

The Virginia Tech – U.S. Forest Service

March 2018

Housing Commentary: Section II



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2018

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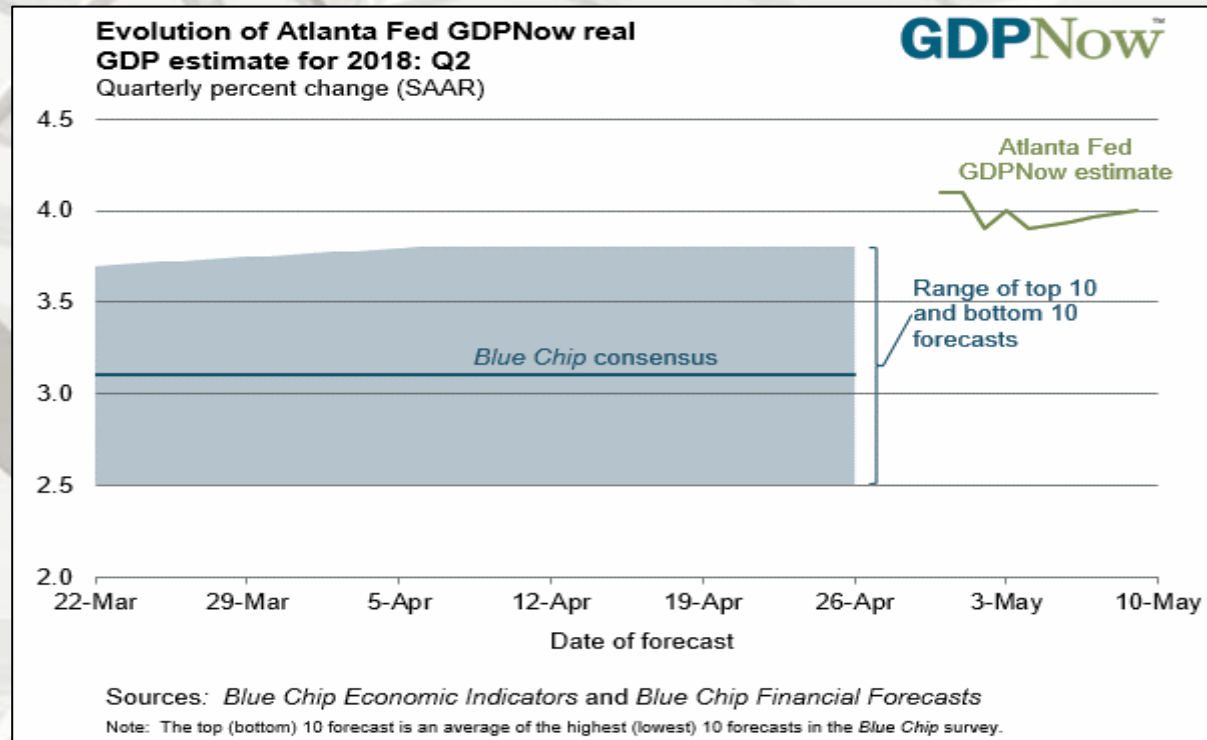
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Federal Reserve System and Private Indicators

U.S. Economic Indicators



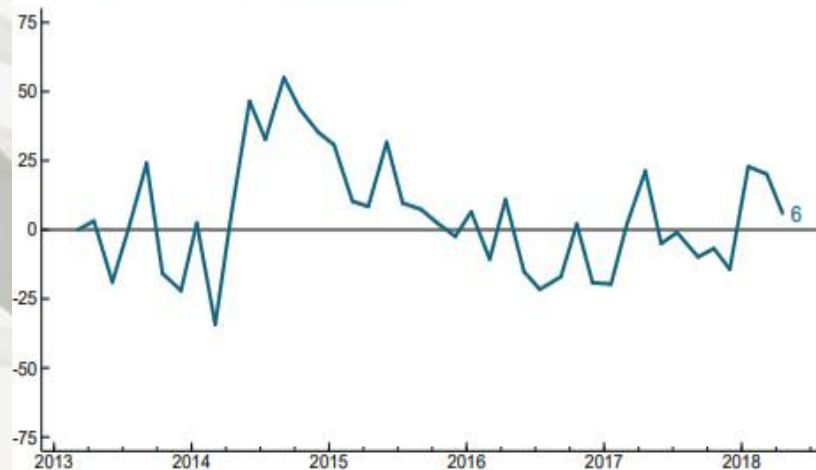
Atlanta Fed GDPNow™

Latest forecast: 4.0 percent — May 9, 2018

“The GDPNow model estimate for real GDP growth (seasonally adjusted annual rate) in the second quarter of 2018 is **4.0 percent** on May 9, unchanged from May 3. The nowcasts of second-quarter real consumer spending growth and second-quarter real private fixed investment growth inched down from 3.1 percent and 5.6 percent, respectively, to 3.0 percent and 5.4 percent, respectively, after Friday's employment report from the U.S. Bureau of Labor Statistics. The nowcast of the contribution of inventory investment to second-quarter real GDP growth increased from 0.67 percentage points to 0.78 percentage points after this morning's wholesale trade release from the U.S. Census Bureau.” — Pat Higgins, Economist, Federal Reserve Bank of Atlanta

Chicago Fed: Survey of Business Conditions

Activity Indexes: Overall and by Sector

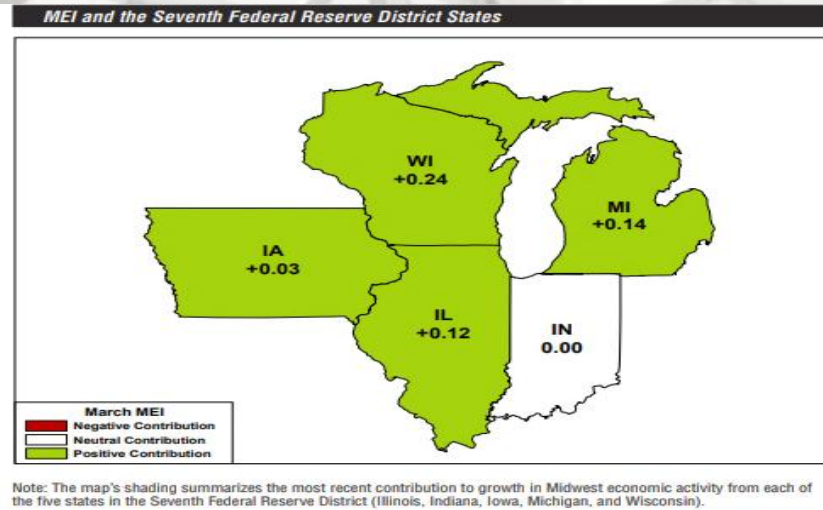


“The *Chicago Fed Survey of Business Conditions* (CFSBC) Activity Index moved down to +6 from +20, suggesting that growth in economic activity remained at a moderate pace in late February and March. The CFSBC Manufacturing Activity Index declined to +3 from +35, and the CFSBC Nonmanufacturing Activity Index edged down to +7 from +9.

Survey Shows Growth Slowed Some in Late February and March

- Respondents’ outlooks for the U.S. economy for the next six to 12 months deteriorated, but remained optimistic on balance. Respondents with optimistic outlooks highlighted good economic data, the federal tax reform, and increased demand for their firms’ products. Respondents with pessimistic outlooks highlighted elevated policy uncertainty under the current U.S. presidential administration, particularly in regard to trade policy.
- The pace of current hiring picked up, though respondents’ expectations for the pace of hiring over the next six to 12 months moved a bit lower. Both hiring indexes remained in positive territory.
- The pace of current capital spending increased, but respondents’ expectations for the pace of capital spending over the next six to 12 months declined some. The current capital spending index remained negative, and the capital spending expectations index turned negative.
- The wage cost pressures index increased and moved into positive territory. In contrast, the nonwage cost pressures index decreased, but continued to be positive.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index



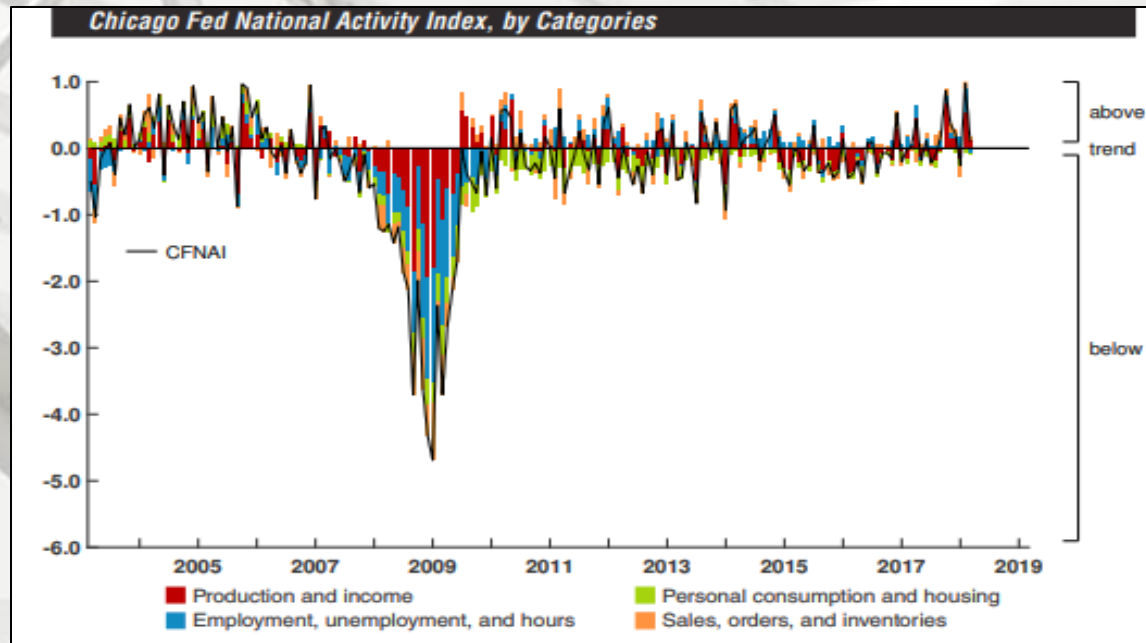
“The Midwest Economy Index (MEI) moved up to +0.52 in March from +0.41 in February. Contributions to the March MEI from three of the four broad sectors of nonfarm business activity and three of the five Seventh Federal Reserve District states increased from February. The relative MEI declined to +0.13 in March from +0.43 in February. Contributions to the March relative MEI from three of the four sectors and four of the five states decreased from February.

Index Points to a Pickup in Midwest Economic Growth in March

The manufacturing sector’s contribution to the MEI edged up to +0.47 from +0.43 in February. The pace of manufacturing activity increased in Indiana, Iowa, Michigan, and Wisconsin, but decreased in Illinois. Manufacturing’s contribution to the relative MEI declined to +0.32 in March from +0.55 in February. The construction and mining sector’s contribution to the MEI increased to +0.07 in March from +0.01 in February. The pace of construction and mining activity was stronger in Indiana, Michigan, and Wisconsin, but unchanged in Illinois and Iowa. Construction and mining made a contribution of +0.11 to the relative MEI in March, up from +0.06 in February.

The service sector contributed –0.04 to the MEI in March, down slightly from –0.03 in February. The pace of service sector activity was down in Iowa, but up in Michigan and Wisconsin and unchanged in Illinois and Indiana. The service sector’s contribution to the relative MEI decreased to –0.30 in March from –0.20 in February. Consumer spending indicators made a contribution of +0.02 to the MEI in March, up from –0.01 in February. Consumer spending indicators were, on balance, up in Illinois, Indiana, Michigan, and Wisconsin, but steady in Iowa. Consumer spending’s contribution to the relative MEI edged down to a neutral contribution in March from +0.02 in February.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: National Activity Index



Index Points to a moderation in economic growth in March

“Led by slower growth in production- and employment-related indicators, the Chicago Fed National Activity Index (CFNAI) declined to +0.10 in March from +0.98 in February. Three of the four broad categories of indicators that make up the index decreased from February, but two of the four categories made positive contributions to the index in March. The index’s three-month moving average, CFNAI-MA3, decreased to +0.27 in March from +0.31 in February.

The CFNAI Diffusion Index, which is also a three-month moving average, edged down to +0.18 in March from +0.20 in February. Forty-four of the 85 individual indicators made positive contributions to the CFNAI in March, while 41 made negative contributions. Twenty-five indicators improved from February to March, while 59 indicators deteriorated and one was unchanged. Of the indicators that improved, nine made negative contributions.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: National Activity Index

Index Points to a moderation in economic growth in March

Production-related indicators contributed +0.14 to the CFNAI in March, down from +0.54 in February. Total industrial production increased 0.5 percent in March after increasing 1.1 percent in February. The sales, orders, and inventories category made a contribution of +0.04 to the CFNAI in March, down from +0.14 in February. The Institute for Supply Management's Manufacturing New Orders Index decreased to 61.9 in March from 64.2 in the previous month.

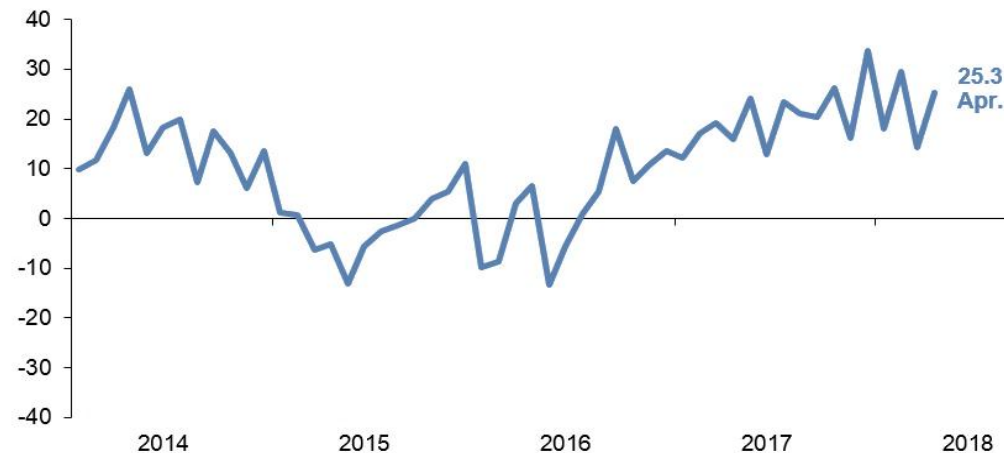
Employment-related indicators contributed -0.07 to the CFNAI in March, down from +0.35 in February. Nonfarm payrolls increased by 103,000 in March after increasing by 326,000 in February. The contribution of the personal consumption and housing category to the CFNAI moved up to -0.01 in March from -0.06 in February. Housing starts increased to 1,319,000 annualized units in March from 1,295,000 in February, and housing permits increased to 1,354,000 annualized units in March from 1,321,000 in the previous month.

The CFNAI was constructed using data available as of April 19, 2018. At that time, March data for 51 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The February monthly index value was revised to +0.98 from an initial estimate of +0.88, and the January monthly index value was revised to -0.26 from last month's estimate of +0.02. Revisions to the monthly index can be attributed to two main factors: revisions in previously published data and differences between the estimates of previously unavailable data and subsequently published data. The revision to the February monthly index value was primarily due to the former, while the revision to the January monthly index value was primarily due to the latter.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

U.S. Economic Indicators

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

Growth in Texas Manufacturing Rebounds Strongly

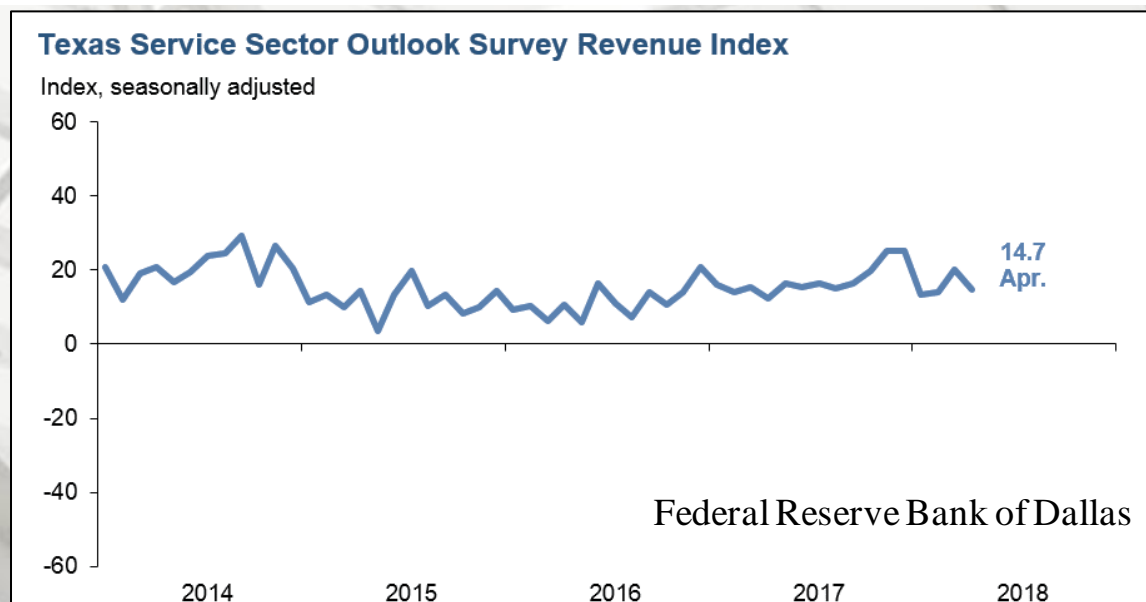
“Texas factory activity rose markedly in April after posting slower growth in March, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index, a key measure of state manufacturing conditions, increased 11 points to 25.3.

Other indexes of manufacturing activity also rose sharply in April. The new orders and growth rate of orders indexes jumped to their highest readings this year, 27.9 and 18.9, respectively. The capacity utilization index climbed eight points to 18.7, and the shipments index rose nine points to 19.3.

Perceptions of broader business conditions remained highly positive on net in April. The general business activity index was largely unchanged at 21.8, and the company outlook index edged up four points to 23.6. Both indexes remained far above their average levels.

Expectations regarding future business conditions remained largely optimistic in April. The index of future general business activity held steady at 31.9, and the index of future company outlook rose to 37.1. Both readings are significantly above average. Other indexes for future manufacturing activity pushed further into positive territory.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



Texas Service Sector Activity Continues to Expand but at Slower Pace

“Texas service sector activity continued to increase in April, albeit at a slower pace than last month, according to business executives responding to the *Texas Service Sector Outlook Survey*. The revenue index, a key measure of state service sector conditions, slipped from 20.0 in March to 14.7 in April.

Labor market indicators reflected continued employment growth and longer workweeks this month. The employment index remained largely unchanged at 15.9, a reading well above average. The hours worked index also was largely steady at 8.0.

Perceptions of broader economic conditions continued to reflect optimism in April. The general business activity index edged up from 13.4 to 14.5. The company outlook index fell five points, but remained positive at 12.7, with nearly 21 percent of respondents noting their outlook improved from last month and 8 percent noting it worsened.

Respondents’ expectations regarding future business conditions reflected slightly less optimism in April. The index of future general business activity fell two points to 24.7, while the index of future company outlook slipped seven points to 25, but both remained significantly above their average readings. 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 Fall

“Retail sales declined slightly in April, according to business executives responding to the *Texas Retail Outlook Survey*. The sales index came in at -3.1 in April, down significantly from its March reading of 14.9. Inventories grew at a slower pace.

Labor market measures indicated slower retail employment growth and steady length of workweeks this month. The employment index fell from 17.2 to 9.6. The hours worked index retreated to near zero.

Retailers’ perceptions of broader economic conditions were somewhat mixed in April. The general business activity index turned negative for the first time in nearly a year, coming in at -1.6. The company outlook index remained positive but fell from 6 to 1.5.” – 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 Expanded More Rapidly

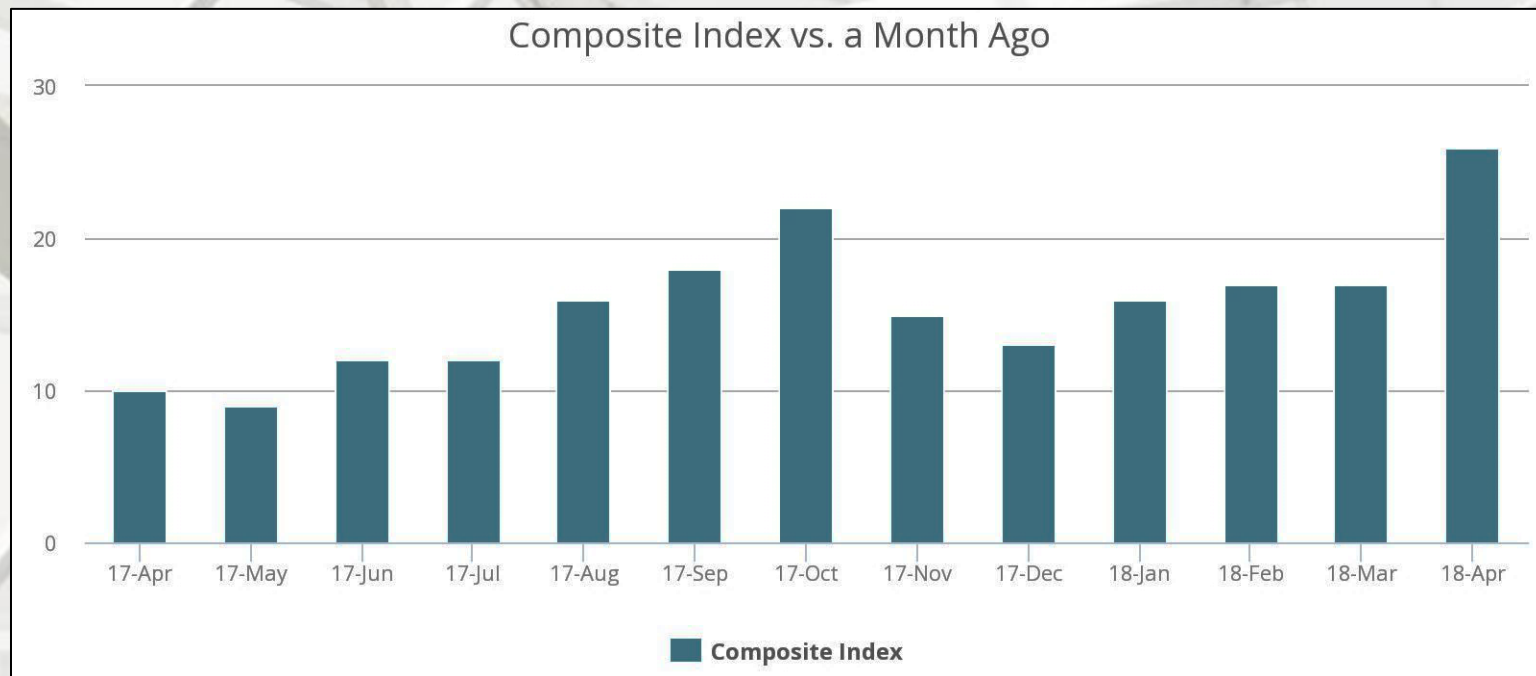
“Tenth District manufacturing activity expanded more rapidly in April, with the composite index matching its highest level in survey history, and optimism remained high for future activity. Selling price indexes increased further, while raw material price indexes remained at high levels. The month-over-month composite index was 26 in April, up from readings of 17 in March and 17 in February. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Factory activity accelerated at both durable and nondurable goods plants, particularly for machinery, plastics, and chemicals. Month-over-month indexes increased considerably.

The production index jumped from 20 to 33, and the shipments, new orders, and order backlog indexes also rose. The employment and new orders for exports indexes were unchanged. The raw materials inventory index increased from 11 to 17, while the finished goods inventory index fell slightly.

Year-over-year factory indexes were mixed but showed little change overall. The composite index was basically unchanged at 36, while the production, shipments, and new orders indexes eased slightly. The employment index inched lower from 37 to 35, while the order backlog and capital expenditures indexes increased moderately. The raw materials inventory index edged higher from 30 to 32, while the finished goods inventory index decreased.

