

The Virginia Tech – U.S. Forest Service

August 2017

Housing Commentary: Section II



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Table of Contents

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

Slide 30: [Private Indicators](#)

Slide 60: [Demographics](#)

Slide 76: [Economics](#)

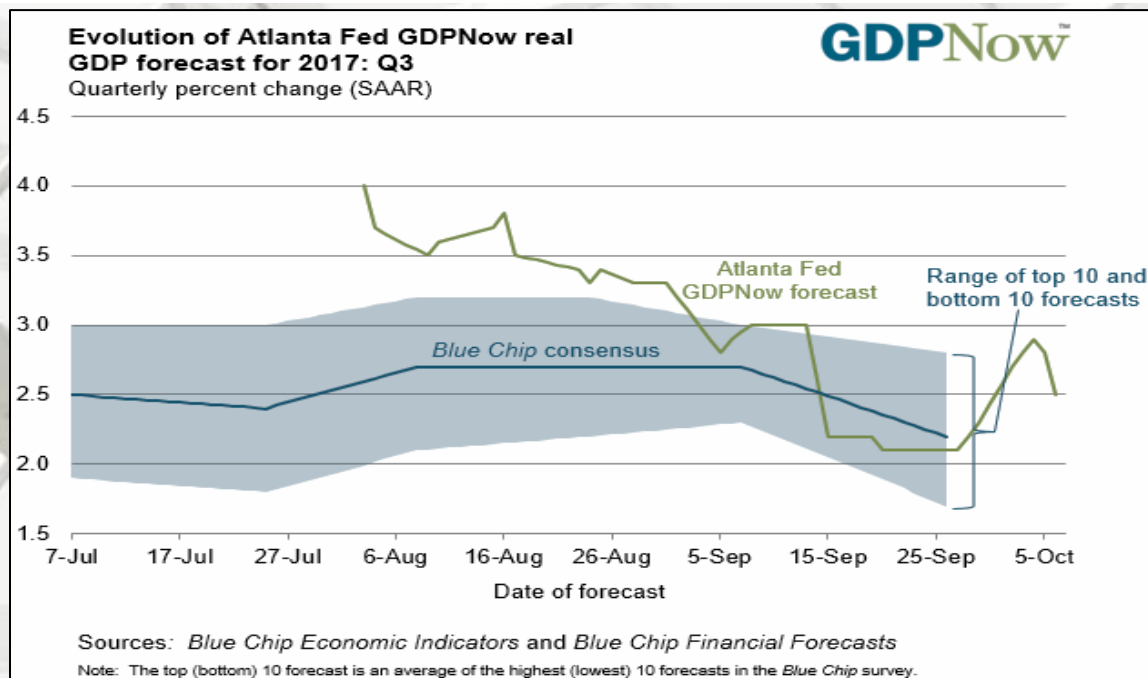
Slide 93: [Virginia Tech Disclaimer](#)

Slide 94: [USDA Disclaimer](#)



Federal Reserve System and Private Indicators

U.S. Economic Indicators

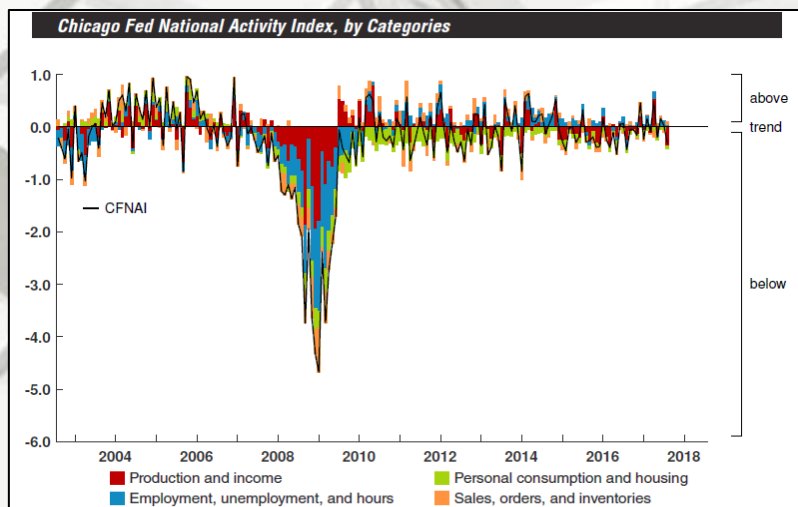


Atlanta Fed GDPNow™

Latest forecast: 2.5 percent — October 6, 2017

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the third quarter of 2017 is **2.5** percent on October 6, down from 2.8 percent on October 5. The forecasts of third-quarter real consumer spending growth and third-quarter real private fixed investment growth declined from 2.5 percent and 1.8 percent, respectively, to 2.2 percent and 0.9 percent, respectively, after this morning's employment report from the U.S. Bureau of Labor Statistics. The model's estimate of the dynamic factor for September—normalized to have mean 0 and standard deviation 1 and used to forecast the yet-to-be released monthly GDP source data — fell from 1.53 to 0.18 after the report.” – Pat Higgins, Economist, Federal Reserve Bank of Atlanta

Chicago Fed: National Activity Index



Midwest Economy Index

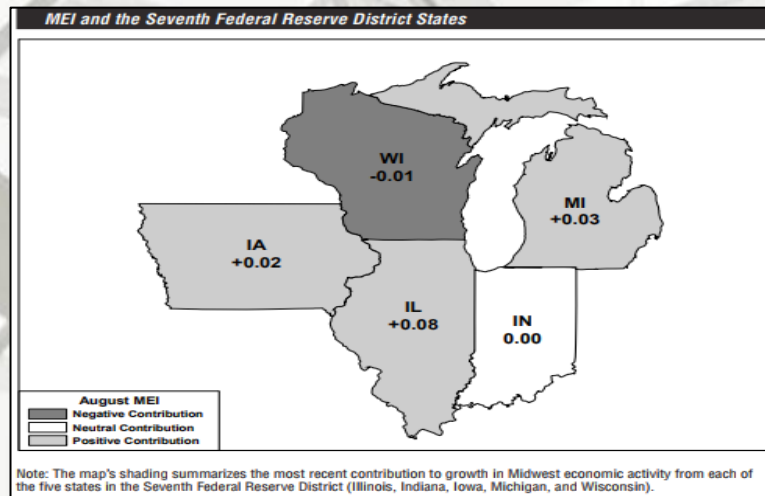
“Led by declines in production-related indicators, the Chicago Fed National Activity Index (CFNAI) moved down to -0.31 in August from $+0.03$ in July. Two of the four broad categories of indicators that make up the index decreased from July, and two of the four categories made negative contributions to the index in August. The index’s three-month moving average, CFNAI-MA3, decreased to -0.04 in August from a neutral reading in July.

Index points to slower economic growth in August

The contribution from production-related indicators to the CFNAI decreased to -0.02 in August from $+0.03$ in June. Manufacturing industrial production decreased 0.1 percent in August after increasing 0.2 percent in June; however, total industrial production increased 0.2 percent in August after moving up 0.4 percent in June. The sales, orders, and inventories category made a contribution of -0.01 to the CFNAI in August, down from $+0.06$ in June. The CFNAI Diffusion Index, which is also a three-month moving average, was unchanged at -0.01 in August. 50 made negative contributions. Forty-five indicators improved from July to August, while 40 indicators deteriorated. Of the indicators that improved, 14 made negative contributions.

The contribution from production-related indicators to the CFNAI decreased to -0.36 in August from $+0.03$ in July. Total industrial production declined 0.9 percent in August after moving up 0.4 percent in July. Personal consumption and housing-related indicators also made a negative contribution to the CFNAI in August — unchanged from July at -0.06 . Housing starts decreased slightly to 1,180,000 annualized units in August from 1,190,000 in July.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index



Midwest Economy Index

“The Midwest Economy Index (MEI) decreased to +0.10 in August from +0.30 in July.

Contributions to the August MEI from three of the four broad sectors of nonfarm business activity and four of the five Seventh Federal Reserve District states declined from July. The relative MEI ticked up to -0.14 in August from -0.16 in July. Contributions to the August relative MEI from two of the four sectors and two of the five states increased from July

Index Points to Slower Midwest Economic Growth Again in August

The **manufacturing sector's** contribution to the MEI moved down to +0.25 in August from +0.34 in July. The pace of manufacturing activity decreased in Illinois, Iowa, Michigan, and Wisconsin, but was unchanged in Indiana. Manufacturing's contribution to the relative MEI ticked up to +0.25 in August from +0.24 in July. The **construction and mining sector's** contribution to the MEI edged down to -0.09 in August from -0.06 in July. The pace of construction and mining activity was slower in Indiana, Michigan, and Wisconsin, but higher in Illinois and unchanged in Iowa. Construction and mining made a contribution of -0.11 to the relative MEI in August, down from -0.09 in July.

The **service sector** made a contribution of -0.04 to the MEI in August, up slightly from -0.06 in July. The pace of service sector activity was up in Indiana, Iowa, and Michigan, but down in Wisconsin and unchanged in Illinois. The service sector's contribution to the relative MEI increased to -0.23 in August from -0.34 in July. The contribution from **consumer spending indicators** to the MEI decreased to -0.02 in August from +0.09 in July. Consumer spending indicators were, on balance, down in all five Seventh District states. Consumer spending's contribution to the relative MEI decreased to -0.06 in August from +0.02 in July.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Fourth District Beige Book

Summary of Economic Activity

Aggregate business activity grew at a moderate pace in the Fourth District since our last report, an improvement from the modest growth seen in the prior period. Labor markets expanded, with wage pressures reported primarily in the construction, manufacturing, and energy sectors. Upward pressure on prices paid was prevalent in the construction industry. Freight carriers and construction contractors increased billing rates and reported little pushback. Consumer spending at brick-and-mortar establishments rose slightly, while new motor vehicle sales strengthened. Manufacturing activity grew slightly overall, but production at District motor vehicle assembly plants trended lower. Nonfinancial services firms saw moderate gains in activity. Year-to-date residential real estate unit sales stayed above year-ago levels and selling prices were higher. Activity in the commercial real estate market remained elevated.

Employment and Wages

District payrolls continued to expand, although at a slower pace than in the previous reporting period. Staffing increases were notable in the manufacturing and construction sectors. In contrast, energy firms and brick-and-mortar retailers described payrolls as flat. Several industrial products manufacturers filled openings that had previously been left vacant, or they created new positions because of rising demand and an improving outlook for sustained business growth. Construction contractors reported a shortage of experienced labor, making it difficult to fill newly created positions. To be in compliance with newly enacted electronic logging regulations, freight carriers anticipate adding drivers in order to maintain capacity. Wage pressures were felt primarily in the construction, manufacturing, and energy sectors in response to employee turnover. Mid-year wage increases were widespread in most other industry sectors.”
– The Federal Reserve Bank of Cleveland

Fourth District Beige Book

Consumer Spending

“Consumer spending at brick-and-mortar department stores rose slightly during the period, whereas revenue growth at specialty stores was characterized as flat or lower. Contacts reported that revenue gains from online shopping have not yet offset declines from brick -and-mortar operations. Retailers were satisfied with sales of furniture, food, and women’s apparel. Purchases of electronics products remained soft. Year-to-date unit sales through July of new motor vehicles increased about 3 percent compared to those of a year ago. Auto dealers are concerned about above-normal inventories. Customers are reportedly waiting for higher OEM incentives.

Industrial Production

Overall activity in the manufacturing sector picked up slightly during the period. Factors contributing to the expansion included strong demand for construction materials, rising activity in upstream oil and gas markets, and rising exports to China. The latter was attributed to strong infrastructure spending in that country. In contrast, demand for consumer packaged products and capital goods was weaker than expected. Year-to-date production through July at District auto assembly plants declined more than 16 percent when compared to that of the same period a year earlier. Much of the decline can be attributed to retooling for three next-generation vehicles. Even with the decrease in auto production, some OEM suppliers reported satisfaction with their order books. Allocations of capital monies for plant expansion and product development rose. Many of our contacts are bullish in their outlook for the economy. However, some have tempered their outlook during the past few months, citing slowing demand from the transportation sector.

Reports through July indicated that the number of drilling rigs operating in the District increased significantly compared with that of a year ago. Natural gas output remains at historic highs. Thermal coal production declined because of reduced demand from a warmer-than-average 2016-2017 winter.” – The Federal Reserve Bank of Cleveland

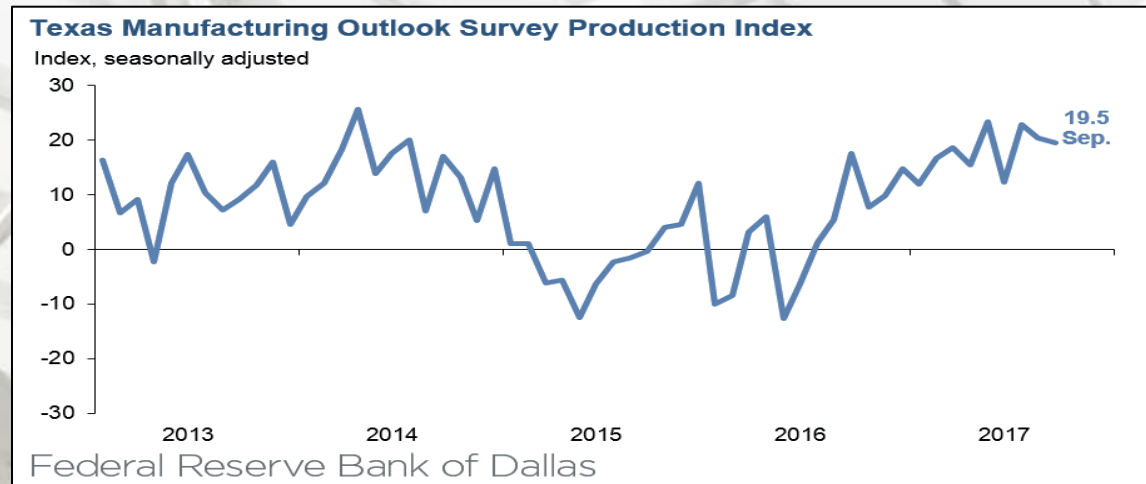
Fourth District Beige Book

Real Estate and Construction

“Year-to-date unit sales through July of new and existing single-family homes increased 1.5 percent compared to those of a year earlier. The average sales price rose almost 5 percent. A softening in the new-home market was attributed to rising list prices. Homebuilders cited a shift in buyer preference from homes in the move-up price point categories to those in the lower price points. One builder described this sudden shift as unusual. Slightly higher interest rates were not seen as a deterrent for purchasing a house. Although demand has softened, estimates of single-family construction starts for the first half of the year are more than 5 percent higher compared to those of a year earlier.

Nonresidential real estate activity generally remains at an elevated level. Building contractors reported strong backlogs, though inquiries are beginning to show signs of slowing. The highest demand was for commercial property development, including office buildings, and public infrastructure projects. Office vacancy rates are stable, and asking rents are slowly rising. A strong increase was reported in selling prices for office properties during the first half of 2017 compared to those of a year ago. Reports indicated a slowing in the construction of multifamily housing, as lenders and investors are considering pulling back from commitments to multifamily development projects. Apartment rental increases were described as moderate to strong.” – The Federal Reserve Bank of Cleveland

U.S. Economic Indicators



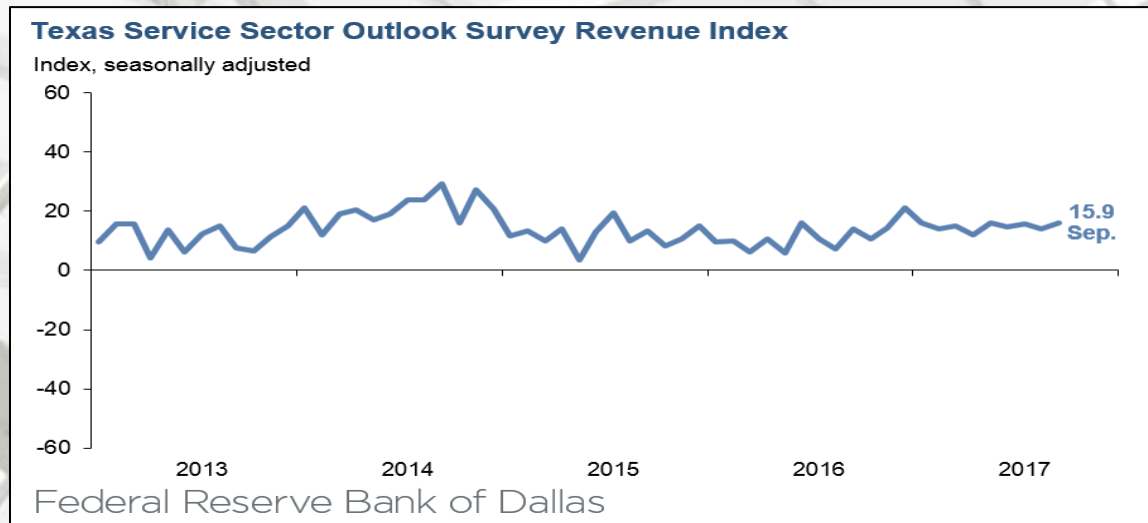
Growth in Texas Manufacturing Activity Holds Steady

“Texas factory activity continued to increase in September, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index, a key measure of state manufacturing conditions, edged down to 19.5 from 20.3 in August, indicating output grew at about the same pace as last month.

Other measures of current manufacturing activity also indicated continued growth. The new orders index increased and the growth rate of orders index ticked down but stayed positive, coming in at 18.6 and 9.7, respectively. The capacity utilization index edged up four points to 15.8, while the shipments index jumped nine points to 27.4.

Perceptions of broader business conditions improved in September. The general business activity index increased to 21.3, its highest reading in seven months. The company outlook index posted its 13th consecutive positive reading, jumping nine points to 25.6. Expectations regarding future business conditions continued to improve. The indexes of future general business activity and future company outlook remained elevated at 34.5 and 39.9, respectively. Other indexes for future manufacturing activity showed mixed movements but remained solidly in positive territory.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



Texas Service Sector Activity Strengthens Further

“Texas service sector growth picked up slightly in September, according to business executives responding to the *Texas Service Sector Outlook Survey*. The revenue index, a key measure of state service sector conditions, edged up from 14.2 in August to 15.9 in September.

Labor market indicators reflected slower employment growth and slightly longer workweeks this month. The employment index moved down a point to 3.5. The hours worked index fell from 8.3 to 2.7. Perceptions of broader economic conditions reflected less optimism in September. The general business activity index dipped three points to 12.4. The company outlook index dropped eight points to 7.7, with 21 percent of respondents reporting that their outlook improved from last month and 14 percent noting it worsened. Respondents’ expectations regarding future business conditions reflected more optimism in September. The index of future general business activity rose from 21.3 to 28.0. The index of future company outlook moved up three points to 29.4. Indexes of future service sector activity, such as future revenue and employment, continued to reflect optimism this month.” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



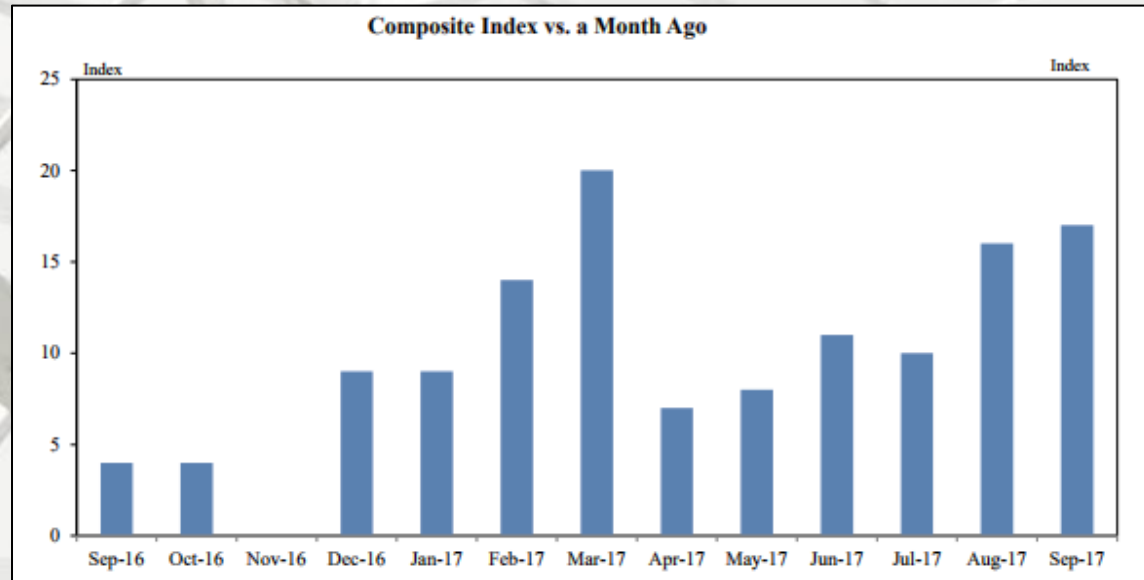
Retail Sales Growth Improves

“Retail sales improved notably again in September, according to business executives responding to the *Texas Retail Outlook Survey*. The sales index surged 16 points to 32.8 in September, its highest reading in three years. Inventories increased at a slower pace this month.

Labor market measures indicated slight employment gains and longer workweeks this month. The employment index edged up to 0.9. The hours worked index fell from 11.3 to 5.1.

Retailers’ perceptions of broader economic conditions reflected more optimism in September. The general business activity index jumped from 9.7 to 19.3. The company outlook index surged 14 points to 22.8, with 31 percent of respondents reporting that their outlook improved from last month and 8 percent noting it worsened. Retailers’ perceptions of future broader economic conditions reflected more optimism in September. The index of future general business activity rose sharply from 11.6 to 31.2. The index of future company outlook advanced 13 points to 31.1, its highest reading this year. Indexes of future retail sector activity continued to reflect optimism this month.” – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Activity Continued To Expand Solidly

“Tenth District manufacturing activity continued to expand solidly in September, and expectations for future activity also remained positive. Most price indexes increased modestly, with the exception of future selling prices which eased slightly. The month-over-month composite index was 17 in September, up from 16 in August and 10 in July (Chart).”

– Pam Campbell, Federal Reserve Bank of Kansas City

“Factories in the region reported another good month in September, with little impact overall from the Gulf Coast hurricanes.” – Chad Wilkerson, Vice President and Economist, Federal Reserve Bank of Kansas City

U.S. Economic Indicators

The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Expanded Moderately

“The year-over-year factory indexes were mixed in August. The composite index was unchanged at 23, while the production, shipments, new orders, and order backlog indexes eased slightly but remained well above zero. However, the employment index was stable at 22, and the capital expenditures index rose from 15 to 21. The raw materials inventory index increased from 10 to 19, while the finished goods inventory index was basically unchanged.

Expectations for future factory activity edged higher after easing slightly last month, and remained solid overall. The future composite index rose from 110 to 23, and the future production, shipments, new orders, and order backlog indexes all increased slightly. The future employment index was unchanged at 26, while the future capital expenditures index inched higher from 16 to 19. The future raw materials inventory index decreased from 4 to -2, and the future finished goods inventory index also fell into negative territory.

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

U.S. Economic Indicators

Empire State Manufacturing Survey

Brisk Pace of Growth Continues

“Business activity continued to grow strongly in New York State, according to firms responding to the September 2017 *Empire State Manufacturing Survey*. The headline general business conditions index held steady at 24.4. The new orders index rose four points to 24.9 and the shipments index climbed four points to 16.2, pointing to ongoing solid gains in orders and shipments. Unfilled orders increased, and delivery times continued to lengthen. Labor market indicators pointed to a modest increase in employment and hours worked. Both input prices and selling prices rose at a faster pace than last month. Indexes assessing the six-month outlook suggested that firms remained optimistic about future conditions.

Manufacturing firms in New York State reported that business activity continued to expand strongly in September. After reaching a three-year high in August, the general business conditions index held steady at 24.4. Forty percent of respondents reported that conditions had improved over the month, while 16 percent reported that conditions had worsened. The new orders index climbed four points to 24.9, pointing to another month of solid gains in orders, and the shipments index advanced to 16.2. The unfilled orders index moved out of negative territory, its fourteen-point rise to 8.9 signaling an increase in unfilled orders. The delivery time index rose nine points to 14.6, pointing to longer deliver times, and the inventories index rose to 6.5, a sign that inventory levels were somewhat higher.

