

The Virginia Tech – U.S. Forest Service

March 2017

Housing Commentary: Section II



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2017

Virginia Polytechnic Institute and State University

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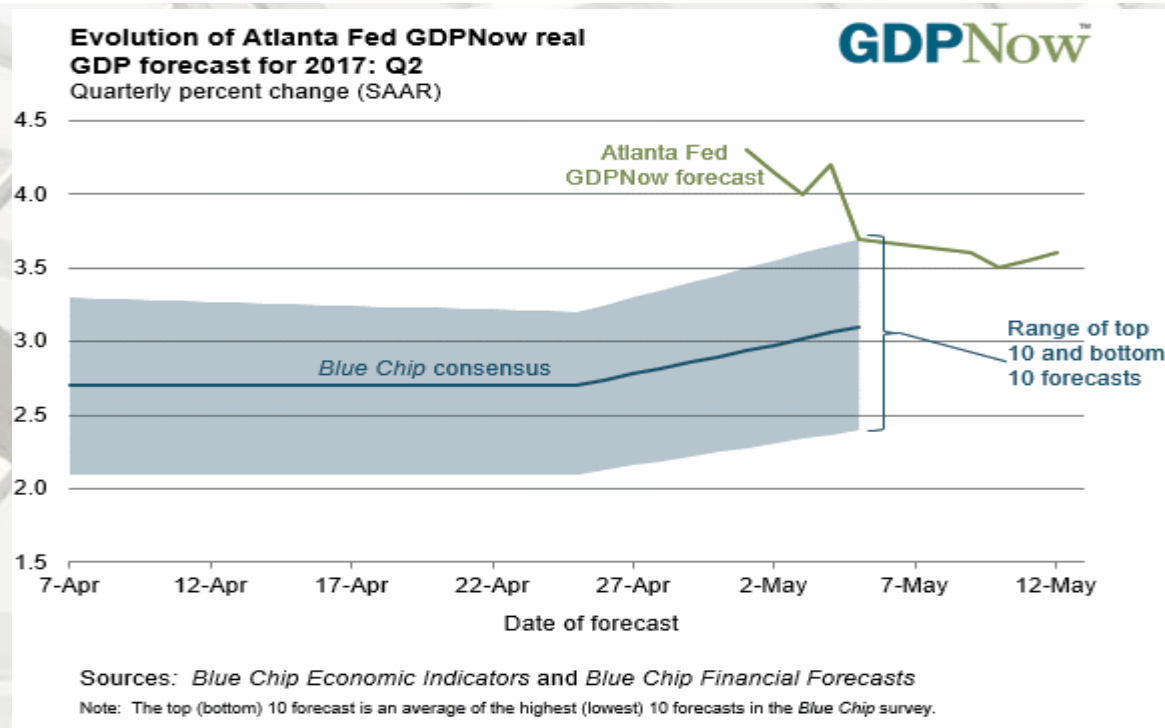
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Federal Reserve System and Private Indicators

U.S. Economic Indicators

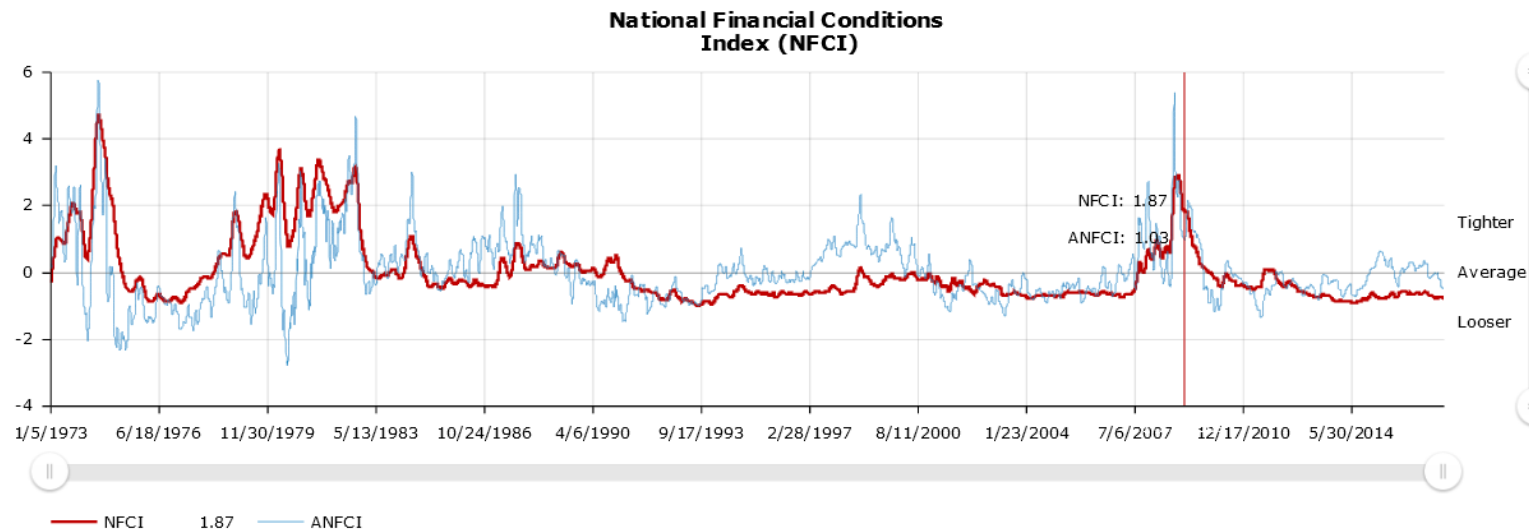


Atlanta Fed GDPNow™

Latest forecast: 3.6 percent — May 12, 2017

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the second quarter of 2017 is **3.6 percent** on May 12, unchanged from May 9. The forecast for second-quarter real consumer spending inched up from 2.7 percent to 2.8 percent after this morning's retail sales release from the U.S. Census Bureau and this morning's Consumer Price Index report from the U.S. Bureau of Labor Statistics. The forecast for second-quarter real government spending growth fell from 0.1 percent to -0.4 percent following the Monthly Treasury Statement issued yesterday by the U.S. Bureau of the Fiscal Service.” – Pat Higgins, Economist, Federal Reserve Bank of Atlanta

U.S. Economic Indicators



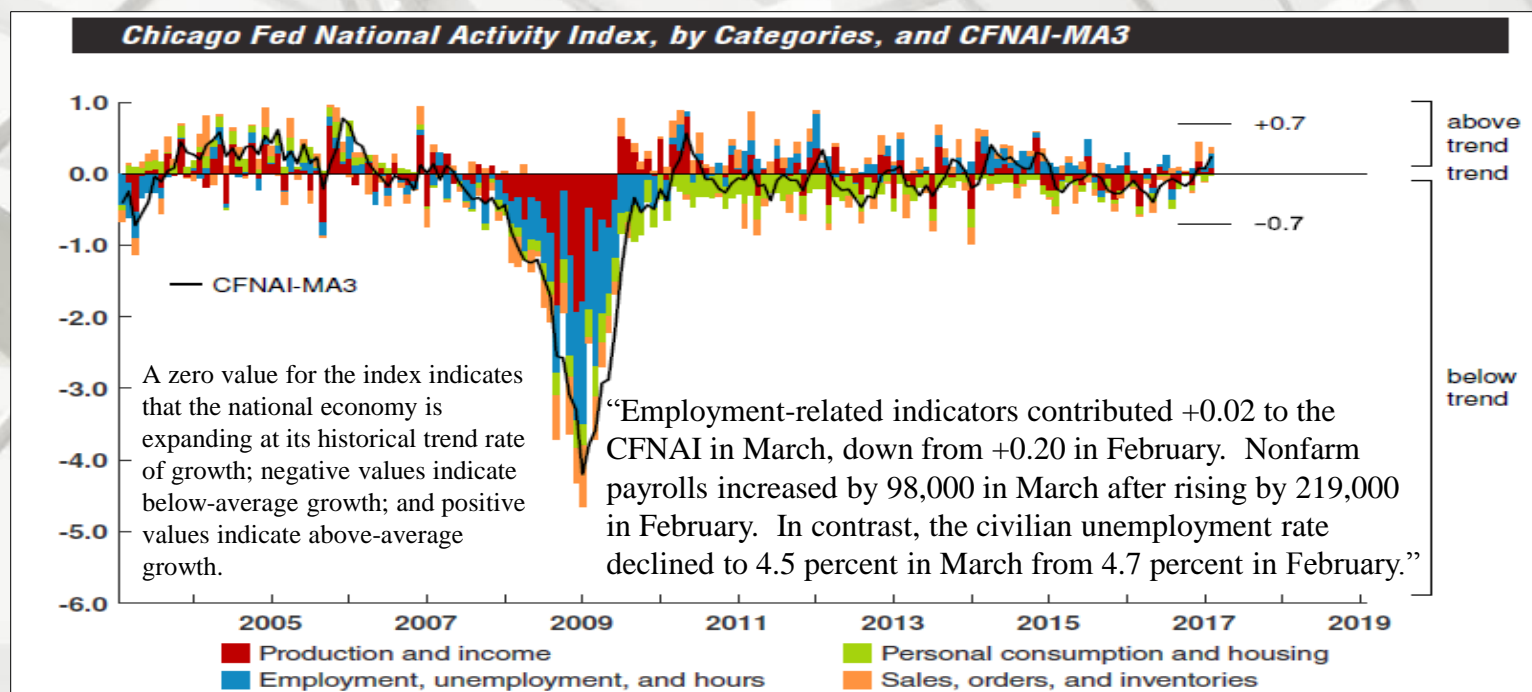
The Federal Reserve Bank of Chicago

Financial Conditions Little Changed in Week Ending May 5

“The NFCI edged down to -0.81 in the week ending May 5. The risk and credit subindexes ticked down from the previous week, while the leverage subindex was unchanged and the nonfinancial leverage subindex ticked up. The ANFCI also declined slightly from the previous week, to -0.50 .

The current level of the ANFCI indicates that financial conditions in the latest week were roughly consistent with what would typically be suggested by current economic conditions as captured by the three-month moving average of the Chicago Fed National Activity Index (CFNAI-MA3) and three-month total inflation according to the Price Index for Personal Consumption Expenditures (PCE).” – Scott Brave, Economic Research, The Federal Reserve Bank of Chicago

Chicago Fed: National Activity Index

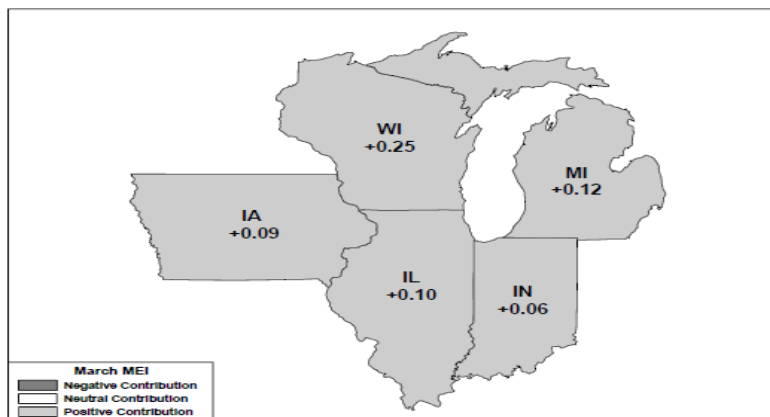


Index points to slower economic growth in March

“Led by slower growth in employment-related indicators, the Chicago Fed National Activity Index (CFNAI) moved down to +0.08 in March from +0.27 in February. Two of the four broad categories of indicators that make up the index decreased from February, and one category made a negative contribution to the index in March. The index’s three-month moving average, CFNAI-MA3, decreased to +0.03 in March from +0.16 in February, but remained positive for the fourth consecutive month. The CFNAI Diffusion Index, which is also a three-month moving average, edged down to +0.11 in March from +0.15 in February. Forty-eight of the 85 individual indicators made positive contributions to the CFNAI in March, while 37 made negative contributions. Thirty-seven indicators improved from February to March, while 47 indicators deteriorated and one was unchanged. Of the indicators that improved, ten made negative contributions.” – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index

MEI and the Seventh Federal Reserve District States



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

Midwest Economy Index

“The Midwest Economy Index (MEI) rose to +0.60 in March from +0.28 in February. All four broad sectors of nonfarm business activity and all five Seventh Federal Reserve District states made positive contributions to the MEI in March. The relative MEI increased to +0.40 in March from +0.23 in February. All four sectors and four of the five states made positive contributions to the relative MEI in March.” – Laura LaBarbera, Media Relations, Chicago Fed

Index Points to Increased Midwest Economic Growth in March

“The manufacturing sector’s MEI contribution increased to +0.22 in March from +0.10 in February. The pace of manufacturing activity increased in all five Seventh District states. Manufacturing’s contribution to the relative MEI edged up to +0.14 in March from +0.11 in February.

The construction and mining sector’s contribution to the MEI increased to +0.13 in March from +0.06 in February. The pace of construction and mining activity was higher in Illinois, Indiana, Michigan, and Wisconsin, but unchanged in Iowa. Construction and mining made a contribution of +0.16 to the relative MEI in March, up from +0.07 in February.

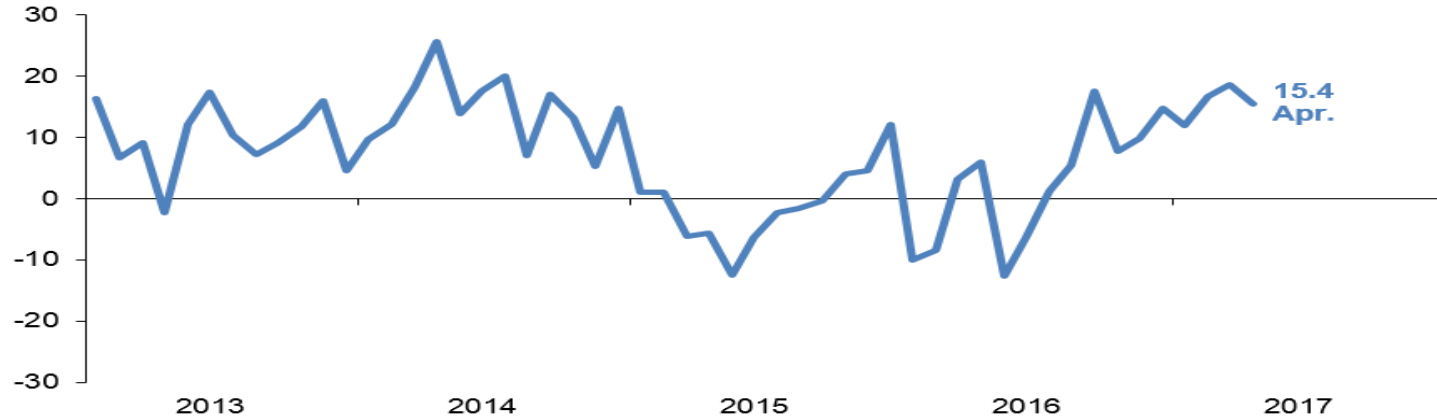
The service sector made a contribution of +0.11 to the MEI in March, up from +0.07 in February. The pace of service sector activity was up in Illinois, Iowa, and Wisconsin, but down in Indiana and Michigan. The service sector’s contribution to the relative MEI ticked up to +0.02 in March from a neutral reading in February.

The contribution from consumer spending indicators to the MEI moved up to +0.13 in March from +0.05 in February. Consumer spending indicators were, on balance, up in all five Seventh District states. Consumer spending’s contribution to the relative MEI edged up to +0.08 in March from +0.05 in February.” – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

U.S. Economic Indicators

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

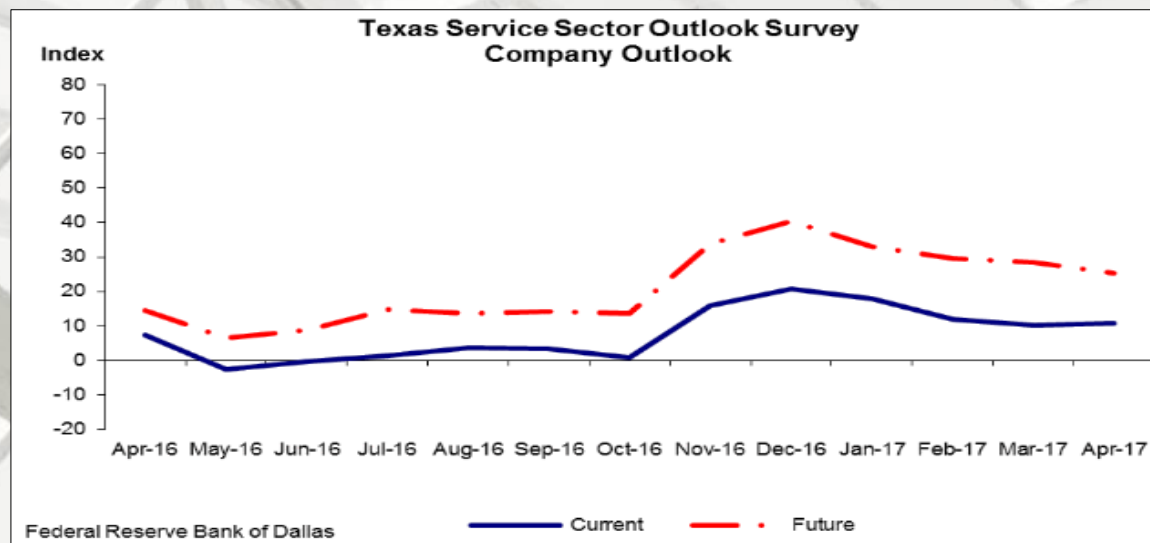
Texas Manufacturing Expansion Continues

Texas factory activity increased for the 10th consecutive month in April, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The [production](#) index, a key measure of state manufacturing conditions, moved down three points to 15.4, suggesting output growth continued but at a slightly slower pace this month.