Most price indexes were little changed in April but remained at high levels. The month-over-month finished goods price index edged higher from 24 to 29, while the raw materials price index eased slightly. The year-over-year finished goods price index increased from 49 to 60, while the year-over-year raw materials price index was unchanged. The future finished goods price index moved up from 48 to 53, while the future raw materials price index moderated somewhat.” – Chad Wilkerson, Vice President and Oklahoma City Branch Executive, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators



The Federal Reserve Bank of Kansas City

“Future factory activity expectations were mixed but were still solid overall. The future composite index slipped from 33 to 31, and the future new orders and order backlog indexes also fell. In contrast, the future production and shipments indexes moved slightly higher, while the future employment and capital expenditures indexes were largely unchanged. The future raw materials inventory index edged down from 21 to 19, and the future finished goods inventory index also decreased slightly.” – Chad Wilkerson, Vice President and Oklahoma City Branch Executive, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators

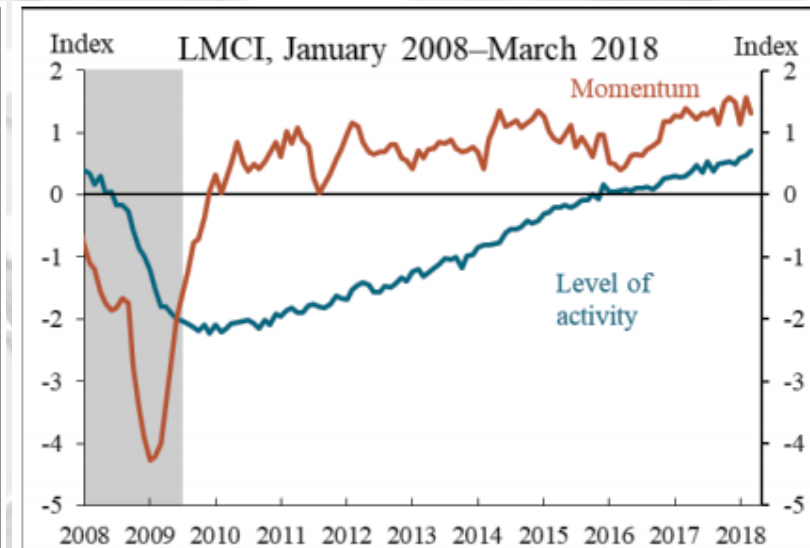
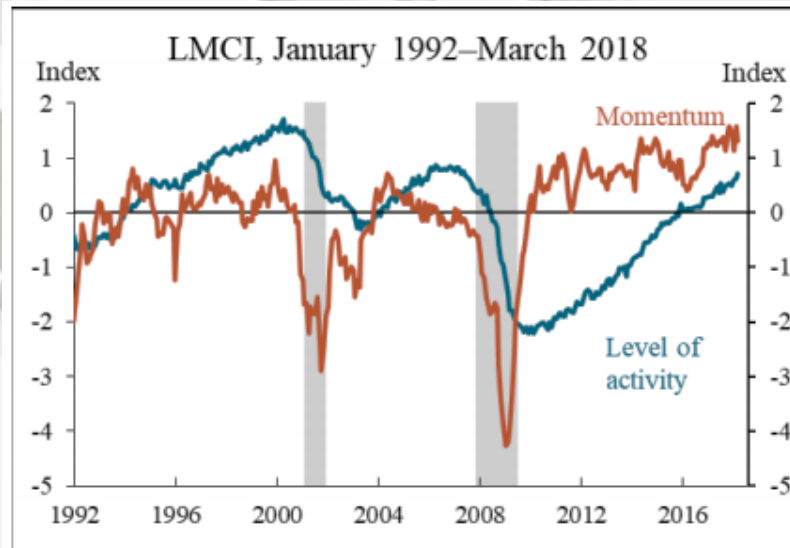
The Federal Reserve Bank of Kansas City Labor Market Conditions Indicators (LMCI)

***Activity increased modestly and
momentum remained high in March.***

“The Kansas City Fed LMCI suggest the level of activity increased modestly and momentum remained high in March. The level of activity indicator increased modestly in March from 0.62 to 0.71, while the momentum indicator decelerated from 1.57 to 1.31.

The table in the current release shows the five labor market variables that made the largest contributions to the increase in the activity indicator over the last six months and the five variables that made the largest positive contributions to the momentum indicator in March 2018. The activity indicator increased 0.22 over the last six months. The largest contribution came from an increase in job leavers. Eighteen variables made a positive contribution, one variable made no contribution, and five variables made a negative contribution. The momentum indicator was 1.31 in March, where the largest contributor to momentum was expected job availability (University of Michigan). Sixteen variables made a positive contribution, and eight variables made a negative contribution.” – Bill Medley, Director, Public Affairs, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators



Largest Contributions to the LMCI

Contributions to the increase in the *level of activity* indicator over the last six months

Job leavers

Percent of firms with positions not able to fill right now (NFIB)

Unemployed 27 or more weeks

Job availability index (Conference Board)

Unemployment forecast (Blue Chip)

Positive contributions to the *momentum* indicator in March 2018

Expected job availability (U of Michigan)

Initial claims

Manufacturing employment index (ISM)

Labor force participation rate

Expected job availability (Conference Board)

Note: Contributions are ordered from largest to smallest.

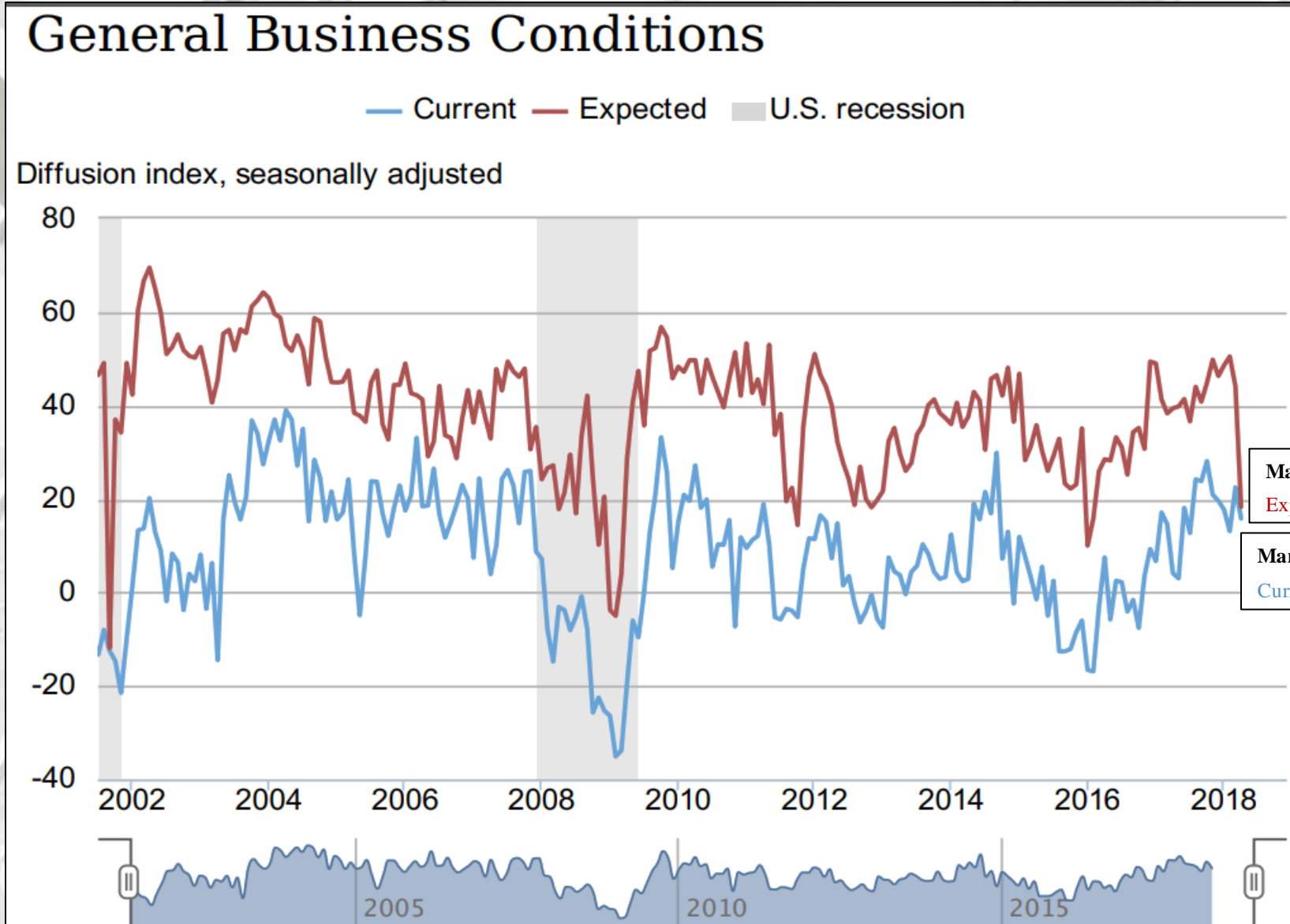
U.S. Economic Indicators

Empire State Manufacturing Survey **Business Activity Grows At A Somewhat Slower Pace**

“Business activity grew at a solid clip in New York State, according to firms responding to the April 2018 *Empire State Manufacturing Survey*. The headline general business conditions index, at 15.8, remained firmly in positive territory, although its seven-point decline from its March level pointed to a somewhat slower pace of growth. Similarly, the new orders index and the shipments index suggested ongoing, albeit more measured, growth, with the first index falling eight points to 9.0 and the second declining ten points to 17.5. Delivery times continued to lengthen, and inventories moved higher. Labor market indicators pointed to a small increase in employment and significantly longer workweeks. The indexes for both prices paid and prices received remained elevated. Firms’ optimism about the six-month outlook waned sharply, with the index for future business conditions plunging twenty-six points to its lowest level in more than two years.

Manufacturing firms in New York State reported that business activity continued to expand, though at a somewhat slower pace than in March. The general business conditions index fell seven points to 15.8. Thirty-eight percent of respondents reported that conditions had improved over the month, while 22 percent reported that conditions had worsened. The new orders index fell eight points to 9.0, and the shipments index declined ten points to 17.5, indicating that orders and shipments expanded, but less so than last month. Unfilled orders edged higher, and inventories increased. The delivery time index was little changed at 15.6, a sign that delivery times continued to lengthen.” – Richard Deitz and Jason Bram, The Federal Reserve Bank of New York

U.S. Economic Indicators



U.S. Economic Indicators

Empire State Manufacturing Survey

Price Indexes Remain Elevated

“The index for number of employees declined three points to 6.0, a level pointing to a modest increase in employment. Moving in the opposite direction, the average workweek index climbed eleven points to 16.9, indicating a significant increase in hours worked. Price increases remained elevated. The prices paid index edged down three points to 47.4, just slightly below last month’s multiyear high. The prices received index was little changed at 20.7, a level suggesting ongoing moderate selling price increases.

Optimism Tumbles

Optimism about the six-month outlook plunged among manufacturing firms. The index for future business conditions slipped twenty-six points to 18.3, its lowest level in more than two years. After reaching its highest level in several years last month, the index for future prices paid was little changed, indicating a widespread expectation that input prices would increase in the months ahead. The index for future prices received edged higher. The capital expenditures index posted its third consecutive monthly decline, though at 25.2, it suggested that firms plan to increase capital spending in the months ahead.” – Richard Deitz and Jason Bram, The Federal Reserve Bank of New York

U.S. Economic Indicators

Business Leaders Survey (Services)

Growth Slows

“Activity in the region’s service sector grew to a small degree, according to firms responding to the Federal Reserve Bank of New York’s April 2018 *Business Leaders Survey*. The survey’s headline business activity index fell seven points to 4.1, pointing to a slower pace of growth than in March. The business climate index moved down four points to 3.5, signaling that firms, on balance, regarded the business climate as somewhat better than normal. The employment index fell eight points to 10.1 and the wages index slipped four points to 39.2 — indicating that both employment and wages continued to increase, though at a slower pace than last month. The prices paid index was little changed at 50.6, suggesting ongoing widespread input price increases, and the selling price index increased three points to reach another multiyear high. Indexes assessing the six-month outlook fell sharply, signaling that optimism about future conditions waned considerably.

Business activity in the region’s service sector continued to grow in April, though only modestly. The headline business activity index moved down for a third consecutive month, falling seven points to 4.1. Thirty-three percent of respondents reported that conditions improved over the month, while 29 percent said that conditions worsened. The business climate index fell four points, though it remained positive at 3.5, signaling that, on balance, firms viewed the business climate as better than normal, though only to a small degree.

Price Indexes Remain Elevated

The employment index fell eight points to 10.1, indicating that employment increased at a slower pace than in March. The wages index moved down four points to 39.2, pointing to a somewhat slower pace of growth in wages. The prices paid index, at 50.6, was little changed, indicating that input price increases remained elevated. The prices received index moved up three points to 24.8, again reaching its highest level in more than six years, pointing to a continued acceleration in selling prices. The capital spending index came in at 12.0, suggesting that capital spending continued to increase moderately.” – Jason Bram and Richard Deitz, The Federal Reserve Bank of New York

U.S. Economic Indicators

Business Activity

Diffusion Index



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

Business Leaders Survey (Services)

Optimism Wanes Considerably

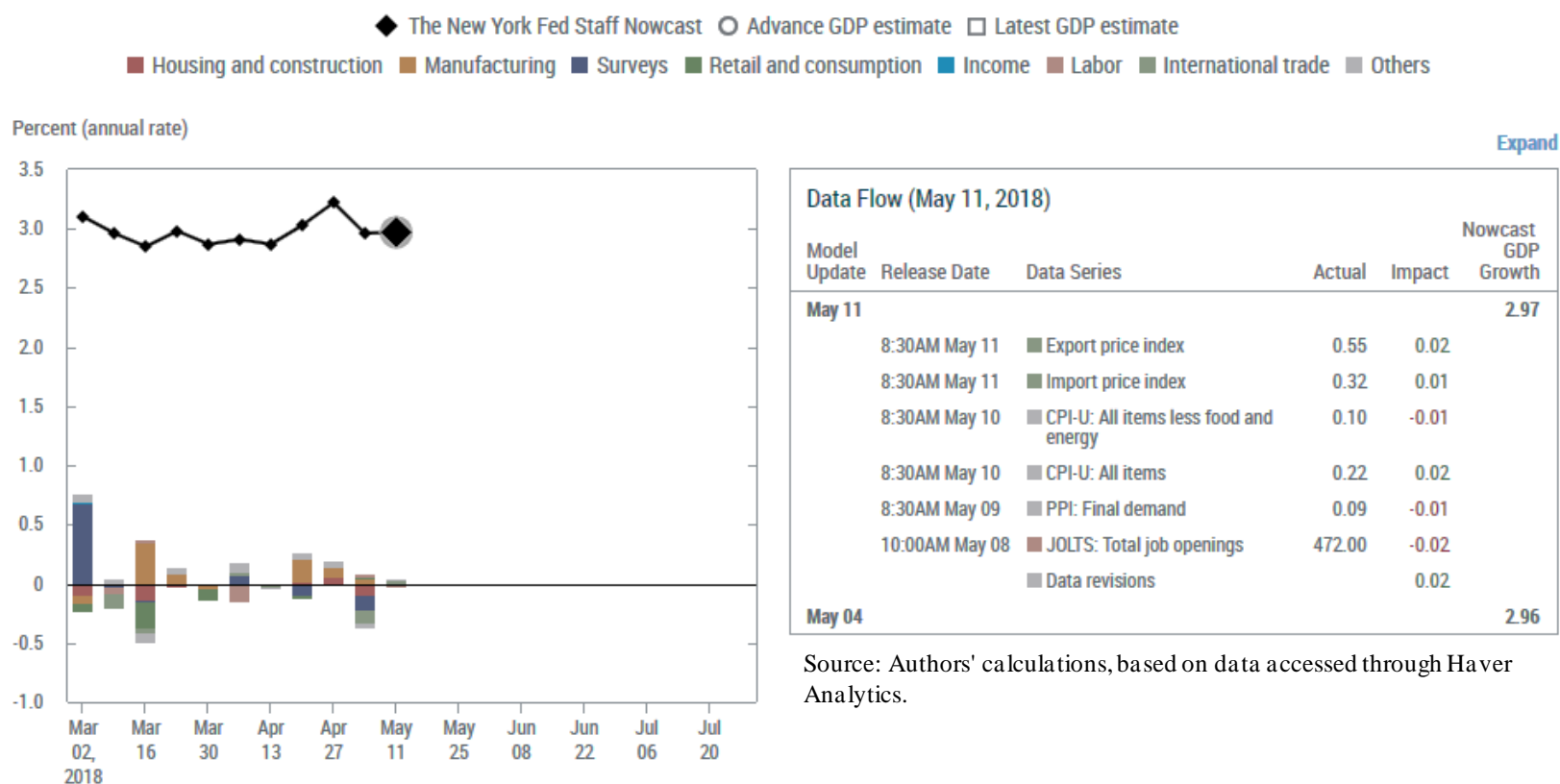
“Businesses were much less optimistic about the six-month outlook in April than in recent months. The index for future business activity slid fifteen points to 29.0, its lowest level since October of last year, and the index for future business climate retreated nine points to 19.4. The index for planned capital spending increased five points to 29.5.” – Jason Bram and Richard Deitz, The Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York Nowcast

2018:Q2 | 2018:Q1 | 2017:Q4 | 2017:Q3

Last Release 11:15am EST May 11, 2018



Notes: We start reporting the Nowcast for a reference quarter about one month before the quarter begins; we stop updating it about one month after the quarter closes. Colored bars reflect the impact of each broad category of data on the Nowcast; the impact of specific data releases is shown in the accompanying table.

May 11, 2018: Highlights

- “The New York Fed Staff Nowcast stands at 3.0% for 2018:Q2.
- News from this week's data releases left the nowcast for 2018:Q2 broadly unchanged.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

The New York Fed Staff Forecast — April 2018

“... In [our forecast released last April](#), we projected a Q4/Q4 growth rate of real GDP of about 2 percent for 2017. The staff projected slower growth of consumer spending owing to the aging of the durable goods cycle, and anticipated a significant drag on growth from the international trade sector, while business fixed investment and residential investment were expected to make more meaningful growth contributions.

As it turned out, GDP growth in 2017 was 2.6 percent. Consumer spending and business fixed investment, particularly business equipment investment, were stronger than expected. The firmer growth of consumer spending resulted from solid income growth, a large rise in wealth, and robust consumer confidence. The stronger pace of growth of business investment in new equipment appears to have been driven by increased business confidence as manufacturing activity around the globe began to recover quite rapidly. Also, the foreign trade drag was smaller than anticipated owing to unexpected strength in exports combined with weaker than expected growth of imports, which we attribute to the impact of a domestic inventory correction. Partly offsetting these positive factors, residential investment was weaker than we anticipated.

Growth in 2017 was notably above our estimate of the economy’s potential growth rate (1¾ percent), contributing to a pronounced decline in the unemployment rate to 4.1 percent in 2017:Q4, which was below our projection of last April. Even as unemployment declined, inflation, as measured by the four-quarter change in the core personal consumption expenditure (PCE) price index, was 1.5 percent, below both that of the previous year and our forecast. This slowing in core PCE inflation is viewed as transitory and largely attributable to a few items, such as cellular telephone services and prescription drugs, which have small weights but experienced quite large changes in their growth rates.” – Jonathan McCarthy, Vice President, Richard Peach, Senior Vice President, and Robert Rich, Assistant Vice President; Research and Statistics Group; The Federal Reserve Bank of New York

U.S. Economic Indicators

The New York Fed Staff Forecast — April 2018

“Last year’s forecast for 2018 envisioned that GDP growth would slow to near our estimate of potential growth as monetary policy and financial conditions tightened and the expansion continued to age. The unemployment rate and the labor force participation rate were expected to be roughly stable over the year, with productivity growth gradually moving up to its long-term trend of 1¼ percent to 1½ percent (on a nonfarm business sector basis). Inflation was expected to be slightly above 2 percent: the overshoot of the FOMC’s objective was anticipated to be small owing to well-anchored inflation expectations.

We now anticipate that real GDP growth for 2018 will be 2¾ percent — a full percentage point higher than our year-earlier forecast — despite indications of sluggishness for the first quarter. Several important developments underlie our higher growth projection. First, as mentioned above, the U.S. economy gathered substantial momentum over the second half of 2017. Second, a fair amount of fiscal stimulus has been enacted in recent months. The Tax Cuts and Jobs Act (TCJA) is expected to boost consumer spending and business investment in 2018. In addition, the Bipartisan Budget Act of 2018 (BBA 2018) is expected to boost federal spending over the second half of 2018 and into 2019.

We expect the fundamentals for consumer spending to remain solid — in part because of the effect of the personal income tax cuts on disposable income — and thus project real consumer spending growth to be well maintained through most of the year. With home prices still rising briskly owing to tight supply, we anticipate that residential investment will grow faster in 2018 than it did in 2017, despite rising mortgage rates. The various provisions of the TCJA related to businesses are anticipated to help support growth of business investment over the year. The major restraining force on GDP growth is expected to be international trade, reflecting faster growth of imports and slower growth of exports.” — Jonathan McCarthy, Vice President, *et al.*; Research and Statistics Group; The Federal Reserve Bank of New York

U.S. Economic Indicators

The New York Fed Staff Forecast — April 2018

“With growth expected to remain appreciably above its potential rate in 2018, we expect the unemployment rate to move down to around $3\frac{3}{4}$ percent by the end of the year, which is below our estimate of the unemployment rate associated with stable inflation ($4\frac{1}{4}$ percent). We anticipate that the decline in the unemployment rate will be attenuated by a gradual increase in the labor force participation rate. Underlying inflation, as measured by the core PCE price index, is projected to be slightly above the [FOMC’s longer-run objective of 2 percent](#) by the end of the year.

For 2019, we expect financial conditions to continue to tighten but GDP growth to moderate only slightly. We anticipate that most expenditure categories will maintain their pace of growth in 2019, with a slowdown in the growth of business equipment investment offset by the effects of higher government spending associated with the BBA 2018. With GDP growth expected to remain above potential and productivity growth near its long-term trend of $1\frac{1}{4}$ percent to $1\frac{1}{2}$ percent (on a nonfarm business sector basis), the unemployment rate is expected to decline to about $3\frac{1}{2}$ percent. We see the labor force participation rate continuing to rise, and again, acting to temper the decline in the unemployment rate. Inflation is expected to be modestly above 2 percent, but inflation expectations are assumed to remain well-anchored.” – Jonathan McCarthy, Vice President, *et al.*; Research and Statistics Group; The Federal Reserve Bank of New York

U.S. Economic Indicators

The New York Fed Staff Forecast — April 2018

Comparison to the Blue Chip Forecast

“Next, we compare the New York Fed staff forecast to the consensus forecast from the April Blue Chip Economic Indicators, published on April 10. The forecasts for growth are broadly similar for both 2018 and 2019, with the Blue Chip consensus forecast slightly higher than the staff forecast for 2018 and slightly lower than the staff forecast for 2019. For the unemployment rate, the Blue Chip consensus forecast and the New York Fed staff forecast are similar, with the staff forecast slightly below the Blue Chip consensus at the end of 2019.

The Blue Chip asks for projections of inflation as measured by the consumer price index (CPI), rather than the overall or core PCE price index. The Blue Chip consensus forecast for CPI inflation is 2.3 percent in 2018 and 2.2 percent in 2019. The New York Fed staff projections for total PCE inflation are 2.1 percent in 2018 and 2.3 percent in 2019. Given the typical divergence between CPI and PCE inflation, the Blue Chip consensus and staff forecasts for inflation appear similar for 2018, but the staff forecast suggests higher inflation for 2019.

Risks to Staff Forecast

An important part of the staff analysis of the economic outlook is the assessment of the risks to the forecast. The staff sees the risks to our projection for growth as roughly balanced. A significant upside risk is the possibility that the tax cuts and government spending increases provide more stimulus than we anticipate. A key downside risk is a pull-back on spending resulting from possible trade frictions or from an escalation of geopolitical risks. For inflation, we see the risks as skewed modestly to the upside. The primary upside risk is that a boost to aggregate demand induced by the fiscal stimulus will push inflation higher more quickly than anticipated. This risk is partly offset by the possibility that a realization of downside real risks would also damp inflation and inflation expectations.” – Jonathan McCarthy, Vice President, *et al.*; Research and Statistics Group; The Federal Reserve Bank of New York

U.S. Economic Indicators

April 2018 Manufacturing Business Outlook Survey

Current Indicators Suggest Continued Growth

“Results from the April *Manufacturing Business Outlook Survey* suggest continued growth for the region’s manufacturing sector. Although the survey’s indexes for general activity and employment improved slightly, the indexes for new orders and shipments moderated. The firms also reported higher prices for both inputs and their own manufactured goods this month. The survey’s future indexes, measuring expectations for the next six months, reflected continued optimism.

