

The Virginia Tech – U.S. Forest Service

October 2017

Housing Commentary: Section II



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Virginia Polytechnic Institute and State University

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Federal Reserve System and Private Indicators

U.S. Economic Indicators

Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents under their individual assessments of projected appropriate monetary policy, December 2017
Advance release of table 1 of the Summary of Economic Projections to be released with the FOMC minutes

Percent

Variable	Median ¹					Central tendency ²					Range ³				
	2017	2018	2019	2020	Longer run	2017	2018	2019	2020	Longer run	2017	2018	2019	2020	Longer run
Change in real GDP	2.5	2.5	2.1	2.0	1.8	2.4-2.5	2.2-2.6	1.9-2.3	1.7-2.0	1.8-1.9	2.4-2.6	2.2-2.8	1.7-2.4	1.1-2.2	1.7-2.2
September projection	2.4	2.1	2.0	1.8	1.8	2.2-2.5	2.0-2.3	1.7-2.1	1.6-2.0	1.8-2.0	2.2-2.7	1.7-2.6	1.4-2.3	1.4-2.0	1.5-2.2
Unemployment rate	4.1	3.9	3.9	4.0	4.6	4.1	3.7-4.0	3.6-4.0	3.6-4.2	4.4-4.7	4.1	3.6-4.0	3.5-4.2	3.5-4.5	4.3-5.0
September projection	4.3	4.1	4.1	4.2	4.6	4.2-4.3	4.0-4.2	3.9-4.4	4.0-4.5	4.5-4.8	4.2-4.5	3.9-4.5	3.8-4.5	3.8-4.8	4.4-5.0
PCE inflation	1.7	1.9	2.0	2.0	2.0	1.6-1.7	1.7-1.9	2.0	2.0-2.1	2.0	1.5-1.7	1.7-2.1	1.8-2.3	1.9-2.2	2.0
September projection	1.6	1.9	2.0	2.0	2.0	1.5-1.6	1.8-2.0	2.0	2.0-2.1	2.0	1.5-1.7	1.7-2.0	1.8-2.2	1.9-2.2	2.0
Core PCE inflation ⁴	1.5	1.9	2.0	2.0		1.5	1.7-1.9	2.0	2.0-2.1		1.4-1.5	1.7-2.0	1.8-2.3	1.9-2.3	
September projection	1.5	1.9	2.0	2.0		1.5-1.6	1.8-2.0	2.0	2.0-2.1		1.4-1.7	1.7-2.0	1.8-2.2	1.9-2.2	
Memo: Projected appropriate policy path															
Federal funds rate	1.4	2.1	2.7	3.1	2.8	1.4	1.9-2.4	2.4-3.1	2.6-3.1	2.8-3.0	1.1-1.4	1.1-2.6	1.4-3.6	1.4-4.1	2.3-3.0
September projection	1.4	2.1	2.7	2.9	2.8	1.1-1.4	1.9-2.4	2.4-3.1	2.5-3.5	2.5-3.0	1.1-1.6	1.1-2.6	1.1-3.4	1.1-3.9	2.3-3.5

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The September projections were made in conjunction with the meeting of the Federal Open Market Committee on September 19-20, 2017. One participant did not submit longer-run projections for the change in real GDP, the unemployment rate, or the federal funds rate in conjunction with the September 19-20, 2017, meeting, and one participant did not submit such projections in conjunction with the December 12-13, 2017, meeting.

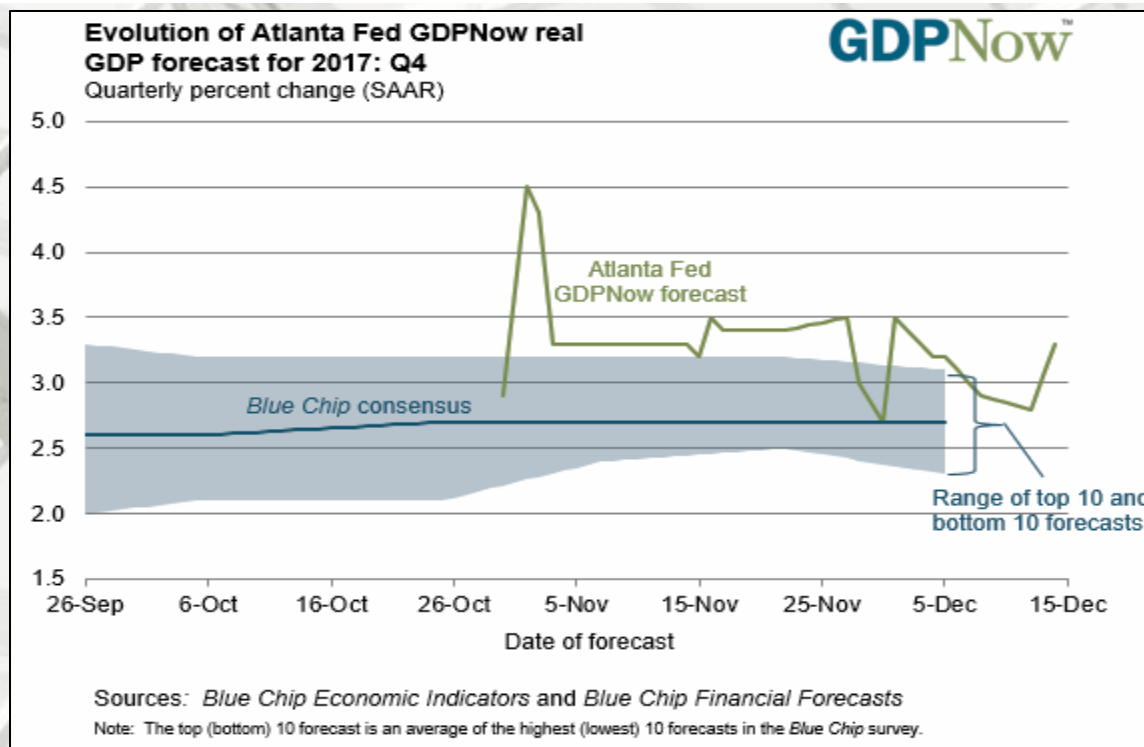
1. For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.

2. The central tendency excludes the three highest and three lowest projections for each variable in each year.

3. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.

4. Longer-run projections for core PCE inflation are not collected.

U.S. Economic Indicators



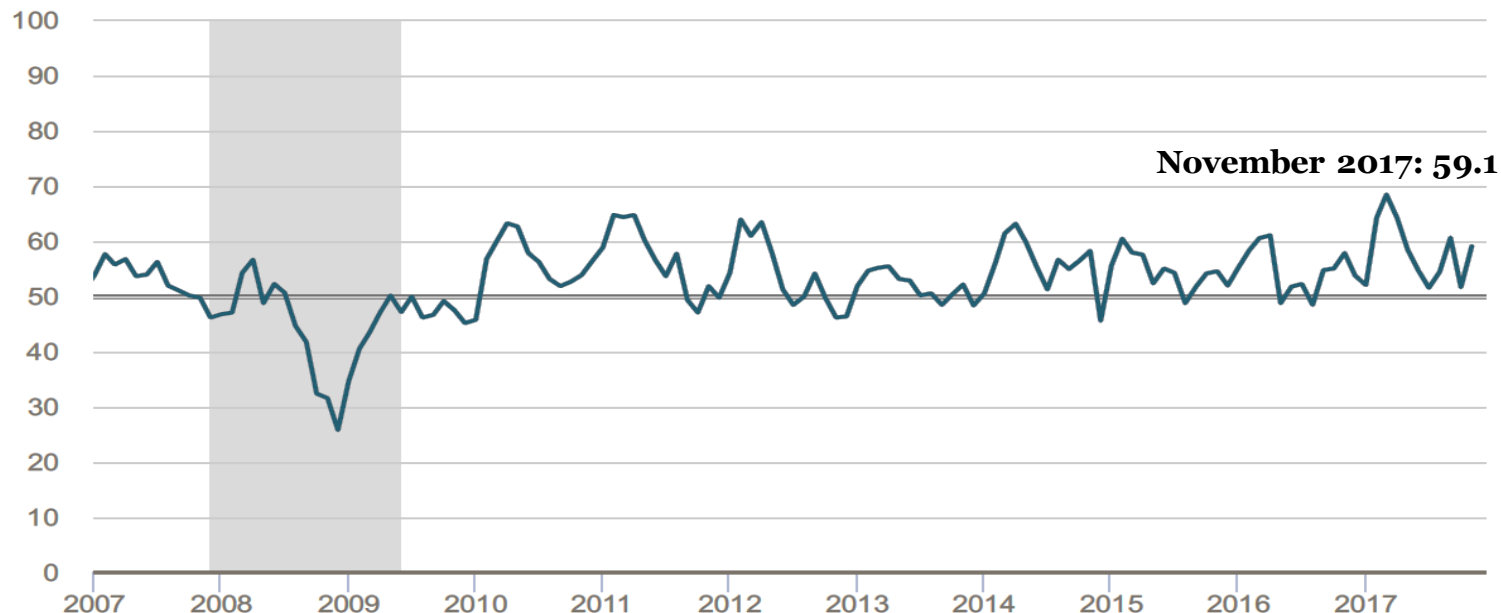
Atlanta Fed GDPNow™

Latest forecast: 3.3 percent — December 14, 2017

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the fourth quarter of 2017 is **3.3 percent** on December 14, up from 2.9 percent on December 8. The forecast of fourth-quarter real consumer spending growth increased from 2.5 percent to 3.2 percent after yesterday's Consumer Price Index report from the U.S. Bureau of Labor Statistics and this morning's retail sales release from the U.S. Census Bureau.” – Pat Higgins, Economist, Federal Reserve Bank of Atlanta

U.S. Economic Indicators

Southeast Purchasing Managers Index



Note: 50+ = Expansion

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



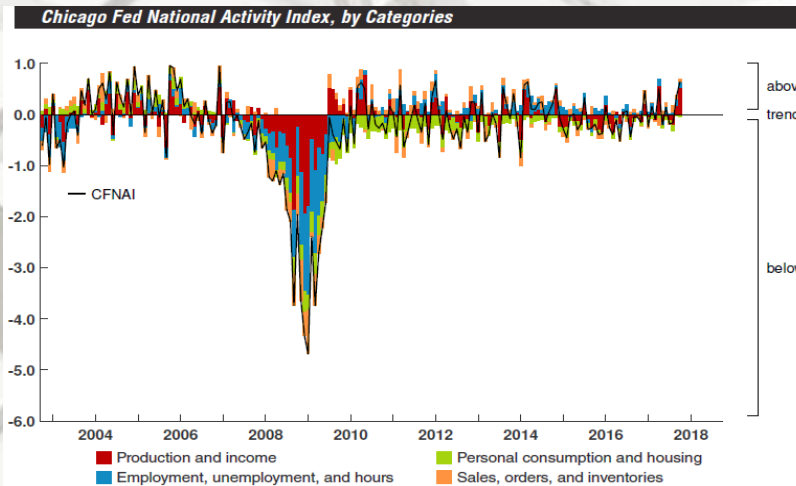
FEDERAL RESERVE BANK of ATLANTA

Exported on: Tuesday, December 12, 2017

The Federal Reserve Bank of Atlanta Southeast Purchasing Managers Index

“The composite index measures the region's manufacturing sector based on key sector indicators; a reading below 50 indicates manufacturing is contracting, while over 50 means the industry is expanding.” – The 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) rose to +0.65 in October from +0.36 in September. One of the four broad categories of indicators that make up the index increased from September, but three of the four categories made positive contributions to the index in October. The index’s three-month moving average, CFNAI-MA3, increased to +0.28 in October from +0.01 in September.

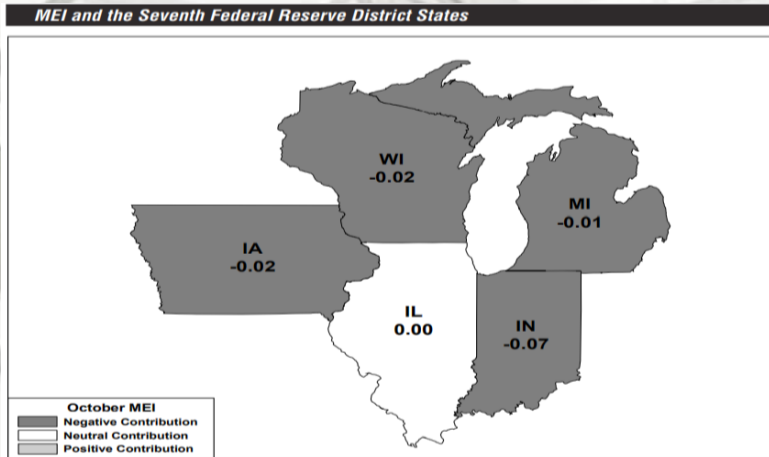
Index Points to a Pickup in Economic Growth in October

The contribution from production-related indicators to the CFNAI rose to +0.53 in October from +0.18 in September. Total industrial production increased 0.9 percent in October after moving up 0.4 percent in September. In addition, manufacturing industrial production increased 1.3 percent in October after moving up 0.4 percent in September. The sales, orders, and inventories category also made a positive contribution to the CFNAI in October, though the contribution edged down to +0.05 from +0.08 in September.

Employment-related indicators contributed +0.11 to the CFNAI in October, down slightly from +0.13 in September. Civilian employment decreased by 484,000 in October after increasing by 906,000 in September. However, the civilian unemployment rate moved down to 4.1 percent in October from 4.2 percent in the previous month, and nonfarm payrolls increased by 261,000 in October after increasing by 18,000 in September.

The contribution of the personal consumption and housing category to the CFNAI edged down to -0.04 in October from -0.02 in September. Consumption indicators deteriorated, on balance, pushing down the category’s overall contribution. However, housing starts increased to 1,290,000 annualized units in October from 1,135,000 in September, and housing permits increased to 1,297,000 annualized units in October from 1,225,000 in the previous month.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index



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

Midwest Economy Index

“The Midwest Economy Index (MEI) was unchanged at -0.12 in October. Contributions to the October MEI from two of the four broad sectors of nonfarm business activity and three of the five Seventh Federal Reserve District states decreased from September. The relative MEI moved down to -0.21 in October from -0.10 in September. Contributions to the October relative MEI from all four sectors and four of the five states decreased from September.

Index Points to Steady Midwest Economic Growth in October

The manufacturing sector's contribution to the MEI increased to $+0.24$ in October from $+0.20$ in September. The pace of manufacturing activity increased in Illinois and Wisconsin, but decreased in Iowa and was unchanged in Indiana and Michigan. Manufacturing's contribution to the relative MEI edged down to $+0.25$ in October from $+0.28$ in September.

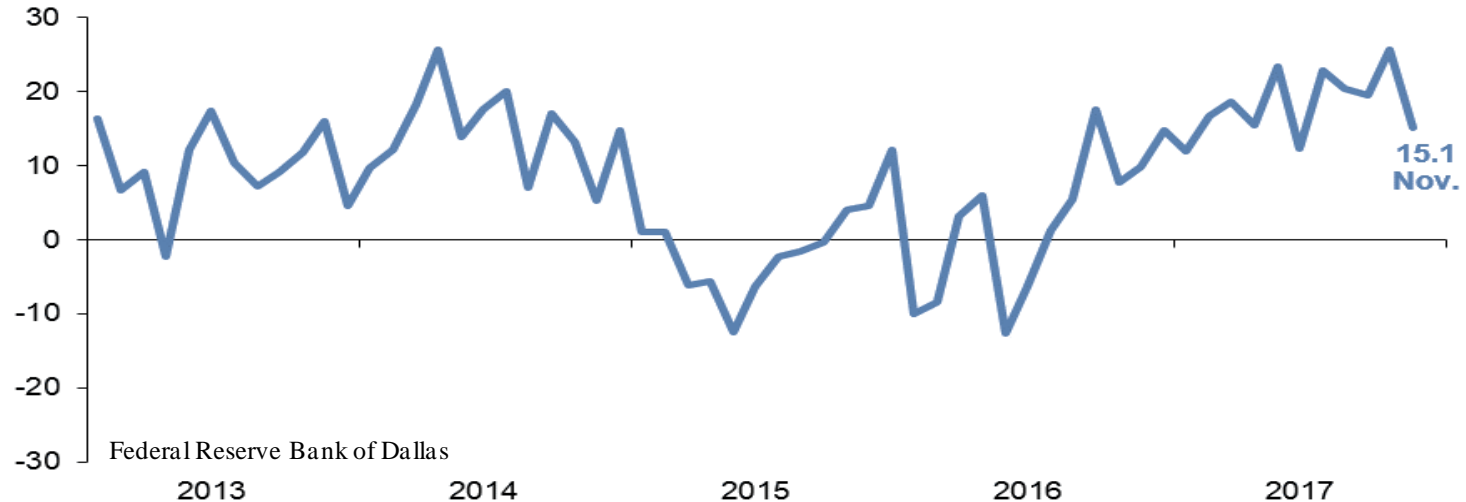
The construction and mining sector's contribution to the MEI ticked down to -0.14 in October from -0.12 in September. The pace of construction and mining activity was slower in Indiana but unchanged in Illinois, Iowa, Michigan, and Wisconsin. Construction and mining made a contribution of -0.13 to the relative MEI in October, down slightly from -0.12 in September.

The service sector's contribution to the MEI was unchanged at -0.08 in October. The pace of service sector activity was down in Illinois and Iowa, but up in Indiana, Michigan, and Wisconsin. The service sector's contribution to the relative MEI edged down to -0.23 in October from -0.20 in September. The contribution from consumer spending indicators to the MEI ticked down to -0.13 in October from -0.11 in September.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

U.S. Economic Indicators

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Manufacturing Expansion Slows but Remains Solid

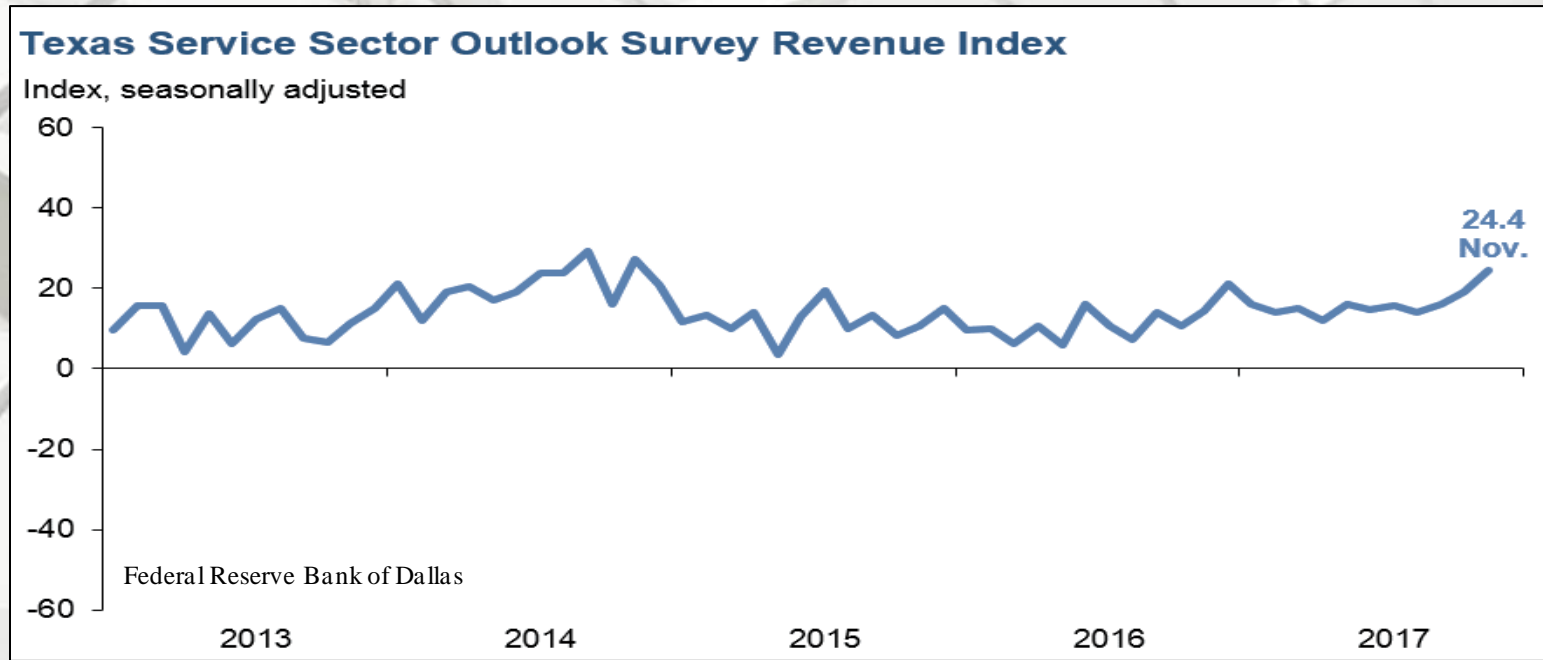
“Texas factory activity continued to expand in November, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index, a key measure of state manufacturing conditions, fell 10 points from its October reading but remained elevated at 15.1.

Other measures of manufacturing activity also pointed to November growth that was slightly slower than in October but still well above average. The new orders index moved down five points to 20.0, and the capacity utilization and shipments indexes similarly fell to 17.3 and 16.7, respectively.

Meanwhile, the growth rate of orders index signaled a stronger pickup in demand, climbing six points to 18.1. This represents the index’s highest reading since 2010.

Perceptions of broader business conditions remained highly positive in November. The general business activity index came in at 19.4, down eight points from October. The company outlook index posted its 15th consecutive positive reading but dipped to 18.5.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



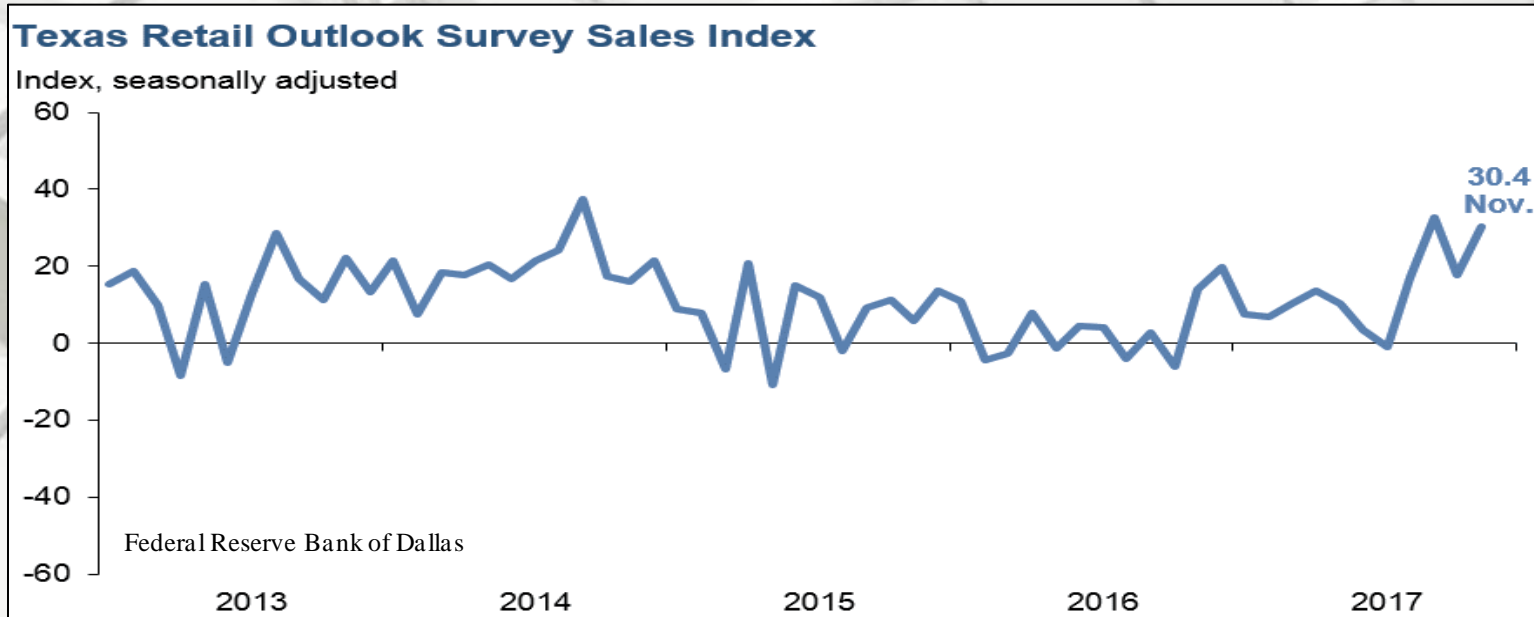
Texas Service Sector Activity Strengthens Further

“Texas service sector activity increased again in November, 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 19.2 in October to 24.4 in November, reaching its highest reading since November 2014.

