

The Virginia Tech – U.S. Forest Service

January 2016

Housing Commentary: Section II



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Table of Contents

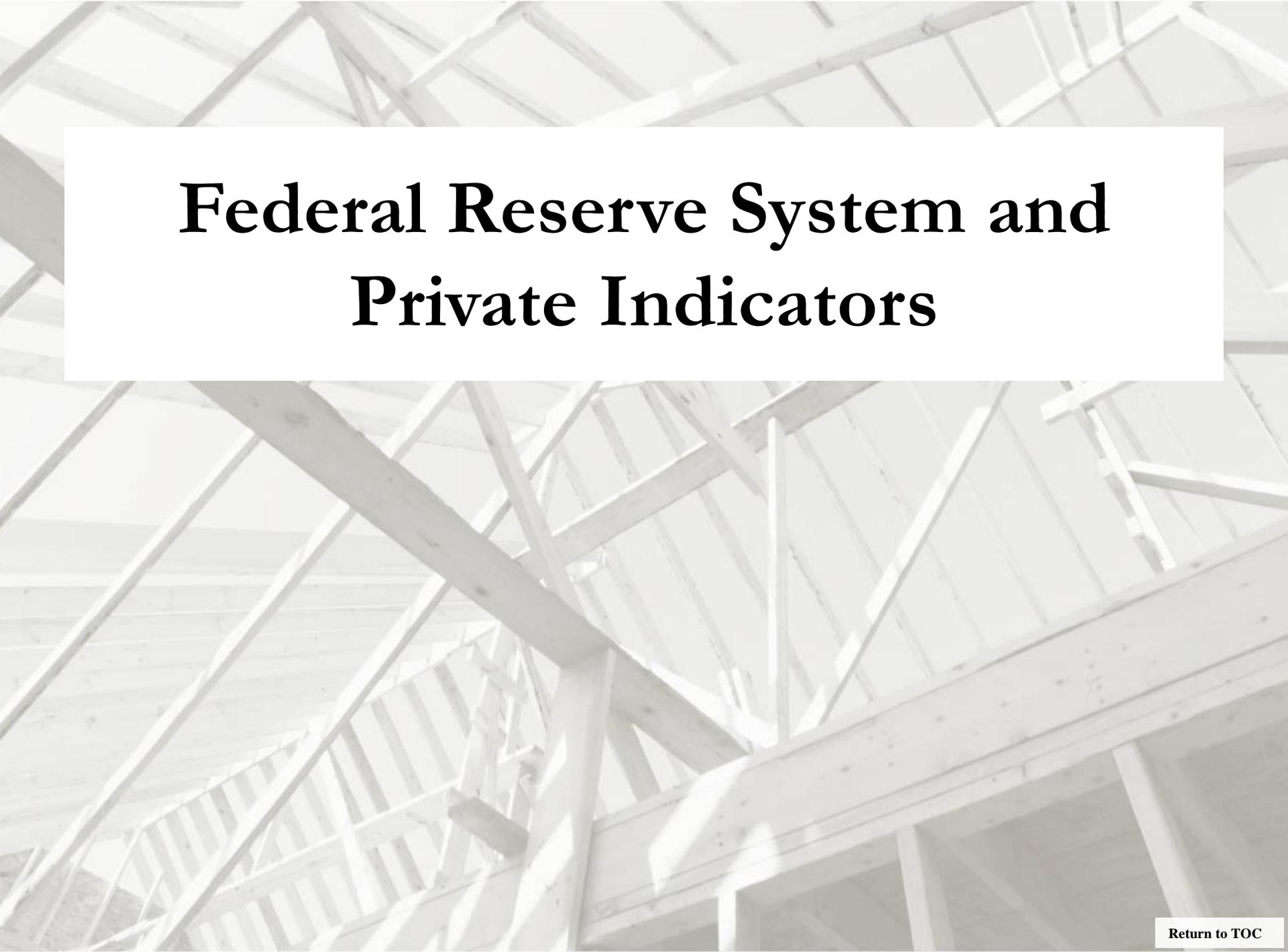
Slide 3: [Federal Reserve System Indicators](#)

Slide 27: [Private Indicators](#)

Slide 54: [Demographics](#)

Slide 65: [Virginia Tech Disclaimer](#)

Slide 66: [USDA Disclaimer](#)



Federal Reserve System and Private Indicators

Board of Governors of the Federal Reserve System

2016 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule

Baseline Scenario

“The baseline scenario for the United States is a moderate economic expansion through the projection period. Real GDP grows at an average rate of 2½ percent per year. The unemployment rate declines to 4½ percent in the middle of 2017 and remains near that level through the end of the scenario period. CPI inflation rises to 2½ percent at an annual rate by the middle of 2017 before dropping back to about 2 percent in the first quarter of 2018 and remaining near that level thereafter.

Nominal house prices rise an average of 2¾ percent per year and commercial real estate prices rise an average of 4¼ percent per year (Slide 7).” – Board of Governors of the Federal Reserve System

Board of Governors of the Federal Reserve System

2016 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule

Adverse Scenario

“The adverse scenario features a moderate U.S. recession that begins in the first quarter of 2016. Real GDP in the United States falls 1¾ percent from the pre-recession peak in the fourth quarter of 2015 to the recession trough in the first quarter of 2017, while the unemployment rate rises steadily, peaking at 7½ percent in the middle of 2017. The U.S. recession is accompanied by a mild deflationary period, with consumer prices falling about ½ percent over the four quarters of 2016.

Aggregate house prices and commercial real estate prices experience moderate declines; commercial real estate prices fall 12 percent through the third quarter of 2017 and house prices fall 12 percent through the third quarter of 2018 (Slide 7).” – Board of Governors of the Federal Reserve System