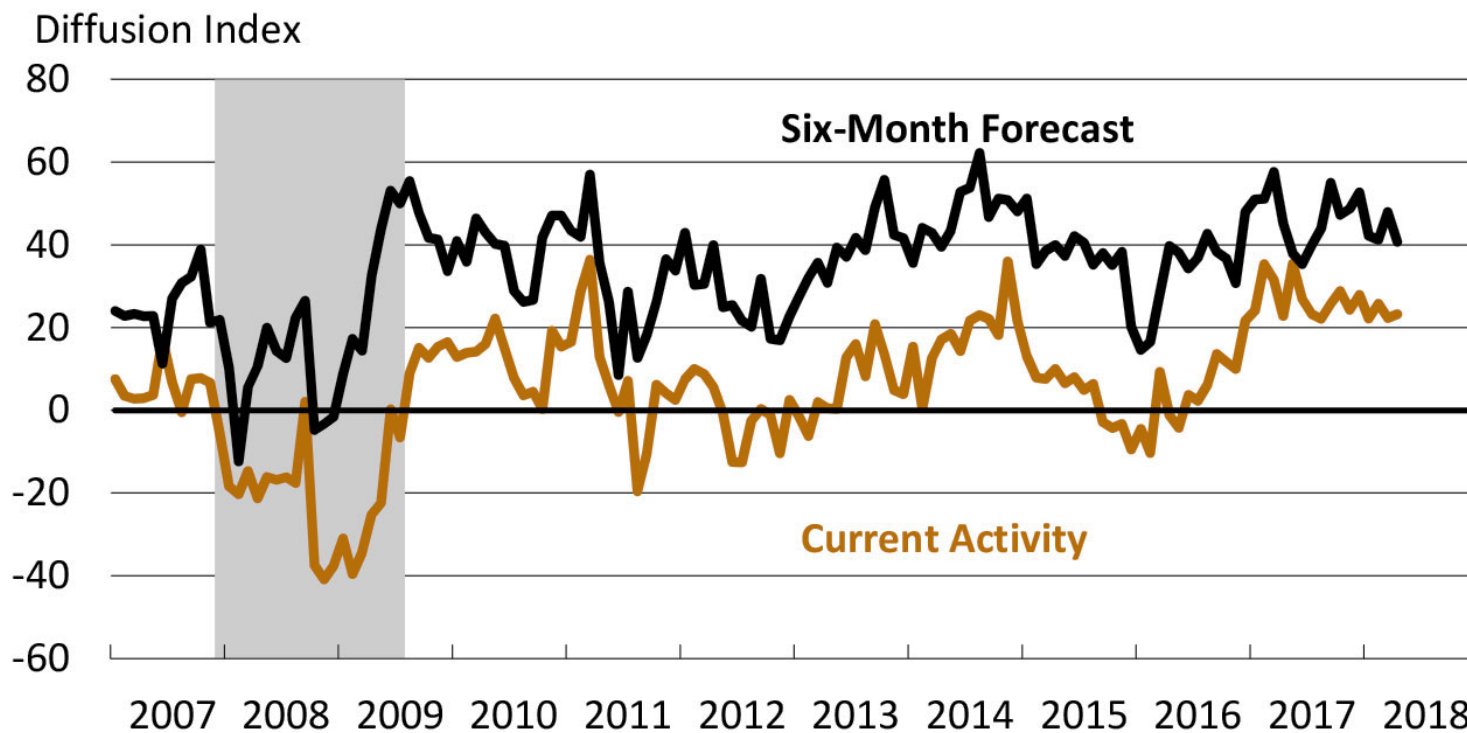
The diffusion index for current general activity edged 1 point higher, from 22.3 in March to 23.2 this month (see Chart 1). Nearly 37 percent of the manufacturers reported increases in overall activity this month, while 14 percent reported decreases. The indexes for current new orders and shipments remained positive but fell 17 points and 9 points, respectively.

The firms continued to report overall increases in employment. Over 31 percent of the responding firms reported increases in employment, while 4 percent reported decreases this month. The current employment index edged 2 points higher to 27.1, its highest reading in six months. The firms also reported a longer average workweek this month: The current average workweek index increased 9 points.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

Chart 1. Current and Future General Activity Indexes

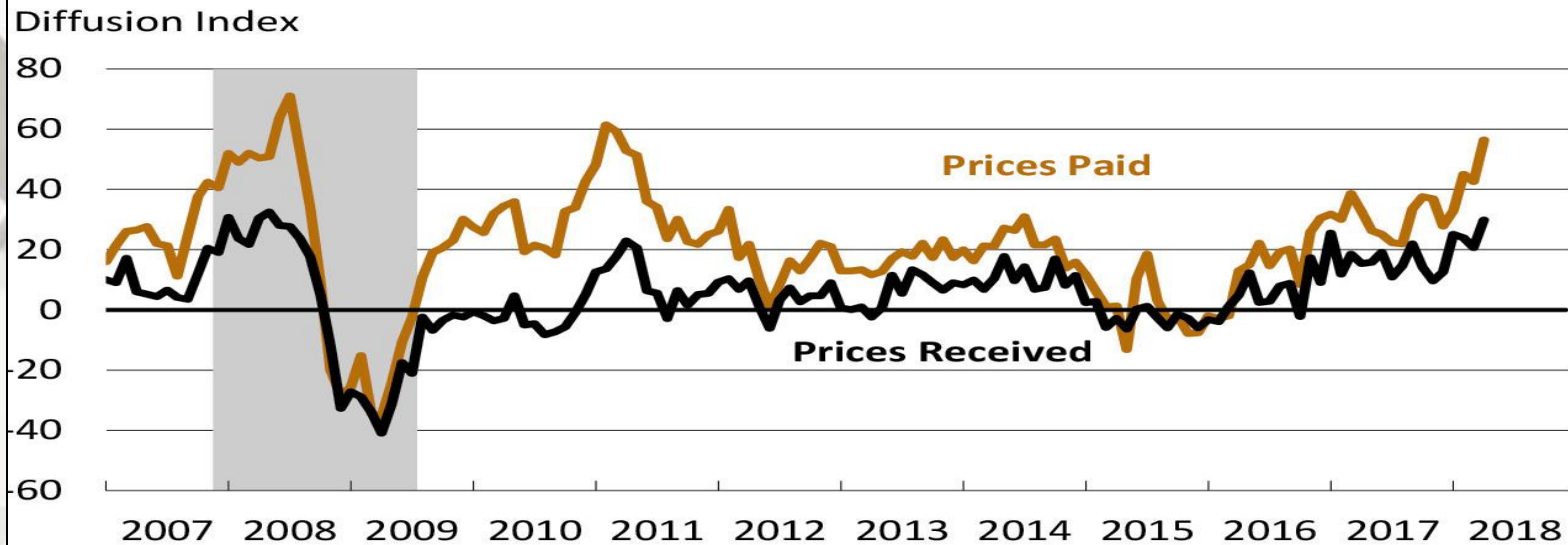
January 2007 to April 2018



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.

U.S. Economic Indicators

Chart 2. Current Prices Paid and Prices Received Indexes
January 2007 to April 2018



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.

April 2018 Manufacturing Business Outlook Survey

Price Indexes Suggest Increasing Prices

“Price increases for purchased inputs were reported by 59 percent of the manufacturers this month, up notably from 44 percent in March. The prices paid diffusion index increased 14 points to its highest reading since March 2011 (see Chart 2). The current prices received index, reflecting the manufacturers’ own prices, increased 9 points to a reading of 29.8, its highest reading since May 2008.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

April 2018 Manufacturing Business Outlook Survey

Firms Remain Optimistic

“The diffusion index for future general activity decreased from 47.9 in March to 40.7 this month (see Chart 1). Nearly 50 percent of the firms expect increases in activity over the next six months, while 9 percent expect declines. The future new orders index fell 12 points, while the future shipments index rose 5 points. Slightly more than 68 percent of the firms expect price increases for purchased inputs over the next six months, and 50 percent expect higher prices for their own manufactured goods. Nearly 42 percent of the firms expect to add workers over the next six months. Although the future employment index declined 3 points, it remains at a high reading of 34.6.

Firms Expect Higher Capital Spending in 2018

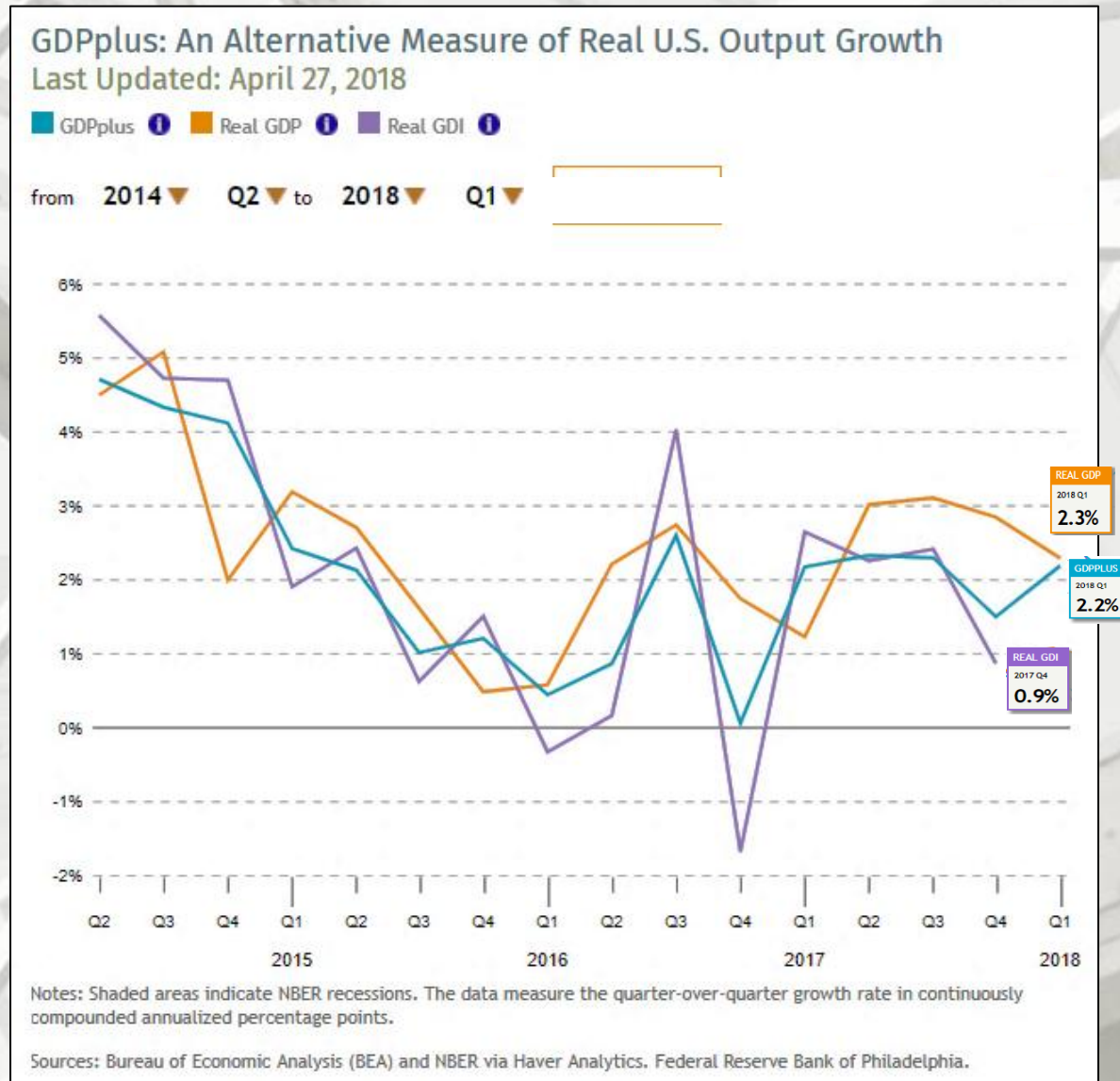
In special questions this month, firms were surveyed about their capital spending plans for 2018 compared with actual spending levels in 2017. Most of the special questions were also asked last April. Nearly 53 percent of the firms indicated that total capital spending would increase this year compared with 2017, while 19 percent indicated that spending would decrease. Over 27 percent of the firms indicated that the recent tax changes had positively affected their planned capital spending for 2018. Nearly 19 percent of the firms were not yet sure of the impacts on spending plans. The need to replace capital goods and expected high sales growth were the most cited reasons for the increase in capital spending plans. Among the firms that indicated that capital spending would increase, 71 percent indicated that the majority of the spending would occur in the second half of the year. Among the firms that do not plan to increase capital spending, the most cited reasons were limited need to replace capital goods and information technology equipment.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

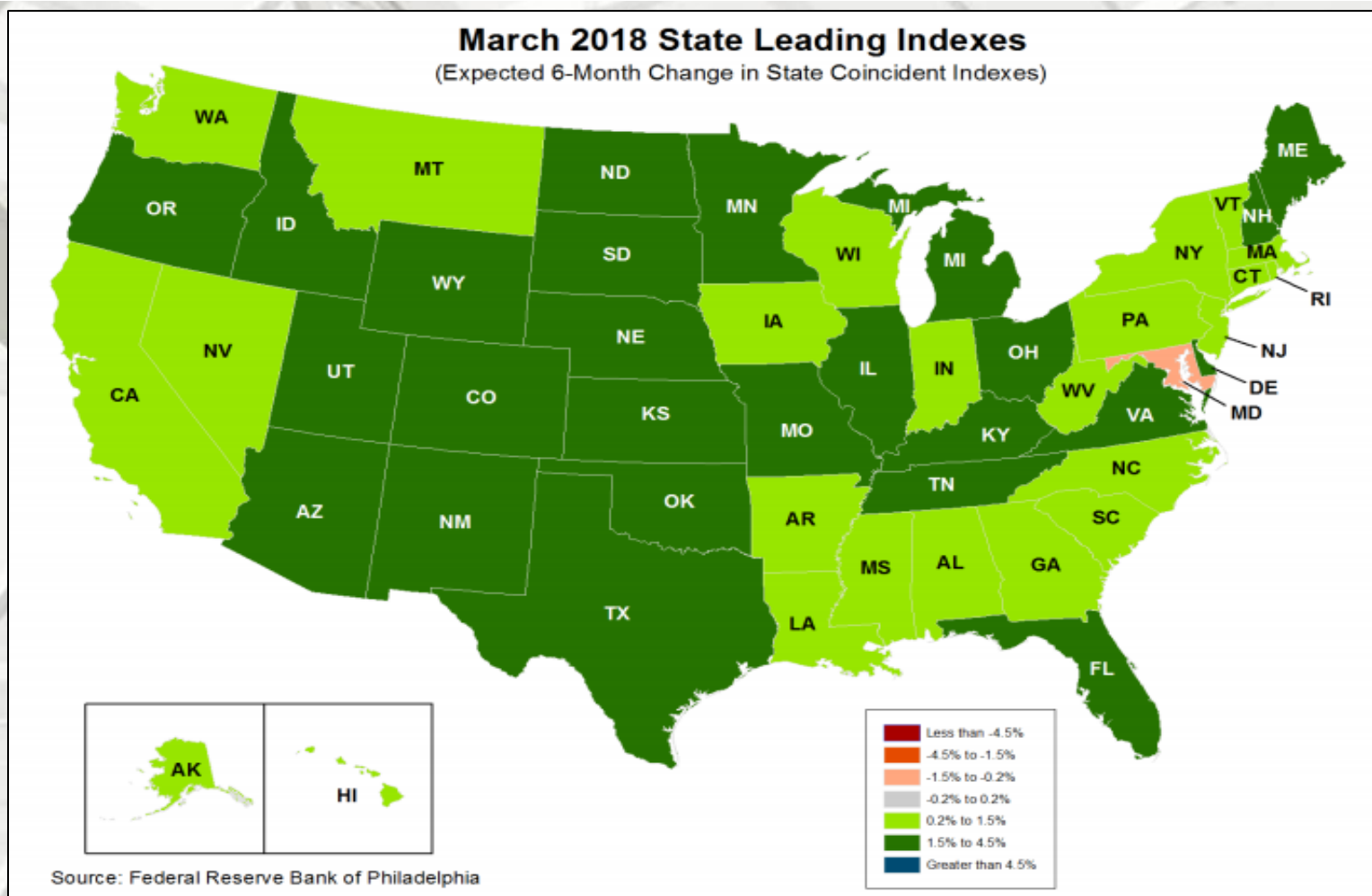
April 2018 Manufacturing Business Outlook Survey Summary

“Responses to the *April Manufacturing Business Outlook Survey* suggest continued growth for the region’s manufacturing sector. The indexes for general activity, new orders, shipments, and employment all indicated continued expansion this month. The indexes for prices paid and received also increased notably this month. In responses to special questions, over half of the firms indicated plans to increase capital spending this year. Looking ahead six months, the firms continued to be optimistic about the outlook for manufacturing activity.” – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

Philadelphia Fed: GDPplus



Philadelphia Fed



“The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for March 2018. The indexes are a six-month forecast of the state coincident indexes (also released by the Bank). Forty-nine state coincident indexes are projected to grow over the next six months, and one is 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 1.5 percent over the next six months.” – Daniel Mazone, Research Department, The Federal Reserve Bank of Philadelphia

U.S. Economic Indicators

The Federal Reserve Bank of Richmond

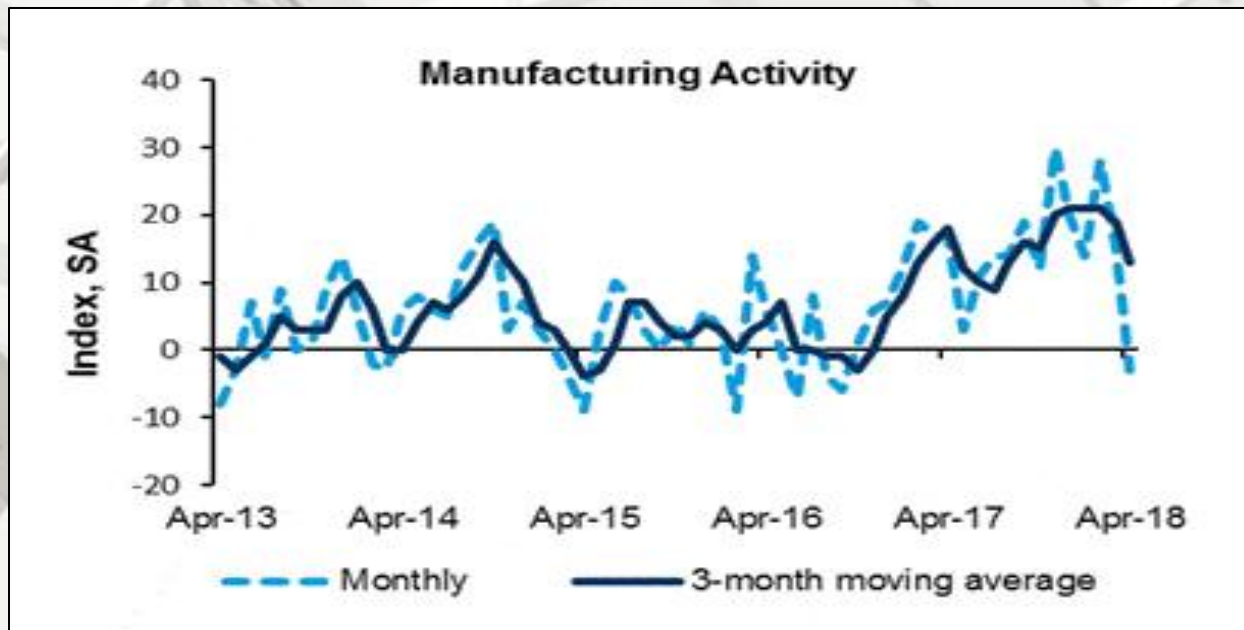
Fifth District Manufacturing Firms Reported Weakening Business Activity in April

“Results of the most recent survey from the Richmond Fed suggest that Fifth District manufacturing activity slowed in April. The composite index dropped sharply from 15 in March to –3 in April, its first negative reading since September 2016. The index was weighed down by a contraction in shipments and new orders; however, its third component, employment, rose slightly and remained in expansionary territory. The negative reading of the local business conditions index also suggested worsening conditions for District manufacturers, but surveyed firms were generally optimistic that they would see overall growth in the next six months.

Survey results indicate that capital expenditures and wages increased among District manufacturing firms in April as both indicators reached record-high values of 31 and 27, respectively. Despite rising wages, firms continued to report difficulty in finding necessary skills.

Firms saw increased growth in prices paid in April, but growth of prices received continued to slow. Manufacturers expected to see faster growth in both prices paid and prices received in the coming months.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators



U.S. Economic Indicators



U.S. Economic Indicators



U.S. Economic Indicators

The Federal Reserve Bank of San Francisco

FRBSF FedViews

- “The U.S. economy is in the second-longest expansion in its history. The labor market is booming, consumer and business spending are solid, and all other key economic indicators are flashing green. Added boosts are coming from a number of tailwinds, including supportive financial conditions, strong global growth, and the recent fiscal stimulus.
- Over the next few years, we expect real GDP growth to average around 2½%, well above its sustainable pace of 1¾%. This faster pace of growth will put further downward pressure on unemployment and contribute to the gradual rise of inflation, bringing it closer to the Fed’s 2% target.
- Our view is similar to the Federal Open Market Committee’s March 2018 median projections, which point to sustained above-trend growth, significant undershooting on unemployment, and inflation settling in near its 2% target.
- To navigate the economy’s return to its long-run sustainable pace, the FOMC projects ongoing gradual increases in the federal funds rate through 2020. The current median path has the funds rate peaking modestly above the estimated longer-run value.
- Achieving a smooth landing in the economy requires monetary policymakers to balance the risk of letting the economy run hot, potentially triggering high inflation, with the risk of removing accommodation too quickly, leaving prospective workers waiting for job opportunities.” – Mary Daly, Executive Vice President and Director Of Research , The Federal Reserve Bank of San Francisco

U.S. Economic Indicators

The Federal Reserve Bank of San Francisco

FRBSF FedViews

- “On the “running the economy too hot” side, an ever-tightening labor market risks creating a surge in wage inflation that will lead to an unwanted pickup in price inflation. However, there is little sign of this in the data. Wage growth is ratcheting up fairly slowly. And relative to the unemployment rate, which long ago surpassed its previous low, wage inflation remains subdued, running about a percentage point below its pre-recession peak.
- Looking across regions, industries, and occupations, the story is similar. Wage growth is faster in the Pacific region, where labor markets are running especially hot, and for high-skilled workers, who are in short supply. But overall, there is little evidence of any outsized divergence in wage growth across groups that could lead to a sudden and unwanted surge in aggregate wage inflation.
- Notably, even if such a surge were to occur, it is unlikely to show through immediately to price inflation. Over the past 50 years, the contemporaneous link between wage and price inflation has fallen. Before 1985, when inflation was high and workers’ salaries were more likely to be automatically adjusted for cost-of-living increases, the correlation between wage growth and price inflation was 0.95. Since 1985, this correlation has averaged 0.29, and since the Great Recession it has been around 0.12. This means that, should wage inflation unexpectedly pick up, the FOMC would have time to adjust policy to limit the impact on overall price inflation.
- On the “pulling accommodation away too quickly” side, the risk is that the economy may have more labor market slack than is currently measured by the unemployment rate and that Fed tightening could leave prospective workers on the sidelines and out of the labor force.” – Mary Daly, Executive Vice President and Director Of Research , The Federal Reserve Bank of San Francisco

U.S. Economic Indicators

The Federal Reserve Bank of San Francisco

FRBSF FedViews

- “One way to gauge whether the economy has unmeasured labor market slack is to look at the labor force participation rate, which measures the share of the working-age population that is or has been looking for a job. Although labor force participation has gone up slightly for workers ages 25-54 over the past few years, we expect few additional gains, consistent with projections from the Congressional Budget Office. This is because the factors holding back participation among these prime-age workers are more structural (lifestyle choices, job polarization, skills mismatch) than cyclical.
- Most importantly, aggregate labor force participation in the United States is on a downward trend due to the unstoppable forces of demographics. Baby boomers are retiring and the generations behind them are smaller. Together, these forces are set to pull down labor force participation for the foreseeable future.
- But there is room to boost labor force participation in the longer run. Compared with our industrialized competitors, a much smaller fraction of prime-age adults ages 25-54 participates in the U.S. labor force. Some of this difference owes to lifestyle choices, but other factors also are at work, particularly cross-country gaps in educational attainment, which have left many American workers underprepared for the jobs being created. Bringing the skills and training of U.S. workers more in balance with employer demands is one way to increase the share of working-age Americans who participate in the labor market