Labor market indicators reflected faster employment growth and longer workweeks this month. The employment index rose slightly from 8.3 to 9.8. The hours worked index was unchanged at 7.9.

Perceptions of broader economic conditions continued to reflect optimism in November. The general business activity index edged up two points to 20.4. The company outlook index dipped to 14.2, with 23 percent of respondents reporting that their outlook improved from last month and 9 percent noting it worsened.” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



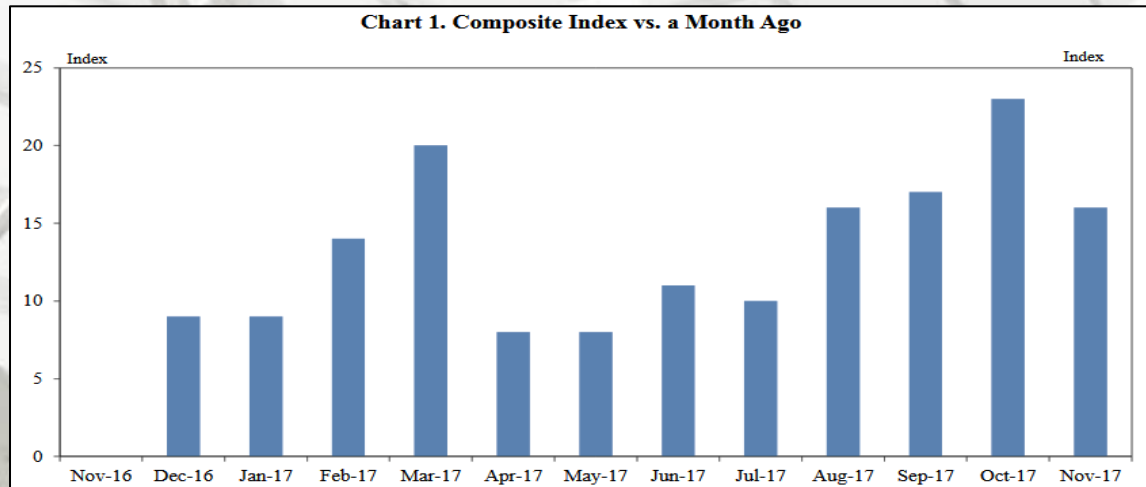
Retail Sales Pick Up

“Retail sales climbed in November, according to business executives responding to the *Texas Retail Outlook Survey*. The sales index jumped from 17.7 in October to 30.4 in November. Inventories increased at a slower pace than last month.

Labor market measures indicated slower retail employment growth and slightly longer workweeks this month. The employment index remained positive but fell six points to 2.0. The hours worked index edged down from 7.5 to 5.6.

Retailers’ perceptions of broader economic conditions reflected more optimism in November. The general business activity index moved up from 22.0 to 25.4. The company outlook index rose five points to 24.6, with 29 percent of respondents reporting that their outlook improved from last month and 5 percent noting it worsened.” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Growth Slowed But Remained Solid

“The pace of growth in Tenth District manufacturing activity slowed slightly but remained solid, and optimism remained high for future activity. Raw materials price indexes increased modestly, while most indexes for selling prices were little changed.

The month-over-month composite index was 16 in November, down from 23 in October and 17 in September. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Factory activity increased solidly at both durable and non-durable goods plants, particularly for food, plastics, computer and electronic products. Most month-over-month indexes eased somewhat from historically high levels in October. The production, shipments, new orders, and order backlog indexes all moderated slightly. The employment index slipped from 21 to 16, and the new orders for exports index fell into negative territory for the first time in 4 months. The finished goods inventory index dropped from 18 to 2, and the raw materials inventory index also decreased.” – Pam Campbell, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators

The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Growth Slowed But Remained Solid

“Most year-over-year factory indexes improved in November. The composite index edged higher from 34 to 37, and the production, shipments, order backlog, and employment indexes all moved higher. In contrast, the capital expenditures index inched lower from 21 to 19, and the new orders index fell slightly. The new orders for exports index was unchanged. The raw materials inventory index increased to 45, its highest reading in survey history, and the finished goods inventory index rose from 15 to 28.

Future factory activity expectations eased slightly from high levels. The future composite index inched lower from 32 to 27, and the future production, shipments, new orders, and order backlog also slowed slightly. The future capital expenditures index slipped from 22 to 20, while the future employment index was unchanged. The future raw materials inventory index dropped from 22 to 13, and the future finished goods inventory index decreased modestly. Most price indexes were unchanged or slightly higher in November. The month-over-month finished goods and raw materials price indexes were mostly unchanged. The year-over-year finished goods price index edged higher from 33 to 35, and the year-over-year raw materials price index increased further. The future finished goods price index rose from 32 to 37, and the future raw materials price index jumped from 43 to 59.” – Pam Campbell, Federal Reserve Bank of Kansas City

“Factories reported another good month in November. However, a number of firms noted increasing difficulty finding skilled labor.” – Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators

Empire State Manufacturing Survey

Activity Remains Strong

“Business activity continued to grow strongly in New York State, according to firms responding to the November 2017 *Empire State Manufacturing Survey*. Though the headline general business conditions index fell eleven points from the multiyear high it reached last month, it remained firmly in positive territory at 19.4. The new orders index climbed to 20.7 and the shipments index came in at 18.4 — readings that pointed to ongoing solid gains in orders and shipments. Delivery times were slightly shorter than last month, and inventory levels edged higher. Labor market indicators reflected moderate employment gains and little change in hours worked. Both input prices and selling prices rose at a pace that was little changed from last month. Indexes assessing the six-month outlook suggested that firms were very optimistic about future business conditions.

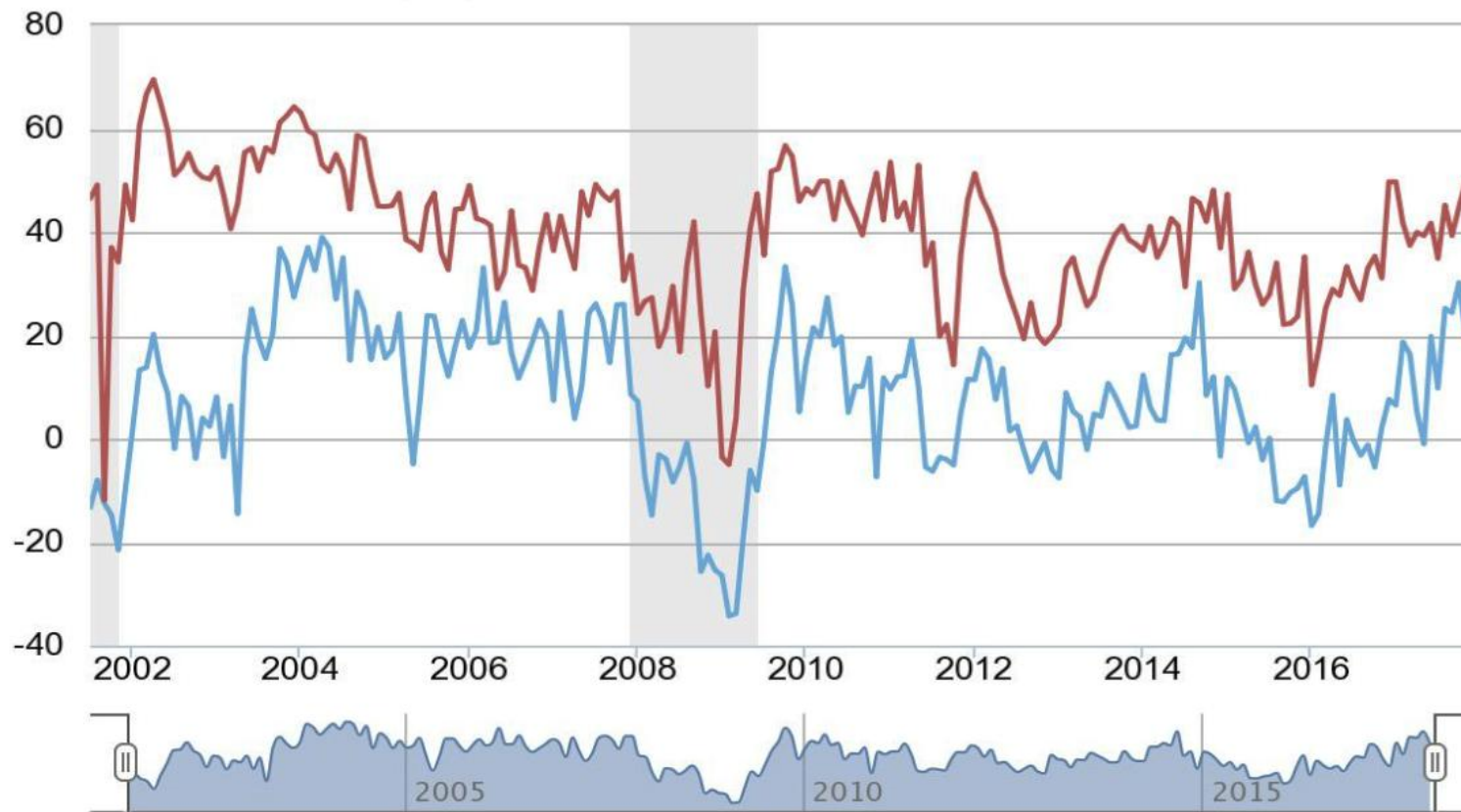
Manufacturing firms in New York State reported that business activity continued to expand strongly. After reaching a three-year high last month, the general business conditions index fell eleven points to 19.4, suggesting a pace of growth that, while brisk, was slower than in October. Thirty-seven percent of respondents reported that conditions had improved over the month, while 17 percent reported that conditions had worsened. The new orders index moved up three points to 20.7, indicating solid growth in orders. After advancing to a multiyear high last month, the shipments index fell nine points to 18.4. The unfilled orders index moved down seven points to -4.6, pointing to a small decline in unfilled orders. The delivery time index fell five points to -5.4, indicating shorter delivery times, and the inventories index rose twelve points to 4.6, a sign that inventory levels increased modestly.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

General Business Conditions

— Current — Expected — U.S. recession

Diffusion index, seasonally adjusted



U.S. Economic Indicators

Empire State Manufacturing Survey

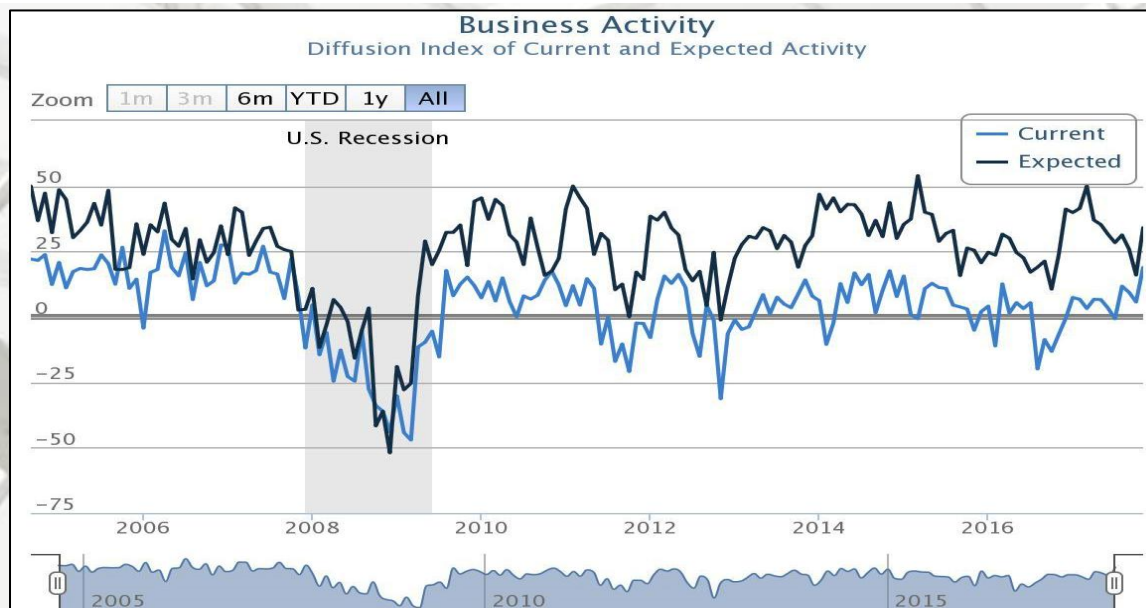
Employment Levels Continue to Escalate

“The index for number of employees fell four points to 11.5, suggesting that employment expanded, though at a somewhat slower pace than last month. The average workweek index remained near zero, indicating that hours worked held steady. Prices increased at about the same pace as last month: the prices paid index edged down slightly to 24.6, and the prices received index inched up to 9.2.

Optimism Grows

Looking ahead, firms were very optimistic about the six-month outlook. The index for future business conditions climbed five points to 49.9, and the index for future new orders rose nine points to 53.7, a multiyear high. Employment and the average workweek were expected to increase in the months ahead. The capital expenditures index climbed four points to 25.4, and the technology spending index fell six points to 11.8.” – The Federal Reserve Bank of New York

U.S. Economic Indicators



Business Leaders Survey (Services) Activity Picks Up Markedly

“Activity in the region’s service sector expanded at a robust pace, according to firms responding to the Federal Reserve Bank of New York’s November 2017 *Business Leaders Survey*. The survey’s headline business activity index climbed thirteen points to 18.9, a multiyear high. The business climate index remained slightly negative at -3.5, a sign that firms, on balance, regarded the business climate as somewhat worse than normal. The employment index fell nine points to 9.3, indicating that employment increased at a slower pace than last month, and the wages index declined eleven points to 25.5, suggesting that wages grew more slowly than in October. Input price increases were little changed, while selling prices rose at a somewhat slower pace. Capital spending advanced moderately. The indexes for future business activity and future business climate rose markedly, suggesting that firms grew more optimistic about future conditions.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

Business Leaders Survey

“Business activity in the region’s service sector grew strongly in November. The headline business activity index climbed thirteen points to 18.9, a multiyear high. Thirty-nine percent of respondents reported that conditions improved over the month, while 20 percent said that conditions worsened. The business climate index inched up two points to -3.5, signaling that, on balance, firms viewed the business climate as somewhat worse than normal.

Employment and Wages Increase More Slowly

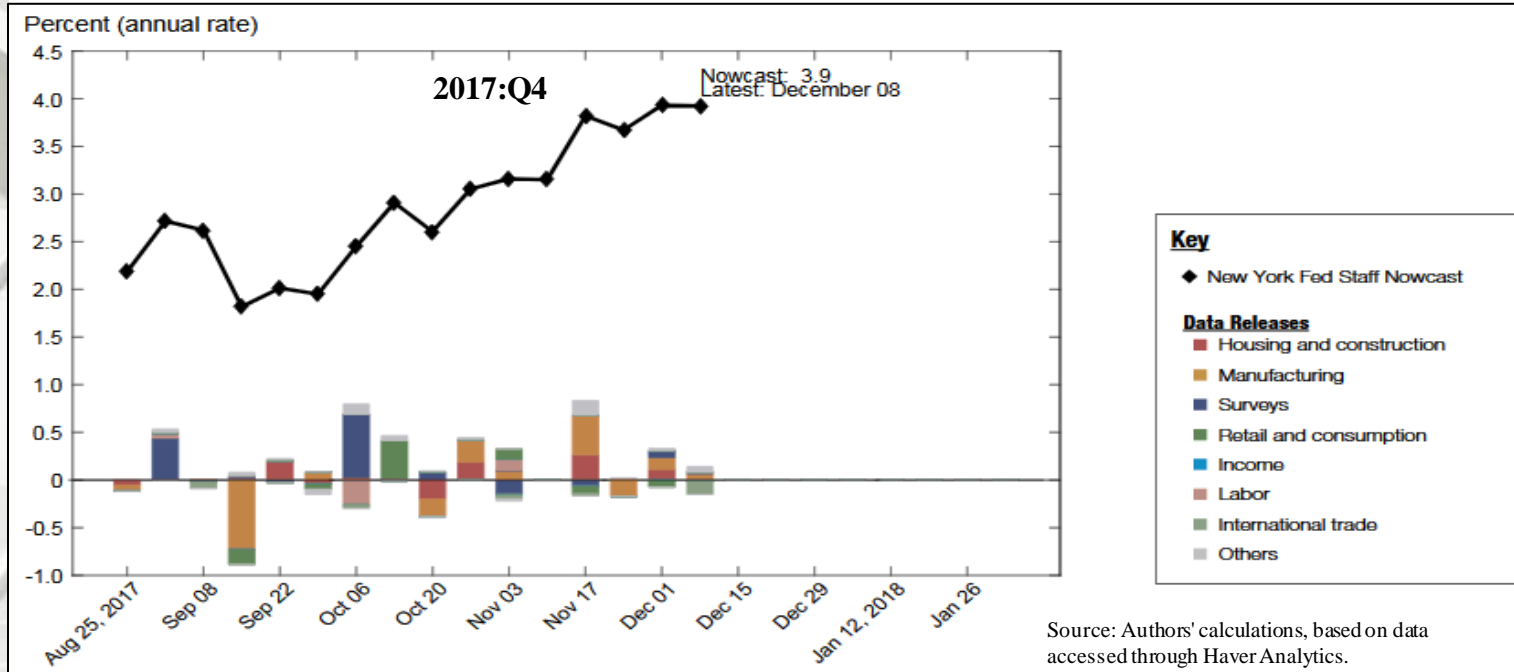
The employment index fell nine points to 9.3, indicating that employment levels increased, though not as strongly as in October. The wages index retreated eleven points to 25.5, a sign that wage increases were not as strong as they had been in recent months. The prices paid index was little changed at 43.8, indicating that the pace of input price increases held fairly steady, and the prices received index fell five points to 11.3, suggesting that selling prices rose at a somewhat slower pace. The capital spending index moved up to 13.1.

Optimism Grows

Optimism about the six-month outlook picked up in November. After trending lower for much of the past year, the index for future business activity reversed course, jumping eighteen points to 34.1. The reading signaled that firms were more optimistic about future conditions than they had been for some time. The index for future business climate also rose markedly, climbing sixteen points to 20.0. The index for future employment suggested that respondents expected employment to increase in the months ahead, and the index for planned capital spending edged up to 20.2.” –
The Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York



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.

December 8, 2017: Highlights

- “The New York Fed Staff Nowcast stands at 3.9% for 2017:Q4 and 3.1% for 2018:Q1
- News from this week's data releases left the Nowcast for 2017:Q4 broadly unchanged and decreased the Nowcast for 2018:Q1 by 0.1 percentage point.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York

The New York Fed DSGE Model Forecast – November 2017

Model Forecast	2017		2018		2019		2020	
	Nov	Aug	Nov	Aug	Nov	Aug	Nov	Aug
	GDP growth (Q4/Q4)	2.2	2.0	1.8	1.9	2.1	2.1	2.2
Core PCE inflation (Q4/Q4)	1.3	1.3	1.3	1.3	1.4	1.5	1.5	1.6
Real natural rate of interest (Q4)	0.3	0.5	0.8	0.8	1.1	1.0	1.2	1.2

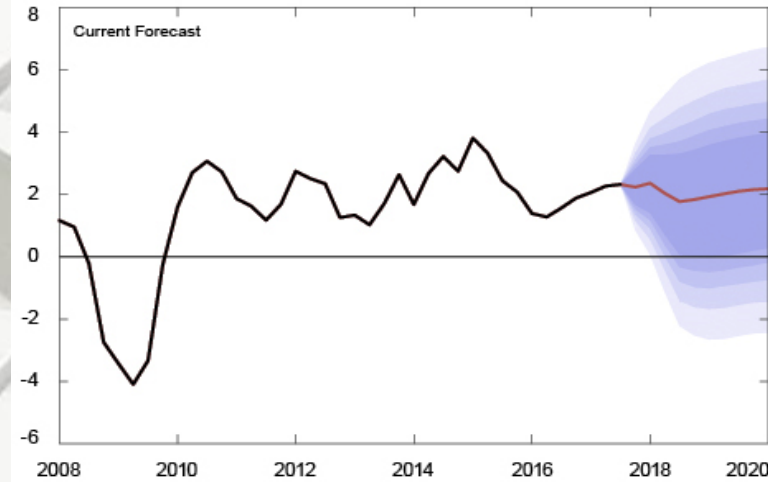
How do the latest forecasts compare with the August forecasts?

“The current Q4/Q4 GDP growth forecast for 2017 is slightly higher than in August. According to the first GDP print, growth in the third quarter was slightly stronger than predicted by the model in August, pushing the 2017 output growth projection to 2.2 percent. GDP growth is expected to moderate to 1.8 percent next year before accelerating again to about 2.2 percent in the following years, in line with the August forecast.” – Ozge Akinci, Michael Cai, Abhi Gupta, Pearl Li, and Andrea Tambalotti; The Federal Reserve Bank of New York

U.S. Economic Indicators

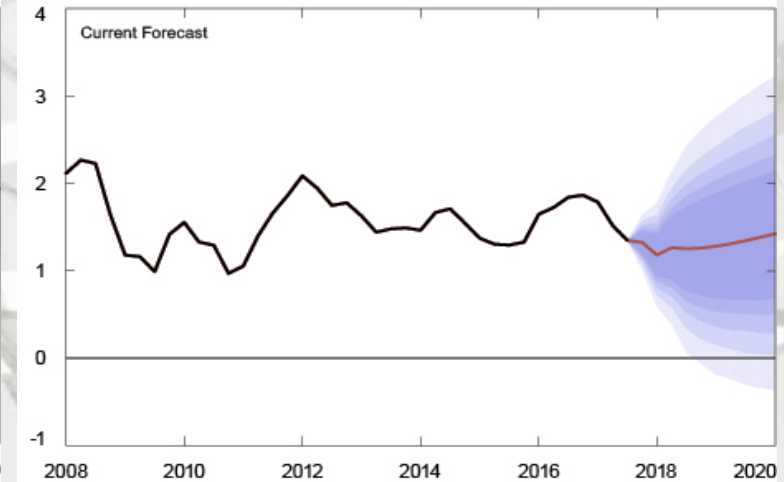
Forecasts of Output Growth

Four-quarter percentage change

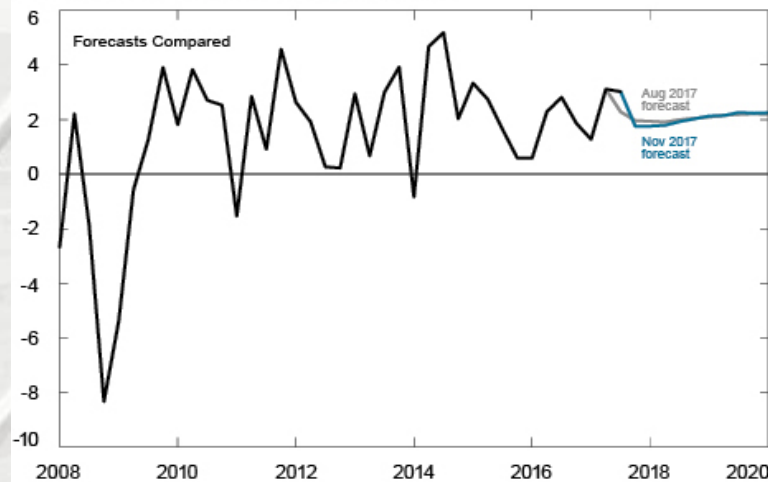


Forecasts of Inflation

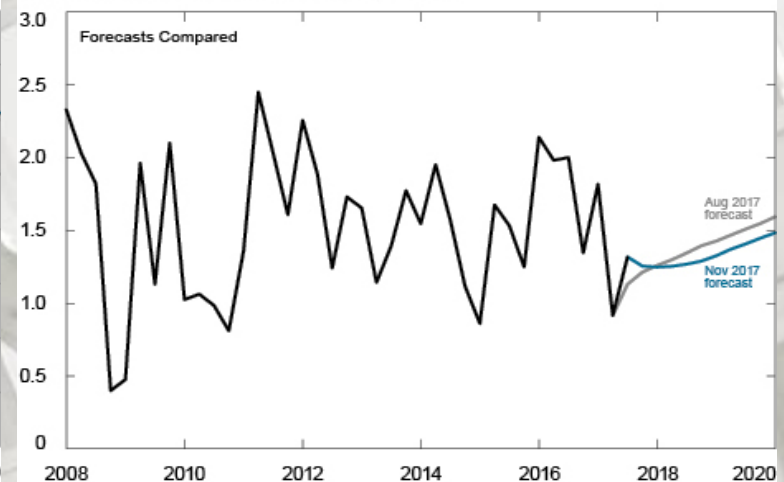
Four-quarter percentage change



Quarter-to-quarter percentage change, annualized



Quarter-to-quarter percentage change, annualized



Source: Authors' calculations.

Notes: In the top panel, the black line indicates actual data and the red line shows the model forecast. The shaded areas mark the uncertainty associated with the forecast at 50, 60, 70, 80, and 90 percent probability intervals. In the bottom panel, the blue line shows the current forecast and the gray line shows the August 2017 forecast.