Board of Governors of the Federal Reserve System

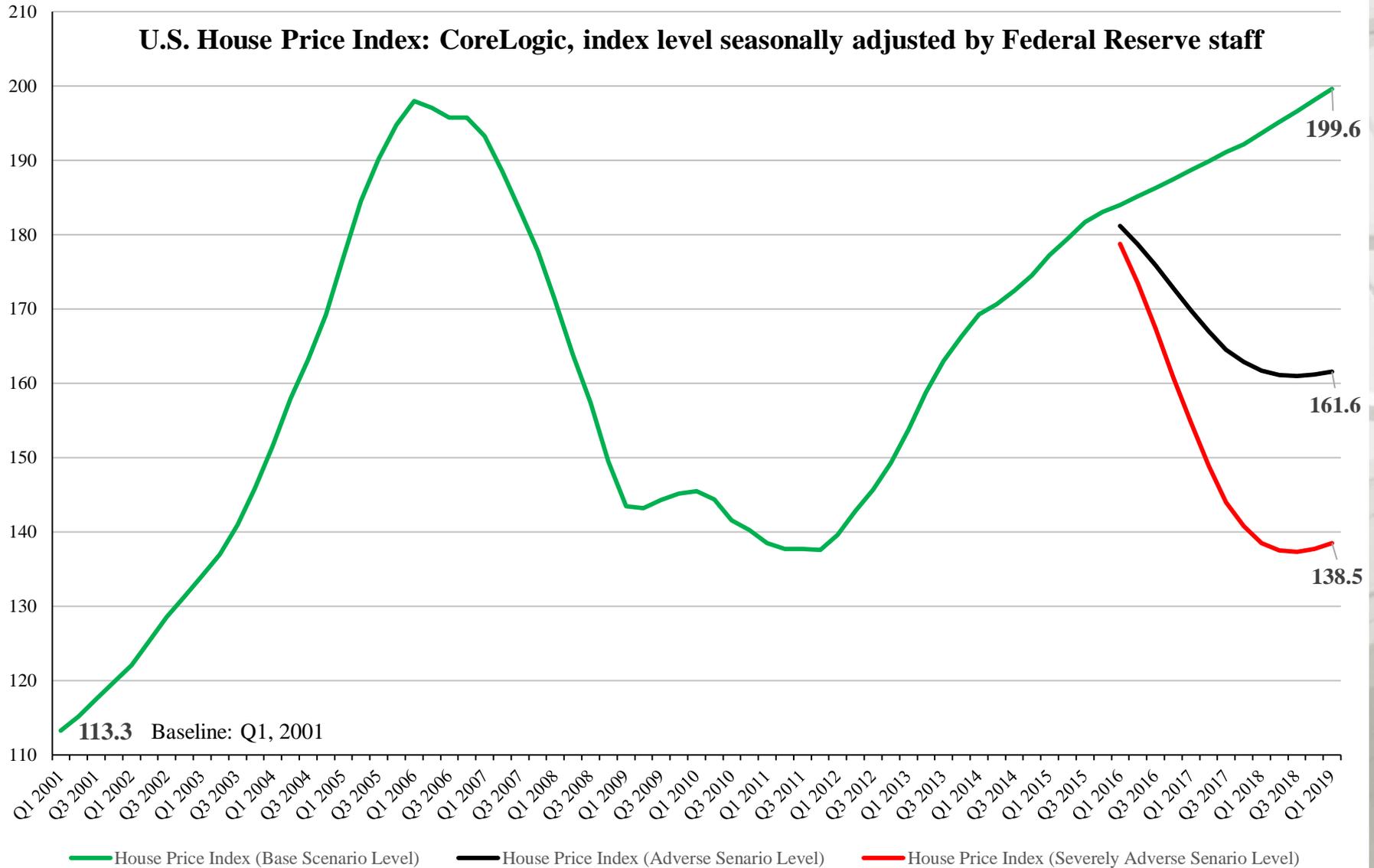
2016 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule

Severely Adverse Scenario

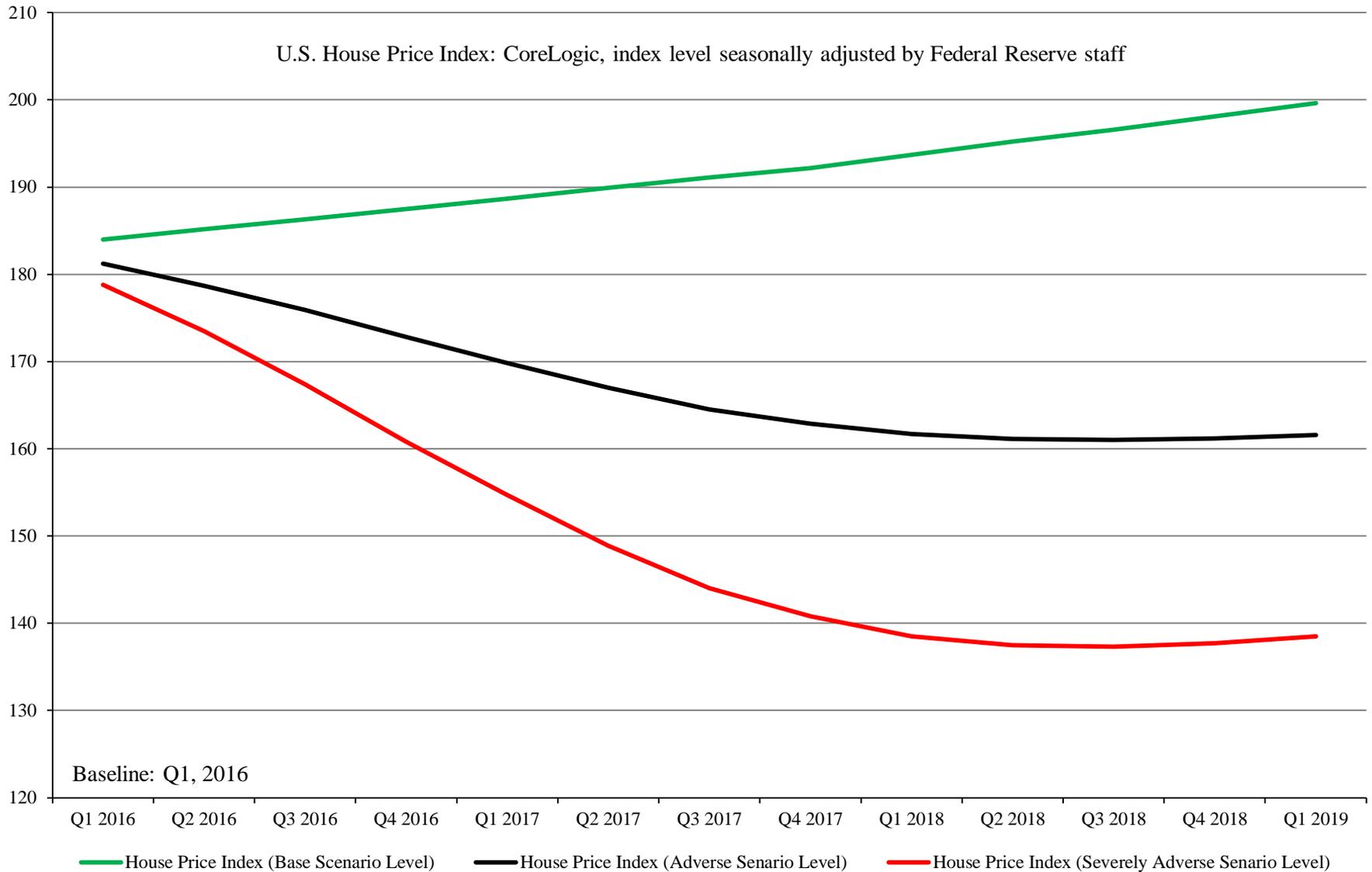
“In this scenario, the level of U.S. real GDP begins to decline in the first quarter of 2016 and reaches a trough in the first quarter of 2017 that is 6¼ percent below the pre-recession peak. The unemployment rate increases by 5 percentage points, to 10 percent, by the middle of 2017 and headline consumer price inflation rises from about ¼ percent at an annual rate in the first quarter of 2016 to about 1¼ percent at an annual rate by the end of the recession.