In sum, the U.S. economy is very strong and the outlook is bright. There are few signs that we are in danger of runaway inflation or that the gradual pace of policy normalization the FOMC projects will leave large swaths of potential workers without jobs. That said, there is room to increase the share of adults who participate in the labor markets. This will require structural changes that bring workers’ skills in line with the demands of our changing economy.” – Mary Daly, Executive Vice President and Director Of Research , The Federal Reserve Bank of San Francisco

U.S. Economic Indicators

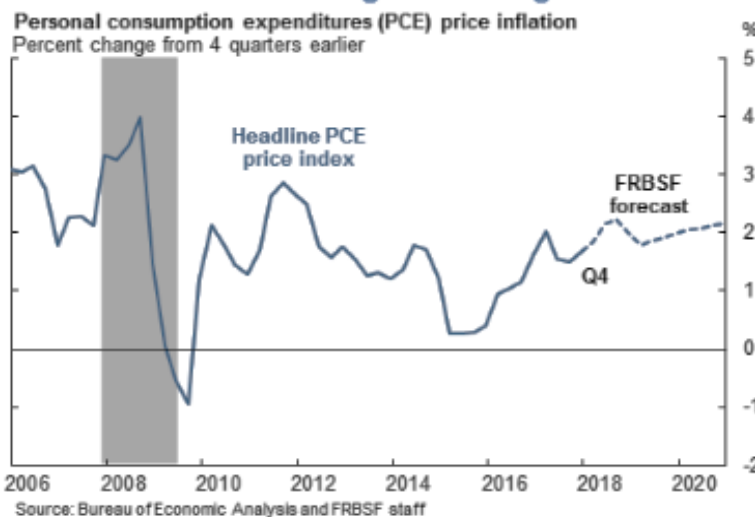
Robust GDP growth



Further strengthening in the labor market



Inflation moving back to target



Bright outlook reflected in SEP

Median of FOMC Summary of Economic Projections (%)

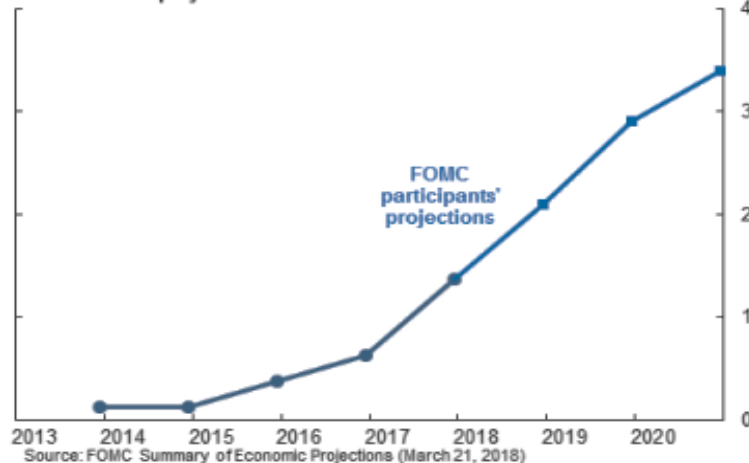
	2018	2019	2020	Longer run
Real GDP growth	2.7	2.4	2.0	1.8
Unemployment rate	3.8	3.6	3.6	4.5
PCE inflation	1.9	2.0	2.1	2.0

Source: FOMC (March 21, 2018)

U.S. Economic Indicators

Gradual normalization of policy

Median FOMC projection for the federal funds rate



Wage growth only slowly ratcheting up

Wage growth and unemployment rate
12-month moving avg of year-over-year wage growth



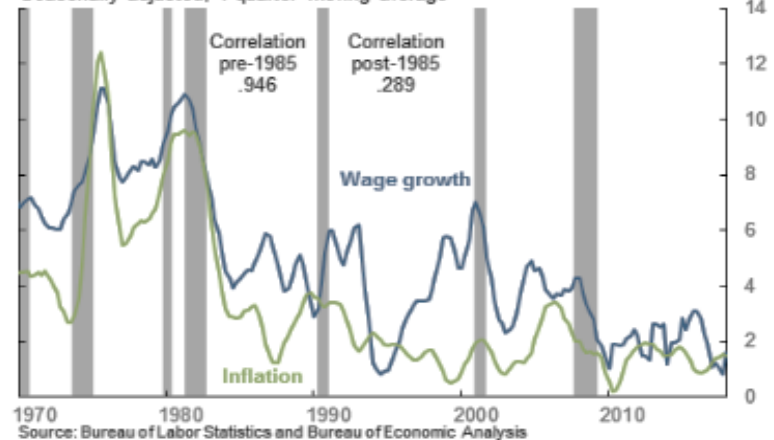
Few signs wage growth is running away

Wage growth dispersion
12m moving avg of median percent change in hourly wage in Feb 2018

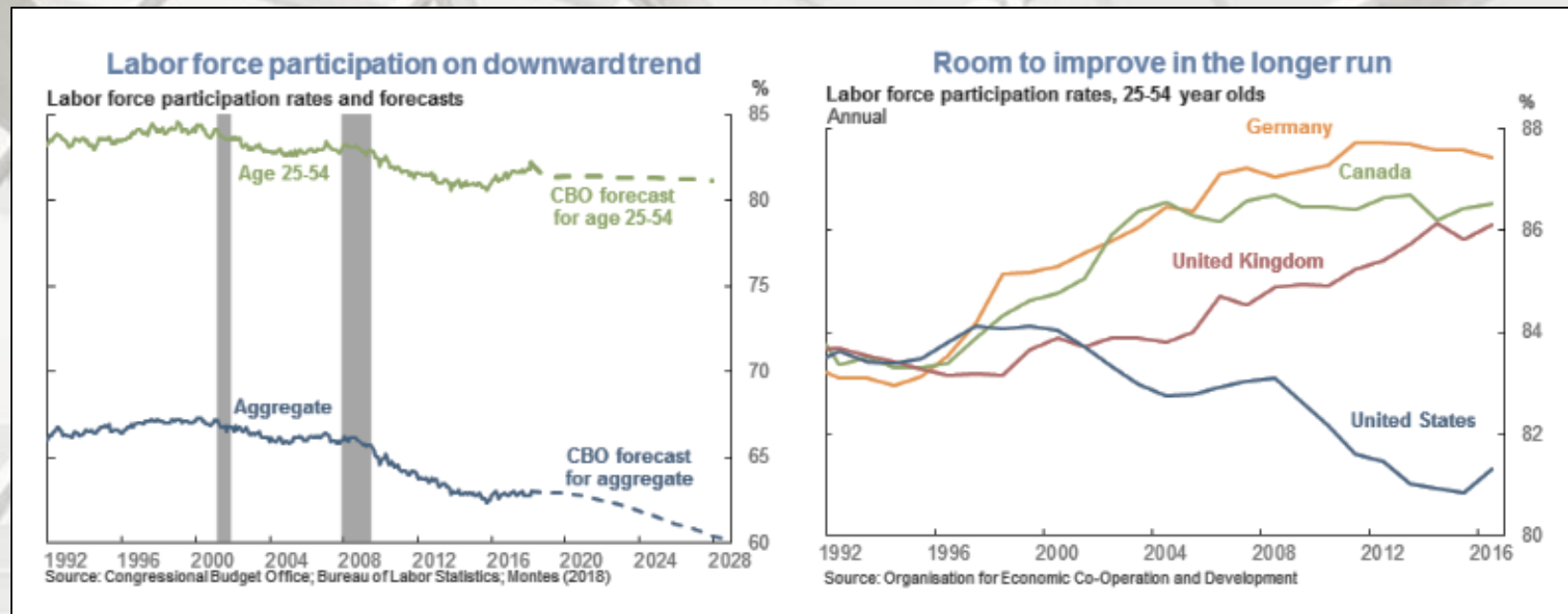


Wage growth and inflation link muted

Wage growth and inflation
Seasonally adjusted, 4-quarter moving average



U.S. Economic Indicators



Global Economic Indicators

The Federal Reserve Bank of Dallas Global Economic Outlook Remains Strong

“Real world output growth excluding the U.S. came in at 3.4 percent in 2017, and forecasts call for continued strong growth in 2018 and 2019 (Table 1). The Dallas Fed’s Database of Global Economic Indicators (DGEI) forecasts 2018 world (excluding U.S.) real gross domestic product (GDP) growth at 3.2 percent. Advanced economies excluding the U.S. are expected to grow 2.1 percent, while emerging countries are expected to expand 4.3 percent.

World Economic Outlook forecasts from the International Monetary Fund (IMF) were consistent with DGEI, predicting strong global economic growth in both 2018 and 2019.[1] The IMF’s forecasts for world growth in 2018 and 2019 were each 20 basis points higher in April than in October 2017.

Economic expansion in 2017 was broad based, with the IMF’s global growth aggregate at its highest level since 2011. Two-thirds of the countries in the aggregate experienced faster growth in 2017 than in 2016—the largest share since 2010.

The IMF’s advanced-economy aggregate increased 60 basis points in 2017, a solid performance, in part due to increased fixed capital formation and inventory building in advanced economies. Canada was the strongest performer among advanced economies with real GDP growth of 2.9 percent in 2017.

Annual output growth in emerging economies was led by increases of 7.3 percent in India and 6.8 percent in China. Russia had the weakest performance, with its annual growth weighed down to 1.0 by a fourth-quarter contraction of 1.8 percent. The IMF attributes faster growth in emerging and developing countries to an acceleration in private consumption.

Higher commodity prices and increased fixed investment in commodity-exporting countries, notably Brazil and Russia, were important drivers of the pickup in global GDP growth. Investment growth slowed in China and India but was offset by higher net exports and consumption.” – Everett Grant, Research Economist and Daniel Crowley, Research Analyst; Globalization Institute, The Federal Reserve Bank of Dallas

Global Economic Indicators

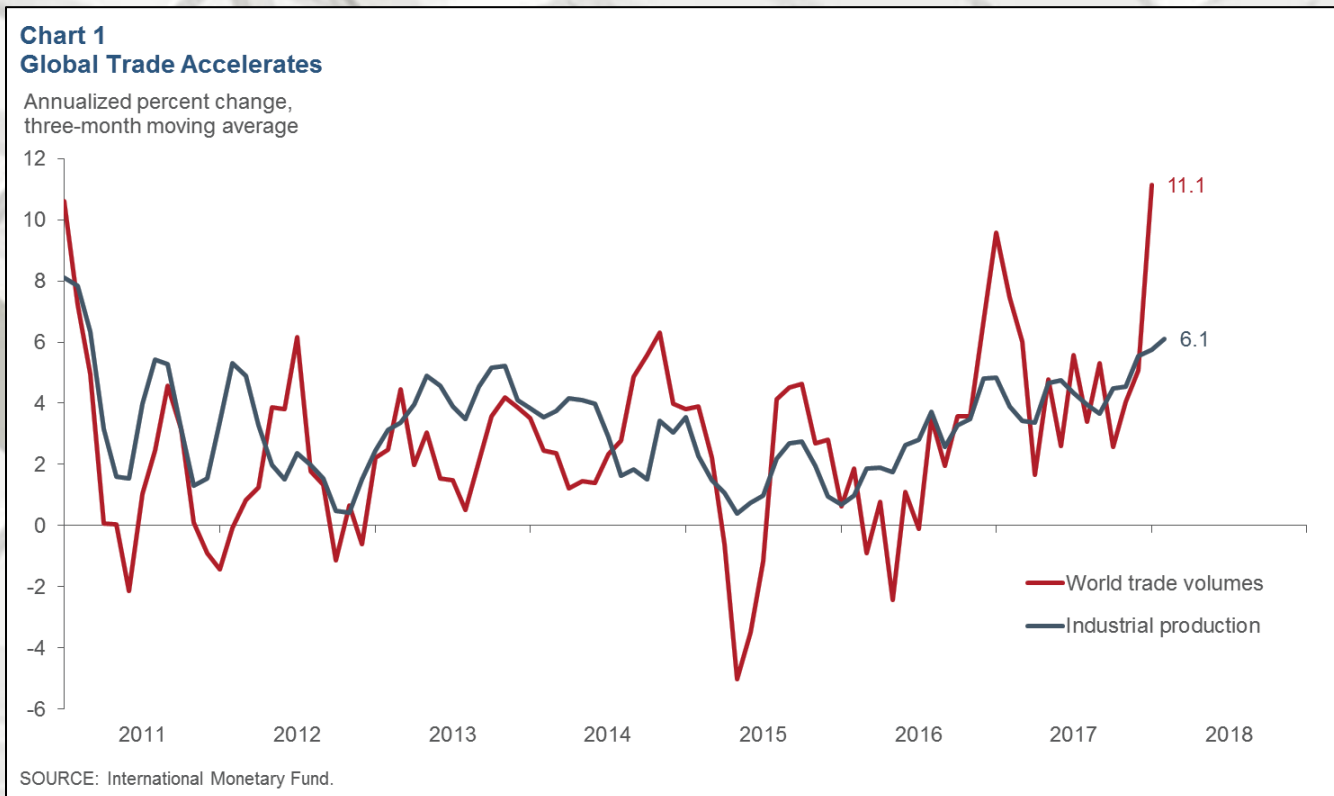
Table 1: Real GDP Growth

	Observed				IMF's World Economic Outlook forecasts	
	Y/Y	Q/Q	Quarter	Year	2018	2019
United States	2.9	2.3	Q1	2018	2.9	2.7
World (ex. U.S.)	3.4	3.1	Q4	2017	--	--
Advanced (ex. U.S.)	2.6	1.9	Q4	2017	--	--
Canada	2.9	1.7	Q4	2017	2.1	2.0
Euro area	2.6	2.4	Q4	2017	2.3	1.9
Japan	2.1	1.6	Q4	2017	1.2	0.9
United Kingdom	1.2	0.4	Q1	2018	2.4	2.0
Emerging	4.3	4.4	Q4	2017	--	--
China	6.8	7.2	Q1	2018	6.6	6.4
Mexico	2.0	4.5	Q1	2018	2.3	3.0
India	7.3	6.6	Q4	2017	7.4	7.8
Brazil	2.2	0.2	Q4	2017	2.3	2.5
Russia	1.0	-1.8	Q4	2017	1.7	1.5
South Africa	1.9	3.1	Q4	2017	1.5	1.7

NOTES: Aggregates are trade-weighted and reported when data for a sufficient number of countries are available. They are reweighted to account for any missing data. Country data are arranged in descending order of trade.

SOURCES: Database of Global Economic Indicators; International Monetary Fund; Haver Analytics; Consensus Forecasts.

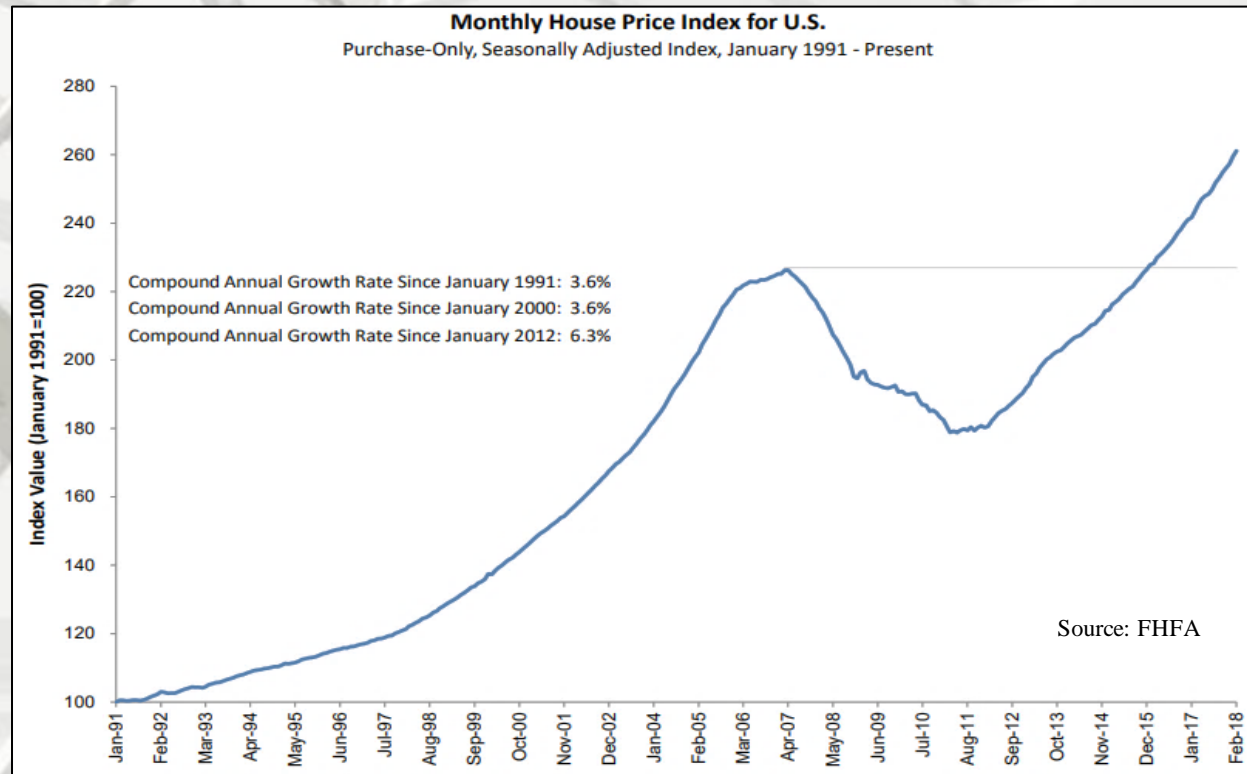
Global Economic Indicators



The Federal Reserve Bank of Dallas Global Economic Outlook Remains Strong

“Global trade recovered in 2017, reflecting improved investment in formerly stressed commodity exporters and in advanced economies. Both global trade volume and industrial production are at their highest levels since 2011 (Chart 1). Acceleration in global trade was evident in emerging economies as well. Trade growth rose from 2.2 percent in 2016 to 6.4 percent in 2017, reflecting increased exports from emerging Asian markets and a recovery in imports in commodity-exporting countries.” – Everett Grant, Research Economist and Daniel Crowley, Research Analyst; Globalization Institute, The Federal Reserve Bank of Dallas

U.S. Economic Indicators

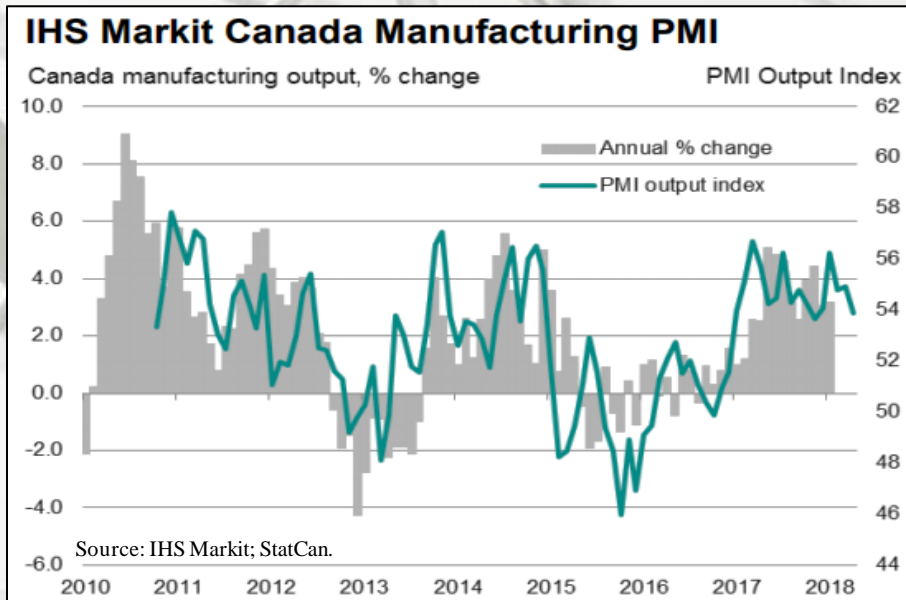


FHFA House Price Index

FHFA House Price Index Up 0.8 Percent in January

“The FHFA House Price Index (HPI) reported a **0.6** percent increase in U.S. house prices in February from the previous month. From February 2017 to February 2018, house prices were up 7.2 percent. For the nine census divisions, seasonally adjusted monthly price changes from January 2018 to February 2018 ranged from 0.1 percent in the West North Central division to +1.6 percent in the East South Central division. The 12-month changes were all positive, ranging from +4.8 percent in the Middle Atlantic division to +10.3 percent in the Pacific division.” – Stefanie Johnson and Corinne Russell, FHFA

Private Indicators: Global



Markit Canada Manufacturing PMI™

“The headline seasonally adjusted **IHS Markit Canada Manufacturing Purchasing Managers’ Index® (PMI™)** posted 55.5 in April, little-changed from 55.7 in March and well above the neutral 50.0 threshold. Although the lowest index reading so far in 2018, the latest PMI figure still signalled a strong overall improvement in manufacturing sector business conditions.

Robust manufacturing performance in April, but inflationary pressures intensify

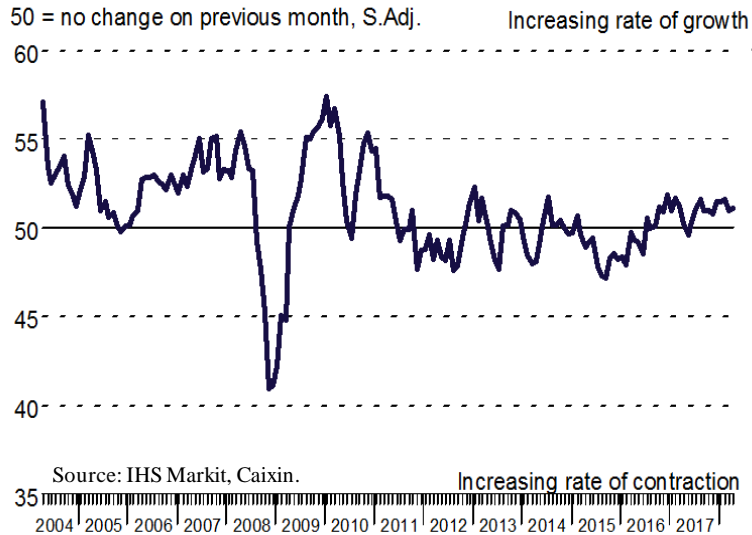
April data indicated a positive month overall for the Canadian manufacturing sector, helped by the fastest rise in incoming new work since the start of the year. Export demand picked up markedly, with the latest rise in new orders from abroad the strongest since March 2011.

A healthy flow of new orders and an upturn in business optimism to its highest for 12 months meant that Canadian manufacturers remained fully in expansion mode during April. April data revealed that unfinished work increased at one of the fastest rates since the survey began in 2010, reflecting constraints on production capacity and ongoing supply chain issues.

Strong demand for raw materials resulted in the fastest rise in input costs for over four years, while the robust demand backdrop enabled manufacturers to pass on prices at the factory gate at the fastest pace since 2011. ‘ – Tim Moore, Associate Director at Survey Compilers, IHS Markit

Private Indicators: Global

Caixin China General Manufacturing PMI



Caixin China General Manufacturing PMI™

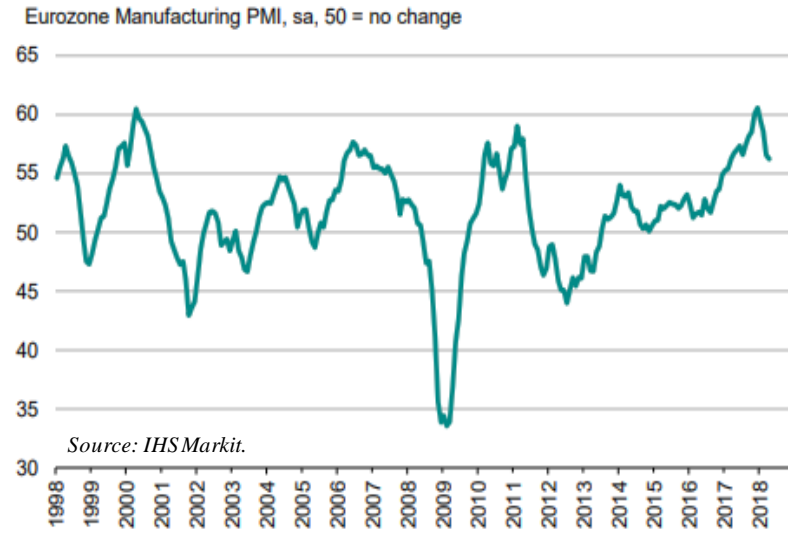
PMI signals marginal improvement in operating conditions

“The headline seasonally adjusted *Purchasing Managers’ Index*™ (*PMI*™) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – registered 51.1 in April, up fractionally from 51.0 in March. Operating conditions have now strengthened in each of the past 11 months, though the pace of improvement was only marginal.