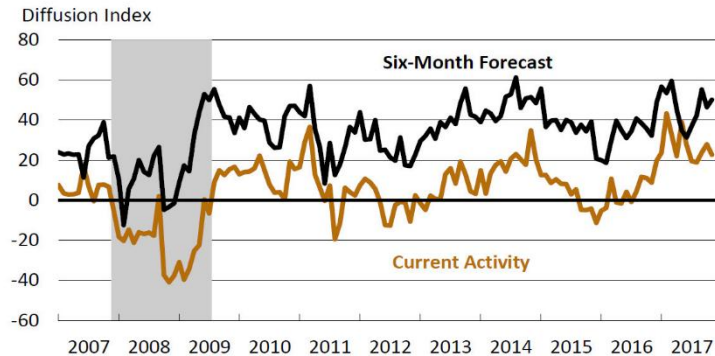
Source: Authors' calculations.

Notes: The two panels depict core personal consumption expenditures (PCE) inflation. In the top panel, the black line indicates actual data and the red line shows the model forecast. The shaded areas mark the uncertainty associated with the forecast at 50, 60, 70, 80, and 90 percent probability intervals. In the bottom panel, the blue line shows the current forecast and the gray line shows the August 2017 forecast.

U.S. Economic Indicators

Current and Future General Activity Indexes

January 2007 to November 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.

“Regional manufacturing activity continued to expand in November, according to results from this month’s *Manufacturing Business Outlook Survey*. The indexes for general activity and shipments fell from their October readings but remained positive, while the survey’s index for new orders rose. The employment index fell but remained elevated. Almost all of the future indicators rose, and firms continue to expect growth in both activity and employment over the next six months.

November 2017 Manufacturing Business Outlook Survey

Current Activity Continues to Expand

The diffusion index for current manufacturing activity in the region remained positive but decreased from a reading of 27.9 in October to 22.7 in November (see Chart). The index has been positive for 16 consecutive months. Nearly 35 percent of the firms indicated increases in activity this month, down slightly from October. The shipments index fell 3 points to 21.7, while the new orders index rose 2 points to 21.4. Both the delivery times and unfilled orders indexes remained positive, suggesting longer delivery times and increases in unfilled orders. In addition, the inventories index turned negative, falling 15 points to -8.6.

Firms continued to report increases in employment, though at a slower pace relative to last month. While the current employment index has been positive for 12 consecutive months, it fell 8 points to 22.6 in November. Almost 28 percent of the responding firms reported increases in employment, while 5 percent of the firms reported decreases. The average workweek index also fell, dropping 6 points to 13.7. This index has been positive for 13 consecutive months.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

Price Pressures Show Little Change

“The survey’s prices paid index held relatively steady at 39.0, suggesting little change in input price pressures in November. Thirty-nine percent of the respondents reported higher input prices, while no firms reported decreases. Most firms (59 percent) reported no change in input prices. With respect to prices received for their own goods, 14 percent of the firms reported increases, and 6 percent reported decreases, up slightly from last month. The prices received index decreased 6 points this month, with 79 percent of the firms reporting no change in their own prices.

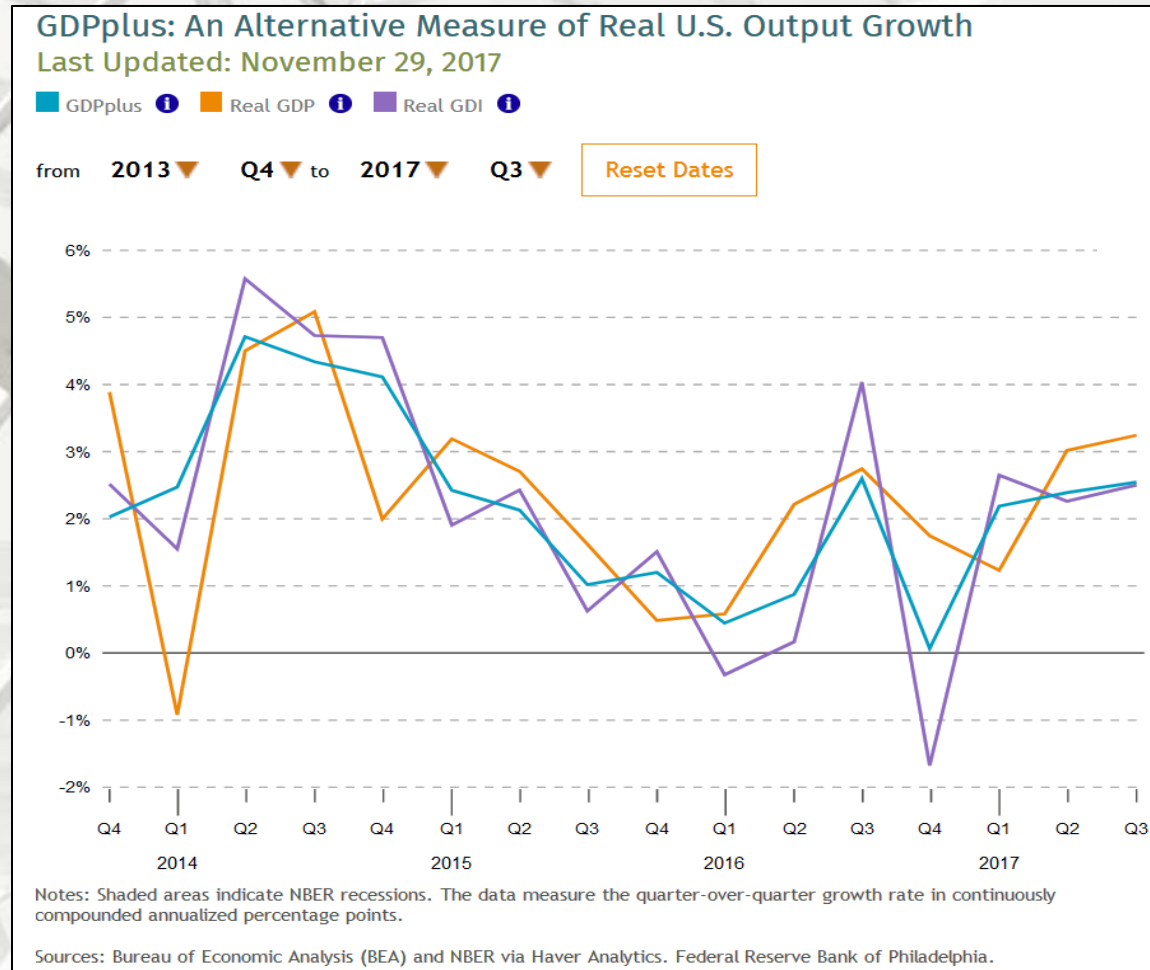
Firms Expect Growth to Continue

Almost all of the survey’s six-month indicators increased this month. The diffusion index for future general activity rose from 46.4 in October to 50.1 in November (see Chart). Almost 57 percent of the manufacturers expect increases in activity over the next six months, while 6 percent expect declines. The indexes for future new orders and shipments also rose: The future new orders index increased 13 points, while the future shipments index rose 3 points. The future employment diffusion index rose 3 points to 41.2. Forty-three percent of the firms expect to increase employment over the next six months.

Firms Expect Their Own Price Increases to Be Similar to Consumer Inflation

In this month’s special questions, firms were asked to forecast the changes in the prices of their own products and for U.S. consumers over the next four quarters. Regarding their own prices, the firms’ median forecast was for an increase of 2.0 percent, the same as when the question was last asked in August 2017. When asked about the rate of inflation for U.S. consumers over the next year, the firms’ median forecast was also 2.0 percent, a slight decrease from the previous forecast of 2.5 percent in August. Firms expect their employee compensation costs (wages plus benefits on a per employee basis) to rise 3.0 percent over the next four quarters, the same as the previous forecast. Firms’ forecast for the long-run (10-year average) inflation rate fell from 3.0 percent to 2.5 percent.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

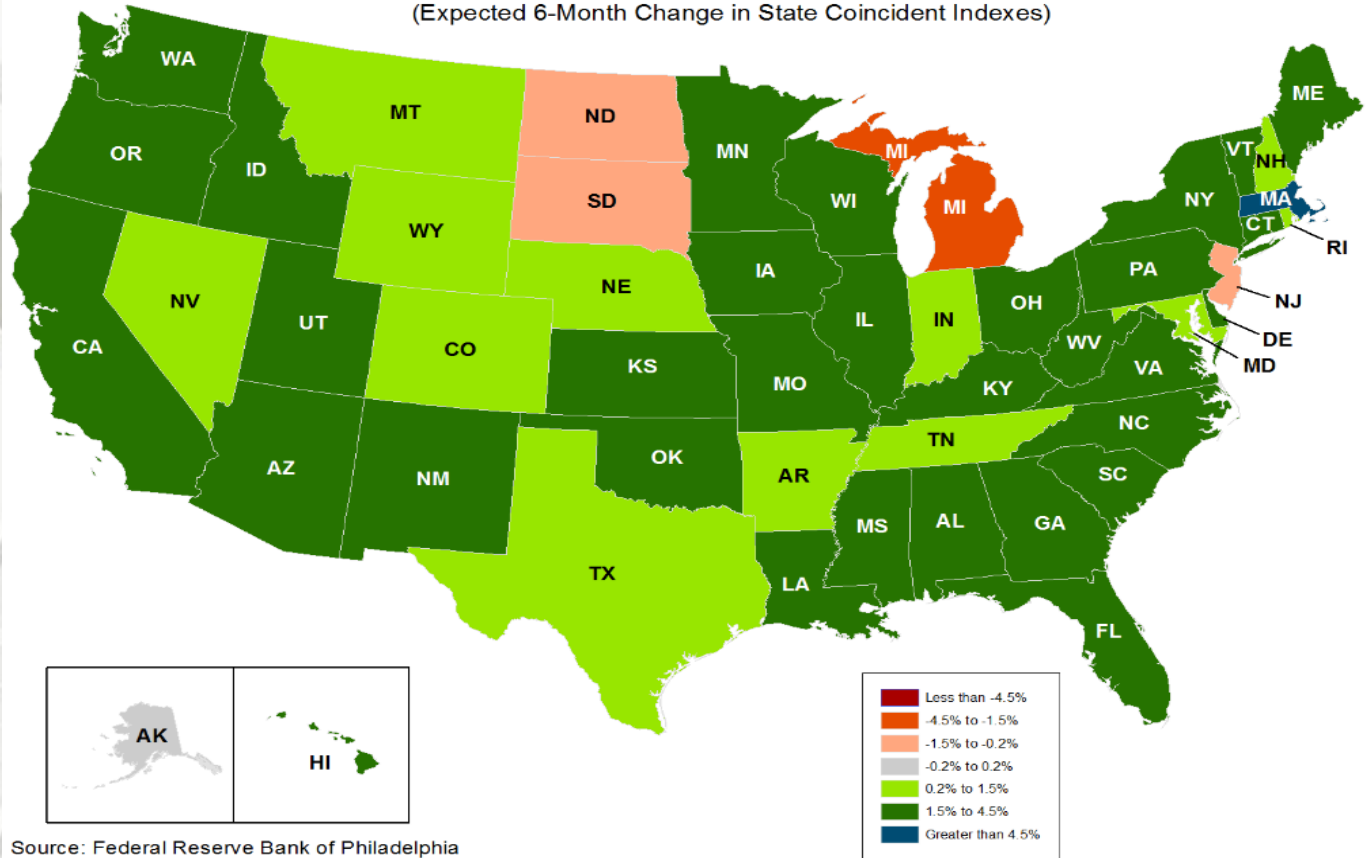
Philadelphia Fed: GDPplus



“As of November 29 Q3 2017 GDPplus = 2.5%; Real GDP = 3.2%; and Real GDI = 2.5%.” – The Federal Reserve Bank of Philadelphia

Philadelphia Fed

October 2017 State Leading Indexes
(Expected 6-Month Change in State Coincident Indexes)



“The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for October 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 1.7 percent over the next six-months.” – Daniel Mazone, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

The Federal Reserve Bank of Richmond

Fifth District Manufacturing Activity Saw Robust Growth in November

“Manufacturing firms reported robust growth in November, according to the latest survey by the Federal Reserve Bank of Richmond. The composite index jumped from 12 to 30, the highest it has been since 1993. This rise was bolstered by strengthening conditions across all three components of the index. While indicators of current wages and finished goods fell in November, both maintained positive values, dropping from 24 to 21 and 14 to 9, respectively.

District manufacturing firms remained optimistic that growth will continue in the coming six months. But a smaller share of firms raised their expectations than had in October in all areas, except for wages and capital expenditures.

Manufacturing firms reported stronger price growth in November, as growth rates for both prices paid and prices received reached a three-month high. They expect prices to continue to grow in the next six months but at a slightly lower rate.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators



U.S. Economic Indicators



U.S. Economic Indicators



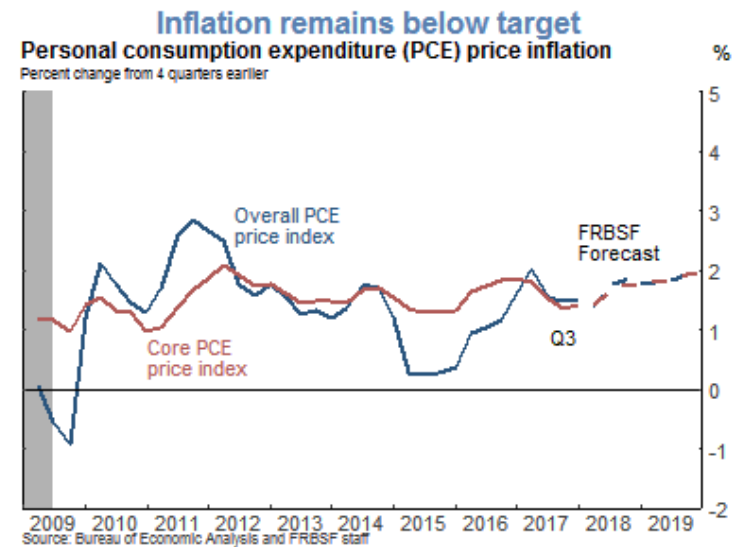
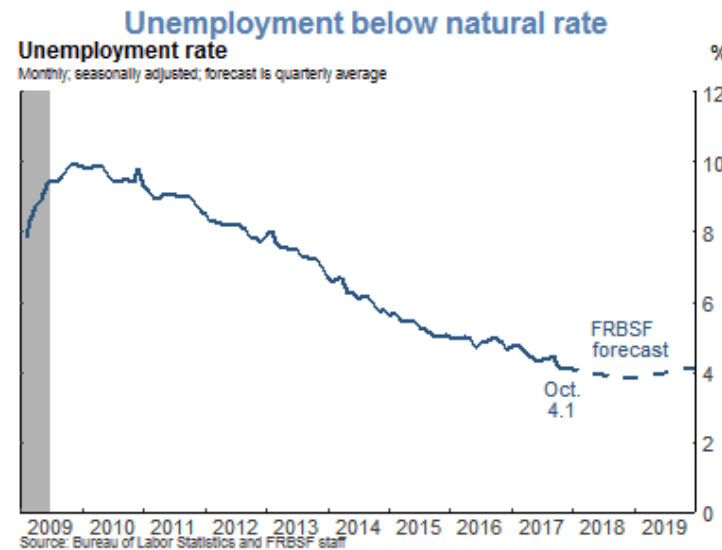
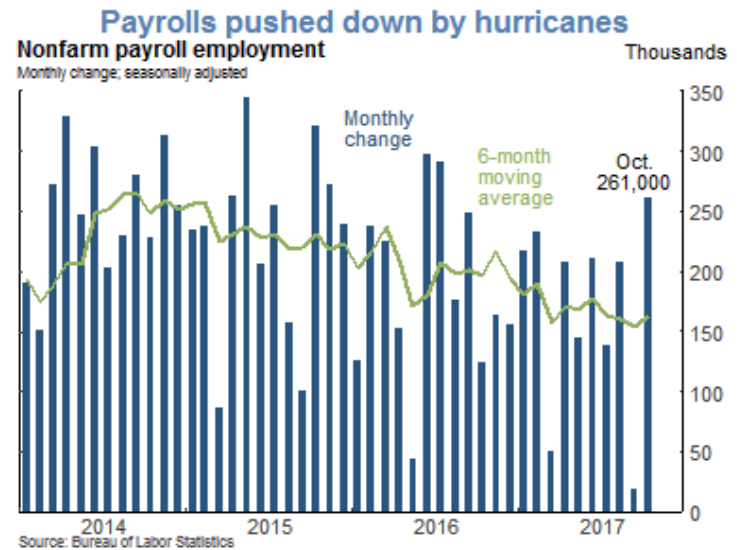
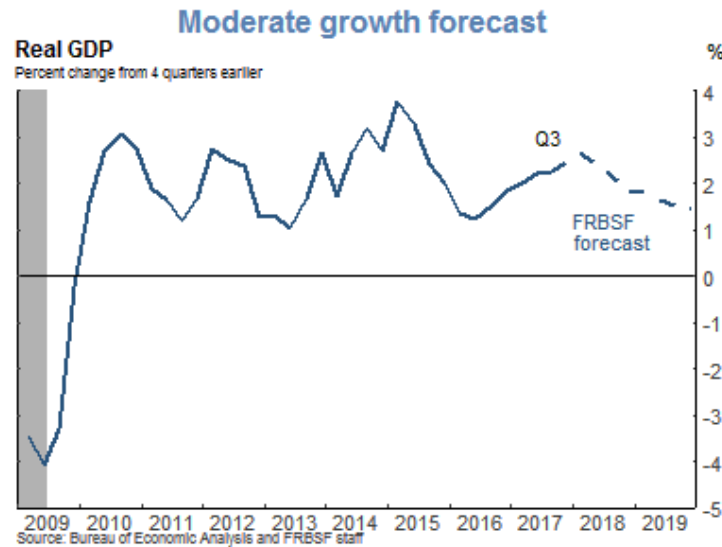
U.S. Economic Indicators

The Federal Reserve Bank of San Francisco

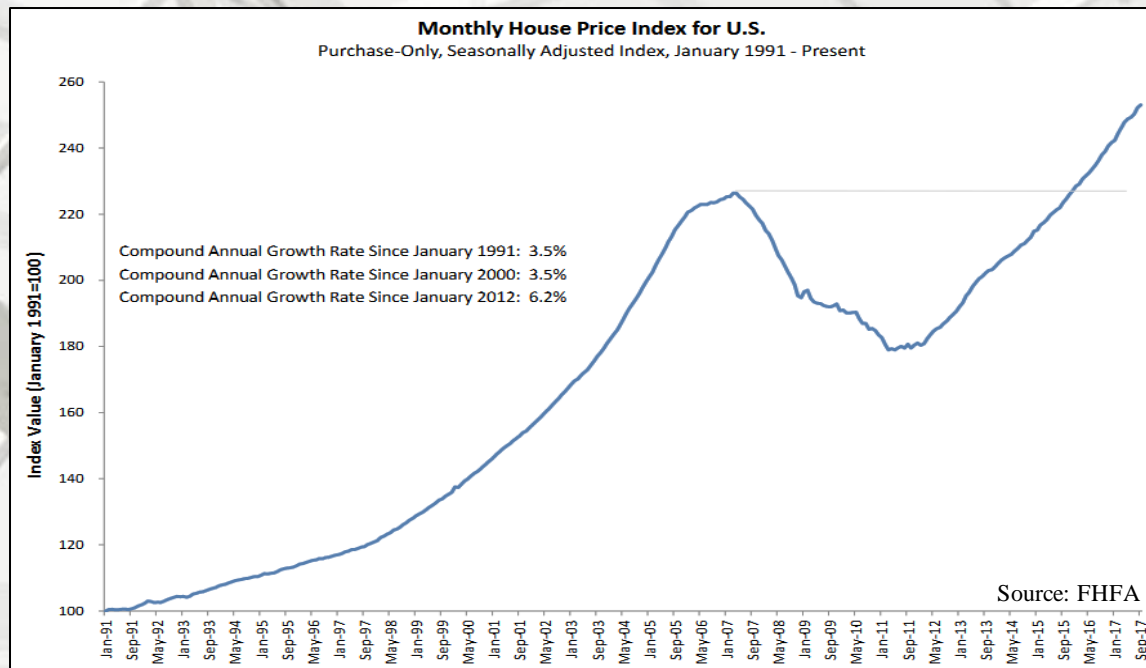
FRBSF FedViews

- “Despite disruptions from the recent hurricanes, real gross domestic product (GDP) has continued to grow at a moderate pace. After a strong second quarter, real GDP grew at an annual rate of 3% in the third quarter, according to the “advance” estimate by the Bureau of Economic Analysis. We forecast that GDP will grow in the fourth quarter at an annual rate of 2.6% and average 2.5% for 2017. As monetary policy continues to normalize over the next two to three years, we expect growth to gradually fall back to our long-trend growth estimate of 1.5%.
- The recent fires in Northern California were the most devastating in the state’s history, causing billions of dollars in property damage, thousands of displaced residents, and tragic loss of life. While the full effect of the fires on the local economy is still being determined, the economic impact on the entire United States is likely to be modest as the affected areas are not sizable business or population centers.
- The U.S. economy added 261,000 jobs in October, reflecting not only individuals returning to work who had been kept home by the hurricanes, but also the strong labor market. Job gains have averaged close to 160,000 over the past six months, well above the amount needed to absorb the flow of new workers into the labor force.” – Adam Shapiro, Research Advisor, The Federal Reserve Bank of San Francisco

U.S. Economic Indicators



U.S. Economic Indicators



FHFA House Price Index

U.S. House Prices Rise 1.4 Percent in Third Quarter

“U.S. house prices rose 1.4 percent in the third quarter of 2017 according to the Federal Housing Finance Agency (FHFA) House Price Index (HPI). House prices rose 6.5 percent from the third quarter of 2016 to the third quarter of 2017. FHFA's seasonally adjusted monthly index for September was up 0.3 percent from August.” – Stefanie Johnson and Corinne Russell, FHFA

“With relatively favorable economic conditions and a continued shortage of housing supply, price increases in the third quarter were generally robust and widespread. At some point, declining housing affordability should temper appreciation rates in some of the nation's fastest appreciating markets, but our third quarter results show few signs of that.” – Andrew Leventis, Deputy Chief Economist, FHFA

U.S. Global Economic Indicators



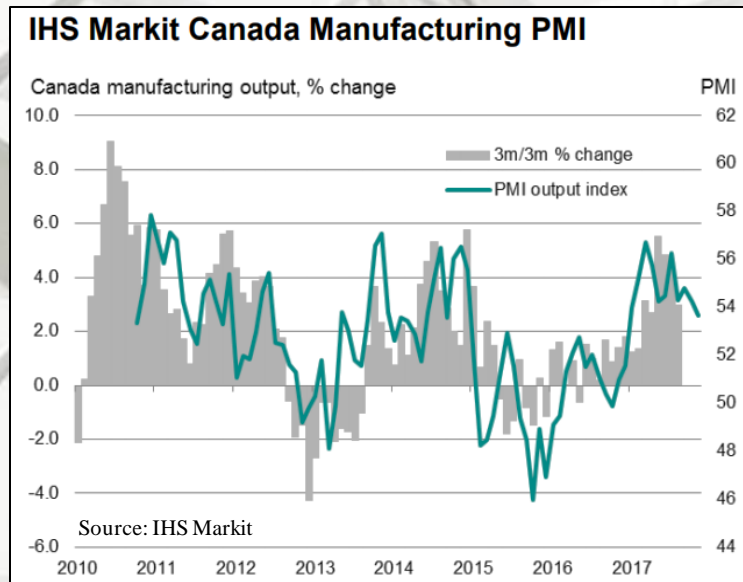
Mexico Economic Update

Mexico Posts Negative Growth in Third Quarter

“Mexico’s economy contracted an annualized 0.8 percent in the third quarter, in part due to the economic disruption following two major earthquakes. Nevertheless, forecasters are predicting a bounceback in the fourth quarter. The consensus growth forecast for 2017 held steady in October at 2.1 percent.