House prices and commercial real estate prices also experience considerable declines, with house prices dropping 25 percent through the third quarter of 2018 and commercial real estate prices falling 30 percent through the second quarter of 2018 (Slide 7).” – Board of Governors of the Federal Reserve System

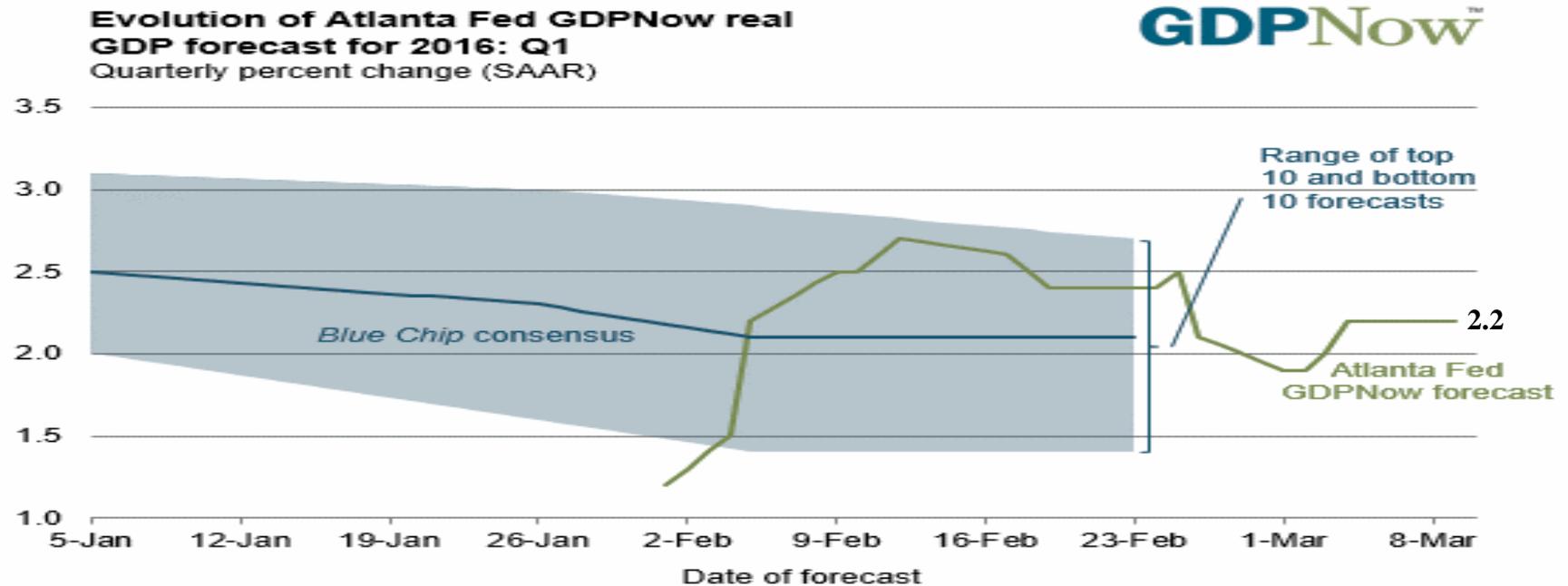
Board of Governors of the Federal Reserve System



Board of Governors of the Federal Reserve System



Atlanta Fed: GDPNow™



Sources: Blue Chip Economic Indicators and Blue Chip Financial Forecasts

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the first quarter of 2016 is 2.2 percent on March 9, unchanged from March 4. The forecast for the contribution of inventory investment to first-quarter real GDP growth declined from -0.28 percentage points to -0.33 percentage points after this morning's wholesale trade report from the U.S. Census Bureau. This update also incorporates data on imports and exports of services in January from last Friday's international trade report not included in the previous GDPNow update. This caused the contribution of net exports to first-quarter real GDP growth to increase from -0.35 percentage points to -0.31 percentage points.” – Pat Higgins, Economist, The Federal Reserve Bank of Atlanta