Other measures of current manufacturing activity also indicated continued expansion in April. The survey's demand indicators saw upward movement, with the [new orders](#) and [growth rate of orders](#) indexes edging up to 11.5 and 5.1, respectively. The [shipments](#) index also moved up, rising three points to 9.5. The [capacity utilization](#) index fell slightly but stayed positive for a 10th month in a row, coming in at 11.5.

Perceptions of broader business conditions improved again. The [general business activity](#) index held steady at 16.8, and the [company outlook](#) index inched down but remained positive at 15.1.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators



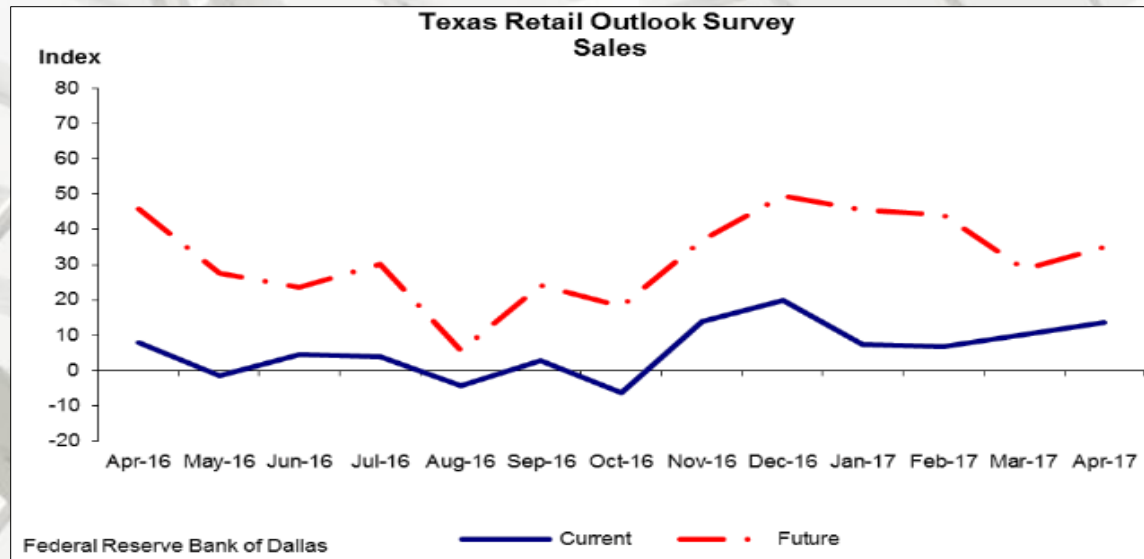
Texas Service Sector Activity Increases Again, but at a Slower Pace

“Texas service sector activity increased in April, albeit at a slower pace than in March, according to business executives responding to the Texas Service Sector Outlook Survey. The [revenue](#) index, a key measure of state service sector conditions, edged down three points to 12.1 in April.

Labor market indicators reflected slower employment growth and slightly longer workweeks this month. The [employment](#) index remained positive but fell from 8.1 to 4.5. The [hours worked](#) index dipped three points to 3.5.

Perceptions of broader economic conditions continued to reflect optimism in April. The [general business activity](#) index fell from 13.2 to 9.0. The [company outlook](#) index was relatively unchanged from last month at 10.9, with 21 percent of respondents reporting that their outlook improved from last month and 10 percent noting it worsened.” – Amy Jordan, Assistant Economist, Federal Reserve Bank of Dallas

U.S. Economic Indicators



The Federal Reserve Bank of Dallas Retail Sales Expand at a Faster Pace

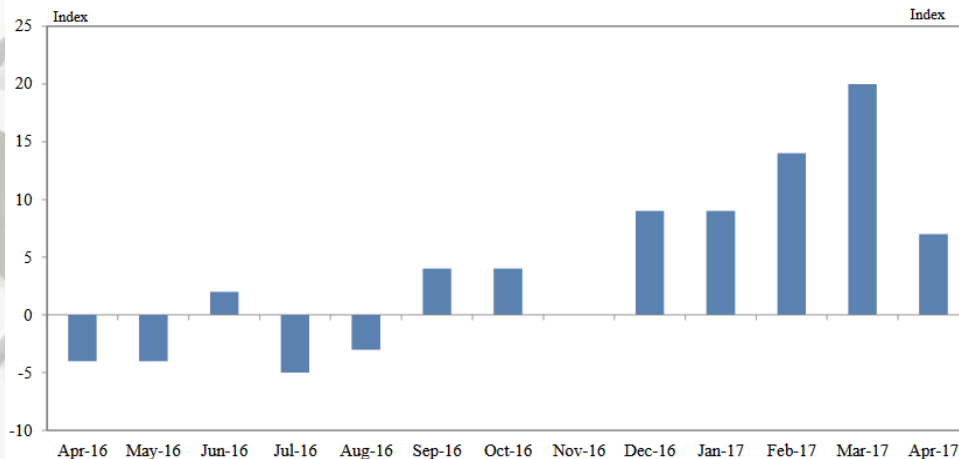
“Retail sales picked up in April, according to business executives responding to the Texas Retail Outlook Survey. The sales index rose three points to 13.7 in April. Inventories increased at a slower pace this month.

Labor market indicators were mixed this month. The employment index, largely unchanged from last month, posted a second consecutive positive reading at 3.0, indicating retail employment increased on net. The hours worked index edged up from -1.5 to a reading near zero, suggesting workweeks were unchanged in April.

Retailers’ perceptions of broader economic conditions continued to reflect optimism in April. The general business activity index came in at a reading of 2.6, similar to March. The company outlook index rebounded from negative territory to 9.4, with 20 percent of respondents reporting that their outlook improved from last month and 11 percent noting that it worsened.” – Amy Jordan, Assistant Economist, Dallas Fed

U.S. Economic Indicators

Composite Index vs. a Month Ago



Tenth District Manufacturing Summary

“Tenth District manufacturing activity expanded at a somewhat slower pace in April, and expectations for future activity eased but remained at solid levels. Price indexes were mixed, but recorded little change overall” – Pam Campbell, Federal Reserve Bank of Kansas City

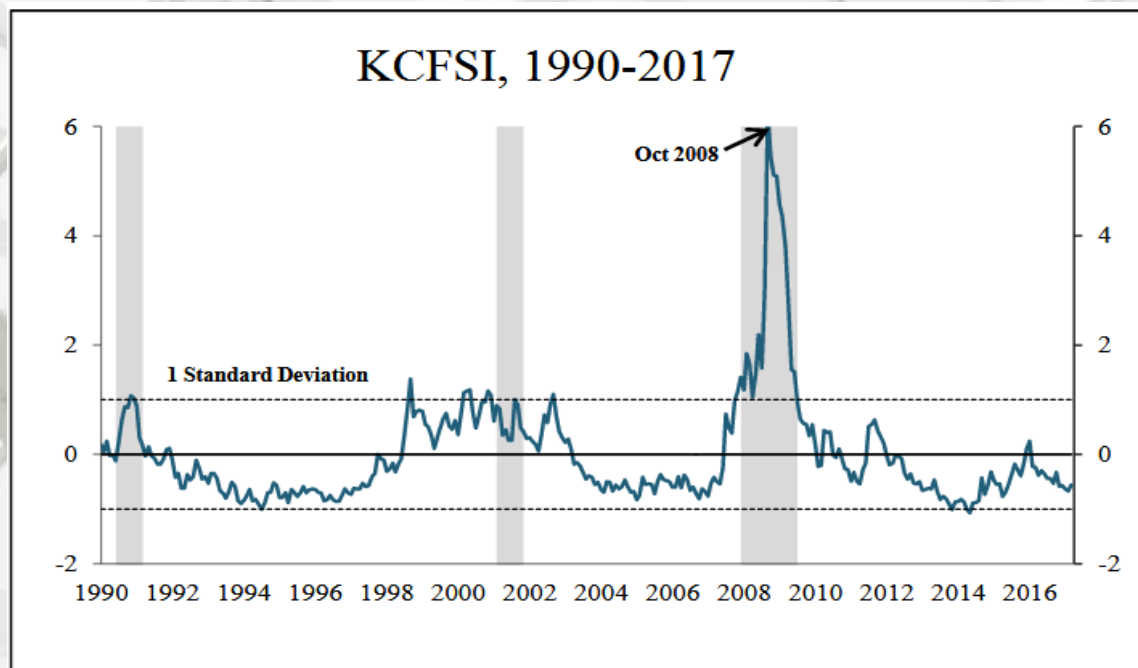
The Federal Reserve Bank of Kansas City

Tenth District Manufacturing Activity Expanded At A Slower Pace

“The month-over-month composite index was 7 in April, down from the very strong readings of 20 in March and 14 in February. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Activity in both durable and nondurable goods plants eased slightly, particularly for metals, machinery, food, and plastic products. Most month-over-month indexes expanded at a slower pace in April. The production, shipments, and new orders indexes fell but remained positive, and the employment index edged lower from 13 to 9. In contrast, the new orders for exports index increased from 2 to 4. Both inventory indexes fell moderately after rising the past two months.” – Pam Campbell, The Federal Reserve Bank of Kansas City

“We came down a bit from the rapid growth rate of the past two months. But firms still reported a good increase in activity and expected this to continue.” – Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators



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

“The Kansas City Financial Stress Index (KCFSI) increased from -0.67 in March to -0.56 in April.

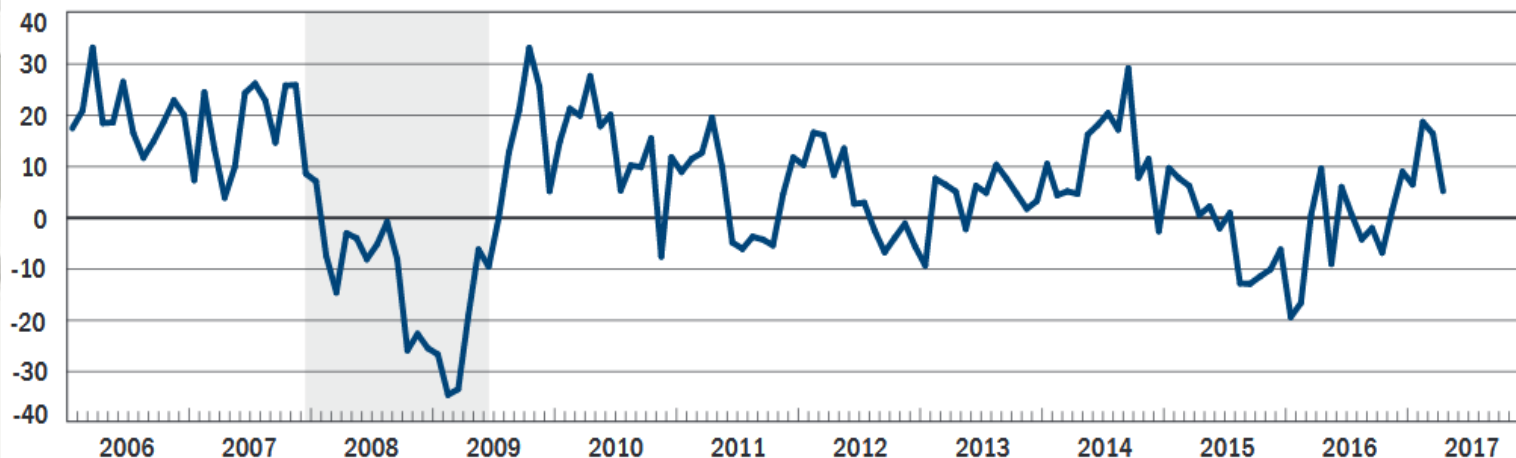
The KCFSI is constructed to have a mean value of zero and a standard deviation of one. A positive value of the KCSFI indicates that financial stress is above the long-run average, while a negative value signifies that financial stress is below the long-run average. A useful way to assess the level of financial stress is to compare the index in the current month to the index during a previous episode of financial stress, such as October 2008.” – Bill Medley, Media Relations, The Federal Reserve Bank of Kansas City

U.S. Economic Indicators

General Business Conditions

Seasonally Adjusted

Diffusion index



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

Empire State Manufacturing Survey

“Business activity grew at a more subdued pace in New York State, according to firms responding to the April 2017 *Empire State Manufacturing Survey*. The headline general business conditions index fell eleven points to 5.2. The new orders index, which had climbed to a multiyear high in March, retreated sharply to 7.0 in April, suggesting more modest growth. The shipments index edged up to 13.7, indicating that shipments continued to increase moderately. The unfilled orders index edged down to 12.4, after reaching its highest level in more than a decade in March; however, delivery times lengthened further, with that index climbing to a record high of 16.1. Labor market indicators pointed to further sturdy increases in both employment and hours worked. Input prices and selling prices rose at a modest pace again this month. Indexes assessing the six-month outlook continued to convey a fairly high degree of optimism about future conditions.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

Empire State Manufacturing Survey

Business Expansion Slows

“Business activity expanded at a slower pace than in the prior two months. Although the general business conditions index remained above the levels seen through most of 2016, it slipped eleven points to 5.2. Thirty-five percent of respondents reported that conditions had improved over the month, while 30 percent reported that they had worsened. The new orders index retreated fourteen points to 7.0, indicating that orders continued to expand but at a much more subdued pace. The shipments index, up slightly at 13.7, suggested that shipments continued to increase at a moderate pace. The unfilled orders index, which had reached an eleven-year high in March, declined only marginally to 12.4 in April. The delivery time index continued its ascent, climbing six points to 16.1 — its highest level in the survey’s sixteen-year history and a sign of longer delivery times. The inventories index remained near zero, indicating that inventory levels were steady.”