Other data were mixed; employment growth remained strong, retail sales and industrial production improved but exports fell. Inflation decelerated after climbing for 14 consecutive months, although the peso lost ground against the dollar in October.” – Jesus Cañas, Senior Business Economist and Alexander Abraham, Research Assistant; The Federal Reserve Bank of Dallas

Private Indicators: Global



Markit Canada Manufacturing PMI™

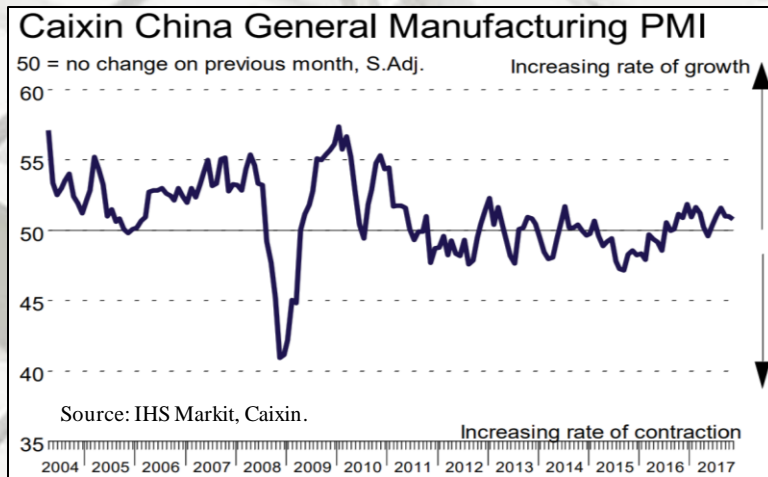
Output growth eases to 11-month low
“The seasonally adjusted **IHS Markit Canada Manufacturing Purchasing Managers’ Index® (PMI™)** registered 54.4 in November, little-changed from October’s nine-month low of 54.3. A stronger upturn in new order volumes and job creation helped to offset a weaker contribution from production growth. A marginal rebound in stocks of purchases also had a positive impact on the headline PMI in November.

Canadian manufacturers experienced another solid improvement in overall business conditions during November, but momentum remained softer than on average in the first half of this year. Reflecting this, manufacturing production growth eased to an 11-month low, while new order volumes expanded at one of the slowest rates seen in 2017 so far. A robust rate of job creation was maintained in November, reflecting continued efforts to boost operating capacity.

Softer export sales weighed on the manufacturing recovery in November, with output volumes expanding at the slowest rate so far this year. At the same time, operating margins were eroded as prices for raw materials increased at the steepest pace since April 2014.

Alberta & British Columbia continued to outpace other regions in November, underpinned by improved demand from the oil and gas sector. Capacity pressures remained evident among manufacturers in Alberta & British Columbia, which resulted in the fastest rise in staffing levels since the survey began in 2010.” – Tim Moore, Associate Director at Survey Compilers, IHS Markit

Private Indicators: Global



Caixin China General Manufacturing PMI™

PMI dips to five-month low in November

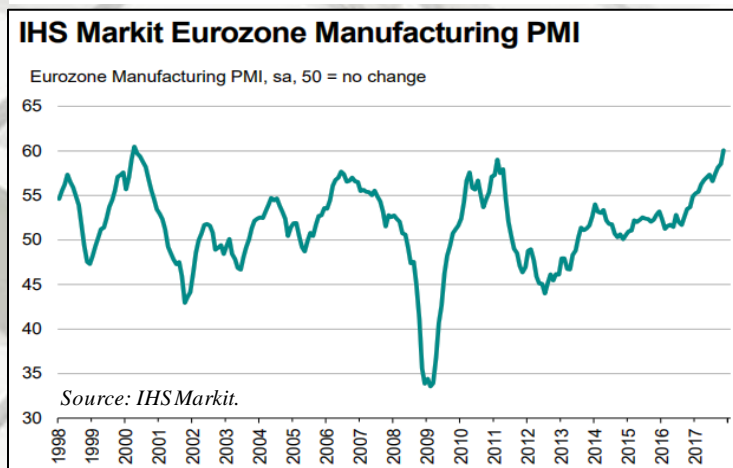
“The seasonally adjusted *Purchasing Managers’ Index*™ (*PMI*™) – ... – registered 50.8 in November, down from 51.0 in October. While remaining above the crucial 50.0 value, the index dipped to its lowest level for five months to signal only a marginal upturn in operating conditions.

Chinese manufacturing sector operating conditions continued to improve in November, albeit at a marginal pace. Output and new orders both rose only modestly, leading to a softer expansion in buying activity. At the same time, companies faced a further sharp increase in average input costs, that led to a notable rise in selling prices. Efforts to cut costs contributed to another fall in staffing levels, with the rate of decline quickening to a three-month record.

Subdued growth in new work and a sustained fall in employment coincided with a reduction in business confidence towards the one-year outlook. Notably, firms expressed the joint-weakest degree of optimism on record. ... Although the pace of expansion picked up slightly from October, the rate of growth was modest overall. Total new orders rose at a similarly modest pace in November. Companies that registered higher new work commented on greater client bases and the launch of new products. Nonetheless, data indicated that client demand was relatively subdued across both the domestic and external markets, as new export sales also rose modestly

For the most part, the manufacturing sector remained stable in November, although some signs of weakness emerged. In the fourth quarter, the economy is likely to maintain the stability observed since the start of the second half of the year. Economic growth in 2017 is expected to be higher than last year, but it may come under downward pressure in 2018.” – 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 60.1 in November, its best reading apart from April 2000’s series-record high. The headline PMI has now remained above the neutral 50.0 mark for 53 months, with the latest figure slightly above the earlier flash estimate of 60.0.

Eurozone Manufacturing PMI rises to near-record high

The upturn in the euro area manufacturing sector continued to surge forward in November. Strong accelerated expansions in production and new orders, aided by series-record growth in new export business, underpinned the steepest increase in employment since the survey began in June 1997.

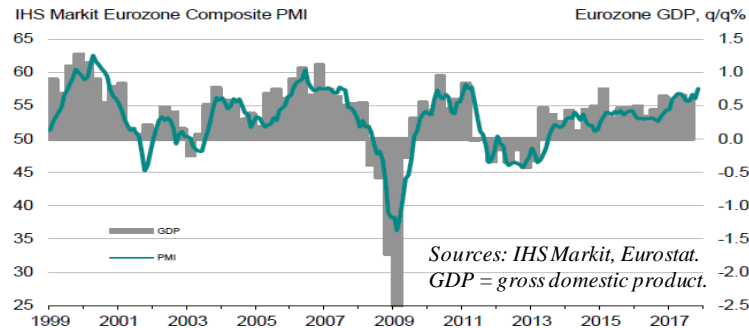
November’s surveys produced a clean sheet of improved PMI readings for all countries, resulting in the best performance for eurozone manufacturing since the height of the dot-com boom over 17 years ago. There’s only been one month (April 2000) in the entire 20-year history of the survey with a higher PMI reading.

The buoyant November data looks likely to add to the global dominance of euro area manufacturing seen so far this year. Eurozone manufacturers have dominated the global PMI rankings in 2017, gaining an increased share of global trade as exports boom, buoyed in part by the weak currency.

Companies are clearly expanding rapidly. Employment growth has hit an all-time high and business investment on machinery is trending sharply upwards, suggesting manufacturers are looking forward to the upturn persisting well into 2018.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global

IHS Markit Eurozone Composite PMI



Markit Eurozone Composite PMI®

“The final **IHS Markit Eurozone PMI® Composite Output Index** posted 57.5 in November, up from 56.0 in October and unchanged from the earlier flash estimate. The headline index has signalled expansion in each of the past 53 months.

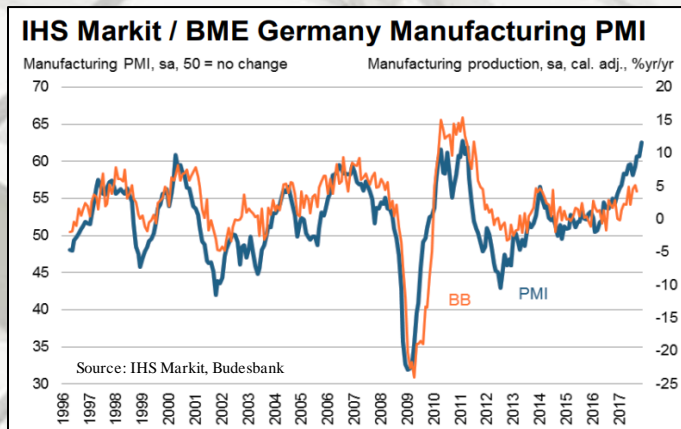
Eurozone economic expansion strengthens as growth accelerates across ‘big-four’ nations

The rate of euro area economic expansion moved up a gear in November. Output growth accelerated to the fastest in over six-and-a-half years, while rates of increase for all of the main survey indicators covering demand, employment and inflation also hit multi-year highs.

The eurozone enjoyed a bumper November, setting the scene for a buoyant end to the year. The PMI surveys signalled faster growth across the board, led by stronger expansions in France and Germany alongside a marked upturn in the pace of growth in Italy. Business conditions in Spain also remained encouragingly resilient in the face of heightened political uncertainty, albeit on course for the weakest quarter of the year.

Heading into 2018 the big questions will be how long this growth spurt can be sustained, and whether price pressures will rise. Given the strength of order book growth and hiring, as well as the elevated level of business optimism, the eurozone should start the New Year on a solid footing. If survey data remain buoyant in December, expect to see 2018 growth forecasts revised higher. In terms of prices, core inflation has so far remained subdued, but the PMI price gauges and indicators of depleted capacity suggest that inflationary pressures will pick up next year.”— Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit/BME Germany Manufacturing PMI®

Manufacturing sector posts near-record growth in November

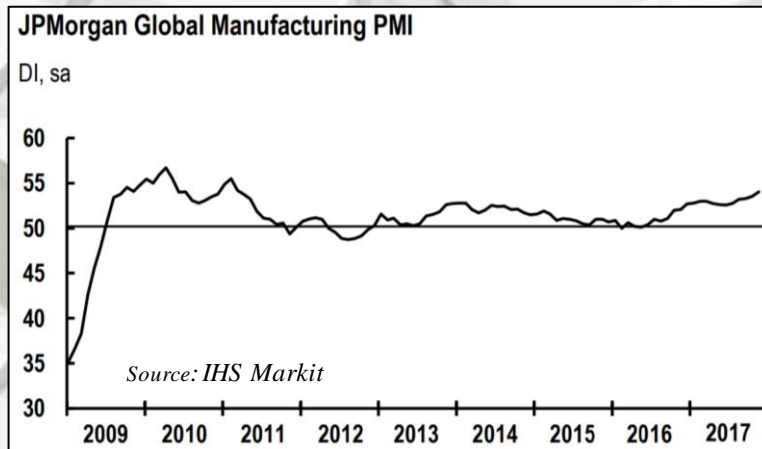
“The headline IHS Markit/BME Germany Manufacturing PMI – ... – moved to 62.5 in November, rising from 60.6 in October. The latest reading was the second-highest seen since the survey began in April 1996, exceed only by February 2011’s 62.7.

Germany’s manufacturing sector saw near-record growth in November, as new orders, exports and employment all rose at rates close to the peaks seen in 2010-11, as to the latest PMI® survey data from IHS Markit and BME. The stronger pace of expansion led to greater pressure on capacity, however, with backlogs growing at the second-fastest rate ever recorded and input delivery delays among the worst seen in the survey’s 21-year history. Price pressures also heated up, reaching the highest in just over six-and-a-half years.

Production levels were ramped up to the greatest extent since April 2011, with each of the main categories of manufacturing (consumer, intermediate and investment) seeing sharp rates of expansion in November. New orders, exports and employment all rose at rates close to the fastest ever recorded by the survey, to underline what is an extraordinary spell for goods producers and the labour market alike.

The German Manufacturing PMI continued its ascent in November to come within a whisker of an all-time high. In over two decades of data collection growth has only ever been better once before, in early-2011 when production levels were still recovering from a financial crisis-induced slump. At these current rates of growth the sector runs the risk of overheating, and this probably goes some way to explaining the moderation in manufacturers’ future growth expectations to the lowest in almost a year.”
– Trevor Balchin, Senior Economist, IHSMarkit®

Private Indicators: Global



JP Morgan Global Manufacturing PMI™

“The *J.P. Morgan Global Manufacturing PMI™* – a composite index produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – posted 54.0 in November, up from 53.5 in October and its highest reading since March 2011. The headline PMI has signalled expansion for 21 consecutive months.

Global Manufacturing growth accelerates to 80-month high

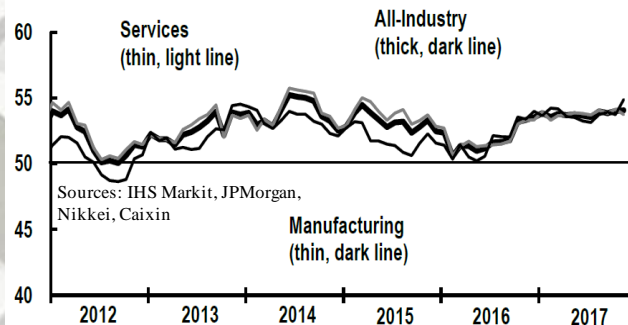
November saw the upturn in the global manufacturing sector strengthen, with rates of expansion in output, new orders and employment all hitting multi-year highs. Price pressures remained elevated, however, with input costs and output charges rising at accelerated and above long-run average rates. Growth remained sharper (on average) in developed nations compared to emerging markets. The euro area was a bright spot, with its PMI rising to a near-record high. Rates of increase also strengthened in Japan (44-month high), the UK (51-month high), Australia (8-month high) and Canada (2-month high). Growth slowed slightly in the US, but remained solid overall. In the main emerging nations, growth eased to a five-month low in China, but accelerated in India (fastest in over a year), Brazil (81-month high) and Russia. Mexico returned to expansion after contracting in October.

The November survey points to a strong increase in the rate of expansion of the global manufacturing sector, with growth of output, new orders, new export business and employment all gaining strength. Inflationary pressures continued to build across the production pipeline.” – David Hensley, Global Economist, J.P. Morgan

Private Indicators: Global

JPMorgan global PMI output

Diffusion Index, sa



JP Morgan Global Manufacturing & Services PMI™

“The J.P. Morgan Global All-Industry Output Index – produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – posted 54.0 in November, to remain above the neutral 50.0 mark for the sixty-second successive month. The rate of expansion was solid and slightly above its long-run average.

Global growth holds steady at two-and-a-half year high

November saw the rate of expansion in global economic output remain at its joint-highest over the past two-and-a-half years. The outlook also remained positive, with new business intakes rising at the strongest pace since September 2014 and backlogs of work increasing to the greatest extent in four years.

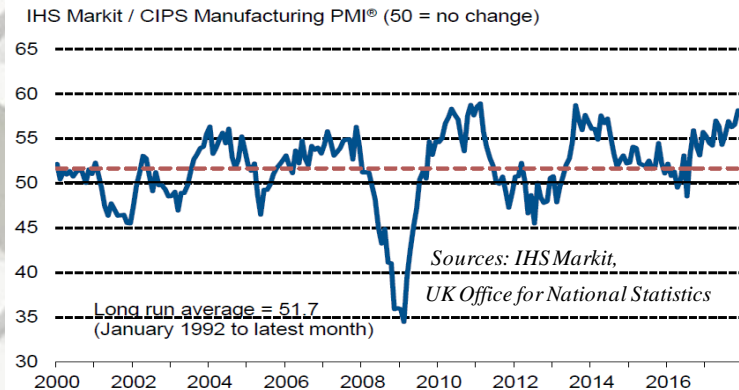
November saw an upswing in the rate of increase in manufacturing production, which rose to the greatest extent since February 2011. Service sector business activity also rose at a solid clip, albeit the weakest in four months.

Growth at service providers was again led by the financial and business categories, while increases in manufacturing output were strongest in the intermediate and investment goods sectors. The consumer category was the weakest performer in both the services and manufacturing industries.

November saw the global economy maintain a robust and steady rate of output expansion, as a solid upswing in growth of manufacturing production offset a slightly weaker upturn in service sector activity. The outlook for global growth also remains positive, as manufacturing looks set to sustain its recent bounce and rising order intakes boost service providers.” – David Hensley, Global Economist, J.P. Morgan

Private Indicators: Global

IHS Markit/CIPS UK Manufacturing PMI



Markit/CIPS UK Manufacturing PMI™

“The seasonally adjusted IHS Markit/CIPS Purchasing Managers’ Index® (PMI®) rose to 58.2 in November, up from 56.6 in October (originally reported as 56.3), its highest level since August 2013. The reading is the tenth-best registered during the near 26-year series history.

UK Manufacturing PMI climbs to highest level in over four years

November saw the UK manufacturing sector move up a gear, with rates of increase in new orders and production among the best registered over the past four years. This tested capacity and encouraged further job creation, with employment rising to the greatest extent since June 2014.

UK manufacturing shifted up a gear in November, with growth of output, new orders and employment all gathering pace. On its current course, manufacturing production is rising at a quarterly rate approaching 2%, providing a real boost to the pace of broader economic expansion. The breadth of the rebound is also positive, with growth strengthening across the consumer, intermediate and investment goods industries. Of real note was a surge in demand for UK investment goods, such as plant and machinery, with new orders for these products rising to the greatest extent in over two decades. This suggests that capital spending, especially in the domestic market, is showing signs of renewed vigour.

On the price front, rates of inflation in input costs and output charges remained elevated. Manufacturers have seen supply-chain constraints and rising demand for raw materials overtake exchange rate effects as the primary motivator of price increases. The coming months should provide greater evidence on any impact that the recent interest rate increase from the Bank of England will have on reining in cost pressures.” – Rob Dobson, Director & Senior Economist, IHS Markit

Private Indicators American Institute of Architects (AIA)

October Architecture Billings Index

Growth returning to firm billings

Most firms projecting further gains next year but anticipate difficulty adding qualified staff

“Following a brief dip in revenue in September, billings at US architecture firms advanced in October. AIA’s Architecture Billings Index was 51.7 for the month, up from a 49.1 reading the prior month. Through 10 months of the year, the ABI has posted gains in eight. Both project inquiries and new design contracts also were positive for the month. Additionally, both of these indicators have posted readings in excess of 50 – signifying an increase over the prior month – each month this year. The growing number of inquiries for future projects, coupled with gains in new projects coming into architecture firms, point to future advances in design billings.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators American Institute of Architects (AIA)

National

Architecture firm billings move back to growth mode in October

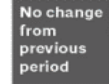
Graphs represent data from October 2016–October 2017.



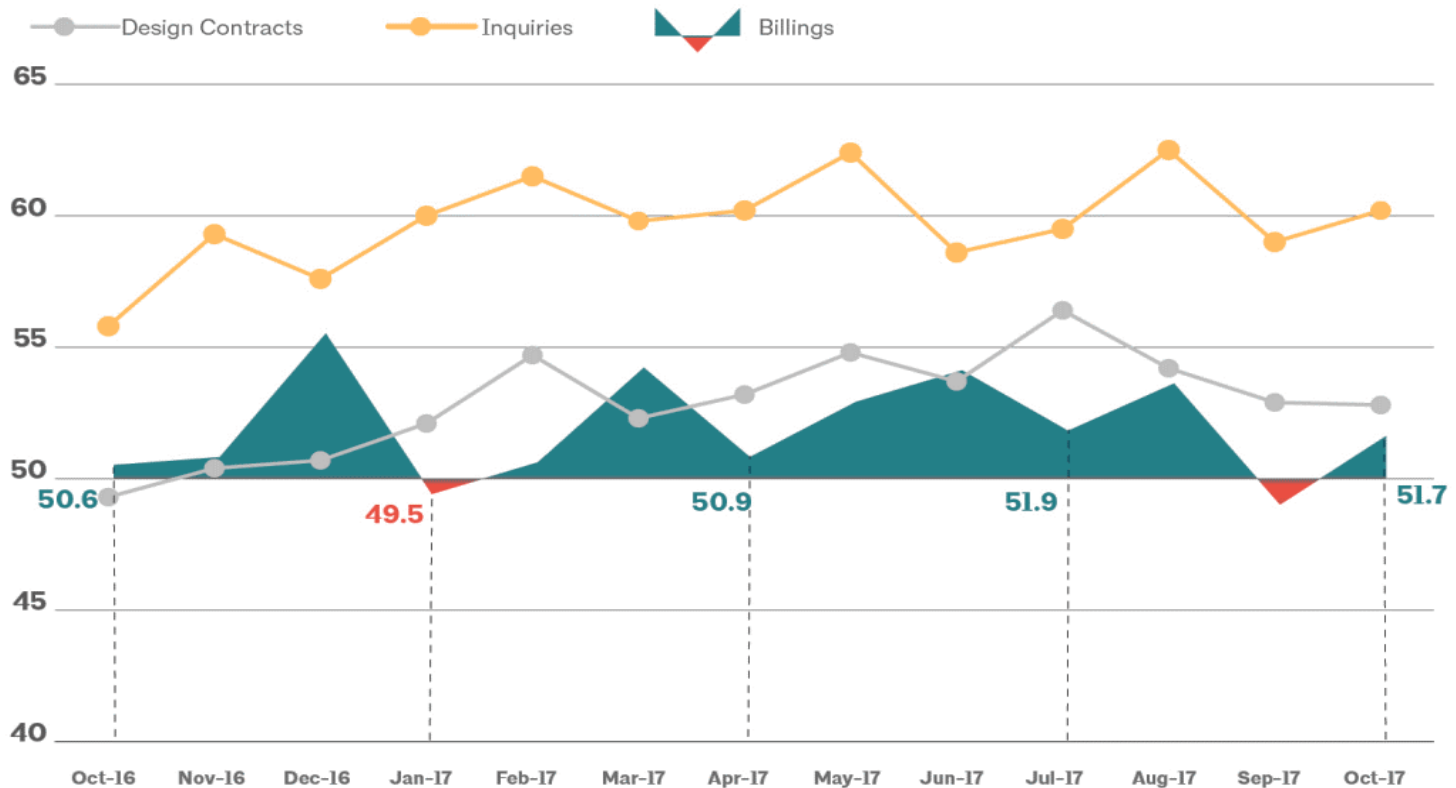
Above 50



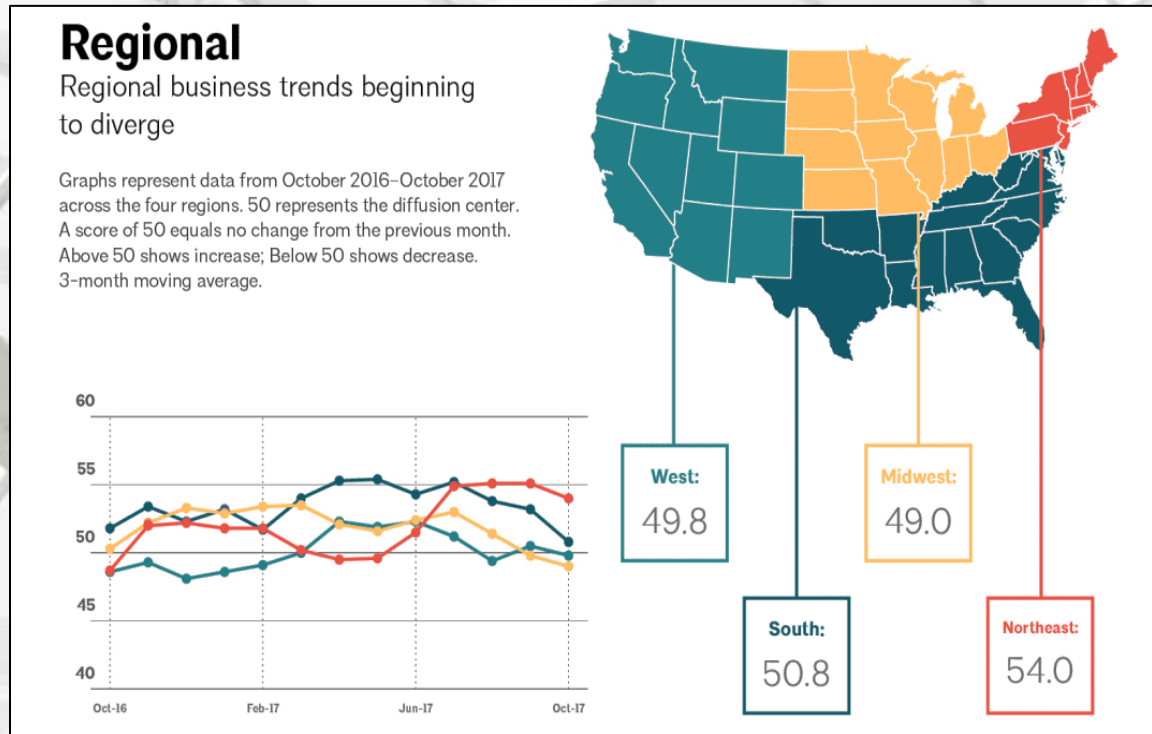
Below 50



No change from previous period



Private Indicators: AIA



Region

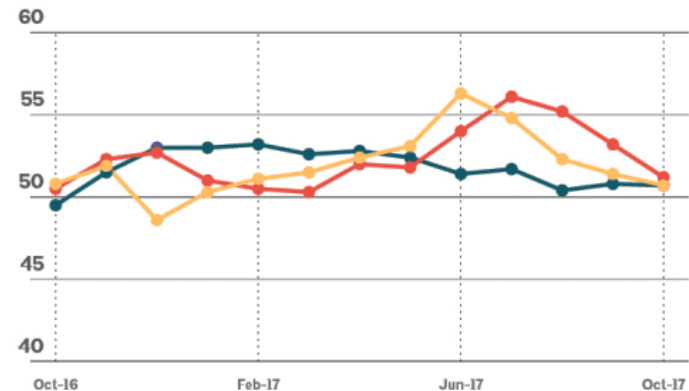
“Regional business trends at architecture firms are becoming a bit more unbalanced. While firms in the Northeast have reported strong gains in billings in recent months, firms in the Midwest reported modest declines in September and October, and firms in the West have been hovering around the no-growth zone for the past few months. Firms in the South saw weak gains in October but generally have been reporting solid monthly progress throughout the year.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators: AIA

Sector

Design activity modestly positive for all major building sectors

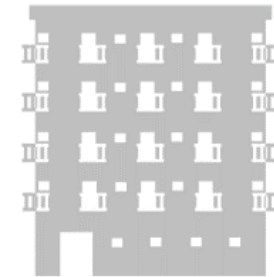
Graphs represent data from October 2016–October 2017 across the three sectors. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Commercial/Industrial: 51.2



Institutional: 50.7



Residential: 50.7

Private Indicators

Dodge Data & Analytics

October Construction Starts Fall 9%

“October’s data lowered the Dodge Index to 157 (2000=100), compared to a revised 173 for September which was the highest reading so far in 2017. New construction starts in October dropped 9% to a seasonally adjusted annual rate of \$742.9 billion, pulling back after a 14% jump in September, according to Dodge Data & Analytics. Over the past two months the pattern for total construction starts was shaped by nonresidential building, which fell 30% in October after soaring 37% in September.