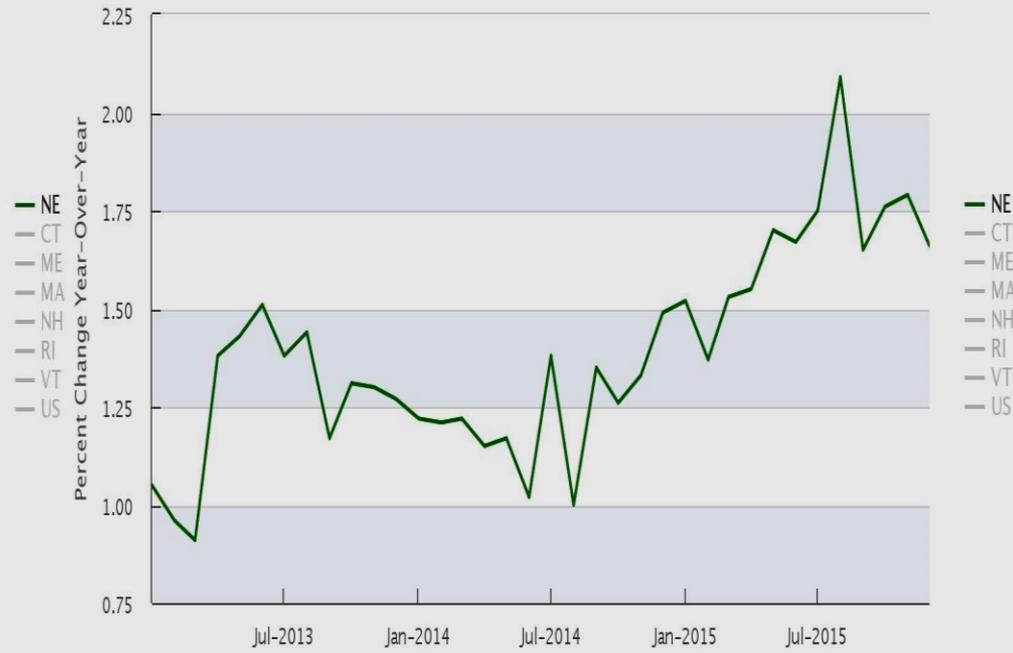
U.S. Economic Indicators

Total Nonfarm



Source: U.S. Bureau of Labor Statistics / New England Economic Indicators

Payroll Employment



Source: U.S. Bureau of Labor Statistics / New England Economic Indicators

New England Labor Market Indicators

Change Previous
12 Months

Average of Monthly Data

Q1-15 Q2-15 Q3-15 Q4-15

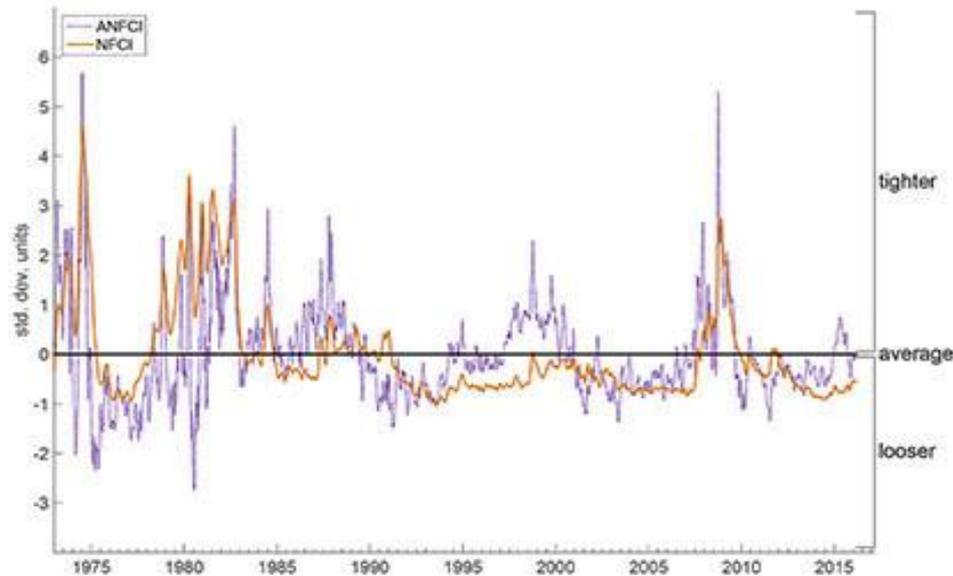
Sep-15 Oct-15 Nov-15 Dec-15

Total Nonfarm: 119.4 7,185.3 7,227.5 7,259.3 7,282.6 7,255.2 7,270.2 7,285.5 7,292.1

Source: <http://economicindicators.bostonfed.org/EconIndicators/index.html>; 2/5/16

[Return to TOC](#)

U.S. Economic Indicators



| | Current | Previous | 1 Month Ago | 3 Months Ago | 6 Months Ago | 12 Months Ago |
|-------|----------|-----------|-------------|--------------|--------------|---------------|
| Index | 3/4/2016 | 2/26/2016 | 2/5/2016 | 12/4/2015 | 9/4/2015 | 3/6/2015 |
| NFCI | -0.56 | -0.55 | -0.54 | -0.64 | -0.63 | -0.72 |
| ANFCI | -0.04 | -0.04 | -0.11 | -0.45 | 0.36 | 0.30 |

Financial Conditions Ease Slightly in Week Ending March 4

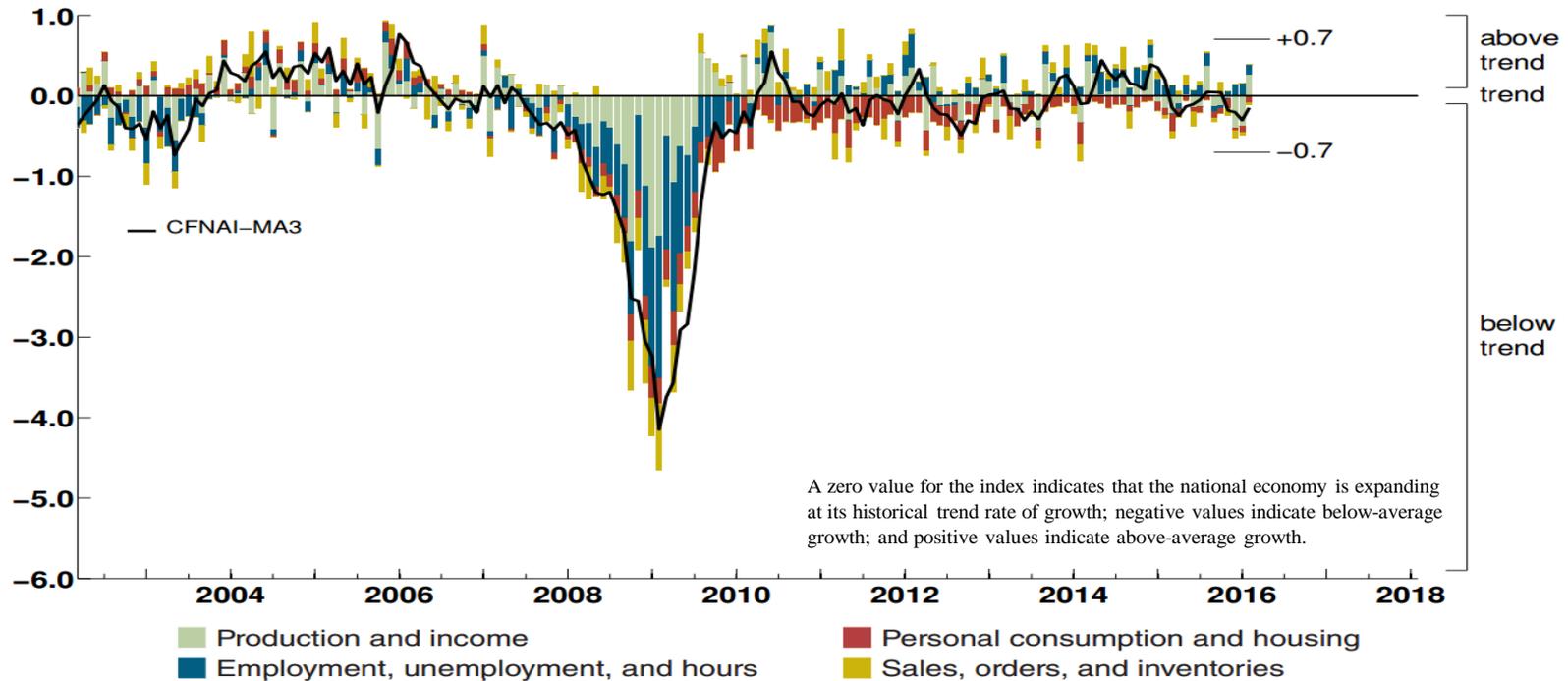
“The NFCI ticked down to -0.56 in the week ending March 4. The risk and credit subindexes both ticked down, while the leverage subindex ticked up and the nonfinancial leverage subindex was unchanged.”