Firms Remain Optimistic

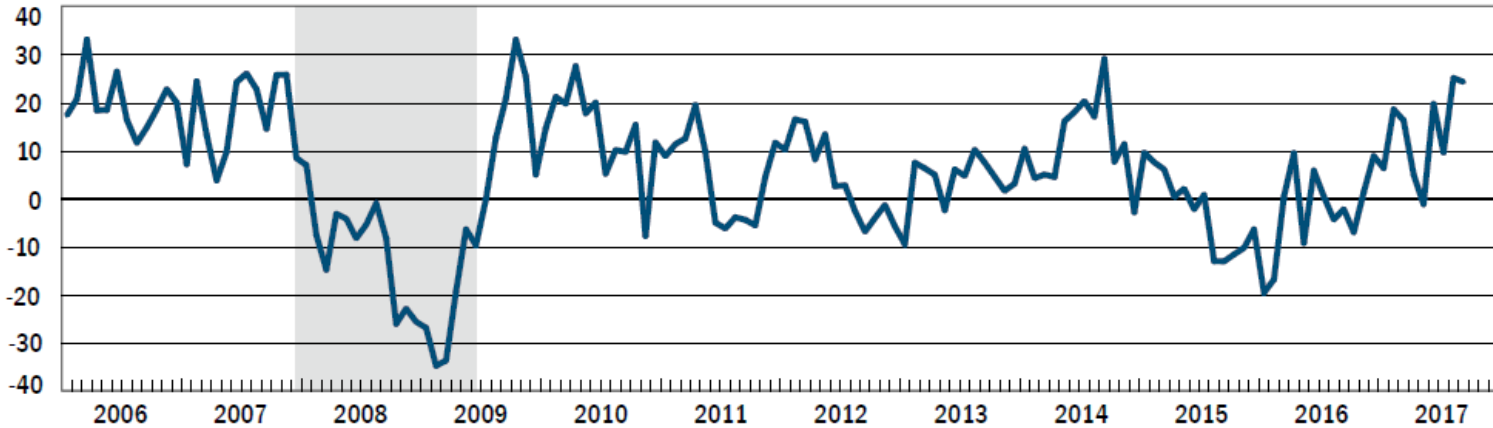
Indexes assessing the six-month outlook suggested that firms continued to be optimistic about future conditions. The index for future business conditions came in at 39.3, and the index for future new orders edged up two points to 43.7. Employment was expected to increase modestly. The capital expenditures index climbed thirteen points to 24.4, and the technology spending index moved up to 17.1.” – Federal Reserve Bank of New York

U.S. Economic Indicators

General Business Conditions

Seasonally Adjusted

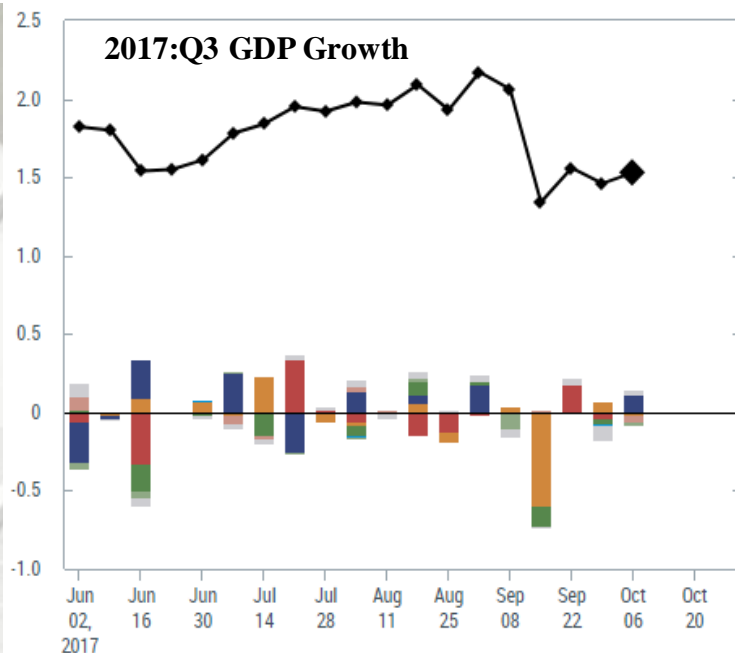
Diffusion index



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

U.S. Economic Indicators

The Federal Reserve Bank of New York



Notes: Colored bars reflect the relative impact of each data release on the Nowcast.

Source: Authors' calculations.

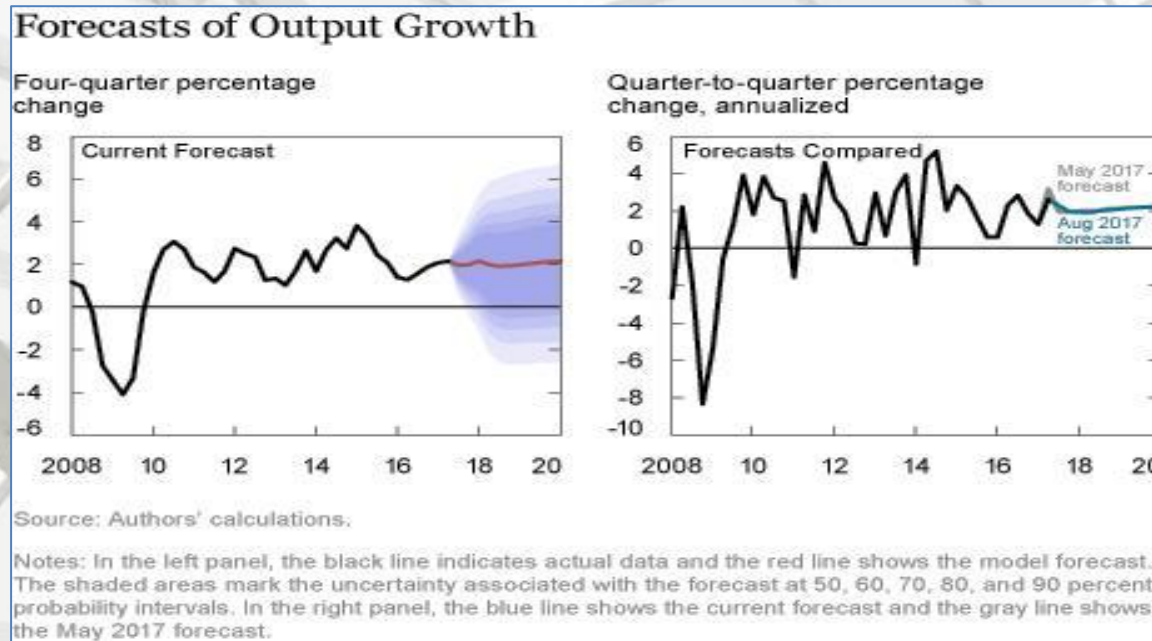
Data Flow (Oct 06, 2017)

| Model Update | Release Date | Data Series | Actual | Impact | Nowcast GDP Growth |
|--------------|----------------|--|--------|--------|--------------------|
| Oct 06 | | | | | 1.53 |
| | 8:30AM Oct 06 | Civilian unemployment rate | -0.20 | 0.02 | |
| | 8:30AM Oct 06 | All Employees: Total nonfarm | -33.00 | -0.03 | |
| | 10:00AM Oct 05 | Total business inventories | 0.71 | -0.01 | |
| | 8:30AM Oct 05 | Imports: Goods and services | -0.15 | -0.03 | |
| | 8:30AM Oct 05 | Exports: Goods and services | 0.42 | -0.00 | |
| | 10:00AM Oct 04 | ISM non-mfg.: NMI composite index | 59.80 | 0.01 | |
| | 8:10AM Oct 04 | ADP nonfarm private payroll employment | 136.00 | -0.03 | |
| | 10:00AM Oct 02 | ISM mfg.: Employment index | 60.30 | 0.01 | |
| | 10:00AM Oct 02 | ISM mfg.: Prices index | 71.50 | 0.03 | |
| | 10:00AM Oct 02 | ISM mfg.: PMI composite index | 60.80 | 0.06 | |
| | 10:00AM Oct 02 | Value of construction put in place | 0.50 | 0.01 | |
| | | Data revisions | | 0.01 | |
| | | Parameter revisions | | 0.02 | |
| Sep 29 | | | | | 1.46 |

September 15, 2017: Highlights

- “The New York Fed Staff Nowcast stands at 1.5% for 2017:Q3 and 2.5% for 2017:Q4.” – The Federal Reserve Bank of New York

U.S. Economic Indicators



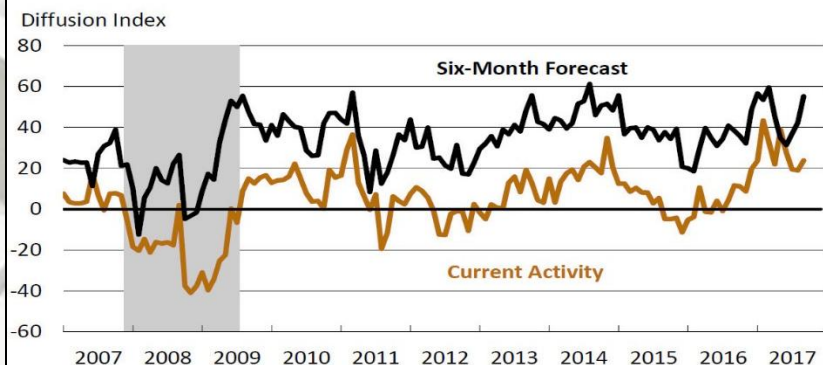
| Model Forecast | | | | | | | | | |
|------------------------------------|------|-----|------|-----|------|-----|------|-----|--|
| | 2017 | | 2018 | | 2019 | | 2020 | | |
| | Aug | May | Aug | May | Aug | May | Aug | May | |
| GDP growth (Q4/Q4) | 2.0 | 1.9 | 1.9 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | |
|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

The New York Fed DSGE Model Forecast — August 2017

“The current GDP growth forecast is essentially in line with May’s projection. GDP growth is projected to be about 2.0 percent in 2017 and 2019 (in Q4/Q4 terms) and to pick up modestly in the following years.” – Michael Cai, Marc Giannoni, Abhi Gupta, Pearl Li, and Argia Sbordone, The Federal Reserve Bank of New York

U.S. Economic Indicators

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



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

“Manufacturing firms reported an improvement in regional manufacturing conditions in September, according to firms responding to this month’s *Manufacturing Business Outlook Survey*. The diffusion index for current manufacturing activity in the region increased from 18.9 in August to 23.8 in September. The survey’s future indicators suggest that manufacturers have generally grown more optimistic over the past three months.

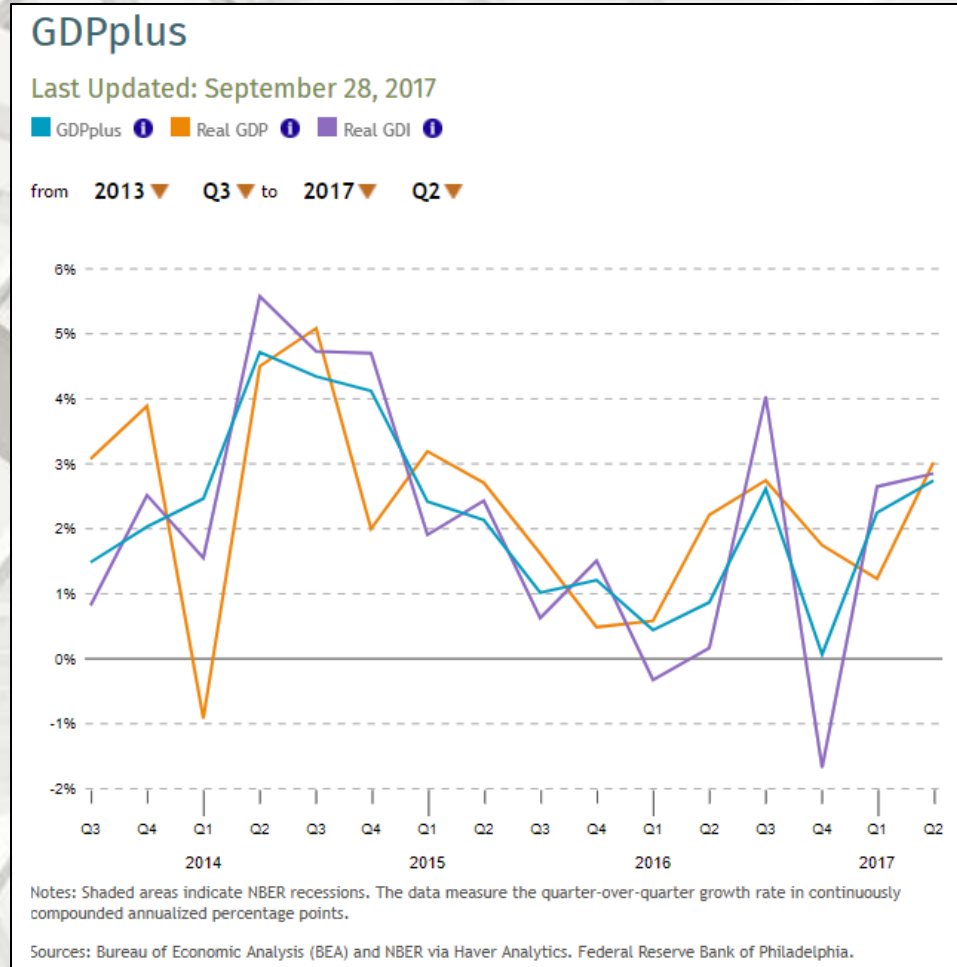
August 2017 Manufacturing Business Outlook Survey

Manufacturing Activity Showed Improvement in September

The index for current manufacturing activity in the region increased 5 points to a reading of 23.8 and has remained positive for 14 consecutive months (see Chart 1). Nearly 39 percent of the firms indicated increases in activity this month; 15 percent reported a decrease in activity. The new orders and shipments indexes also registered an improvement, increasing 9 points and 8 points, respectively. Both the unfilled orders and delivery times indexes were positive for the 11th consecutive month, suggesting longer delivery times and an increase in unfilled orders.

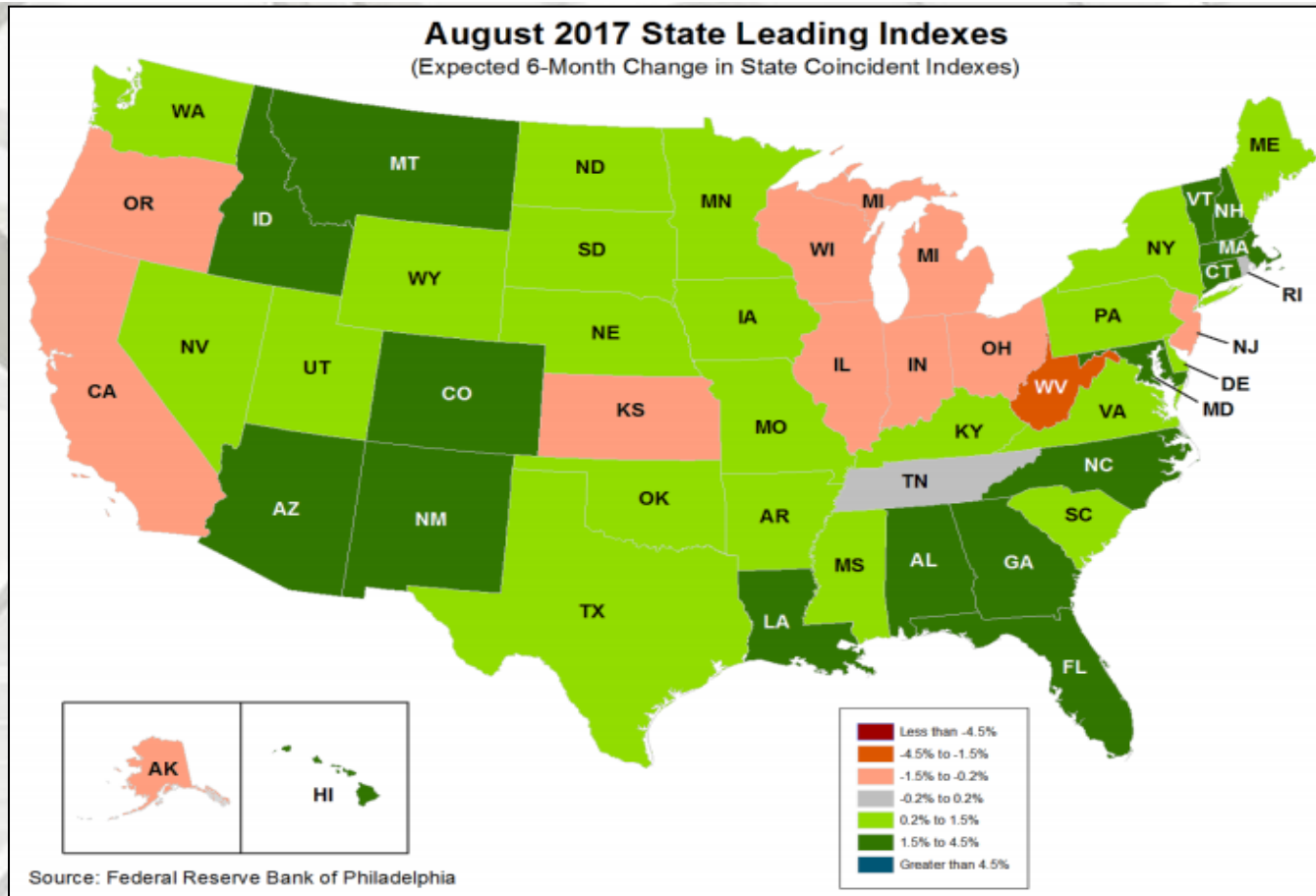
Firms reported, on balance, an increase in manufacturing employment this month. The percentage of firms reporting an increase in employment (18 percent) exceeded the percentage reporting a decrease (12 percent). The current employment index fell 4 points but has remained positive for 10 consecutive months.” – Mike Trebing, Senior Economic Analyst, Federal Reserve Bank of Philadelphia

Philadelphia Fed: GDPplus



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

Philadelphia Fed



“The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for August 2017. The indexes are a six-month forecast of the state coincident indexes (also released by the Bank). Thirty-seven state coincident indexes are projected to grow over the next six months, and 13 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 1.3 percent over the next six months.” – Daneil Mazone, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

The Federal Reserve Bank of Richmond

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

“Reports on Fifth District manufacturing activity improved in September, according to the latest survey by the Federal Reserve Bank of Richmond.

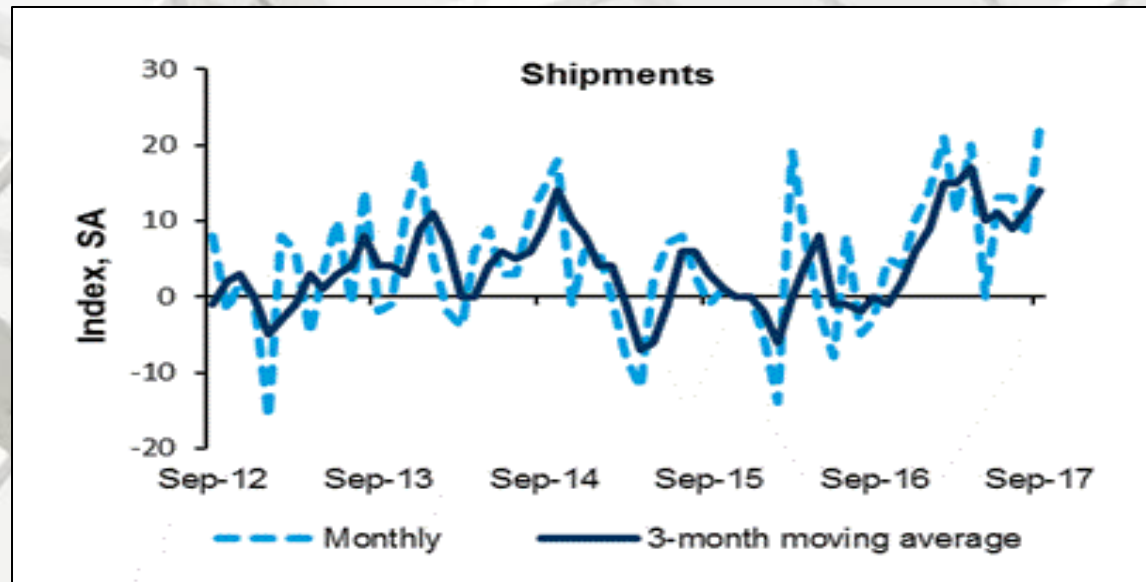
The composite manufacturing index rose from 14 to 19, supported by a sizable increase in the index for shipments — which, at a reading of 22, is the highest it has been since December 2010 — and a smaller rise in the index for new orders. The third component of the composite index, the employment index, fell slightly. Although the wages index also declined very slightly, there was a notable increase in the average workweek indicator.

Manufacturing expectations were stable across most measures this month, and continued to indicate overall optimism. The only notable changes in expectations were in the index for expected average workweek, which rose from 16 to 25, and the index for expected capital expenditures, which fell from 30 to 18.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators



U.S. Economic Indicators



U.S. Economic Indicators

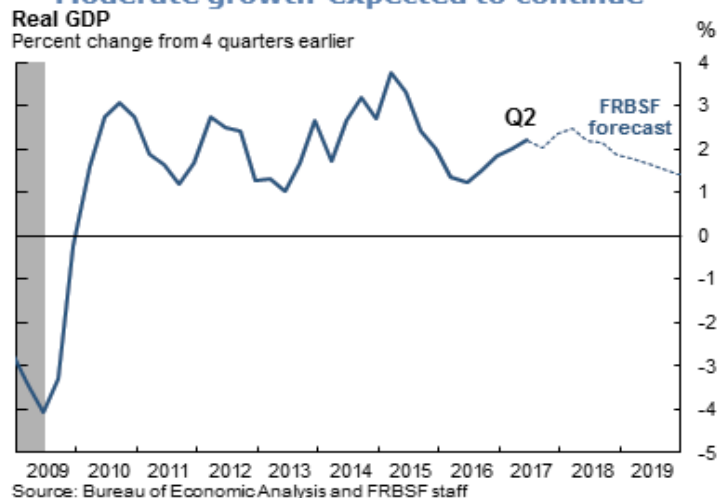
The Federal Reserve Bank of San Francisco

FRBSF FedViews

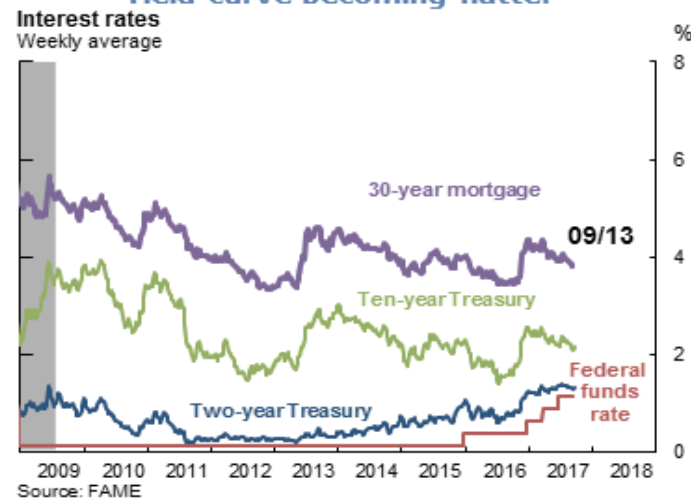
- “The estimate of gross domestic product (GDP) growth in the second quarter of 2017 was revised up to 3.0% at an annualized rate, primarily due to greater consumption expenditure and nonresidential fixed investment. We forecast that GDP growth will fall to an annualized rate of 2.1% in the third quarter due to the effects of Hurricanes Harvey and Irma, but will rise to 3.0% in the fourth quarter as a result of post-hurricane rebuilding.
- Financial conditions remain supportive of moderate growth, as long-term interest rates have declined since the beginning of the year. Both ten-year Treasury bills and 30-year fixed rate mortgages, are near historic lows, at 2.14% and 3.81%, respectively. Over the longer-term, we expect annual GDP growth to fall back to our estimate of potential output growth of around 1½ to 1¾% in 2018 and 2019.
- The unemployment rate rose slightly to 4.4% in August, up from 4.3% in July. We anticipate that it will decline further, bottoming out in the latter half of 2018, before reverting upwards in 2019 towards our estimate of the natural rate of unemployment, 4.8%.
- There are many other measures indicating improving labor market conditions, including the level of job openings which continues to grow beyond its pre-recession peak. Moreover, rising voluntary quit rates are providing a clear signal of a strengthening labor market. In addition, average hourly earnings grew at 2.5% in the 12 months through August ...” – Nicolas Petrosky-Nadeau, Research Advisor, The Federal Reserve Bank of San Francisco

U.S. Economic Indicators

Moderate growth expected to continue



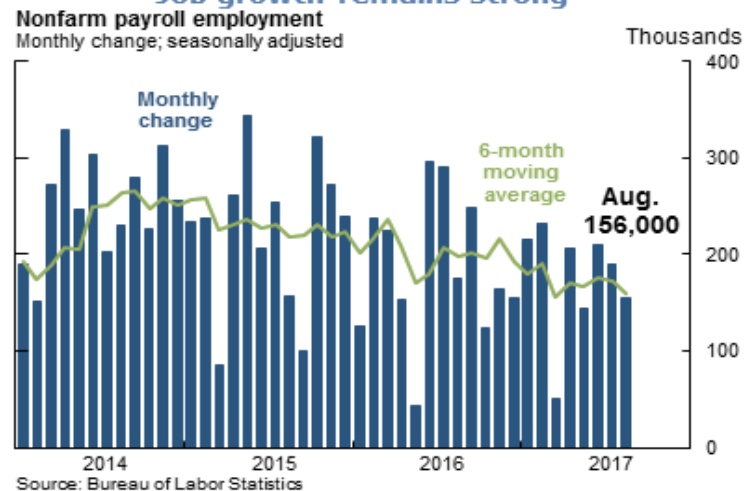
Yield curve becoming flatter



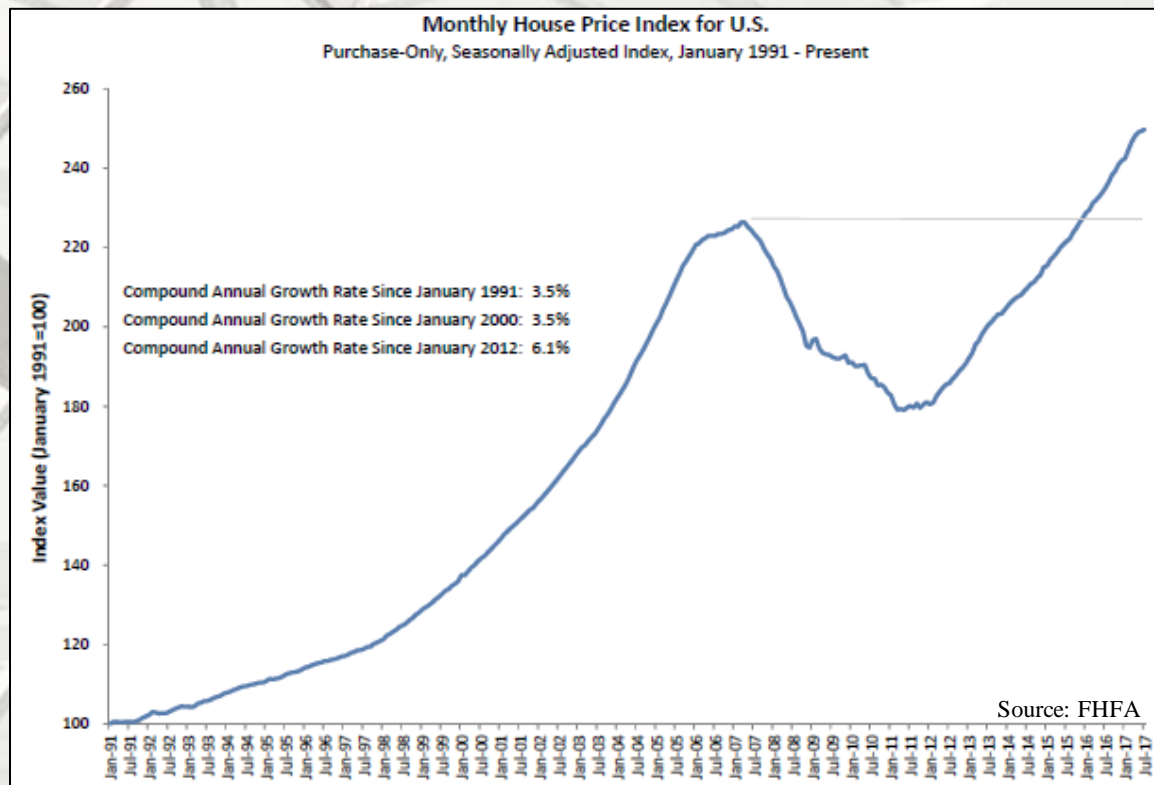
Inflation expected to increase gradually



Job growth remains strong



U.S. Economic Indicators



FHFA House Price Index

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

“U.S. house prices rose in July, up **0.2 percent** from the previous month, according to the Federal Housing Finance Agency (FHFA) seasonally adjusted monthly House Price Index (HPI). The previously reported 0.1 percent increase in June remained the same.” – Stefanie Johnson and Corinne Russell, FHFA

U.S. Global Economic Indicators

Mexico Economic Update

Mexico Growth Stalls in July

“Mexico’s economic output contracted in July as the monthly gross domestic product (GDP) measure declined. Before release of the most recent data, the consensus 2017 GDP growth forecast had been revised higher, to 2.2 percent in August from 2 percent in July.