Hiring Activity Remains Robust

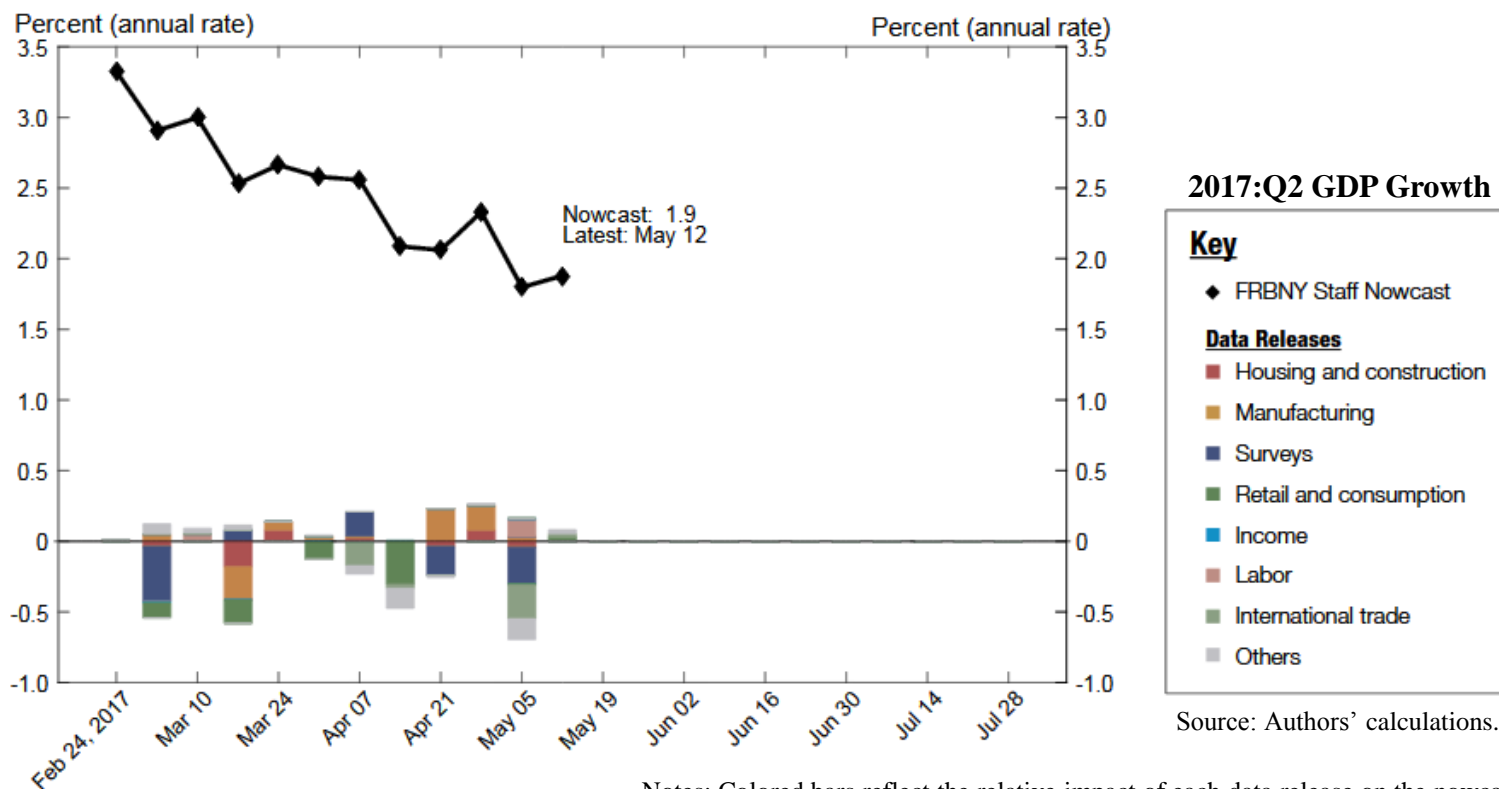
“Employment indexes continued to signal strength in the labor market. The index for number of employees climbed another five points to 13.9 — its highest level in just over two years. The average workweek index retreated six points to 8.8, but remained well above the levels that prevailed for most of the past five years. Price increases were about the same as in March. The prices paid index edged up two points to 32.8, and the prices received index rose four points to 12.4.”

Firms Remain Optimistic

“Forward-looking indexes were mixed but generally at high levels, suggesting fairly widespread optimism about future conditions. The index for future business conditions rose three points to 39.9, while the future new orders and shipments indexes declined modestly. Employment and hours worked were expected to increase fairly briskly in the months ahead. The index for planned capital expenditures climbed four points to 27.7 — its highest level in more than two years — and the technology spending index jumped seven points to 15.3.” – Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York

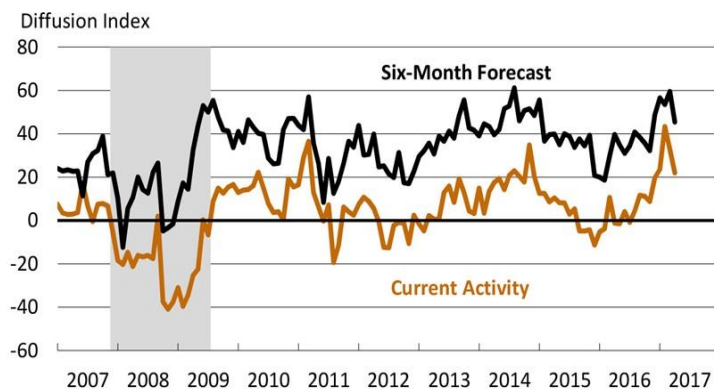


Notes: Colored bars reflect the relative impact of each data release on the nowcast.

- “The FRBNY Staff Nowcast stands at 1.9% for 2017:Q2.
- Small positive news from retail sales data and price indexes increased the nowcast for Q2 by 0.1 percentage point.”

U.S. Economic Indicators

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



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

Introduction

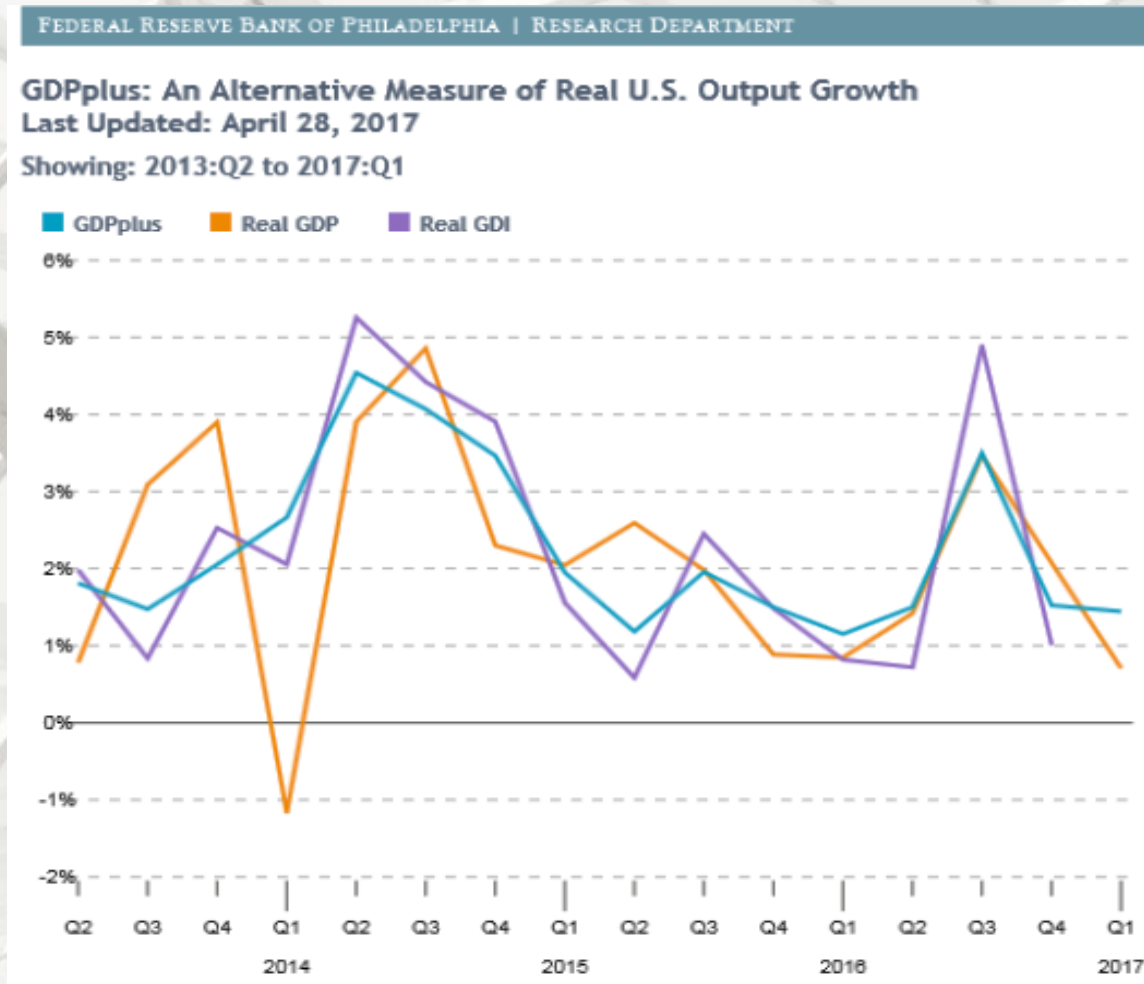
“Results from the April *Manufacturing Business Outlook Survey* suggest that regional manufacturing activity continued to expand, but at a slower pace than last month. The diffusion indexes for general activity, new orders, and shipments remained positive but fell from their readings in March. The current employment index, however, improved slightly and continues to suggest expanding employment in the manufacturing sector. The survey’s future indicators continued to reflect general optimism but retreated from their high readings in the first three months of the year.” – Philadelphia Fed

April 2017 Manufacturing Business Outlook Survey

Current Indicators Continue to Reflect Growth

“The index for current manufacturing activity in the region decreased from a reading of 32.8 in March to 22.0 this month. The index has been positive for nine consecutive months and remains at a relatively high reading but has moved down the past two months (see Chart 1). Thirty-seven percent of the firms indicated increases in activity in April, while 15 percent reported decreases. The current new orders and shipments indexes remained at high readings but declined 11 points and 10 points, respectively. Both the delivery times and unfilled orders indexes were positive for the sixth consecutive month, suggesting longer delivery times and increases in unfilled orders.” – Mike Trebing, Senior Economic Analyst, Federal Reserve Bank of Philadelphia

Philadelphia Fed: GDPplus



“GDPplus is a measure of the quarter-over-quarter rate of growth of real GDP in annualized percentage points. It improves on the BEA's expenditure- and income-side measures, GDP_E and GDP_I, respectively. GDP_E is the “standard” GDP measure used routinely, whereas GDP_I is little used, but each contains useful information.” – The Federal Reserve Bank of Philadelphia

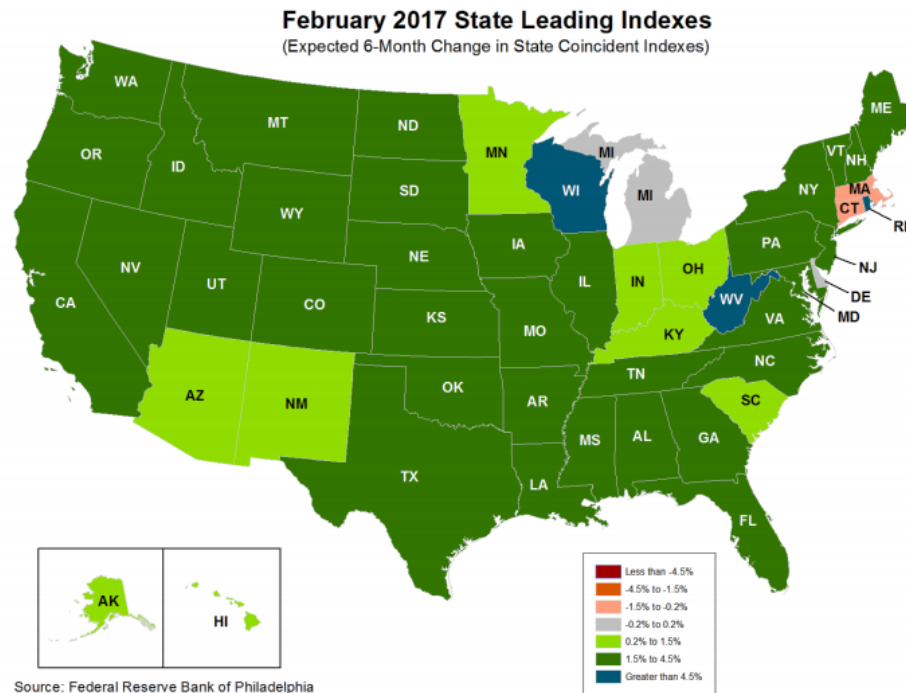
Philadelphia Fed

FEBRUARY 2017

Release Date: April 21, 2017

The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for February 2017. The indexes are a six-month forecast of the state coincident indexes (also released by the Bank). Forty-six state coincident indexes are projected to grow over the next six months, and four are projected to decrease. For comparison purposes, the Philadelphia Fed has also developed a similar leading index for its U.S. coincident index, which is projected to grow 1.5 percent over the next six months.

The next release of the state leading indexes will be on May 1, 2017.



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U.S. Economic Indicators

The Federal Reserve Bank of Richmond

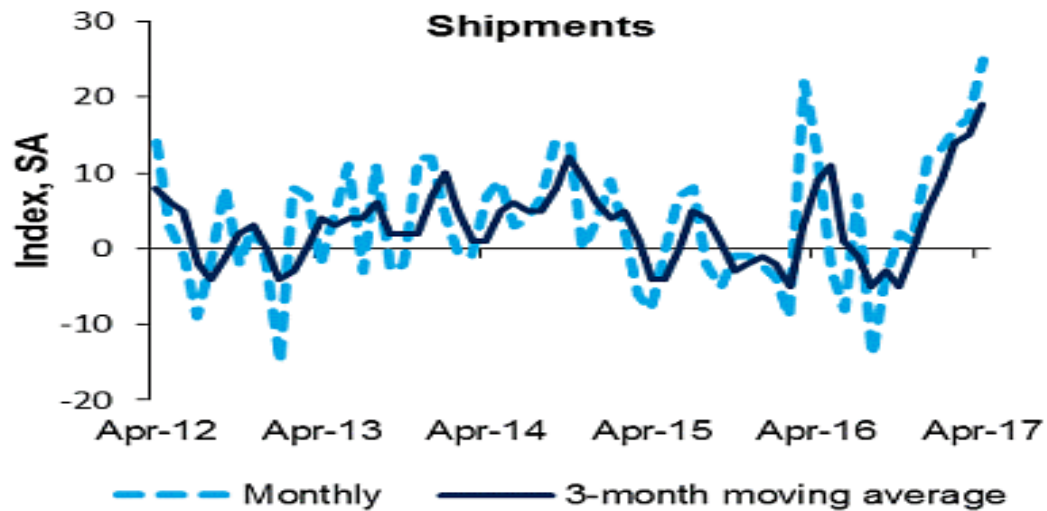
Firms Exhibited Continued Optimism in April with a Strong Composite Index of Manufacturing Activity

“Manufacturers in the Fifth District were upbeat again in April, according to the latest survey by the Federal Reserve Bank of Richmond. The index for shipments rose and the index for new orders remained very strong. Even though the index for employment fell, the composite index for manufacturing remained high, with a reading of 20 in April compared to 22 in March. This was the first time since 1994 that the composite index remained at or above 20 for two consecutive months. The majority of firms continued to report longer workweeks and increased wages.

Looking six months ahead, manufacturing executives remained generally optimistic, although many of the indexes fell slightly from their March readings. The only two indexes that increased were expected capacity utilization and expected capital expenditures. Nonetheless, the expected shipments index had a strong reading of 42 in April and the expected new orders index was 46.

Survey respondents reported that growth in prices paid rose somewhat while growth in prices received moderated slightly.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators



U.S. Economic Indicators



U.S. Economic Indicators

The new normal

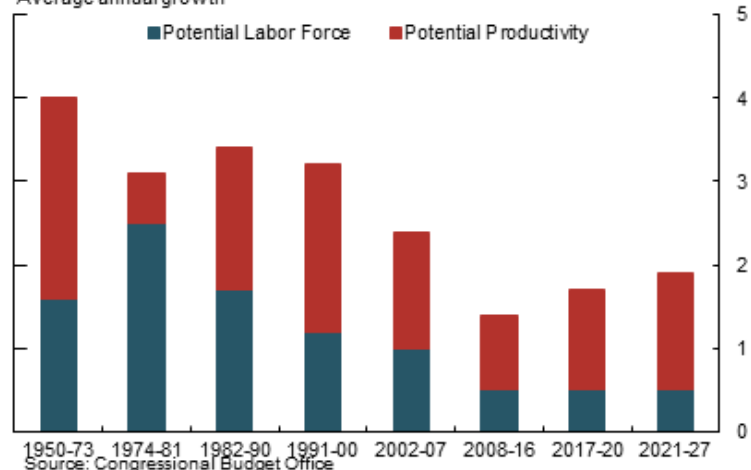
Trend growth for economic variables

	Old Norms	New Norms
GDP Growth	3% to 3.5%	1.5% to 1.75%
Jobs Per Month	100K to 150K	50K to 100K
Unemployment Rate	5.0%	4.8% to 5.0%
Inflation	2.0%	2.0%
Neutral Interest Rate	4% to 4.5%	2.8% to 3%

Source: FRBSF research and FOMC Summary of Economic Projections (March 15, 2017)

Future growth is slower

Potential GDP growth Average annual growth

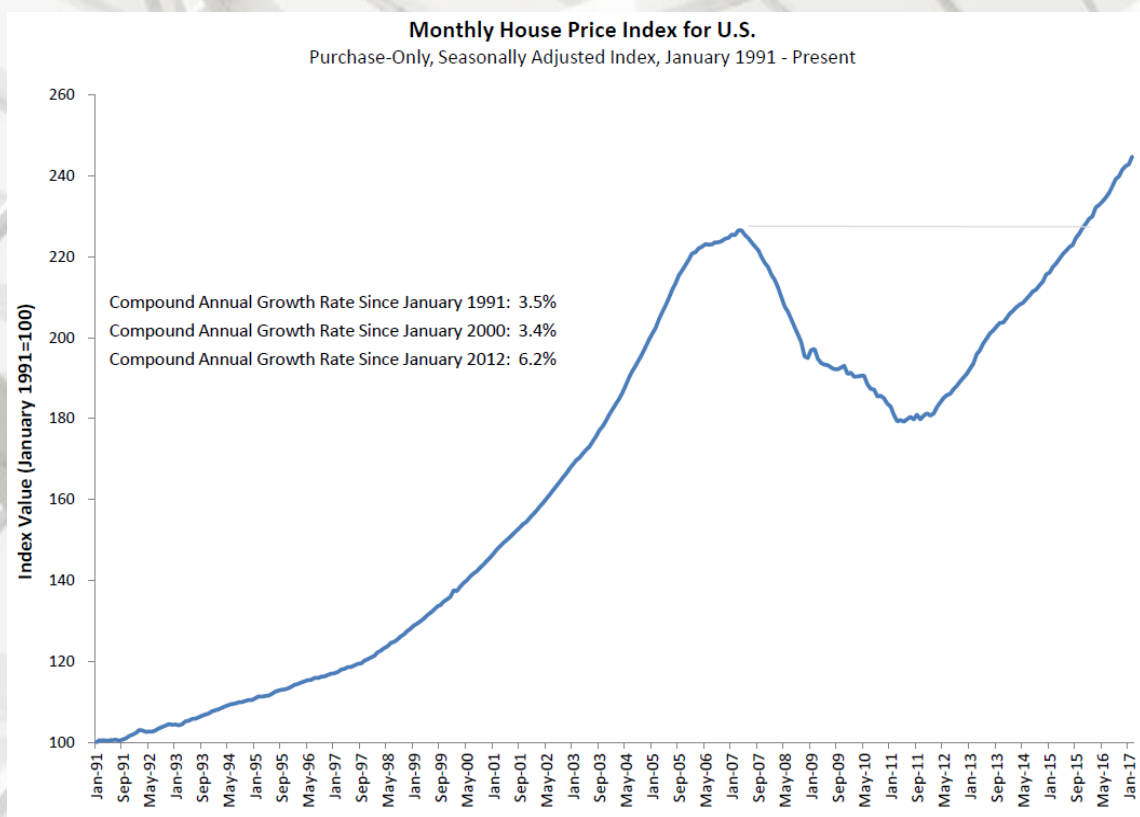


The Federal Reserve Bank of San Francisco

“Recent data confirm that economic activity has continued to expand at a moderate pace, bolstered by supportive financial conditions, a strong labor market, and solid gains in consumer spending. Over the next few years, we expect real GDP growth to remain moderate, averaging around 1¾%.