Although nonresidential building in October did include the start of several very large projects, led by the \$1.1 billion new ballpark for the Texas Rangers in Arlington TX, they were not the same magnitude as the three exceptionally large projects entered as September starts – a \$6.0 billion ethane cracker plant in Pennsylvania, the \$4.0 billion Delta Airlines new terminal facility at LaGuardia Airport in New York NY, and the \$1.7 billion 50 Hudson Yards office tower in New York NY. **Residential building** in October slipped 1%, due to a slower pace for multifamily housing. Running counter was a sharp 27% increase for nonbuilding construction, which was lifted by the start of the \$3.0 billion expansion of the Atlantic Sunrise natural gas pipeline in Pennsylvania and Virginia.

For the first ten months of 2017, total construction starts on an unadjusted basis were \$631.2 billion, up 1% from the same period a year ago. The year-to-date gain for total construction was restrained by a 38% drop for the electric utility/gas plant category. If the electric utility/gas plant category is excluded, total construction starts during the first ten months of 2017 would be up 4% relative to the same period a year ago.” – Benjamin Gorelick, Spector & Associates

Private Indicators

Dodge Data & Analytics

“The construction start statistics have occasionally been subject to ‘spikes’ on a monthly basis, boosted by the presence of several unusually large projects, and September definitely qualified as one of those ‘spikes. The pace for nonresidential building in September was unsustainably high, so October’s decline was expected. Nonresidential building is still on track to show moderate growth for 2017 as a whole, helping to keep the expansion for overall construction activity going. **On the residential side**, multifamily housing is retreating from a very strong 2016, but to this point the retreat has been modest. And, the downward pull coming from nonbuilding construction appears to be easing, given the ongoing strength shown by pipeline projects and some recent improvement by highways, bridges, and mass transit.

Nonresidential building in October was \$258.7 billion (annual rate), down 30% after the 37% hike reported in September. The manufacturing building category dropped 67% following its six-fold jump in September ... The institutional categories as a group in October fell 36% following a 25% increase in September Transportation terminal work was down 82% in October, and declines were also reported for educational and healthcare facilities . The educational facilities category dropped 29% in October... . Healthcare facilities fell 21% in October, as only two projects valued at \$100 million or more reached groundbreaking, compared to four such projects during September. On the plus side, the amusement and recreational category soared 121% in October, October gains were also reported for religious buildings, up 20%; and public buildings (courthouses and detention facilities), up 15%.” – Robert Murray, Chief Economist, McGraw Hill Construction

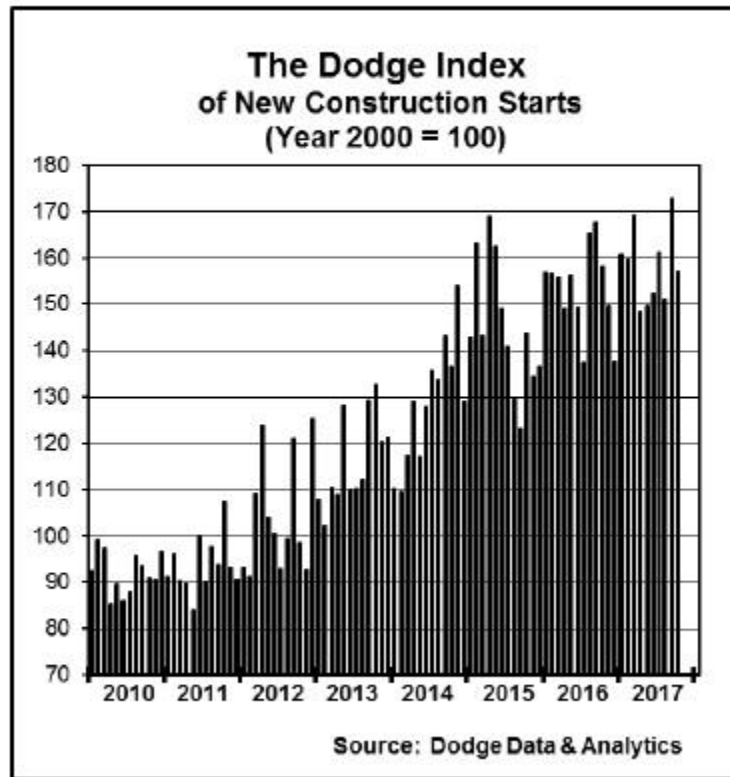
Private Indicators

Dodge Data & Analytics

“**Residential building** in October receded 1% to \$295.9 billion (annual rate), continuing to hover within the narrow range that’s been reported for the past six months. Multifamily housing dropped 3% in October, as there were four large multifamily projects valued each at \$100 million or more that reached groundbreaking compared to seven such projects in September. ... During the first ten months of 2017, the top five markets ranked by the dollar amount of multifamily starts, with their percent change from a year ago, were – New York NY, down 1%; Los Angeles CA, down 13%; Chicago IL, down 23%; Washington DC, down 13%; and Atlanta GA, up 26%. Metropolitan areas ranked 6 through 10 during the first ten months of 2017 were – San Francisco CA, down 2%; Miami FL, down 50%; Boston MA, down 20%; Seattle WA, down 20%; and Dallas-Ft. Worth TX, down 37%. Single family housing held steady in October, continuing to stabilize after losing momentum in early summer. During the first ten months of 2017, the pattern by five major regions for the dollar amount of single family housing was the following – the South Atlantic, up 11%; the South Central, up 8%; the West, up 7%; the Midwest, up 5%; and the Northeast, down 1%.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

October 2017 Construction Starts



Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>October 2017</u>	<u>September 2017</u>	<u>% Change</u>
Nonresidential Building	\$258,720	\$370,443	-30
Residential Building	295,949	299,289	-1
Nonbuilding Construction	<u>188,216</u>	<u>147,721</u>	<u>+27</u>
Total Construction	\$742,885	\$817,453	-9

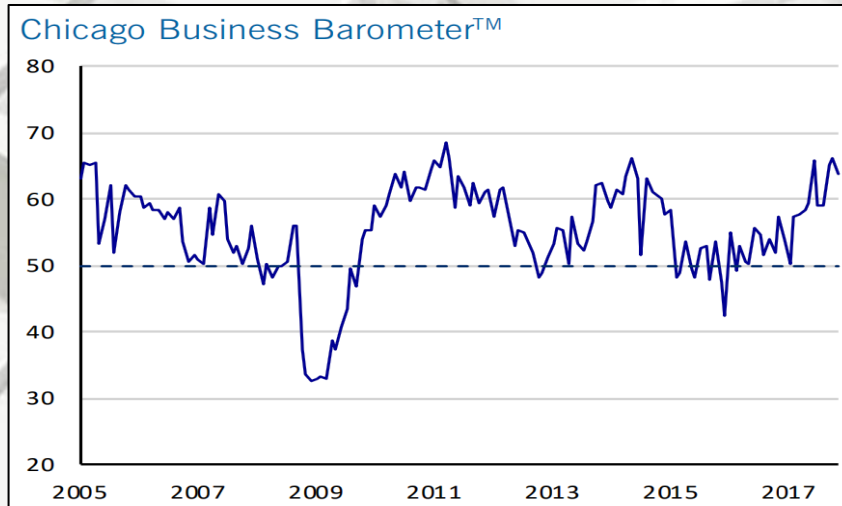
The Dodge Index
Year 2000=100, Seasonally Adjusted
October 2017157
September 2017173

Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>10 Mos. 2017</u>	<u>10 Mos. 2016</u>	<u>% Change</u>
Nonresidential Building	\$229,718	\$213,071	+8
Residential Building	255,084	252,364	+1
Nonbuilding Construction	<u>146,425</u>	<u>156,817</u>	<u>-7</u>
Total Construction	\$631,227	\$622,252	+1
Total Construction, excluding electric utilities/gas plants	\$604,733	\$579,813	+4

Private Indicators



MNI Chicago November Chicago Business Barometer Eases to 63.9

“The MNI Chicago Business Barometer eased to 63.9 in November, down from 66.2 in October, to stand at the lowest level in three-months.

Employment Back Above 50; Supplier Lead Times Hit 13-Year High

Despite receding from October’s six-and-a-half year high, optimism among businesses recorded the fourth highest outturn this year. The Barometer has expanded for 21 straight months and is poised to see out 2017 in solid fashion. Output expanded at a robust rate in November, as businesses continued to benefit from healthy domestic conditions and an abating of the disruption brought about by the recent adverse weather. New Orders, although retreating from October’s four-month high, remained in good health. Of the Barometer’s other three sub-components, Order Backlogs was the only other to also lose ground during the month.

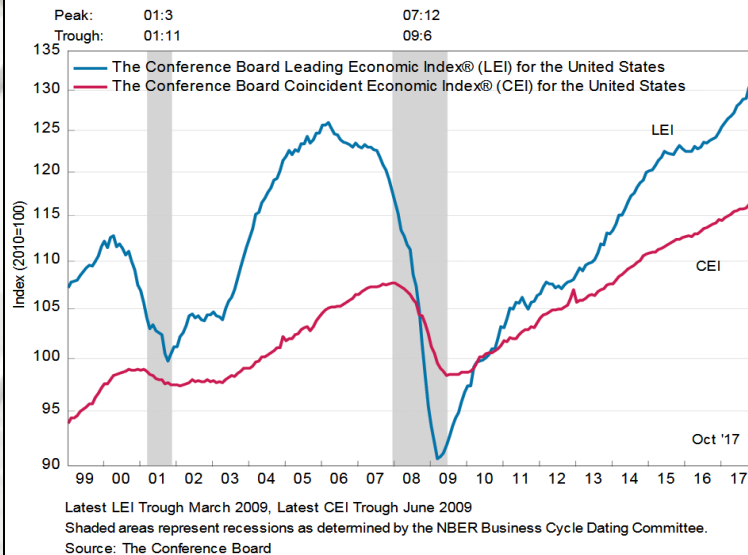
Despite November’s fall, the MNI Chicago Business Barometer remains on track to deliver the first full year of expansion in three-years. Firms seem to have navigated through the worst of the bad weather conditions in recent months, though supplier deliveries rising to a thirteen-year high and persistent, high input costs suggests the effects are yet to fully dissipate away.” – Jamie Satchi, Economist, MNI Indicators

Private Indicators

The Conference Board Leading Economic Index® (LEI) for the U.S. increased 1.2 percent in October to 130.4 (2010 = 100), following a 0.1 percent increase in September, and a 0.4 percent increase in August.

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

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



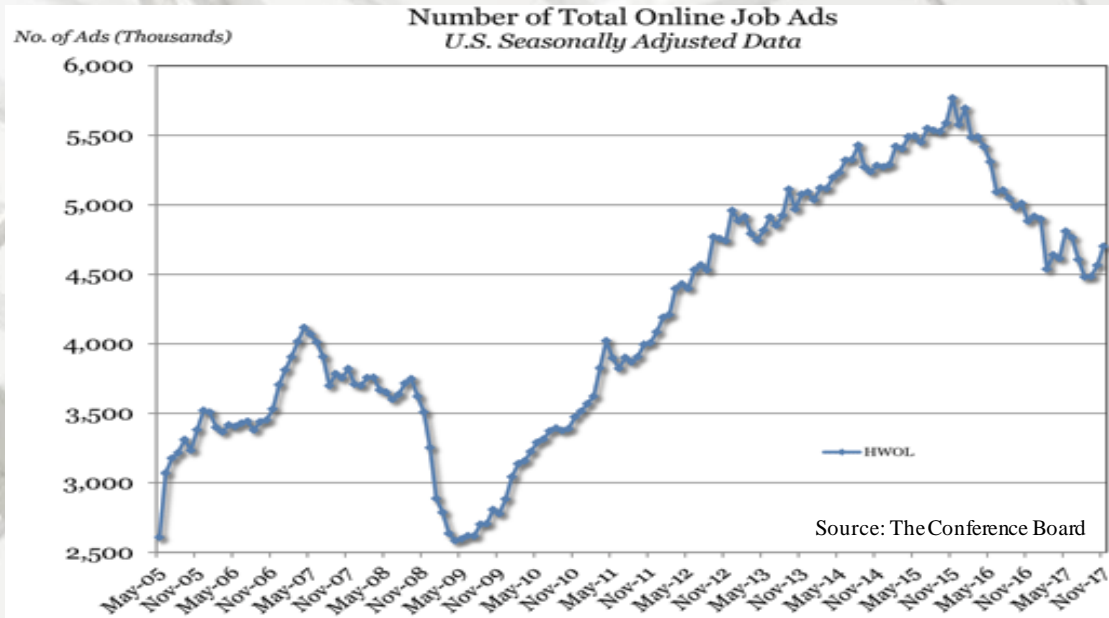
Solid Growth to Continue into 2018

“The US LEI increased sharply in October, as the impact of the hurricanes dissipated. The growth of the LEI, coupled with widespread strengths among its components, suggests that solid growth in the US economy will continue through the holiday season and into the new 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 0.3 percent in October to 116.2 (2010 = 100), following a 0.1 percent increase in September, and no change in August.

The Conference Board Lagging Economic Index® (LAG) for the U.S. increased 0.2 percent in October to 125.5 (2010 = 100), following no change in September, and a 0.2 percent increase in August.”

Private Indicators



The Conference Board Help Wanted OnLine® (HWOL) Online Job Ads Increased 137,100 in November

- “Gains widespread across most States and MSAs
- No occupations showed losses over the month

Online advertised vacancies increased 137,100 to 4,700,900 in November, according to **The Conference Board Help Wanted OnLine® (HWOL) Data Series**. The October Supply/Demand rate stands at 1.43 unemployed for each advertised vacancy, with a total of 2.0 million more unemployed workers than the number of advertised vacancies. The number of unemployed was approximately 6.5 million in October.

The Professional occupational category saw gains in Education, Training, and Library (15.9), Healthcare Practitioners and Technical (15.1), and Business and Financial (11.8). The Services/Production occupational category saw gains in Building and Grounds Cleaning and Maintenance (6.4) and Food Preparation and Serving (5.9).” – Carol Courter, The Conference Board

November 2017 Manufacturing ISM® Report On Business®

November PMI® at 58.2%

New Orders, Production, and Employment Continue Growing Supplier Deliveries Slowing at Slower Rate, Backlog Growing Raw Materials Inventories Contracting, Customers' Inventories Improving Prices Increasing at Slower Rate

“Economic activity in the **manufacturing sector** expanded in October, and the overall economy grew for the 102nd consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

The November PMI® registered 58.2 percent, a decrease of 0.5 percentage point from the October reading of 58.7 percent.

The New Orders Index registered 64 percent, an increase of 0.6 percentage point from the October reading of 63.4 percent.

The Production Index registered 63.9 percent, a 2.9 percentage point increase compared to the October reading of 61 percent.

The Employment Index registered 59.7 percent, a decrease of 0.1 percentage point from the October reading of 59.8 percent.

The Supplier Deliveries Index registered 56.5 percent, a 4.9 percentage point decrease from the October reading of 61.4 percent.

The Inventories Index registered 47 percent, a decrease of 1 percentage point from the October reading of 48 percent.

The Prices Index registered 65.5 percent in November, a 3 percentage point decrease from the October level of 68.5, indicating higher raw materials prices for the 21st consecutive month.

Comments from the panel reflect expanding business conditions, with New Orders and Production leading gains, employment expanding at a slower rate, order backlogs stable and expanding, and export orders all continuing to grow in November. Supplier deliveries continued to slow (improving), but at slower rates, and inventories continued to contract during the period. Price increases continued, but at a slower rate. The Customers’ Inventories Index improved but remains at low levels.” – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

Private Indicators

November 2017 Non-Manufacturing ISM® Report On Business®

November NMI® at 57.4%

**Business Activity Index at 61.4%; New Orders Index at 58.7%;
Employment Index at 55.3%**

“Economic activity in the non-manufacturing sector grew in November for the 95th consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**. The NMI® registered 57.4 percent, which is 2.7 percentage points lower than the October reading of 60.1 percent. This represents continued growth in the non-manufacturing sector at a slower rate..

The Non-Manufacturing Business Activity Index decreased to 61.4 percent, 0.8 percentage point lower than the October reading of 62.2 percent, reflecting growth for the 100th consecutive month, at a slightly slower rate in November.

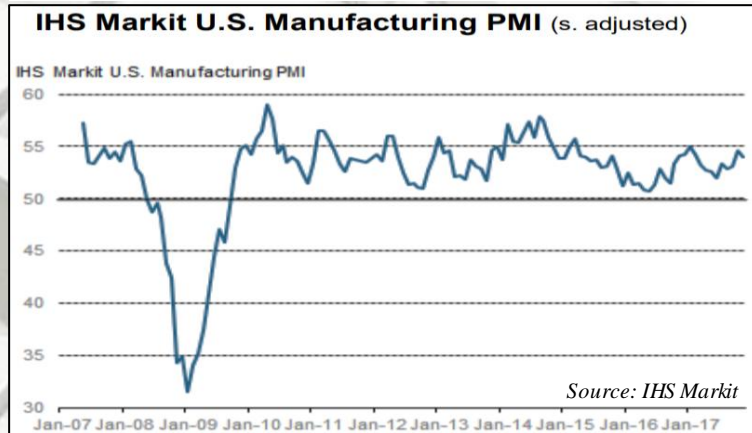
The New Orders Index registered 58.7 percent, 4.1 percentage points lower than the reading of 62.8 percent in October.

The Employment Index decreased 2.2 percentage points in November to 55.3 percent from the October reading of 57.5 percent.

The Prices Index decreased by 2 percentage points from the October reading of 62.7 percent to 60.7 percent, indicating prices increased in November for the sixth consecutive month..

According to the NMI®, 16 non-manufacturing industries reported growth. The rate of growth has lessened in the non-manufacturing sector after two very strong months of growth. Comments from the survey respondents indicate that the economy and sector will continue to grow for the remainder of the year.” – Anthony Nieves, CPSM, C.P.M., CFPM, Chair of the Institute for Supply Management® (ISM®) Non-Manufacturing Business Survey Committee

Private Indicators



Markit U.S. Manufacturing PMI™

“The seasonally adjusted IHS Markit final US Manufacturing Purchasing Managers’ Index™ (PMI™) registered 53.9 in November, down from 54.6 in October. The latest index reading signalled robust, albeit slower, overall growth in the manufacturing sector. The latest upturn was in line with the long-run series average.

November PMI signals robust manufacturing growth

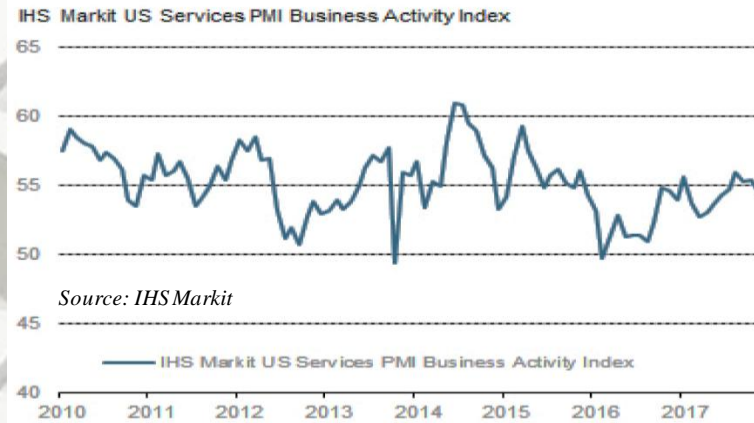
November survey data indicated improved operating conditions across the US manufacturing sector. The upturn was supported by solid, albeit slightly weaker, increases in output and new orders. Staffing levels meanwhile rose at a robust pace, despite the rate of job creation softening since October. However, signs of capacity pressures persisted, with backlogs of work rising again. Output charges rose at the fastest pace since December 2013. Input prices also rose at a quicker rate that was steep overall. Business confidence was robust, and reached its highest since January 2016.

US manufacturers reported further solid growth in November. The rate of expansion settled slightly after October’s rebound from the hurricanes, but still leaves the sector on course for its best quarter since the opening months of 2015. What’s especially encouraging is that growth is being led by producers of business equipment and machinery, indicating investment spending is on the rise.

Jobs growth in the sector has also picked up in recent months compared with the subdued hiring earlier in the year, suggesting that an expansionary mood is beginning to prevail in the goods producing sector. Business optimism is now at its highest since the start of 2016, underscoring how firms believe the upturn has further to run as we move into 2018.” – 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 54.5 in November, down from 55.3 in October. Although the latest index reading indicated a slightly weaker output expansion, the overall rate of growth was strong by recent standards nonetheless. Anecdotal evidence suggested that increases in activity were due to greater new order volumes and robust client demand.

Business activity growth eases in November

November survey data signalled a slower rate of expansion in business activity across the US service sector. Although output growth eased slightly to a five-month low, the upturn in new business accelerated and was solid overall. Employment growth meanwhile reached a three-month peak, which helped alleviate capacity pressures. In line with this, backlog accumulation softened to a five-month low. Inflationary pressures intensified with both input prices and output charges rising at quicker paces. The latest survey also indicated a fall in business confidence to the joint-lowest since February.

The slowest growth of service sector business activity since June, alongside a slight dip in the pace of manufacturing expansion, means the November PMI surveys registered a modest cooling in the overall rate of business growth. Mid-way through the fourth quarter, the surveys are still pointing to a reasonable GDP growth rate of approximately 2.5%. Disappointingly, optimism about the year ahead deteriorated as companies grew increasingly cautious about the outlook for 2018, suggesting risk aversion may start to rise, which could hit hiring and investment. However, for now, businesses generally remain in expansion mode and the upturn shows few signs of losing momentum to any significant extent.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

National Association of Credit Management – Credit Managers' Index

“That old familiar pattern has returned after a couple of months where we seemed to be heading for some semblance of consistency. The good news is that this month saw an improvement over last month, the direction we all would all like to head. There were some aspects of this growth that are familiar and some that are more unique to this set of readings. The familiar part is that most of the gain was in the favorable factors although there was also a small improvement in the unfavorable categories as well.

The overall index recovered a lot of the momentum lost last month. The combined index number is at 56.6, almost identical to what it was in September (56.5) and a nice rebound from the 55.5 registered in October. The index of favorable factors jumped to 65.7 after languishing at 63.8 in October. This reading is the highest seen in many years. When one looks at the specific sub-readings one can see why. The index for the unfavorable factors is not nearly in the same realm, but has been improving – that’s what really counts. It was at 50 (the dividing line between contraction and expansion) last month and is now all the way up to 50.4! The important thing is the index is over 50 and has been for most of the past 12 months.

