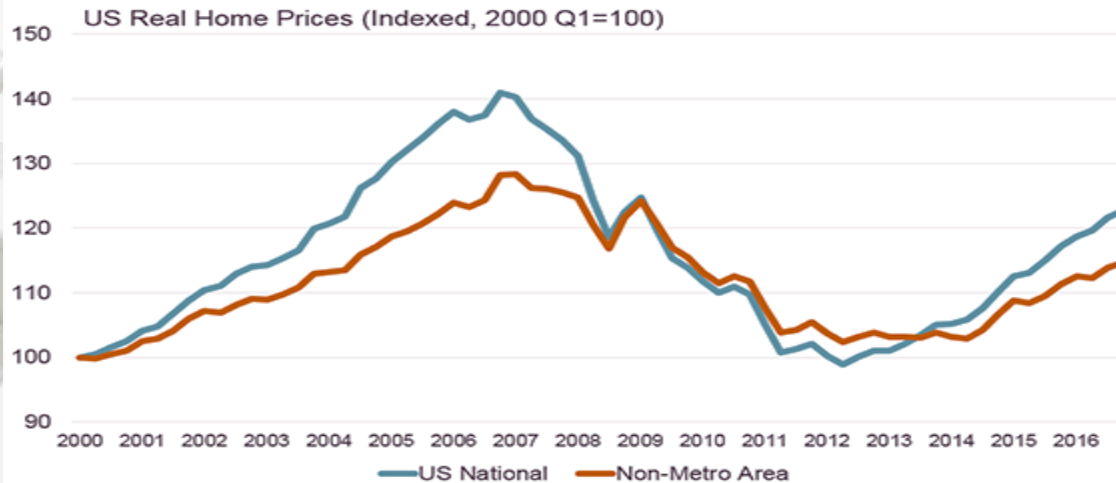
- “While significant, these increases were more modest than the gains experienced by the nation as a whole. Nationally, real home prices grew 23 percent in 2000-2016, about 8 percentage points more than prices in non-metro areas (Figure 2). The difference is largely due to the more modest cyclical movements of non-metro home prices during and after the recession. In the immediate aftermath of the housing crisis, national home prices fell severely for several years before starting to rise steadily in early 2012. In contrast, home prices in non-metro areas were mostly stagnant from 2011 to 2014, and, compared to metro areas, have grown less quickly since. As a result, between 2012 and 2016, the percentage-point increase in non-metro home prices was greater than the percentage-point increase in statewide prices only in Alaska, Hawaii, Mississippi, Montana, and Nebraska.” – Alexander Hermann, Research Assistant, Harvard U. Joint Center for Housing Studies

Demographics

- **“Non-metro home prices rose more slowly in the run-up to the housing crisis, and rarely fell as far in the aftermath.** Between 2000 and 2007, real non-metro home prices increased by 28 percent, far less than the 41 percent increase for all single-family homes. However, in about half of the 47 states with non-metro areas, the percent increase for all single-family homes. However, in about half of the 47 states with non-metro areas, the percent increase in non-metro home prices exceeded states-wide home-price gains in the run-up to peak. After the crash, real national home prices fell below 2000 levels briefly in 2012, while non-metro prices remained about three percent above their 2000 levels. Moreover, this pattern held true in most states. In only 10 of 47 states were the recessionary-low home prices (relative to 2000) in non-metro areas lower than for the state overall.
- **Unclear signals for the future.** While this analysis shows that non-metro house prices generally follow national patterns, since the recession price growth in rural areas has been slower than in the nation as a whole. The homeownership rate in non-metro areas was also about 71 percent in 2015, nearly 9 percentage points higher than in metro areas. These differences held across racial and ethnic groups, as well as for low- and moderate-income households. Collectively, this indicates that these markets merit close attention in the coming years.” – Alexander Hermann, Research Assistant, Harvard U. Joint Center for Housing Studies

Demographics

Figure 2: Home Price Growth Outside of Metro Areas Has Been More Moderate than Price Growth for the Nation as a Whole



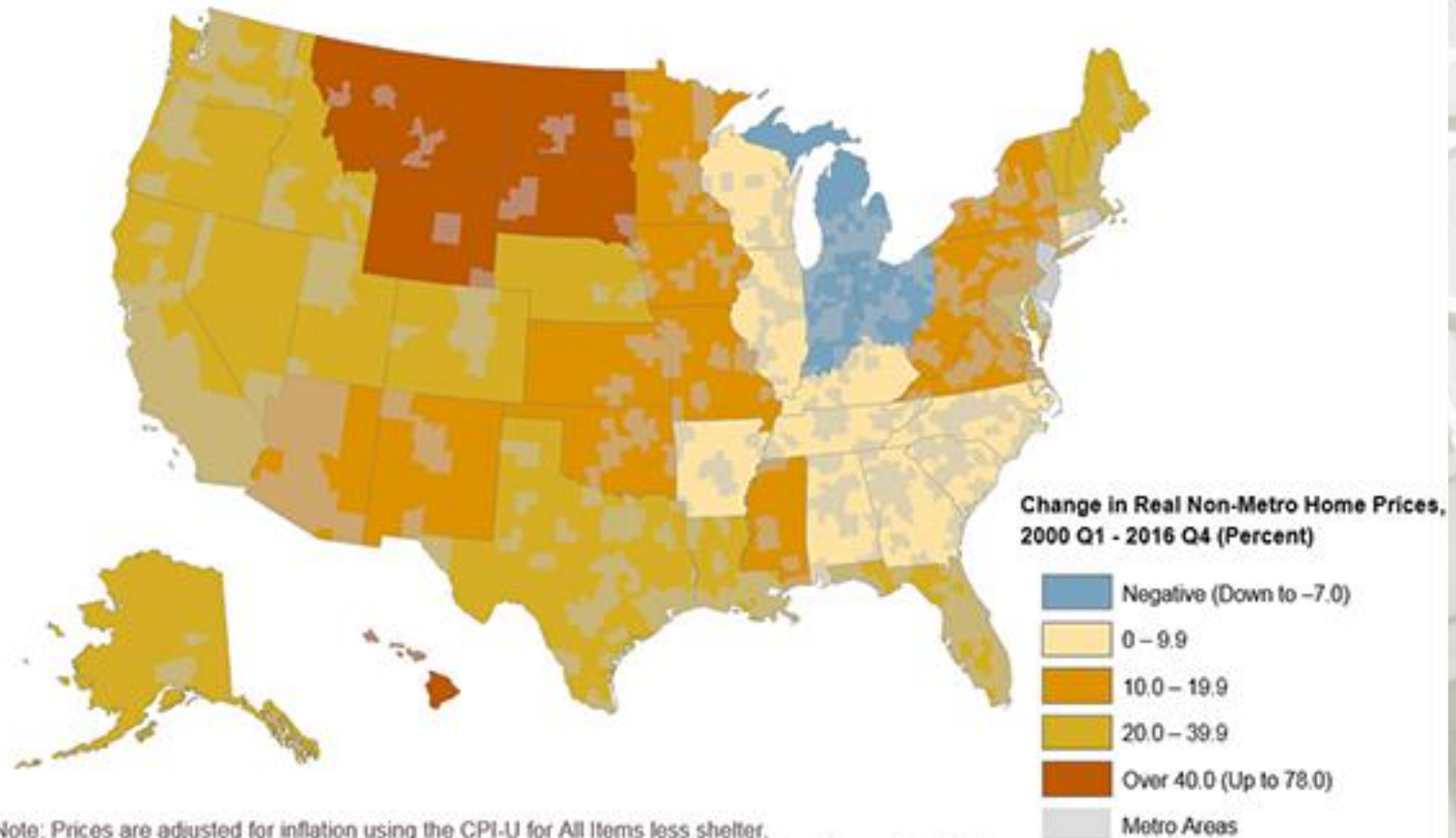
- “While significant, these increases were more modest than the gains experienced by the nation as a whole. Nationally, real home prices grew 23 percent in 2000-2016, about 8 percentage points more than prices in non-metro areas (Figure 2). The difference is largely due to the more modest cyclical movements of non-metro home prices during and after the recession. In the immediate aftermath of the housing crisis, national home prices fell severely for several years before starting to rise steadily in early 2012. In contrast, home prices in non-metro areas were mostly stagnant from 2011 to 2014, and, compared to metro areas, have grown less quickly since. As a result, between 2012 and 2016, the percentage-point increase in non-metro home prices was greater than the percentage-point increase in statewide prices only in Alaska, Hawaii, Mississippi, Montana, and Nebraska.” – Alexander Hermann, Research Assistant, Harvard U. Joint Center for Housing Studies

Demographics

- **“Rural home price trends by state vary widely.** While non-metro home prices within states generally change in ways that are similar to the broader state-wide trends, increases in rural areas did not always trail overall increases in their states (Figure 3). Rather, from 2000 to 2016, the increase in non-metro house prices actually exceeded statewide prices increases in 24 of the 47 states where at least some part of the state was not in an MSA. (Three states — Delaware, New Jersey, and Rhode Island — do not have non-metro areas.)
- The gaps were largest in North Dakota (13 percentage points greater), Nebraska (12 percentage points greater), South Dakota (11 percentage points greater), New Mexico (7 percentage points greater), and Louisiana (6 percentage points greater). In contrast, the increases in statewide prices most exceeded rural prices in coastal states, where prices in metropolitan areas have grown significantly. The gaps were greatest in California (26 percentage points), Hawaii (23 percentage points), Virginia (22 percentage points), Oregon (19 percentage points), and Maryland (18 percentage points).” – Alexander Hermann, Research Assistant, Harvard U. Joint Center for Housing Studies

Demographics

Figure 3: Non-Metro Home Price Growth Has Varied Widely by State



Note: Prices are adjusted for inflation using the CPI-U for All Items less shelter.
Source: JCHS tabulations of the Federal Housing Finance Agency, All-Transactions House Price Index.

Demographics

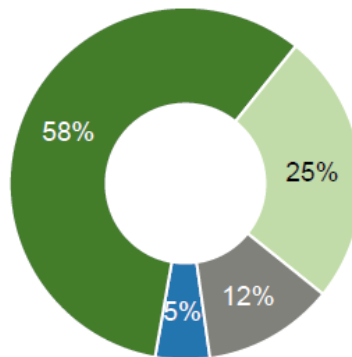
Profile of Today's Renter Multifamily Renter Research Most Believe Housing is Becoming More Costly

Q: Thinking about the housing market in your area, how would the following compare to a year ago?

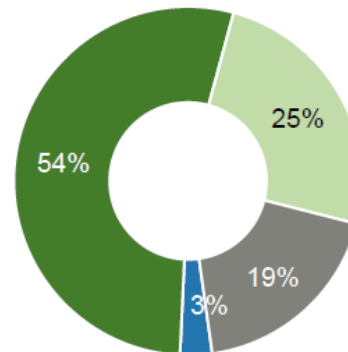
Views of The Market

- Higher
- The same
- Don't know/Not sure
- Lower

Home prices



Rental prices



(Base=4,459 Total Respondents)

Demographics

Profile of Today's Renter Multifamily Renter Research Young Millennials and Boomers More Likely to Say Renting Fits Their Lifestyle

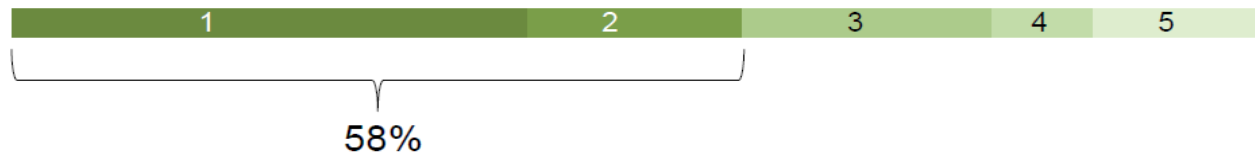
Q: Following are several pairs of statements. For each pair, please select the point on the scale that best reflects your opinion..