With the cyclical effects of the Great Recession mostly behind us and monetary policy normalizing, the economy is moving towards its sustainable steady state. But the “new normal” is expected to look a lot different than the old. Assessments show that a sustained expansion will be characterized by real GDP growth of 1½% to 1¾%, job growth of 50,000 to 100,000 per month, and a neutral federal funds rate of around 3%.” – Mary Daly, Executive Vice President and Director of Research, The Federal Reserve Bank of San Francisco

U.S. Economic Indicators



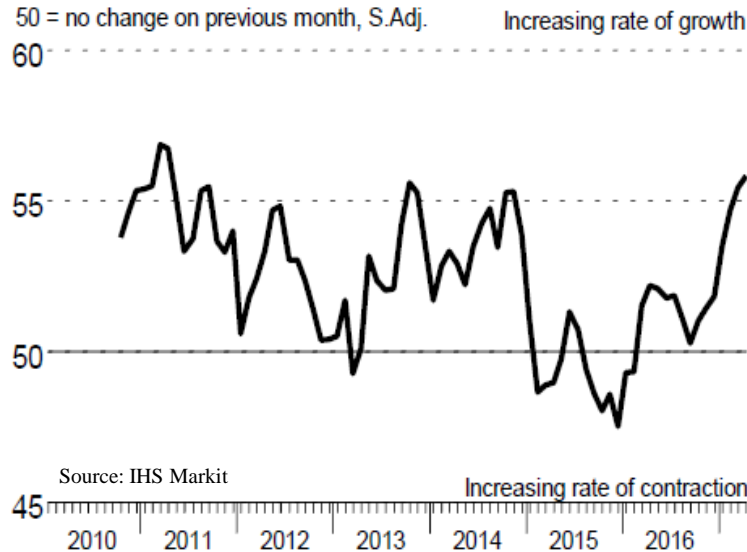
FHFA House Price Index

U.S. House Prices Up 0.8 Percent in February

“U.S. house prices rose in February, up **0.8 percent** from the previous month, according to the Federal Housing Finance Agency (FHFA) seasonally adjusted monthly House Price Index (HPI). The previously reported lack of change in January was revised upward to a 0.2 percent increase. From February 2016 to February 2017, house prices were up **6.4 percent**.” – Stefanie Johnson and Corinne Russell, FHFA

Private Indicators: Global

Markit Canada Manufacturing PMI



Markit Canada Manufacturing PMI™

Manufacturing PMI hits six-year peak in April

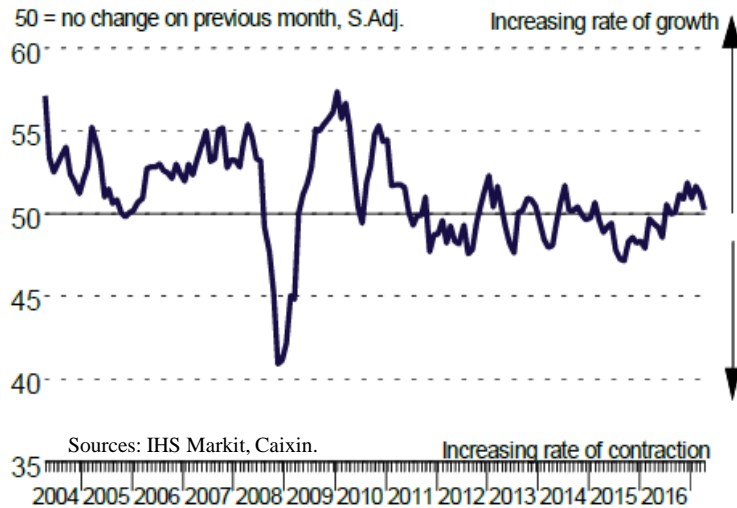
“At 55.9 in April, up from 55.5 in March, the seasonally adjusted **Markit Canada Manufacturing Purchasing Managers’ Index™ (PMI™)** registered above the 50.0 no-change threshold for the fourteenth month running. Moreover, the latest reading signalled the strongest improvement in business conditions for exactly six years. This mainly reflected faster rises in new orders and employment numbers in April.

“Canadian manufacturers signalled a further upturn in growth momentum in April, with overall business conditions improving at the fastest pace for six years. This reflected a steeper rise in new work and greater job creation, alongside another robust increase in production volumes. Higher levels of client spending encouraged a sustained rebound in input buying and inventory building across the manufacturing sector. However, strong demand for inputs contributed to rising raw material prices in April, with cost inflation accelerating to its fastest since May 2014.

April’s survey highlights that the Canadian manufacturing sector continued to rebound from the soft patch seen over the past two years. The latest manufacturing performance was the strongest since 2011, led by a recovery in demand across the oil and gas sector. Manufacturers also sought to rebuild capacity, as stocks of inputs were accumulated at the fastest pace since May 2012 and job creation reached a six-year peak.” – Tim Moore, Senior Economist, HIS Markit

Private Indicators: Global

Caixin China General Manufacturing PMI



Caixin China General Manufacturing PMI™

“Latest data indicated that Chinese manufacturers started the second quarter with a further slowdown in production and new business growth. Employment across the sector meanwhile declined at the fastest pace since the start of the year and input buying rose only slightly. At the same time, optimism towards the 12-month outlook was the weakest seen in 2017 so far. Cost pressures continued to ease from the peaks seen at the end of last year, and contributed to only a modest rise in prices charged.”

Weakest improvement in manufacturing operating conditions for seven months in April

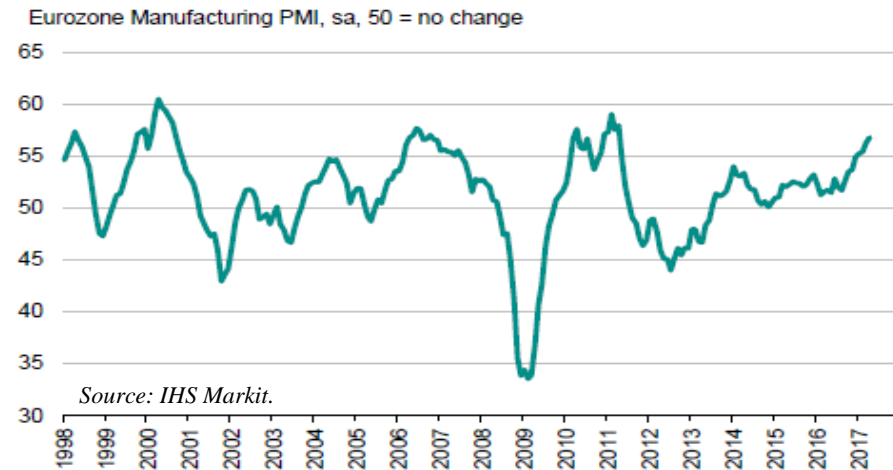
“The seasonally adjusted Purchasing Managers’ Index™ (PMI™) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – registered 50.3 in April, down from 51.2 in March to signal only a marginal improvement in overall operating conditions. Moreover, the latest upturn in the health of the sector was the weakest seen since last September.

The Caixin China General Manufacturing PMI was down 0.9 points to 50.3 in April 2017, the lowest point since September. The sub-indexes of output and new business both fell to the weakest levels since September, while the employment index dropped to the lowest in three months. Stocks of finished goods stayed in contraction territory and companies were rather reluctant to restock. The input prices index declined for the fourth straight month while the output prices index fell for the fifth month running, although both remained above the breakeven point of 50. The downward pressure on manufacturing gradually emerged in April, with all indicators weakening. The Chinese economy may be starting to embrace a downward trend in the near term as prices of industrial products decline and active restocking comes to an end.” – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis, CEBM Group.

Source: <https://www.markiteconomics.com/Survey/PressRelease.mvc/a52d06ff96f14cd1a469abdb6acb75f1> 5/2/17

Private Indicators: Global

Markit Eurozone Manufacturing PMI



Markit Eurozone Manufacturing PMI®

“The eurozone manufacturing sector continued to gain momentum at the start of the second quarter. At 56.7 in April, up from 56.2 in March, the final Markit Eurozone Manufacturing PMI® rose to a six-year high. The PMI was only a tick below the earlier flash estimate of 56.8.”

Eurozone manufacturing expands at fastest pace in six years

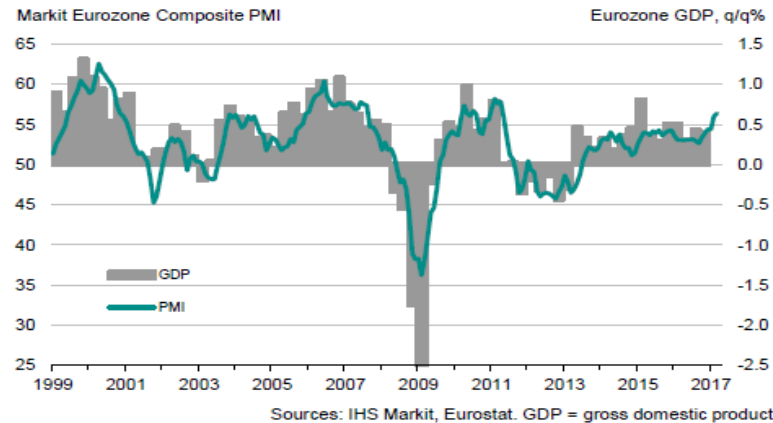
“Seven out of the eight nations covered recorded an improvement in operating conditions. The sole exception was Greece, where a deterioration was signalled for the eighth straight month. Growth was led by Germany, which saw its rate of expansion remain close to March’s 71-month high.

Eurozone manufacturers reported buoyant business conditions in April, signalling an encouragingly solid start to the second quarter. Production, order books and exports* all grew at the fastest rates for six years, fuelling one of the largest increases in factory jobs in the 20-year history of the survey. The latest survey readings indicate that manufacturing is growing at an annual rate of approximately 4-5%, which should make a significant contribution to overall economic growth.

Strong – and often accelerating – rates of growth were seen in all countries with the notable exception of Greece, which remained mired in decline in part due to falling exports.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global

Markit Eurozone Composite PMI



Markit Eurozone Composite PMI®

Eurozone growth at near six-year high as Germany and France accelerate

“The final **Markit Eurozone PMI® Composite Output Index** rose to a 71-month high of 56.4 in March, up from 56.0 in March but below the flash estimate of 56.7. The index has signaled expansion in each of the past 45 months.”

“Eurozone output and new order growth accelerated to near six-year records in March, rounding off the best quarter for the currency union’s economy since the second quarter of 2011.

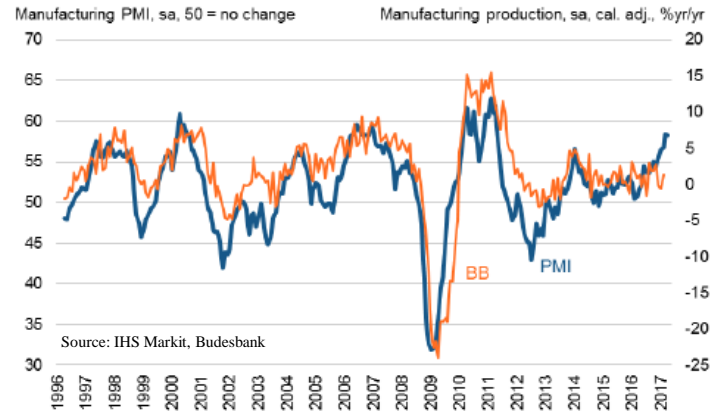
The expansion recorded by the final PMI numbers was not quite the growth spurt indicated by the flash release, but still points to an impressive rate of economic growth. The latest numbers round off the strongest quarter since the spring of 2011 and are consistent with eurozone GDP rising by 0.6% in the first three months of 2017.

This is a broad-based upturn among the euro’s largest members, with 0.6% growth signalled for both Germany and France, while Spain looks set to have enjoyed 0.8-0.9% growth in the first quarter, according to the PMI data. Growth has also perked up in Italy during the first quarter despite a slight pull-back in March, with the surveys indicating a 0.3-0.4% expansion.

Most welcome for a region still suffering near double digit unemployment is a rise in the survey’s employment index to its highest for almost a decade, suggesting we should expect to see the jobless rate fall further in coming months.” – Chris Williamson, Chief Business Economist, Markit®

Private Indicators: Global

Markit / BME Germany Manufacturing PMI



Markit/BME Germany Manufacturing PMI®

German manufacturing expansion remains sharp in April

“The German manufacturing sector entered the second quarter of 2017 in a high gear, according to the latest PMI® survey data from IHS Markit and BME. Overall operating conditions improved at a pace that almost matched the near six-year record set in March as output, new orders and employment all continued to grow at historically sharp rates. Cost pressures continued to intensify, however, with the rate of input price inflation accelerating for a survey-record ninth consecutive month to the highest since May 2011.”

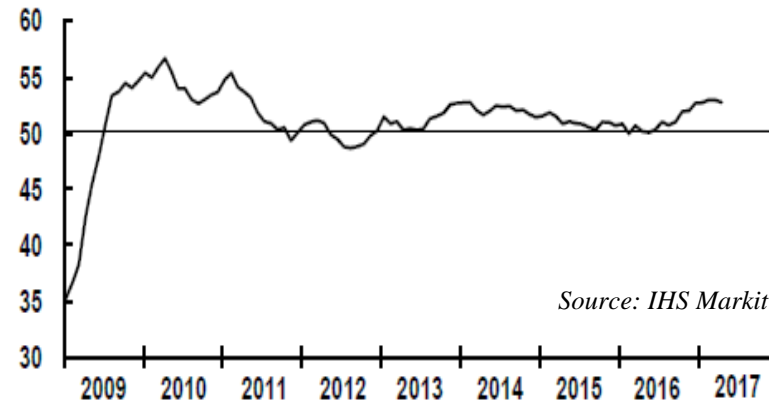
“The PMI registered 58.2 in April, little-changed from March’s 58.3 and indicative of a further sharp improvement in manufacturing business conditions in Germany. The downward tick in the PMI reflected slightly weaker growth rates for output, new orders and employment as well as a contraction in stocks of purchases, although these trends were almost wholly offset by the greatest lengthening in suppliers’ delivery times in six years. The current 29-month period of overall growth in the goods-producing sector is the second-longest in the 21- year survey history.