Other data were mixed as employment growth remained strong and retail sales and exports ticked up, but industrial production fell. Inflation continued rising even as the peso maintained its recovery against the dollar.

Earthquakes in southern and central Mexico in September will likely depress economic activity in the affected regions, which include metropolitan Mexico City, through the rest of the year. However, the effect will be temporary and growth should rebound as reconstruction accelerates.

Economic Activity Index Falls

Mexico’s global economic activity index, the proxy for GDP, fell 0.7 percent in July after growing 0.6 percent in June. The three-month moving average was flat at the start of the third quarter (Chart 1). Service-related activities (including trade and transportation) slipped 0.1 percent in July. Goods-producing industries (including manufacturing, construction and utilities) declined 1 percent. Agricultural output dropped 1.6 percent.” – Jesus Cañas, Senior Business Economist, and Alexander Abraham, Research Assistant, The Federal Reserve Bank of Dallas.

U.S. Global Economic Indicators

Chart 1
Mexico Output Growth Stalls

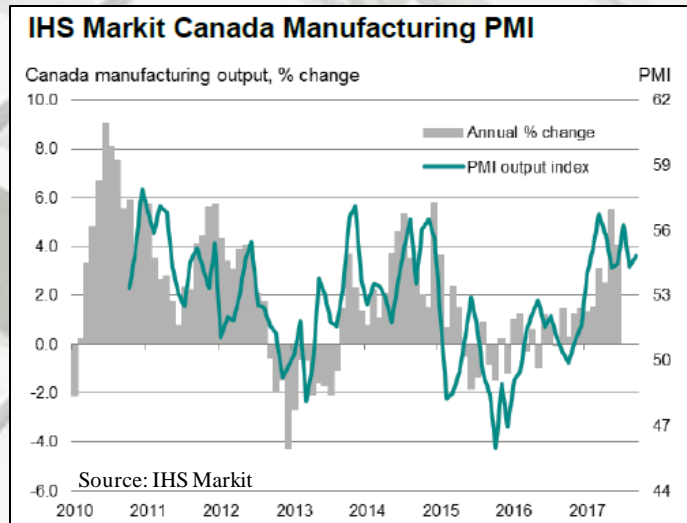
Index, January 2007 = 100*



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

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

Private Indicators: Global



Markit Canada Manufacturing PMI™

Manufacturing growth picks up, but inflationary pressures intensify

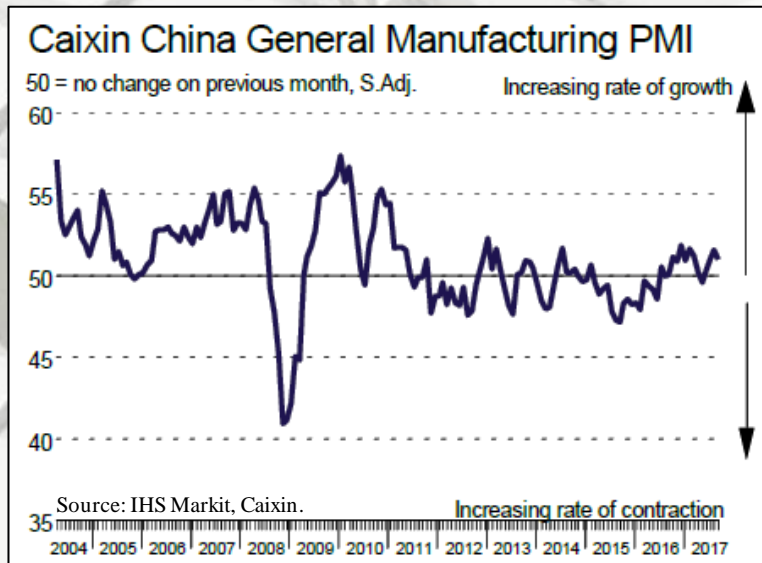
“At 55.0 in September, up from 54.6 in August, the seasonally adjusted **IHS Markit Canada Manufacturing Purchasing Managers’ Index® (PMI™)** posted above the 50.0 no-change value for the nineteenth consecutive month. The index signalled a robust improvement in manufacturing business conditions, although the strength of the recovery remained slightly softer than April’s six-year peak.

September data revealed a positive month overall for the Canadian manufacturing sector, with output and new business growth regaining momentum after August’s slowdown. Manufacturers are also more confident about the year ahead business outlook than at any time since April. However, the latest survey indicated a sharp and accelerated rise in input costs, alongside the strongest increase in factory gate charges since March 2014.

Manufacturers enjoyed a rebound in production volumes and new work during September, meaning that business conditions continued to improve at one of the fastest rates since late-2014. Western Canada recorded the strongest growth trajectory, as manufacturers sought to expand production schedules in response to recovering demand from the oil and gas sector.

September data revealed that manufacturers depleted their stocks of finished goods at the fastest pace for 14 months. Inventory drawdown is likely to diminish as capacity comes back on line and supply chain issues alleviate, which should provide an additional boost to output growth. Meanwhile, business optimism among manufacturing firms reached its highest level since April, which provides another positive sign for manufacturing conditions in the final quarter of 2017.” – Tim Moore, Associate Director at Survey Compilers, IHS Markit

Private Indicators: Global



Caixin China General Manufacturing PMI™

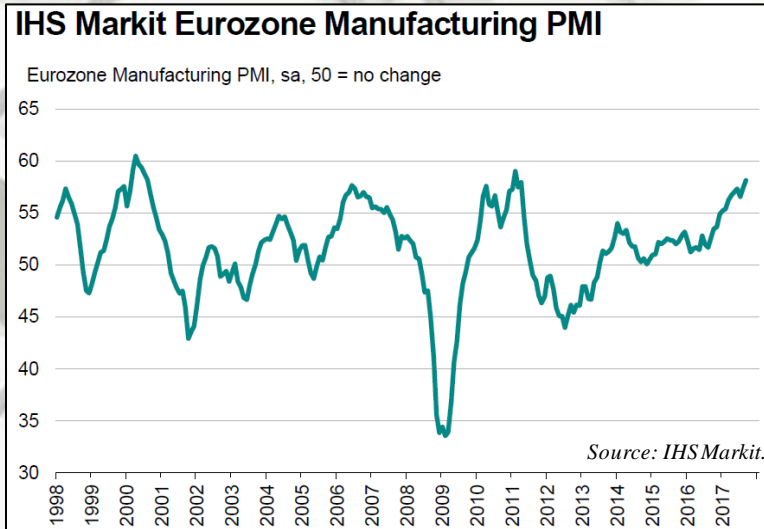
Manufacturing sector expands at softer pace

“The seasonally adjusted *Purchasing Managers’ Index*™ (PMI™) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – fell from 51.6 in August to 51.0 in September, but remained above the crucial no-change 50.0 mark for the fourth month in a row. That said, the index was consistent with only a marginal improvement in the health of China’s manufacturing sector.

Manufacturing operating conditions in China continued to improve at the end of the third quarter, albeit only marginally. Production and new orders both expanded at softer rates, with firms also signalling slower growth in export sales. As a result, purchasing activity increased at a weaker pace while staffing levels continued on a downward trend. Environmental inspection policies meanwhile weighed on supplier performance, with delivery times lengthening to the greatest extent since January. At the same time, inflationary pressures picked up, with average input costs and output prices both rising sharply.

The Caixin China General Manufacturing Purchasing Managers’ Index fell 0.6 points to 51.0 in September, still staying in expansionary territory. The sub-index for output indicated that production rose at a slightly slower pace than in the previous month as growth in new orders decelerated. The sub-indices for output prices and input costs increased further, both hitting their highest level seen this year. However, the sub-index measuring stocks of finished goods fell for the fourth straight month in September while stocks of purchases also contracted. The manufacturing sector continued to expand in September, although at a slightly weaker rate. The Chinese economy was stable in the third quarter. But the outstanding price pressure from upstream industries will be a drag on the continued improvement of companies’ profitability.” – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis, CEBM Group

Private Indicators: Global



Markit Eurozone Manufacturing PMI®

“Conditions in the euro area manufacturing sector strengthened to the greatest extent in over six-and-a-half years during September. At a 79-month high of 58.1, little-changed from the flash estimate of 58.2, the final IHS Markit Eurozone Manufacturing PMI® signalled expansion for the fifty-first month in a row. The average reading over the third quarter (57.4) was the highest since the opening quarter of 2011.

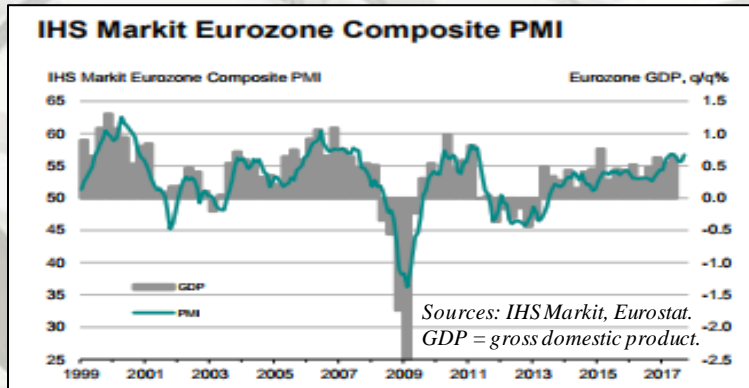
Eurozone manufacturing job creation hits survey-record high in September

Eurozone manufacturing production expanded at the fastest pace in almost six-and-a-half years in September, underpinned by a strong and accelerated increase in new work received. The upturn remained broad-based by nation, with all eight of the surveys comprising the euro area average reporting growth. The rate of growth in new orders almost matched the 76-month record seen June.

Improving domestic market conditions combined with increased levels of new export business were the main factors supporting the latest increase in new work. Although September saw the rate of expansion in new export orders moderate, it remained among the strongest witnessed over the past six-and-a-half years.

The eurozone manufacturing boom kicked into an even higher gear in September, with the PMI rising to a level surpassed only once in the past 17 years. The recovery is also looking increasingly broad-based, with rising demand across the region lifting all boats. Greece is the latest good news story, enjoying its strongest growth since June 2008.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit Eurozone Composite PMI®

“At 56.7 in September, up from 55.7 in August, the final **IHS Markit Eurozone PMI® Composite Output Index** matched the earlier flash estimate. The outlook also remained bright, with business optimism rising to a four-month high.

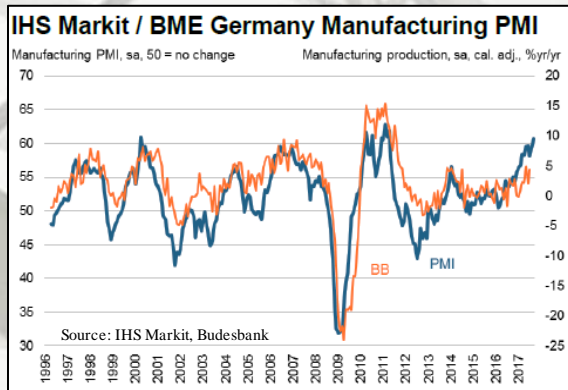
Eurozone economic growth accelerates at end of third quarter

The eurozone economy ended the third quarter with a flourish as output growth accelerated to a four month high in September, underpinned by the steepest gain in new work received for almost six and-a-half years. The headline index has signalled expansion throughout the past 51 months. However, its average over the third quarter as a whole (56.0) was slightly weaker than in the prior quarter (56.6). September saw rates of output expansion accelerate in both the manufacturing and service sectors, although the former continued to register the superior performance overall.

The final September PMI numbers round off an impressive third quarter for which the surveys point to GDP rising 0.7%. The economy enters the fourth quarter with business energized by inflows of new orders growing at the fastest rate for over six years and expectations of future growth reviving after a summer lull.

Growth is also becoming increasingly broad-based, which should help make the upturn more sustainable as corporate profits, labour markets and demand improve across the region. The eurozone therefore looks increasingly able to withstand any political shocks and set for a strong end to the year. A rise in price pressures reflects the development of a sellers' market for many goods and services as demand outstrips supply. As such, the survey suggests that deflationary forces have abated, fueling confidence that reflationary pressures are becoming more engrained in the economy.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit/BME Germany Manufacturing PMI®

Manufacturing growth surges to fastest since early-2011

“At 60.6 in September, up from August’s 59.3, the final IHS Markit/BME Germany Manufacturing PMI recorded its highest reading since April 2011 and signalled a strong improvement in the overall health of the goods-producing economy.

German manufacturing saw its strongest growth performance for over six years in September, recording marked and accelerated increases in both production levels and employment, according to the latest PMI® survey data from IHS Markit and BME. However, there was also evidence of increasing supply-side pressures, as firms faced near-record delivery delays and sharply rising input costs.

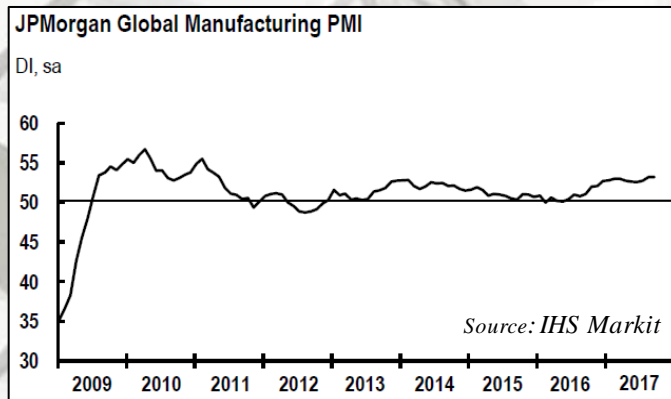
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Germany’s manufacturers ended the third quarter on a particularly high note, according to latest survey data. The PMI rose for the second month running to put it in territory unseen since the temporary rebound that followed the global financial crisis.

The current phase of expansion is now approaching its third year, but there are increasing signs of pressures building in supply chains. Delivery times on inputs showed the greatest increase since early-2011, leading goods producers to take action and augment safety stocks. Growing demand for materials manifested itself in a strong rise in average purchase prices, with the rate of inflation approaching the highs seen in the first half of the year. Robust client demand meant that firms could protect margins by hiking their unit prices, which showed the steepest rise in over six-years.”

– Trevor Balchin, Senior Economist, IHSMarkit®

Private Indicators: Global



JP Morgan Global Manufacturing PMI™

“The global manufacturing economy continued to expand at a solid and steady pace during September. The J.P. Morgan Global Manufacturing PMI™ – a composite index¹ produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – posted 53.2, unchanged from August’s 75-month high.

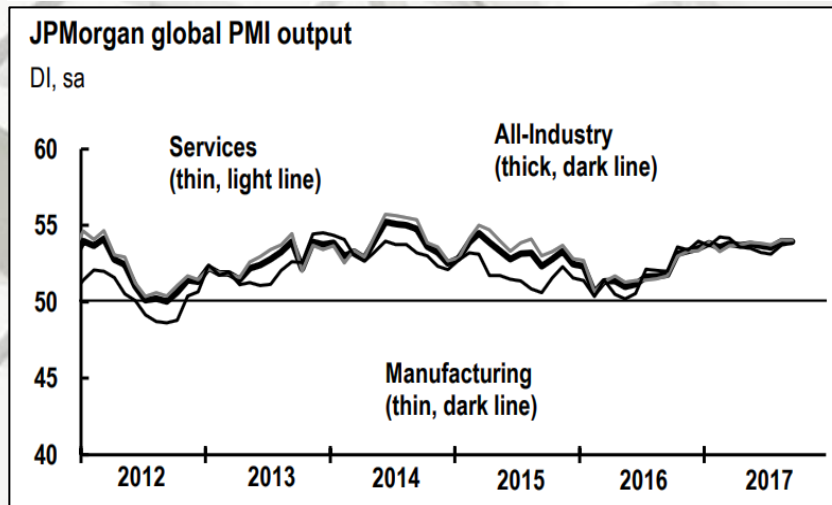
Global Manufacturing growth remains solid in September

National PMI indices signalled expansion in almost all of the nations covered by the survey. Among the largest industrial regions covered by the survey, growth accelerated in the eurozone (79-month high), the US and Japan (four-month high), but slowed slightly in China, the UK and Taiwan. The South Korea PMI moved back into expansion territory. The upturn in the euro area was again led by Germany, the Netherlands and Austria.

Manufacturing production rose at the quickest pace in six months, underpinned by further increases in both total new orders and international trade volumes. The continued upturn in new order inflows exerted further pressure on capacity, leading to one of the steepest increases in backlogs of work over the past three-and-a-half years. This in turn encouraged manufacturers to raise employment to the greatest extent since May 2011.

The global manufacturing sector continued to expand at a solid and stable clip in September, as output growth ticked higher and new orders continued to rise at one of the best rates over the past three years. The sector looks to have sufficient momentum to see growth continue through to year-end, even in the face of a recent revival in cost inflationary pressures.” – David Hensley, Global Economist, J.P. Morgan

Private Indicators: Global



JP Morgan Global Composite PMI™

“September saw the pace of global economic expansion maintained at August’s near two-and-a-half year high. The **J.P. Morgan Global All-Industry Output Index** – ... – held steady at 54.0, to signal a further solid increase in the combined output of the worldwide manufacturing and service sectors.

Global economic growth remains broad-based and solid in September

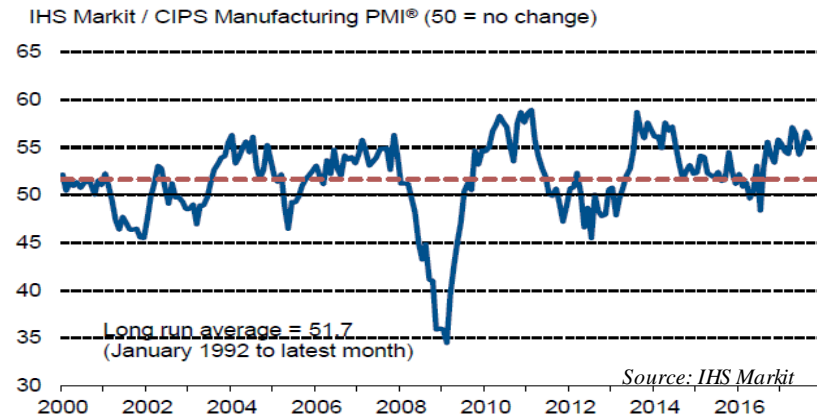
“The average headline index reading over the third quarter as a whole (53.8) was slightly above those of the prior two quarters (both 53.7) and the best growth outcome signalled on a quarterly basis for three years.

September saw broadly similar rates of output expansion registered in both the manufacturing and service sectors. Although the latter saw a marginal easing in its rate of increase, it still slightly outpaced the former (which saw a mild acceleration) for the sixth month running.

The global PMI suggests that underlying global growth is strong and steady, with recent performance the best in three years. This is providing a real spur to the labor market with job creation in recent months being among the best seen over the past decade. As output growth remains broad-based by sector, new order inflows solid and backlogs of work rising, the world economy looks primed to continue this solid upturn during the final quarter of the year.” – 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®) registered 55.9 in September, down from August’s four-month high of 56.7, but above its long-run average of 51.7. Data included in the latest PMI report were collected between 12-26 September.

UK manufacturing sees further solid growth at end of third quarter

The UK manufacturing sector continued to expand at a solid clip during September, with production and new orders both rising at above long-run average rates. However, the latest survey signalled that cost inflationary pressures surged higher. This reflected a combination of rising commodity prices, the exchange rate and increased supply-chain pressures.

The latest PMI survey showed a modest deceleration in the rates of expansion in UK manufacturing production and new orders. Although it looks as if the sector made solid progress through the third quarter as a whole, the growth slowdown in September is a further sign that momentum is being lost across the broader UK economy. Exports remain a bright spot, however, still rising at one of the strongest rates over the past six-and-a-half years.

On balance, the continued solid progress of manufacturing and export growth is unlikely to offset concerns about a wider economic slowdown, but the upward march of price pressures will add to expectations that the Bank of England may soon decide that the inflation outlook warrants a rate hike.”

– Rob Dobson, Director & Senior Economist, IHS Markit

Private Indicators

American Institute of Architects (AIA)

August Architecture Billings Index

Architecture Billings Index continues growth streak

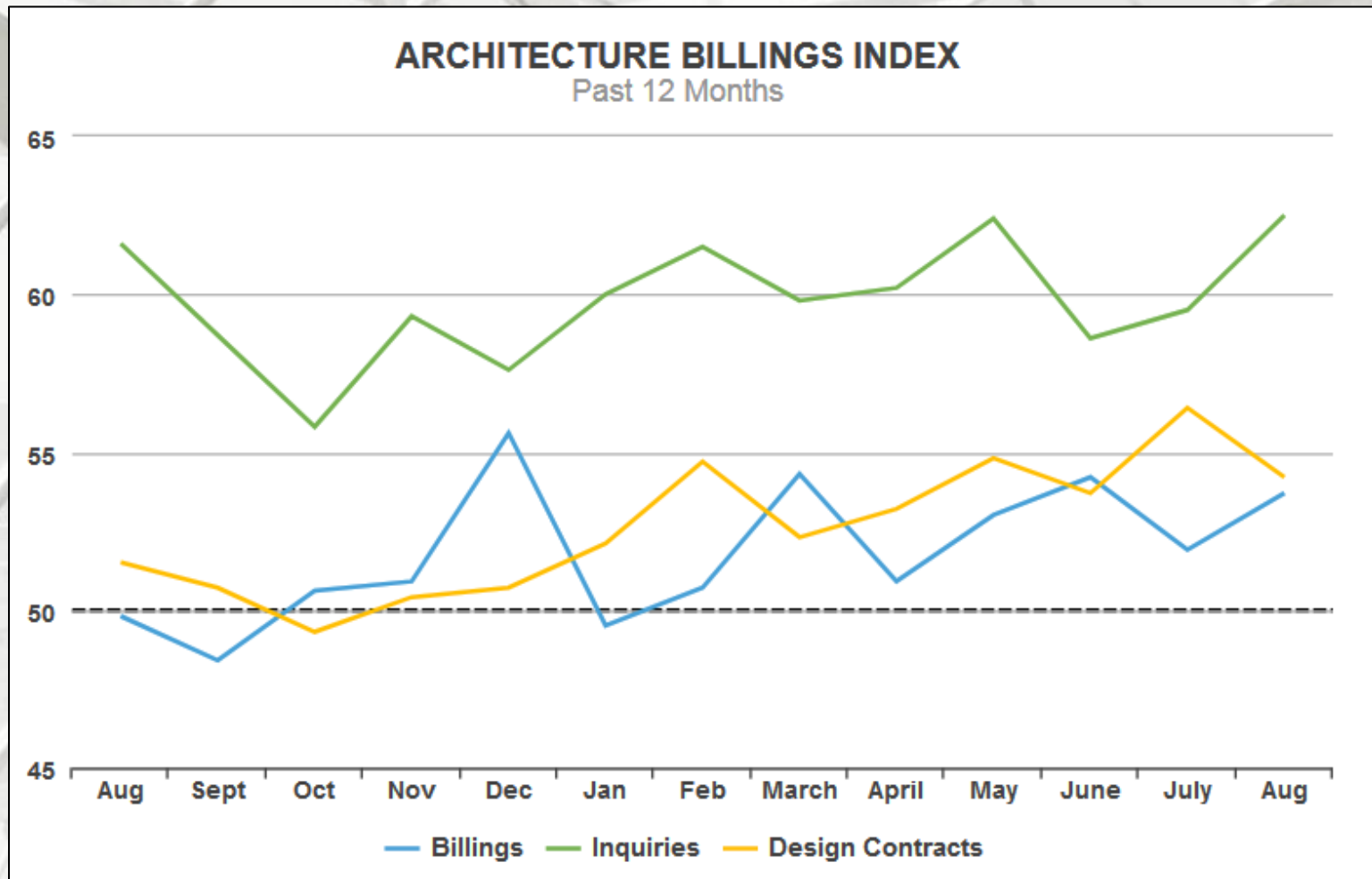
Design services remain in high demand across all regions and in all major sectors

“With all geographic regions and building project sectors showing positive conditions, there continues to be a heightened level of demand for design services signaled in the latest Architecture Billings Index (ABI). As a leading economic indicator of construction activity, the ABI reflects the approximate nine to twelve month lead time between architecture billings and construction spending. The American Institute of Architects (AIA) reported the August ABI score was 53.7, up from a score of 51.9 in the previous month. This score reflects an increase in design services provided by U.S. architecture firms (any score above 50 indicates an increase in billings). The new projects inquiry index was 62.5, up from a reading of 59.5 the previous month, while the new design contracts index eased somewhat from 56.4 to 54.2. .