Attitudes Towards Renting

% (2,1 Ratings – Top Favorable Ratings for the Statement)

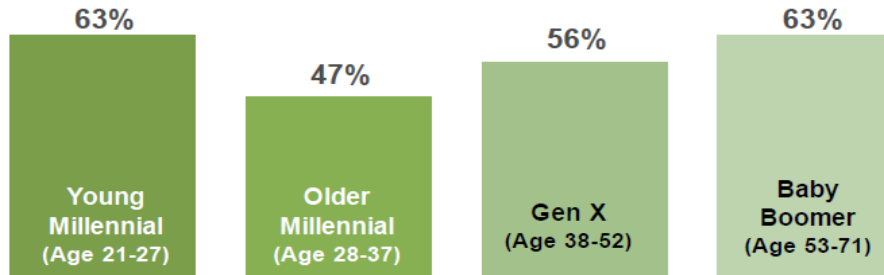
Renting fits my current lifestyle

Owning a home fits within my current lifestyle



Renting Fits My Current Lifestyle

% (4,5 Ratings – Top Favorable Ratings for the Statement)



(Base = Total Renters)

Demographics

Profile of Today's Renter Multifamily Renter Research The Majority of Renters See Renting as a Strategic Choice at Many Life Stages

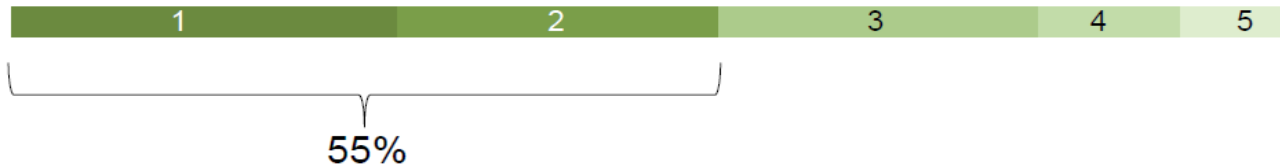
Q: Following are several pairs of statements. For each pair, please select the point on the scale that best reflects your opinion..

Attitudes Towards Renting

% (2,1 Ratings – Top Favorable Ratings for the Statement)

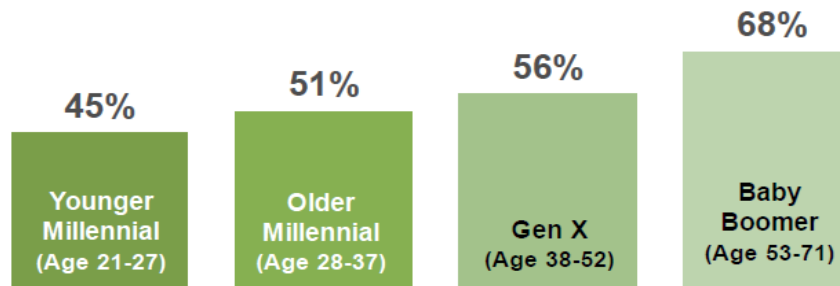
Renting is a strategic choice that makes sense at many life stages

Renting is only for the young and/ or those who move often



Renting Is a Strategic Choice That Makes Sense At Many Life Stages

% (4,5 Ratings – Top Favorable Ratings for the Statement)

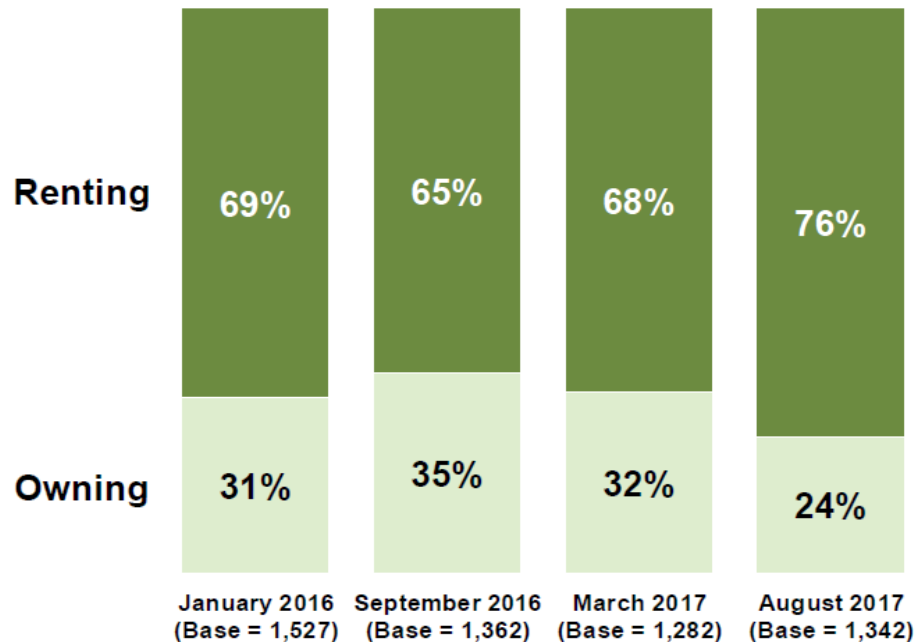


(Base = Total Renters)

Demographics

Profile of Today's Renter Multifamily Renter Research Seven Out of Ten Renters Believe Renting Is More Affordable Than Owning

Q: Overall, which do you think is more affordable for you today?

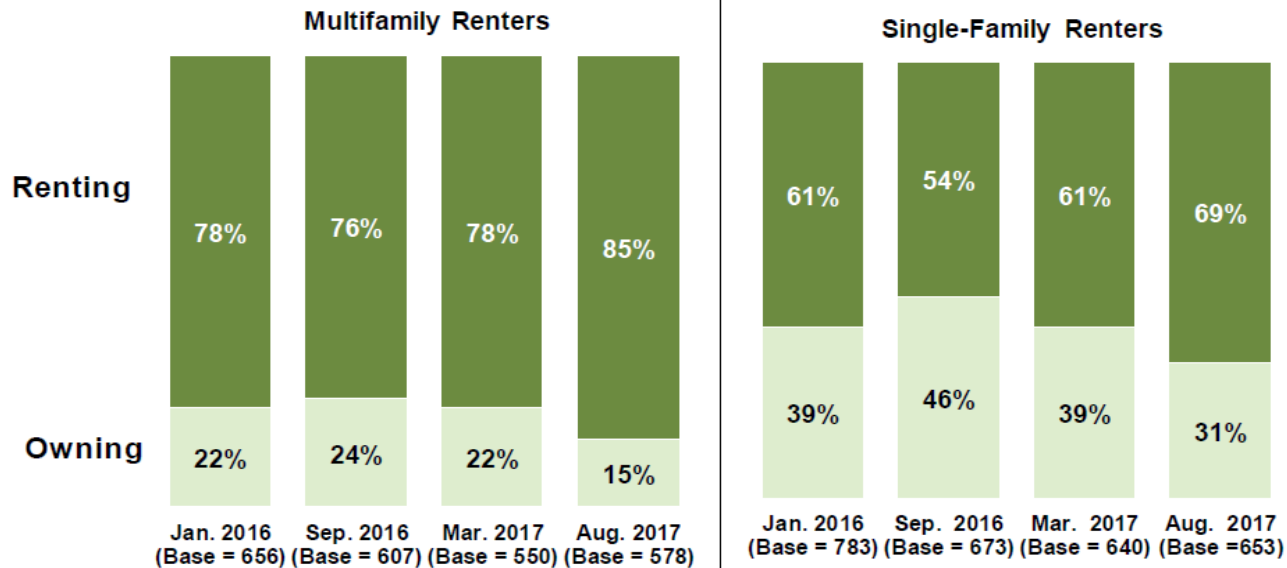


(Base=Total Renters)

Demographics

Profile of Today's Renter Multifamily Renter Research Both Multifamily and Single-Family Renters Consider Renting as More Affordable

Q: Overall, which do you think is more affordable for you today?



Excludes renters who selected "Other" type of rental dwelling given extremely small sample size.

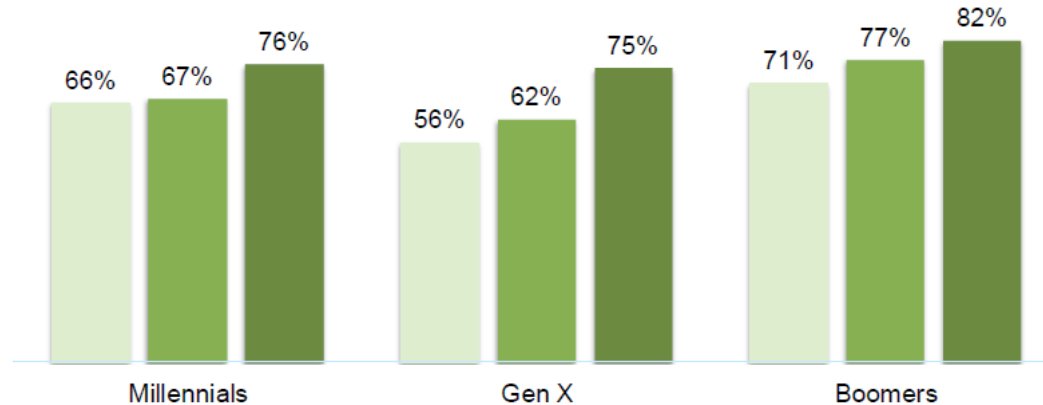
Demographics

Profile of Today's Renter Multifamily Renter Research Perceptions of Renting Being More Affordable Increased Across All Generations

Q: Overall, which do you think is more affordable for you today?

■ September 16 ■ March 2017 ■ August 2017

Renting Is More Affordable



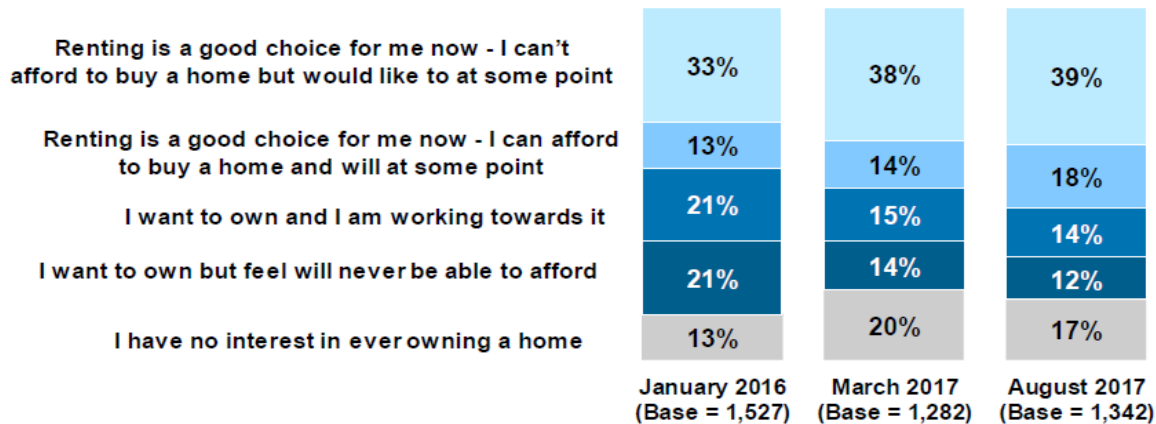
Please refer to table Appendix C for detailed sample size information.

(August 2017 Base = 438 Millennials, 330 Gen X, and 341 Baby Boomers)
Excludes "Mature" generational renters (Age 69+) given extremely small sample size.

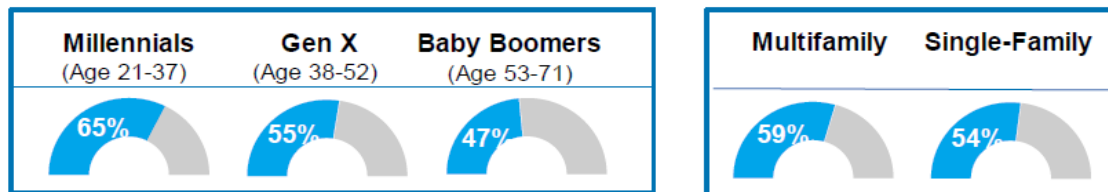
Demographics

Profile of Today's Renter Multifamily Renter Research There's an Increase in the Number of Renters Who Say Renting Is a Good Choice for Now

Q: Which one of the these statements best reflects your views about why you are currently renting?