The Federal Reserve Bank of Chicago

“The ANFCI held steady at -0.04 in the latest week. The current level of the ANFCI indicates that financial conditions in the latest week were roughly consistent with 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).”

Chicago Fed: National Activity Index

Chicago Fed National Activity Index, by Categories, and CFNAI-MA3

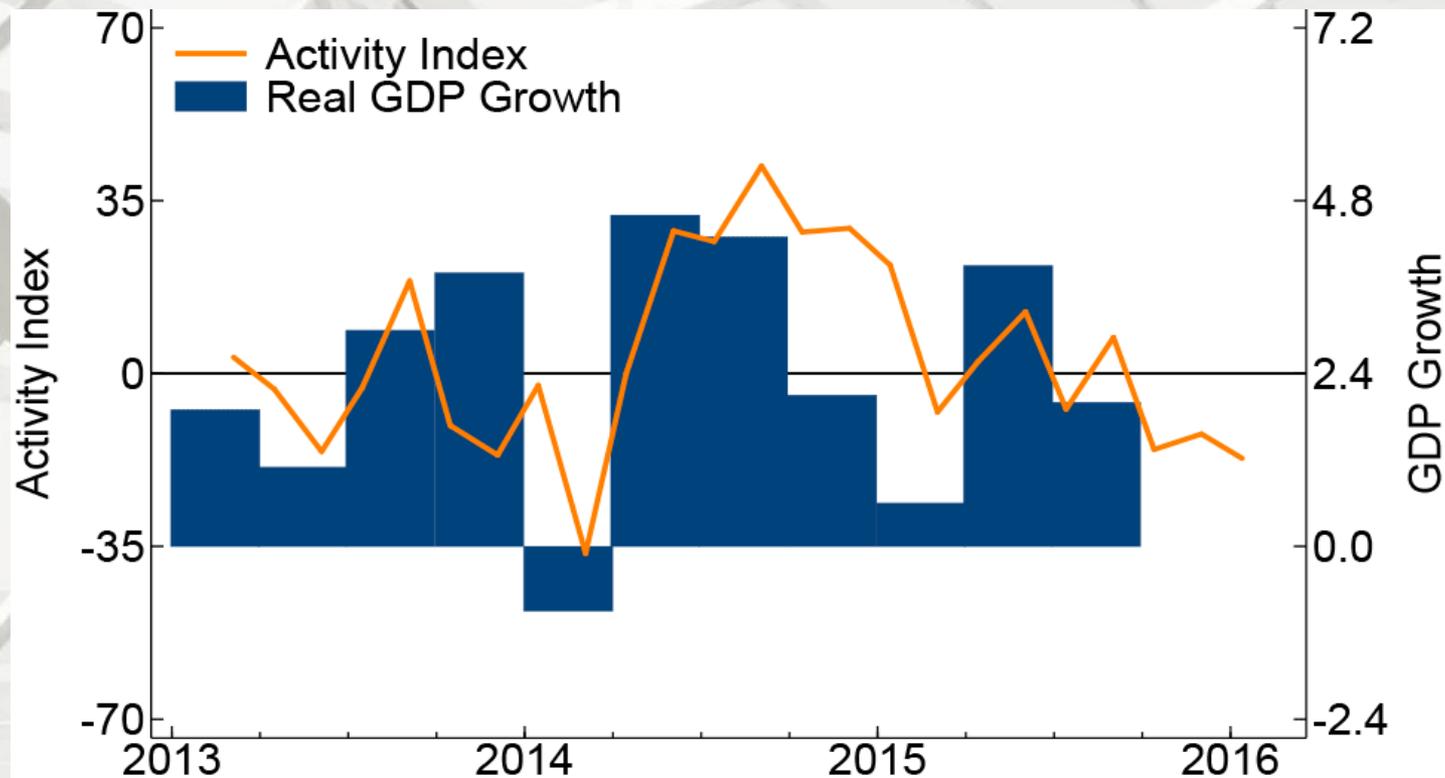


Index shows economic growth picked up in January

“Led by improvements in production-related indicators, the Chicago Fed National Activity Index (CFNAI) rose to +0.28 in January from -0.34 in December. Two of the four broad categories of indicators that make up the index increased from December, and two of the four categories made positive contributions to the index in January.

The index’s three-month moving average, CFNAI-MA3, increased to -0.15 in January from -0.30 in December. January’s CFNAI-MA3 suggests that growth in national economic activity was somewhat below its historical trend. The economic growth reflected in this level of the CFNAI-MA3 suggests subdued inflationary pressure from economic activity over the coming year.” – The Federal Reserve Bank of Chicago

Chicago Fed: Survey of Business Conditions



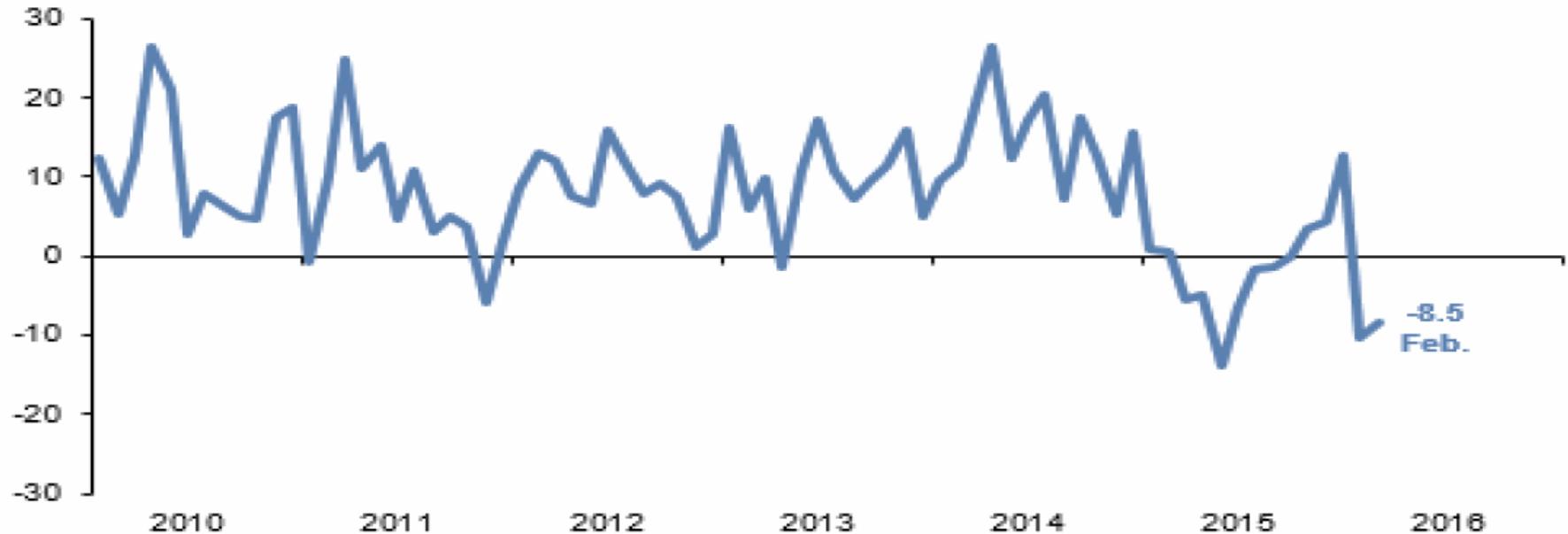
Note: Average real gross domestic product (GDP) growth over the reporting range is 2.4 percent.
Source: GDP data from the U.S. Bureau of Economic Analysis from Haver Analytics.