The final PMI data for April confirm that German manufacturing remained in a high gear at the start of the second quarter, with the headline figure little-changed from March’s 71-month peak. Although growth of output, new orders and employment all eased, this was mostly offset by more evidence of supply chain pressures as input delivery times lengthened to the greatest extent in six years.” – Trevor Balchin, Senior Economist, IHSMarkit®

Private Indicators: Global

JPMorgan Global Manufacturing PMI

DI, sa



JP Morgan Global Manufacturing PMI™

Global Manufacturing PMI slips to three-month low

“The rate of growth of the global manufacturing sector slowed to a three-month low at the start of the second quarter. This was signalled by the J.P. Morgan Global Manufacturing PMI™ – a composite index¹ produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – falling to 52.8 in April, down from 53.0 in March.”

“The slowdown indicated by the headline index was only mild, however, with the pace of improvement still close to the average for the opening quarter. The PMI has registered above the no-change mark of 50.0 in each of the past 14 months.

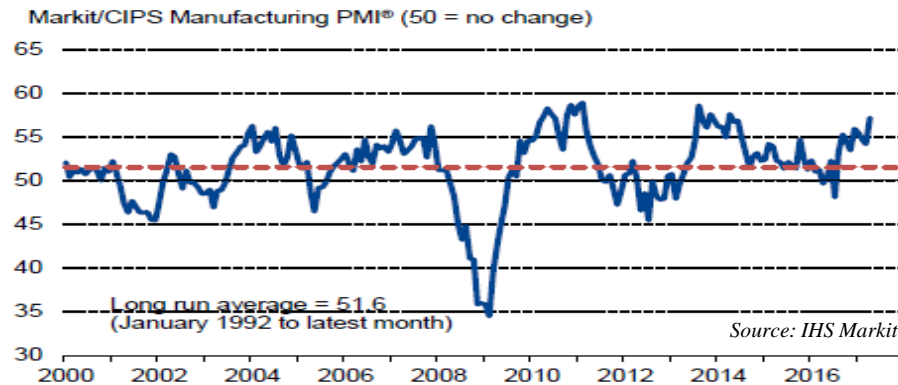
Sector data highlighted solid improvements in operating conditions across the consumer, intermediate and investment goods categories. Rates of expansion slowed in the first two industries, but accelerated to a three-month high in the latter.

The start of the second quarter saw a slight loss of growth momentum in the global manufacturing sector. Rates of increase eased for both production and new orders, although the outlook remains positive given a backdrop of solid business confidence and rising backlogs of work. The continued upturn is also feeding through to the labour market, with jobs added for the eighth straight month.”

– Joanna Vickers, Corporate Communications, IHS Markit Press Office

Private Indicators: Global

Markit/CIPS UK Manufacturing PMI



Markit/CIPS UK Manufacturing PMI™

“The seasonally adjusted Markit/CIPS Purchasing Managers’ Index® (PMI®) rose to a three-year high of 57.3 in April, up from March’s four-month low of 54.2. Survey data were collected 11-25 April.”

Manufacturing PMI rises to three-year high signalling solid start to second quarter

“The start of the second quarter saw a solid improvement in the performance of the UK manufacturing sector. Rates of expansion in output, total new orders and new export work all gathered pace, underpinned by robust business confidence and driving further job creation.

The PMI has signalled expansion for nine months in a row. The last time the PMI registered below its UK manufacturing output was driven higher by the strongest inflows of new work since January 2014, with the domestic market remaining the principal source of new contract wins.

The UK manufacturing sector made a solid start to the second quarter. Growth of output, new orders and employment all gathered pace, driven higher by the continued strength of the domestic market.

There was also a solid bounce in new export business, as the weak sterling exchange rate helped manufacturers take full advantage of the recent signs of revival in the global economy, and especially the eurozone, which is enjoying its best growth spell for six years. Although price pressures remain elevated, input cost inflation has eased significantly since hitting a record high in January.” – Rob Dobson, Director & Senior Economist, IHS Markit

Private Indicators

American Institute of Architects (AIA)

March Architecture Billings Index

Architecture Billings Index rebounds into positive territory

“The Architecture Billings Index (ABI) returned to growth mode in March, after a weak showing in January. As a leading economic indicator of construction activity, the ABI reflects the approximate nine to twelve month lead time between architecture billings and construction spending.

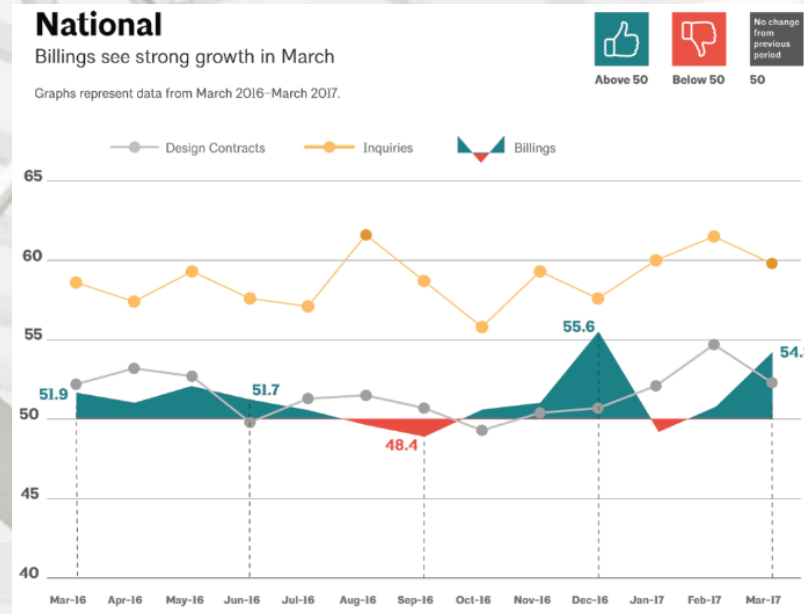
The sluggish start to the year in architecture firm billings should give way to stronger design activity as the year progresses. New project inquiries have been very strong through the first two months of the year, and in March new design contracts at architecture firms posted their largest monthly gain in over two years.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

“Key March ABI highlights:

- Regional averages: Midwest (52.4), South (50.5), Northeast (50.0), West (47.5)
- Sector index breakdown: institutional (51.8), multi-family residential (49.3), mixed practice (49.2), commercial / industrial (48.9)
- Project inquiries index: 61.5
- Design contracts index: 54.7”

Private Indicators

American Institute of Architects (AIA)

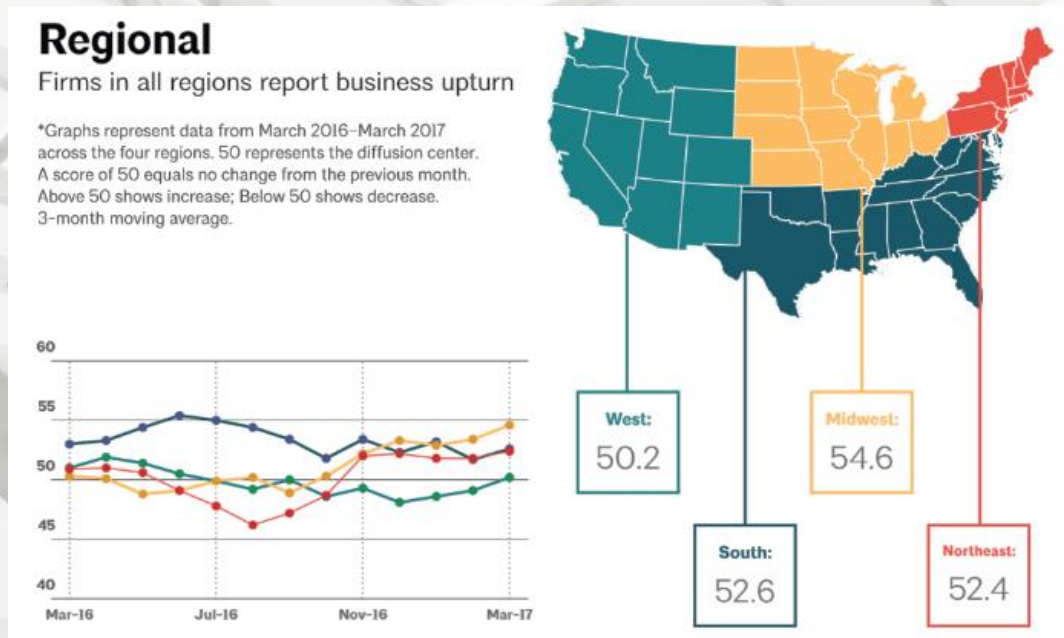


March Architecture Billings Index

Firms seeing strong conditions entering busy season

“Architecture firm billings bumped back up in March, with the national ABI score standing at 54.3 in March. For the first quarter of the year, the ABI averaged 51.5, down a bit from the fourth quarter 2016 average of 52.4 but above the 2016 annual average of 51.2. That suggests that design activity is off to a solid start for the year, pointing to healthy levels of construction activity later this year and into 2018.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

Private Indicators: AIA



Sustainability features projected to continue as important priority for clients, particularly for institutional facilities

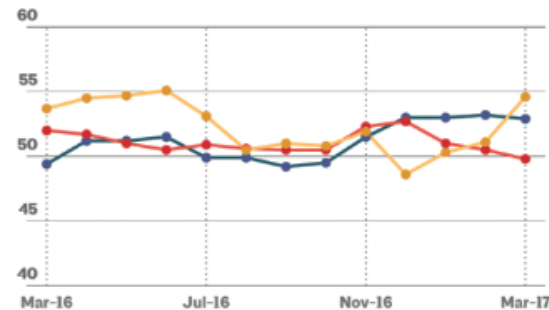
“With the recent uptick, firms in all regions of the country reported billings growth in March. Project inquiries and new design contracts also remained strong in the March survey, suggesting that design activity will continue to grow. New design contracts — with a reading of 52.3 for March — averaged just above 53.0 for the first quarter this year. With new project work coming into firms exceeding billings for completed work, architecture firms are seeing their project backlogs grow. In fact, backlogs at firms averaged 6.0 months in March, the highest reading since the AIA began tracking backlogs quarterly in late 2010.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

Private Indicators: AIA

Sector

Residential and institutional firms end first quarter with solid revenue growth

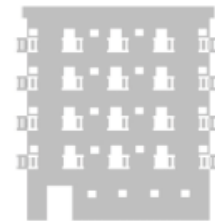
*Graphs represent data from March 2016–March 2017 across the three sectors. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Commercial/Industrial: 49.8



Institutional: 52.9



Residential: 54.6

“Residential firms reported a strong acceleration in billings, while institutional firms reported continued healthy levels. Commercial/industrial firms reported a modest decline, rounding out a generally sluggish first quarter” – Kermit Baker, Hon. AIA, Chief Economist, AIA

Private Indicators

Dodge Data & Analytics

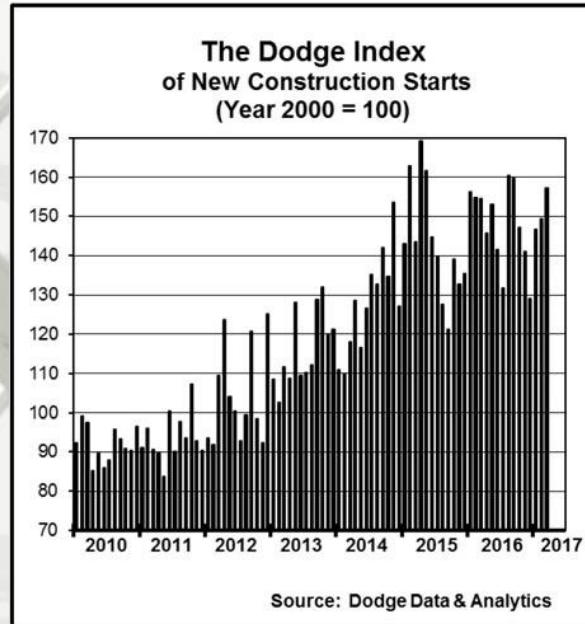
March Construction Starts Climb 5 Percent

“New construction starts in March increased 5% to a seasonally adjusted annual rate of \$743.7 billion, marking the third straight monthly gain, according to Dodge Data & Analytics. The total construction growth in March was led by the nonbuilding construction sector... Residential building in March registered moderate growth, helped by a rebound for multifamily housing after a subdued February. Nonresidential building in March held steady with its February pace, as strong activity for office buildings and airport terminals offset a steep drop for manufacturing plants. Through the first three months of 2017, total construction starts on an unadjusted basis were \$160.1 billion, down 3% from the same period a year ago (which included heightened activity for manufacturing plants and electric utilities/gas plants). If the often volatile manufacturing plant and electric utility/gas plant categories are excluded, total construction starts during the first three months of 2017 would be up 8% relative to last year.

The pattern for construction starts in early 2017, with three straight monthly gains, is the reverse of the three straight monthly declines that closed out 2016. While the construction start statistics will frequently show an up-and-down pattern, whether month-to-month or quarter-to-quarter, the improved activity in this year's first quarter provides evidence that the construction expansion is still proceeding. This year's first quarter has seen nonresidential building and public works rebound from the loss of momentum each experienced towards the end of 2016, helped respectively by the strong activity so far in 2017 for new airport terminal projects and new pipeline projects. Nonresidential building in 2017 should be able to stay on its upward track, supported by further growth for such institutional project types as school construction. As for public works, it's also expected to show improvement over the course of 2017, although its prospects are less certain given its connection to legislative developments at the federal level. This includes how Congress will deal with the continuing resolution for fiscal 2017 appropriations scheduled to expire at the end of April, and whether a new federal infrastructure program will get passed this year.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

March 2017 Construction Starts



March 2017 Construction Starts

Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	March 2017	February 2017	% Change
Nonresidential Building	\$237,235	\$237,600	-0-
Residential Building	310,780	300,046	+4
Nonbuilding Construction	195,715	168,208	+16
Total Construction	\$743,730	\$705,854	+5

The Dodge Index

Year 2000=100, Seasonally Adjusted

March 2017157

February 2017.....149

Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

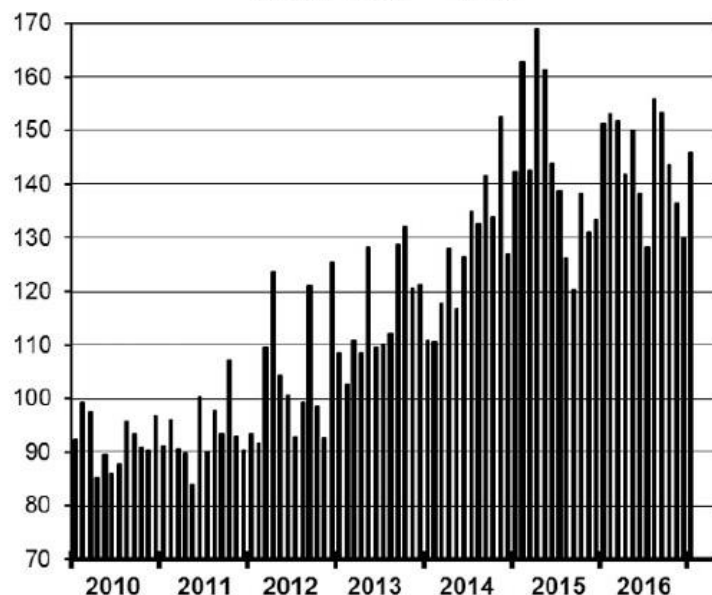
	3 Mos. 2017	3 Mos. 2016	% Change
Nonresidential Building	\$54,092	\$50,539	+7
Residential Building	68,160	68,530	-1
Nonbuilding Construction	37,863	45,610	-17
Total Construction	\$160,115	\$164,679	-3
Total Construction, excluding manufacturing buildings and electric utilities/gas plants	\$152,512	\$141,860	+8

“**Residential building**, at \$310.8 billion (annual rate), grew 4% in March. Multifamily housing provided the upward push, rebounding 26% after a 23% setback in February. There were six multifamily projects valued at \$100 million or more that reached groundbreaking in March, During this period, the New York NY metropolitan area accounted for 18% of the national multifamily total, up slightly from the 17% share for full year 2016 but down from the 25% share for full year 2015. Single family housing in March receded 3%, which followed modest improvement reported during the previous five months. By region, single family housing in March showed this pattern – the Midwest, down 9%; the West and South Central, each down 3%; and the South Atlantic, down 2%; while the Northeast ran counter with a 3% gain.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

March 2017 Construction Starts

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



Source: Dodge Data & Analytics

Monthly Summary of Construction Starts

Prepared by Dodge Data & Analytics

Monthly Construction Starts

Seasonally Adjusted Annual Rates, in Millions of Dollars

	<u>January 2017</u>	<u>December 2016</u>	<u>% Change</u>
Nonresidential Building	\$261,465	\$225,933	+16
Residential Building	307,619	304,757	+1
Nonbuilding Construction	<u>121,112</u>	<u>84,215</u>	<u>+44</u>
Total Construction	\$690,196	\$614,905	+12