Renting is a good choice for me now...



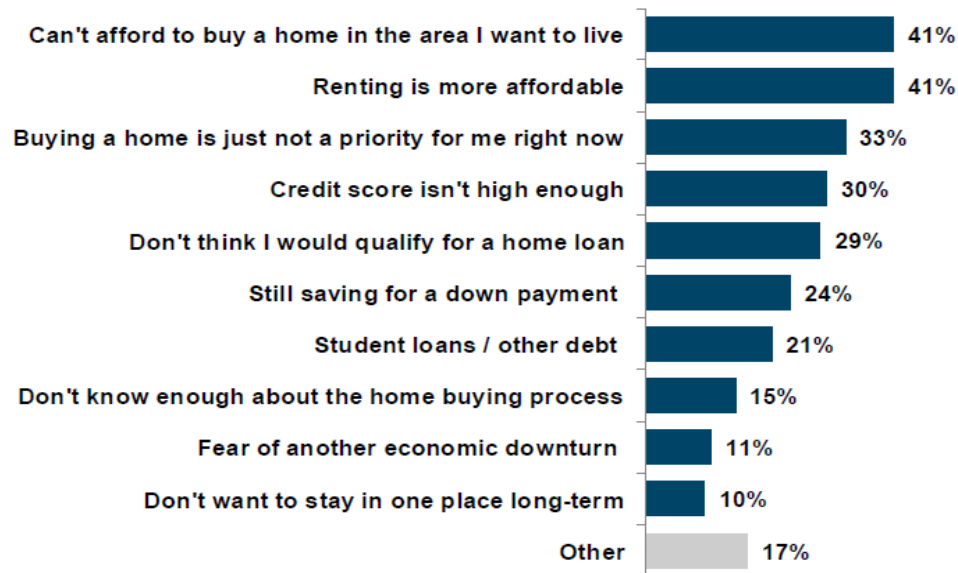
(Aug. 2017 Base = 456 Millennials, 361 Gen X and 420 Baby Boomers / 578 Multifamily Renters and 653 Single-Family Renters).
Excludes "Mature" generational renters (Age 69+) given extremely small sample size.

Demographics

Profile of Today's Renter Multifamily Renter Research While Many Rent For Financial Reasons, a Third Say Buying a Home Is Not a Priority Right Now

Q: Which of the following are reasons why you currently rent instead of own your primary residence? Please select all that apply.

Reasons For Renting Instead of Owning
% Selected



(Base = 1,059 Renters who did not have to postpone to purchase a home)

Demographics

Profile of Today's Renter Multifamily Renter Research Multifamily Renters More Likely to Cite Affordability as a Reason For Renting

Q: Which of the following are reasons why you currently rent instead of own your primary residence? Please select all that apply.

Multifamily Renters

50%

Renting is more affordable

47%

Can't afford to buy in the area I want to live

40%

Buying a home is just not a priority for me right now

Single-Family Renters

36%

Can't afford to buy in the area I want to live

32%

Credit score isn't high enough

31%

Renting is more affordable

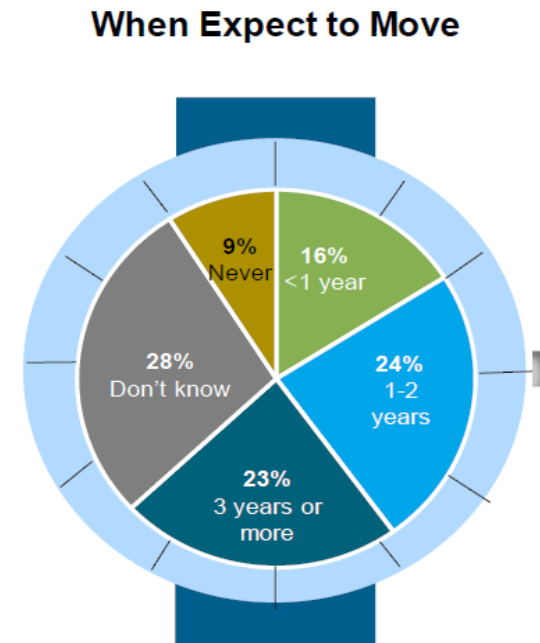
(Base = 479 Multifamily and 498 Single-Family Renters who did not have to postpone to purchase a home)

Demographics

Profile of Today's Renter Multifamily Renter Research Most Renters Who Expect to Rent Their Next Property Want to Live in a Single-Family Home



Single-Family Home	39%
Complex with < 50 Units	27%
Complex with > 50 Units	12%
Townhouse	11%
Other*	7%
Condo	5%



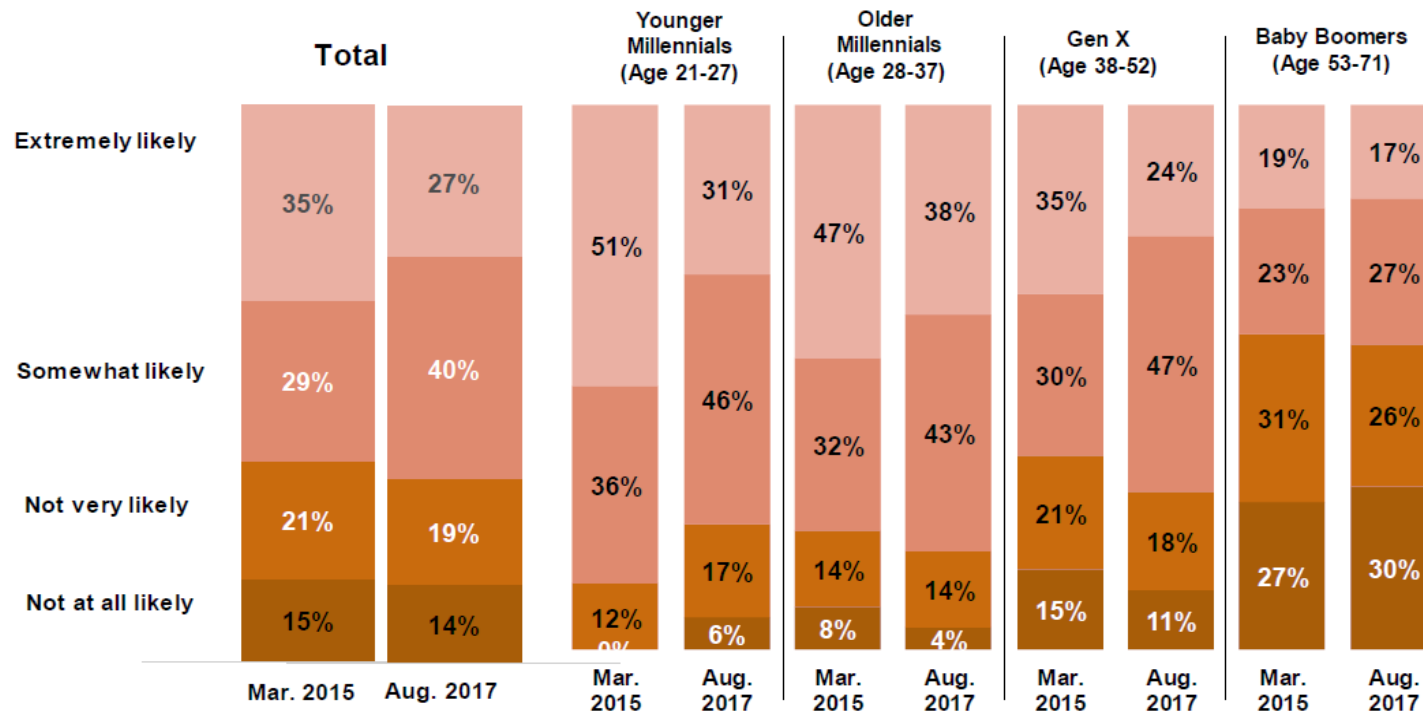
(Base = Total Renters Who Plan To Move/Don't Know)
*Other category includes mobile homes

Demographics

Profile of Today's Renter Multifamily Renter Research Over 2 years, Younger Renters Have Become Less Sure They Will Become Homeowners

Q: How likely, if at all, do you think it is that you will ever purchase/own a home?

By Generation



(Base=Total Renters)

Please refer to table Appendix C for detailed sample size information.

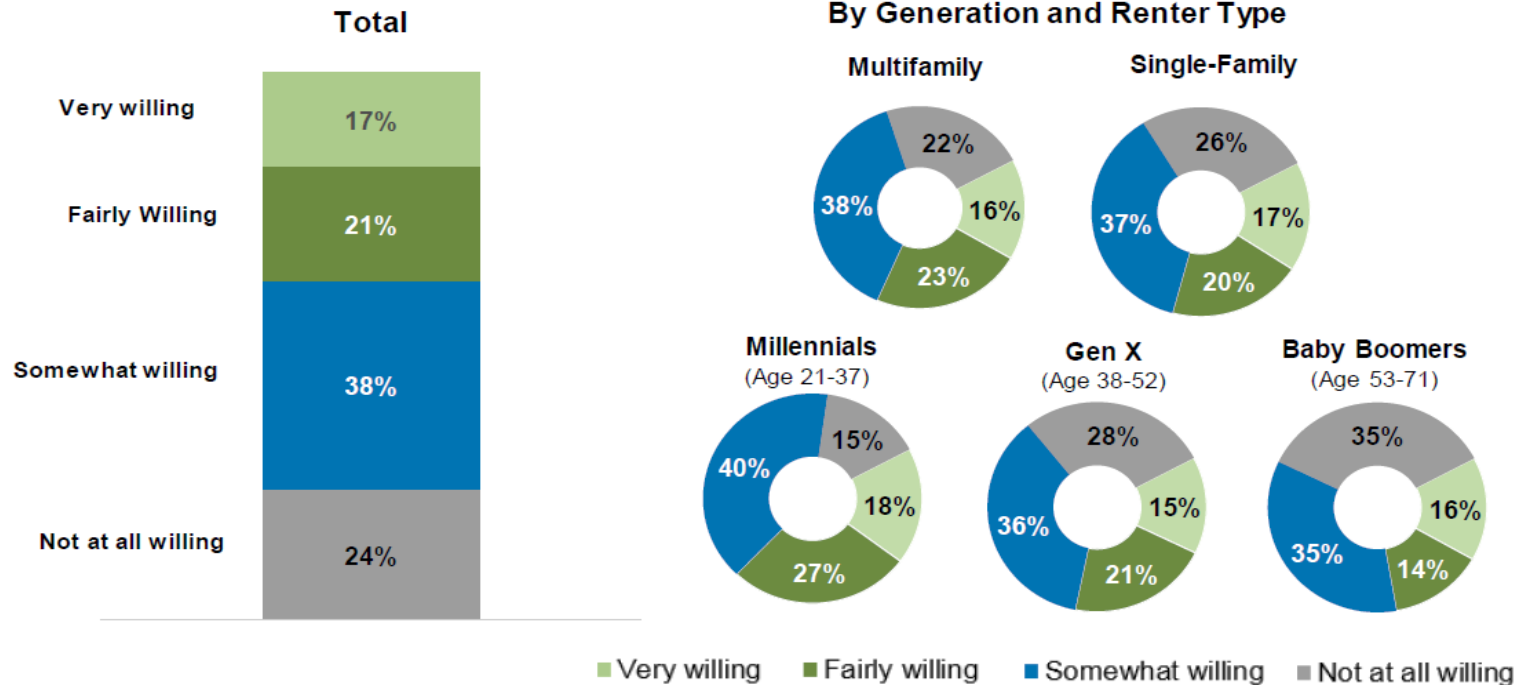
Excludes "Mature" generational renters (Age 69+) given extremely small sample size.