“The Chicago Fed Survey of Business Conditions (CFSBC) Activity Index declined to -17 from -12, suggesting that growth in economic activity continued at a modest pace in late November and December. The CFSBC Manufacturing Activity Index rose to -20 from -37, and the CFSBC Nonmanufacturing Activity Index fell to -16 from zero.” – The Federal Reserve Bank of Chicago

U.S. Economic Indicators

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

The Federal Reserve Bank of Dallas Texas Manufacturing Activity Contracts Again

“Texas factory activity contracted again in February, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index, a key measure of state manufacturing conditions, remained negative but edged up from -10.2 to -8.5, suggesting output declined but at a slightly softer pace than in January.”

U.S. Economic Indicators

The Federal Reserve Bank of Dallas

Texas Manufacturing Activity Falls Sharply

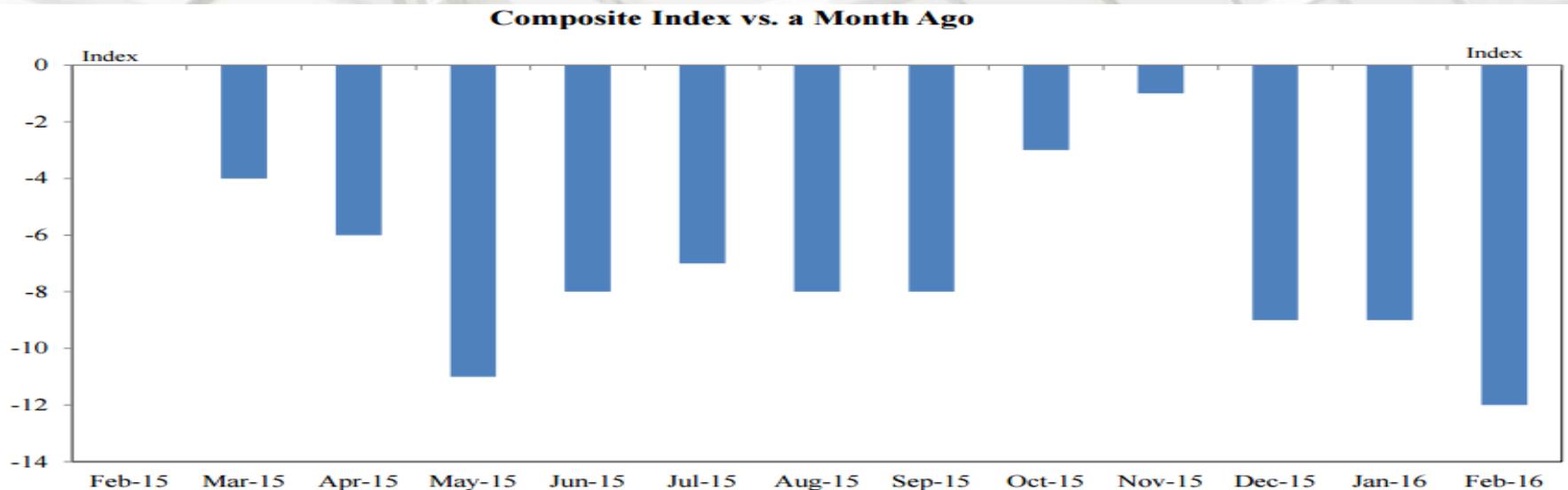
“Most other indexes of current manufacturing activity also indicated further contraction in February. The new orders index fell 8 points to -17.6, reaching its lowest level since May 2009, when Texas was in recession. The growth rate of orders index remained strongly negative at -17.4. The capacity utilization index was largely unchanged at -8.2. Meanwhile, the shipments index rose 10 points to -1.1 after plunging last month.

Perceptions of broader business conditions remained strongly negative in February. The general business activity index has been negative for more than a year and came in at -31.8, up slightly from the January reading. The company outlook index posted a third negative reading in a row but edged up to -17.4. More than a quarter of manufacturers noted their outlook had worsened from January.

Labor market indicators reflected further decline in February. The employment index dropped 7 points to -11.1, hitting its lowest reading since November 2009. Eleven percent of firms noted net hiring, while 22 percent noted net layoffs. The hours worked index was fairly steady at -9.8, suggesting a continued pullback in employee hours.

Expectations regarding future business conditions were mixed in February. The index of future general business activity reversed its 22-point decline in January with a 22-point increase this month, with the index coming in at -2.1. The index for future company outlook rebounded strongly to 15.1 after dipping into negative territory last month. Indexes for future manufacturing activity pushed further into positive territory. ”

U.S. Economic Indicators



The Federal Reserve Bank of Kansas City Tenth District Manufacturing Activity Declined Further

“Factories reported a slightly larger decline in February than in previous months. Energy-related firms generally had a negative outlook, but firms overall remained slightly optimistic about future factory activity.

Year-over-year factory indexes were mostly lower than the previous month. The composite year-over-year index decreased from -13 to -20, and the production, shipments, and new orders indexes also moved further into negative territory. The employment index dropped from -15 to -26, its lowest level in nearly six years. The new orders for exports index fell from -4 to -13, while the capital expenditures index remained stable but weak. The raw materials inventory index moved slightly lower, while the finished goods inventory index was unchanged.