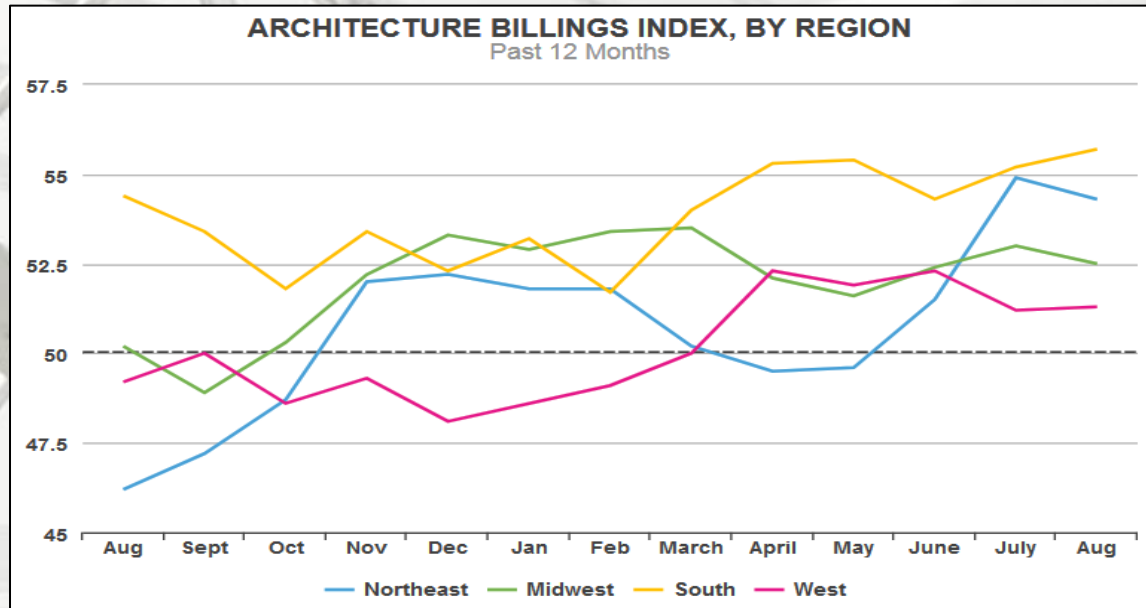
The August results continue a string of very positive readings from the design professions, pointing to future healthy growth across the major construction sectors, as well as across the major regions of the country. Given the focus and discussions around the infrastructure needs of the nation, we expect strong growth in design activity for the coming months and years.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators

American Institute of Architects (AIA)



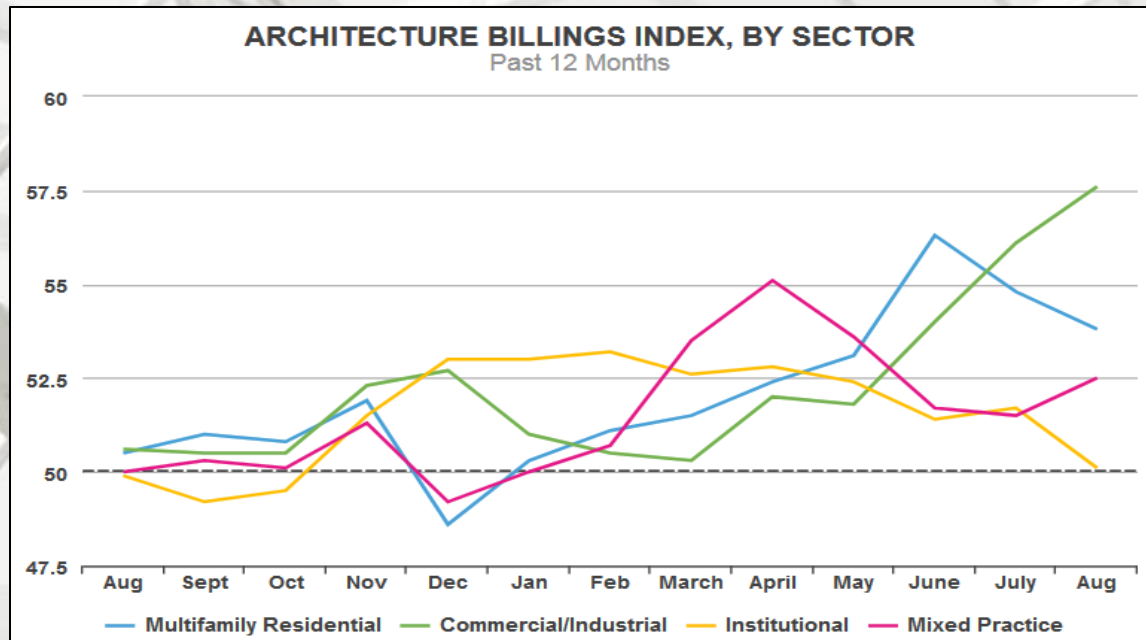
Private Indicators: AIA



Region

“Regional averages: South (55.7), Northeast (54.3), Midwest (52.5), West (51.3). The South and the West posted modest increases in billings month-to-month with 0.5- and 0.1-point gains, respectively. Design activity continued to pick up in the Northeast with a score of 54.3, a scant 0.6-point dip from July's score of 54.9. Continued growth in the Northeast is promising, as it was the only region to see billings fall below the 50-point threshold in April and May, and has lagged behind the South and Midwest region consistently in 2017. The Midwest posted a healthy score of 52.5 in August, a 0.5-point dip from July's score of 53.0. The month-to-month decrease in billings seen in the Northeast and Midwest does not indicate contraction, but rather a slower pace of activity compared to a month prior.” – Kermit Baker, Chief Economist, AIA, Honorable AIA

Private Indicators: AIA



Sector

“Sector index breakdown: commercial / industrial (57.6), multi-family residential (53.8), mixed practice (52.5), institutional (50.1). Design activity across all four building sectors posted scores above 50 in August, marking the seventh consecutive month of growth. The commercial/industrial sector experienced the most activity in August with a score of 57.6, a 1.5 point increase from July's score of 56.1. The mixed use sector also posted gains in August, with a 1-point increase to 52.5 from July's reading of 51.5. The pace of design activity in the residential sector slowed for the third consecutive month, but remained healthy in August with a score of 53.8, a 1.0-point decline from 54.8 a month prior. Activity in the institutional sector dipped 1.6 points to a score of 50.1, but still indicates growing demand for design services.” – Kermit Baker, Chief Economist, AIA, Honorable AIA

Private Indicators

Dodge Data & Analytics

New Construction Starts in August Recede 2 Percent

“At a seasonally adjusted annual rate of \$711.6 billion, new construction starts in August slipped 2% from July, according to Dodge Data & Analytics. The decline followed July’s 6% increase, yet still kept total construction activity 5% above the relatively subdued pace reported during the second quarter. ... The August data produced a reading of 151 for the Dodge Index (2000=100), compared to the 154 reported in July. The Dodge Index began 2017 on a healthy note, averaging 160 in the first quarter, but then fell 11% to 143 in the second quarter. The readings for the Dodge Index in July and August suggest that total construction starts are on track for a partial rebound in the third quarter, although September will reflect some negative impact from Hurricanes Harvey and Irma.

What stands out about the August statistics is the strength shown by the institutional side of nonresidential building, which is consistent with a broader trend that’s taken hold during 2017. The institutional building segment (which includes such project types as transportation terminals, convention centers, and educational facilities), is providing much of the lift this year to nonresidential building, while the commercial building segment has decelerated after a 20% surge in 2016. It’s believed that total construction starts for the U.S. should be able to register growth for 2017 as a whole, helped by this year’s strength for institutional building, notwithstanding the near term disruption to construction activity caused by Hurricane Harvey in the Houston TX area and Hurricane Irma in Florida.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

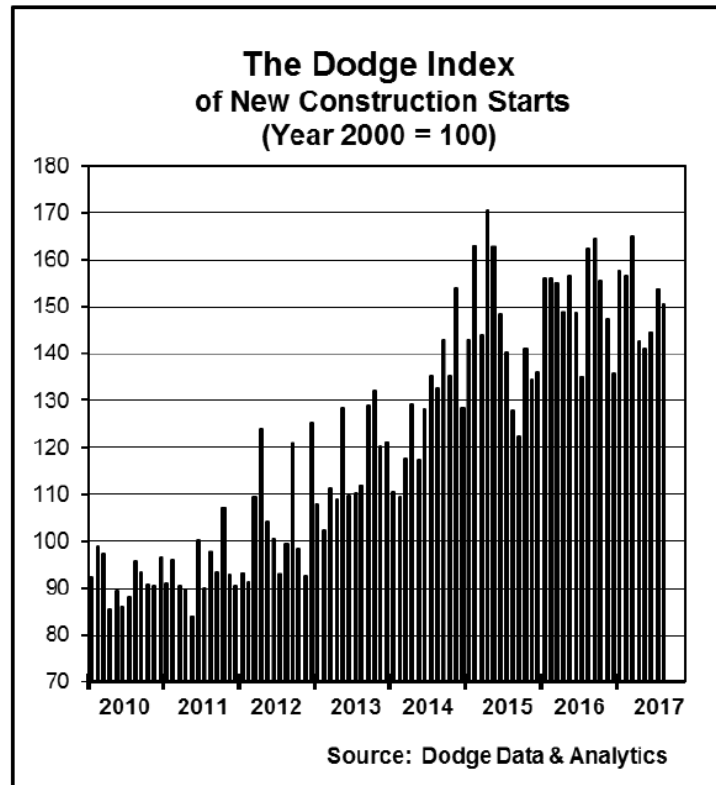
Dodge Data & Analytics

“Residential building, at \$293.4 billion (annual rate), settled back 1% in August. Multifamily housing retreated 12% following its 34% July increase, resuming the moderate downward trend that’s taken hold in 2017 after elevated activity during 2016. There were 6 multifamily projects valued at \$100 million or more that reached groundbreaking in August, compared to 9 such projects in July. The large multifamily projects in August were led by five projects in the New York NY metropolitan area, with two in Brooklyn (\$261 million and \$175 million), two in Manhattan (\$225 million and \$150 million), and one in Sayreville NJ (\$137 million). In August, the top five metropolitan areas ranked by the dollar volume of multifamily starts were the following – New York NY, Boston MA, Atlanta GA, San Francisco CA, and Dallas-Ft. Worth TX. Through the first eight months of 2017, New York NY was still the leading market in terms of the dollar amount of multifamily starts, despite retreating 14% from the same period of 2016. Rounding out the top five multifamily markets during the first eight months of 2017, with their percent change from a year ago, were the following – Los Angeles CA, down 8%; Chicago IL, down 26%; San Francisco CA, up 7%; and Atlanta GA, up 45%.

Single family housing in August rose 4%, showing modest improvement after losing some momentum during the previous four months. By major region, single family housing performed as follows in August – the West, up 9%; the Midwest, up 6%; the South Atlantic, up 3%; the South Central, up 2%; and the Northeast, unchanged from July.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

August 2017 Construction Starts



August 2017 Construction Starts

Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

| | <u>August 2017</u> | <u>July 2017</u> | <u>% Change</u> |
|--------------------------|--------------------|------------------|-----------------|
| Nonresidential Building | \$268,332 | \$234,725 | +14 |
| Residential Building | 293,433 | 294,972 | -1 |
| Nonbuilding Construction | <u>149,838</u> | <u>197,154</u> | <u>-24</u> |
| Total Construction | \$711,603 | \$726,851 | -2 |

The Dodge Index

Year 2000=100, Seasonally Adjusted

August 2017.....151

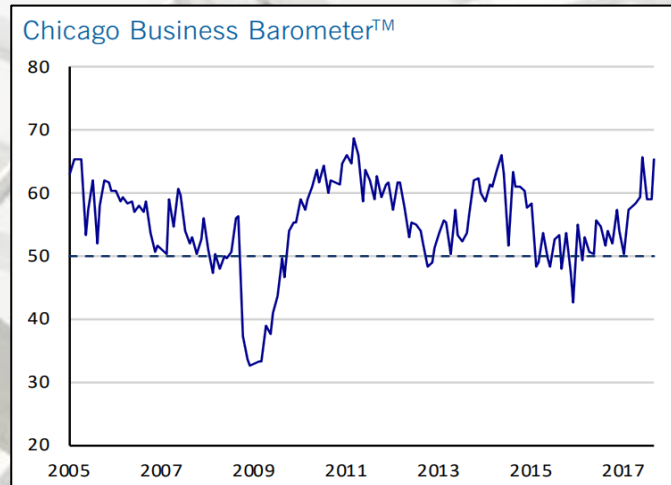
July 2017154

Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

| | <u>8 Mos. 2017</u> | <u>8 Mos. 2016</u> | <u>% Change</u> |
|--|--------------------|--------------------|-----------------|
| Nonresidential Building | \$168,276 | \$159,551 | +5 |
| Residential Building | 202,892 | 201,573 | +1 |
| Nonbuilding Construction | <u>110,569</u> | <u>126,212</u> | <u>-12</u> |
| Total Construction | \$481,737 | \$487,336 | -1 |
| Total Construction, excluding electric utilities/gas plants | \$459,937 | \$451,725 | +2 |

Private Indicators



MNI Chicago

“The MNI Chicago Business Barometer rose to 65.2 in September, up from 58.9 in August, hitting the highest level in three months and the second highest level in more than three years.

September Chicago Business Barometer Rises Sharply to 65.2

Optimism among firms about business conditions was bolstered in September after August’s flat showing, with each of the Barometer’s sub-components strengthening. A marked rise in Order Backlogs, up to a 29-year high, was among the month’s highlights. September’s survey result left the Q3 calendar average of the Barometer at 61.0, virtually unchanged from Q2’s three-year high of 61.1.

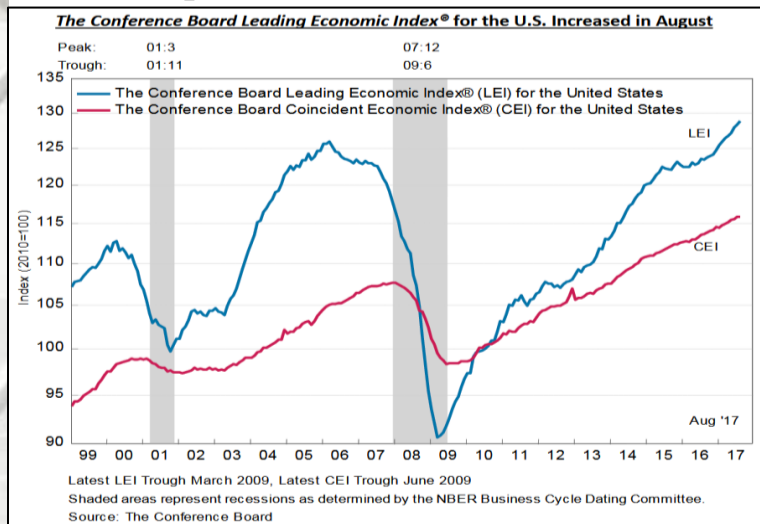
The sharp rise in sentiment was the result of widespread gains, though particularly concentrated in demand, backlogs and employment. Together, these account for 60% of the headline Barometer. The increases in Production and Supplier Deliveries, accounting for the remaining 40%, were slightly more modest in comparison.

The strong outturn in September means that on a quarterly basis business activity was broadly unchanged from an already impressive Q2. Looking forward, firms are on record expecting a busy Q4 despite disruptions caused by the recent storms, with just a handful expecting delivery times to lengthen between October through December.” – Jamie Satchi, Economist, MNI Indicators

Private Indicators

The Conference Board Leading Economic Index® (LEI) for the U.S. increased 0.4 percent in August to 128.8 (2010 = 100), following a 0.3 percent increase in July, and a 0.6 percent increase in June.

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



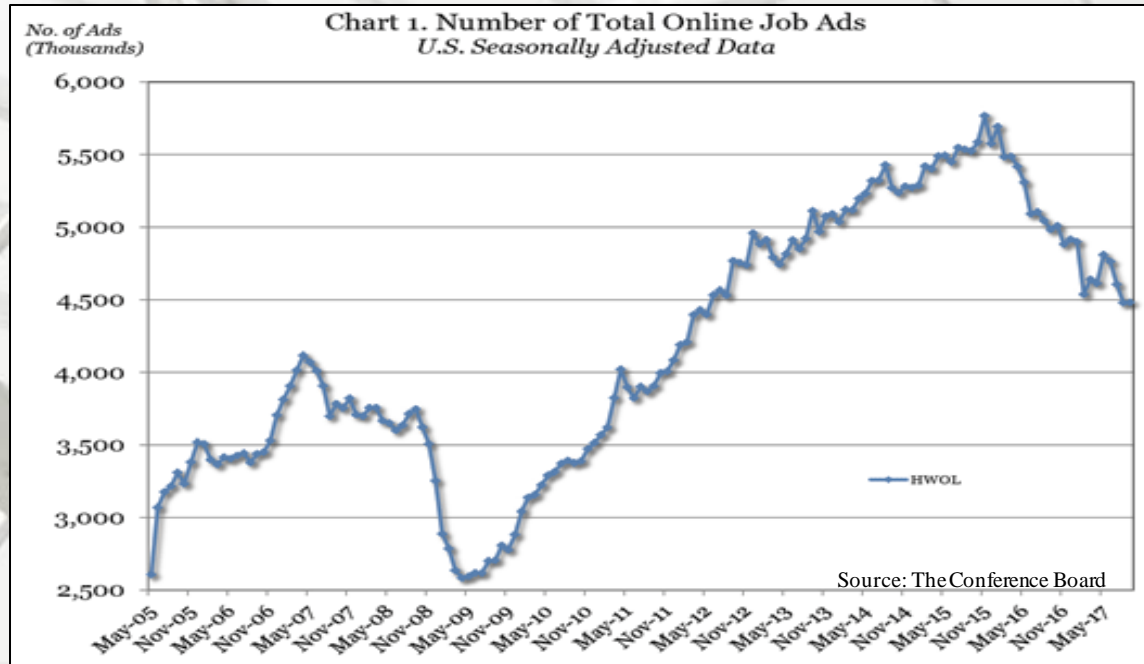
Economic Growth Should Continue Through Second Half

“The August gain is consistent with continuing growth in the U.S. economy for the second half of the year, which may even see a moderate pick up. While the economic impact of recent hurricanes is not fully reflected in the leading indicators yet, the underlying trends suggest that the current solid pace of growth should continue in the near term.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

“**The Conference Board Coincident Economic Index® (CEI) for the U.S.** was unchanged in August, remaining at 115.8 (2010 = 100), following a 0.3 percent increase in July, and a 0.1 percent increase in June.

The Conference Board Lagging Economic Index® (LAG) for the U.S. increased 0.3 percent in August to 125.2 (2010 = 100), following a 0.2 percent increase in July and a 0.2 percent increase in June.”

Private Indicators



The Conference Board Help Wanted OnLine® (HWOL) Online Job Ads Increased 2,500 in September

- “Most States and MSAs are relatively flat
- Services/Production show gains while Professional Occupations show losses

Online advertised vacancies increased 2,500 to 4,482,300 in September, according to **The Conference Board Help Wanted OnLine® (HWOL) Data Series** . . . The August Supply/Demand rate stands at 1.59 unemployed for each advertised vacancy, with a total of 2.7 million more unemployed workers than the number of advertised vacancies. The number of unemployed was approximately 7.1 million in August.

The Professional occupational category saw losses in Management (-27.2) and Business and financial (-16.1). The Services/Production occupational category saw gains in Sales (16.9), Office and Administrative Support (13.2), and Transportation (8.7).” – Carol Courter, The Conference Board

August 2017 Manufacturing ISM® Report On Business®

August NMI® at 60.8%

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

“Economic activity in the **manufacturing sector** expanded in August, and the overall economy grew for the 100th consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

The September PMI® registered 60.8 percent, an increase of 2 percentage points from the August reading of 58.8 percent.

The New Orders Index registered 64.6 percent, an increase of 4.3 percentage points from the August reading of 60.3 percent.

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

The Employment Index registered 60.3 percent, an increase of 0.4 percentage point from the August reading of 59.9 percent.

The Supplier Deliveries Index registered 64.4 percent, a 7.3 percentage point increase from the August reading of 57.1 percent.

The Inventories Index registered 52.5 percent, a decrease of 3 percentage points from the August reading of 55.5 percent.

The Prices Index registered 71.5 percent in September, a 9.5 percentage point increase from the August level of 62, indicating higher raw materials prices for the 19th consecutive month.

Comments from the panel reflect expanding business conditions, with new orders, production, employment, order backlogs and export orders all growing in September; as well as, supplier deliveries slowing (improving) and inventories growing at a slower rate during the period. The Customers’ Inventories Index remains at low levels.” – Timothy R. Fiore, CPSM, CPSP, Chair of the ISM® Manufacturing Business Survey Committee

Private Indicators

August 2017 Non-Manufacturing ISM® Report On Business®

August NMI® at 59.8 %

**Business Activity Index at 61.3%, New Orders Index at 63.0%,
Employment Index at 56.8%**

“Economic activity in the non-manufacturing sector grew in September for the 93rd consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**. The NMI® registered 59.8 percent, which is 4.5 percentage points higher than the August reading of 55.3 percent. This represents continued growth in the non-manufacturing sector at a faster rate. This is the highest reading since August 2005 when the index registered 61.3 percent. The Non-Manufacturing Business Activity Index increased to 61.3 percent, 3.8 percentage points higher than the August reading of 57.5 percent, reflecting growth for the 98th consecutive month, at a faster rate in September.

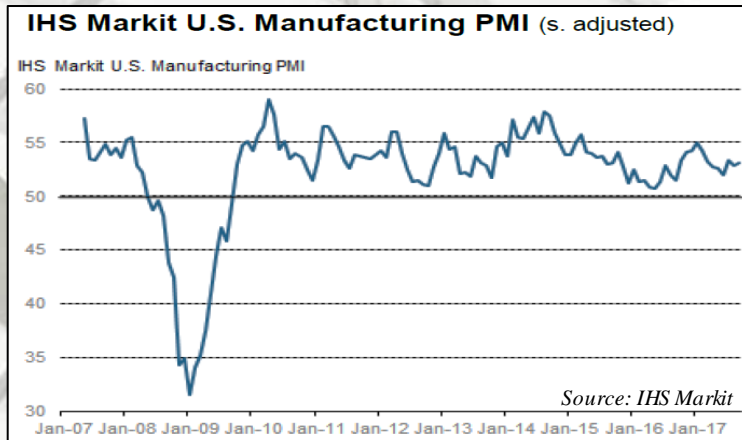
The New Orders Index registered 63 percent, 5.9 percentage points higher than the reading of 57.1 percent in August.

The Employment Index increased 0.6 percentage point in September to 56.8 percent from the August reading of 56.2 percent.

The Prices Index increased substantially by 8.4 percentage points from the August reading of 57.9 percent to 66.3 percent, indicating prices increased in September for the fourth consecutive month. This is the highest reading since February 2012 when the index registered 67.6 percent.

According to the NMI®, 15 non-manufacturing industries reported growth. The non-manufacturing sector has reflected strong growth in the month of September despite the impact on the supply chain from the recent hurricanes. Respondents' comments indicate a good outlook for business conditions.” – 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 53.1 in September, up slightly on the flash reading of 53.0 and rising from 52.8 in August. The upturn signalled a slight pick up in growth momentum and a strong improvement in overall operating conditions across the sector.

September PMI signals further improvement in manufacturing conditions

September survey data signalled a further improvement in operating conditions across the US manufacturing sector. The overall upturn was supported by further growth in output and new orders. Strong client demand was a key factor behind the fastest rise in staffing levels so far this year. Business confidence also remained strong, despite slipping since August. On the price front, cost pressures intensified, with input prices increasing at the quickest pace since December 2012. Output charges meanwhile rose at the steepest rate for five months.

While the headline PMI remained resiliently elevated in September, despite disruption from hurricanes Harvey and Irma, the details of the survey are more worrying. Output growth was unchanged on August’s 14-month low, and translates into stagnation at best in terms of the official manufacturing output data. Firms’ expectations of future output growth also slipped to a four-month low. There was better news on the hiring front, with job creation perking up to a nine-month high. However, with employment rising faster than output, productivity may be slipping.