Demographics

Profile of Today's Renter Multifamily Renter Research Millennial Renters Willing to Downsize in Order to Live Closer to Work

Q: How willing would you be to live in a smaller property than you initially wanted to be able to have a shorter commute to work?

Willing to Downsize To Live Closer to Work



Please refer to table Appendix C for detailed sample size information.

(Base=Total Renters)

Demographics

John Burns Real Estate Consulting LLC

10 New Demographic Trends Shared by Our Readers

1. **“People are increasingly living with strangers.** The US is slowly reverting to a version of the boarding houses of the late 1800s and early 1900s. Inspired by Airbnb, numerous homeowners have told me they are bringing in unrelated housemates as a source of income, and not just for short-term stays. Homeowners and renters are meeting online. Mature homeowners need the income (and perhaps even the companionship and help running errands), and young adults need lower rent (and perhaps even after-school care if they have a child). While this is a great market-based solution to an affordable housing problem, it has slowed household formations. We are now studying the Census Bureau’s “boarder” stats even more carefully.
2. **People are increasingly renting.** We created a lot of controversy among home building and building product CEOs when we forecast that the homeownership rate will fall to 60.8% by 2025. Interestingly, most of the anecdotal feedback we have received is that homeownership will go even lower than we forecast unless there is a massive shift in society, possibly induced by creative low down payment lending programs. Many people have shared that they have already sold their home and become renters because they 1) need the cash, 2) don’t use the mortgage interest deduction anymore, and 3) want to try living in another environment.” – John Burns; CEO, John Burns Real Estate Consulting LLC

Demographics

10 New Demographic Trends Shared by Our Readers

3. **“New homes being built for rent.** While we knew more and more people were renting homes, we didn’t think it was financially feasible to build new homes and rent them out. However, several companies have now done so and have shared that the yields in some markets are excellent. These builders and operators tend to have a long-term view toward building a steady, asset-backed cash flow stream.
4. **Autonomous driving will change land planning as well as assisted living demand.** The response to our [autonomous car blog](#) has been overwhelming, and the topic seems to come up in every Q&A session. While fully autonomous driving seems many years away, planners and developers are already rethinking how new development needs to be planned with autonomous driving in mind. The percentage of people aged 20–24 with driver’s licenses has already fallen from 93% to 78%. Wow! Several people have pointed out that assisted living facilities will grow less than people think if the elderly can use ride sharing from home after losing their driver’s license.
5. **Experiences are the new brag.** Possessions including houses and cars have historically been a status symbol. Today’s status symbol seems to have shifted toward experiences. Today’s “brag” is to show what you are doing on social media. The best house is more likely to be near great things to do rather than a large home with a large yard. This shift may best be represented by the attention given to a home’s walkability score. Several also pointed out their belief that the experience economy is behind the recent rise in divorce rates among those over 50, who want new experiences.” – John Burns; CEO, John Burns Real Estate Consulting LLC

Demographics

10 New Demographic Trends Shared by Our Readers

6. **“Immigration is a real hot button.** Suffice it to say that I can really tell whether I am presenting in a “red” or “blue” state when I share historical immigration data. One slide I present elicits wildly different responses depending on the state. I can’t imagine how difficult it must be to set policy these days.
7. **Impact of rising female education is still a mystery.** Perhaps my biggest surprise is the lack of response regarding the tremendous shift in education, with women earning 58% of college degrees today compared to only 42% of degrees when Title IX was passed in 1972. Both men and women have a difficult time making sense of how this will change society. I have some theories, but very little statistical evidence. There is more work to be done here.
8. **9/11 was 16 years ago.** We have been presenting how many of the baby boomer trends (such as the percentage of stay-at-home parents) clearly reversed themselves around 2001 . In doing so, I have been stunned by how many young decision-makers can’t relate to the social shifts that occurred after 9/11. I have to remind myself that it has been 16 years, and many of them were just kids at the time.
9. **Frustrated senior executives.** Experienced executives seem frustrated with the lack of growth in their own business, while younger management sees today’s growth as normal, and they are anxious to use technology to improve the business. Increasingly, I am finding that executives born before the 1970s don’t want to change, and those born after 1980 are excited to change.” – John Burns; CEO, John Burns Real Estate Consulting LLC

Demographics

10 New Demographic Trends Shared by Our Readers

10. “**Surban™ has a word.** This might be the best news. We trademarked the term [surban](#), allowing people to use the term without mentioning us, and it is starting to be recognized as a word! The [urban dictionary](#) as well as at least five podcasts and publications such as the [Washington Post](#) and the [Orange County Register](#) have referred to high-quality, high-density housing near suburban downtowns as surban!” – John Burns; CEO, John Burns Real Estate Consulting LLC

Demographics

U.S. Bureau of Labor Statistics

Projections overview and highlights, 2016–26

“Changing demographics in the population will have far-reaching effects on the labor force, the economy, and employment over the 2016–26 decade. The overall labor force participation rate is projected to decline as older workers leave the labor force, constraining economic growth. The aging baby-boomer segment of the population will drive demand for healthcare services and related occupations.

Continued slow labor force growth; moderate economic growth, which is faster than the previous decade; and continued increases in healthcare employment are a few highlights from the most recent projections prepared by the U.S. Bureau of Labor Statistics (BLS). These projections provide a comprehensive view of expected changes in the U.S. economy over the 2016–26 decade. The projections comprise nearly every facet of the economy, from population and labor force to gross domestic product (GDP) and productivity.

...

The labor force is projected to grow at an annual rate of 0.6 percent. This rate of growth is in response to the slow expected population growth of those 16 years and older and to changes in the population age composition and the labor force participation rates of the different age, gender, and race and ethnic groups.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Projections overview and highlights, 2016–26

“The projected 2.0-percent annual growth in GDP over 2016–26 is higher than that experienced over the previous 10 years — a period heavily affected by the 2007–09 recession. However, economic growth is not expected to reach the 3.0 percent or higher growth rate achieved over most of the 1970s through early 2000s. The U.S. economy is undergoing structural changes, largely attributable to the higher percentage of population in older age groups with much lower participation rates in the labor force. With fewer people working, the economy has limited capacity to generate as much economic output.

By 2026, the service-providing industry sectors are projected to account for more than 81 percent of all wage and salary jobs in the economy and for most of the job growth. The health care and social assistance sector will account for more than one-third of the jobs added over the projections decade. The real output of the total service-providing sectors is projected to grow slightly faster than that of the overall economy from 2016 to 2026. Although employment in the goods-producing sectors is expected to grow by an annual rate of 0.1 percent from 2016 to 2026, real output in those sectors is expected to grow 2.1 percent annually over the decade.

Occupational employment is projected to grow by 7.4 percent from 2016 to 2026, nearly 1.0 percent faster than the projected growth during the 2014–24 decade. Employment growth is projected for nearly all occupational groups, from healthcare to transportation occupations. The only occupational group projected to decline from 2016 to 2026 is production occupations, at a rate of 4.1 percent. These declines are due primarily to expected employment losses in the manufacturing sector.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Population and labor force

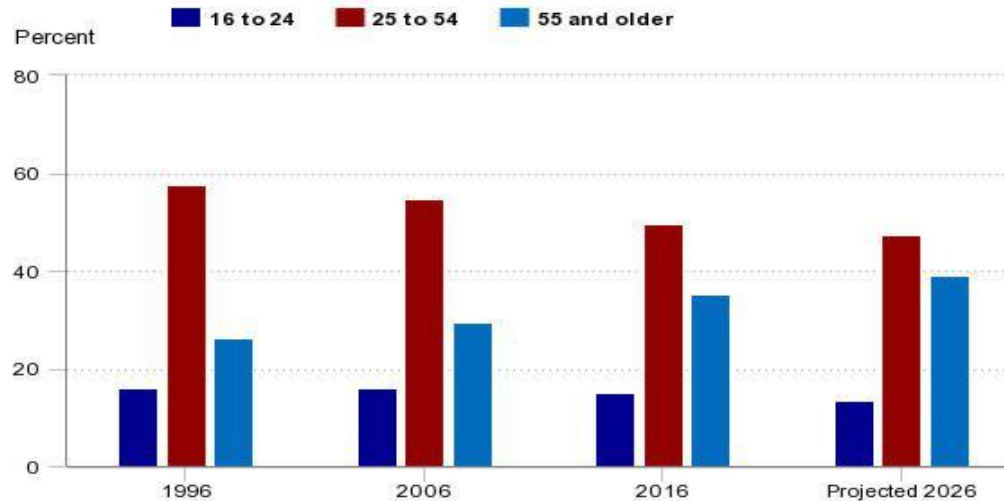
“Over the 2016–26 decade, changes in the growth and composition of the population will be reflected in several segments of the labor force. These changes indicate different growth patterns in labor force participation rates among the various age, gender, and race and ethnic groups. The 2016–26 BLS labor force projections anticipate a labor force that continues to grow, to age, and to change its composition and diversify. The labor force is projected to increase by 10.5 million people from 2016 to 2026 and reach 169.7 million in 2026. This annual growth rate of 0.6 percent is slightly higher than its rate of growth over the 2006–16 decade.

Peaking at 2.6 percent from 1970 to 1980, the annual growth rate of the labor force has been decreasing with the passage of each decade. Changes in the size and composition of the population are important in constraining labor force growth. The growth rate of the civilian noninstitutional population has slowed in past decades. The annual growth rate has declined from 1.3 percent from 1996 to 2006 to 1.0 percent over the 2006–16 decade. In the next decade, the growth of the civilian noninstitutional population is projected to slow to 0.9.

The 2016–26 decade will witness the baby-boom generation aging into the higher age groups of the 55-years-and-older labor force. In 2026, the baby boomers will be from 62 to 80 years old. As a result, a large number of them will have moved out of the labor force, ending one of the major drivers of labor force growth over the past decades.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Figure 1. Population share, by age group, 1996, 2006, 2016, and projected 2026



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Civilian noninstitutional population

“The civilian noninstitutional population is projected to grow by 24.6 million people, reaching 278.2 million people in 2026. The shares of the youth (16 to 24) and the prime age (25 to 54) groups in the civilian noninstitutional population are projected to decline over the 2016–26 period. (See figure 1.) In contrast, the share of the 55-years-and-older age group in the civilian noninstitutional population is projected to increase considerably. The demographic composition of the population substantially affects the demographic composition of the labor force. As a result, the shares of the youth and the prime age groups are also projected to decline in the labor force, whereas the share of the 55-years-and-older group is projected to increase.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