Most future factory indexes were stable or slightly higher than last month. The future composite index was basically unchanged at 4, while the future production, shipments, and new orders indexes increased modestly. In contrast, the future employment index eased slightly but still remained positive. The future order backlog index decreased from -2 to -6, and capital expenditures indexes also fell moderately. Both future inventory indexes fell further into negative territory.” – Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

The Federal Reserve Bank of Kansas City

Table 1
Summary of Tenth District Manufacturing Conditions, February 2016

| | February vs. January (percent)* | | | | | February vs. Year Ago (percent)* | | | | | Expected in Six Months (percent)* | | | | |
|--------------------------------------|------------------------------------|--------|------|-----|--------------------|-------------------------------------|--------|------|--------------------|----------|--------------------------------------|------|-----|--------------------|--|
| | No | | Diff | SA | Index [^] | No | | Diff | Index [^] | No | | Diff | SA | Index [^] | |
| | Increase | Change | | | | Increase | Change | | | Increase | Change | | | | |
| Plant Level Indicators | | | | | | | | | | | | | | | |
| Composite Index | | | | -11 | -12 | | | | -20 | | | | 4 | 4 | |
| Production | 24 | 43 | 31 | -7 | -8 | 31 | 18 | 49 | -18 | 39 | 37 | 22 | 17 | 16 | |
| Volume of shipments | 20 | 48 | 31 | -11 | -11 | 31 | 16 | 52 | -21 | 42 | 34 | 21 | 21 | 20 | |
| Volume of new orders | 18 | 51 | 30 | -12 | -15 | 23 | 21 | 53 | -30 | 38 | 37 | 22 | 16 | 15 | |
| Backlog of orders | 17 | 49 | 33 | -17 | -17 | 19 | 30 | 49 | -30 | 22 | 48 | 26 | -3 | -6 | |
| Number of employees | 6 | 69 | 24 | -19 | -20 | 22 | 28 | 48 | -26 | 26 | 47 | 24 | 1 | 3 | |
| Average employee workweek | 9 | 67 | 24 | -16 | -14 | 19 | 41 | 38 | -19 | 19 | 61 | 18 | 1 | 1 | |
| Prices received for finished product | 6 | 76 | 19 | -13 | -17 | 27 | 34 | 37 | -10 | 21 | 56 | 21 | 0 | -2 | |
| Prices paid for raw materials | 11 | 69 | 19 | -8 | -11 | 24 | 29 | 44 | -20 | 23 | 54 | 20 | 3 | 6 | |
| Capital expenditures | | | | | | 26 | 34 | 36 | -10 | 18 | 56 | 23 | -6 | -9 | |
| New orders for exports | 7 | 74 | 12 | -6 | -6 | 8 | 63 | 21 | -13 | 10 | 68 | 13 | -3 | -1 | |
| Supplier delivery time | 7 | 83 | 9 | -2 | 0 | 8 | 76 | 13 | -6 | 3 | 87 | 6 | -2 | -2 | |
| Inventories: Materials | 12 | 59 | 28 | -16 | -16 | 22 | 36 | 40 | -18 | 23 | 40 | 33 | -10 | -10 | |
| Inventories: Finished goods | 12 | 60 | 24 | -12 | -14 | 17 | 39 | 40 | -23 | 16 | 43 | 34 | -19 | -21 | |

*Percentage may not add to 100 due to rounding

[^]Diffusion Index. The diffusion index is calculated as the percentage of total respondents reporting increases minus the percentage reporting declines.

[^]SA Seasonally Adjusted Diffusion Index. The month vs. month and expected-in-six-months diffusion indexes are seasonally adjusted using Census X-12.

Note: The February survey included 90 responses from plants in Colorado, Kansas, Nebraska, Oklahoma, Wyoming, northern New Mexico, and western Missouri.

“Tenth District manufacturing activity declined further in February, while producers’ expectations for future activity remained slightly positive. Price indexes were mixed, but most remained in negative territory.

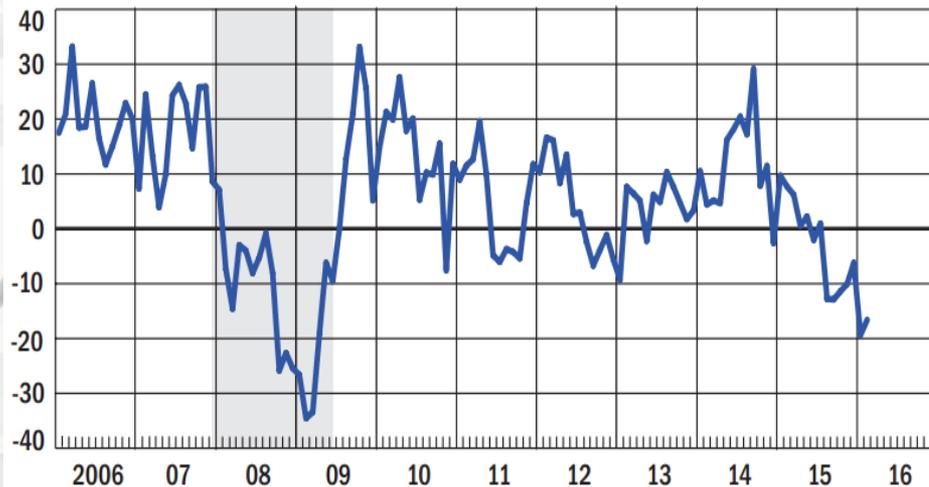
The month-over-month composite index was -12 in February, its lowest level since 2009, down from -9 in January and December. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. The decline came from both durable and nondurable goods factories, particularly for food and beverage, chemical, metals, and plastics production. Activity was fairly weak across District states, in part due to continued low commodity prices for agriculture and energy. Most month-over-month indexes decreased from the previous month. The production index was unchanged, while the shipments and employment indexes decreased further. The new orders and order backlog indexes rose slightly but still remained negative. The raw materials inventory fell from -2 to -16, and the finished goods inventory index also dropped.”

U.S. Economic Indicators

The Federal Reserve Bank of New York

General Business Conditions Seasonally Adjusted

Diffusion index



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

Business Activity Continues to Contract

Business activity declined for a seventh consecutive month for New York manufacturing firms, according to the February 2016 survey. After dropping to its lowest level since the Great Recession in January, the general business conditions index edged up three points to -16.6.

The new orders index climbed 12-points to -11.6, indicating that orders fell, though at a slower pace than last month. The shipments index rose 3-points to -11.6 — a sign that shipments continued to slide. The unfilled orders index advanced 4-points to -6.9. The delivery time index rose 11-points to -2.0 and the inventories index came in at 0, suggesting that delivery times held steady and inventories leveled off.