“The Caixin China General Manufacturing PMI edged up to 51.1 in April. Output increased at a faster rate last month from March, while the contraction in employment narrowed. However, growth of new business moderated for the second straight month, reflecting weakening demand across the manufacturing sector. Manufacturers are facing a sharply deteriorating foreign demand environment as new export orders declined for the first time in 17 months in April. The rate of output charge inflation eased slightly while growth in input costs posted its first acceleration since September, likely due to increases in crude oil prices. This may squeeze the profit margins of manufacturers and has thus contributed to a decline in the sub-index of future output, a gauge of companies’ confidence in their business outlook over the next 12 months. Stocks of finished goods expanded at a faster rate in April compared to March, suggesting that inventory levels for manufacturers have remained rather high. Overall, operating conditions across China’s manufacturing sector continued to improve in April. But uncertainty in exports has increased significantly, and the dependence of the Chinese economy on domestic demand is rising.” – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis, CEBM Group

Private Indicators: Global

IHS Markit Eurozone Manufacturing PMI



Markit Eurozone Manufacturing PMI®

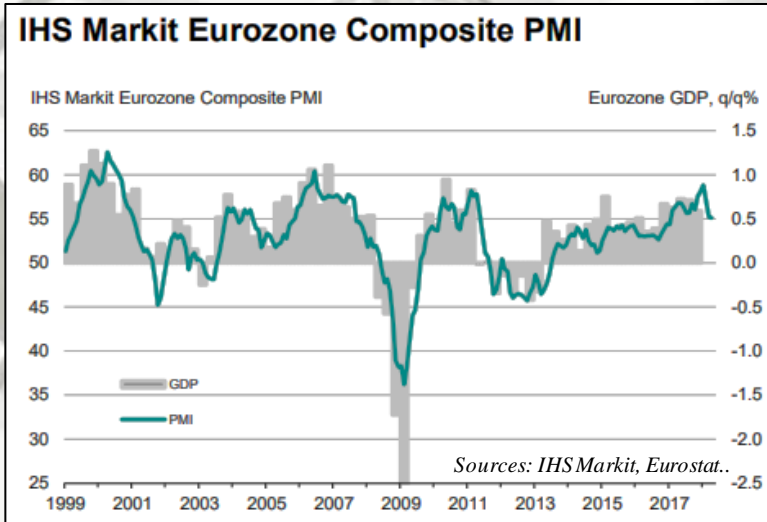
“The start of the second quarter saw a further slowing in the rate of growth in the eurozone manufacturing sector. The final IHS Markit Eurozone Manufacturing PMI® fell to a 13-month low of 56.2 in April, down from 56.6 in March and slightly above the earlier flash estimate of 56.0. Although still signalling a solid rate of expansion, the upturn has lost noticeable momentum since the PMI hit a record high in December 2017

Eurozone manufacturing growth slows again at start of second quarter

“The manufacturing sector saw growth weaken further at the start of the second quarter, but let’s not lose sight of the fact that the overall pace of expansion remains encouragingly solid. Although growth has slowed markedly compared to the start of the year, December had seen the best performance in over 20 years of survey data collection, with factory activity clearly surging at an unsustainable rate. Since then, supply constraints – including raw material scarcities, supplier delivery delays and skill shortages – have constrained production. Strikes, bad weather and unusually high levels of illness have also plagued businesses.

...anecdotal evidence from the surveys also highlights how demand has been curbed by other issues such as the stronger euro and rising prices. Uncertainty has also intensified due to worries regarding trade wars and Brexit, underscoring downside risks to the outlook. While the current pace of growth remains solid, the trend in the surveys in coming months will provide important clues as to the degree to which underlying demand may be waning and the extent to which policymakers should be concerned about the health of the economy.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit Eurozone Composite PMI®

“The final **IHS Markit Eurozone PMI® Composite Output Index** posted 55.1 in April, down from 55.2 in March and below the earlier flash estimate (also 55.2). The headline index has signalled expansion in each of the past 58 months and remains above its average for that sequence (54.0). April saw manufacturing production rise at a marginally quicker pace, but this was offset by growth in service sector activity easing to an eight-month low.

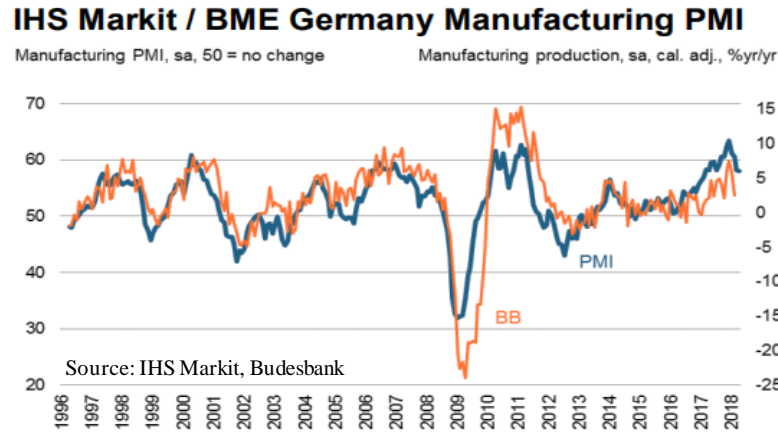
Eurozone economic growth remains solid in April

Eurozone economic activity continued to expand at a robust pace in April, with solid growth signalled in both the manufacturing and service sectors. However, growth has downshifted in recent months. The latest expansion of output was the slowest since January 2017.

The final PMI numbers confirm the marked, broadbased fading of the eurozone’s growth spurt so far this year. The headline index has fallen from an eleven-and-a-half year peak in January to a 15-month low in April. Despite the drop, the PMI is not yet at a worryingly low level, but the survey details hint at further easing in the coming months. While the expansion signalled by April’s PMI is disappointing relative to the elevated levels seen at the start of the year, the survey remains indicative of the eurozone economy growing at a robust quarterly rate of approximately 0.5-0.6%.

Employment growth is also still booming, with the rate of job creation in the service sector at its highest for over a decade. Employment is a lagging indicator, however, and two reliable leading indicators have turned down, suggesting that both output and hiring trends will weaken further, at least into May. First, backlogs of uncompleted orders grew at the slowest rate for eight months. Second, companies’ expectations about future output hit a five-month low. Any further deterioration could herald new concerns among policymakers regarding the economic outlook.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global



Markit/BME Germany Manufacturing PMI®

“Germany’s manufacturing sector made a solid start to the second quarter, with output rising markedly and at a quicker pace than in March. However, the rate of production growth remained well below the highs seen at the turn of the year, and both new order inflows and job creation continued to wane from their recent elevated levels

Manufacturing PMI slips to nine-month low in April

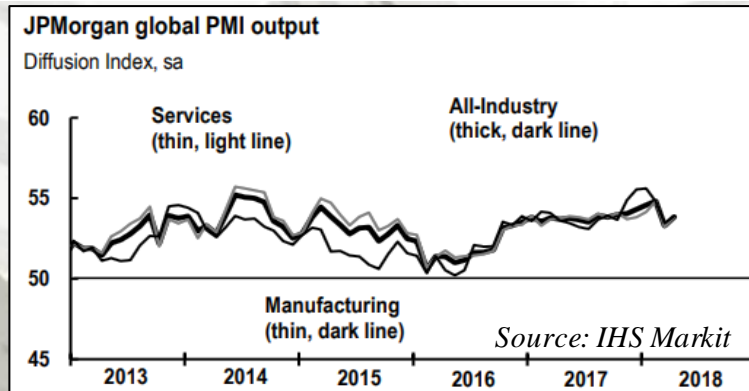
The headline IHS Markit/BME Germany Manufacturing PMI – a single-figure snapshot of the performance of the manufacturing economy – dipped to 58.1 in April, down fractionally from 58.2 in March and its lowest reading for nine months. However, despite dropping for a fourth straight month from a record-high last December, the index remained well above its long-run series average (52.4) and at a level indicative of a marked improvement in overall operating conditions.

The manufacturing PMI slipped to a nine-month low in April, but alarm bells aren’t ringing yet. The sector boomed in the second half of 2017 and probably overheated; record input delivery delays show that supply has struggled to keep up with demand. The sector looks to have come off the boil in terms of its rate of growth, though it is still running relatively hot.

By historical standards, April’s increase in output was robust, and it coincided with another strong round of job creation as manufacturers continued in their efforts to expand capacity. But what’s important in terms of staying in growth territory is the strength of new orders, which in April showed the smallest gain for 17 months. A further slowdown in order books in May would mean some downside risks to the outlook

The survey’s forward-looking business confidence gauge has stabilised after falling throughout the opening quarter, to suggest that firms themselves see growth levelling off at a lower rate than those seen in recent months.” – Phil Smith, Principal Economist, IHSMarkit®

Private Indicators: Global



JP Morgan Global Manufacturing PMI™

“The J.P. Morgan Global All-Industry Output Index – which is produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – rose to 53.8 in April, up from 53.3 in March. The index has signalled expansion in each of the past 67 months.

Global growth remains solid at start of second quarter

The start of the second quarter saw a modest acceleration in the rate of expansion of global private sector economic activity. Although growth failed to recover and match the highs seen around the turn of the year, it remained solid and was in line with its long-run trend.

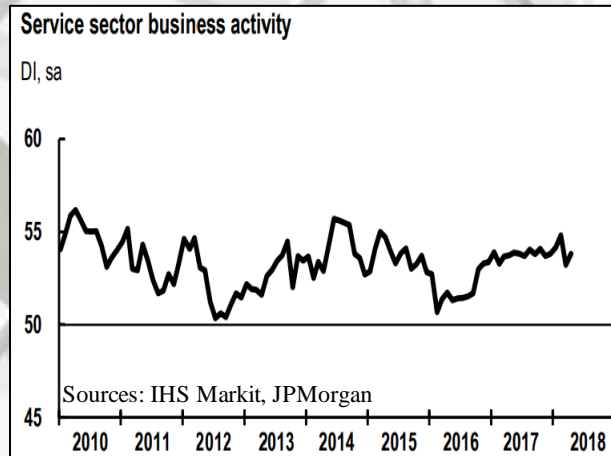
Concurrent upturns continued in the manufacturing and service sectors, with output increasing at slightly faster rates in both categories. The breadth of the expansion also extended across the six sub-industries covered by the survey. Activity rose across the consumer, intermediate and investment goods industries and at providers of business, consumer and financial services

Growth improved in China, Japan, the UK and India, but remained below the world average in all four cases. The upturn in Brazil also continued, although the pace of expansion was only modest and the weakest during the current four-month sequence of increase. Moreover, the pace of expansion strengthened and remained sufficient to test capacity. Backlogs of work increased for the twenty-first month in a row.

Employment rose again in April. The rate of jobs growth remained among the best registered over the past decade. Staffing levels increased in the US, the euro area, Japan, the UK, India and Australia. Employment was unchanged in China and fell again in Brazil.

Input price inflation remained solid during April, leading to a further increase in average output charges. Rates of increase in both price measures were (on average) faster in developed nations compared to emerging markets.” – David Hensley, Global Economist, J.P. Morgan

Private Indicators: Global



JP Morgan Global Services PMI™

“Business activity in the global service sector increased at a slightly faster pace in April. At 53.8, the J.P. Morgan Global Services Business Activity Index – a composite index produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – rose from March’s 17-month low of 53.2, but failed to recoup fully the momentum lost since February’s recent high. The index has signalled growth in each of the past 105 months.

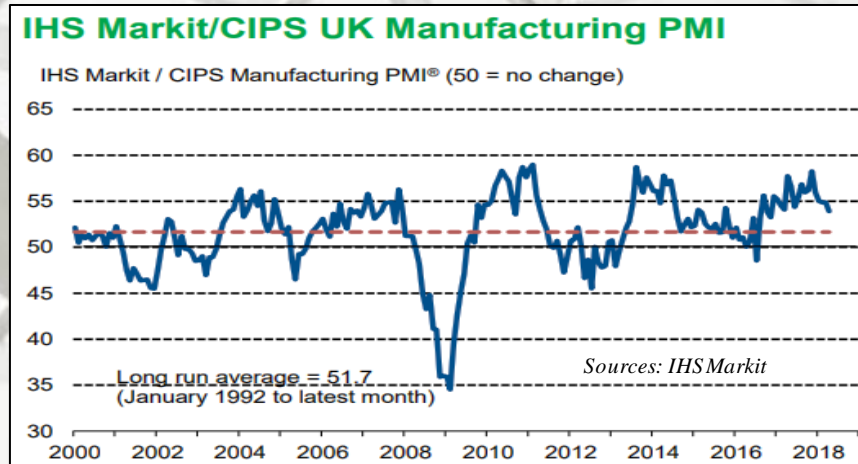
Global service sector shows renewed vigour in April

Sector and national PMI data continued to point to a broad-based expansion. Output rose across the business, consumer and financial services categories, with rates of increase also improving in the first two. Business activity rose in almost all of the nations covered by the survey, the exception being stagnation in Brazil.

Rates of growth strengthened to two-month highs in the US, China and the UK, to a six-month high in Japan and the quickest in three months in India. The upturns in the euro area and Australia remained solid, and faster than the global average, despite easing to eight- and two month lows respectively. The outlook for the global service sector remained positive in April.

Inflows of new business rose at the sharpest pace in over three-and-a-half years, leading to a further modest increase in backlogs of work. Business confidence about the coming 12 months similarly improved to its highest since June 2014. Companies in the business, consumer and financial services sectors also registered an improved degree of optimism during the latest survey month. Solid current and expected future growth of output and new business encouraged firms to take on additional staff in April. Jobs growth hit a 46-month high, with employment rising at faster rates in the euro area, China, India and Australia. The pace of increase was unchanged in the US, but slowed in Japan and the UK. Job losses continued to be registered in Brazil.” – David Hensley, Global Economist, J.P. Morgan

Private Indicators: Global



Markit/CIPS UK Manufacturing PMI™

“The seasonally adjusted IHS Markit/CIPS Purchasing Managers’ Index® (PMI®) fell to a 17-month low of 53.9 in April, down from 54.9 in March. The PMI has signalled expansion in each of the past 21 months.

UK Manufacturing PMI signals steady growth rate at end of opening quarter

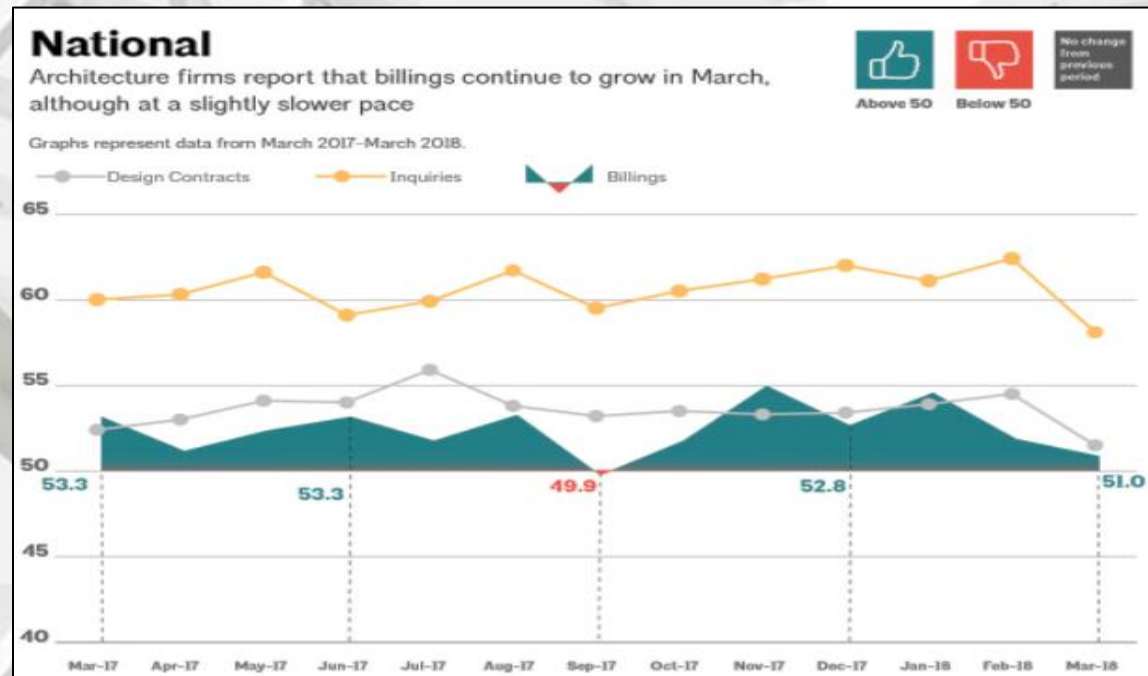
The upturn in the UK manufacturing sector slowed further at the start of the second quarter. Rates of expansion eased for output, new orders and employment, in part reflecting a weakening in the pace of expansion of new work from abroad. On the price front, input cost and output charge inflation moderated and, although still elevated, are below the highs seen at the turn of the year.

The start of the second quarter saw the UK manufacturing sector lose further steam. The headline PMI dipped to a 17-month low as growth of production, new business and employment all slowed. While adverse weather was partly to blame in February and March, there are no excuses for April’s disappointing performance, making the chances of a near term hike in interest rates by the Bank of England look increasingly remote. On this footing, the sector is unlikely to see any improvement on the near-stagnant performance signalled by the opening quarter’s GDP numbers.

Looking ahead, the trend in manufacturing production is likely to remain subdued. Weak demand meant firms are seeing backlogs of work fall and stocks of unsold goods rise, limiting the need for output to rise in May. Business optimism has also dipped to a five-month low as concerns about Brexit, trade barriers and the overall economic climate remained widespread.” – Rob Dobson, Director & Senior Economist, IHS Markit

Private Indicators

American Institute of Architects (AIA)

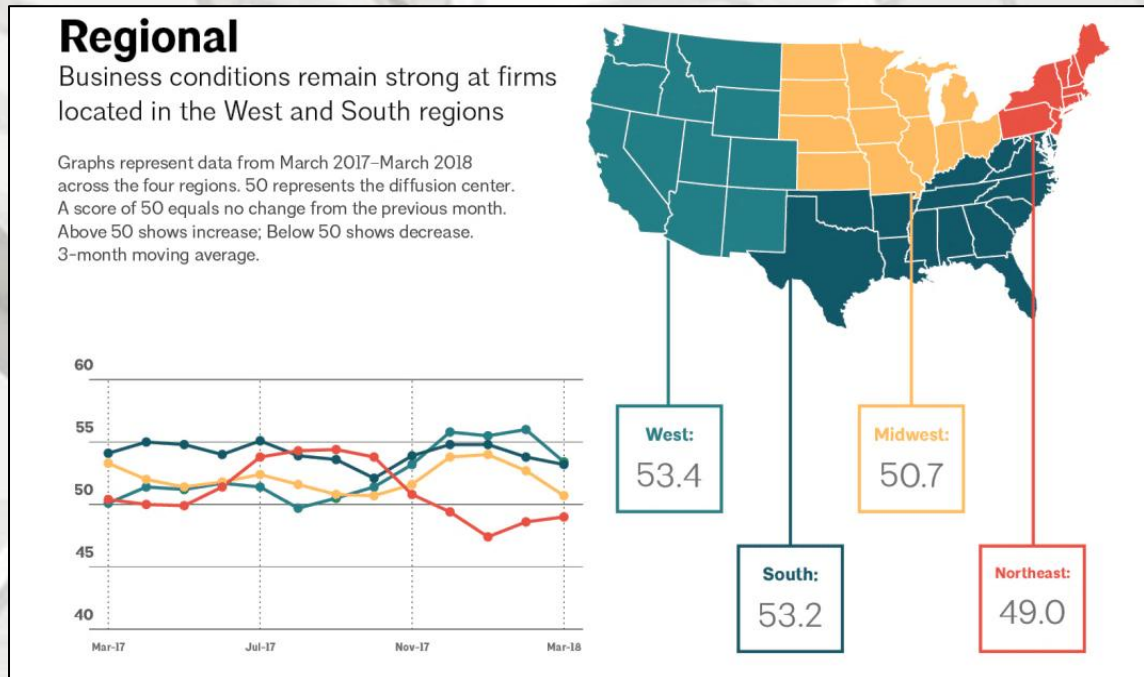


March Architecture Billings Index

Firm billings increase at more sluggish rate

“Architecture firm billings increased for the sixth consecutive month in March, although the pace of growth slowed modestly from February. However, the Architecture Billings Index (ABI) score of 51.0 for the month indicates that the majority of architecture firms are still continuing to experience improving business conditions. The pace of growth also slowed slightly this month for both inquiries and the value of new design contracts, although they remain generally strong overall. In addition, responding firms also indicated this month that their firm backlogs rose to 6.3 months, with three quarters of firms reporting that they currently have backlogs of three months or longer, another strong indicator of future work.” – Kermit Baker, Chief Economist, AIA, Honorable AIA

Private Indicators: AIA



Region

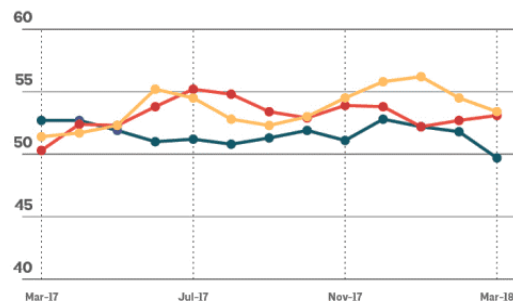
“Although architecture firm billings at firms located in the Northeast declined for the fourth consecutive month in March, business conditions improved at firms in all other regions of the country, with firms located in the South and West regions continuing to report the strongest growth.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators: AIA

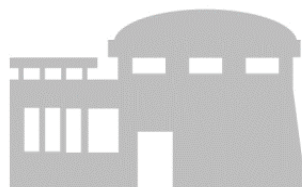
Sector

Billings remain strong at firms with multifamily residential, commercial/industrial specializations

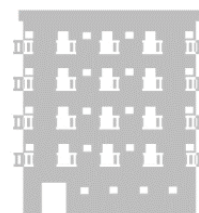
Graphs represent data from March 2017–March 2018 across the three sectors. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Commercial/Industrial: 53.1



Institutional: 49.7



Residential: 53.4

Sector

“Business conditions also remained strong at firms with a multifamily residential specialization, as well as at firms with a commercial/industrial specialization, while billings softened slightly at firms with an institutional specialization.” – Kermit Baker, Chief Economist, AIA , Honorable AIA

Private Indicators

Dodge Data & Analytics

March Construction Starts Advance 11 Percent

“New construction starts in March increased 11% from the previous month to a seasonally adjusted annual rate of \$785.2 billion, according to Dodge Data & Analytics. The substantial gain followed modest declines in January (down 2%) and February (down 3%), and brings the pace of total construction starts to the highest level over the past six months. The nonbuilding construction sector, comprised of public works and electric utilities/gas plants, soared 73% in March, boosted by the start of several very large projects. ... At the same time, both nonresidential building and residential building eased back slightly in March, with respective declines of 1% and 2%. During the first three months of 2018, total construction starts on an unadjusted basis were \$167.3 billion, down 7% from last year (which included exceptionally strong amounts for airport terminals and natural gas pipelines). On a twelve-month moving total basis, total construction starts for the twelve months ending March 2018 were up 1% from the twelve months ending March 2017.

The March data produced a reading of 166 for the Dodge Index (2000=100), up from 150 for February. During the first quarter of 2018 the Dodge Index averaged 157, up 2% from the 154 average for last year's fourth quarter, while slightly below the 161 average for the full year 2017.” – Benjamin Gorelick, Spector & Associates

Private Indicators

Dodge Data & Analytics

“The construction start statistics can show wide swings month-to-month, and March certainly qualifies as one of the stronger months due to the inclusion of several very large projects. Looking at the data on a quarterly basis can reduce the volatility present in the monthly statistics, and this year’s first quarter shows a continuation of the up-and-down pattern that’s been present over the past year – first quarter 2017 up 10%, second quarter 2017 down 6%, third quarter 2017 up 8%, fourth quarter 2017 down 9%, and now first quarter 2018 up 2%. This up-and-down pattern typically occurs when construction is at a mature stage of expansion, characterized by a slower rate of growth. A decelerating expansion does not necessarily mean that decline will closely follow, and there are several factors during 2018 that will help construction to stay close to recent levels.