The Dodge Index

Year 2000=100, Seasonally Adjusted

January 2017146

December 2016130

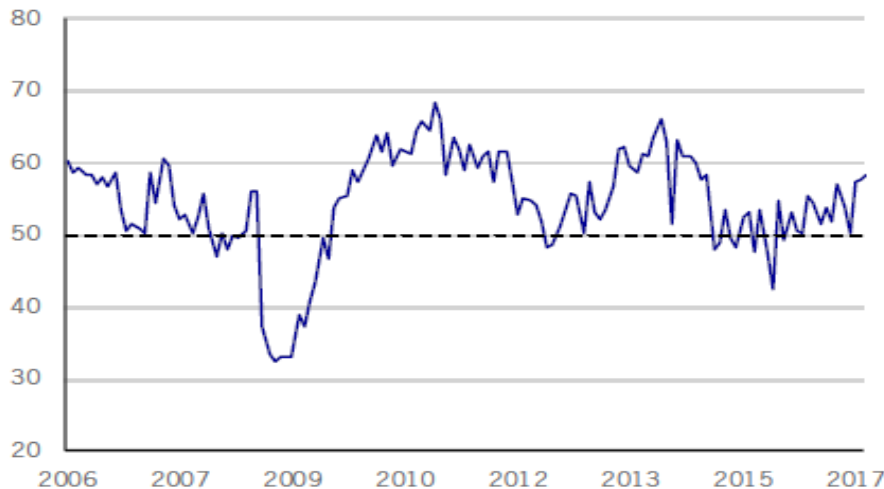
Year-to-Date Construction Starts

Unadjusted Totals, in Millions of Dollars

	<u>1 Mo. 2017</u>	<u>1 Mo. 2016</u>	<u>% Change</u>
Nonresidential Building	\$18,927	\$14,891	+27
Residential Building	20,235	20,043	+1
Nonbuilding Construction	<u>9,299</u>	<u>14,838</u>	<u>-37</u>
Total Construction	\$48,461	\$49,772	-3
Total Construction, excluding manufacturing buildings and electric utilities/gas plants	\$46,649	\$42,288	+10

Private Indicators

Chicago Business Barometer™



April Chicago Business Barometer New Orders Close To Three-Year High

“The MNI Chicago Business Barometer increased to 58.3 in April from 57.7 in March, the highest level since January 2015.” – Shaily Mittal, Senior Economist, MNI Indicators

April Chicago Business Barometer at 58.3 vs 57.7 in March

“Optimism among firms about business conditions rose for the third month in a row. Three of the five Barometer components led April’s increase, with Production and Order Backlogs receding.

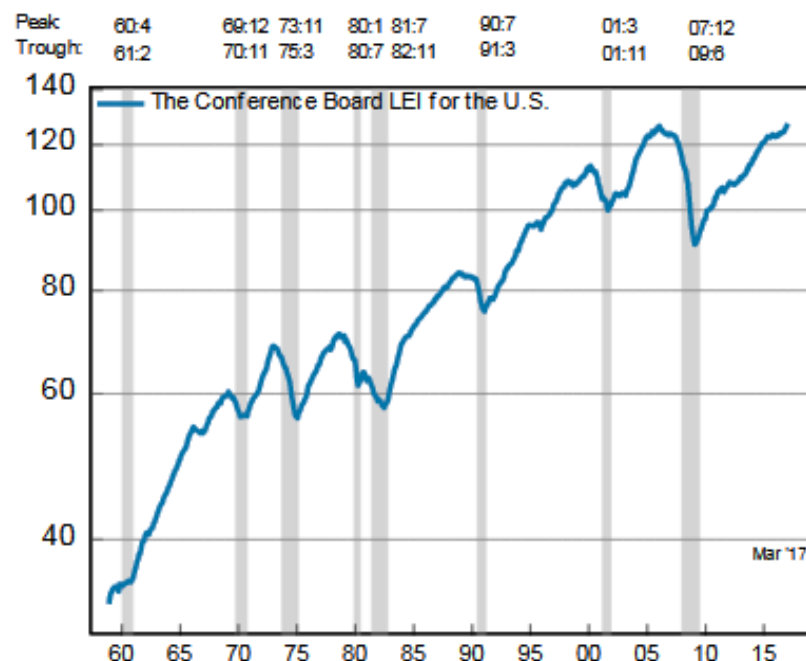
Demand continued to gain ground in April, rising for the third consecutive month. New orders rose by 5.5 points, to touch almost a three-year high. Off the back of two consecutive rises, the Production indicator fell 2.2 points to 59.5 from 61.7 in March. Order Backlogs contracted for the fifth consecutive month, although at a much faster rate than in recent months. Suppliers took longer to deliver key inputs, with the respective indicator 1.6 points higher at 56.0 in April.

Amid rising orders, demand for labor picked up. The Employment indicator leapt out of contraction territory after a brief dip below 50 last month. Although the indicator has expanded only seven times in last 24 months, it is showing tentative signs of a pick-up, sitting above 50 in two of the last three months.” – Shaily Mittal, Senior Economist, MNI Indicators

Private Indicators

The Conference Board Leading Economic Index® (LEI) for the U.S. increased 0.4 percent in March to 126.7 (2010 = 100), following a 0.5 percent increase in February, and a 0.6 percent increase in January.

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



Index Points to Continued Economic Growth Through 2017

“The March increase and upward trend in the U.S. LEI point to continued economic growth in 2017, with perhaps an acceleration later in the year if consumer spending and investment pick up. The gains among the leading indicators were very widespread, with new orders in manufacturing and the interest rate spread more than offsetting declines in the labor market components in March.” – 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 114.9 (2010 = 100), following a 0.2 percent increase in February, and no change in January.

The Conference Board Lagging Economic Index® (LAG) for the U.S. was unchanged in March, remaining at 123.6 (2010 = 100), following a 0.2 percent increase in both February and January.”

Private Indicators

U.S. Gallup Good Jobs Rate

January 2010-April 2017

■ Gallup Good Jobs rate %



GALLUP DAILY

GALLUP DAILY

REAL UNEMPLOYMENT
Department of Labor (U-6)

8.9% -0.3

GALLUP GOOD JOBS
Percent of Adult Population

45.0% +0.1

ENGAGED AT WORK

31.9% +0.4

ECONOMIC CONFIDENCE

4 -

CONSUMER SPENDING

\$119 +9

US Gallup Good Jobs Rate Falls in April

- GGJ rate declined to 44.7% in April, down from 45.1% in March
- Workforce participation essentially holds steady at 67.6%
- Unemployment was basically unchanged at 5.5%

The U.S. Gallup Good Jobs Rate fell to 44.7% in April, down from 45.1% in March, but higher than the 44.4% measured in February. The current GGJ rate is slightly lower than the 44.9% recorded in April 2016.” – RJ Reinhart, Consulting Associate, Gallup

Private Indicators

April 2017 Manufacturing ISM® Report On Business®

April NMI® at 54.8%

**New Orders, Production and Employment Growing,
Supplier Deliveries Slowing, Inventories Growing**

“Economic activity in the **manufacturing sector** expanded in April, and the overall economy grew for the 95th consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

The April PMI® registered 54.8 percent, a decrease of 2.4 percentage points from the March reading of 57.2 percent.

The New Orders Index registered 57.5 percent, a decrease of 7 percentage points from the March reading of 64.5 percent.

The Production Index registered 58.6 percent, 1 percentage point higher than the March reading of 57.6 percent.

The Employment Index registered 52 percent, a decrease of 6.9 percentage points from the March reading of 58.9 percent.

Inventories of raw materials registered 51 percent, an increase of 2 percentage points from the March reading of 49 percent.

The Prices Index registered 68.5 percent in April, a decrease of 2 percentage points from the March reading of 70.5 percent, indicating higher raw materials prices for the 14th consecutive month, but at a slower rate of increase in April compared with March.

Comments from the panel generally reflect stable to growing business conditions; with new orders, production, employment and inventories of raw materials all growing in April over March.” – Bradley Holcomb, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

Private Indicators

April 2017 Non-Manufacturing ISM® Report On Business®

April NMI® at 57.5%

**Business Activity Index at 62.4%, New Orders Index at 63.2%,
Employment Index at 51.4%**

“Economic activity in the non-manufacturing sector grew in April for the 88th consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**.

“The NMI® registered 57.5 percent, which is 2.3 percentage points higher than the March reading of 55.2 percent. This represents continued growth in the non-manufacturing sector at a faster rate.

The Non-Manufacturing Business Activity Index increased to 62.4 percent, 3.5 percentage points higher than the March reading of 58.9 percent, reflecting growth for the 93rd consecutive month, at a faster rate in April.

The New Orders Index registered 63.2 percent, 4.3 percentage points higher than the reading of 58.9 percent in March.

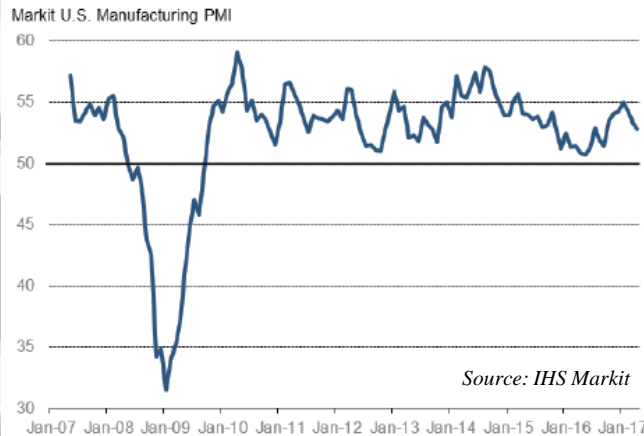
The Employment Index decreased 0.2 percentage point in April to 51.4 percent from the March reading of 51.6 percent.

The Prices Index increased 4.1 percentage points from the March reading of 53.5 percent to 57.6 percent, indicating prices increased for the 13th consecutive month, at a faster rate in April.

According to the NMI®, 16 non-manufacturing industries reported growth. In April the non-manufacturing sector reflected strong growth after a slowing in the rate from the previous month. Respondents' comments are mostly positive about business conditions and the overall economy.” – Anthony Nieves, CPSM, C.P.M., CFPM, Chair of the Institute for Supply Management® (ISM®) Non-Manufacturing Business Survey Committee

Private Indicators

Markit U.S. Manufacturing PMI (seasonally adjusted)



Markit U.S. Manufacturing PMI™

“The seasonally adjusted Markit final US Manufacturing Purchasing Managers’ Index™ (PMI™) registered 52.8 in April, down from 53.3 in March, to signal the slowest improvement in overall business conditions since September 2016. A fall in the headline PMI largely reflected weaker contributions from output and new business growth in April, which more than offset a slight rebound in job creation.”

Slowest improvement in manufacturing business conditions since September 2016

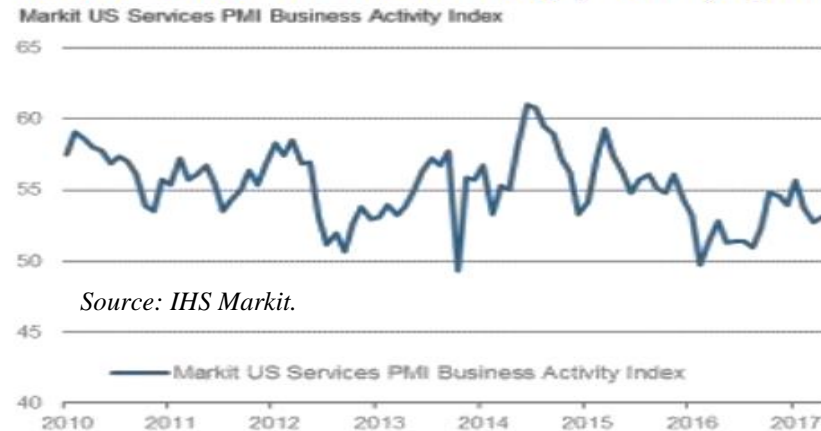
“April data revealed a sustained upturn in U.S. manufacturing production, but the rate of growth moderated further from the 22-month peak recorded in January. The slower rise in output volumes largely reflected a more subdued pace of new business growth in April. Payroll numbers continued to increase across the manufacturing sector, driven by efforts to boost production capacity.

Manufacturing production increased for the eleventh successive month in April. The latest survey signalled that the rate of expansion nonetheless eased to its weakest for seven months. New order growth also moderated to its slowest since September 2016, which survey respondents mainly linked to more cautious spending among domestic clients. Meanwhile, export sales gained momentum in April, with the latest rise in new work from abroad the fastest since August 2016.

Manufacturers reported that growth of production and order books have slowed markedly since peaking in January, with April seeing the weakest improvements for seven months. The signs of slowing growth are most evident in the domestic consumer sector, but investment goods manufacturers continue to fare well, enjoying stronger capital equipment spending from the energy sector in particular. Exports have also perked up, with April seeing the steepest increase in foreign orders for eight months.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Service sector business activity (seasonally adjusted)



Markit U.S. Services PMI™

“The seasonally adjusted Markit U.S. Services Business Activity Index continued to record above the crucial 50.0 no-change mark during April, registering 53.1, up from 52.8 in the previous month. Growth in activity has now been recorded in each survey period since March 2016.”

Business activity continues to rise at historically subdued pace in April

“Growth of business activity was sustained in April, albeit at a relatively modest pace in line with fairly limited gains in new orders. With companies able to comfortably deal with current workloads, staffing levels rose at the slowest pace in nearly seven years.

The final services PMI came in above the earlier flash estimate but remained only marginally higher than March’s six-month low. Combined with a weak manufacturing PMI reading, the surveys suggest that business activity is growing at a slower pace than seen over the first quarter as a whole.

However, a robust rise is likely to be seen in second quarter GDP as the official numbers exhibit greater seasonality than the PMI, with consistently weak first quarters being typically followed by a rebound in subsequent periods. For this very reason, GDP data seemed to signal weaker growth than implied by the PMI in the first quarter of 2017.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

National Association of Credit Management – Credit Managers' Index

Flagging Enthusiasm Could Show Up in Otherwise Strong March Credit Managers' Index

“The combined score for the CMI dipped a little from 55.4 to 54.3, despite a small gain in the unfavorable category. The very high readings in the favorable categories seen last month have faded somewhat, although most of the subcategories are still above 60. The combined favorable readings are at 60.6 after reaching 63.6 last month. This remains the third-highest reading in the last 12 months. The combined score for the unfavorable reading was 50.2, a very slight improvement over the 50 score last month. As usual, the interesting information lies in the specific subcategories.

The bloom may have started to fade a bit, but the Credit Managers' Index (CMI) numbers continue to be reasonably strong. As has been pointed out over the last few months, the economy has been in a state of expectation, allowing more growth and expansion than might have been expected otherwise. The markets have certainly been frothy with anticipation, but now there seems to be some disappointment setting in.” – Nicholas Stern, Senior Editor, NACM

"The index survey for March was taken prior to the ACA defeat in Congress and suggests there had been some reduction in enthusiasm even prior to the legislative setback to the Trump agenda. This is typical of a boom fed by expectations — patience wears thin as fast as it develops. The fact is, good numbers still dominate — they are just not quite as good as they had been.” – Chris Kuehl, Ph.D., Economist, NACM

Private Indicators

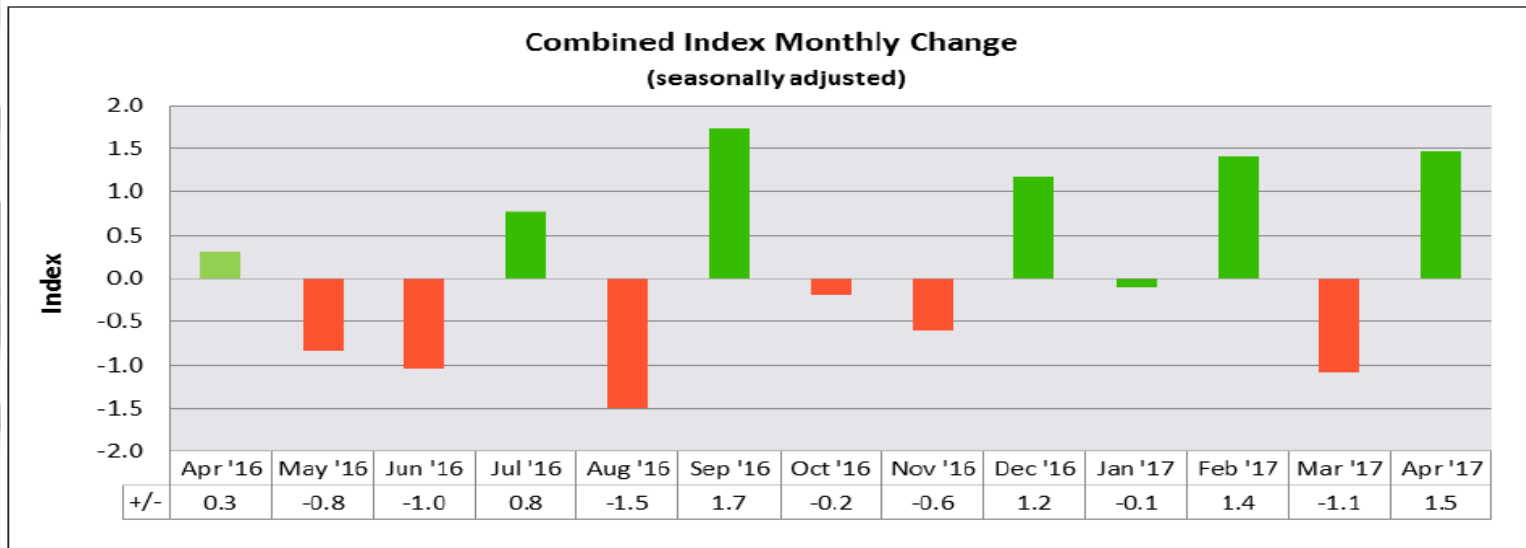
National Association of Credit Management – Credit Managers' Index

“The reaction as far as the Credit Managers' Index is concerned is generally upbeat. Even the sectors that were worrisome in March have improved a bit. The combined index was up from last month, moving from 54.3 to 55.8, slightly higher than it was in February. The index of favorable factors also saw a nice upward bump from 60.6 to 63.6, right back to the previous levels in February. The index for unfavorable factors went from 50.2 to 50.6 — a modest improvement, but headed in the right direction. As is always the case, the most interesting data is in the subcategories.