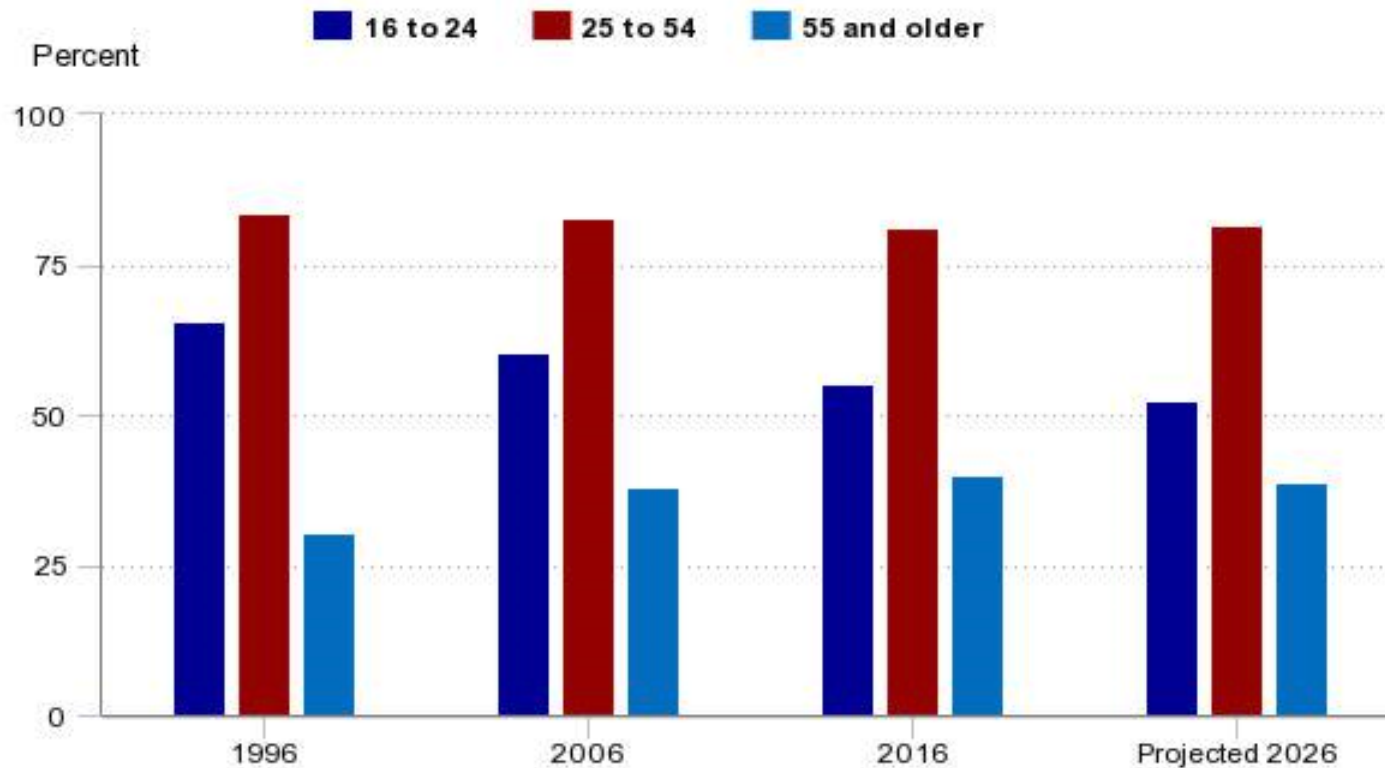
Labor force participation rate

“The overall labor force participation rate peaked at 67.1 percent from 1997 to 2000. After the recession of 2001, it started trending downward. In the aftermath of the 2007–09 recession, the overall labor force participation rate dropped sharply and continued its decline, registering at 62.7 percent in 2015. It changed little in 2016, growing by 0.1 percentage point to 62.8 percent. As a result, from its peak in 2000, the labor force participation rate had declined by 4.3 percentage points by 2016.4

The participation rate of baby boomers. The continued shift of the population into older age groups will have long-lasting effects on the labor force and the overall labor force participation rate. In 1996, the entire baby-boom generation was in the prime age group of 25-to 54-year-olds, with a participation rate of 83.8 percent. (See figure 2.) In 2001, the first of the baby boomers moved into the 55-and-older age group. The labor force participation rate of the older age group, which had been increasing since 1995 from a rate of 30 percent, peaked in 2012 at 40.5 percent and declined slightly to 40.0 percent in 2016. The overall labor force participation rate is projected to decline in the next decade because of the labor force moving into higher age groups with lower participation rates as the population ages.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Figure 2. Labor force participation rate, by age group, 1996, 2006, 2016, and projected 2026



Click legend items to change data display. Hover over chart to view data.

Source: U.S. Bureau of Labor Statistics.

Demographics

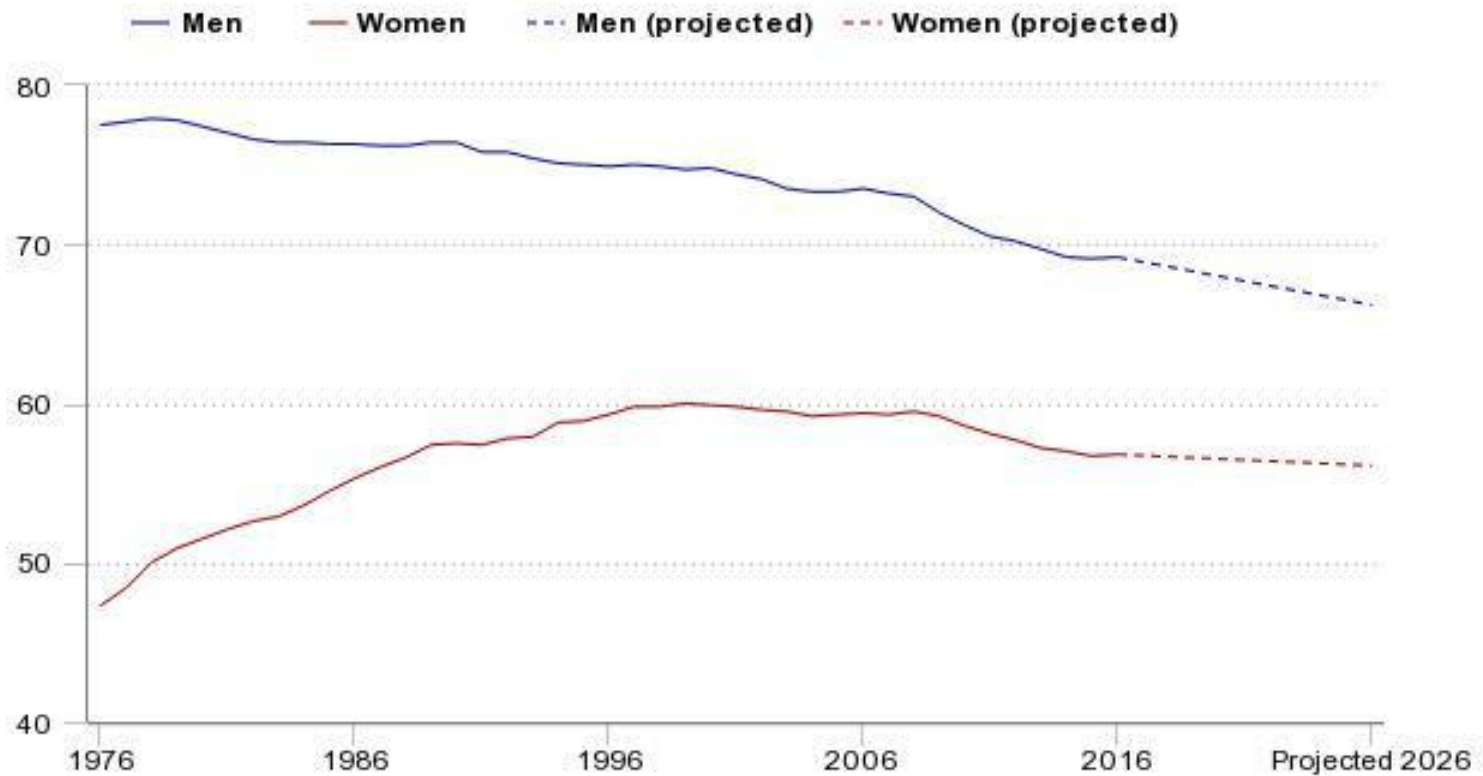
“The participation rate of the prime age group, 25-to 54-year-olds. Although this group exhibits the strongest attachment to the labor market, its participation rate generally has been gradually declining since 2000. Its rate is expected to change little over the coming decade, increasing slightly from 81.3 percent to 81.6 percent. (See figure 2.)

The participation rates for teenagers and young adults. With increased school enrollment at all levels, especially the secondary and college levels, more young people than ever before are continuing their education in hopes of getting better paying jobs in the future. The participation rates of both 16-to-19-year-olds and 20-to-24-year-olds have decreased sharply over the past several decades. Their rates are expected to decline further, although at a slower rate. (See figure 2.)

Changing participation rates by gender. The participation rate of women peaked in 1999 after a half century of rapid growth. However, since 1999, their participation rate has trended down and is projected to continue trending downward. The labor force participation rate for men has been declining since the 1940s. This trend is expected to continue to 2026 as well. (See figure 3.)” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Figure 3. Labor force participation rate, by gender, 1976–2016 and projected 2026



Click legend items to change data display. Hover over chart to view data.

Source: U.S. Bureau of Labor Statistics.

Demographics

Labor force

“The labor force in 2026 is expected to be much older and to become more diverse. The median age of the labor force is expected to rise slightly from 42.0 in 2016 to 42.3 in 2026 — the highest level ever recorded.

The projected labor force annual growth of 0.6 percent in the 2016–26 decade is because of slow population growth. Changes in the age composition of the population and labor force participation rates of the different age, gender, and race and ethnic groups will also affect growth. The labor force will change in composition as various age, gender, and race and ethnic groups experience different rates of change. The shares of both the youth and the prime age groups in the labor force are projected to decline, whereas older workers will continue to increase their share to about one-quarter of the labor force by 2026. The 75-and-older group is projected to have the fastest growth, followed by the 65-to-74-year-olds.

Since 1996, labor force growth for men has been lagging that for women, and this trend is expected to continue over the 2016–26 decade. The women’s labor force is projected to have a 0.8-percent annual growth rate, whereas the men’s labor force is projected to grow 0.5 percent. Continuing its trend from the past couple of decades, women’s share of the labor force is projected to increase, and the men’s share is projected to decrease.

Over the 2016–26 decade, the U.S. labor force is expected to become more diverse. Because immigration is the main engine of population growth, the projected high labor force participation rates for Asian and Hispanic immigrants will increase the share of minorities more in the coming decade than previously. The participation rate of white non-Hispanics, who have always accounted for the largest share, is projected to decline.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Labor force

“The changing composition of the labor force among the different age, gender, and race and ethnic groups creates a dynamic that shows the movement of these different groups into and out of the labor force. This dynamic of labor force change emerges from three groups:

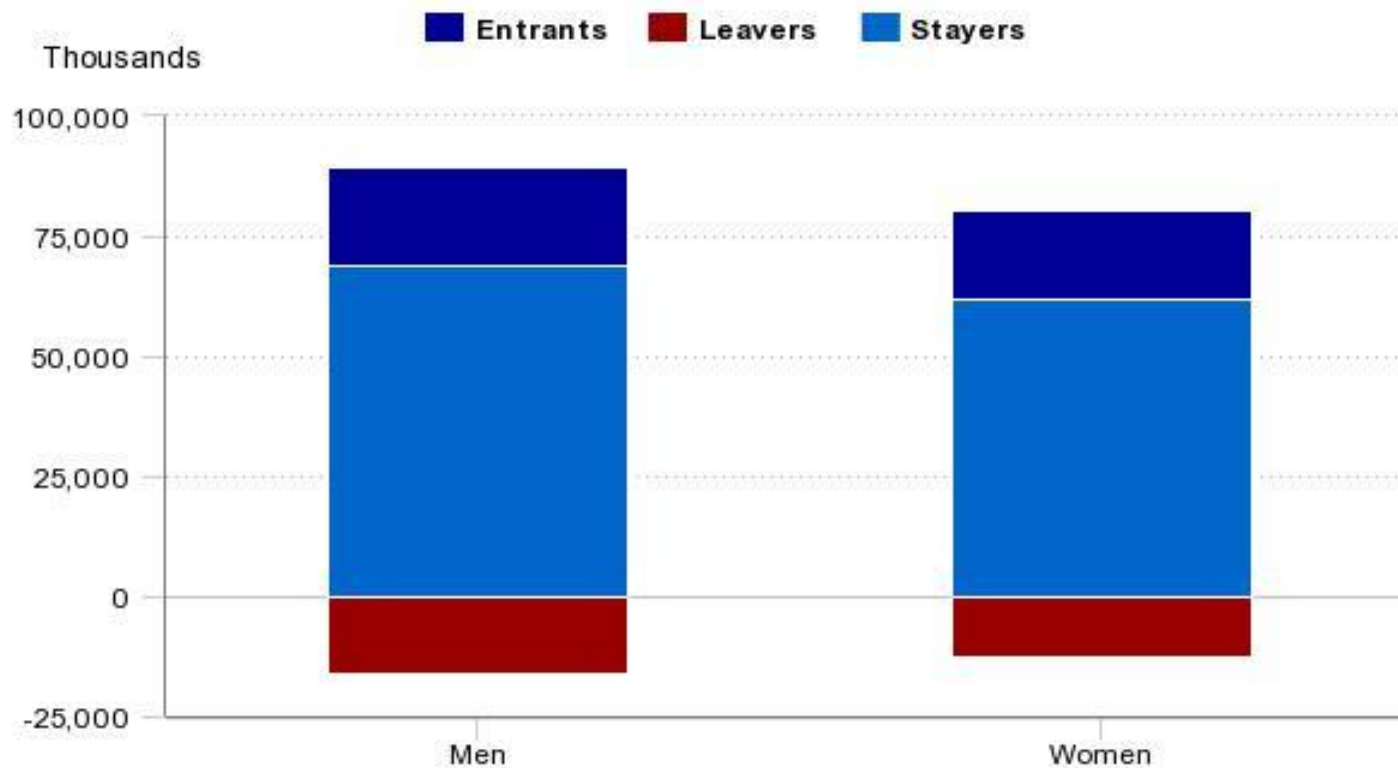
- Entrants: those who will be in the labor force in 2026 but who were not in it in 2016
- Leavers: those who were in the labor force in 2016 but who will exit before 2026
- Stayers: those who were in the labor force in 2016 and who will remain through 2026

Thus, the projected labor force of 2026 may be regarded as consisting of the labor force of 2016, plus the entrants and minus the leavers. (See figure 4.) BLS projects that between 2016 and 2026, nearly 39 million workers will enter the labor force and 28 million will leave. Leavers are more likely to be men, because the labor force has more older men than older women.