Although the hurricanes appear to have made little overall impact on production, supply delays were widely reported and prices for many inputs rose, suggesting some near-term upward pressure on inflation.” – Chris Williamson, Chief Economist, Markit®

Private Indicators



Markit U.S. Services PMI™

“The seasonally adjusted **IHS Markit U.S. Services Business Activity Index** registered 55.3 in September, down slightly from 56.0 in August. This indicated a strong end to the third quarter, and the fastest average quarterly growth so far this year. A number of survey respondents linked the rise in business activity to strong client demand in domestic markets.

Service sector business activity growth remains strong in September

September survey data signalled a further rise in business activity across the US service sector. Although the rate of growth eased slightly compared with August, upturns in both activity and inflows of new work were strong compared to the average seen over the past two years. Sustained growth of output and new orders supported solid increases in staffing levels. Additional payroll numbers helped to alleviate capacity pressures. Meanwhile, inflationary pressures continued to intensify. Input price inflation was the fastest since June 2015, and charge inflation accelerated to the quickest in three years. ... While rebuilding and a return to normal business conditions after the hurricanes will hopefully boost growth in the fourth quarter, it's worrying to see business expectations about activity levels over the coming year drop in September. Measured across both manufacturing and services, future optimism is at its lowest since February, suggesting companies have become increasingly cautious about the outlook. However, while optimism has slipped, the 'hard' survey data on recent output, new orders and hiring trends remain solid. Combined with the further upturn in price pressures seen in September, the survey data will further fuel expectations that the Fed will be keen to hike interest rates again before the year is out. Average prices charged for goods and services rose at the fastest rate for three years in September, though it's not yet clear how much of the rise reflected short-term hurricane effects.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

National Association of Credit Management – Credit Managers' Index

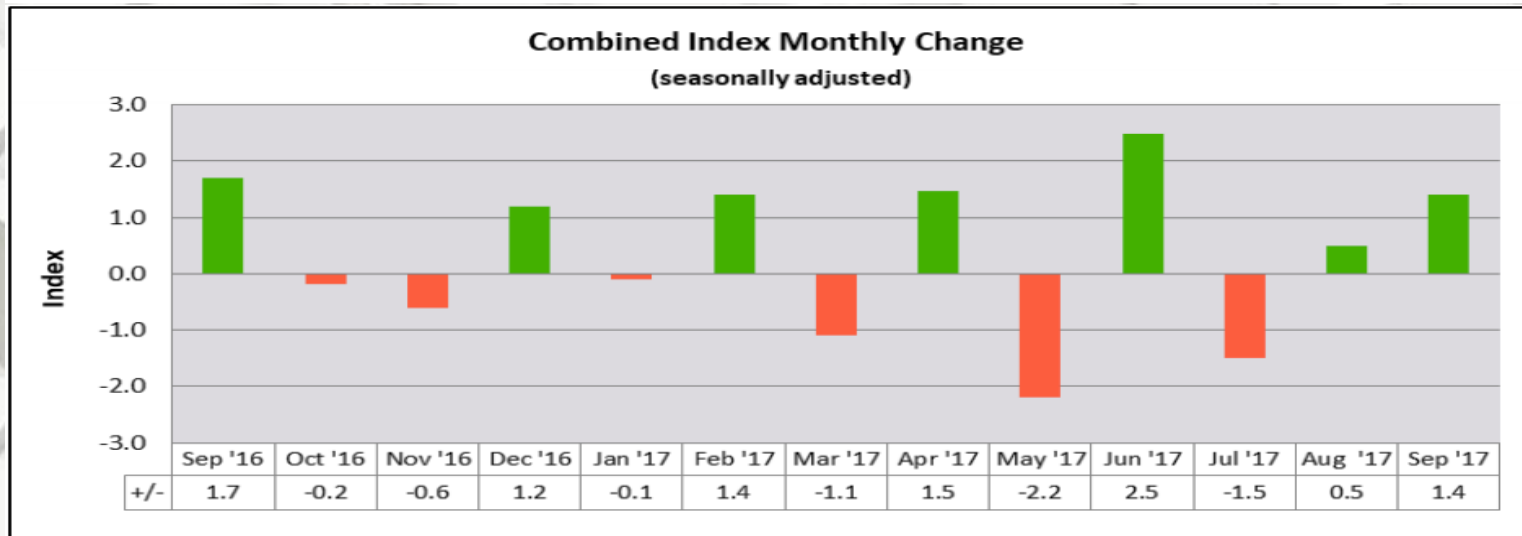
NACM's Credit Managers' Index Reaches High Point for 2017

“The September index’s combined score came in at 56.5, an increase of more than a point from August. Most of the progress came from the favorable factors, whose combined score reached 63.5, the highest since April. Though there was some weakness remaining in the unfavorable factors, most of them are in expansion territory in the 50s.

The Purchasing Managers’ Index is as robust as it has been in a year, with readings above 57. There has been positive growth in the capacity utilization numbers, although these are still a bit short of ideal. The hope is that this may be the start of a nice little trend for the end of the year. Once more, there may be some expectation of stability and a trend toward the positive. The favorable factors are improving, but the unfavorable numbers are still lagging badly. All in all, the unfortunates remain close to contraction, but for now they are all trending positive.

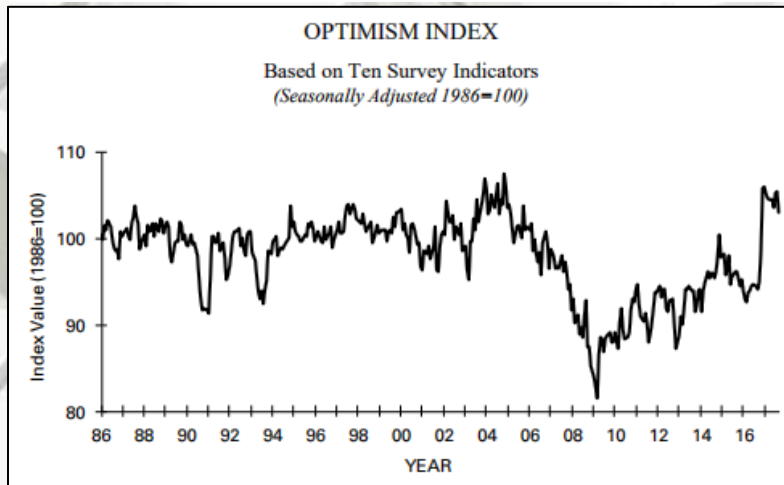
The improvements in the unfavorable categories were a bit more subtle, but it is encouraging that all except one of these readings has now escaped the contraction zone. The rejections of credit applications moved from 52.2 to 52.5. That matches well with the improvement in the number of applications, as it suggests that those seeking credit are worth issuing it to.” – Dr. Chris Kuehl, Economist, NACM

Private Indicators



| Combined Manufacturing and Service Sectors (seasonally adjusted) | Sep '16 | Oct '16 | Nov '16 | Dec '16 | Jan '17 | Feb '17 | Mar '17 | Apr '17 | May '17 | Jun '17 | Jul '17 | Aug '17 | Sep '17 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Sales | 57.9 | 56.9 | 61.8 | 58.6 | 60.1 | 62.6 | 61.2 | 63.8 | 60.6 | 66.5 | 62.8 | 62.2 | 67.3 |
| New credit applications | 58.6 | 58.0 | 54.5 | 57.0 | 60.8 | 62.0 | 60.5 | 62.0 | 59.3 | 59.8 | 59.7 | 61.2 | 60.5 |
| Dollar collections | 59.5 | 57.0 | 63.5 | 59.5 | 58.2 | 63.0 | 56.4 | 61.2 | 56.7 | 62.5 | 60.2 | 58.9 | 60.0 |
| Amount of credit extended | 61.9 | 61.5 | 61.4 | 61.4 | 64.1 | 66.8 | 64.4 | 67.2 | 63.6 | 66.8 | 64.1 | 66.7 | 66.3 |
| Index of favorable factors | 59.5 | 58.4 | 60.3 | 59.1 | 60.8 | 63.6 | 60.6 | 63.6 | 60.0 | 63.9 | 61.7 | 62.2 | 63.5 |
| Rejections of credit applications | 51.3 | 51.8 | 48.9 | 51.3 | 50.6 | 51.4 | 51.6 | 52.1 | 52.4 | 52.6 | 51.9 | 52.2 | 52.5 |
| Accounts placed for collection | 47.9 | 48.1 | 45.8 | 49.7 | 49.4 | 48.2 | 49.8 | 49.0 | 48.5 | 49.3 | 48.9 | 48.7 | 50.3 |
| Disputes | 48.8 | 49.9 | 47.7 | 49.8 | 46.0 | 48.7 | 48.5 | 49.1 | 47.9 | 50.4 | 48.8 | 49.1 | 51.7 |
| Dollar amount beyond terms | 48.2 | 49.0 | 44.9 | 49.3 | 48.4 | 51.0 | 47.4 | 51.0 | 45.9 | 50.4 | 48.3 | 47.4 | 50.4 |
| Dollar amount of customer deductions | 50.4 | 49.5 | 47.9 | 49.8 | 48.7 | 47.6 | 49.8 | 49.2 | 48.7 | 49.1 | 48.1 | 49.2 | 49.8 |
| Filings for bankruptcies | 52.7 | 53.8 | 53.0 | 55.0 | 53.9 | 53.2 | 53.8 | 53.5 | 52.7 | 53.4 | 53.6 | 55.3 | 56.2 |
| Index of unfavorable factors | 49.9 | 50.3 | 48.0 | 50.8 | 49.5 | 50.0 | 50.2 | 50.6 | 49.3 | 50.9 | 49.9 | 50.3 | 51.8 |
| NACM Combined CMI | 53.7 | 53.5 | 52.9 | 54.1 | 54.0 | 55.4 | 54.3 | 55.8 | 53.6 | 56.1 | 54.6 | 55.1 | 56.5 |

Private Indicators



SEPTEMBER 2017 Report: Small Business Optimism Slides In September

“The NFIB Index of Small Business Optimism tumbled in September from 105.3 to 103 led by a steep drop in sales expectations, not just in hurricane-affected states, but across the country.” – Holly Wade, NFIB

Expected Business Conditions Tumble In NFIB Optimism Index

“Six of the 10 Index components dropped in September. Three improved, and one remained unchanged. The bright spot last month was inventory plans, which gained five points as more business owners anticipate a strong 4th quarter.” – Holly Wade, NFIB

“The drop-off was consistent around the country regardless of region, and it’s likely that members in Florida and Texas were underrepresented in this survey because of the obvious disruptions. The adjusted average employment change per firm dipped to -0.17, which is a significant drop in hiring activity.” – William C. Dunkelberg, Chief Economist, NFIB

“The temptation is to blame the decline on the hurricanes in Texas and Florida, but that is not consistent with our data. Small business owners across the country were measurably less enthusiastic last month.” – Juanita Duggan, President & CEO, NFIB

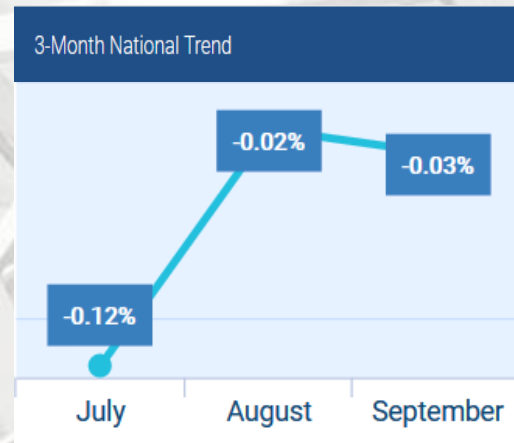
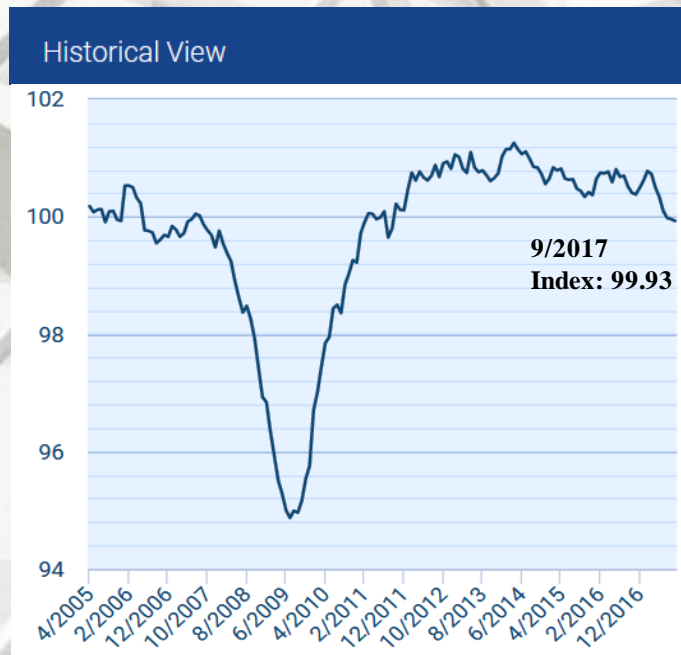
Private Indicators

COMMENTARY

“The Index remains very high by historical standards. Small business owners still expect policy changes from Washington on health care and taxes, and while they don’t know what those changes will look like, they expect them to be an improvement. But the frothy expectations they’ve had in the previous few months clearly slipped in September.” – William C. Dunkelberg, Chief Economist, NFIB

“The Index of Small Business Optimism fell 2.3 points to 103.0 in September, a significant decline from August. Three of the 10 Index components posted a gain, six declined and one was unchanged. Two of our largest states, Florida and Texas, were devastated by hurricanes in the survey period; however, the response rate in those states was unchanged from prior months. The mail got through, but for large parts of the two states, “shopping” was not possible. Tens of thousands of houses were probably lost and a half million cars rendered inoperable. Hurricane recovery spending will provide a significant boost to economic activity in the fourth quarter and into 2018, reducing the odds of a recession next year. The news about tax reform came out too late to have a significant impact on expectations, the October survey will reflect whatever impact that debate will have.” – Holly Wade, NFIB

Private Indicators

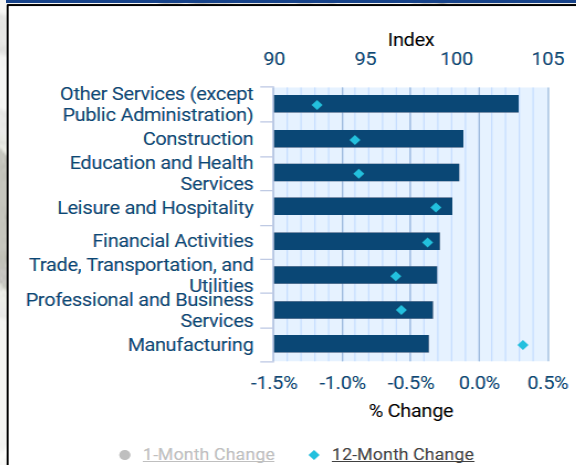


The Paychex | IHS Small Business Jobs Index National Jobs Index

- “After several years of strong small business job growth, the national index has moderated and remained consistent with the base year level set in 2004.
- The national index has essentially remained flat since June, though there have been seven successive declines.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

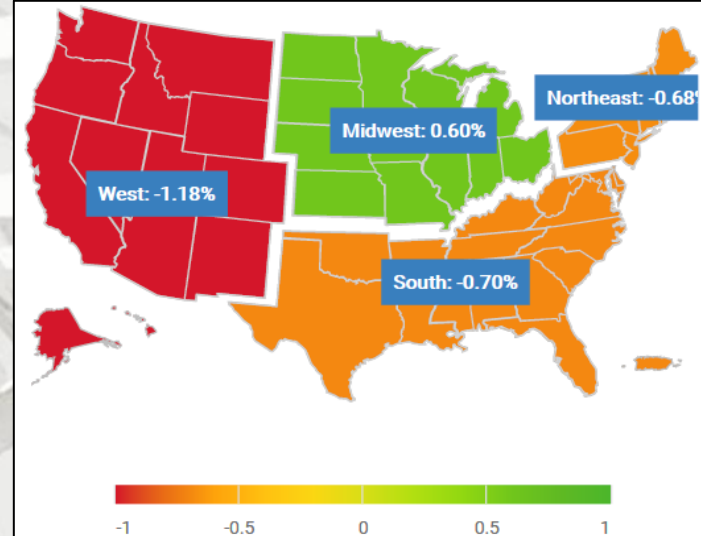
Industry Performance



Industry

- “Though still ranked last, Manufacturing is the only industry to improve the pace of small business job growth year-over-year, 0.32 percent.” – James Diffley, Chief Regional Economist, IHS Markit

Regional Performance



| Region | Index | Change |
|-----------|--------|--------|
| Midwest | 100.27 | 0.60% |
| Northeast | 99.57 | -0.68% |
| South | 100.53 | -0.70% |
| West | 99.56 | -1.18% |

The Paychex | IHS Small Business Jobs Index

Regional Highlights

- “At 99.56, the West is last among regions in small business job growth for the first time in five years and has the weakest one-month and 12-month growth rates as well.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

“The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 5.9% annual gain in July, up from 5.8% the previous month. The 10-City Composite annual increase came in at 5.2%, up from 4.9% the previous month. The 20-City Composite posted a 5.8% year-over-year gain, up from 5.6% the previous month.

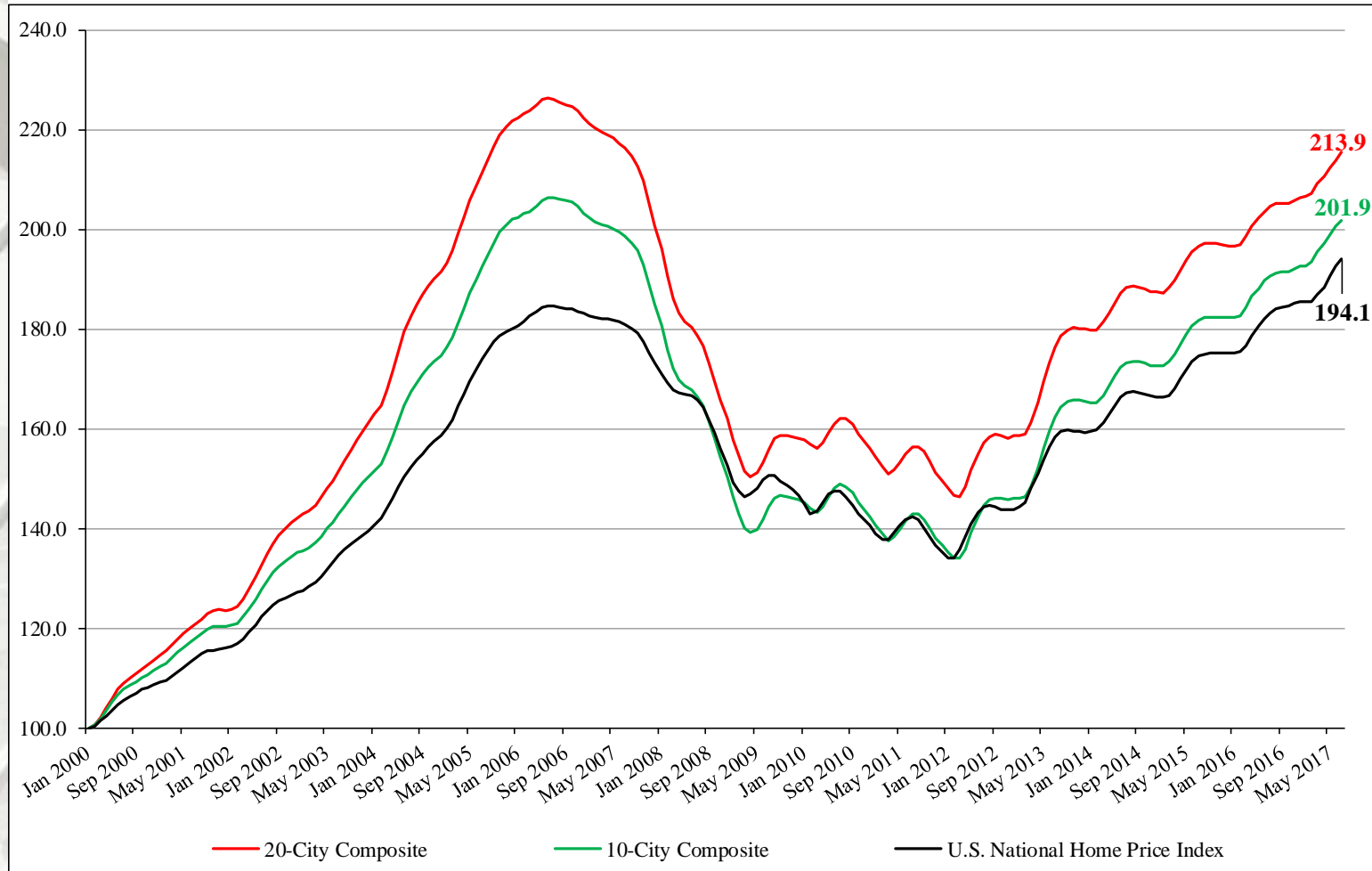
The S&P CoreLogic Case-Shiller National Home Price NSA Index Continues To Rise

Home prices over the past year rose at a 5.9% annual rate. Consumers, through home buying and other spending, are the driving force in the current economic expansion. While the gains in home prices in recent months have been in the Pacific Northwest, the leadership continues to shift among regions and cities across the country. Dallas and Denver are also experiencing rapid price growth. Las Vegas, one of the hardest hit cities in the housing collapse, saw the third fastest increase in the year through July 2017.

While home prices continue to rise, other housing indicators may be leveling off. Sales of both new and existing homes have slipped since last March. The Builders Sentiment Index published by the National Association of Home Builders also leveled off after March. Automobiles are the second largest consumer purchase most people make after houses. Auto sales peaked last November and have been flat to slightly lower since. The housing market will face two contradicting challenges during the rest of 2017 and into 2018. First, rebuilding following hurricanes across Texas, Florida and other parts of the south will lead to further supply pressures. Second, the Fed’s recent move to shrink its balance sheet could push mortgage rates upward.” – David Blitzner, Managing Director and Chairman of the Index Committee, S&P Dow Jones

Private Indicators

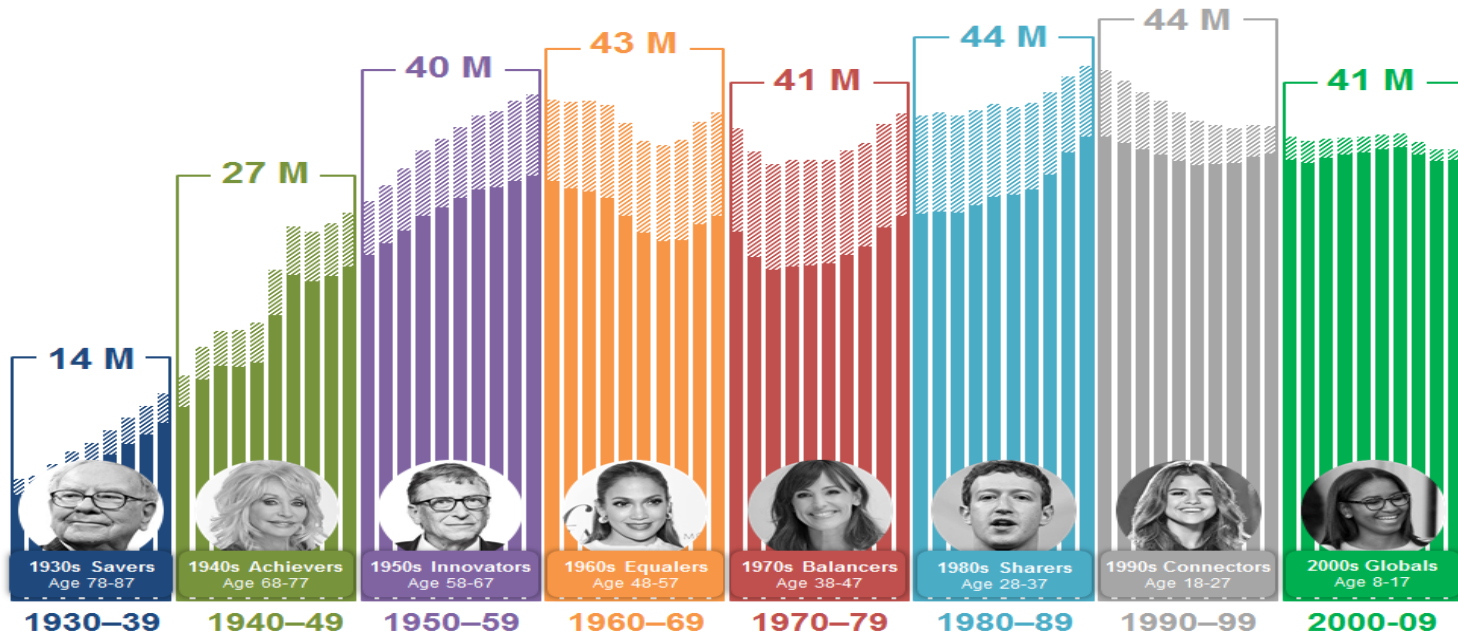
S&P/Case-Shiller Home Price Indices



Demographics

2015 US POPULATION BY PLACE OF BIRTH

Foreign Born US Born



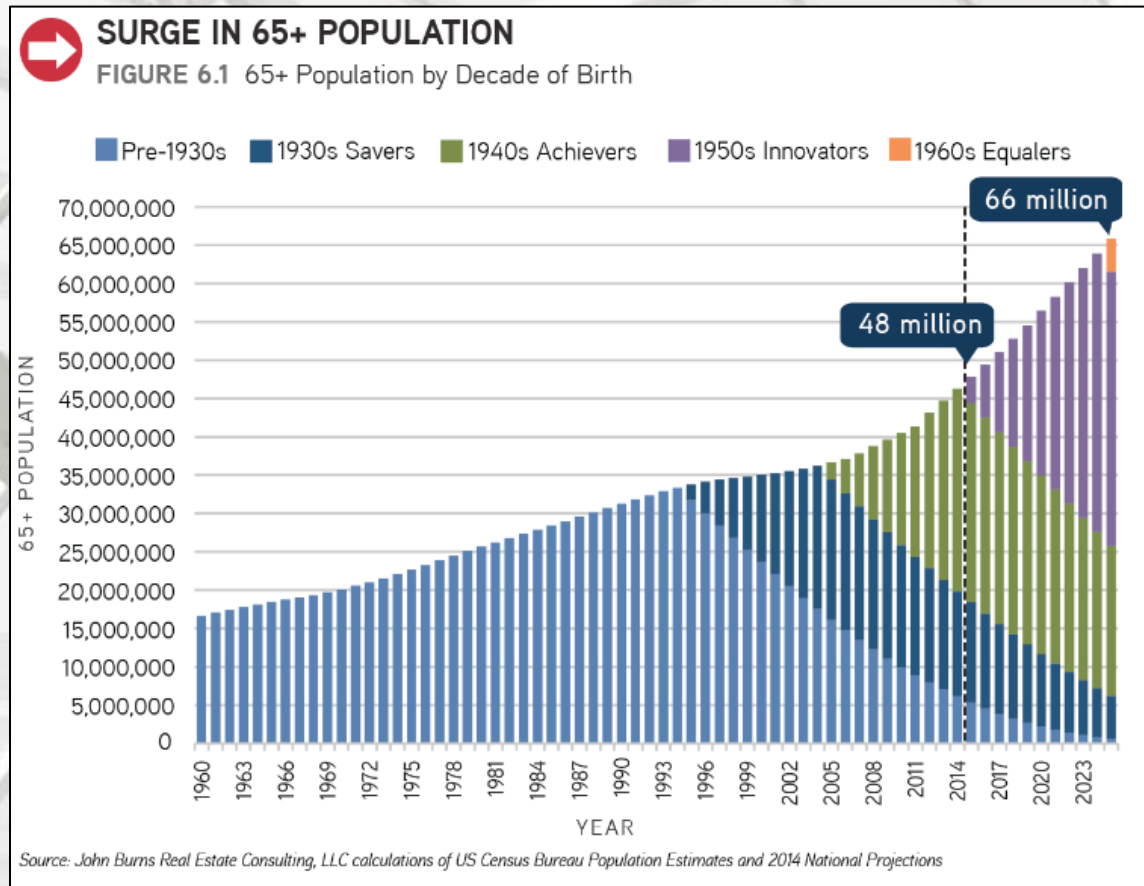
Source: John Burns Real Estate Consulting, LLC calculations of US Census Bureau 2014 National Projections