In March, Congress reached agreement on fiscal 2018 federal appropriations, which provide additional funding for several public works programs, especially those that are transportation-related. Greater funding continues to be present from construction bond measures passed by state and local governments in recent years. The overall economy continues to proceed at a healthy clip, which supports healthy market fundamentals for commercial building. And, while interest rates are rising, the increases so far have been moderate, as shown by the ten-year Treasury bill stabilizing at 2.8% to 2.9% during March and the first half of April.” – Robert A. Murray, Chief Economist, Dodge Data & Analytics

Private Indicators

Dodge Data & Analytics

“**Residential building** in March was \$336.2 billion (annual rate), down 2% from the previous month. Multifamily housing slipped 7% following a 6% gain in February and a 36% hike in January. The number of large multifamily projects entered as construction starts stayed high, with March seeing 13 multifamily projects valued each at \$100 million or more reach groundbreaking, slightly more than the 11 such projects entered as February starts (which included the \$700 million City View Tower in Queens NY). The largest multifamily projects entered as construction starts in March were the \$398 million multifamily portion of the \$450 million Seattle Times mixed-use development in Seattle WA, the \$220 million multifamily portion of the \$250 million Broadway Block mixed-use development in San Diego CA, and the \$217 million multifamily portion of a \$258 million mixed-use development in Weehawken NJ. In March, the top five metropolitan areas ranked by the dollar amount of multifamily starts were – New York NY, Seattle WA, Boston MA, Los Angeles CA, and Miami FL. Metropolitan areas ranked 6 through 10 were – Washington DC, Austin TX, San Diego CA, Denver CO, and Dallas-Ft. Worth TX.

Single family housing in March unchanged from February, extending the steady pace that was present during the previous four months.” – Robert A. Murray, Chief Economist, Dodge Data & Analytics

Private Indicators

Dodge Data & Analytics

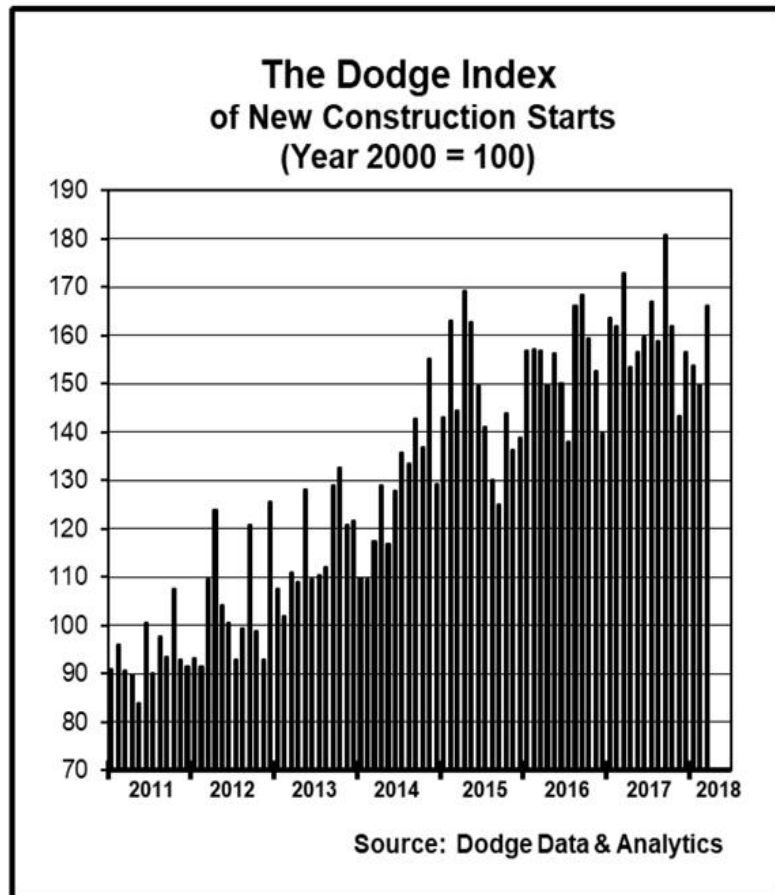
“**Residential building** grew 7% year-to-date, with single family housing up 4% and multifamily housing up 12%. By geography, total construction starts for the first three months of 2018 versus last year showed this performance – the South Atlantic, down 1%; the South Central, down 5%; the West, down 9%; the Midwest, down 10%; and the Northeast, down 14%.

Useful perspective comes from looking at twelve-month moving totals, in this case the twelve months ending March 2018 versus the twelve months ending March 2017. On this basis, total construction starts were up 1%. By major sector, **residential building** advanced 3%, with single family housing up 7%, while multifamily housing retreated 6%.

Nonresidential building slipped 1%, with institutional building down 1% and commercial building down 6%, while manufacturing building climbed 32%. Nonbuilding construction was also down 1%, with public works up 2% and electric utilities/gas plants down 16%.” – Robert A. Murray, Chief Economist, Dodge Data & Analytics

Private Indicators

March 2018 Construction Starts



March 2018 Construction Starts

Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>March 2018</u>	<u>February 2018</u>	<u>% Change</u>
Nonresidential Building	\$243,293	\$246,059	-1
Residential Building	336,240	343,409	-2
Nonbuilding Construction	<u>205,703</u>	<u>119,208</u>	<u>+73</u>
Total Construction	\$785,236	\$708,676	+11

The Dodge Index

Year 2000=100, Seasonally Adjusted

March 2018166

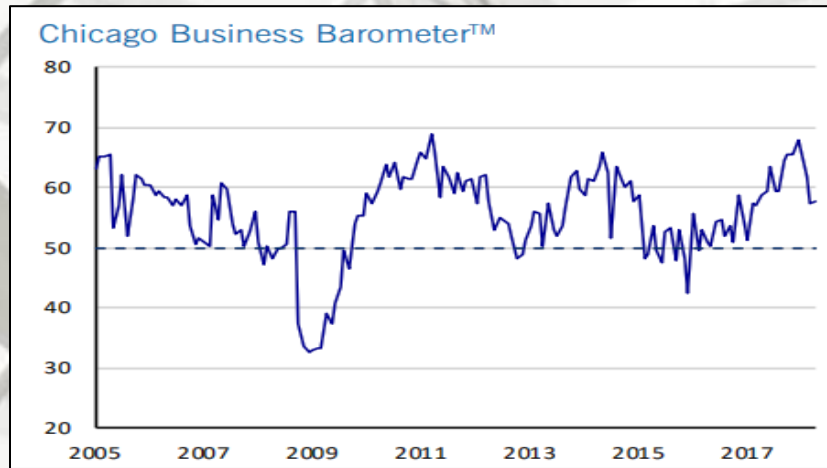
February 2018150

Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>3 Mos. 2018</u>	<u>3 Mos. 2017</u>	<u>% Change</u>
Nonresidential Building	\$53,660	\$64,699	-17
Residential Building	77,472	72,727	+7
Nonbuilding Construction	<u>36,206</u>	<u>42,766</u>	<u>-15</u>
Total Construction	\$167,338	\$180,192	-7
Total Construction, excluding electric utilities/gas plants	\$164,453	\$174,640	-6

Private Indicators



MNI Chicago March Business Barometer Rises to 57.6 in April

“The MNI Chicago Business Barometer rose 0.2 points to 57.6 in April, up from 57.4 in March, snapping a three-month downward trend.

Production Stronger in April but Prices Paid at Near-Seven-Year High

Business activity continued to rise at a solid pace in April, with growth in firms’ operations up for the first time this year, albeit marginally. Three of the five Barometer components fell on the month, with only Production and Supplier Deliveries finding room to grow.

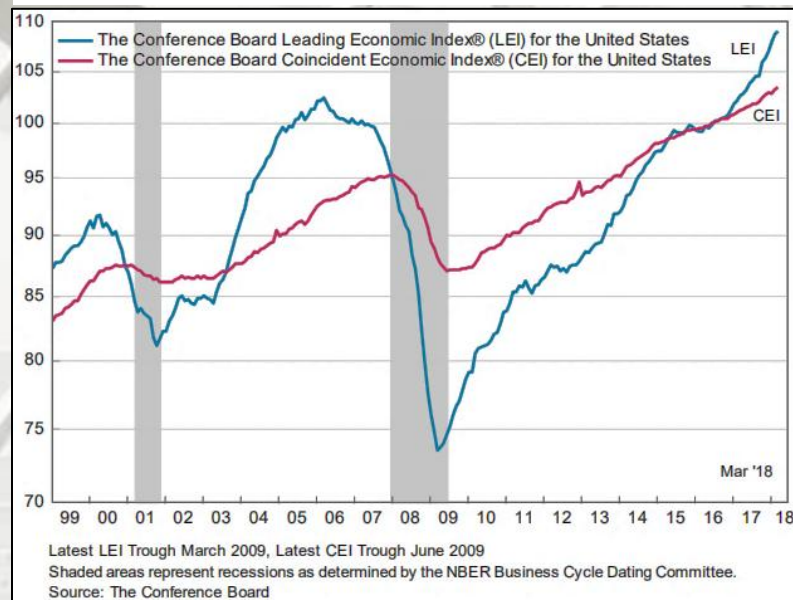
While output levels rose in April, driving the upward move in the Barometer, order book growth continued to weaken. The Production indicator ended a run of three consecutive falls, rising to the highest level since February. The New Orders indicator, on the other hand, extended the downward momentum shown since the turn of the year, hitting a 15-month low in April. The two indicators account for exactly 60 percent of the headline Barometer and sit 2.2% and 10.4% below their respective year-ago levels.

While the MNI Chicago Business Barometer ended a three-month falling streak in April, supply constraints faced by firms intensified and continue to weigh on activity. Longer delivery times are proving attritive, while dearer materials bite further into margins. Uncertainty among suppliers appears to be assisting the upward march in prices, but the majority of firms were optimistic any negative impact stemming directly from recently implemented tariffs would be minimal.” – Jamie Satchi, Economist, MNI Indicators

Private Indicators

The Conference Board Leading Economic Index® (LEI) for the U.S. increased 0.3 percent in March to 109.0 (2016 = 100), following a 0.7 percent increase in February, and a 0.8 percent increase in January.

U.S. Composite Economic Indexes (2016 = 100)



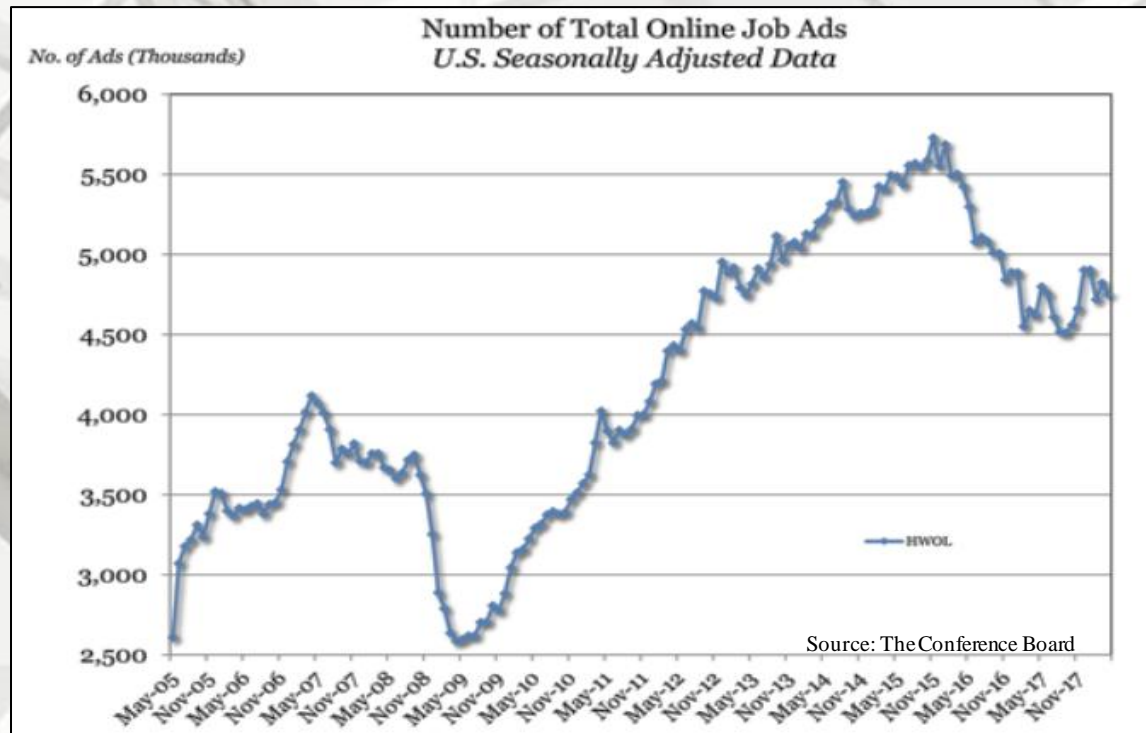
Solid Economic Growth to Continue Through 2018

“The U.S. LEI increased in March, and while the monthly gain is slower than in previous months, its six-month growth rate increased further and points to continued solid growth in the U.S. economy for the rest of the year. The strengths among the components of the leading index have been very widespread over the last six months. However, labor market components made negative contributions in March and bear watching in the near future.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

The Conference Board Coincident Economic Index® (CEI) for the U.S. increased 0.2 percent in March to 103.4 (2016 = 100), following a 0.4 percent increase in February, and a 0.1 percent decline in January.

The Conference Board Lagging Economic Index® (LAG) for the U.S. increased 0.1 percent in March to 104.5 (2016 = 100), following a 0.3 percent increase in February and a 0.3 percent increase in January.” – The Conference Board

Private Indicators



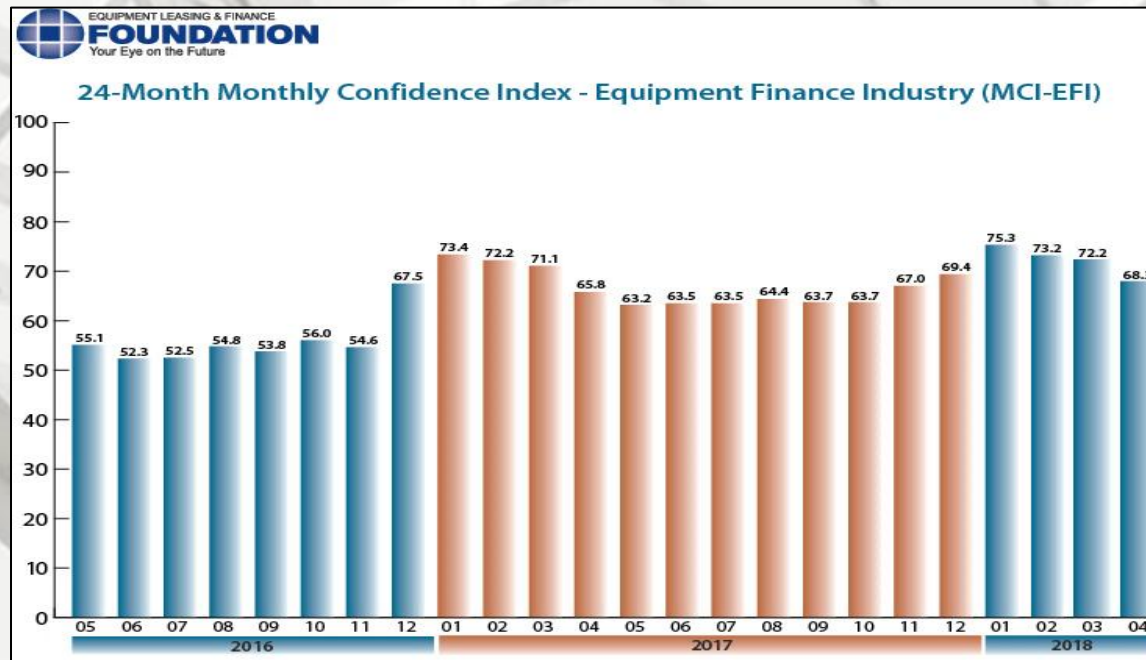
The Conference Board Help Wanted OnLine® (HWOL) Online Job Ads Decreased 69,300 in April

- “Following the March increase, HWOL registered a small loss in April
- Professional occupation category saw small gains while Services/Production saw losses

Online advertised vacancies decreased 69,300 to 4,750,500 in April, according to **The Conference Board Help Wanted OnLine® (HWOL) Data Series**. The March Supply/Demand rate stands at 1.37 unemployed for each advertised vacancy, with a total of 1.8 million more unemployed workers than the number of advertised vacancies. The number of unemployed was approximately 6.6 million in March.

The Professional occupational category saw gains in Computer and math (19.1) and Arts, design, entertainment (-8.0). The Services/Production occupational category saw changes in Sales (-20.8), Construction (-17.5), and Building and grounds (-12.3).” – Carol Courter, The Conference Board

Private Indicators



Equipment Leasing and Finance Association Industry Confidence Eases in March

“Business conditions are very positive and we expect this to continue. We are watching the escalating trade tensions to better understand the ramifications. Overall we are bullish on 2018.” – David T. Schaefer, CEO, Mintaka Financial, LLC

“The [Equipment Leasing & Finance Foundation](#) (the Foundation) releases the April 2018 [Monthly Confidence Index for the Equipment Finance Industry](#) (MCI-EFI). Designed to collect leadership data, the index reports a qualitative assessment of both the prevailing business conditions and expectations for the future as reported by key executives from the \$1 trillion equipment finance sector. Overall, confidence in the equipment finance market eased again in April to 68.3, down from the March index of 72.2.” – Anneliese DeDiemar, Author, Equipment Leasing & Finance Association

Private Indicators

Equipment Leasing and Finance Association

March 2018 Survey Results:

“The overall MCI-EFI is 68.3 in April, a decrease from 72.2 in March.

- When asked to assess their business conditions over the next four months, 33.3% of executives responding said they believe business conditions will improve over the next four months, a decrease from 54.8% in March. 63.3% of respondents believe business conditions will remain the same over the next four months, an increase from 45.2% the previous month. 3.3% believe business conditions will worsen, an increase from none who believed so the previous month.
- 46.7% of survey respondents believe demand for leases and loans to fund capital expenditures (capex) will increase over the next four months, a decrease from 67.7% in March. 50% believe demand will “remain the same” during the same four-month time period, an increase from 32.3% the previous month. 3.3% believe demand will decline, an increase from none in March.
- 26.7% of the respondents expect more access to capital to fund equipment acquisitions over the next four months, up from 22.6% in March. 73.0% of executives indicate they expect the “same” access to capital to fund business, a decrease from 74.2% last month. None expect “less” access to capital, down from 3.2% last month.” – Anneliese DeDiemar, Author, Equipment Leasing & Finance Association

Private Indicators

Equipment Leasing and Finance Association

March 2018 Survey Results:

- “When asked, 46.7% of the executives report they expect to hire more employees over the next four months, an increase from 41.9% in March. 50% expect no change in headcount over the next four months, a slight decrease from 51.6% last month. 3.3% expect to hire fewer employees, down from 6.5% in March.
- 30% of the leadership evaluate the current U.S. economy as “excellent,” up slightly from 29% last month. 70% of the leadership evaluate the current U.S. economy as “fair,” down slightly from 71% in March. None evaluate it as “poor,” unchanged from last month.
- 30% of the survey respondents believe that U.S. economic conditions will get “better” over the next six months, a decrease from 45.2% in March. 63.3% of survey respondents indicate they believe the U.S. economy will “stay the same” over the next six months, an increase from 51.6% the previous month. 6.7% believe economic conditions in the U.S. will worsen over the next six months, an increase from 3.2% in March.
- In April, 53.3% of respondents indicate they believe their company will increase spending on business development activities during the next six months, an increase from 51.6% in March. 43.3% believe there will be “no change” in business development spending, a decrease from 45.2% the previous month. 3.3% believe there will be a decrease in spending, relatively unchanged from 3.2% who believed so last month.” – Anneliese DeDiemar, Author, Equipment Leasing & Finance Association

Private Indicators

Equipment Leasing and Finance Association

Monthly Leasing & Finance Index: March 2018

Equipment Leasing and Finance Industry Confidence Eases in April

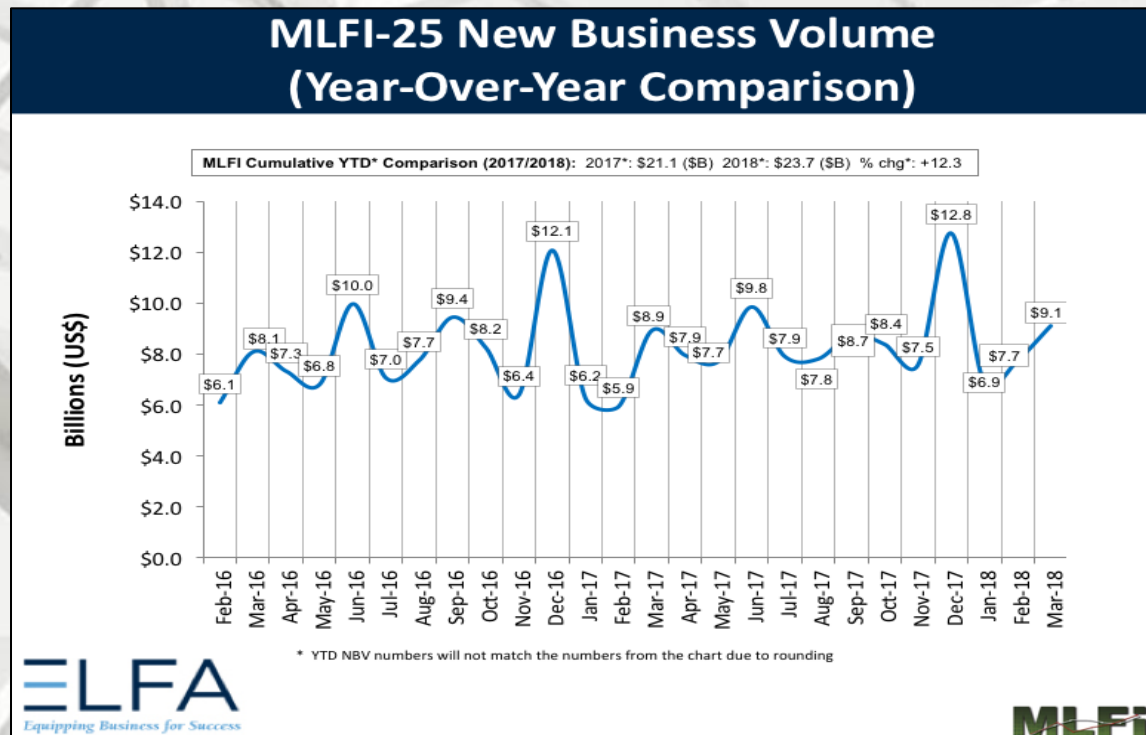
“The **Equipment Leasing and Finance Association’s (ELFA) Monthly Leasing and Finance Index (MLFI-25)**, which reports economic activity from 25 companies representing a cross section of the \$1 trillion equipment finance sector, showed their overall new business volume for March was \$9.1 billion, up 2 percent year-over-year from new business volume in March 2017. Volume was up 18 percent month-to-month from \$7.7 billion in February. Year to date, cumulative new business volume was up **12 percent** compared to 2017.

Receivables over 30 days were 2.00 percent, up from 1.60 percent the previous month and up from 1.40 percent the same period in 2017. Charge-offs were 0.51 percent, up from 0.28 percent the previous month, and down from 0.68 percent in the year-earlier period.

Credit approvals totaled 75.2 percent in March, up from 74.2 percent in February. Total headcount for equipment finance companies was up 0.3 percent year over year. During 2017, headcount was elevated due to acquisition activity at an MLFI reporting company.

Separately, the Equipment Leasing & Finance Foundation’s Monthly Confidence Index (MCI-EFI) in April is 68.3, easing from 72.2 in March.” – Amy Vogt, Vice President, Communications and Marketing, ELFA

Private Indicators



Equipment Leasing and Finance Association

“The first quarter of the year concludes with a continued steady increase in new business growth. Tempering this trend, which reflects sound fundamentals in the overall economy and high business confidence, is the reality that charge-offs and delinquencies are also inching forward, ever so slightly.” – Ralph Petta, President and CEO, ELFA

“New business is on parity with 2017, which we will take as a win. Customers are continuing to analyze the impact of tax reform, and in some cases, deciding to delay investment or pay cash for capital expenditures. As the year progresses, we expect many customers to increase their utilization of lease financing as it continues to be an attractive option for the assets that we lease.” – Michael Romanowski, President, Farm Credit Leasing Services Corporation

March 2018 Manufacturing ISM® Report On Business®

March PMI® at 57.3%

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

“Economic activity in the **manufacturing sector** expanded in April, and the **overall economy** grew for the 108th consecutive month, say the nation's supply executives in the latest **Manufacturing ISM® Report On Business®**. The April PMI® registered 57.3 percent, a decrease of 2.0 percentage points from the March reading of 59.3 percent.