During the past several decades, a combination of decreasing fertility rates and increasing life expectancies has aged the U.S. population and, as a result, the labor force. The labor force is getting older if the share of the younger age group under 25 years is declining or if the share of the 55-years-and-older age group is increasing. By 2026, the labor force is projected to be much older and, as a result, the median age of the labor force is expected to increase over the decade.”
– Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

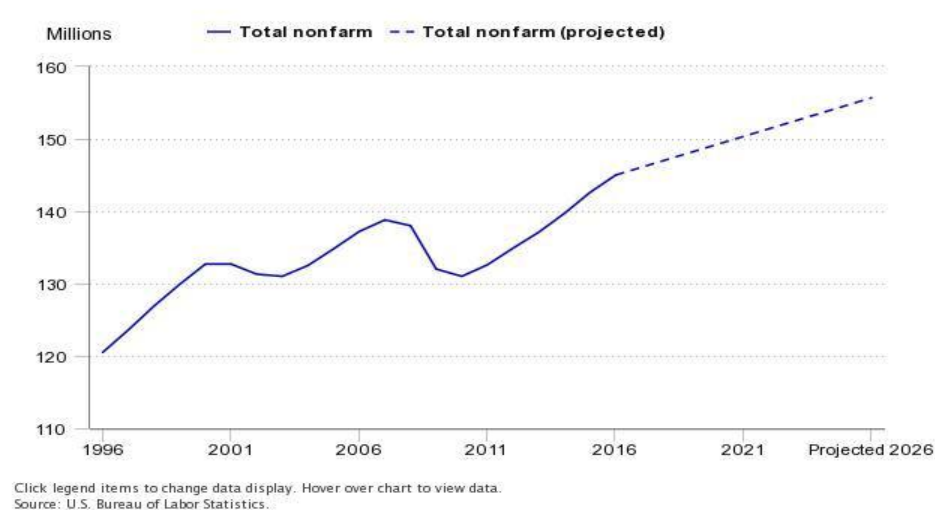
Figure 4. Labor force leavers, stayers, and entrants (16 years and older), by gender, 2016-26



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Demographics

Figure 8. Total nonagricultural wage and salary employment, 1996-2016 and projected 2026

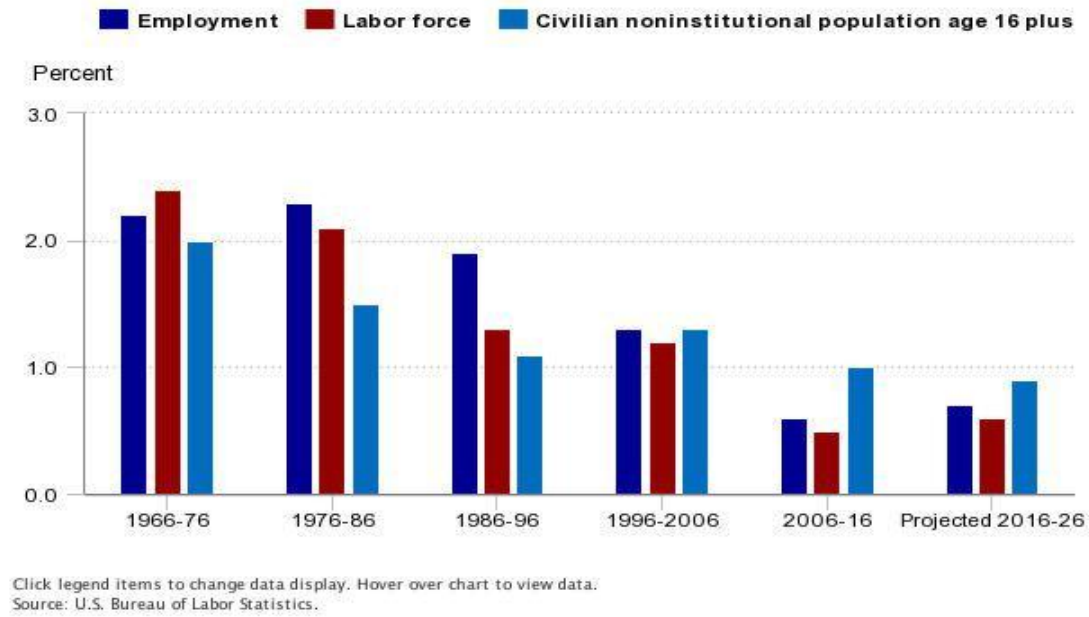


Industry and occupational employment projections

“BLS projects that total employment in 2026 will reach about 167.6 million, an increase from 2016 of over 11.5 million. This growth represents a 0.7-percent annual rate of growth, which is faster than the 0.5-percent annual rate of growth experienced from 2006 to 2016. Most of the increase in employment, over 93 percent, is for nonagricultural wage and salary workers. Their job count is projected to rise from about 145.0 million in 2016 to more than 155.7 million in 2026, an increase of over 10.7 million jobs.¹² (See figure 8.) This increase is larger than the 7.8 million jobs that were added from 2006 to 2016. The 2016–26 employment increase for nonagricultural wage and salary workers, at a growth rate of 0.7 percent a year, is projected to be larger than the 0.6-percent annual growth rate from 2006 to 2016.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Figure 9. Annual growth rate of population, labor force, and employment, by decade, 1966 to projected 2026



Industry and occupational employment projections

“The labor force and changing demographics in the population affect employment growth, just as they affect GDP and other macroeconomic measures. An aging population leads to a declining participation rate, limiting the number of workers available for employment. Employment is expected to grow slightly faster than it did over the previous 10 years — a decade heavily affected by the 2007–09 recession — but much slower than it did over the 1980s, 1990s, and mid-2000s. (See figure 9.)” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Industry sector employment

“The service-providing sectors are projected to add more than 10.5 million jobs to reach over 135.8 million jobs by 2026. This increase represents just over 91 percent of all jobs added from 2016 to 2026. Employment in the service-providing sectors is expected to grow by 0.8 percent annually from 2016 to 2026, which is slightly faster than the 0.7-percent growth in jobs for the entire economy. (See table 1.) This growth is slower than the 0.9-percent annual growth that the sector experienced from 2006 to 2016. As with the last three sets of projections, the health care and social assistance sector is projected to have the most employment growth. The sector is expected to increase by almost 4 million jobs and is expected to reach over 23 million jobs by 2026. Employment in the health care and social assistance sector is projected to grow at a 1.9-percent annual rate, which is more than twice as fast as the overall annual growth of jobs in the entire economy. This growth rate is below the 2.3-percent annual growth rate that took place during the 2006–16 decade for the health care and social assistance sector

Employment in the goods-producing sectors excluding agriculture is projected to increase by 219,000 jobs over the 2016–26 decade. This growth contrasts with the loss of almost 2.8 million jobs over the previous decade. Manufacturing, the largest sector in this group, is projected to have the largest decrease in jobs over the 2016–26 projections decade, declining by 736,400 jobs. Although large, the loss is about 40 percent of that experienced from 2006 to 2016, which saw a decrease in more than 1.8 million manufacturing jobs. (See figure 10.)” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