Correcting Demographic Misperceptions

“[Our survey of almost 1,000 people](#) showed eight significant demographic misperceptions. Read our book [Big Shifts Ahead](#) if you want the facts. Those misperceptions (along with charts that clarify) are as follows:

1) We are younger than we think. Half of respondents believed that the number of Americans born in the 1990s is exceeded by either the generation born in the 1950s (the Baby Boom) or the generation born in the 1970s (the Baby Bust!). Not true! While we are aging faster than we think (see the next question), the number of young adults is very high. Consider how competitive it has become to get into a good college.” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

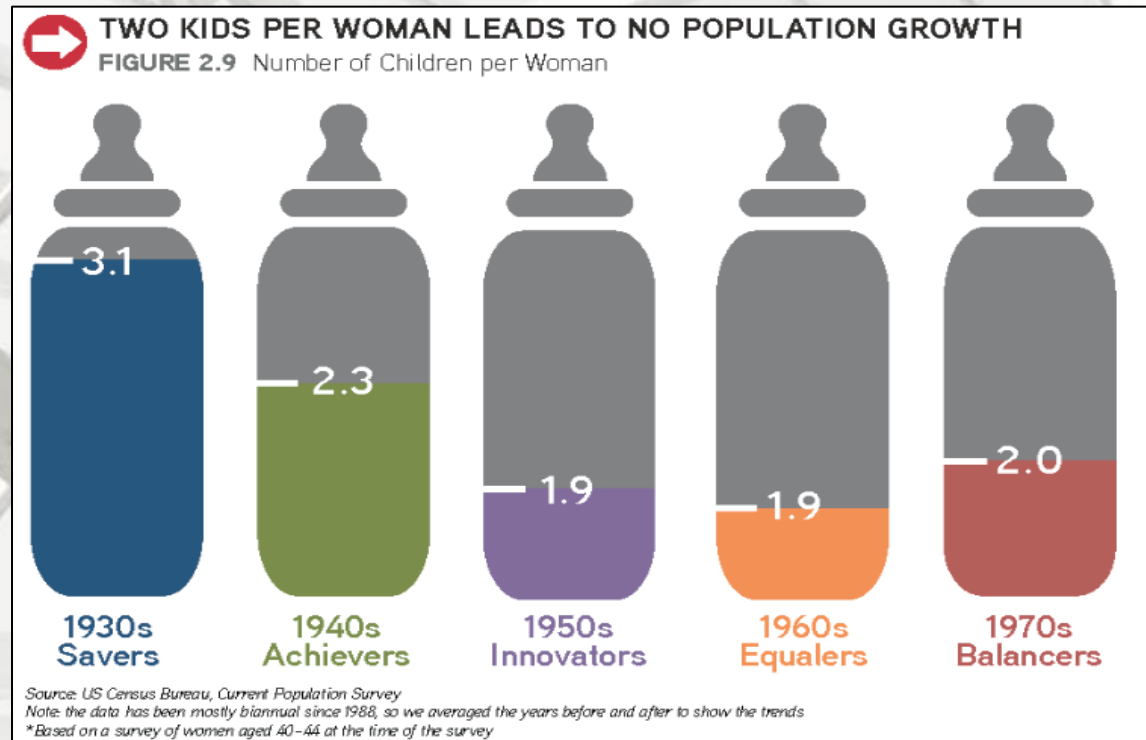


Correcting Demographic Misperceptions

“2) We are also aging faster than we think.

52% of respondents thought our population over age 65 will grow 22% or less over the next 10 years. It will actually grow 38%+/- . That will obviously cause more strain on pension programs than people think.” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

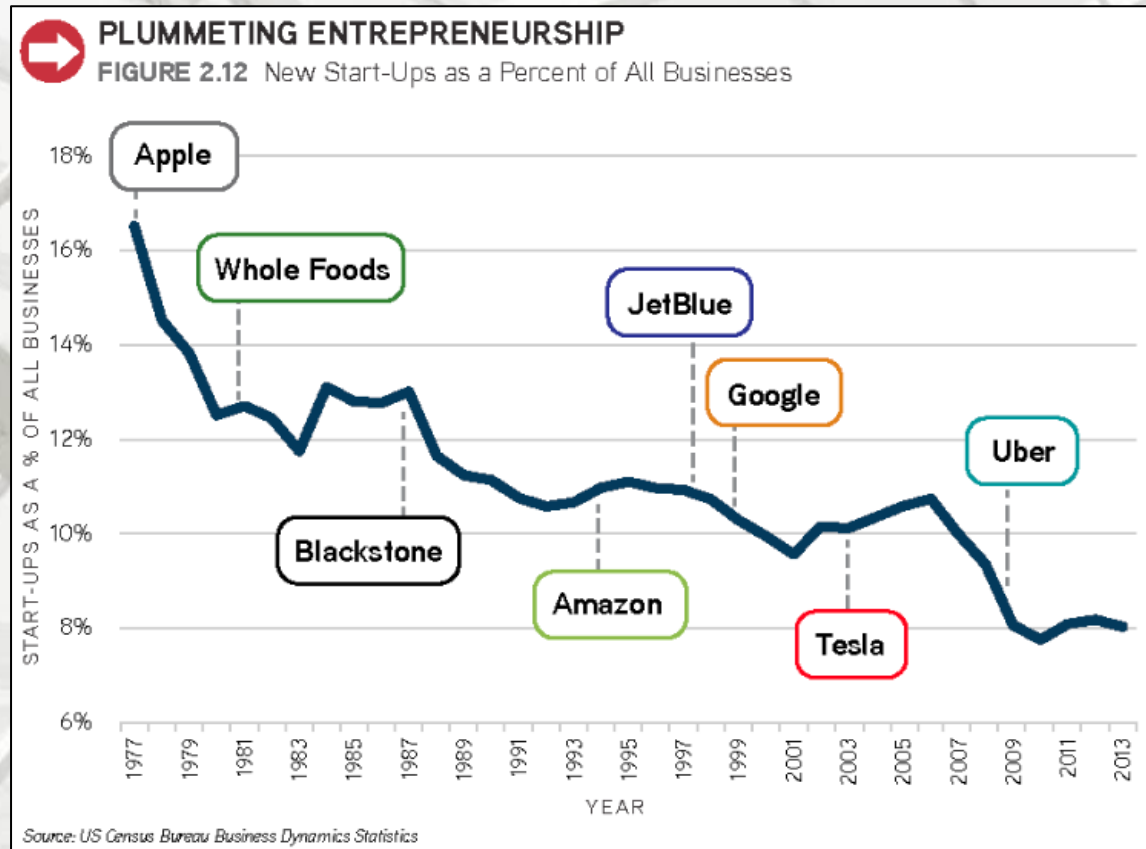


Correcting Demographic Misperceptions

“3) Fertility rates matter far more than we think.

57% of respondents believed that the US population would be a maximum of 27% larger if birth rates had stayed the same as in 1960. The right answer is that the US population would be 79% larger, with 590 million people instead of 330 million! Three of the four big shifts in our **4-5-6 Rule** combined to have a far bigger impact on the US population than most people think. The three big shifts are **government** (legalized abortion), **technology** (birth control), and **societal shifts** (intentionally having fewer children).” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

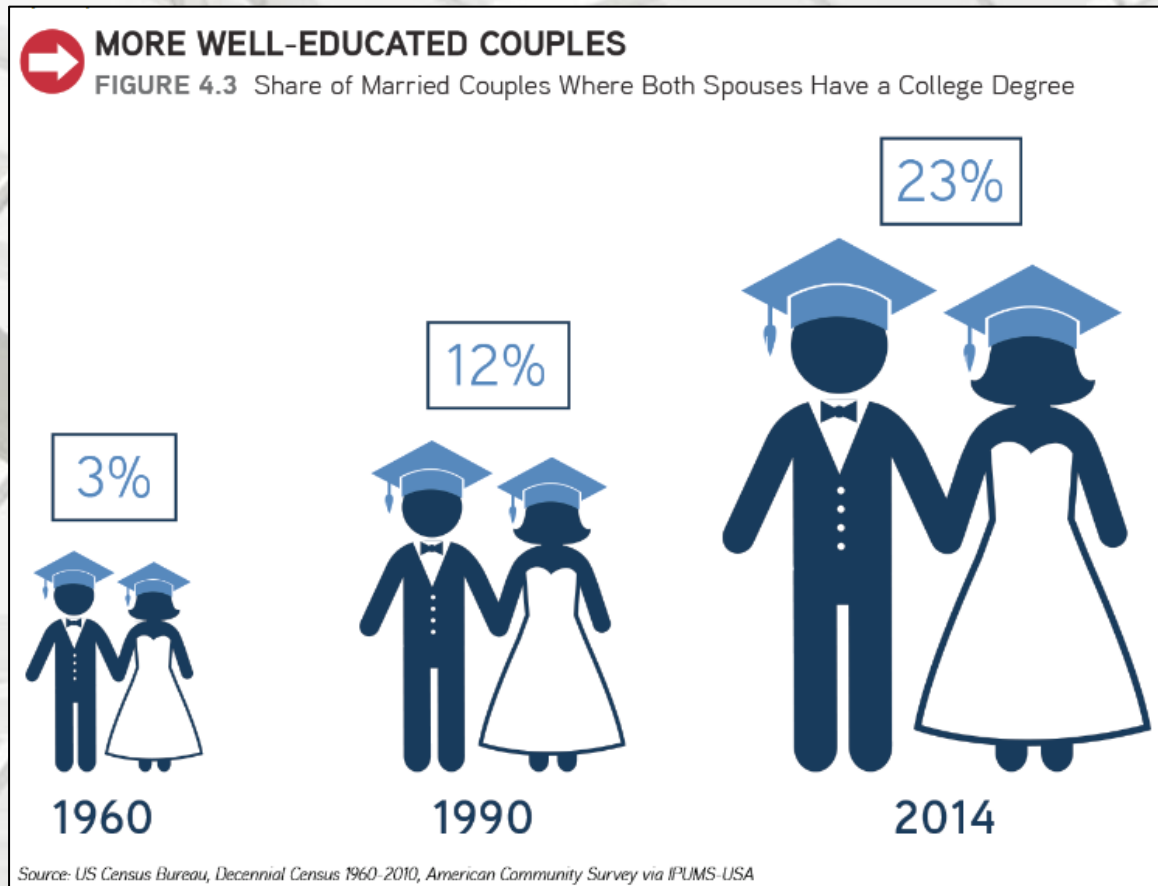


Correcting Demographic Misperceptions

“4) We are far less entrepreneurial than we think.

The percentage of US companies that are startups (less than a year old at the time of the survey) has been steadily plunging to 8% of all companies. 65% chose a higher % of startups, and almost half thought it was 20% — more than the 1970s, when Apple, Microsoft, and so many other great companies were started!” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

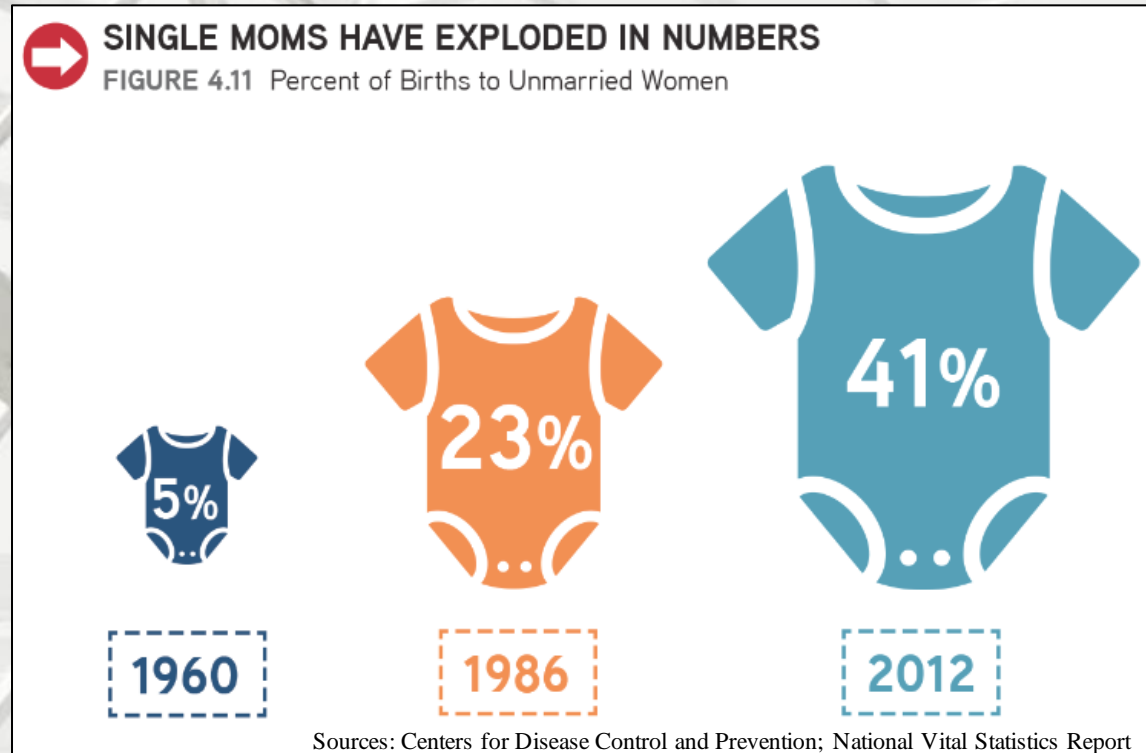


Correcting Demographic Misperceptions

“5) We are more educated than we think.

Exactly half correctly chose 23% as the correct percentage of married couples who both have college degrees, but far more respondents chose a lower % (8% or 15%) than a higher % (35% being the option).” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

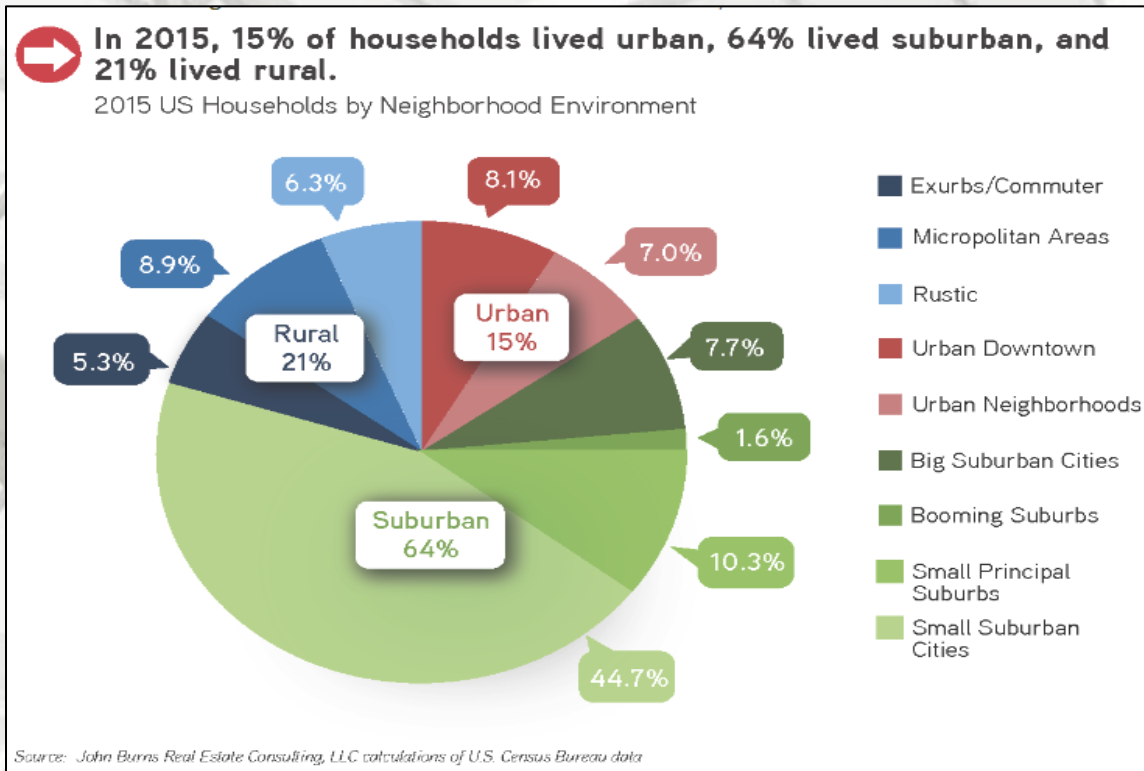


Correcting Demographic Misperceptions

“6) Single-parenting is far more prevalent than we think.

41% of children are born to a single mom. Fully 63% of respondents chose a much lower percentage — 23% or less of all children! For those who are curious, just over one-half of these single moms are still partners with the father on the birth date.” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

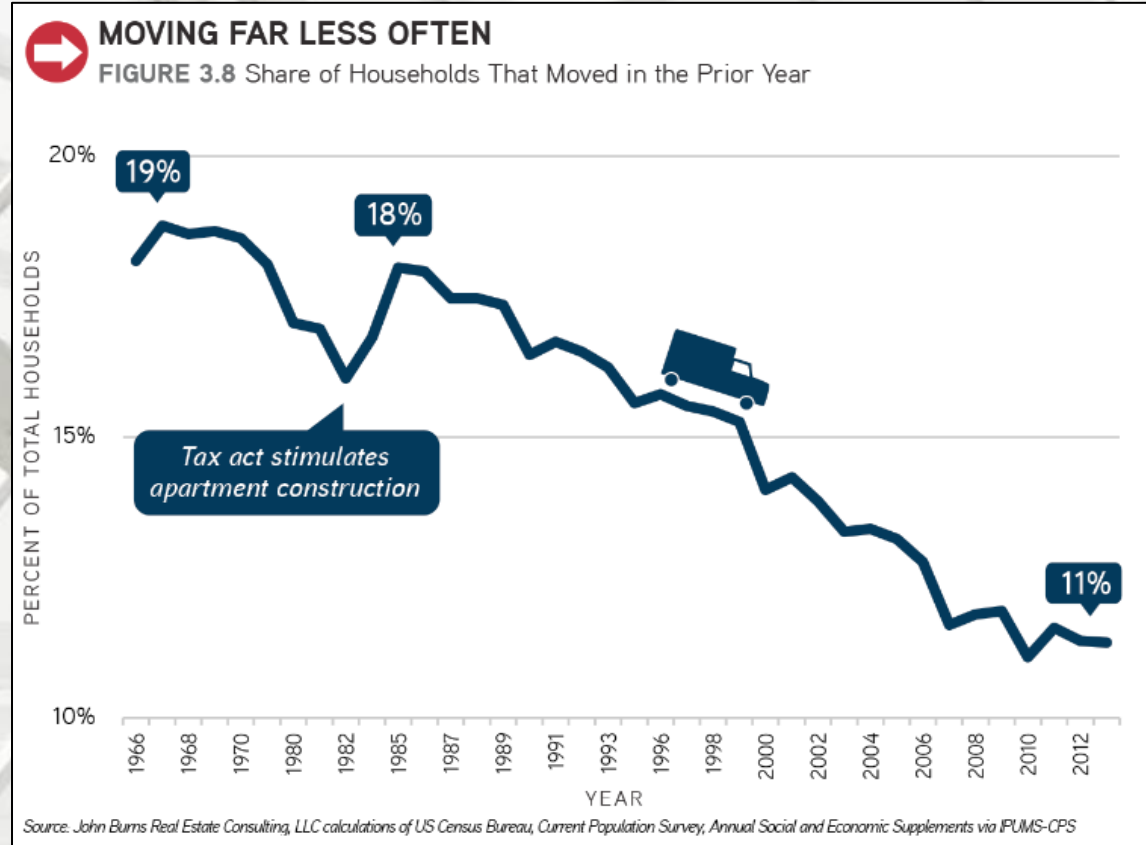


Correcting Demographic Misperceptions

“7) We are far less urban than we think.

Only 8% of Americans live in an urban downtown. More than half of the respondents believed that 22% or more of Americans lived in urban areas — a massive difference. Of course, urban definitions can vary, but our definitions include all of the cities that have professional sports teams except for Green Bay and three others. Even including all of the neighborhoods in those cities, we can only get to 15% of Americans living urban. 64% of Americans live in the suburbs, and 15% live rural.” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics



Correcting Demographic Misperceptions

“8) We move less often than we think.

Americans move once every nine years. The rule of thumb that began around 1990 that Americans move every six years is no longer true, and it is not just due to the Great Recession. American mobility has been steadily trending down for over 30 years.” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

Correcting Demographic Misperceptions

“We looked at the results by age group, too, and noted that our younger respondents were the least informed. Perhaps reflecting their own peer group, they chose much higher than actual education levels, far too many people living urban, and a significant percentage even thought California’s population was growing faster than Texas or Florida’s. Those approaching or already over the age of 65 were also far too high on the percentage living urban.

In conclusion, make the best decisions possible using the free or low cost facts that are more readily available than ever. In particular, breaking the population down by [decade born](#) will allow you to collect and analyze data in the most logical way. Be ready to change your strategy when the world around you changes. Use the [4-5-6 rule](#) to make sense of all the disruptors going on in the world. Because you are one of the few people who read all 800+ words of this post, I am confident you will be more successful than most.” – John Burns, CEO, John Burns Real Estate Consulting, LLC

Demographics

Understanding the Single-Family Renter

Single-family home renters earn more money, have more kids, and are more likely to be married than multifamily renters

“Comparing the 16 million single-family renter households to the 28 million multifamily rental households:

- **Higher income.** At \$42,600, they earn 31% more per year than the \$32,400 multifamily renters earn.
- **More families.** 52% have kids, compared to only 30% of multifamily renters, who are far more likely to be under 35 or over 65. 58% of single-family rental households are headed by 35–64-year-olds, compared to only 46% of multifamily rental households.
- **More likely to be married.** 38% are married, compared to only 21% of multifamily renters.

We have been fortunate enough to work with all five of the largest single-family rental landlords in the country, who have helped us understand this important component of the housing population — now reaching almost 13% of all households.

Lifestyle drives much of the preference between renting a single-family home or an apartment. Single-family renters tend to prefer a yard for kids and pets, and good school districts. They also prefer more privacy from their neighbors.

Many single-family renters would like to own some day but have not yet saved the down payment, have poor credit, or want more flexibility to move in the future.” – Mikaela Sharp, Research Analyst and Chris Porter, Chief Demographer; John Burns Real Estate Consulting, LLC

Demographics

Redefining the Prime Working Years

“The workaholic baby boomers continue to redefine employment, even as they reach the traditional retirement age. They created the surge in dual-income families that ended in 2000, and now they are creating a surge in full-time workers over the age of 65.