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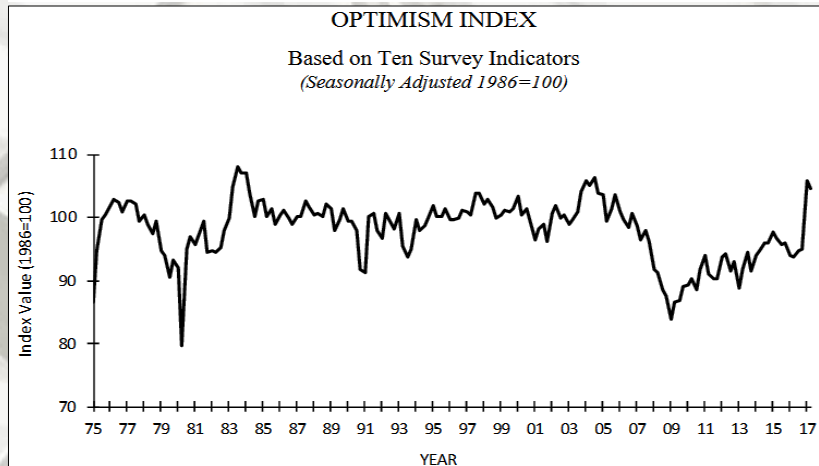
“The reality is that consumers are not spending on retail, as sales have been down for three months; the political reality has been far rockier than expected and most of these big changes have been stalled. There has been more caution in the business community than the good surveys would seem to suggest. The month showed a significant improvement over the previous month as most of the numbers seemed to rebound to levels seen in February and near the high level for the last few years,. Thus far, the enthusiasm regarding economic growth remains intact and suggests that confidence levels may be pulling the economy along as opposed to the usual pattern.” – Chris Kuehl, Ph.D., Economist, NACM

Private Indicators



Combined Manufacturing and Service Sectors (seasonally adjusted)	Apr '16	May '16	Jun '16	Jul '16	Aug '16	Sep '16	Oct '16	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17	Apr '17
Sales	59.8	56.7	56.9	60.0	53.7	57.9	56.9	61.8	58.6	60.1	62.6	61.2	63.8
New credit applications	58.5	56.6	56.6	57.8	56.7	58.6	58.0	54.5	57.0	60.8	62.0	60.5	62.0
Dollar collections	57.5	57.4	57.1	59.5	55.5	59.5	57.0	63.5	59.5	58.2	63.0	56.4	61.2
Amount of credit extended	60.9	61.0	57.6	62.8	59.7	61.9	61.5	61.4	61.4	64.1	66.8	64.4	67.2
Index of favorable factors	59.2	57.9	57.0	60.0	56.4	59.5	58.4	60.3	59.1	60.8	63.6	60.6	63.6
Rejections of credit applications	52.2	51.9	51.2	50.7	51.6	51.3	51.8	48.9	51.3	50.6	51.4	51.6	52.1
Accounts placed for collection	50.9	50.5	48.8	48.2	47.7	47.9	48.1	45.8	49.7	49.4	48.2	49.8	49.0
Disputes	50.8	50.8	49.5	47.6	47.8	48.8	49.9	47.7	49.8	46.0	48.7	48.5	49.1
Dollar amount beyond terms	51.2	49.2	49.0	48.8	46.3	48.2	49.0	44.9	49.3	48.4	51.0	47.4	51.0
Dollar amount of customer deductions	50.7	50.7	49.6	49.0	48.1	50.4	49.5	47.9	49.8	48.7	47.6	49.8	49.2
Filings for bankruptcies	53.8	53.0	51.1	50.7	52.8	52.7	53.8	53.0	55.0	53.9	53.2	53.8	53.5
Index of unfavorable factors	51.6	51.0	49.9	49.2	49.1	49.9	50.3	48.0	50.8	49.5	50.0	50.2	50.6
NACM Combined CMI	54.6	53.8	52.7	53.5	52.0	53.7	53.5	52.9	54.1	54.0	55.4	54.3	55.8

Private Indicators



April 2017 Report: Small Business Optimism Index

“The NFIB Index of Small Business Optimism posted another historically high reading in April, but expectations for future business conditions plunged by eight points, a sign that business owners were shaken by Congress’ failure at the end of March to repeal and replace Obamacare.”

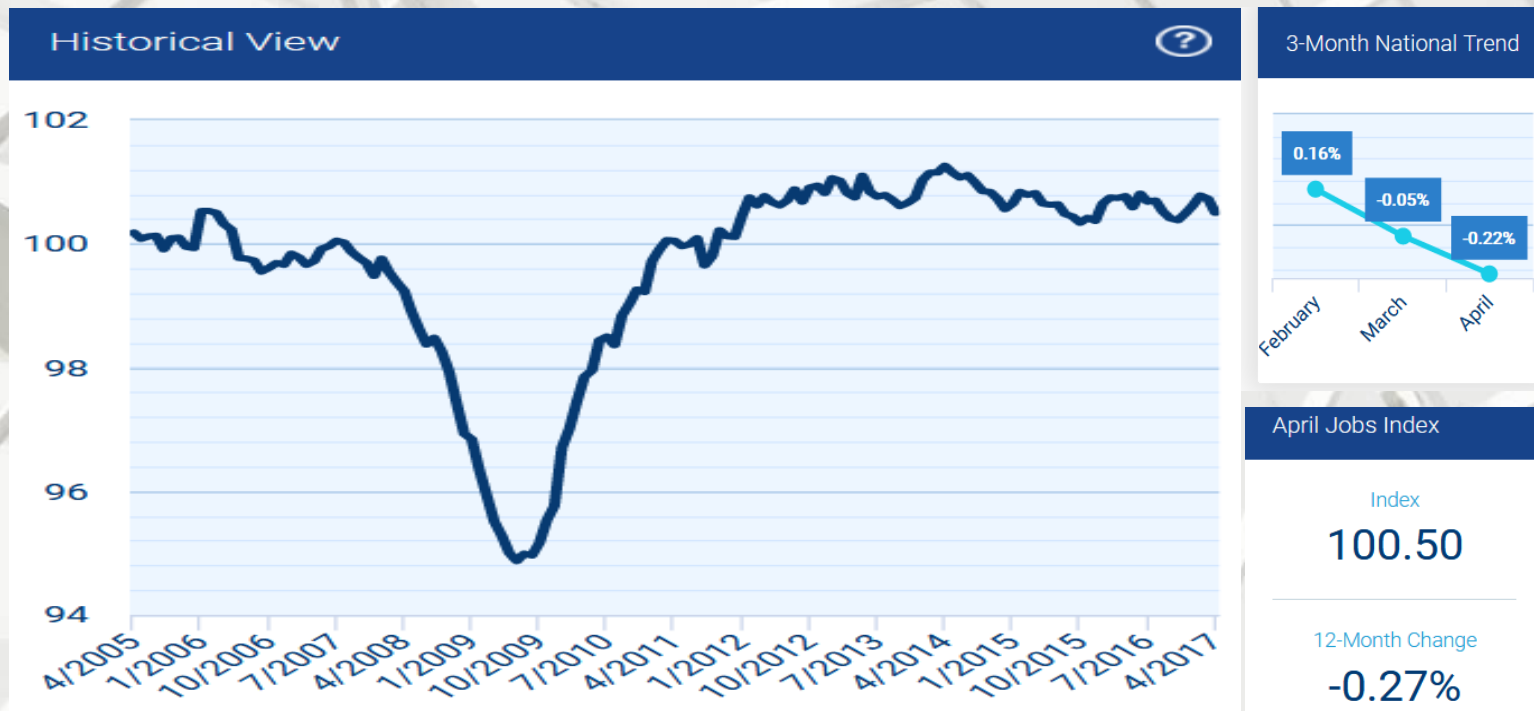
Small Business Optimism Index hovers near record levels, but expectations for future business conditions plunge after Congress fumbles Obamacare Repeal

“The Index dipped 0.2 points April, settling at 104.5. April was the sixth straight month for historically high optimism, a hot streak not seen since 1983. Five of the Index components posted a gain, reaching levels not seen since before the previous administration. Three of the components declined, and two were unchanged. Nearly all of the slight decline was attributable to an 8-point plunge in expected business conditions. Most of the data were collected immediately after Congress failed to repeal and replace Obamacare.”

“Expected business conditions is the most volatile component of the Index. Small business owners want Congress and the White House to address the high cost of health care, which has been their top concern for more than 30 years. When that effort failed in March, expectations for better business conditions collapsed.” – William Dunkelberg, Chief Economist, National Federation of Independent Business

“Small business owners were measurably shaken when Congress failed to address one of their most important concerns. Obamacare has crushed small businesses. Small business owners expected the White House and Congress to address that problem. Their failure to do so caused volatility in the Optimism Index.” – Juanita Duggan, President and CEO, National Federation of Independent Business

Private Indicators



The Paychex | IHS Small Business Jobs Index

“The national index gave up its 2017 gains in April, and is now 0.27 percent below last year’s employment growth level. The Small Business Jobs Index in April lost all the momentum gained early in the year, declining 0.22 percent to 100.50.

All four regions slowed in April, with the Midwest falling the most, as job growth retrenched back to its 2016 pace. The decline in April was broadly based across sectors; Leisure and Hospitality declined the most, but still boasts the strongest 12-month growth rate and the second-highest ranked index among industries, at 101.31. Ahead of only Manufacturing, Professional and Business services fell below 99, its weakest job growth level since 2010.” – James Diffley, Chief Regional Economist, IHS Markit

Private Indicators

“The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 5.8% annual gain in February, up from 5.6% last month and setting a 32-month high. The 10-City Composite posted a 5.2% annual increase, up from 5.0% the previous month. The 20-City Composite reported a year-over-year gain of 5.9%, up from 5.7% in January.”

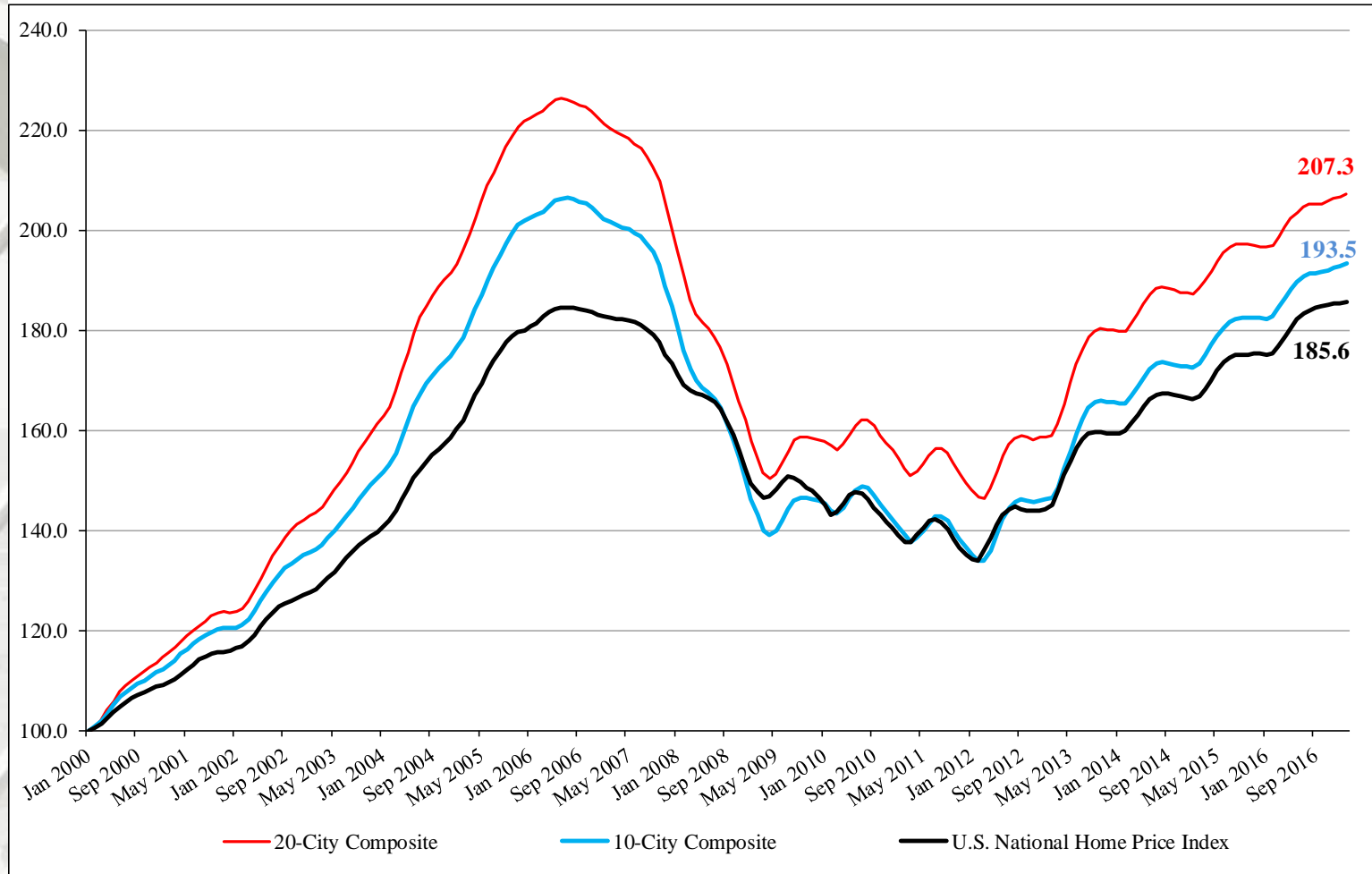
The S&P CoreLogic Case-Shiller National Home Price NSA Index Sets Fourth Consecutive All-time High

“Housing and home prices continue to advance. The S&P Corelogic Case-Shiller National Home Price Index and the two composite indices accelerated since the national index set a new high four months ago. Other housing indicators are also advancing, but not accelerating the way prices are. As per National Association of Realtors sales of existing homes were up 5.6% in the year ended in March. There are still relatively few existing homes listed for sale and the small 3.8 month supply is supporting the recent price increases. Housing affordability has declined since 2012 as the pressure of higher prices has been a larger factor than stable to lower mortgage rates.