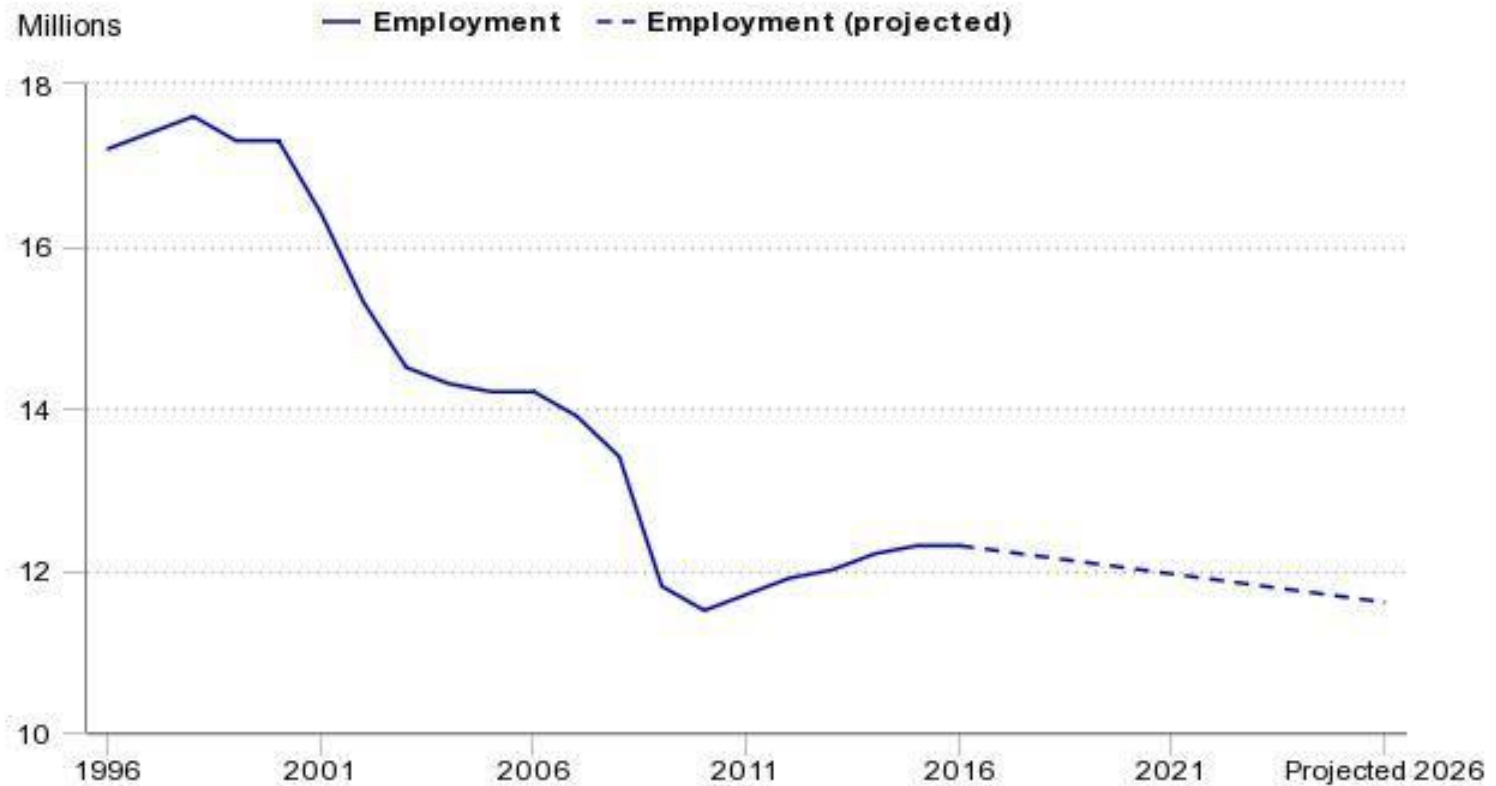
Demographics

Table 1. Employment by major industry sector

Industry sector	Thousands of jobs			Compound annual rate of change	
	2006	2016	2026	2006–16	2016–26
Total ⁽¹⁾	148,988.2	156,063.8	167,582.3	0.5	0.7
Nonagriculture wage and salary ⁽²⁾	137,190.9	144,979.3	155,724.8	0.8	0.7
Goods-producing, excluding agriculture	22,466.7	19,685.2	19,904.2	-1.3	0.1
Mining	619.7	626.1	716.9	0.1	1.4
Construction	7,691.2	6,711.0	7,575.7	-1.4	1.2
Manufacturing	14,155.8	12,348.1	11,611.7	-1.4	-0.6
Services-providing excluding special industries	114,724.2	125,294.1	135,820.6	0.9	0.8
Utilities	548.5	556.2	559.6	0.1	0.1
Wholesale trade	5,904.6	5,867.0	6,012.8	-0.1	0.2
Retail trade	15,353.2	15,820.4	16,232.7	0.3	0.3
Transportation and warehousing	4,469.6	4,989.1	5,353.4	1.1	0.7
Information	3,037.9	2,772.3	2,824.8	-0.9	0.2
Financial activities	8,366.6	8,284.8	8,764.6	-0.1	0.6
Professional and business services	17,566.2	20,135.6	22,295.3	1.4	1.0
Educational services	2,900.9	3,559.7	4,066.2	2.1	1.3
Health care and social assistance	15,253.3	19,056.3	23,054.6	2.3	1.9
Leisure and hospitality	13,109.7	15,620.4	16,939.4	1.8	0.8
Other services	6,240.5	6,409.4	6,761.4	0.3	0.5
Federal government	2,732.0	2,795.0	2,739.2	0.2	-0.2
State and local government	19,241.2	19,427.9	20,216.6	0.1	0.4
Agriculture, forestry, fishing, and hunting ⁽³⁾	2,111.2	2,351.5	2,345.4	1.1	0.0
Agriculture wage and salary	1,218.6	1,501.0	1,518.0	2.1	0.1
Agriculture self-employed	892.6	850.5	827.5	-0.5	-0.3
Nonagriculture self-employed	9,686.0	8,733.0	9,512.1	-1.0	0.9

Demographics

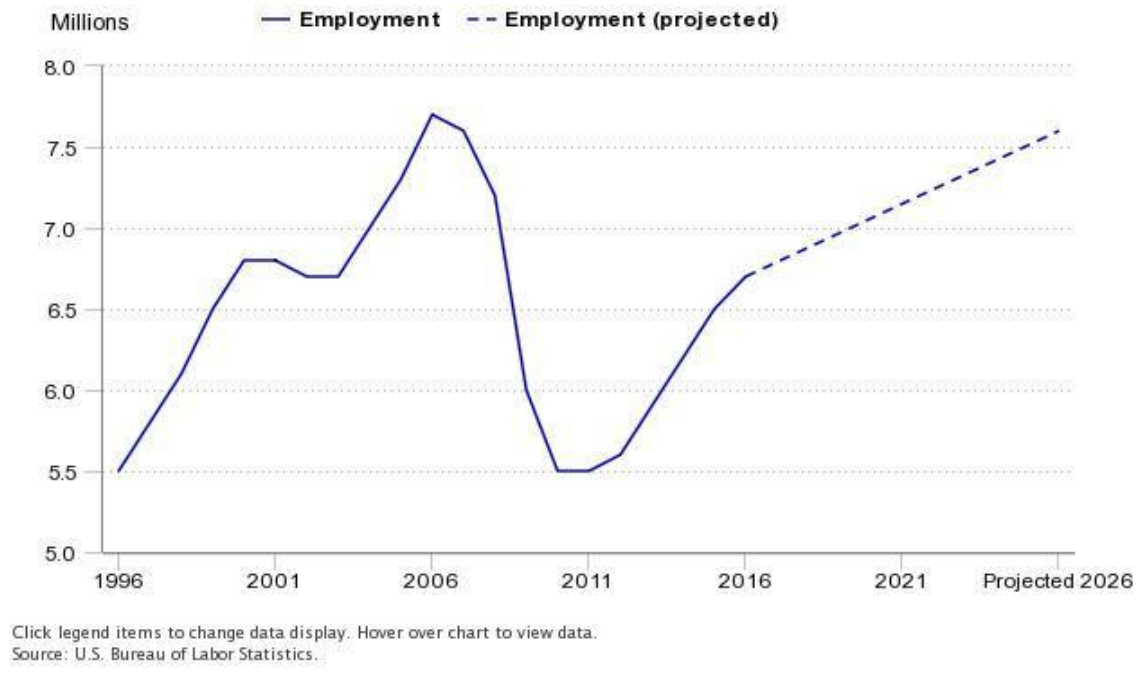
Figure 10. Manufacturing wage and salary employment, 1996–2016 and projected 2026



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Demographics

Figure 11. Construction wage and salary employment, 1996–2016 and projected 2026



Industry sector employment

“Employment in the construction sector is expected to increase substantially, adding 864,700 jobs. This increase almost makes up for the 980,200 jobs that were lost during the 2006–16 decade, nearly bringing the construction sector back to its prerecession level. (See figure 11.)” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Demographics

Industry sector employment

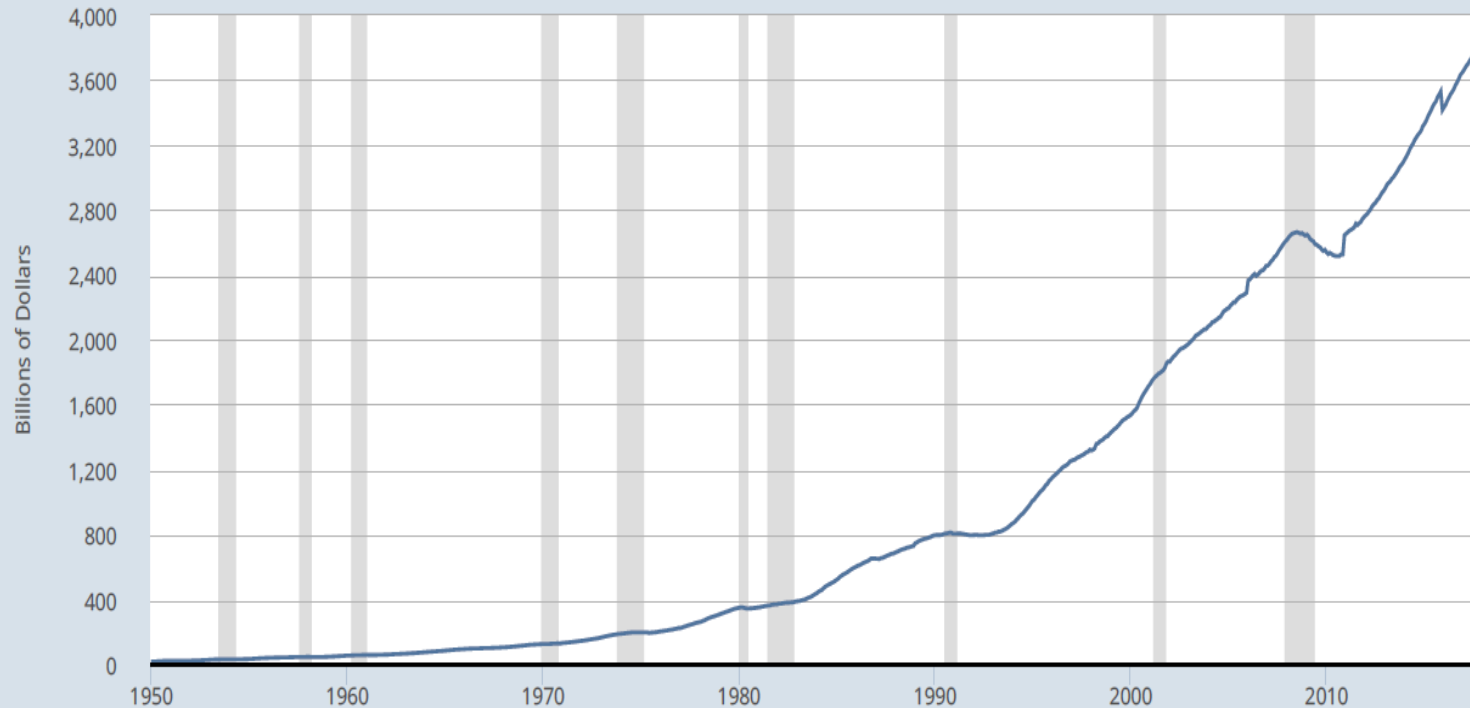
“Total employment in the agriculture, forestry, fishing, and hunting sector is expected to decline by 6,100 jobs from 2016 to 2026, a result of a decline of 23,000 in self-employment over the projections decade. This total decline is smaller for the sector than the expected loss of 110,500 jobs over the 2014–24 projections decade. This decline was largely a result of falling employment projected in the crop production industry.

Total crop production industry employment was projected to decline 0.7 percent annually during the 2014–24 decade but is now expected to grow 0.2 percent annually over the 2016–26 projections decade. As farms are consolidating and getting larger, they are adopting precision agriculture technologies, leading to an increase in hired labor.” – Alan Lacey, and Mitra Toossi, Economists and Andrea Gensler, Statistician, Office of Occupational Statistics and Employment Projections, U.S. Bureau of Labor Statistics

Economics

FRED 

— Total Consumer Credit Owned and Securitized, Outstanding



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

myf.red/g/FF3E

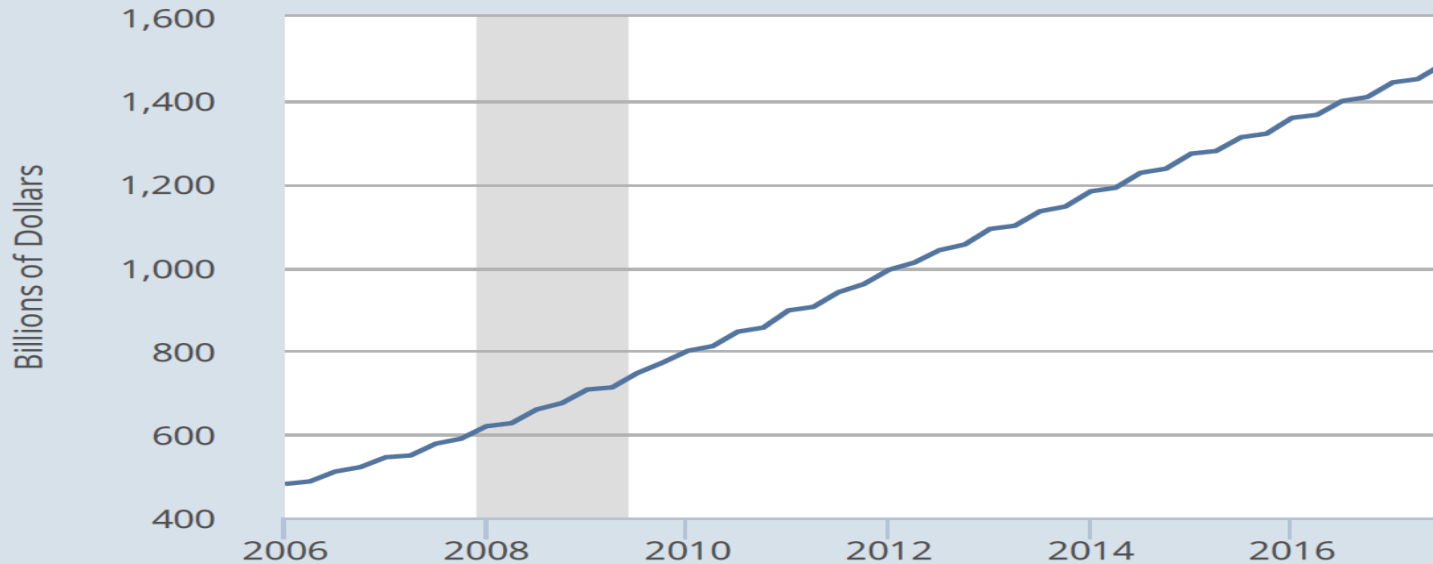
Total Consumer Credit Owned and Securitized, Outstanding

Total consumer credit owned and securitized continues to rise, reaching US \$3,787.9 billion in September 2017 – the US population: 325,779,795. In January 1950, it was 19.4 billion – the US population: 150,697,361.