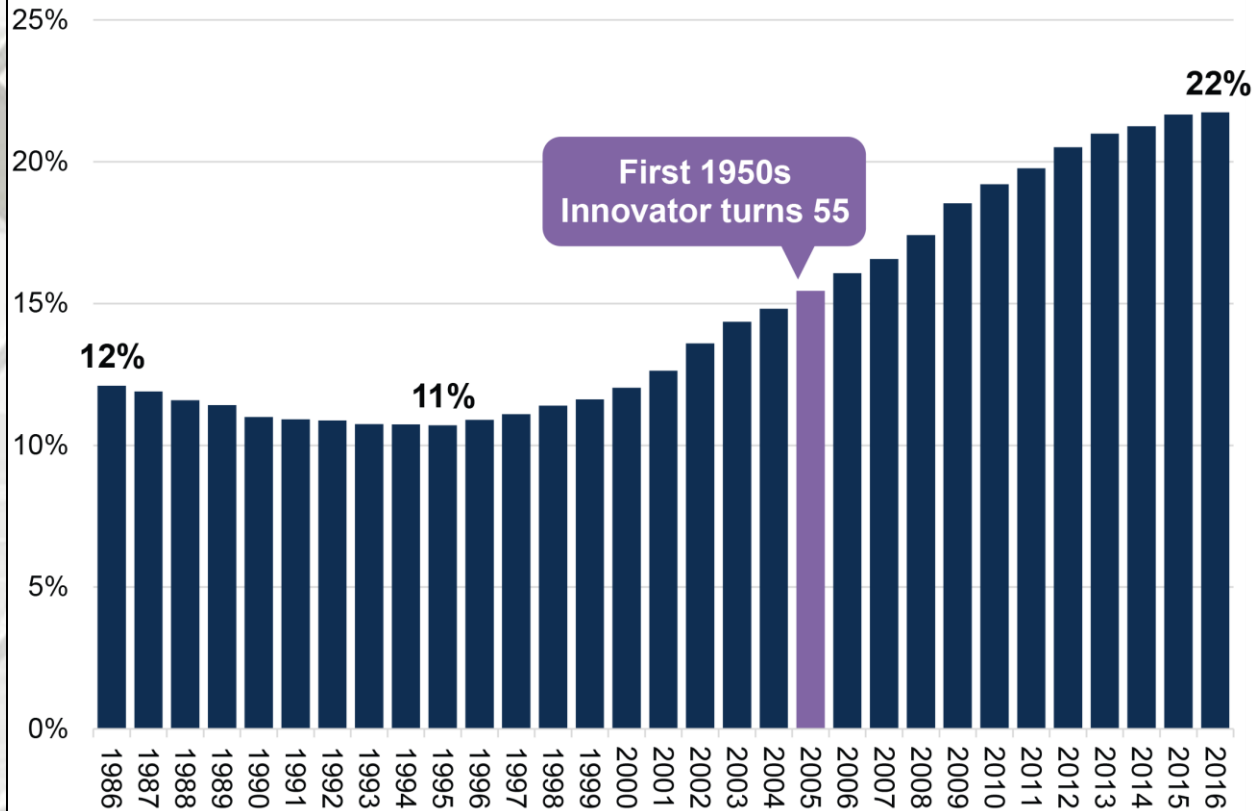
Those born in the [1950s—who we nicknamed the Innovators](#) for the societal shift they led toward innovation – have had a profound impact on the US economy. Innovators are:

- **Large in numbers.** 66% more people were born in the 1950s than the 1930s, and immigration over the years has added to their size.
- **Hard working.** They have had the highest labor force participation rates of any generation after age 35, with nearly two-thirds of them still working today.

The 1950s Innovators are 58 to 67 today, which means that all of them are now outside the “prime working years” category (ages 25–54) that many economists use. The 55+ age group now holds 22% of all full-time jobs – a significant increase from only 11% in the mid-1990s. The Innovators have delayed retirement, driven by economic necessity in the wake of the Great Recession, a desire to keep working, and a realization that they will likely live longer than any generation before them.” – Mikaela Sharp, Research Analyst and Chris Porter, Chief Demographer; John Burns Real Estate Consulting, LLC

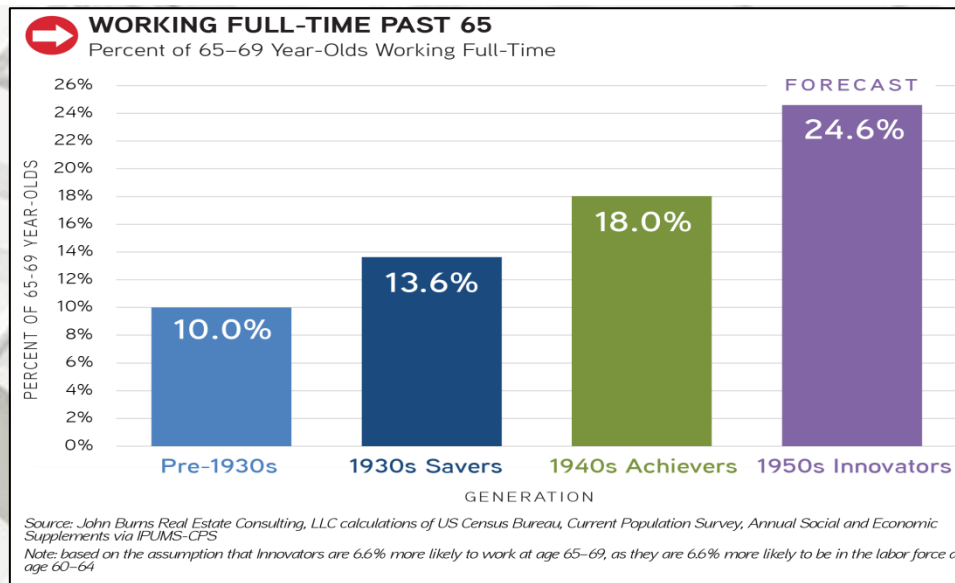
Demographics

Share of Full-Time Jobs Held by People Aged 55+



Source: John Burns Real Estate Consulting, LLC, calculations of Bureau of Labor Statistics data

Demographics



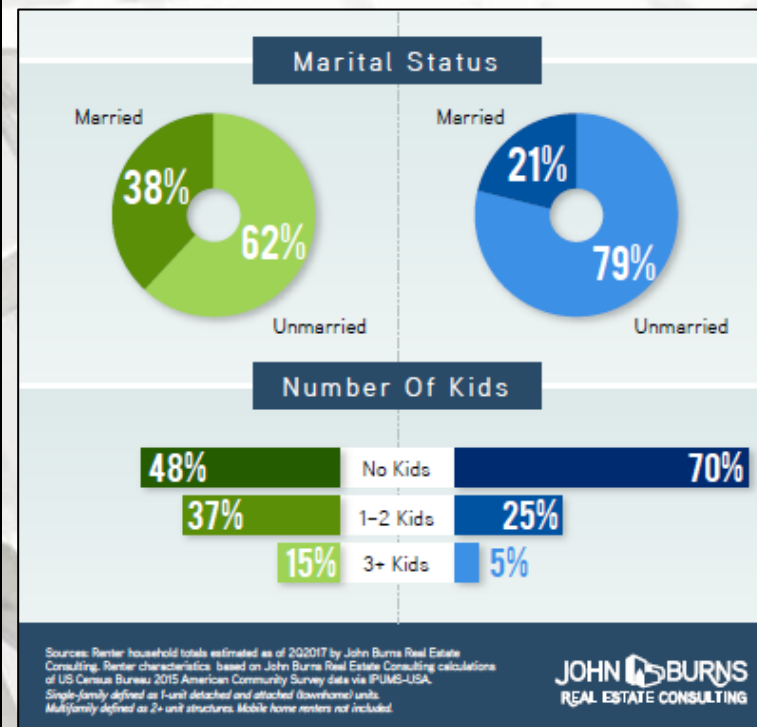
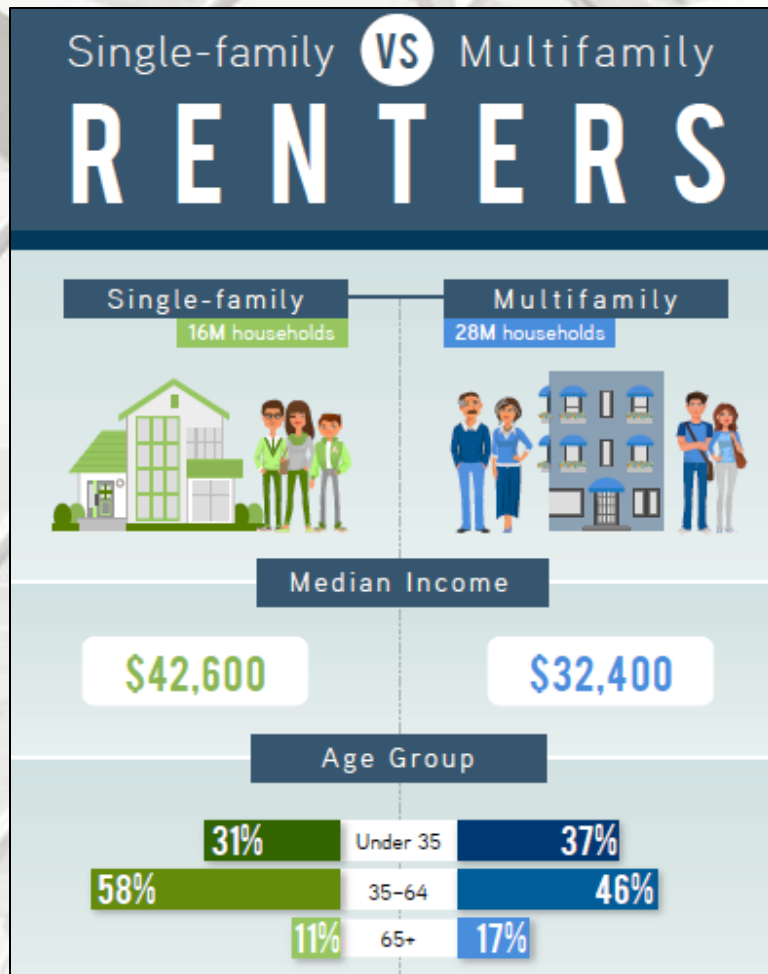
Redefining the Prime Working Years Conclusion

“Because of these shifts, we are telling our clients to build Empty Nester housing:

- **Near employment centers.** While many will telecommute, a higher than usual percentage want to live closer to job centers. Additionally, a higher percentage will want to live near their kids and grandchildren, whose presence is the most important “amenity.”
- **With multigenerational floor plans.** Separate entrances, dual masters, and even separate mini-kitchens have resonated with this group. The 1950s Innovators have the down payment, and their adult kids can make the mortgage payment, resulting in a great opportunity to build homes that don’t exist in the resale market today.” – Chris Porter, Vice President, Chief Demographer and Mikaela Sharp, Research Analyst; John Burns Real Estate Consulting, LLC

Demographics

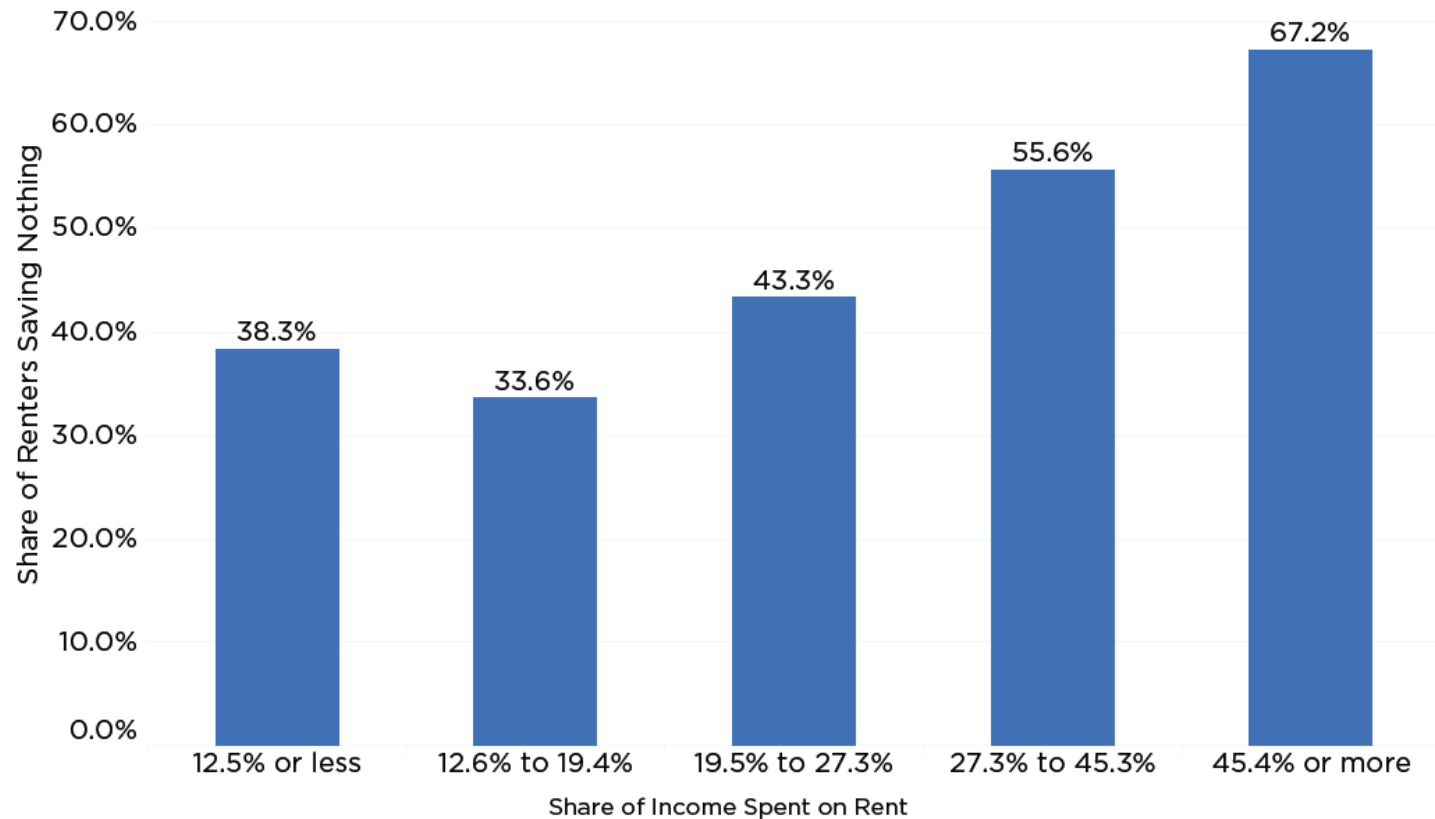
Understanding the Single-Family Renter



Demographics

Renters With No Savings

As the share of income spent on rent rises, more renters report saving nothing.



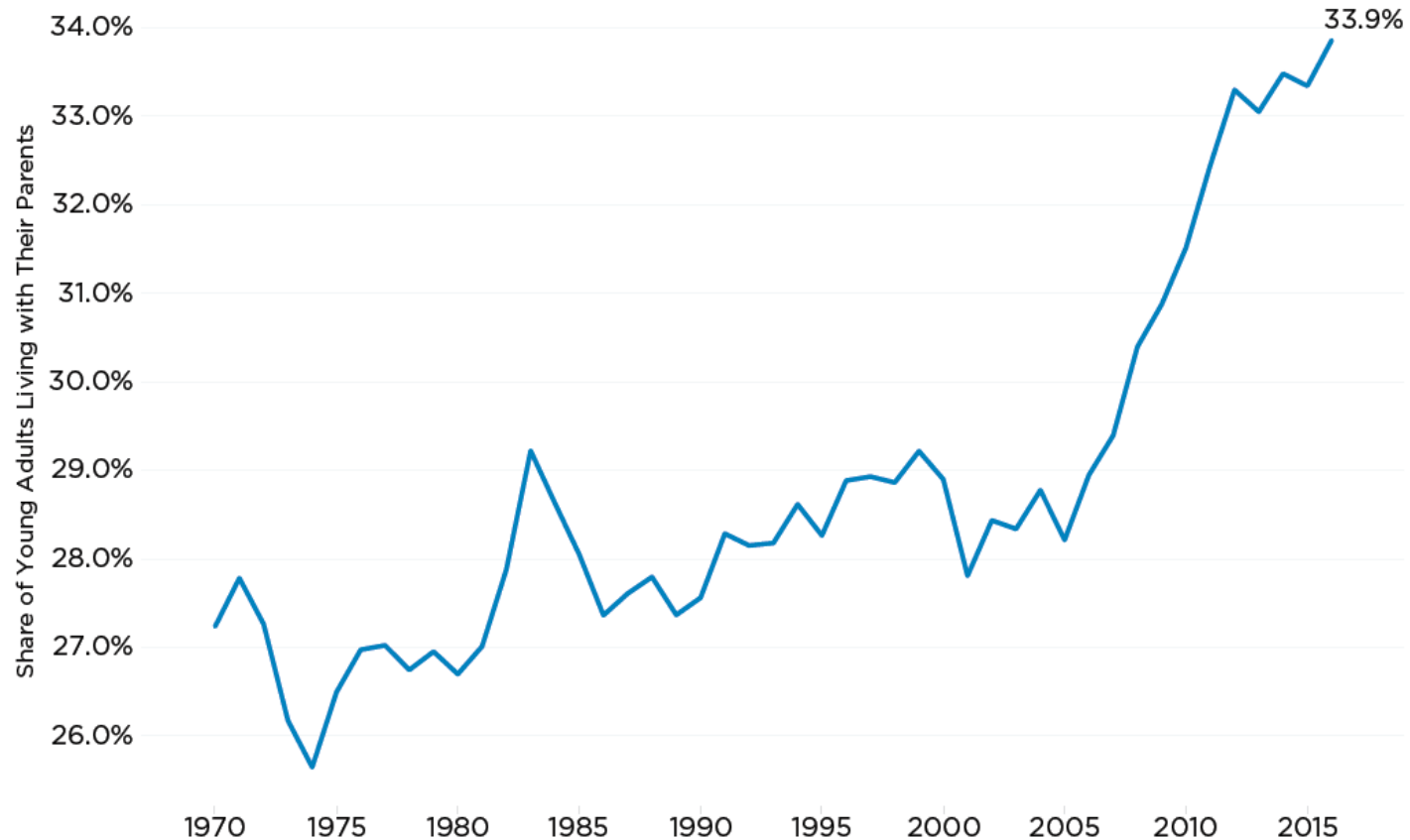
Source: Zillow analysis of data from the Federal Reserve Board, Survey of Household Economics and Decisionmaking 2015 and 2016, and the U.S. Census Bureau, ACS, IPUMS.

ZILLOW HOUSING MARKET OVERVIEW | [PAGE 29](#)

Demographics

Share of Millennials Living With Their Parents

The share of millennials (age 18-34) living with their parents has increased sharply in the past decade.



Source: U.S. Census Bureau: Current Population Survey, March Supplement, 2016, made available by the University of Minnesota, IPUMS-USA.

ZILLOW HOUSING MARKET OVERVIEW | [PAGE 49](#)

Economics

United States Economic Forecast 3rd Quarter 2017

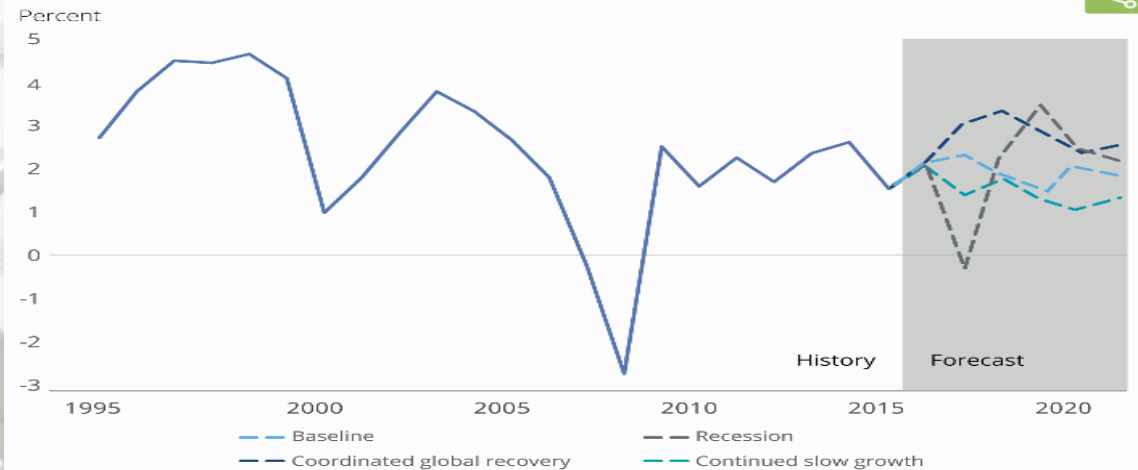
Introduction: Calmer than it seems

“In recent months, American newspaper readers likely couldn’t help but notice a contrast between the front-page political news and, a bit further back, the economic news. While political headlines have featured sudden and surprising twists and turns, the business section has made for much calmer reading. The US economy has continued to grow steadily — perhaps not as fast as some would prefer but swiftly enough to continue to create jobs at a significant rate. Business investment is slowly picking up, and financial conditions appear good, with market volatility measures unusually low. Even better, growth in Europe and China is now supporting the calm domestic scene. True, the numbers aren’t spectacular, and some worrying signs—particularly slow productivity growth — persist. But news readers could find some calm relief from the dizzying pace of political news in the business pages.

Is this surprising? We contend that the connection between the political system and the economy is less strong than many people believe, and observers should avoid making extreme projections from the political system to the economy. Especially in today’s partisan climate, too many people are tempted to assume that political developments, dominating evening newscasts and social media conversations, *must* have large and immediate consequences for economic decision-makers. More likely, few people— and few businesses —make day-to-day economic decisions based on yesterday’s political drama. We believe that economic fundamentals remain the building blocks of business decision-making, and those fundamentals have been and continue to be mildly positive.” – Dr’s Daniel Bachman and Rumki Majumdar; Deloitte Services LP

Economics

Figure 1. Real GDP growth



Source: Deloitte analysis.

Deloitte University Press | dupress.deloitte.com

United States Economic Forecast Scenarios

“Our scenarios are designed to demonstrate the different paths down which the administration’s policies and congressional action might take the American economy. Foreign risks have not dissipated, and we’ve incorporated them into the scenarios. But for now, we view the greatest uncertainty in the US economy to be that generated within the nation’s borders.

The baseline (55 percent probability): Consumer spending continues to grow, and businesses add capacity in response. A pickup in foreign growth helps to tamp down the dollar and increase demand for US exports, adding to demand. With the economy near full employment, the faster GDP growth creates some inflationary pressures. A small increase in trade restrictions adds to business costs in the medium term, but this is offset by lower regulatory costs. Annual growth is in the 2 percent range but gradually falls below that level as the economy reaches capacity and slow labor force growth becomes a constraining factor.” – Dr’s Daniel Bachman and Rumki Majumdar; Deloitte Services LP

Economics

United States Economic Forecast Scenarios

“Recession (5 percent): Policy mistakes and risky financial market decisions in the United States, Europe, and China trigger a global financial crisis. The Fed and the European Central Bank act to ease financial conditions, and the financial system recovers relatively rapidly. GDP falls in the last two quarters of 2017 and recovers after 2018.

Slower growth (30 percent): Fiscal year 2018 begins with congressional inaction on the budget and debt ceiling. The resulting issues dampen growth in the first two quarters of the year, and the financial system’s response limits growth beyond the short term. Meanwhile, the administration places significant restrictions on US imports, raising costs and disrupting supply chains. Businesses hold back on investments to restructure their supply chains because of uncertainty about future policy. GDP growth falls to less than 1.5 percent over the forecast period, and the unemployment rate rises to about 6 percent.

Successful policy takeoff (10 percent): The administration takes only symbolic action on trade. Congress compromises on appropriations and passes a large rise in the debt ceiling. With financial and supply chain disruptions off the table, businesses focus on tax cuts that are designed to increase investment spending and the opportunities available from an effective infrastructure plan. Growth remains above 2 percent for the next five years.” – Dr’s Daniel Bachman and Rumki Majumdar; Deloitte Services LP

Economics

United States Economic Forecast: Housing

“Every year, thousands of young Americans abandon the nest, happy to leave home and start their own households. But more than usual stayed put after the recession: The number of households didn’t grow nearly enough to account for all the newly minted young adults. We expect those young adults would prefer to live on their own and create new households; as the economy continues to recover, they will likely do exactly that — as previous generations have. This means some positive fundamentals for housing construction in the short run. Since 2008, the United States has been building fewer new housing units than the population would normally require; in fact, housing construction was hit so hard that the oversupply turned into an undersupply. But the hole is shallower than you might think. Several factors offset each other: If household size returns to levels of the mid-2000s, we would need an additional 3.2 million units; on the other hand, household vacancy rates are much higher than normal. Vacancy returning to normal would make available an additional 2.5 million units — which would fill three-quarters of the pent-up demand for housing units.

But are the existing vacant houses in the right place or condition, or are they the right type, for that pent-up demand? The future of housing may look very different than in the past. Growth in new housing construction has been concentrated in multifamily units. If that persists, we may conclude it is related to young buyers’ growing reluctance to settle in existing single-family units.

While economic growth and job creation may point to strong house sales, higher interest rates may moderate any potential housing boom. Higher inflation and a strong Fed response may drive up mortgage rates more quickly than businesses in the housing sector would like.” – Dr’s Daniel Bachman and Rumki Majumdar; Deloitte Services LP

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Figure 3. Housing



Source: Deloitte analysis.