The sales category is very strong right now – as strong as it has been since the recession started, with a reading of 68.3. This is quite near a record high. The new credit applications reading also improved, but not by such a significant degree as it moved from 62.8 to 63.7. The dollar collections number was as robust as has been seen since the recession. It is now at 63.1. This had been the problem category through most of the year, but not this month. Finally, there is the amount of credit extended number, which remained very high at 67.8.” – Adam Fusco, Associate Editor, NACM

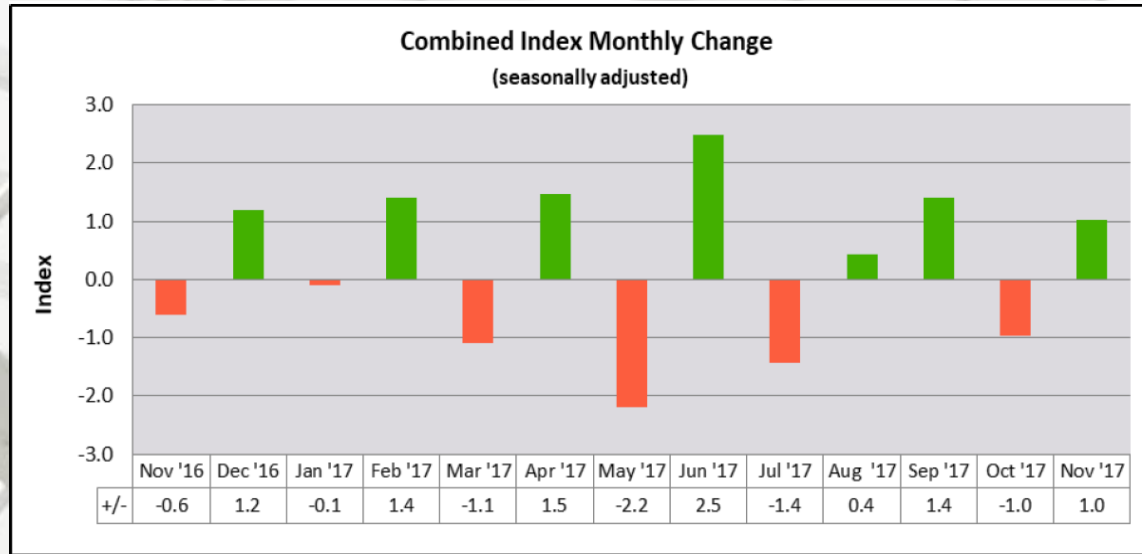
Private Indicators

National Association of Credit Management – Credit Managers' Index

“There has been good news as far as the nonfavorable categories as well, but the numbers suggest there is still a lot of damage to work through as some categories are still in the 40s. The rejections of credit applications improved from a reading of 51.8 to 52.4, good news when paired with the growth in credit applications. The accounts placed for collection lurched out of the contraction zone with a reading of 50.5 as compared to the 49.5 last month. The disputes category remained in contraction territory at 48.3, but that is better than the 47.6 the month prior. Dollar amount beyond terms also remained in the contraction zone, but with some improvement to 47.5 after a 47.3 reading. The same pattern was observed with dollar amount of customer deductions as the reading stayed in contraction, but was marginally better with a move from 48.7 to 48.9. The readings for filings for bankruptcies also moved, but downward – the only one of these readings to do so. It was small, going from 55.3 to 55.1.” – Adam Fusco, Associate Editor, NACM

“By and large, the Credit Managers' Index (CMI) this month is quite consistent with a variety of other economic measures such as the Purchasing Managers' Index, durable goods orders and capacity utilization numbers. There has been a sharp drop in demand for business loans in the last few months. That strikes many as odd given the kind of growth the U.S. has sported in that same period. It appears that many companies are self-financing their growth as opposed to borrowing. That has implications for the credit industry as a whole. This category [credit extended number] has been performing very well for the last few years as the bigger credit seekers have been asking for larger amounts consistently.” – Dr. Chris Kuehl, Economist, NACM

Private Indicators

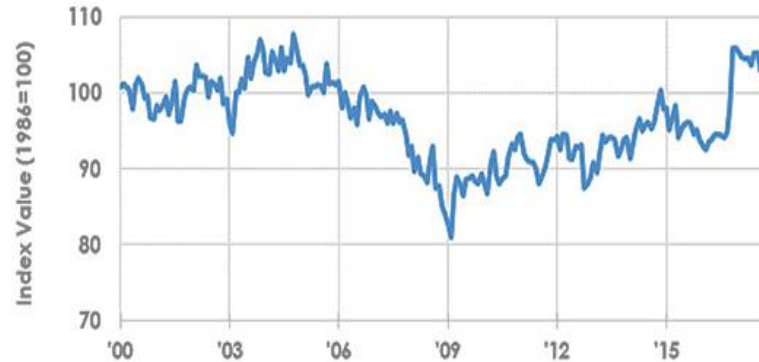


Combined Manufacturing and Service Sectors (seasonally adjusted)	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17	Apr '17	May '17	Jun '17	Jul '17	Aug '17	Sep '17	Oct '17	Nov '17
Sales	61.8	58.6	60.1	62.6	61.2	63.8	60.6	66.5	62.8	62.2	67.3	66.8	68.3
New credit applications	54.5	57.0	60.8	62.0	60.5	62.0	59.3	59.8	59.7	61.2	60.5	62.8	63.7
Dollar collections	63.5	59.5	58.2	63.0	56.4	61.2	56.7	62.5	60.2	58.9	60.0	60.2	63.1
Amount of credit extended	61.4	61.4	64.1	66.8	64.4	67.2	63.6	66.8	64.1	66.7	66.3	65.5	67.8
Index of favorable factors	60.3	59.1	60.8	63.6	60.6	63.6	60.0	63.9	61.7	62.2	63.5	63.8	65.7
Rejections of credit applications	48.9	51.3	50.6	51.4	51.6	52.1	52.4	52.6	51.9	52.2	52.5	51.8	52.4
Accounts placed for collection	45.8	49.7	49.4	48.2	49.8	49.0	48.5	49.3	48.9	48.7	50.3	49.5	50.5
Disputes	47.7	49.8	46.0	48.7	48.5	49.1	47.9	50.4	48.8	49.1	51.7	47.6	48.3
Dollar amount beyond terms	44.9	49.3	48.4	51.0	47.4	51.0	45.9	50.4	48.3	47.4	50.4	47.3	47.5
Dollar amount of customer deductions	47.9	49.8	48.7	47.6	49.8	49.2	48.7	49.1	48.1	49.2	49.8	48.7	48.9
Filings for bankruptcies	53.0	55.0	53.9	53.2	53.8	53.5	52.7	53.4	53.6	55.3	56.2	55.3	55.1
Index of unfavorable factors	48.0	50.8	49.5	50.0	50.2	50.6	49.3	50.9	49.9	50.3	51.8	50.0	50.4
NACM Combined CMI	52.9	54.1	54.0	55.4	54.3	55.8	53.6	56.1	54.6	55.1	56.5	55.5	56.6

Private Indicators

Small Business Optimism Index Maintains at 107.5

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



NOVEMBER 2017 Report: Small Business Optimism Hits Near All-Time High

“Not since the roaring Reagan economy has small business optimism been as high as it was in November, according to the **National Federation of Independent Business (NFIB)** Index of Small Business Optimism.” – Holly Wade, NFIB

National Federation Of Independent Business

“We haven’t seen this kind of optimism in 34 years, and we’ve seen it only once in the 44 years that NFIB has been conducting this research.” – Juanita Duggan, NFIB President and CEO, NFIB

“This is the second-highest reading in the 44-year history of the Index. The NFIB indicators clearly anticipate further upticks in economic growth, perhaps pushing up toward four percent GDP growth for the fourth quarter. This is a dramatically different picture than owners presented during the weak 2009-16 recovery.” – William C. Dunkelberg, Chief Economist, NFIB

“The Index gained 3.7 points in November, a sharp increase over what was already a near-record performance the previous month. Eight of 10 components posted gains, including a stunning and rare 16-point gain in Expected Better Business Conditions and a 13-point jump in Sales Expectations.” – Holly Wade, NFIB

Private Indicators

COMMENTARY

“As long as Congress and the President follow through on tax reform, 2018 is shaping up to be a great year for small business, workers, and the economy.”

Small business owners are paying very close attention to what is happening in Washington. They continue to list taxes as their number-one problem, but they now have clear expectations that Congress and the President will address that problem.” – Juanita Duggan, NFIB President and CEO, NFIB

“The change in the management team in Washington has dramatically improved expectations. Job creation faded, but hiring plans soared, primarily in construction, manufacturing, and professional services.” – William C. Dunkelberg, Chief Economist, NFIB

“Job Creation plans increased six points last month, providing more evidence of a strong labor market. The number of owners who said it’s a Good Time to Expand rose four points; Inventory Plans increased by three points; Inventory Satisfaction increased by three points; and Actual Earnings Trend moved up two points. Finding qualified workers has been a persistent problem all year for small business owners, a reliable sign of growing economy. Last month, it was the second most important problem facing small business owners. Only taxes polled higher.” – Holly Wade, NFIB

Private Indicators

The Paychex | IHS Small Business Employment Watch Monthly Growth Rates for Small Business Employment and Wages Decline Slightly in November

“The [Paychex | IHS Markit Small Business Employment Watch](#) shows a modest decline in both small business job and wage growth for November. The Small Business Jobs Index decreased 0.03 percent for the month, 0.10 for the quarter, and 0.52 percent for the year to 99.86. The national index has now been below 100 for five consecutive months. Monthly small business wage growth has slowed since reaching a high of nearly 3 percent in August. Hourly earnings in November stand at \$26.09, a gain of 2.77 percent (\$0.70) year-over year.”
– Lisa Fleming, Paychex, Inc.

“Though the monthly declines this year have been small, they have been persistent. At 99.86, the Small Business Jobs Index indicates employment growth, though steady, is now at the slowest pace since 2011.” – James Diffley, Chief Regional Economist, IHS Markit

“Although we have seen slight monthly declines in employment growth, the rate of job growth, while still positive, has generally leveled off over the last quarter. It is encouraging to see that hours worked in Florida are back on the rise after recent monthly slowdowns following the hurricanes.” – Martin Mucci, President and CEO, Paychex, Inc.

Private Indicators

Index Historical View



November Jobs Index

Index
99.86

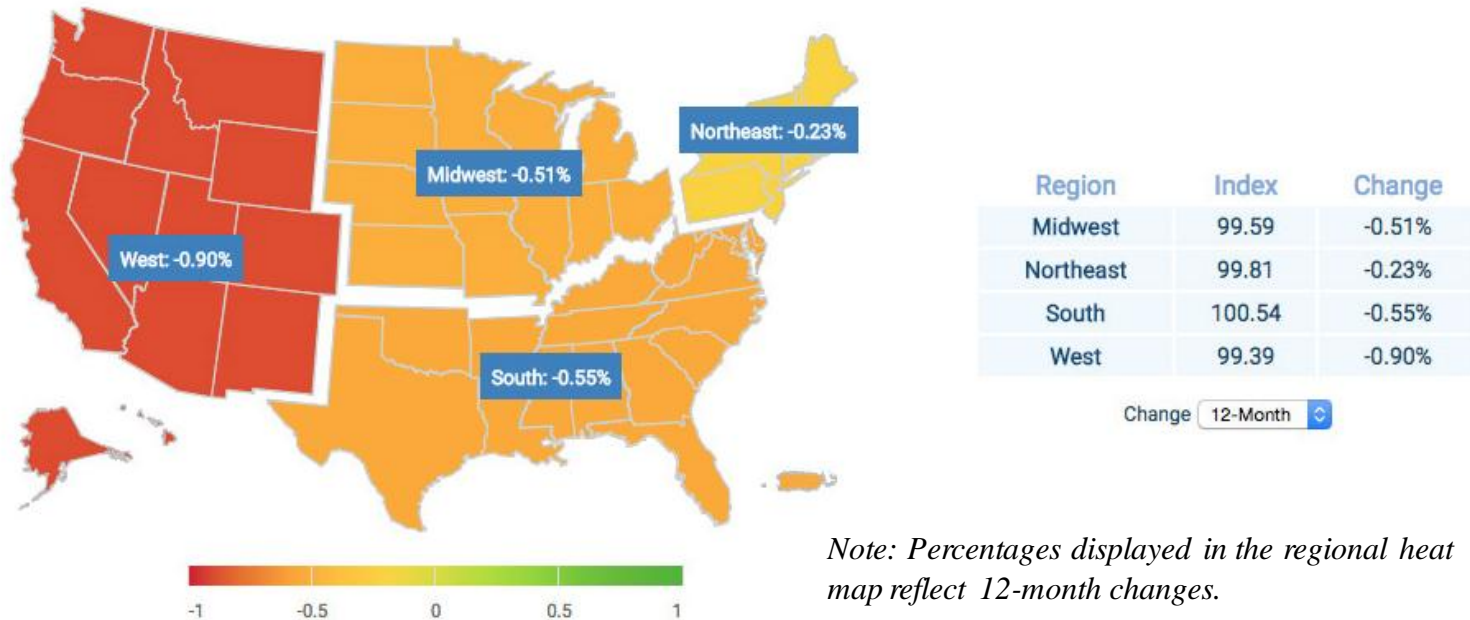
12-Month Change
-0.52%

The Paychex | IHS Small Business Jobs Index National Jobs Index

- “Down 0.03 percent from October to 99.86, November’s Small Business Jobs Index marks the ninth consecutive monthly decline for small business job growth
- Hourly earnings in November were \$26.09, up 2.77 percent (\$0.70) year-over-year and slowing slightly for the fourth consecutive month
- Following sizable declines in hours worked in recent months due to Hurricane Irma, Florida rebounded significantly in November, led by increases in Construction and Manufacturing.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

Index Regional Performance

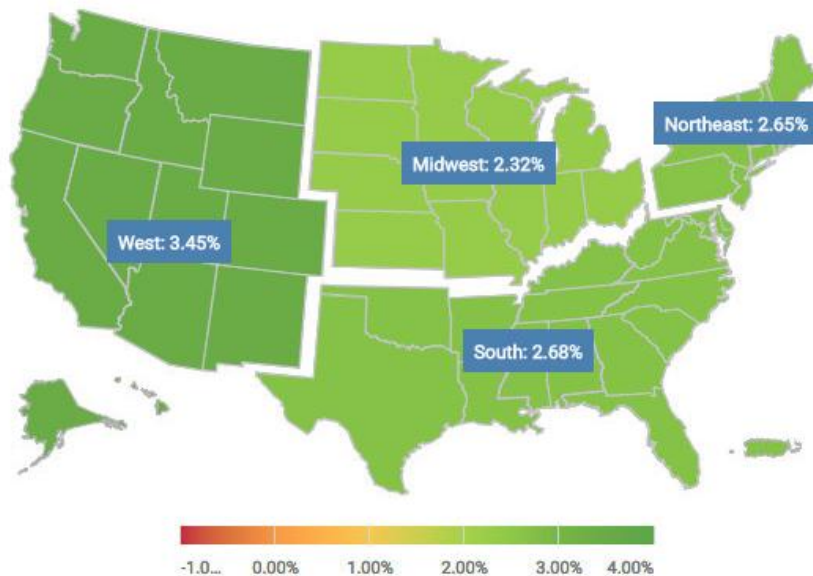


The Paychex | IHS Small Business Jobs Index Regional Jobs Index

- “Despite slowing 0.55 percent from a year ago, the South is showing solid small business employment growth and is the only region with an index level above 100 (100.54).
- Spurred by both New England and Middle Atlantic states, the Northeast surged 0.32 percent to move into second place among regions for the first time in 2017.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

Wage Data Region Performance



Region	Hourly Earnings	Change
Midwest	\$24.65	2.32% (\$0.56)
Northeast	\$26.68	2.65% (\$0.69)
South	\$25.2	2.68% (\$0.66)
West	\$27.35	3.45% (\$0.91)

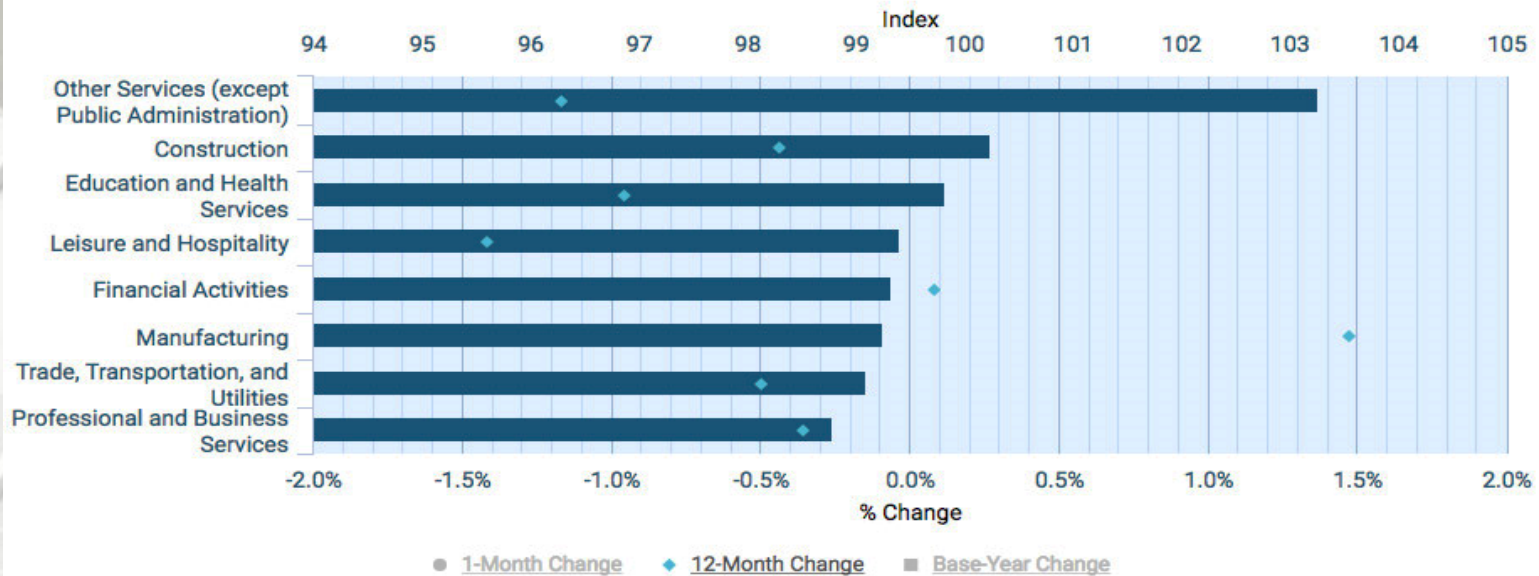
Growth

The Paychex | IHS Small Business Jobs Index State Jobs Index

- “Washington and Georgia, with the best one-month and three-month growth rates among states, rose to second and third, respectively, behind Tennessee in November.
- At 98.09, Missouri remained in last place among states with the weakest one-month and 12-month growth rates.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

Industry Performance



Industry Jobs Index

- “Sliding to 99.40, Leisure and Hospitality fell 0.42 percent in November and 1.42 percent from last year, both the weakest growth rates among industry sectors.
- Manufacturing had its strongest monthly gain in more than six years, 0.54 percent, adding to the sector’s solid 2017 improvement.”– James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

“S&P Dow Jones Indices today released the latest results for the S&P CoreLogic Case-Shiller Indices, the leading measure of U.S. home prices. Data released November 28, 2017 for September 2017 shows that home prices continued their rise across the country over the last 12 months.

September S&P Corelogic Case-Shiller National Home Price NSA Index Up 6.2% in Last 12 Months

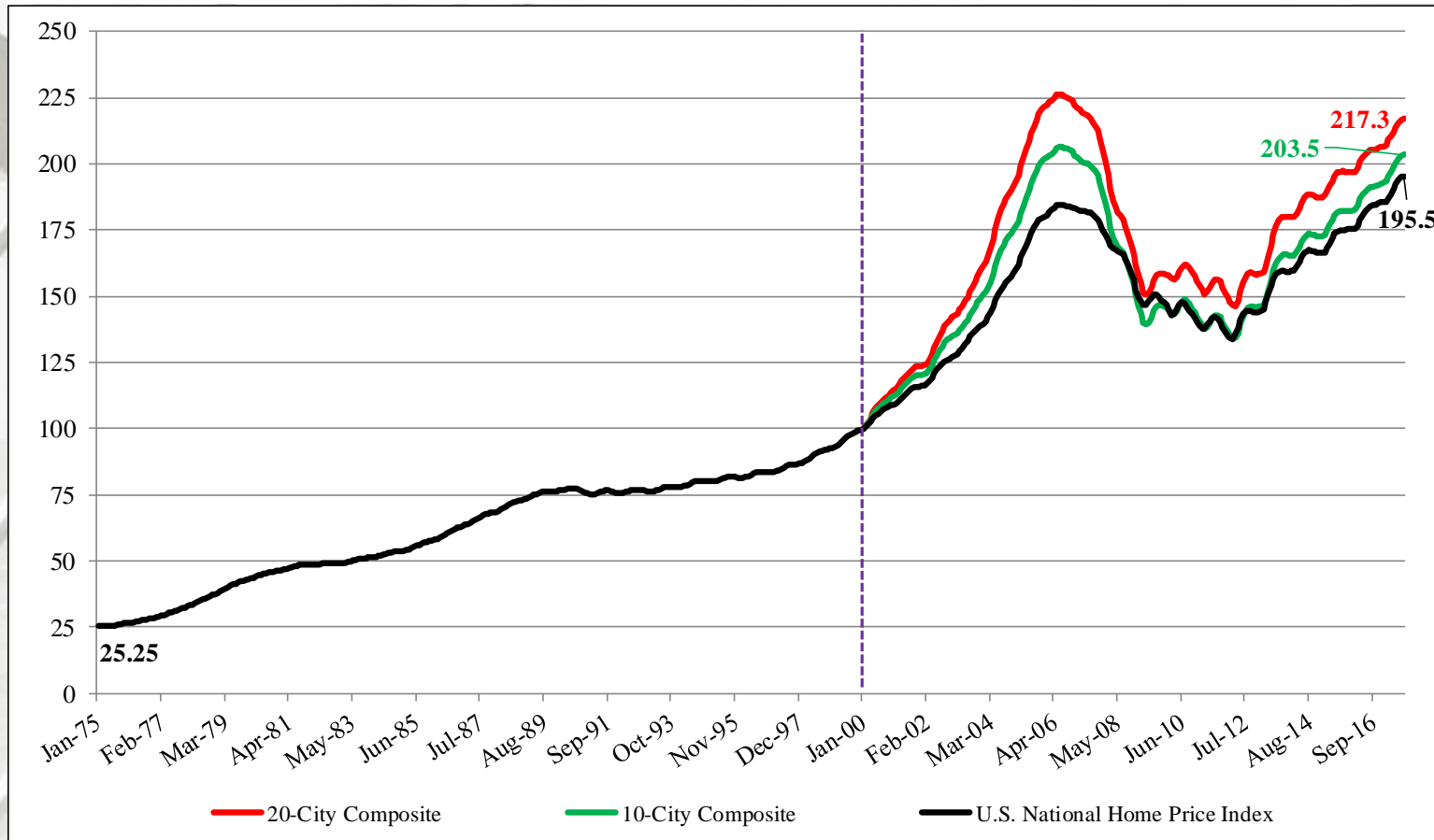
The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 6.2% annual gain in September, up from 5.9% in the previous month. The 10-City Composite annual increase came in at 5.7%, up from 5.2% the previous month. The 20-City Composite posted a 6.2% year-over-year gain, up from 5.8% the previous month.

Home prices continued to rise across the country with the S&P CoreLogic Case-Shiller National Index rising at the fastest annual rate since June 2014. Home prices were higher in all 20 cities tracked by these indices compared to a year earlier; 16 cities saw annual price increases accelerate from last month. Strength continues to be concentrated in the west with Seattle, Las Vegas, San Diego and Portland seeing the largest gains. The smallest increases were in Atlanta, New York, Miami, Chicago and Washington. Eight cities have surpassed their pre-financial crisis peaks.

Most economic indicators suggest that home prices can see further gains. Rental rates and home prices are climbing, the rent-to-buy ratio remains stable, the average rate on a 30-year mortgage is still under 4%, and at a 3.8-month supply, the inventory of homes for sale is still low. The overall economy is growing with the unemployment rate at 4.1%, inflation at 2% and wages rising at 3% or more. One dark cloud for housing is affordability – rising prices mean that some people will be squeezed out of the market.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

Private Indicators

S&P/Case-Shiller Home Price Indices



“The indices have a base value of 110 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

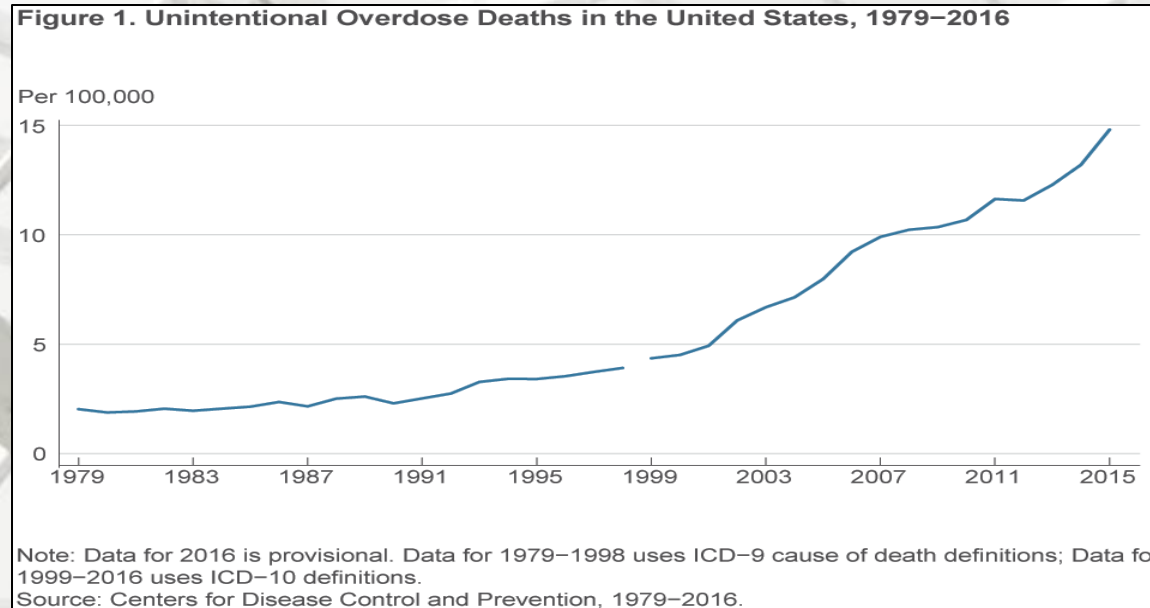
The Federal Reserve Bank of Cleveland The Opioid Epidemic and the Labor Market

“Drug overdoses now account for more deaths in the United States than traffic deaths or suicides, and most of the increase in overdose deaths since 2010 can be attributed to opioids – a class of drugs that includes both prescription pain relievers and illegal narcotics. We look at trends in drug use and overdose deaths to document how the opioid epidemic has evolved over time and to determine whether it could be large enough to impact the labor force.