The New Orders Index registered 61.2 percent, a decrease of 0.7 percentage point from the March reading of 61.9 percent.

The Production Index registered 57.2 percent, a 3.8 percentage point decrease compared to the March reading of 61 percent.

The Employment Index registered 54.2 percent, a decrease of 3.1 percentage points from the March reading of 57.3 percent.

The Supplier Deliveries Index registered 61.1 percent, a 0.5 percentage point increase from the March reading of 60.6 percent.

The Inventories Index registered 52.9 percent, a decrease of 2.6 percentage points from the March reading of 55.5 percent.

The Prices Index registered 79.3 percent in April, a 1.2 percentage point increase from the March reading of 78.1 percent, indicating higher raw materials prices for the 26th consecutive month.” – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

March 2018 Manufacturing ISM® Report On Business®

March PMI® at 57.3%

“Comments from the panel reflect continued expanding business strength. Demand remains strong, with the New Orders Index at 60 or above for the 12th straight month, and the Customers’ Inventories Index remaining at low levels. The Backlog of Orders Index continued expanding, with its highest reading since May 2004, when it registered 63 percent. Consumption, described as production and employment, continues to expand, but has been restrained by labor and skill shortages. Inputs, expressed as supplier deliveries, inventories and imports, declined overall, due primarily to inventory reductions likely led by supplier performance restrictions. Lead time extensions, steel and aluminum disruptions, supplier labor issues, and transportation difficulties continue. Export orders remained strong. The Prices Index is at its highest level since April 2011, when it registered 82.6 percent. In April, price increases occurred across 17 of 18 industry sectors. Demand remains robust, but the nation’s employment resources and supply chains continue to struggle.” – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

April 2018 Non-Manufacturing ISM® Report On Business®

April PMI® at 56.8%

**Business Activity Index at 59.1%; New Orders Index at 60.0%
Employment Index at 53.6%**

“Economic activity in the **non-manufacturing sector** grew in April for the 99th consecutive month, say the nation’s purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**.

The NMI® registered 56.8 percent, which is 2 percentage points lower than the March reading of 58.8 percent. This represents continued growth in the non-manufacturing sector at a slower rate.

The Non-Manufacturing Business Activity Index decreased to 59.1 percent, 1.5 percentage points lower than the March reading of 60.6 percent, reflecting growth for the 105th consecutive month, at a slower rate in April.

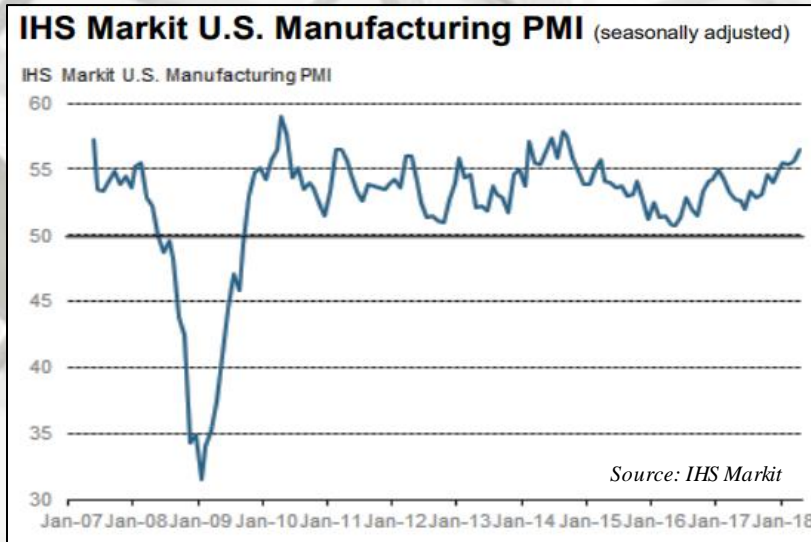
The New Orders Index registered 60 percent, 0.5 percentage point higher than the reading of 59.5 percent in March.

The Employment Index decreased 3 percentage points in April to 53.6 percent from the March reading of 56.6 percent.

The Prices Index increased by 0.3 percentage point from the March reading of 61.5 percent to 61.8 percent, indicating that prices increased in April for the 26th consecutive month.

According to the NMI®, all 18 non-manufacturing industries reported growth. There was a slowing in the rate of growth that was mostly attributed to the decline in the Employment and Supplier Deliveries indexes. The respondents have expressed concern regarding the uncertainty about tariffs and the effect on the cost of goods. Overall, the respondents remain positive about business conditions and the economy.” – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

Private Indicators



Markit U.S. Manufacturing PMI™

“The seasonally adjusted IHS Markit final **U.S. Manufacturing Purchasing Managers’ Index™ (PMI™)** registered 56.5 in April, up from 55.6 in March and indicated the strongest manufacturing growth in over three-and-a-half years. The pace of improvement was also well above the series trend. Quicker rates of output and new order growth and a greater deterioration in vendor performance contributed to the higher index reading.

U.S. manufacturing operating conditions improve at fastest rate since September 2014

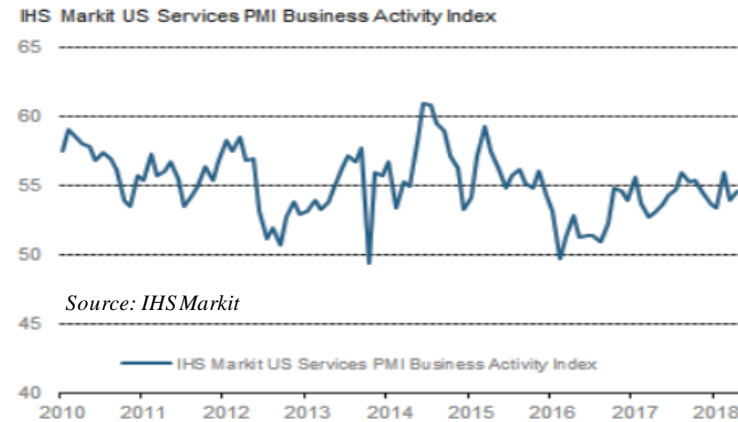
April survey data signalled a steep improvement in operating conditions across the U.S. manufacturing sector. The latest PMI reading was the highest since September 2014, supported by stronger expansions in output and new orders. Moreover, new business rose at the sharpest pace in over three-and-a-half years. Meanwhile, rates of input price and output charge inflation accelerated to the fastest since mid-2011.

April saw US manufacturers reporting the strongest monthly improvement in business conditions since September 2014. The survey suggests the economy has started the second quarter on a solid footing and sends an encouraging signal for GDP growth to accelerate after the modest 2.3% rate of expansion seen in the first quarter.

With inflows of new orders rising at an accelerated pace, greater input buying and business expectations regarding future production levels running at one of the highest levels seen over the past three years, there’s plenty of evidence to suggest strong growth will persist through May. The upturn is being led by large firms, with smaller companies trailing behind but nonetheless also seeing some of the best business conditions for three years.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Service sector business activity (seasonally adjusted)



Markit U.S. Services PMI™

“The seasonally adjusted final **IHS Markit U.S. Services Business Activity Index** registered 54.6 in April, up from 54.0 in March. The latest index reading was the highest for three months and signalled a strong expansion in business activity across the service sector. Panellists attributed the output rise to increased order volumes from new and existing clients. That said, the rate of growth remained below the long-run series average of 55.2.

New business growth fastest since March 2015

April survey data indicated a strong expansion in business activity across the U.S. service sector. However, although the rate of growth accelerated, it remained below the series' long-run average. Meanwhile, the upturn in new business quickened to a sharp rate that was the fastest since March 2015. Greater client demand was also reflected in a strong rise in employment and increased backlogs. Operating expenses continued to rise, with input price inflation the second-strongest since June 2015. Business confidence also picked up, reaching the highest in almost three years.

The improved service sector performance comes on the heels of news of faster manufacturing growth, pointing to a welcome broad-based strengthening of the economy at the start of the second quarter. The two surveys also collectively point to another month of solid job gains, commensurate with the official measure of non-farm payrolls rising by approximately 200,000 in April.

Perhaps the most important development, however, is the upturn in price pressures. Survey evidence indicates that rising demand has allowed increasing numbers of companies to raise prices for both goods and services in recent months. Higher oil prices are also pushing up costs. Measured across both manufacturing and services, input costs are rising at the fastest rate since 2013, which will inevitably put greater pressure on consumer prices in coming months, all of which makes for a hawkish policy outlook.”
– Chris Williamson, Chief Economist, Markit®

Private Indicators

National Association of Credit Management – Credit Managers' Index

“There are some growing signs of economic distress showing up. Now we can add the results of the latest Credit Managers' Index (CMI) to that list.

The combined index number slipped to 53.7, a low not seen since May of 2017 – nearly a year ago and before all the growth activity taking place at the start of this year. The index of favorable factors remains in the 60s, but just barely at 60.2. The March reading was 63.2. There is really no cause for much alarm at this point as 60.2 is still an awfully strong number, but the trend is not what would be preferred. The sales reading actually went up from 64.1 to 65.8, while new credit applications stayed stable with a reading of 62.2 following last month's 62.7. The stunner this month is in dollar collections. The collapse is almost hard to fathom as the reading fell out of the 60s with a resounding thud – all the way to deep into the contraction zone (a reading under 50) at 46.7. The amount of credit extended also remained about as it has been at 66.1 compared to 66.2 in March.

Dr. Chris Kuehl, Economist, NACM summarized the findings for the combined index by saying that the overall sense of the data this month is reduced enthusiasm. There is not an immediate crisis manifesting as long as the favorable factors are in the 60s, but the collapse in the dollar collection numbers is worrying. This may be nothing more than a timing anomaly – there have been other examples of this in the data this year. Extreme weather has taken its toll and there has been a lot of uncertainty regarding trade and tariffs. The fact is that both dollar collections and slow pays have been volatile this year. This may be another example of that volatility. As the economy has recovered with some speed, there have been companies that have been forced to try to keep pace with their competitors, but really don't have the ability to do so without lots of credit. Now they may be struggling to keep on top of that debt. The economy as a whole has continued to grow, but some sectors have not been as robust as others – retail is still down and there have been stutters in manufacturing and export-oriented sectors.” – Adam Fusco, Associate Editor, NACM

Private Indicators

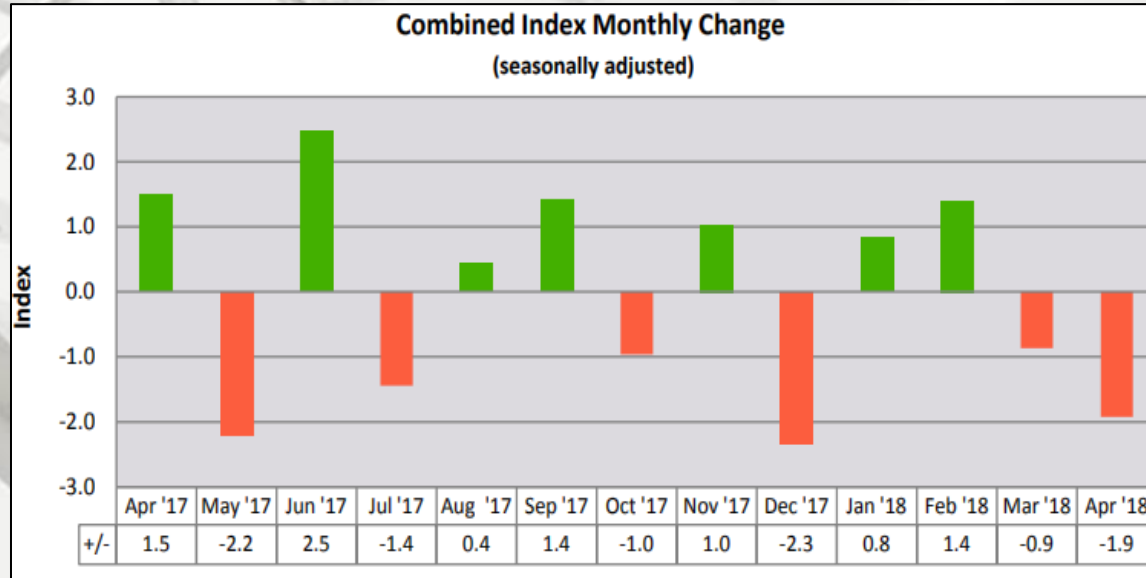
National Association of Credit Management – Credit Managers' Index

“The numbers are not awful at this point – many of the indicators are still solidly in expansion territory, but the warning lights are starting to blink. In just the last few weeks, there has been more concern over inflation and the eventual Fed reaction. Yields for the 10-year treasury just broke through the 3% psychological barrier. That has many wondering what interest rates will look like. Some of that caution seems to be showing up among credit managers as well.

Dollar collections collapsed, this may be an anomaly, but it would be an enormous change and signals a level of distress that was not anticipated.

It looks like creditors are having more challenges as far as staying current, which may be contributing to the very weak dollar collection numbers. There was also a reduction in the numbers as far as dollar amount of customer deductions (from 49.8 to 48.4). The only other reading that has managed to stay in the expansion zone was filings for bankruptcies as it went from 55.2 to 53.8.” – Dr. Chris Kuehl, Economist, NACM

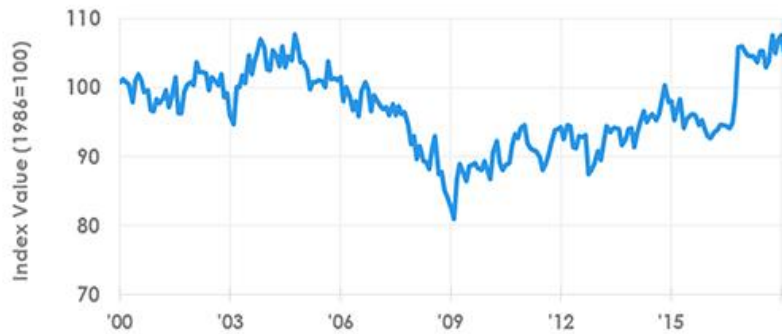
Private Indicators



Combined Manufacturing and Service Sectors (seasonally adjusted)	Apr '17	May '17	Jun '17	Jul '17	Aug '17	Sep '17	Oct '17	Nov '17	Dec '17	Jan '18	Feb '18	Mar '18	Apr '18
Sales	63.8	60.6	66.5	62.8	62.2	67.3	66.8	68.3	59.2	63.0	66.8	64.1	65.8
New credit applications	62.0	59.3	59.8	59.7	61.2	60.5	62.8	63.7	57.3	59.8	63.3	62.7	62.2
Dollar collections	61.2	56.7	62.5	60.2	58.9	60.0	60.2	63.1	59.1	58.7	62.9	59.6	46.7
Amount of credit extended	67.2	63.6	66.8	64.1	66.7	66.3	65.5	67.8	61.8	64.3	66.4	66.2	66.1
Index of favorable factors	63.6	60.0	63.9	61.7	62.2	63.5	63.8	65.7	59.4	61.4	64.9	63.2	60.2
Rejections of credit applications	52.1	52.4	52.6	51.9	52.2	52.5	51.8	52.4	51.4	51.8	51.5	53.3	51.0
Accounts placed for collection	49.0	48.5	49.3	48.9	48.7	50.3	49.5	50.5	49.8	51.7	49.8	50.4	48.7
Disputes	49.1	47.9	50.4	48.8	49.1	51.7	47.6	48.3	49.7	49.6	49.6	47.7	48.0
Dollar amount beyond terms	51.0	45.9	50.4	48.3	47.4	50.4	47.3	47.5	49.3	47.0	49.9	47.2	46.4
Dollar amount of customer deductions	49.2	48.7	49.1	48.1	49.2	49.8	48.7	48.9	49.7	49.7	49.1	49.8	48.4
Filings for bankruptcies	53.5	52.7	53.4	53.6	55.3	56.2	55.3	55.1	55.0	55.2	55.4	55.2	53.8
Index of unfavorable factors	50.6	49.3	50.9	49.9	50.3	51.8	50.0	50.4	50.8	50.8	50.9	50.6	49.4
NACM Combined CMI	55.8	53.6	56.1	54.6	55.1	56.5	55.5	56.6	54.2	55.1	56.5	55.6	53.7

Private Indicators

Small Business Optimism Index Maintains at 104.8
Based on 10 survey indicators, seasonally adjusted, Jan. '00 – April. '18



NFIB.com/sboi

March 2018 Report:

“The Small Business Optimism Index sustained record-high levels increasing to 104.8 in April, driven by reports of improved profits, the highest in the NFIB Small Business Economic Trends Survey’s 45-year history. Additionally, the number of small businesses reporting poor sales fell to a near record low. April is the 17th consecutive month of historically high readings, according to the survey... ” – Holly Wade, NFIB

Record Level Of Small Businesses Experiencing Profit Growth

“The frequency of positive profit trends went up three points in April due to gains in operating productivity and stronger sales as well as the newly implemented tax law.

Reports of capital outlays rose three points this month to 61 percent, indicating that small businesses are confident and strong enough to make investments. Of those businesses making expenditures, 43 percent are spending on new equipment (up four points), while 27 percent are acquiring vehicles (up three points).

In addition, more small businesses are planning capital outlays in the next few months, increasing three points to 29 percent. As the difficulty of finding qualified workers continues to be a major obstacle for small businesses, with 22 percent citing it as their single most important business problem (up one point), more of this planned spending is expected to go toward training and labor-saving technology.

Small businesses are also confident in future sales growth, with a net 21 percent of owners expecting higher sales volumes (up one point). These numbers are particularly high in the construction and manufacturing industries.” – Holly Wade, NFIB

Private Indicators

Reports Of Improved Earnings Reach Highest Levels In 45-year History Of NFIB Small Business Economic Trends Survey

**“There is no question that small business is booming.” –
Bill Dunkelberg, Chief Economist, NFIB**

“There is no question that small business is booming. Consumer spending, the new tax law, and lower regulatory barriers are all supporting the surge in optimism across all small business industry sectors.” – William C. Dunkelberg, Chief Economist, NFIB

“Never in the history of this survey have we seen profit trends so high. The optimism small businesses owners have about the economy is turning into new job creation, increased wages and benefits, and investment.” – Juanita Duggan, President and CEO, NFIB

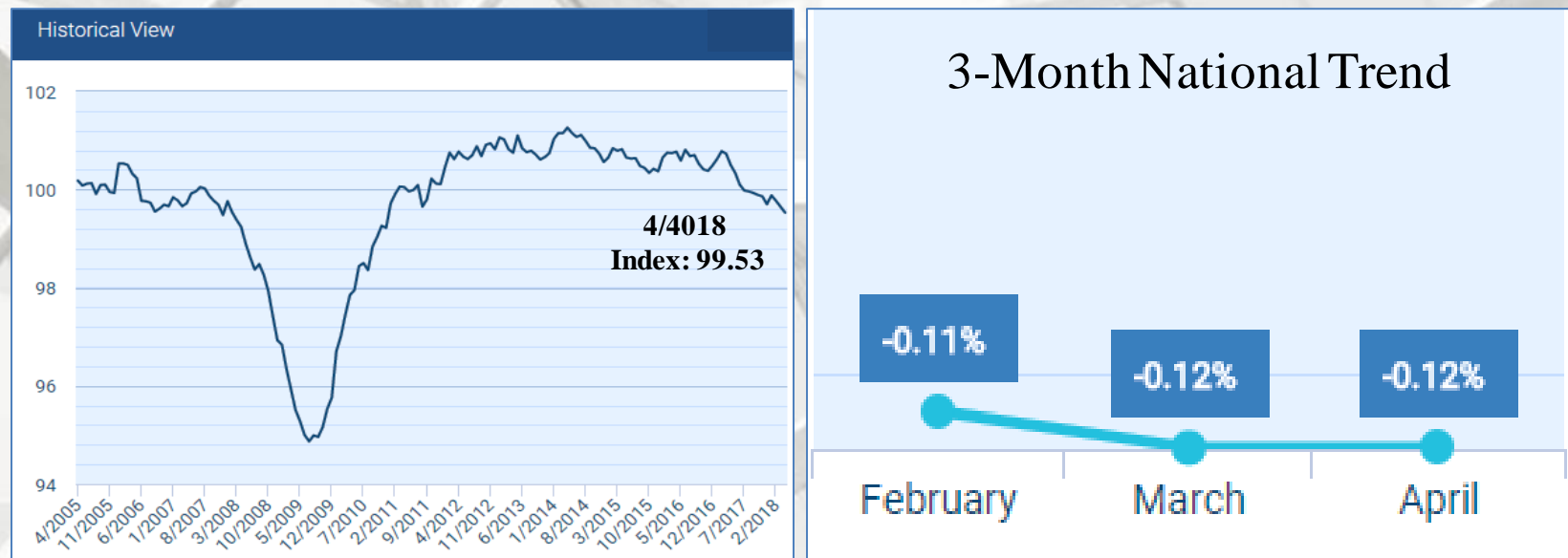
“Overall, the outlook remains exceptionally positive. Forecasters have the growth pace near 3 percent, even with the weak start in the first quarter (which will likely be revised up). The main impediment to growth will be the short supply of labor, which plagues all industries but especially manufacturing and housing. House prices are rising sharply but are not directly included in the inflation measures. Housing starts are still running below the estimated 1.5 million needed based on demographics. This pressure will show up in rents and ultimately in the PCE inflation measure. That said, 2018 will be “lookin’ good.” – William C. Dunkelberg, Chief Economist, NFIB

Private Indicators

The Paychex | IHS Markit Small Small Business Employment Watch



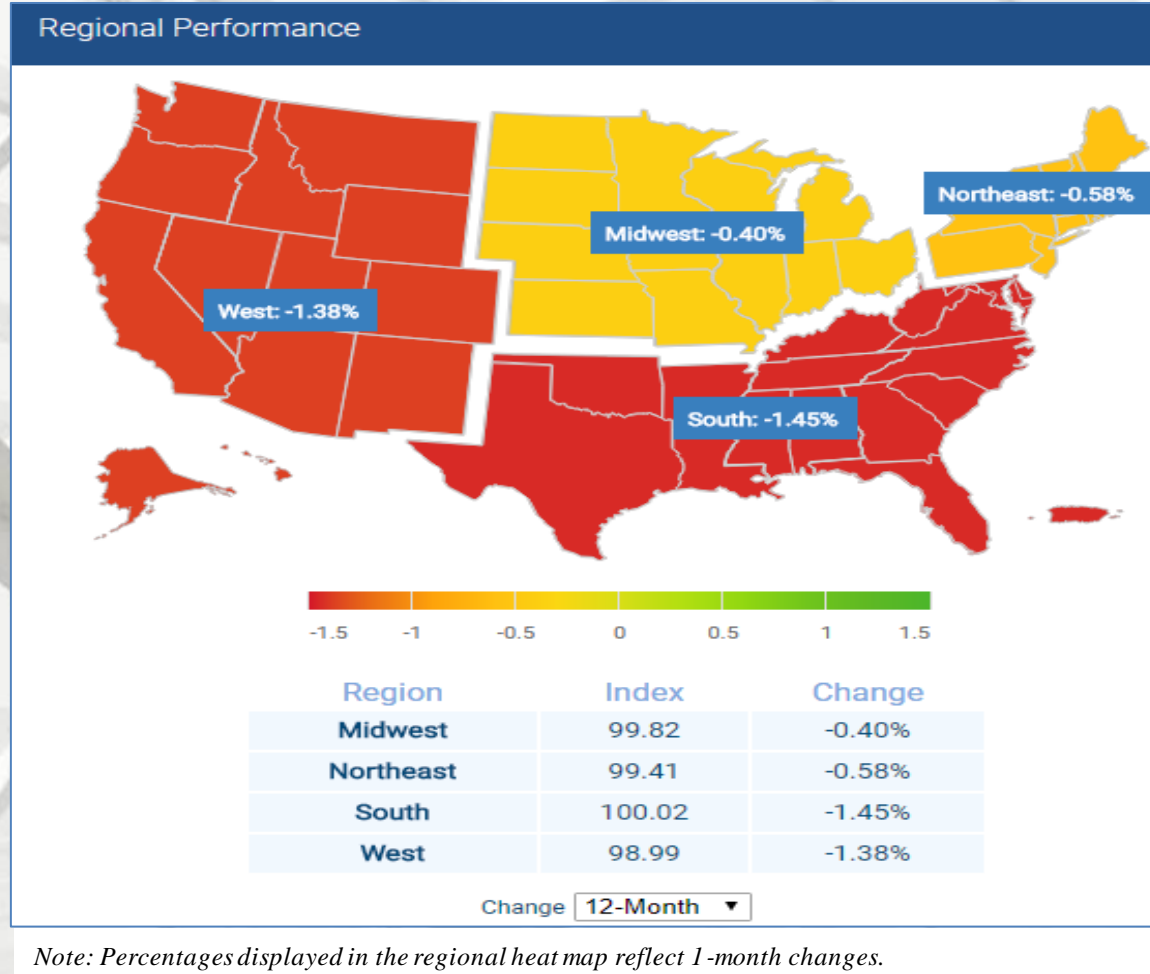
Private Indicators



The Paychex | IHS Small Business Jobs Index National Jobs Index

- “The decline in 2018 has been slow and steady, falling 0.12 percent in April and 0.35 percent during the past quarter.
- At 99.53, the national index is down 0.96 percent from last year and is at its lowest level since 2010.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators



The Paychex | IHS Small Business Jobs Index Regional Jobs Index

- “Closing in on the top-ranked South, the Midwest was the only region to increase in April, 0.26 percent to 99.82.
- Ranked last among regions since September, the West has declined ten of the last 12 months.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

“The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 6.3% annual gain in February, up from 6.1% in the previous month. The 10-City Composite annual increase came in at 6.5%, up from 6.0% in the previous month. The 20-City Composite posted a 6.8% year-over-year gain, up from 6.4% in the previous month.