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TABLE 1
Post-World War II Business Cycles

| Business cycle | 1950:Q1 - 1954:Q2 | 1954:Q3 - 1958:Q2 | 1958:Q3 - 1961:Q1 | 1961:Q2 - 1970:Q4 | 1971:Q1 - 1975:Q1 | 1975:Q2 - 1982:Q4 | 1983:Q1 - 1991:Q1 | 1991:Q2 - 2001:Q4 | 2002:Q1 - 2009:Q2 | 2009:Q3 - 2017:Q2* |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| Duration (quarters) | 18 | 16 | 11 | 39 | 17 | 31 | 33 | 43 | 30 | 32* |
| Rank among post-WWII cycles | 7 | 9 | 10 | 2 | 8 | 5 | 3 | 1 | 6 | 4* |
| Average annualized real GDP growth rate (percent) | 5.51% | 2.61% | 4.05% | 4.42% | 2.91% | 2.79% | 3.89% | 3.42% | 1.69% | 2.16%* |
| Rank among post-WWII cycles | 1 | 8 | 3 | 2 | 6 | 7 | 4 | 5 | 10 | 9* |

SOURCES: Bureau of Economic Analysis and National Bureau of Economic Research.

*Current cycle has not yet ended. See endnotes.

Housing and Consumer Spending Are Powering the Economy like Never Before

“The U.S. economic expansion entered its ninth year in July and soon will become the third-longest growth period since World War II (Table 1). It will become the longest post-World War II recovery if it endures through the second quarter of 2020.

Despite its length, the current expansion has been weak, ranking ninth among the 10 post-WWII business cycles. Only the previous cycle, ending in the second quarter of 2009, was weaker. That cycle was dominated by the housing boom and bust and culminated in the Great Recession. As Table 1 shows, the average rate of economic growth beginning in 2002 has been far below that in all of the other business cycles listed.” – William R. Emmons, Assistant Vice President and Economist, The Federal Reserve Bank of St. Louis

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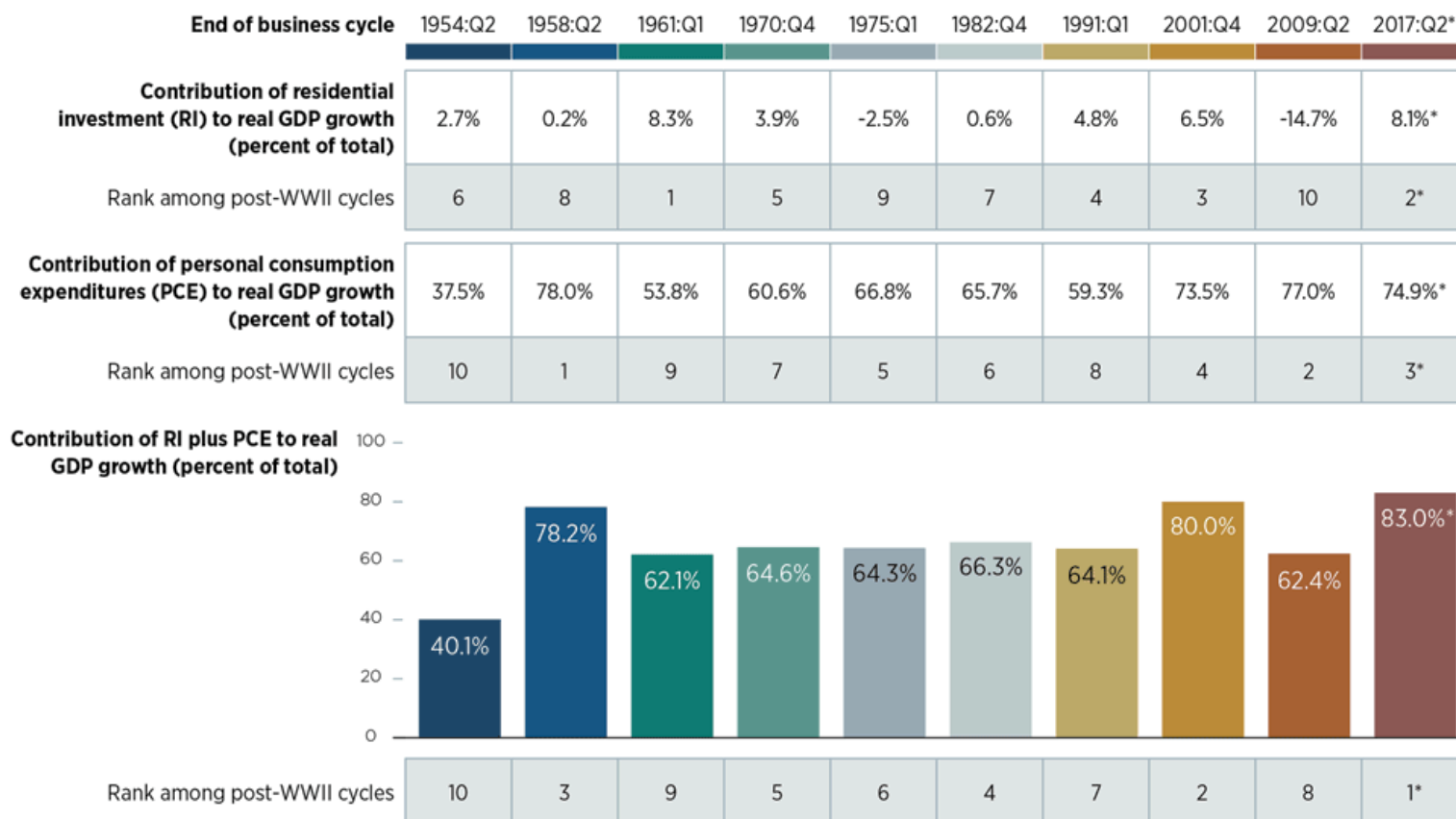
Housing and Consumer Spending Are Powering the Economy like Never Before

“Table 2 shows that the *composition* of economic growth also has changed in recent decades, generally shifting in favor of housing and consumer spending. Only during the brief 1958-61 cycle did residential investment – which includes both the construction of new housing units and the renovation of existing units – contribute proportionally more to the economy’s growth than it has during the current cycle. Perhaps surprisingly, homebuilding subtracted significantly from economic growth during the previous business cycle even though the period included the housing bubble. The crash in residential investment was so severe between the fourth quarter of 2005 and the second quarter of 2009 that it erased all of housing investment’s previous growth contributions. Personal consumption expenditures (i.e., consumer spending) also have been very important in recent cycles. Consumer spending has contributed 74.9 percent of overall economic growth during this cycle so far, a share exceeded in only two other cycles. Not surprisingly, strong residential investment and strong consumer spending tend to coincide when households are doing well. The combination of weak overall GDP growth and strong contributions by both residential investment and consumer spending mark the defining characteristic of the current business cycle: Household-related spending is driving the economy like never before. Fully five-sixths, or 83 percent, of total growth since the economy began to recover in 2009 has been fueled by household spending. Hence, the continuation of the current expansion may depend largely on the strength of U.S. households.” – William R. Emmons, Assistant Vice President and Economist, The Federal Reserve Bank of St. Louis

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TABLE 2

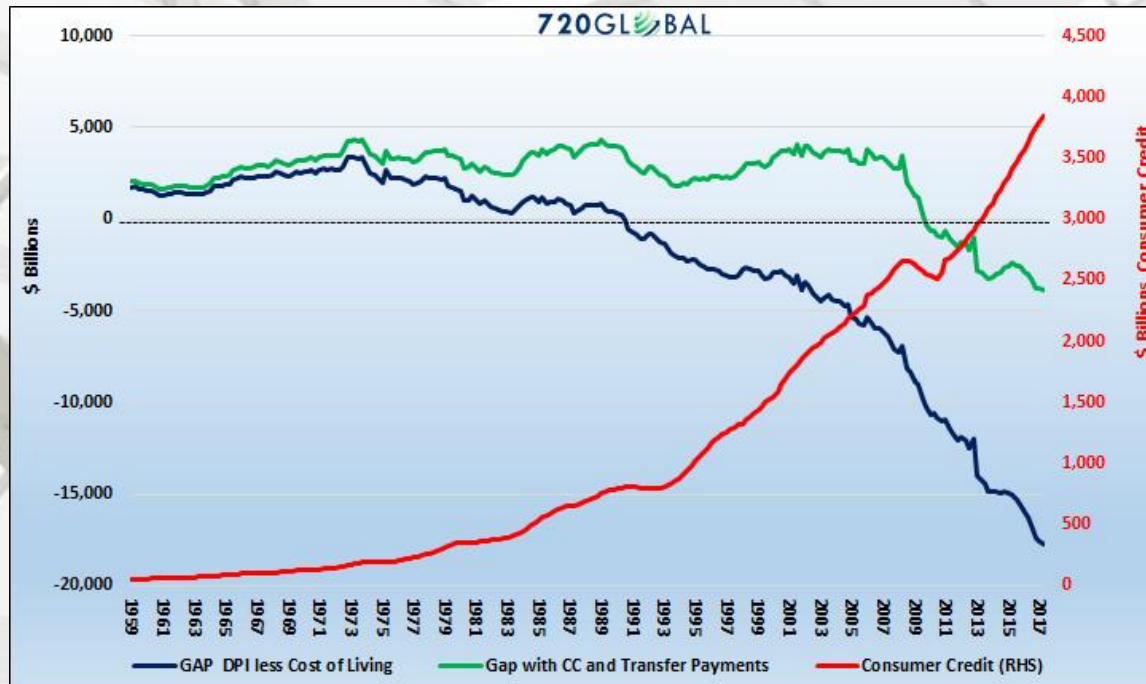
Composition of GDP Growth in Post-WWII Business Cycles



SOURCES: Bureau of Economic Analysis and National Bureau of Economic Research.

*Current cycle has not yet ended. See endnotes.

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Data Courtesy: St. Louis Federal Reserve (FRED) and Lance Roberts

The Illusion of Prosperity

“For the last 50 years, the consumer, that means you and me, have been the most powerful force driving the U.S. economy. Household spending now accounts for almost 70% of economic growth, about 10% more than it did in 1971. Household spending in the U.S. is also approximately 10-15% higher than most other developed nations.

Currently, U.S. economic growth is anemic and still suffering from the after-shocks of the financial crisis. Importantly, much of that weakness is the result of growing stress on consumers. Using the compelling graph above and the data behind it, we can illustrate why the U.S. economy and consumers are struggling.” – 720 Global

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“The blue line on the graph above marks the difference between median disposable income (income less taxes) and the median cost of living. A positive number indicates people at the median made more than their costs of living. In other words, their income exceeds the costs of things like food, housing, and insurance and they have money left over to spend or save. This is often referred to as “having disposable income.” If the number in the above calculation is negative, income is not enough to cover essential expenses.

From at least 1959 to 1971, the blue line above was positive and trending higher. The consumer was in great shape. In 1971 the trend reversed in part due to President Nixon’s actions to remove the U.S. dollar from the gold standard. Unbeknownst to many at the time, that decision allowed the U.S. government to run consistent trade and fiscal deficits while its citizens were able to take on more debt. Other than rampant inflation, there were no immediate consequences. In 1971, following this historic action, the blue line began to trend lower.

By 1990, the median U.S. citizen had less disposable income than the median cost of living; i.e., the blue line turned negative. This trend lower has continued ever since. The 2008 financial crisis proved to be a tipping point where the burden of debt was too much for many consumers to handle. Since 2008 the negative trend in the blue line has further steepened.

You might be thinking, if incomes were less than our standard of living, why did it feel like our standard of living remained stable?

One word – DEBT.” – 720 Global

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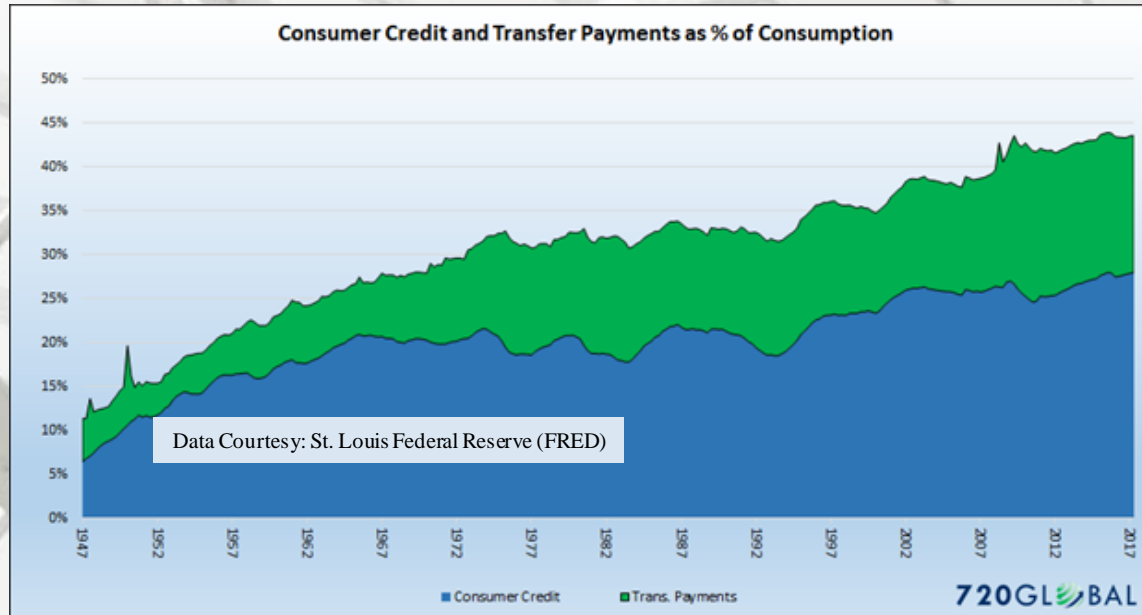
“To help answer that question, we added the green line to the chart. This line adds consumer credit and transfer payments to the blue line. Consumer credit encompasses credit cards, lines of credit, auto loans, student loans, and other non-mortgage forms of consumer debt. Transfer payments are benefits the government bestows upon its citizens in which no goods or services are received in return. Examples include: welfare, food stamps, insurance, and medical benefits. It is important to note that, given the continual deficits run by the U.S. government, these benefits are predominately paid for with borrowed funds.

Note that the green line, unlike the blue line, remains positive and relatively stable from 1959 to 2008, 20 years longer than the blue line. The take away is that consumer and government debt filled the diverging gap between incomes and the cost of living.

The divergence between the lines halted in 2008. The financial crisis was in part the result of a consumer that had exhausted their ability to use more debt to maintain their lifestyle. Despite the lowest interest rates on record and increases in government transfer payments, the green line has not been able to recover.

The red line in the graph isolates the hockey-stick-like growth of consumer credit since the early 1990's that was used to maintain our standard of living. Of importance, in 1990 when the blue line went negative, the pace of consumer credit growth accelerated. Since then the pace of credit growth has risen at a much faster rate than the economy and our incomes.” – 720 Global

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“To impress upon you the importance of understanding the role debt has played in supporting our lifestyles, the graph above highlights the magnitude and composition of consumer credit and government transfer payments as a percentage of consumer spending. Combined they now account for 43% of all consumer spending, which in turn accounts for nearly 70% of economic growth. In other words, almost a third of economic growth is reliant on increasing debt.

Summary

These charts clearly illustrate that the U.S. consumer has steadily relied on increasing amounts of debt to maintain an artificial standard of living. Through the use of credit, personal and government, U.S. households have pulled forward future consumption. The weight of those outstanding obligations serves as a wet blanket on current and future economic growth.

The financial crisis in 2008 fractured the economy in ways that are clearly evident today. Addressing the troubling debt burden has been postponed through extraordinary stimulus, but the problem has only grown in size. ...” – 720 Global

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Quarterly Review and Outlook

“The worst economic recovery of the post-war period will continue to be restrained by a consumer sector burdened by paltry income growth, a low and falling saving rate and an increasingly restrictive Federal Reserve policy. Additionally, with the extremely high level of U.S. government debt and deteriorating fiscal situation, the economy is unlikely to benefit from any debt-financed tax changes. Finally, from a longer-term perspective, the recent natural disasters are an additional constraint on economic growth.

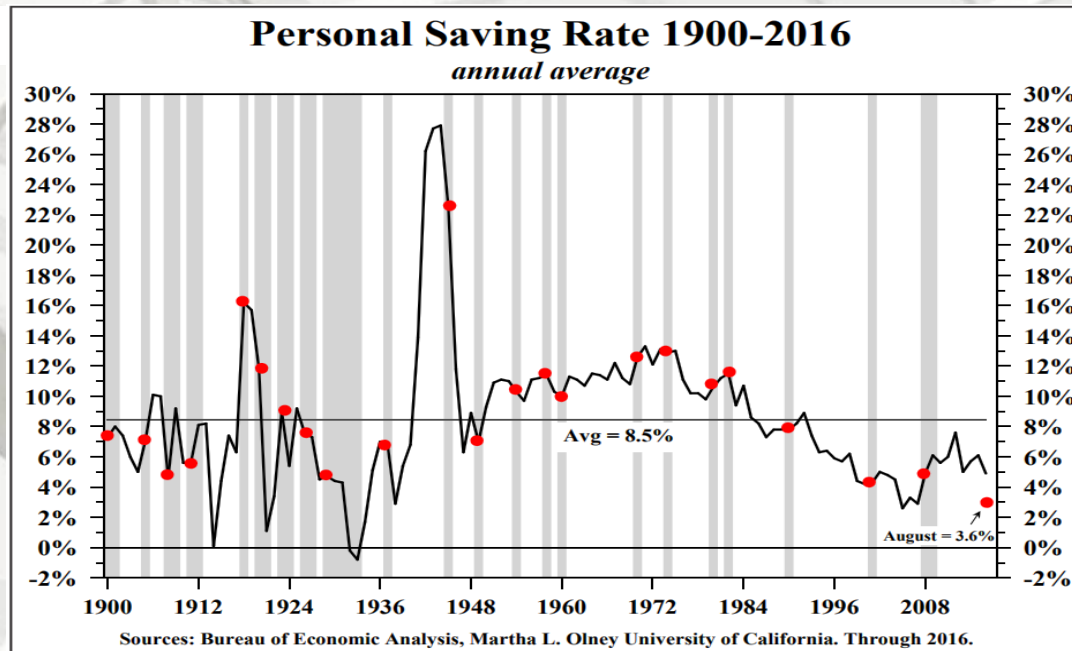
Consumer

Nominal GDP has expanded by \$712 billion over the past four quarters. Consumer spending, which was up \$552 billion, represented 77% of this growth. For the past five years, consumers have accounted for about 68% of GDP, which is nearly identical to the average over the past 20 years. Clearly, consumer spending is a crucial component of maintaining growth in GDP. Consumer spending is funded either by income growth, more debt or some other reduction in saving. Recent trends in each of these categories, as outlined below, do not bode well for this critical sector of the U.S. economy.

First, in the past five years real disposable income growth (DPI) has averaged a disappointing 2%. Real DPI has been flat over the last three months and has risen only 1.2% over the past year. On a per capita basis over the past year, the growth rate is one-half of 1%, which is one-quarter of the historic growth rate. In nominal dollar terms, DPI has risen a paltry 2.7% over the past year. Consumer spending, in contrast, has risen much faster over the past year, growing by 3.9%.” – Van R. Hoisington and Lacy H. Hunt, Ph.D; Hoisington Investment Management Company

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Chart 1



Quarterly Review and Outlook

“Second, in an effort to maintain their standard of living in the face of slowing income growth, consumers stepped up their borrowing and significantly reduced their savings. In national income accounting, personal saving is calculated by subtracting personal outlays, including interest and transfer payments, from disposable personal income. As an example, in the past month personal income was \$14.4 trillion (SAAR), with personal outlays of \$13.9 trillion, resulting in total personal saving of \$523 billion, or 3.6% of income. That is about three-fifths less than the 8.5% saving rate level that has existed since 1900 (Chart 1). As recently as five years ago the saving rate was 7.6%.

An increase in borrowing was the major factor behind the recent slide in the saving rate.” – Van R. Hoisington and Lacy H. Hunt, Ph.D; Hoisington Investment Management Company

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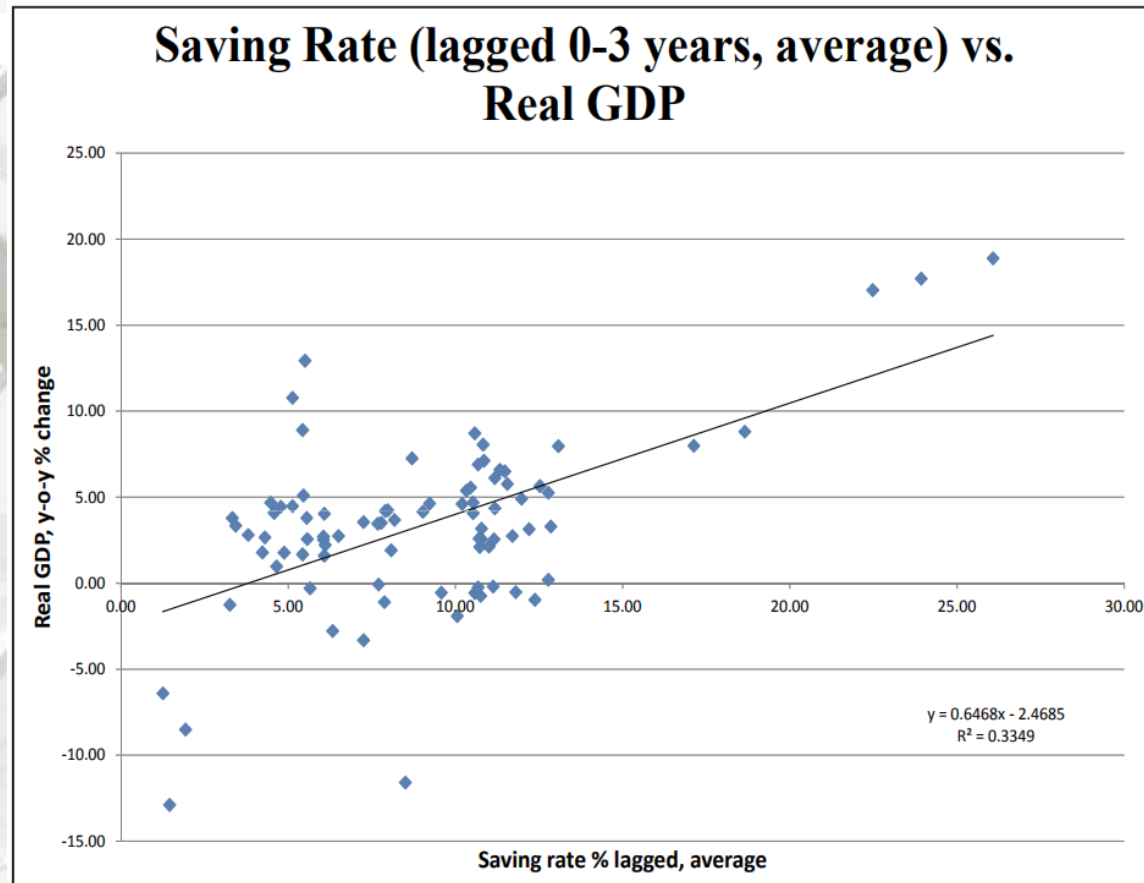
Quarterly Review and Outlook

“Consumer credit over the past year has risen by \$208 billion, or 5.9%. Interestingly, without the drawdown in the saving rate, real consumer spending over the past two years would have been reduced by more than half. Considering the slow and declining rate of growth in income as well as the low saving rate, it appears that the current spending level cannot be sustained. Historically there has been an important relationship between the saving rate and economic growth. A high initial saving rate has been associated with subsequently stronger economic growth, while a low saving rate produces a lower growth pattern. This observation can be confirmed by observing year-over-year growth in GDP plotted against the average of the current saving rate, with lags in the rate of one, two and three years (Chart 2). Since 1930 the regression coefficient indicates that a 1% drop in the personal saving rate in the current and prior three years will lower the real GDP growth rate by a substantial 0.65%. Considering that the present 3.6% saving rate is lower than all of the initial starting points of economic contractions since 1900, the outlook for ebullient growth is problematic particularly in the context of slow and diminishing income growth.” – Van R. Hoisington and Lacy H. Hunt, Ph.D; Hoisington Investment Management Company

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Chart 2



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Natural Disasters

“The recent natural disasters have been viewed as providing a potential boost to economic activity. This is an incorrect assessment. If a natural disaster destroys viable homes, businesses and infrastructure, then more of current household and corporate saving (income less spending) will be diverted from normal spending to disaster spending. Hence, disaster recovery spending will benefit some while hurting others. For example, funds would likely be diverted from new business ventures, research and development or household formation and various other consumer/government goods and services.

Savings, which is defined as accumulated saving or wealth, must be liquidated in order to restore functionality. A reduction in savings will lead to an impairment of balance sheet wealth. In spite of a transitory boost to GDP after the end of the disruptions, two measures – income allocation and reduction of savings – indicate society is worse off, meaning over time that growth and prosperity will be reduced.

The unseen or unintended consequence of a natural disaster is to weaken an economy over the course of time. U.S. government action to cover the losses of a disaster leads to larger budget deficits and additional debt financing, but the increased expenditure financed in this manner results in a decline in private expenditures that is greater than the increase in debt financing. The action may be socially responsible and politically necessary, but at the end of the day the economy’s growth trend will be reduced, regardless of the possible short-term effect of additional deficit financing. For state and local governments that typically lack the option of additional deficit spending, the trade offs are serious and direct. If a state or local government raises taxes to cover disaster relief, this may cause firms to shift operations elsewhere in the state or to some other state entirely. In short, the opportunity cost of natural disasters is far larger than any immediate benefit that accrues from a short-term rebuilding effect on GDP, resulting in another drag on future growth.” – Van R. Hoisington and Lacy H. Hunt, Ph.D; Hoisington Investment Management Co.

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