Housing’s strength and home building are important contributors to the economic recovery. Housing starts bottomed in March 2009 and, with a few bumps, have advanced over the last eight years. New home construction is now close to a normal pace of about 1.2 million units annually, of which around 800,000 are single family homes. Most housing rebounds following a recession only last for a year or so. The notable exception was the boom that set the stage for the bubble. Housing starts bottomed in 1991, drove through the 2000-2001 recession, and peaked in 2005 after a 14-year run.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

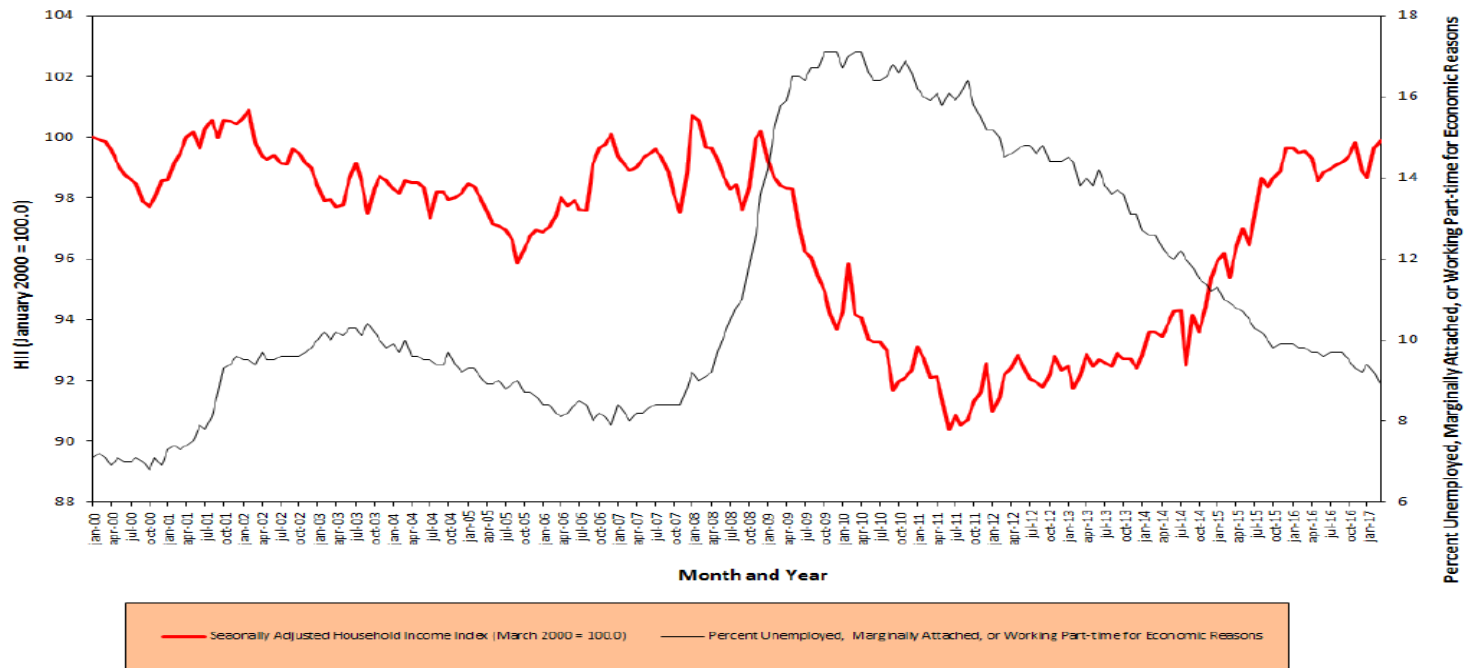
Private Indicators

S&P/Case-Shiller Home Price Indices



Demographics

Figure 3.
Median Household Income Index (HII) and Percent Unemployed, Marginally Attached, or Working Part-time for Economic Reasons by Month, January 2000 to March 2017



Sources: For income data: Sentier Research, LLC estimates of annual household income derived from the monthly Current Population Survey (CPS) conducted by the U.S. Census Bureau; for the percent unemployed, marginally attached, or working part-time for economic reasons and the CPI-U: the U.S. Bureau of Labor Statistics.

Sentier Research Household Income Trends: March 2017

“According to new data derived from the monthly Current Population Survey (CPS), median annual household income in March 2017 was \$58,673, not significantly different than the February 2017 median of \$58,545. Median household income at the beginning of the great recession in December 2007 was \$58,058, so the current median is 1.1 percent above that level. The Sentier Household Income Index (HII) for March 2017 was 99.9 not significantly different from the February 2017 reading of 99.7 (January 2000 = 100). The level of real median annual household income in January 2000 was \$58,748, which marks the beginning of this statistical series.” – Gordon Green and John Coder, Sentier Research

Demographics

Student Debt's Drag on Homeownership

“For eight years in a row now, homeownership has fallen in the first quarter, and we expect another small decline to be announced tomorrow. In our book [Big Shifts Ahead](#), we forecast homeownership of 60.8% by 2025. Demographics are the most certain drag on homeownership. 10.6 million current homeowners whose generations achieved an 80% homeownership rate should pass away or move into an assisted living facility over the next ten years.

A generation of young adults saddled with student debt and who have experienced economic growth at less than half of the rate of their parents (see GDP growth per person during prime working years below) will almost certainly be unable to equal the homeownership of prior generations.

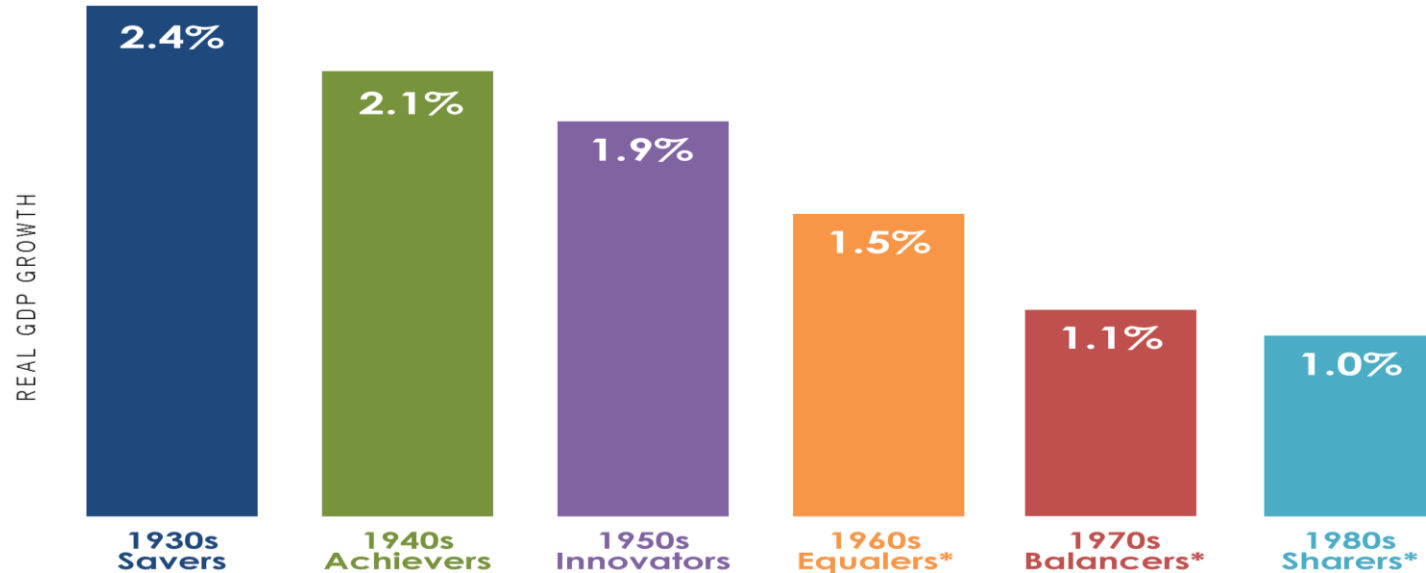
We first called out the student loan home buying problem in [2008](#) and have been fine-tuning the analysis ever since. ([Here is a link to nine articles we have written.](#)) In 2014, we wrote a 30-page paper concluding that student debt was costing the US 414,000 transactions per year, or \$83 billion per year in home sales. Younger households will buy about 932,000 homes per year instead of the normal 1.35 million. [You can view our summary here.](#) For the first time, [we are making the 2014 paper available to non-clients.](#) 5.9 million households headed by someone under the age of 40 pay \$250 or more per month in student loans. These payments make saving a down payment extremely difficult and reduce these prospective home buyers' mortgage qualification by at least \$44,000.

With these demographic headwinds, we find it very hard to believe that so many people believe homeownership will rebound.” – John Burns, CEO, John Burns Real Estate Consulting LLC

Demographics

Declining Economic Growth

AVERAGE GDP GROWTH PER PERSON—PRIME WORKING YEARS (25–54)



* Prime working years not yet complete
Source: John Burns Real Estate Consulting, LLC calculations of Bureau of Economic Analysis data (Pub: Apr-17)

JOHN BURNS
REAL ESTATE CONSULTING

“However, this is not a death knell for housing. The homeownership rate is just a calculation. **15.8 million** renter households (of all ages) are expected to become homeowners over the 10-year period, and they would much prefer a new home if they can afford it. Companies like LGI Homes, DR Horton, and Smith Douglas have been building affordable homes on the fringes, and many other builders are building townhomes and detached homes on small lots closer to the employment centers. We feature the [most innovative, cost-effective high-density designs each month](#). While new homes have become an even larger premium per square foot over resale homes, the rise in educated couples who married and had children later also means they are further along in their careers and making more money. Our consulting team is seeing a rise in 30+ year old first-time home buyers, which is a trend we think will continue. We just won’t get back to 65%+ homeownership.” – John Burns, CEO, John Burns Real Estate Consulting LLC

Demographics

The New Suburban Crisis

“The middle of our suburban geography is being hollowed out: Growth is bypassing the older suburban areas between the two poles of urban center and outlying development.

Indeed, with their enormous physical footprints, shoddy construction, and hastily installed infrastructure, many suburbs are visibly crumbling. Across the nation, hundreds of [suburban shopping malls are dead or dying](#); countless suburban factories, like their urban counterparts a couple of generations ago, have fallen silent.

Incongruous as it might seem, the suburban dimension of the New Urban Crisis may well turn out to be bigger than the urban one, if for no other reason than the fact that more Americans live in suburbs than cities. Members of the privileged elite may be returning to the urban cores, but large majorities of almost everyone else continue to locate in the suburbs. Today’s suburbs no longer look much like the lily-white places portrayed on sitcoms like *Leave It to Beaver*, *The Donna Reed Show*, or *Father Knows Best*. [More than half of immigrants](#) now bypass cities altogether and settle directly in outskirts of larger metros. Whites accounted for [just 9 percent](#) of suburban population growth in America’s 100 largest metros between 2000 and 2010; in one-third of those metros, white suburban populations declined.” – Richard Florida, Co-founder and Editor at Large, CityLab

Demographics

The New Suburban Crisis

“Across the United States, more than one in four suburbanites are poor or nearly poor. In fact, the suburbs of America’s largest metropolitan areas have more poor people living in them than their inner cities do, and poverty is also growing at a much faster rate in the suburbs. Between 2000 and 2013, the number of people living below the poverty line in American cities increased by 29 percent. During that same period, the ranks of the suburban poor grew by 66 percent. Seventeen million suburbanites lived below the poverty line in 2013, compared to 13.5 million urbanites. Concentrated poverty also resides in the suburbs — the numbers of the suburban poor who lived in neighborhoods of where at least 40 percent of residents were below the poverty line grew by 139 percent between 2000 and 2012. That’s triple the growth rate for concentrated poverty populations in the cities. ...

The current opioid epidemic has deep roots in the suburbs. Furthermore, the violent crime rate — which has been declining across the United States — fell three times faster in America’s primary cities than it did in their suburbs between 1990 and 2008. Murders actually rose by 16.9 percent in the suburbs between 2001 and 2010, while falling by 16.7 percent in cities. Many, if not most, of America’s mass shootings occur in suburbs, from Columbine to Sandy Hook.” – Richard Florida, Co-founder and Editor at Large, CityLab

Demographics

The New Suburban Crisis

“Not all suburbs are experiencing decline and desolation, of course, any more than all cities are. Many of the immigrants and members of minority groups who are moving to them are no less aspirational than my parents were, and many are more affluent. Although some parts of suburbia are stagnating or declining, there are large areas of affluence and growth. ...

Just as in our cities, some parts of our suburbs are rich, and others are poor. Some are growing quickly, and some are in decline. Growth today is in fact concentrated in dense urban areas and at suburbia’s far-flung peripheries. Population growth is occurring fastest in the farthest-out (or “suburbiest”) parts of suburbs and in the densest urban neighborhoods, as real estate economist Jed Kolko [wrote for CityLab in 2015](https://www.citylab.com/housing/2017/05/the-new-suburban-crisis/521709/). It’s far less expensive to build on the wide-open, undeveloped land in outlying areas than anywhere else, and it’s easier to grow fast when you’re starting from nothing. The densest urban places are attracting people and jobs because of their convenience and improved productivity. Meanwhile, the middle of our suburban geography is being hollowed out and squeezed economically: Growth is bypassing the older suburban areas that lie between the two poles of urban center and outlying new development.” – Richard Florida, Co-founder and Editor at Large, CityLab

Demographics

The New Suburban Crisis

“When all is said and done, the suburban crisis reflects the end of a long era of cheap growth. Building roads and infrastructure and constructing houses on virgin land was and is an incredibly inexpensive way to provide an American Dream to the masses, certainly when compared to what it costs to build new subway lines, tunnels, and high-rise buildings in mature cities. For much of the 1950s, 1960s, and 1970s, and on into the 1980s and 1990s, suburbanization was the near-perfect complement to America’s industrial economy. More than the great mobilization effort of World War II or any of the Keynesian stimulus policies that were applied during the 1930s, it was suburban development that propelled the golden era of economic growth in the 1950s and 1960s. As working- and middle-class families settled into suburban houses, their purchases of washers, dryers, television sets, living-room sofas, and automobiles stimulated the manufacturing sector that employed so many of them, creating more jobs and still more homebuyers. Sprawl was driver of the now-fading era of cheap economic growth. ...” – Richard Florida, Co-founder and Editor at Large, CityLab

Demographics

A Single-Family Rental Surge

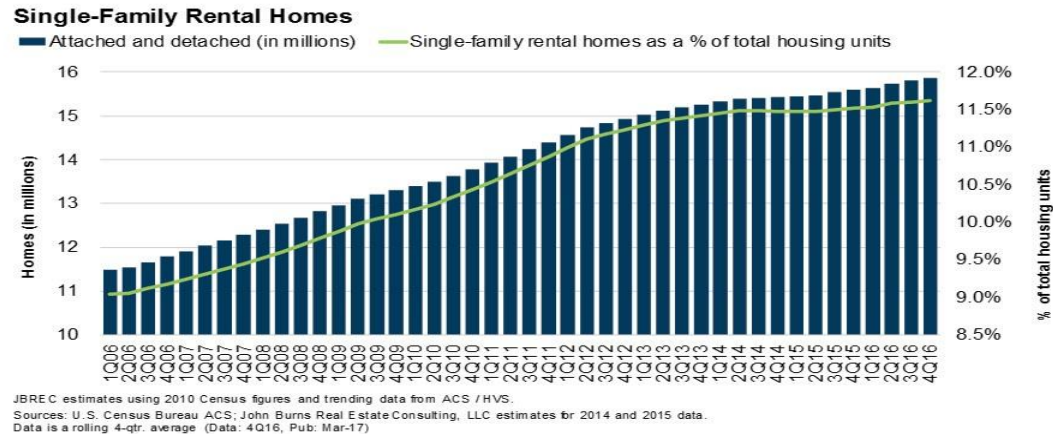
“If demographics are destiny then the future looks very bright for the single-family rental market. That was the takeaway from a presentation and panel discussion with John Burns, CEO of John Burns Real Estate Consulting, and Dallas Tanner, chief investment officer and founding member of Invitation Homes, at the [2017 NMHC Research Forum](#).

Burns kicked off the discussion with a deep dive into his [new approach](#) to defining generations by decade. Rather than just defining a generation by age cohort, Burns also looked at where they were born and other defining characteristics and then filtered that analysis through what he called the 4-5-6 rule. This involves looking at key government policies like immigration, economic conditions, tech advancements and societal shifts like changing attitudes towards having children out of wedlock and same-sex marriage and provides the backdrop to begin to answer key questions about housing demand.

Burns said this methodology has led to a number of critical housing insights. By his estimates, 12.5 million net new households should form over the next decade, with 58 percent of them renting their homes. Today, there are 45.7 million rental units; 27.7 million are apartments, 15.9 million are either single-family detached or attached (i.e., duplexes and townhomes) and the balance are mobile homes.” – National Multifamily Housing Council

Demographics

15.9 MILLION SINGLE-FAMILY RENTAL HOMES;
NOW 11.6% OF ALL HOUSING UNITS



NMHC

A Single-Family Rental Surge

“Single-family rentals have been on the rise, now accounting for 11.6 percent of all housing. But in some markets like Las Vegas, Miami and Riverside-San Bernardino, they account for more than a quarter of the single-family stock.

Despite the growth, less than 1 percent of the single-family rental stock is owned by investors with scale (>1,000 houses in portfolio). This fractionalization suggests that not only is there strong demand but there’s also opportunity for institutional investment and professionalization to accelerate the sector’s growth.” – National Multifamily Housing Council

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