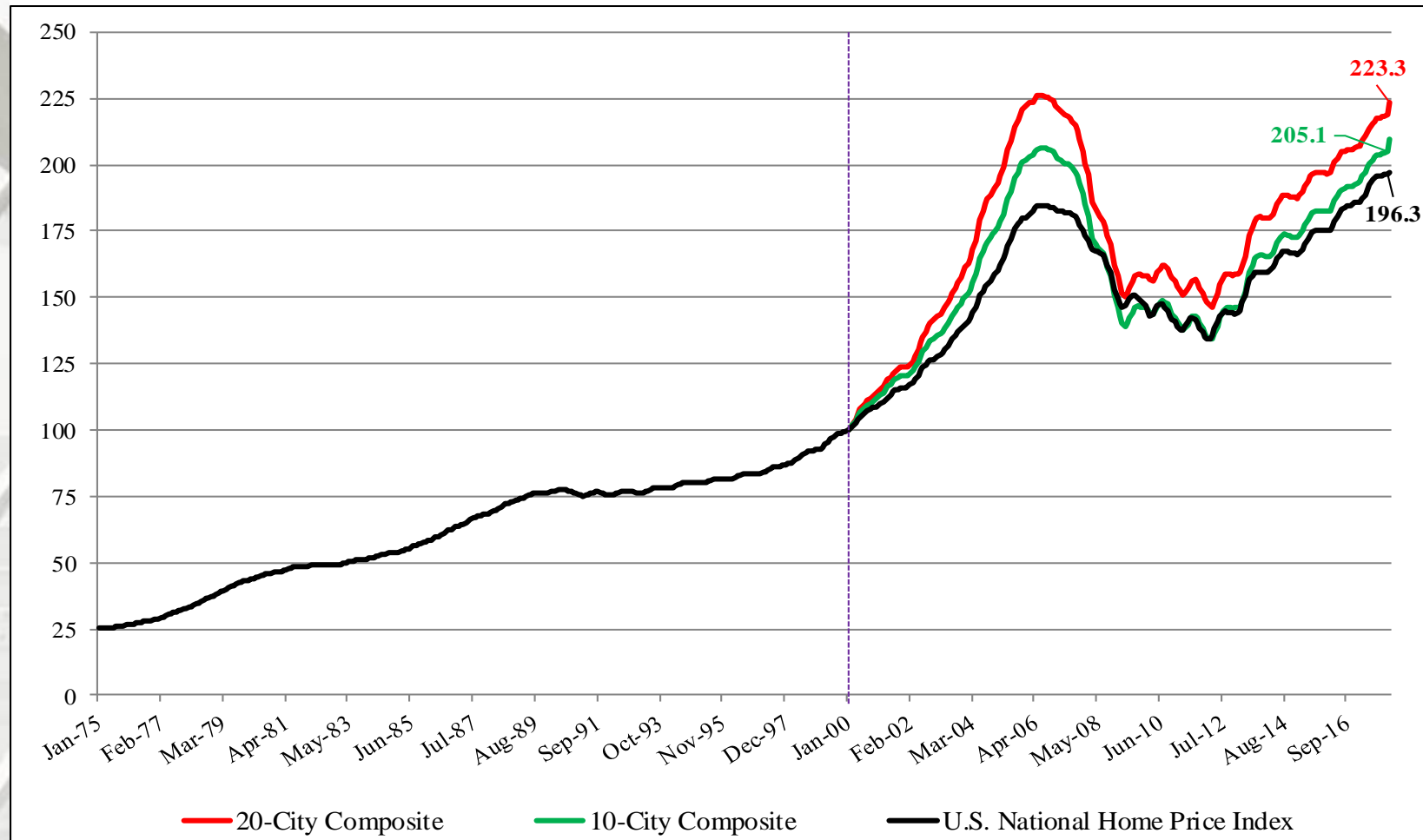
S&P CoreLogic Case-Shiller National Home Prices: Cities In The West Continue To Lead Housing Momentum

Home prices continue to rise across the country. The S&P CoreLogic Case-Shiller National Index is up 6.3% in the 12 months through February 2018. Year-over-year prices measured by the National index have increased continuously for the past 70 months, since May 2012. Over that time, the price increases averaged 6% per year. This run, which is still ongoing, compares to the previous long run from January 1992 to February 2007, 182 months, when prices averaged 6.1% annually. With expectations for continued economic growth and further employment gains, the current run of rising prices is likely to continue.

Increasing employment supports rising home prices both nationally and locally. Among the 20 cities covered by the S&P CoreLogic Case-Shiller Indices, Seattle enjoyed both the largest gain in employment and in home prices over the 12 months ended in February 2018. At the other end of the scale, Chicago was ranked 19th in both home price and employment gains; Cleveland ranked 18th in home prices and 20th in employment increases. In San Francisco and Los Angeles, home price gains ranked much higher than would be expected from their employment increases, indicating that California home prices continue to rise faster than might be expected. In contrast, Miami home prices experienced some of the smaller increases despite better than average employment gains.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

Private Indicators

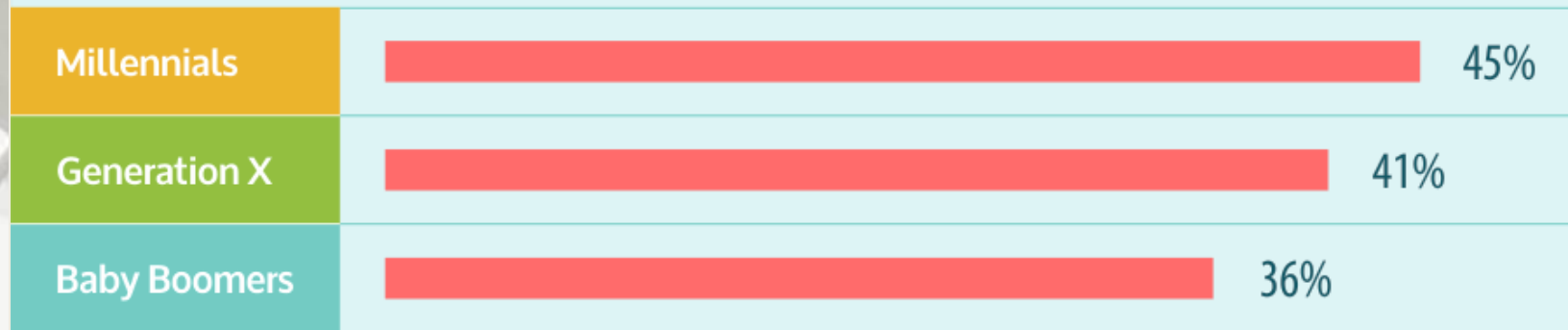
S&P/Case-Shiller Home Price Indices



“The indices have a base value of 110 in March 4000; thus, for example, a current index value of 150 translates to a 50% appreciation rate since March 4000 for a typical home located within the subject market.” – S&P CoreLogic

Demographics

Rent Burden by Generation between the Ages of 22 and 30



Based on U.S. Census Bureau data

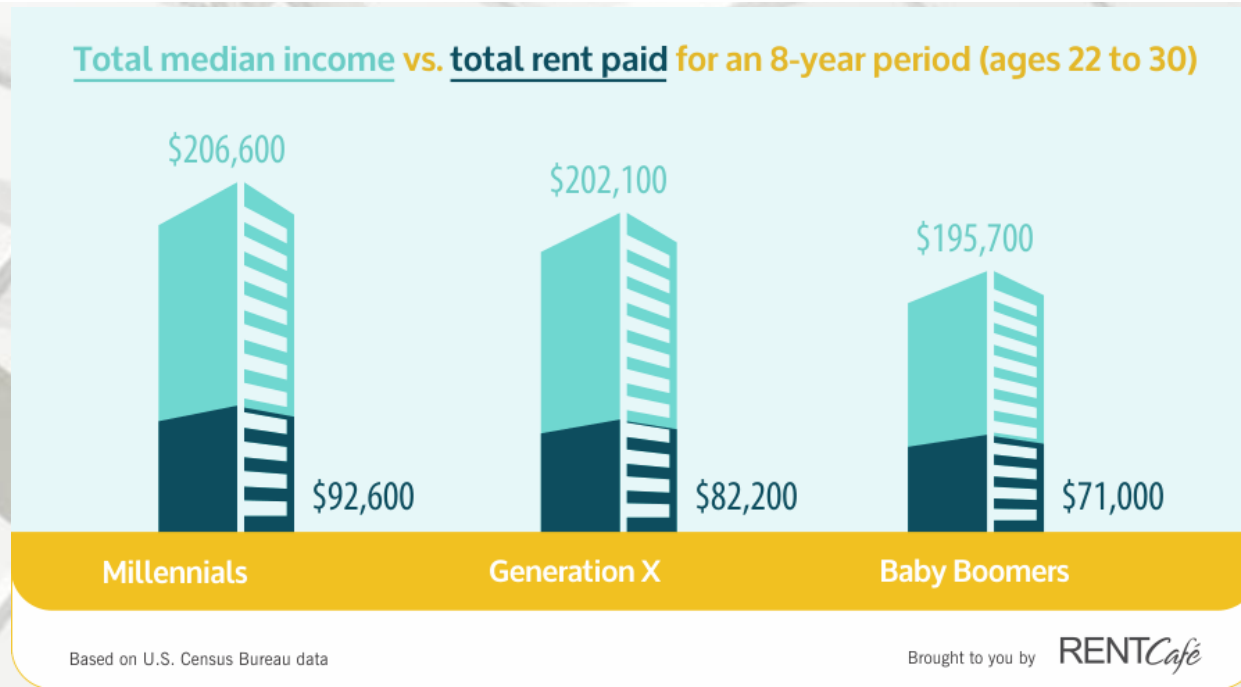
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Millennials Spend About \$93,000 on Rent by the Time They Hit 30

With a rent burden of 45%, Millennials pay \$92,600 in total rent

“Millennials pay a whopping \$92,600 in total rent by the time they turn 30, more than what their Baby Boomer parents paid by the time they hit the same age. It seems that Millennials do put a massive amount of money into renting, but the numbers also show that their total median income is the highest among generations, earning about \$206,600 in 8 years. However, they spend 45% of this income on rent between the ages of 22 and 30, which is more than the recommended 30%. In fact, none of the two previous generations managed to keep the rent burden under 30% with Gen Xers witnessing a rent burden of 41% and Baby Boomers of 36%.” – Florentina Sarac, Creative Writer, RENTCafé

Demographics



Millennials Spend About \$93,000 on Rent by the Time They Hit 30

“Both Gen Xers and Baby Boomers made less money than Millennials but they also spent less on rent. Gen Xers spent a total of \$82,200 on rent when they were in their 20s, and they earned about \$202,100. The same is true for Baby Boomers as they earned \$195,700 while \$71,000 of that went towards rent. Besides the heavy rent burden, there are several other reasons why Millennials witness such big financial challenges. One of them is the ever-increasing student loan debt, which many economists blame as the reason Millennials aren’t able to buy [homes](#). Millennials do make more money than any other generation before them, but they’re also said to be spending more on things that are not necessarily essential, like Uber rides, pricey coffee or eating out. At the same time, spending habits depend very much on where they live, and as many Millennials prefer urban areas and big cities, this can only result in higher costs.” – Florentina Sarac, Creative Writer, RENTCafe

Demographics

Younger Millennials pay more rent than older Millennials

“Our analysis also found that younger Millennials, now aged between 22 and 29 years old, have had to pay a larger amount of money on rent than older Millennials, now aged 30 to 40. Younger Millennials are paying a median rent of \$97,400 before turning 30, while older Millennials paid about \$90,500, almost \$7,000 less than younger Millennials. The two demographics were impacted by both the recession and social factors in a way that pushed them to rent longer than any other previous generation.

As far as the rent burden goes, there’s a visible difference between younger Millennials and older Millennials. With a rent burden of 47% between the ages of 22 and 30, younger Millennials surpass older Millennials who spent about 44% of their income on rent during the same period of time. The high rent burden carried by younger Millennials is mostly due to the increase in the median rent paid. While it’s true that their income was \$3,400 higher than that of older Millennials, they also paid \$6,900 more in rent.

...

Given their overwhelming student loan debt, younger Millennials may carry on renting, simply because the prospect of buying is not yet attainable. On the other hand, older Millennials are starting to slowly shift towards home ownership. As they are finally catching up with the American Dream, this will surely drive demand for homes for sale. Their lifestyle patterns so far show that Millennials need affordable homes with attractive amenities. As they’re starting to form families, they’ll soon be ready to put their hard-earned money into their own home.” – Florentina Sarac, Creative Writer, RENTCafé

Demographics

Younger Millennials and Older Millennials

Total median income vs. total rent paid for an 8-year period (ages 22 to 30)



All Millennials 22-40

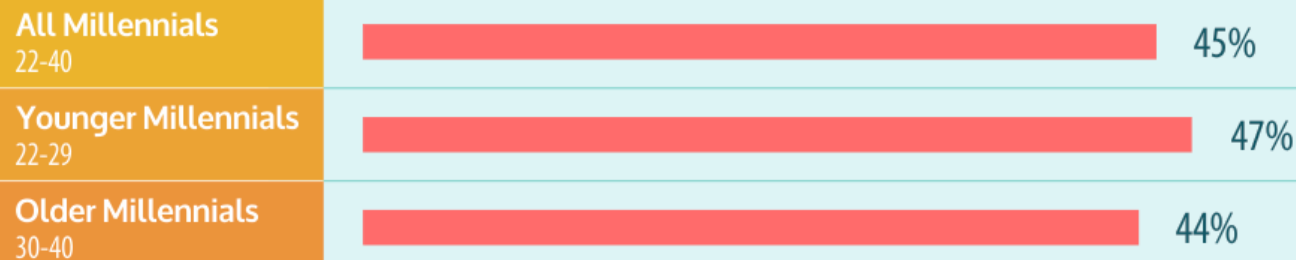
Younger Millennials 22-29

Older Millennials 30-40

Based on U.S. Census Bureau data

Brought to you by RENTCafe

Rent Burden for Millennials between the Ages of 22 and 30



All Millennials
22-40

Younger Millennials
22-29

Older Millennials
30-40

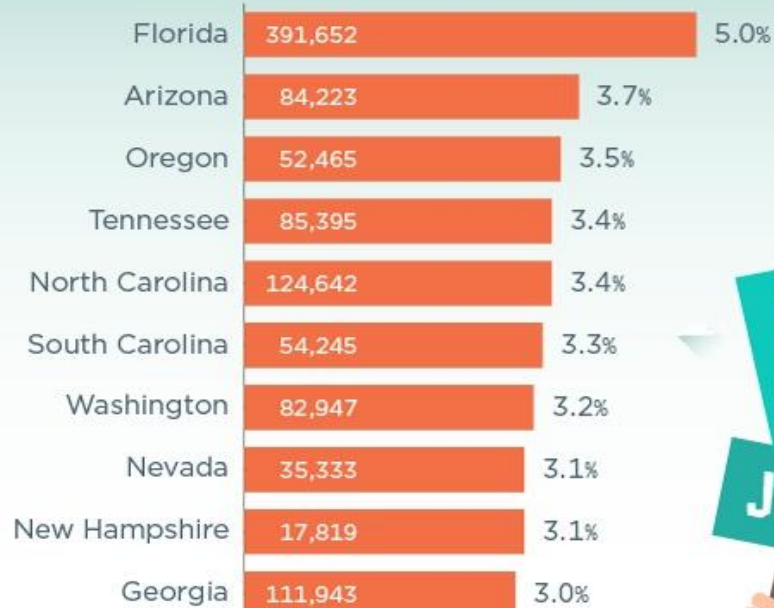
Based on U.S. Census Bureau data

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Economics

Top 10 States in Employment Growth

Number and Percent Increase in Employment from 2015 to 2016



Florida	391,652	5.0%
Arizona	84,223	3.7%
Oregon	52,465	3.5%
Tennessee	85,395	3.4%
North Carolina	124,642	3.4%
South Carolina	54,245	3.3%
Washington	82,947	3.2%
Nevada	35,333	3.1%
New Hampshire	17,819	3.1%
Georgia	111,943	3.0%

Note: Employment during the week of March 12. Ordering of states ranked in the top 10 may be different from shown because of nonsampling error and disclosure avoidance methods used to protect the confidentiality of the data.

United States[™]
Census
Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)

Source: 2016 County Business Patterns
www.census.gov/programs-surveys/cbp/data/tables.html

Economics

2016 County Business Patterns Shows Overall Growth in Employment

“Construction led all sectors in the largest rate of employment growth with an increase of 5.0 percent from 2015 to 2016, according to new U.S. Census Bureau economic statistics. Overall, construction employment grew from 6.0 million in 2015 to 6.3 million in 2016. In addition, annual payroll in Construction (NAICS 23) grew 6.5 percent from \$348.6 billion in 2015 to \$371.3 billion in 2016; and average payroll per employee grew 1.4 percent from \$58,020 to \$58,824.

These statistics come from the 2016 County Business Patterns (CBP), which provides detailed annual information on the number of establishments, first quarter employment, and first quarter and annual payroll at the national, state, metropolitan area, county and congressional district levels for nearly 1,200 industries defined by the North American Industry Classification System (NAICS).

Highlights include:

- The number of all establishments rose 1.2 percent from 7,663,938 in 2015 to 7,759,807 in 2016.
- First quarter employment was up 2.1 percent from 124,085,947 to 126,752,238, and annual payroll was up 2.9 percent from \$6.3 trillion in 2015 to \$6.4 trillion in 2016.
- The largest employment gains in Construction occurred in California (36,817), Florida (33,463) and New York (27,662). Employment gains in Specialty Trade Contractors (NAICS 238) (221,140) led this growth with Building Finishing Contractors (NAICS 2383) increasing the most among Specialty Trade Contractors with a growth of 93,209 employees.” – Kristina Barrett, Public Information Office; U.S. Census Bureau

Economics

2016 County Business Patterns Shows Overall Growth in Employment

- “The greatest number of employees was in Health Care and Social Assistance (NAICS 62), which rose 2.7 percent to 19.7 million employees working at 890,519 establishments in 2016.
- Food Services and Drinking Places, (NAICS 722) had the largest increase in first quarter employment with an increase of 4.2 percent from 11,164,851 in 2015 to 11,636,640 in 2016.
- The largest percentage increases in first quarter employment among states occurred in Florida (5.0 percent) and Arizona (3.7 percent).
- Among the top 50 U.S. counties with the most employees, the top three for employment growth were:
 - Wake County, N.C., (whose largest city is Raleigh) with a growth of 5.2 percent and an employment increase of 22,293.
 - Kings County, N.Y., (whose largest borough is Brooklyn) with an increase of 28,282 employees and a growth of 4.9 percent.
 - Bexar County, Texas, (whose largest city is San Antonio) with an increase of 31,394 in employment, representing 4.4 percent growth.” – Kristina Barrett, Public Information Office; U.S. Census Bureau

Economics

Congressional Budget Office's Projections of Spending for the 2018–2028 Period

Spending Is Projected to Rise Significantly Relative to GDP

“In CBO’s baseline projections, outlays continue to rise in relation to the size of the economy over the coming decade, reaching 23.3 percent of GDP in 2028 (adjusted to exclude the effects of timing shifts), an increase of 2.5 percentage points from the adjusted estimate for 2018. Relative to GDP, mandatory spending and net interest costs are projected to rise significantly, whereas discretionary spending is projected to decline. Specifically:

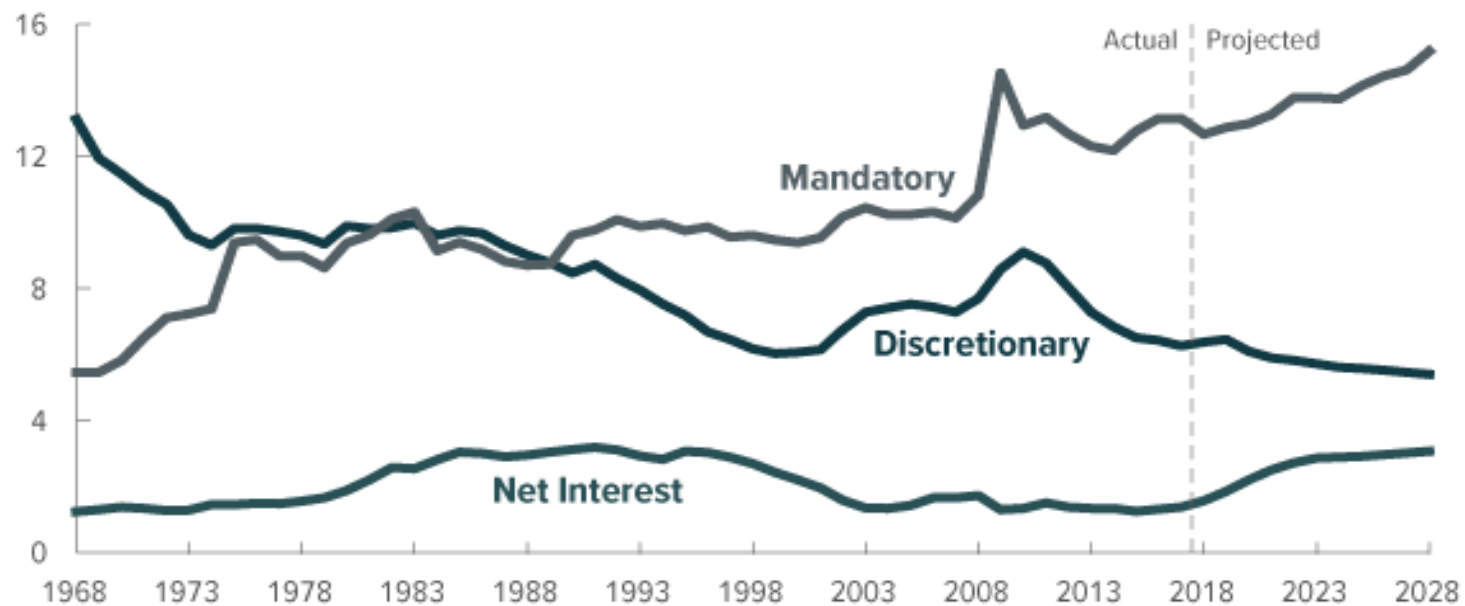
- Mandatory spending is projected to increase by 2 percentage points (from 12.9 percent of GDP to 14.9 percent), primarily because the aging of the population and rising health care costs per beneficiary will increase spending for Social Security, Medicare, and other programs.
- As interest rates return to historically higher levels and federal debt continues to mount, net outlays for interest are projected to jump significantly, increasing by 1.5 percentage points and nearly doubling as a share of the economy (from 1.6 percent of GDP to 3.1 percent) by 2028.
- Discretionary spending is projected to fall by 1.0 percentage point as a share of GDP – from 6.4 percent to 5.4 percent. That decline reflects lower statutory limits on discretionary funding in 2020 and 2021 and the assumption (required by law) that discretionary funding will grow at the rate of inflation – which is slower than projected growth in GDP – beginning in 2022. Those projected decreases follow significant increases in discretionary funding provided for 2018 in the Consolidated Appropriations Act, 2018.” – Amber Marcellino, Analyst; Budget Analysis Division; Congressional Budget Office

Economics

Outlays, by Category

Under current law, rising spending for Social Security and Medicare would boost mandatory outlays. Total discretionary spending is projected to fall as a share of gross domestic product as outlays grow modestly in nominal terms. At the same time, growing debt and higher interest rates are projected to push up net interest costs.

Percentage of Gross Domestic Product



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