The popular press has reported on factories reducing output because of a drug-induced labor shortage (Schwartz, 2017). According to one factory owner in Youngstown, Ohio, “There are good-paying jobs and the opportunity for people in our area. We just can’t find people to show up who can pass a drug test” (King, 2017). These anecdotes coincide with an increase in the rate of premature deaths since 2012, with drug overdose deaths now the leading single cause (Givens et al., 2017). Most of the rapid increase in overdose deaths since 2010 can be attributed to opioids.

In this Economic Commentary, we look at trends in overdose deaths and drug use to document how the opioid epidemic has evolved over time. We find that rising overdose death rates are a clear signal that the situation is getting worse, and that while our estimates of usage rates are very uncertain, they suggest that the opioid epidemic could be large enough to have an impact on the labor force. Two clear conclusions from our analysis are that we need better data to understand the opioid epidemic, and that the relationship between drug use and the labor market warrants further study.” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics



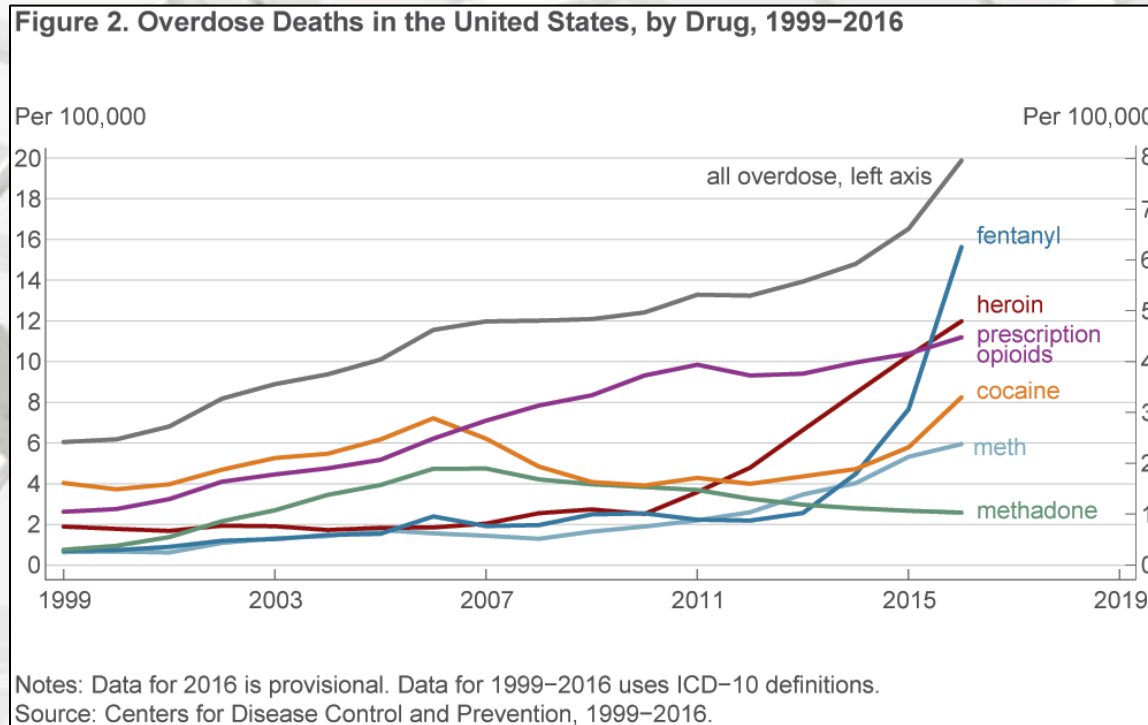
The Opioid Epidemic and the Labor Market

Opioids and Rising Overdose Deaths

“According to the National Institute on Drug Abuse (NIDA), “Opioids are a class of drugs that include the illegal drug heroin, synthetic opioids such as fentanyl, and pain relievers available legally by prescription, such as oxycodone (OxyContin), hydrocodone (Vicodin), codeine, morphine, and many others.”¹

Drug overdoses currently account for more deaths in the United States than traffic deaths or suicides. The trend in unintentional drug overdose deaths seems to have changed around 1990 and again around 2000 (figure 1). In both 1990 and 2000 the rate increased and then continued at a linear pace for the next decade.”² – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics



The Opioid Epidemic and the Labor Market

“Most of the increase in overdose deaths since 2010 is due to the use of heroin and the synthetic opioid fentanyl. Overdose deaths involving heroin began increasing in 2005,³ with a dramatic change in pace that has been sustained since 2011 (figure 2). Deaths involving fentanyl nearly doubled from the previous year’s rate in 2014, 2015, and 2016.⁴ Note that the CDC’s system for attributing overdose deaths allows for multiple drugs to be listed on a single overdose death.⁵ This is important because added fentanyl is likely to be a key contributor to the recent increase in overdoses for several other classes of drugs.” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics

The Opioid Epidemic and the Labor Market

“It is worth noting that the Great Recession did not exacerbate the rate of increase in drug overdose deaths. The increase in deaths in the years before the Great Recession (2000–2007) was about the same size as the increase in the period after the Great Recession (2010–2016). In the period before the Great Recession, the average increase in drug overdose deaths was 9 percent per year, while in the period after, the average increase was 7.5 percent per year. In general, it has been difficult to assess how drug usage varies with the business cycle (Carpenter et al., 2017).

Measuring drug-related deaths is difficult, and the data above may severely undercount deaths from opioids and heroin. The death rate data come from the Centers for Disease Control (CDC), which collects information from death certificates listing a single underlying cause of death and up to 20 additional causes. Ruhm (2017) examines these CDC data from recent years and finds that for more than 20 percent of overdose deaths, no information about the specific drug responsible is available from the death certificate. This lack of information is due to the fact that reporting practices vary across states. When Ruhm uses econometric techniques to impute these missing data, he finds that in 2014, mortality rates were 24 percent greater for opioids and 22 percent greater for heroin.”⁶ – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics

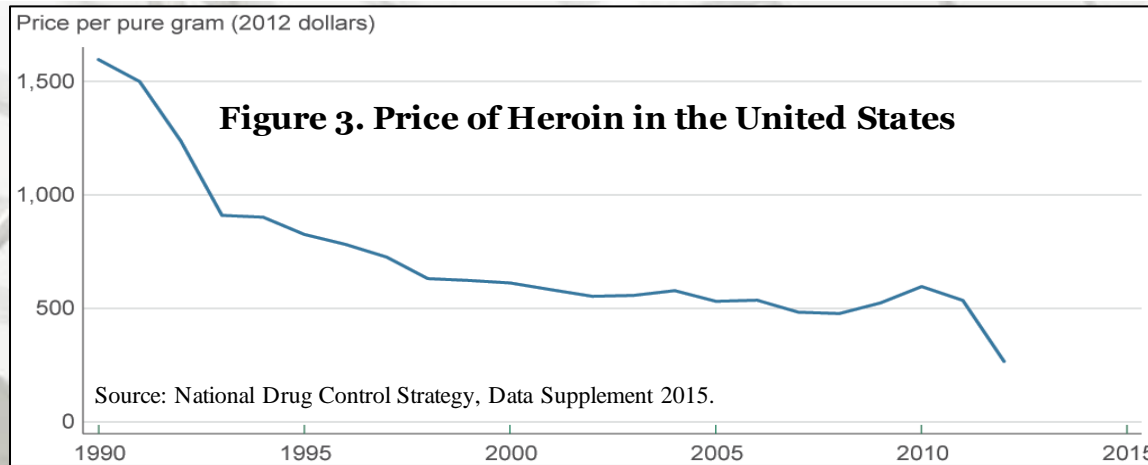
The Opioid Epidemic and the Labor Market

Drug Use

“While the data on overdose deaths paint a grim picture, we are also interested in understanding whether the magnitude of the opioid crisis is large enough to have effects on the labor market. The possibility of such effects might not be immediately obvious. While 64,000 overdose deaths in 2016 represents a tremendous cost in terms of human suffering, this number represents only a tiny fraction of the nearly 160 million Americans in the civilian labor force (about 0.04 percent to be precise). However, the issue for labor markets pertains to usage, and recent research suggests that drug use could be high enough to impact the labor market.

While it is difficult to measure drug use, one indicator is the amount of opioids being prescribed, and this figure is alarming. Between 1999 and 2015, the amount of opioids prescribed per person in the United States tripled, with enough prescribed in 2015 for every American to be medicated continuously for three weeks.⁷ In 2016, Alan Krueger reported that nearly half of prime age men not in the labor force said they took pain medication on a daily basis. Krueger concluded that opioid availability could account for about 20 percent of the decline in the labor force participation of prime age males between 1999 and 2015 (Krueger, 2017).” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics



The Opioid Epidemic and the Labor Market

Heroin

“The abuse of prescription medication seems to be a gateway to heroin (Cicero et al., 2014), and there have been major changes in the supply of heroin since 2010. Most importantly, since 2013 heroin has increasingly been adulterated with the very dangerous synthetic opioid fentanyl (Ciccarone, 2017).⁸ Fentanyl is dangerous because it is 50 times more potent than heroin and 100 times more potent than morphine – just a small amount can cause breathing to stop. Another factor is that tolerance for opioids both ramps up and dissipates very rapidly, making it easy for someone who has relapsed to overdose (Hall, 2017). Since the market is completely unregulated, there is no way for consumers to know what is in their purchase, and fentanyl is not easily detected by the buyer (Katz, 2017).

Although the price of heroin was relatively stable between the late 1990s and 2010, we do see a clear downturn since 2010 (figure 3). This decrease in the price of heroin corresponds to a 143 percent increase in heroin seizures between 2010 and 2015 (US DEA, 2016a).” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

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The Opioid Epidemic and the Labor Market Heroin

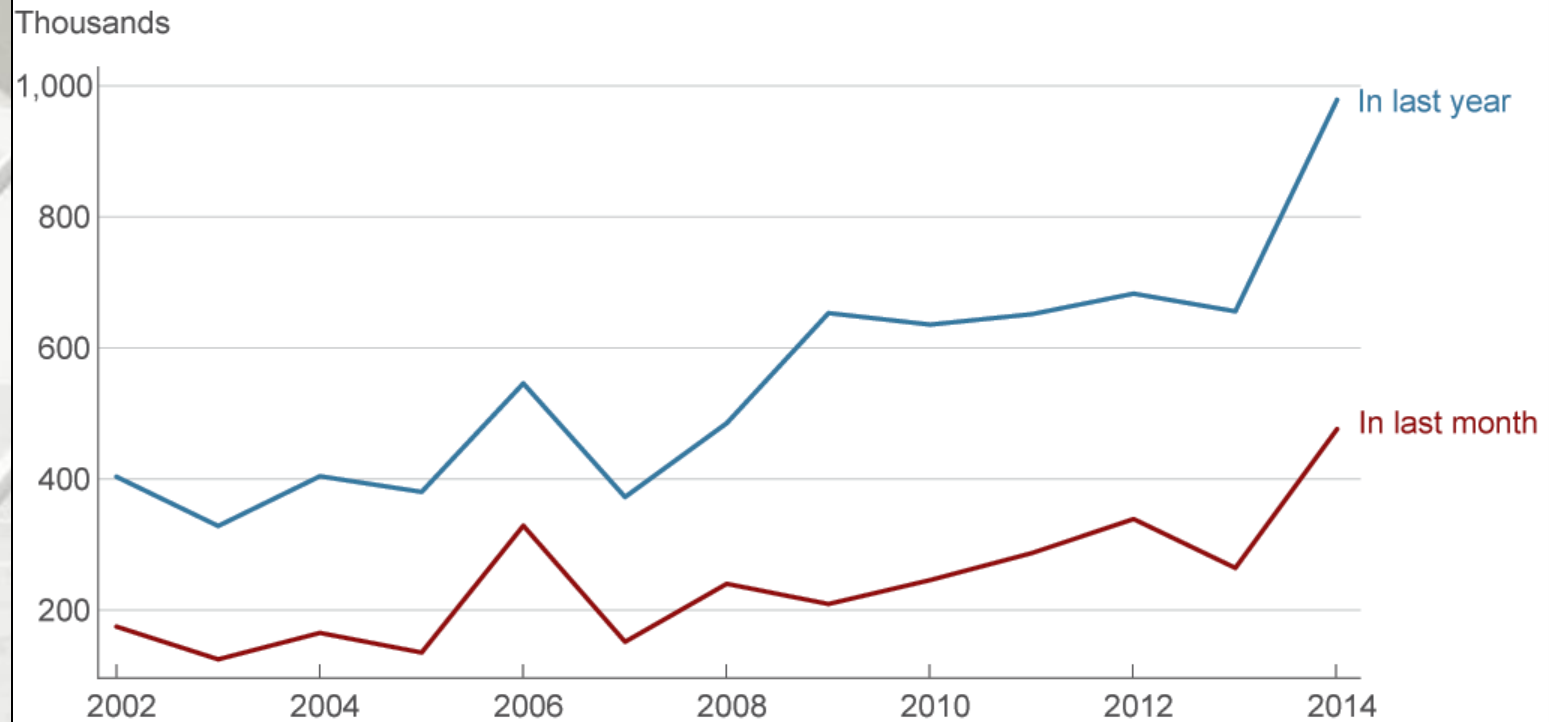
“Some of the best data on heroin use come from the National Surveys on Drug Use and Health (NSDUH).⁹ Self-reported heroin use in the NSDUH has increased steadily since 2007, slightly preceding the period over which death rates have increased and prices decreased (figure 4).

Measuring heroin use is particularly difficult, though, and the data we have are likely to understate usage rates. The NSDUH excludes persons in institutional group quarters (hospitals, prisons, nursing homes, treatment centers) and the military, totaling 2 percent of the US population. Heavy users (those who consume on 21 or more days each month) are therefore often excluded from the NSDUH.¹⁰ Kilmer et al. (2014) estimate that there were nearly 1-million Americans in the group of heavy users, rather than the 60,000 counted in the NSDUH.¹¹ One million heavy users would be enough to have serious implications for the labor market, as this number represents about one half of a percent of the US civilian labor force.

Kilmer et al. (2014) arrive at an estimate of heroin usage after carefully attempting to synthesize data from multiple sources. Two of the major data sources they use, the Arrestee Drug Abuse and Monitoring (ADAM) Program and the Drug Abuse Warning Network (tracking drug-related emergency room visits), have been discontinued. Our ability to efficiently respond to the opioid crisis is limited by our lack of understanding of basic facts about what is happening – this situation will not improve without access to data.” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics

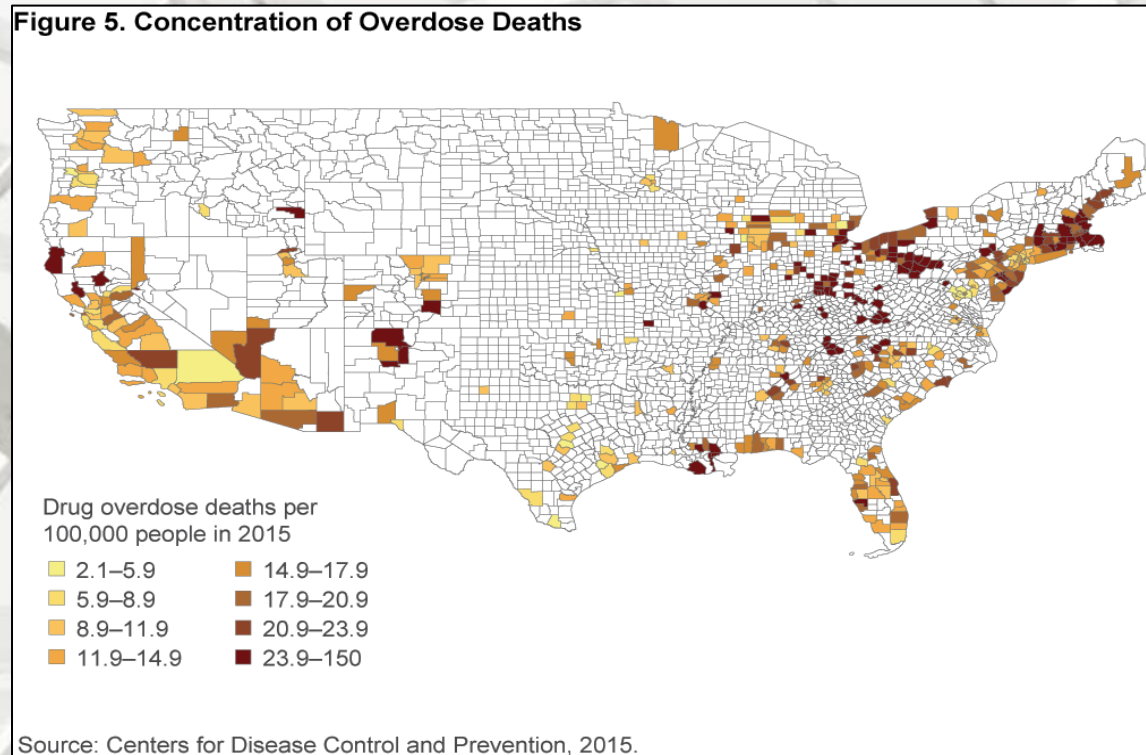
Figure 4. Last Use of Heroin



Source: National Surveys on Drug Use and Health, 2002–2014.

Demographics

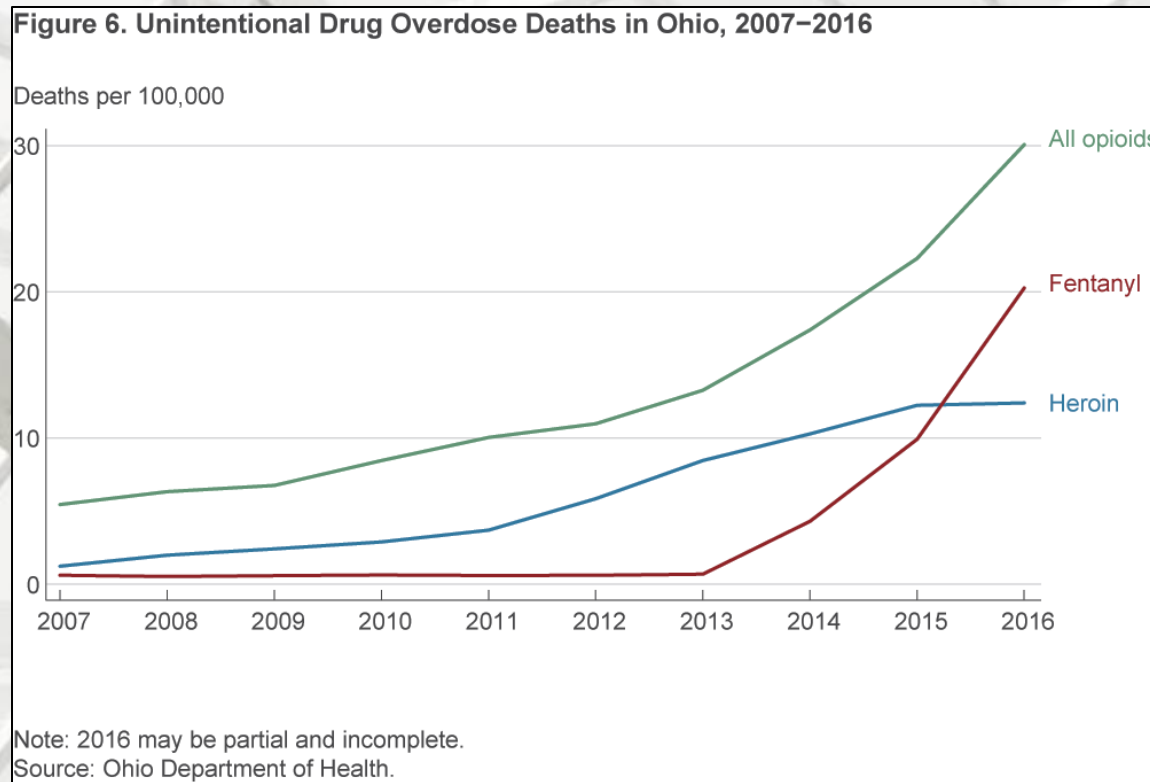
Figure 5. Concentration of Overdose Deaths



The Opioid Epidemic and the Labor Market The Fourth District

“The high rate of overdose deaths is spread across the country (figure 5). There are areas in the west and across the northeast that are hard-hit. The Fourth District is among the most affected areas. In Ohio, the hardest hit counties are in the southwest and northeast. Eastern Kentucky, western West Virginia, and western Pennsylvania all have high rates of overdose deaths.” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

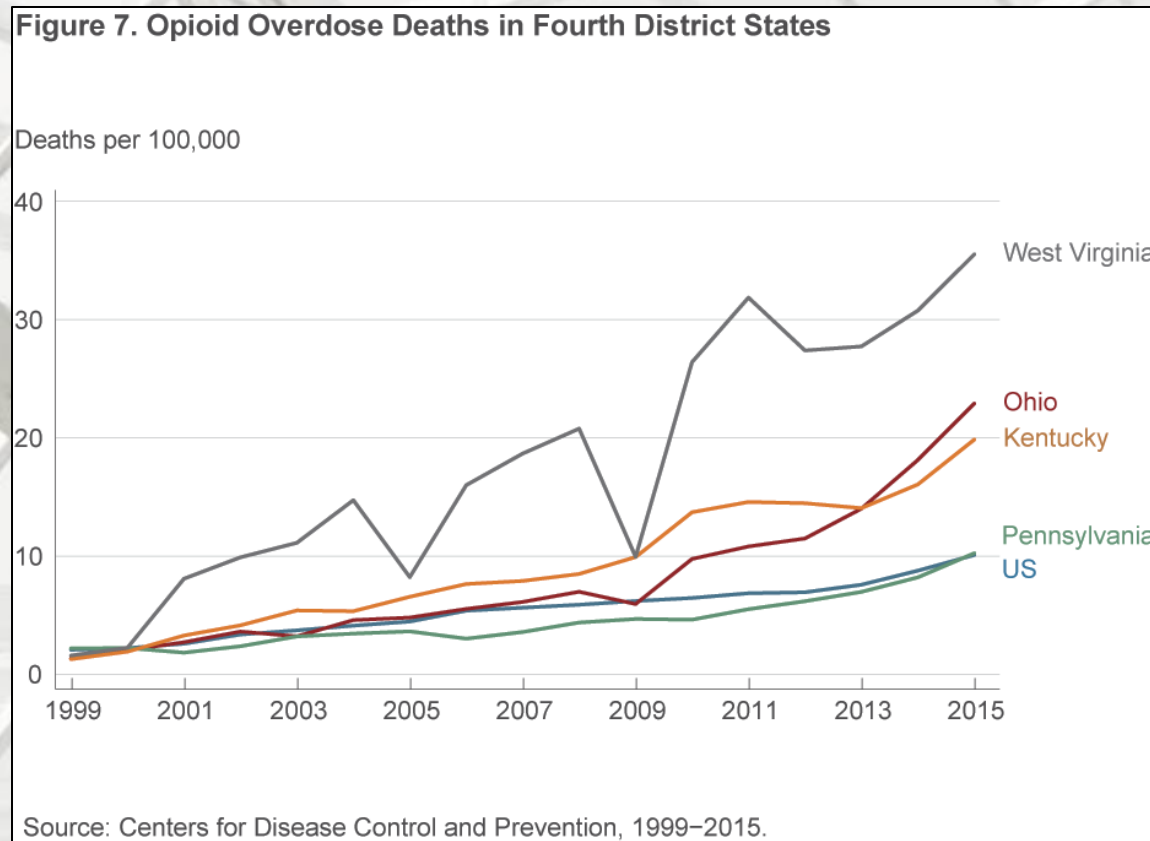
Demographics



The Opioid Epidemic and the Labor Market The Fourth District

“The time trends in overdose deaths in Ohio match those in the United States. Heroin deaths have increased continuously in Ohio since 2010, and fentanyl deaths have increased dramatically since 2013 (figure 6).” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics

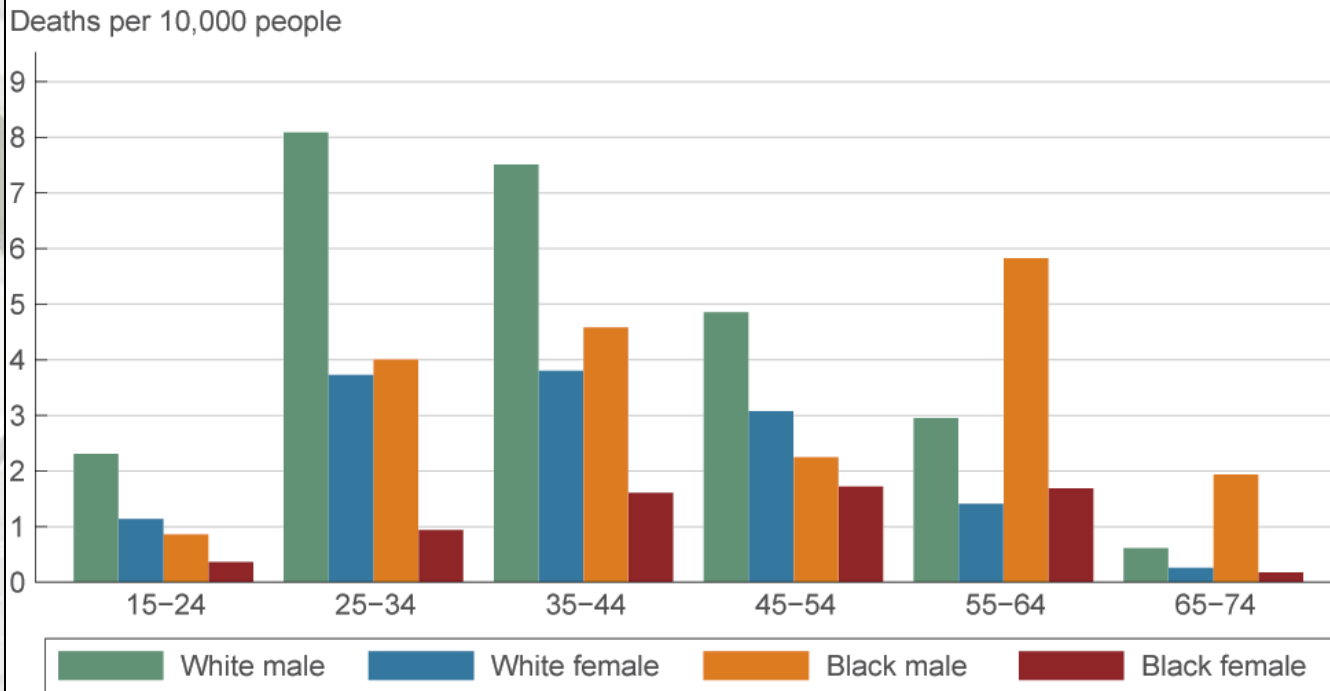


The Opioid Epidemic and the Labor Market The Fourth District

“Total overdose deaths from any opioid are occurring at a much higher rate in Fourth District states than the US rate (figure 7).” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics

Figure 8. Opioid-Related Overdose Deaths in Ohio, 2015



Source: Ohio Department of Health; Ohio Resident Mortality Data.