Economics

FRED 

— Student Loans Owned and Securitized, Outstanding



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

myf.red/g/fF34

Student Loans Owned and Securitized, Outstanding

Student debt also continues to rise, reaching US \$1,486.2 trillion in Q3 2017. In Q1 2006, it was US \$480.9 billion.

Economics

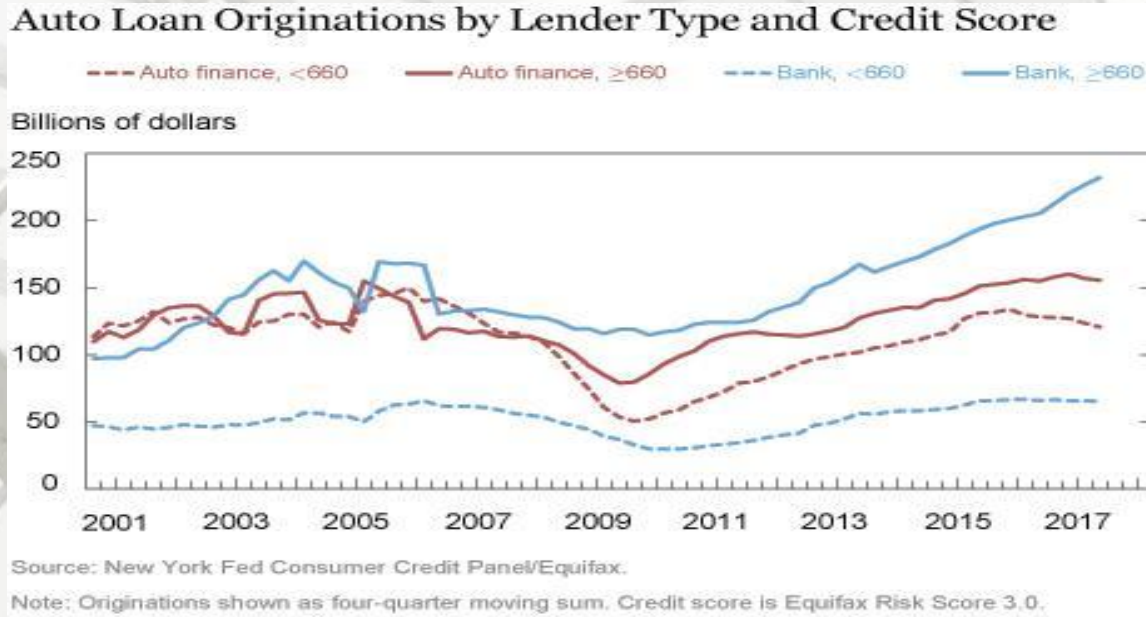
Auto Lending Keeps Pace as Delinquencies Mount in Auto Finance Sector

“Total household debt increased by \$116 billion to reach \$12.96 trillion in the third quarter of 2017, according to the latest [Quarterly Report on Household Debt and Credit](#) released today by the New York Fed’s [Center for Microeconomic Data](#). Household debt has been growing since mid-2013, boosted in part by steady growth in auto loan balances, which have grown for twenty-six consecutive quarters thanks to record-high levels of newly originated loans. Although new vehicle sales had begun to [slump](#) over the summer after several strong years of growth, September and October saw a [rebound](#) in [sales](#), ending with over 18 million vehicles sold (seasonally adjusted at an annualized rate), and auto loan originations in the third quarter were commensurate with these numbers. In this post, we revisit the state of auto lending and auto loan performance, using the [New York Fed Consumer Credit Panel](#) which is based on Equifax credit data.

Originations

We reported [one year ago](#) that amid high levels of originations to subprime borrowers, subprime balances had been growing quickly, and these trends have mostly continued. We have noted in an earlier [blog post](#) that one feature of our data set is that it enables us to infer whether auto loans were made by a bank or credit union, or by an auto finance company (typically made through a car manufacturer or dealer using Equifax’s lender classification). Subprime auto lending has long been dominated by auto finance companies, which have historically originated and held more than 70 percent of subprime auto loans. The chart below, which depicts newly originated auto loan balances for the two lender categories by borrowers’ credit score at the time of origination, shows that these trends have continued. Lending to borrowers with lower credit scores has not increased as rapidly in the past year as it had in the preceding years, while lending to borrowers with higher credit scores has continued apace.” – Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw; The Federal Reserve Bank of New York

Economics



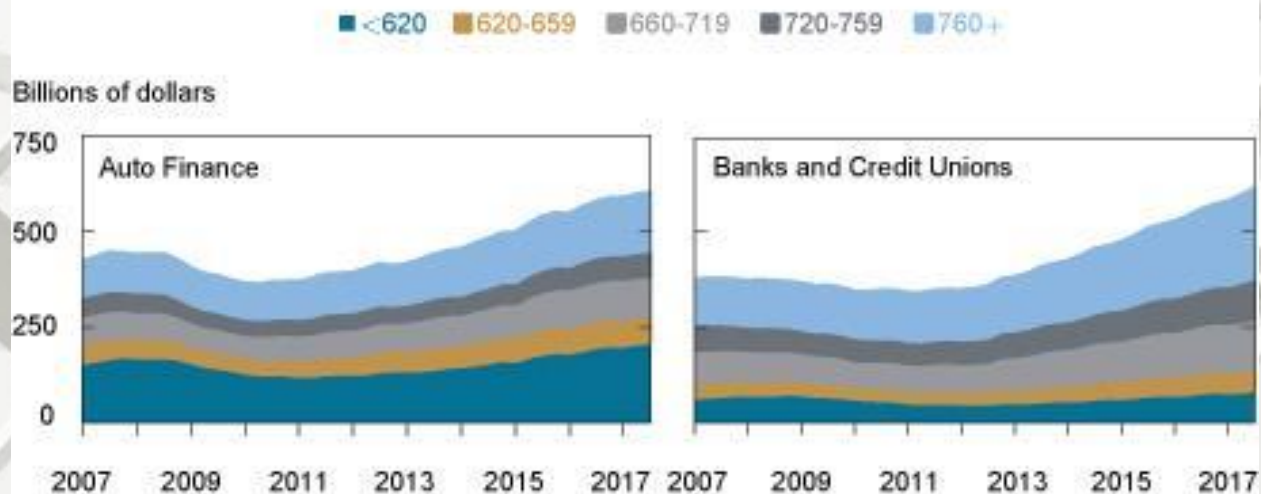
Auto Lending Keeps Pace as Delinquencies Mount in Auto Finance Sector

Outstanding Balances

“Outstanding subprime auto debt (classified in the chart below as debt held by borrowers with origination credit scores under 620) now stands at about \$300 billion. Although this amount has increased steadily in absolute terms, as a share of the total outstanding auto loan balance, it has been fairly steady at around 24 percent since about 2011. Subprime loans are disproportionately originated by auto finance companies, and their share has nearly doubled since 2011 and now stands at over \$200 billion – represented in dark blue on the left panel of the chart below. In comparison, the outstanding balances of bank auto loans remain dominated by loans originated to borrowers with higher credit scores, as shown in the right panel below.” – Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw; The Federal Reserve Bank of New York

Economics

Outstanding Loan Balances by Origination Credit Score



Source: New York Fed Consumer Credit Panel/Equifax.

Note: Credit Score is Equifax Risk Score 3.0.

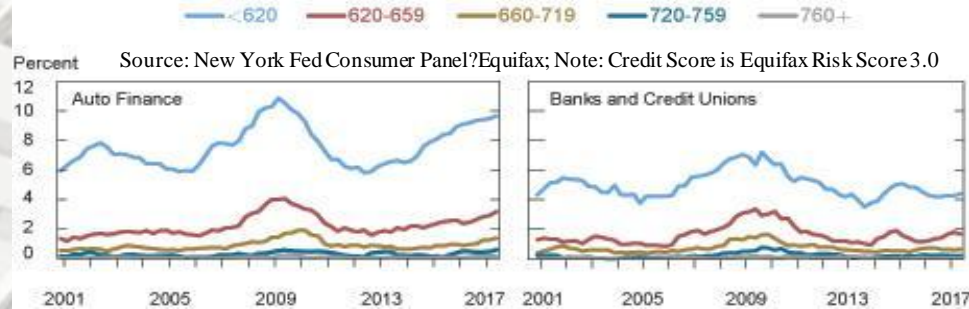
Auto Lending Keeps Pace as Delinquencies Mount in Auto Finance Sector

Delinquency

“Since 2011, the overall delinquency rate of loans originated by auto finance companies has significantly deteriorated. When we split the delinquency rate between auto finance and bank loans in the chart below we see that the 90+ day delinquency rate for bank auto loans has been steadily improving since the financial crisis. In contrast, the delinquency rate for auto finance companies has been sharply increasing since 2014, by more than 2 percentage points.” – Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw; The Federal Reserve Bank of New York

Economics

Transition into 90+ Days Delinquent by Origination Credit Score



Delinquency

“Further disaggregating the delinquency rates by the origination credit score of the borrower shows that while the delinquency rates for borrowers with credit scores of 660 or higher appear to be somewhat steady, the subprime delinquency rates are really where the pressure is. This is especially stark when we break out auto finance and bank loans, which shows that the delinquency rate – even among borrowers in the same credit score bucket – is considerably higher and rising on the auto finance side. This suggests that bank auto loans may have some additional layers of underwriting – credit score alone does not explain the gap and divergence in the delinquency rates. The overall delinquency rate for auto loans – published in our [Quarterly Report](#) – shows only a very slow increase masking the sharp rise in subprime delinquency, which is diluted by the increase in prime loans with better performance.

Although the impact on the larger financial sector may be muted, there are over 23 million consumers who hold subprime auto loans. These consumers may find their credit reports further damaged after a default or encounter further financial difficulties after experiencing a car repossession. This is an area of household debt we have been monitoring for some time now, and will continue to monitor.” – Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw; The Federal Reserve Bank of New York

Virginia Tech Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by Virginia Tech. The views and opinions of authors expressed herein do not necessarily state or reflect those of Virginia Tech, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents sent out or made available from this server, neither Virginia Tech nor any of its employees, makes any warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by Virginia Tech of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, Virginia Tech does not exercise any editorial control over the information you September find at these locations. All links are provided with the intent of meeting the mission of Virginia Tech's web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

Virginia Tech prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the author. Virginia Tech is an equal opportunity provider and employer.

U.S. Department of Agriculture Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents available from this server, neither the United States Government nor any of its employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by the U.S. Department of Agriculture of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, the Department does not exercise any editorial control over the information you December find at these locations. All links are provided with the intent of meeting the mission of the Department and the Forest Service web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202.1020.21000 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-10410 or call 1000.10105.32102 (voice) or 202.1020.103102 (TDD). The USDA is an equal opportunity provider and employer.