The Opioid Epidemic and the Labor Market

“Looking at the demographics of opioid use in Ohio, we see that males ages 25–54 have the highest rates of opioid overdose (figure 8).” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics

The Opioid Epidemic and the Labor Market

Conclusion

“With opioid usage so large and increasing, one naturally wants to know what effect it is having on the labor market. Just how much has the opioid epidemic weakened labor market outcomes, and conversely, has weak labor demand during and after the Great Recession contributed to the increase in opioid usage and overdose deaths? Answering these questions requires accurate information, but unfortunately, there are reasons to doubt the accuracy of the only data we have. Knowing the appropriate policy response to the opioid epidemic requires a better understanding of the epidemic’s scope, its underlying mechanisms, and its connections to the labor market. Our future work will continue to study the role of opioid addiction and the labor market in the Fourth District.” – Dionissi Aliprantis, Research Economist and Anne Chen, Research Analyst; The Federal Reserve Bank of Cleveland

Demographics

Fannie Mae

The Awakening of Millennial Homeownership

“Subdued homeownership demand among Millennials has helped to perpetuate a frustratingly slow housing recovery. With more than 88 million members, the Millennial generation has the sheer bulk needed to propel the housing recovery to a higher level and it now fills the 25-34 year-old age range that traditionally accounts for the most first-time home buyers. Despite their impressive numbers, Millennials' housing market impact has been muted because they have a lower likelihood of buying homes than prior generations.

The Great Recession undoubtedly slowed Millennials' initial ascent into homeownership. But now that the economy has been recovering for nearly a decade, have Millennials finally begun to increase their homeownership attainment? This Perspectives answers this question by analyzing newly released data from the Census Bureau's American Community Survey (ACS) and using two different change-measurement approaches that yield dramatically different views on the state of Millennial homeownership.” – Patrick Simmons, Director, Strategic Planning, Economic and Strategic Research Group, Fannie Mae and Dowell Myers, Professor of Policy, Planning, and Demography, University of Southern California

Demographics

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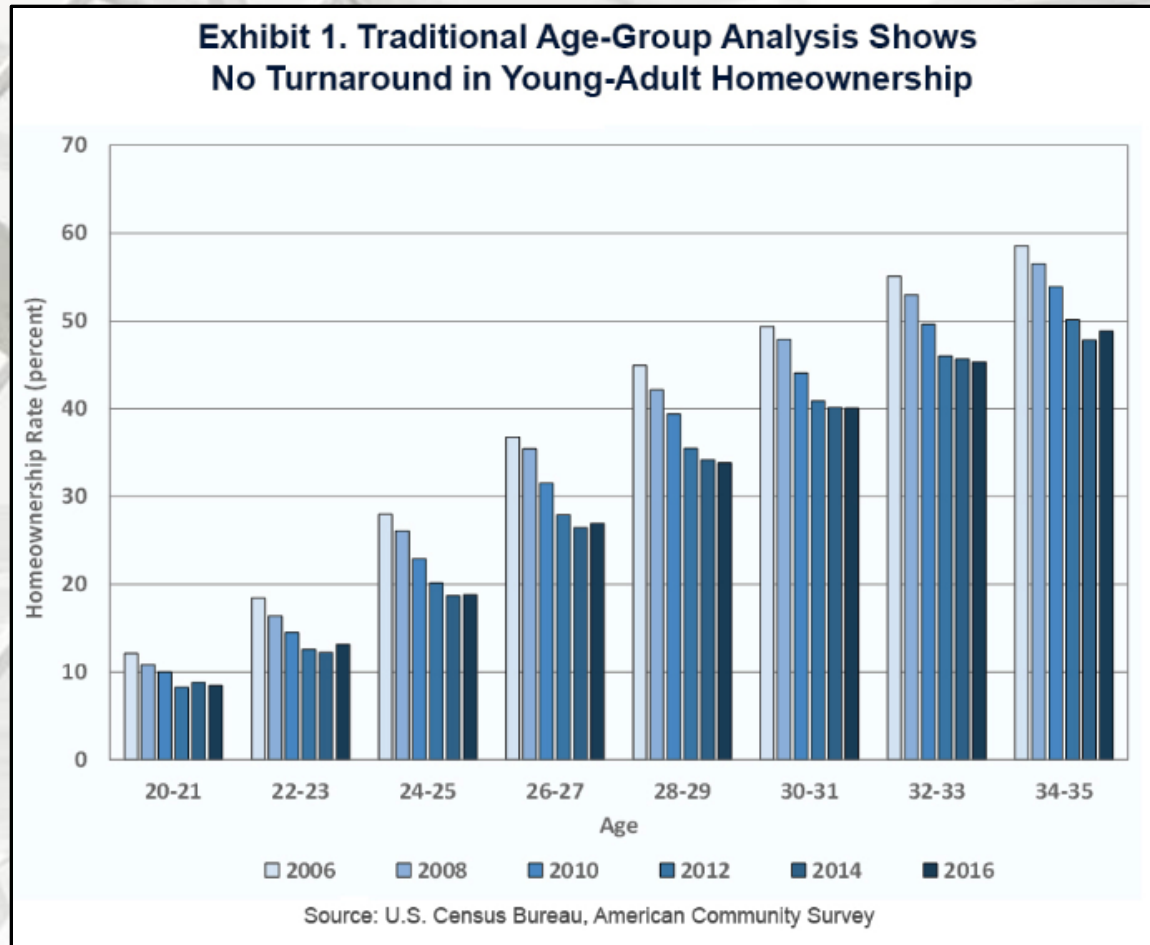
Traditional Age-Group Approach Suggests that Millennial Homeownership Demand Continues to Slumber

“Popular perceptions of young-adult homeownership trends have been shaped by a traditional analytical approach that tracks homeownership rates for fixed age groups. This “age-group” approach compares the cumulative homeownership attainment for different groups of individuals at the same age but at different points in time. Cumulative homeownership attainment at a given age reflects not only a group’s current rate of ascent into homeownership under prevailing economic conditions, but also the legacy of its past pace of advance under sometimes very different economic circumstances. This is certainly the case for Millennials in their 30s, whose current homeownership rate reflects not only recent home-buying activity in a healthy economy, but also earlier housing decisions made amidst one of the worst economic downturns in U.S. history.

Applying age-group analysis to the ACS data reveals no rebound in young-adult homeownership rates despite years of economic recovery (Exhibit 1). Although the decline in homeownership has slowed or ceased across the young-adult age spectrum, no age group has experienced a statistically significant homeownership rate rise. This is true even between 2014 and 2016, a period of healthy employment and income gains for young adults” – Patrick Simmons, Director, Strategic Planning, Economic and Strategic Research Group, Fannie Mae and Dowell Myers, Professor of Policy, Planning, and Demography, University of Southern California

Demographics

Exhibit 1. Traditional Age-Group Analysis Shows No Turnaround in Young-Adult Homeownership



Demographics

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Traditional Age-Group Approach Suggests that Millennial Homeownership Demand Continues to Slumber

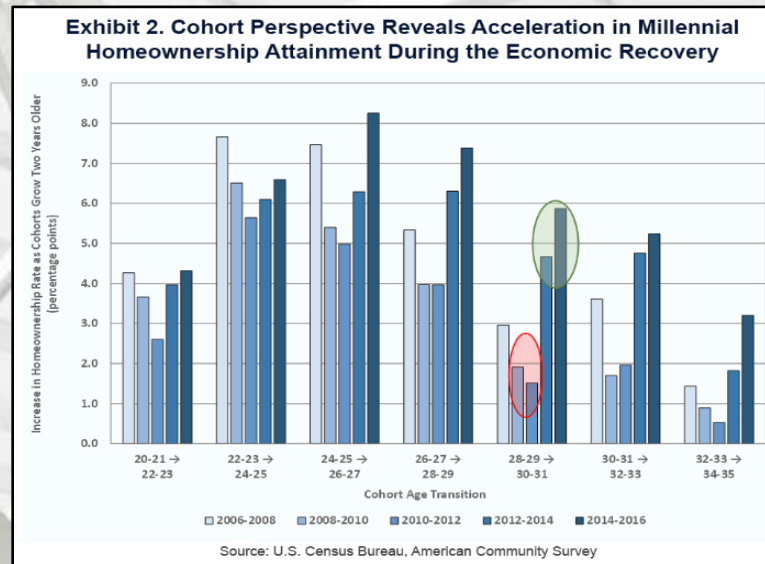
“The absence of a young-adult homeownership turnaround depicted by age-group analysis has two important consequences. First, it paints a gloomy outlook for Millennials’ future homeownership prospects, and by extension reinforces the belief that overall homeownership demand will remain in the doldrums for the foreseeable future. After all, if young-adult homeownership rates have yet to rebound after nearly a decade of economic growth, why should we expect a turnaround in the future?

Second, the lack of homeownership progress despite years of economic expansion leads some to conclude that Millennials’ homeownership preferences are fundamentally different from prior generations. According to this view, many Millennials remain renters by choice, the vanguards of a new “Renter Nation” for whom homeownership has lost its longstanding allure.

Cohort Perspective Reveals a Sharp Awakening of Millennial Homeownership

By focusing on cumulative homeownership attainment as of a given age, the traditional age-group approach confuses recent home purchasing behavior with housing tenure choices made many years ago. In contrast, an alternative method called “cohort analysis” allows us to disentangle current from past home-buying behaviors. Rather than focusing on cumulative homeownership attainment, cohort analysis tracks increments in the homeownership rate for a group of young people (cohort) as they grow older, advancing from one age group to the next. Homeownership rate increments for different cohorts passing through the same age range, but during different historical periods, can be compared, thus allowing us to determine if recent young-adult home-buying activity has quickened as the economy has improved.” – Patrick Simmons, Director, Strategic Planning, Economic and Strategic Research Group, Fannie Mae and Dowell Myers, Professor of Policy, Planning, and Demography, University of Southern California

Demographics



Cohort Perspective Reveals a Sharp Awakening of Millennial Homeownership

“Cohort analysis shows that the pace of young-adult home purchases accelerated substantially during the economic recovery, beginning first between 2012 and 2014, and then quickening further through 2016 (Exhibit 2). For example, those aging between 28-29 and 30-31 experienced homeownership rate increments during the economic recovery of almost 5 percentage points between 2012 and 2014 and nearly 6 percentage points between 2014 and 2016 (see green oval in Exhibit 2). These homeownership rate gains were two to four times greater than the gains registered by the two older cohorts passing through the same age range between 2008-2010 and between 2010-2012 (see red oval in Exhibit 2), periods encompassing the worst of the recession and the weakest part of the housing recovery. Indeed, for every age transition above 22-23→24-25, the cohort homeownership rate increases between 2014 and 2016 were significantly greater than the gains registered from either 2008-2010 or 2010-2012.” – Patrick Simmons, Director, Strategic Planning, Economic and Strategic Research Group, Fannie Mae and Dowell Myers, Professor of Policy, Planning, and Demography, University of Southern California

Demographics

Cohort Perspective Reveals a Sharp Awakening of Millennial Homeownership

“Compared with the age-group approach, the cohort perspective suggests a more optimistic outlook for Millennial homeownership. With their recently accelerated ascent into homeownership, Millennials have already begun to close the homeownership attainment gap with their predecessors. If this acceleration continues, traditional age-group analysis will eventually show an upturn in young-adult homeownership rates.

The cohort perspective also casts doubt on the proposition that Millennials have diminished preferences for homeownership. Millennial homeownership attainment in very recent years has upshifted substantially in response to improvements in the economy, consistent with attitudinal surveys indicating that young adults maintain very positive perceptions of homeownership.

Could Supply Constraints Derail the Millennial Homeownership Recovery?

The cohort perspective points to a budding Millennial homeownership recovery that was gaining momentum through 2016, the latest year of ACS data. However, since then some housing market headwinds have strengthened, not the least of which is an increasingly severe housing supply shortage. Forthcoming research from Fannie Mae’s Economic & Strategic Research Group will continue to explore the Millennial homeownership rebound, including an investigation of the roles of housing supply and other factors in shaping regional variations in the pace of recovery. This future work should not only help us to better understand the geography of the Millennial homeownership awakening, but also hopefully provide some insights into its likely durability in the face of intensifying housing market challenges.” – Patrick Simmons, Director, Strategic Planning, Economic and Strategic Research Group, Fannie Mae and Dowell Myers, Professor of Policy, Planning, and Demography, University of Southern California

Economics

Fannie Mae

More People Work in the Gig Economy Than You Might Think – and Many Want to Own Homes

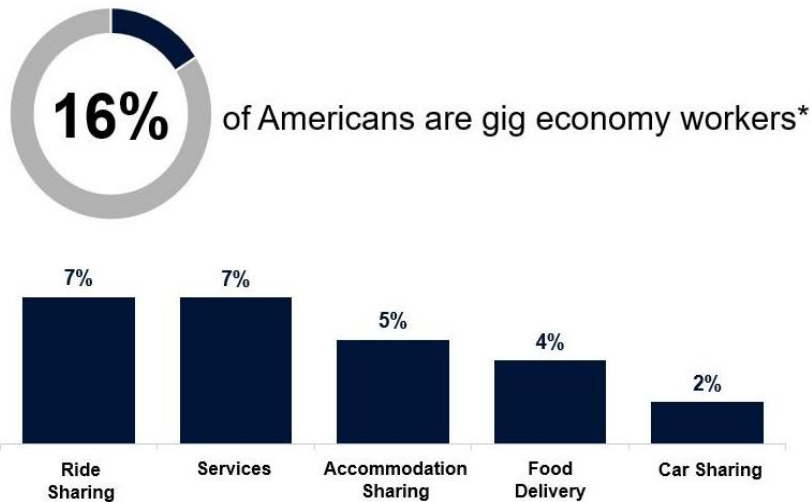
“The online, on-demand economy for services such as ride sharing, accommodation sharing, and others – known as the gig economy – is growing. Through Fannie Mae’s third quarter National Housing Survey[®], we sought to understand the extent of that growth and how it may impact attitudes towards homeownership. The survey found that nearly one-fifth of American adults have provided a service through the gig economy. At the same time, while gig economy workers are generally more optimistic about their financial position overall and aspire to own a home, gig economy workers who rent are less optimistic than non-gig economy workers who rent that they will buy a home on their next move.

As a growing part of the workforce, gig economy workers generally have full-time employment, are college educated, use the gig economy to supplement their income, and make about \$50,000 or more per year in total. Most gig economy workers have only offered one service, but Millennials are more likely than older age groups to have offered more than one gig economy service. Gig economy workers more frequently offer ride sharing and handyman/babysitting services, though about one-quarter offer accommodation sharing or food delivery services. Most gig economy workers are motivated by the possibility of earning additional income or being their own bosses. Gig economy workers report increased household incomes and have a more positive financial outlook than non-gig economy workers.” – Tom Seidenstein and Sarah Shahdad, Market Insights Research, Economic and Strategic Research Group, Fannie Mae

Economics

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“Nearly one-fifth of American adults work in the gig economy. Most are employed full-time and college educated, about half make \$50,000 or more per year.” – Tom Seidenstein and Sarah Shahdad, Market Insights Research, Economic and Strategic Research Group, Fannie Mae



*“Gig economy workers” have offered at least one service

Gig Economy Worker Profile



44% are ages **18-34**



51% make **\$50k or more** in total



66% have received at least some college education



83% are **employed full-time**
(possibly, but not necessarily, via the gig economy)

Economics

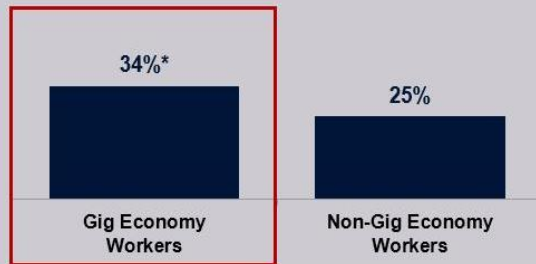
Fannie Mae

“Gig economy workers report increased household incomes and have a more positive financial outlook than non-gig economy workers.” – Tom Seidenstein and Sarah Shahdad, Market Insights Research, Economic and Strategic Research Group, Fannie Mae

Household Income Over the Past 12 Months
Showing % Significantly Higher Now



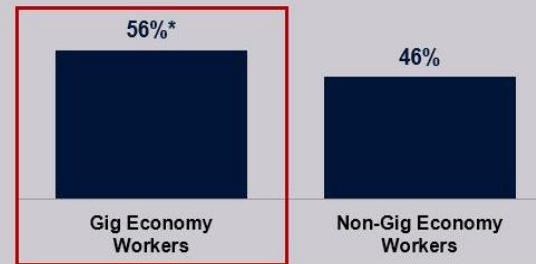
34% of gig economy workers report higher household incomes compared to 12 months ago



Future Financial Expectations
Showing % Somewhat Better + Much Better



44% of gig economy workers think their financial situations will improve in the coming year



Q: How does your current monthly household income compare to what it was twelve months ago? / Q: Looking ahead one year, do you expect your personal financial situation to get much better, somewhat better, stay about the same, get somewhat worse, or get much worse?

Economics

“Gig economy workers who rent are about as likely as other renters to prefer homeownership to renting.” – Tom Seidenstein and Sarah Shahdad, Market Insights Research, Economic and Strategic Research Group, Fannie Mae

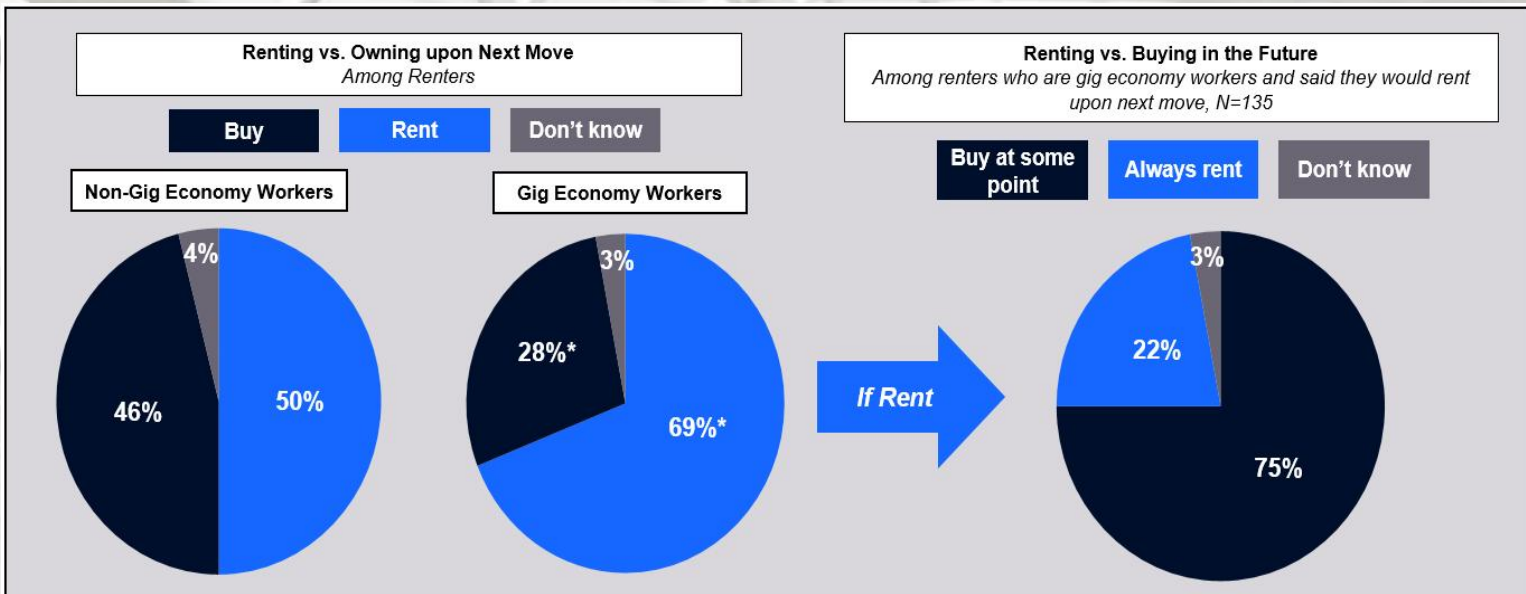


“Gig economy workers who rent are about as likely as other renters to prefer homeownership to renting, but they are less likely than other renters to think it is a good time to purchase a home or to say they will buy a home when they next move. This comes despite evidence that the vast majority of gig economy workers who rent expect to buy a home at some point in the future. Indeed, most gig economy workers who rent think it would be difficult to get a mortgage and cite down payment and credit as the biggest obstacles to getting one. One area for further research is to determine to what extent current underwriting standards sufficiently account for the potential of gig economy income to supplement other full-time income sources. And the salience of this research question will grow if gig economy participation continues to grow.” – Tom Seidenstein and Sarah Shahdad, Market Insights Research, Economic and Strategic Research Group, Fannie Mae

Economics

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“Gig economy workers who rent are less likely than other renters to say they will buy a home when they next move, though a vast majority expect to buy a home at some point in the future.” – Tom Seidenstein and Sarah Shahdad, Market Insights Research, Economic and Strategic Research Group, Fannie Mae



Q. If you were going to move, would you be more likely to...? / Q. [If rent on next move] In the future, are you more likely to...?

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