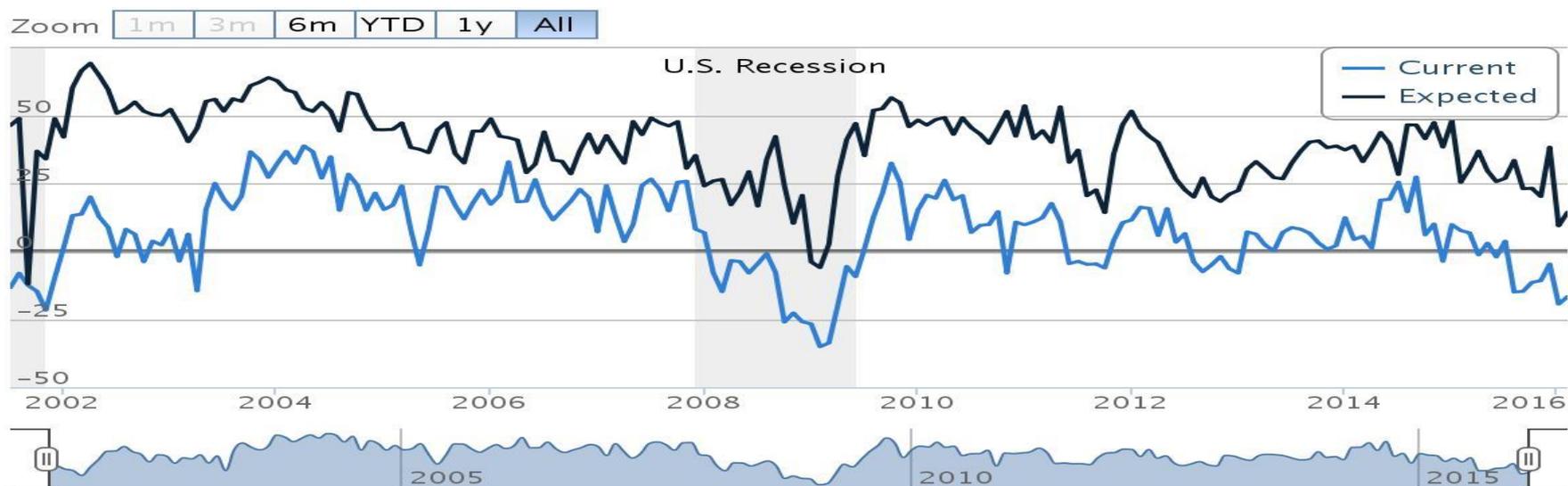
“The February 2016 *Empire State Manufacturing Survey* indicates that business activity continued to decline for New York manufacturers. The headline general business conditions index edged up three points, but remained firmly in negative territory at -16.6. The new orders and shipments indexes indicated an ongoing decline in both orders and shipments. Price indexes suggested a slight increase in input prices and a small drop in selling prices. Employment levels steadied, while the average workweek index pointed to a decrease in hours worked. The six-month outlook remained weak, with the index for future general business conditions up only slightly from last month’s multi-year low.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York

Survey Indicators

Diffusion Index of Current and Expected Activity – Seasonally Adjusted



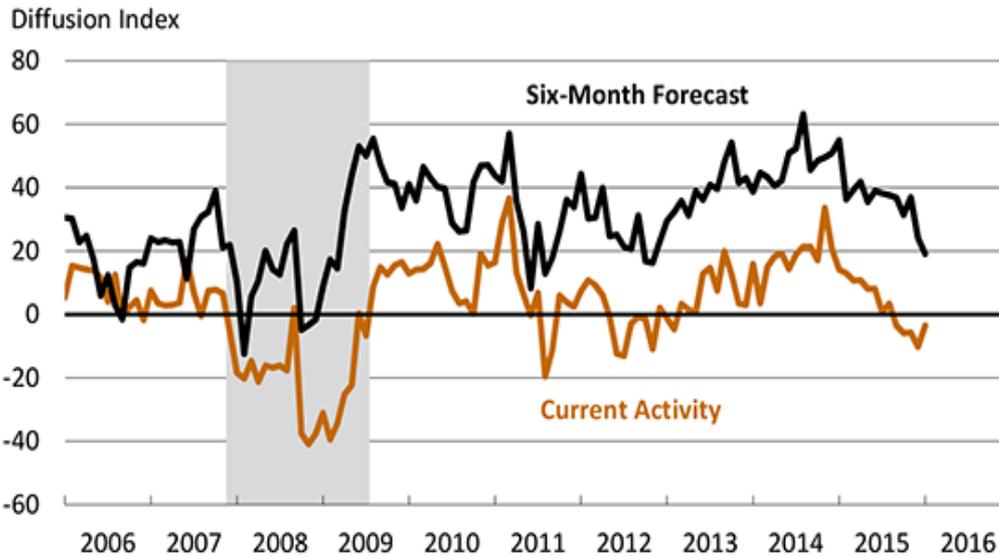
Empire State Manufacturing Survey

Optimism Remains Subdued

“After falling sharply last month, indexes for the six-month outlook revealed that optimism about future business conditions remained weak. The index for future business conditions rose five points to 14.5. The indexes for future new orders and future shipments recovered somewhat after their step declines in January, rising modestly to readings in the low 20s. Employment was expected to increase, with the index for expected number of employees climbing to 16.8. The capital expenditures index held steady at 12.9, and the technology spending index edged down to 5.9.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

Chart 1. Current and Future General Activity Indexes
January 2006 to January 2016



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.

Current Indicators Suggest Continued Weak Activity

“The diffusion index for current activity increased from a reading of -3.5 in January to -2.8 in February and has now been negative for six consecutive months). The index for current new orders remained negative and edged down 4 points, to -5.3.

Firms reported an increase in shipments; the shipments index remained positive for the second consecutive month but fell 7 points from January. Firms reported continued declines in inventories, and the inventories index remained negative. Firms’ backlogs of unfilled orders were in decline again this month, and delivery times were shorter, according to the responding firms.”

The Federal Reserve Bank of Philadelphia

“Firms responding to the *Manufacturing Business Outlook Survey* reported continued weakness in business conditions this month. The indicator for general activity remained slightly negative this month, edging up only marginally from its reading in January. Other indicators offered mixed signals: The shipments index remained positive, but new orders and employment indexes remained negative and declined modestly. The survey’s price indexes suggest that both input prices and selling prices fell this month. With respect to the manufacturers’ forecasts, the survey’s future indicators remained overall positive but showed continued weakening.”

Philadelphia Fed: GDP Growth

Median Forecasts for Selected Variables in the Current and Previous Surveys

| | Real GDP (%) | | Unemployment Rate (%) | | Payrolls (000s/month) | |
|------------------------|--------------|-----|-----------------------|-----|-----------------------|-------|
| | Previous | New | Previous | New | Previous | New |
| <i>Quarterly data:</i> | | | | | | |
| 2016:Q1 | 2.5 | 2.0 | 4.9 | 4.9 | 188.2 | 195.0 |
| 2016:Q2 | 2.6 | 2.5 | 4.8 | 4.8 | 193.5 | 183.2 |
| 2016:Q3 | 2.9 | 2.3 | 4.8 | 4.7 | 192.0 | 195.9 |
| 2016:Q4 | 2.4 | 2.5 | 4.7 | 4.6 | 181.2 | 152.6 |
| 2017:Q1 | N.A. | 2.4 | N.A. | 4.6 | N.A. | 177.1 |

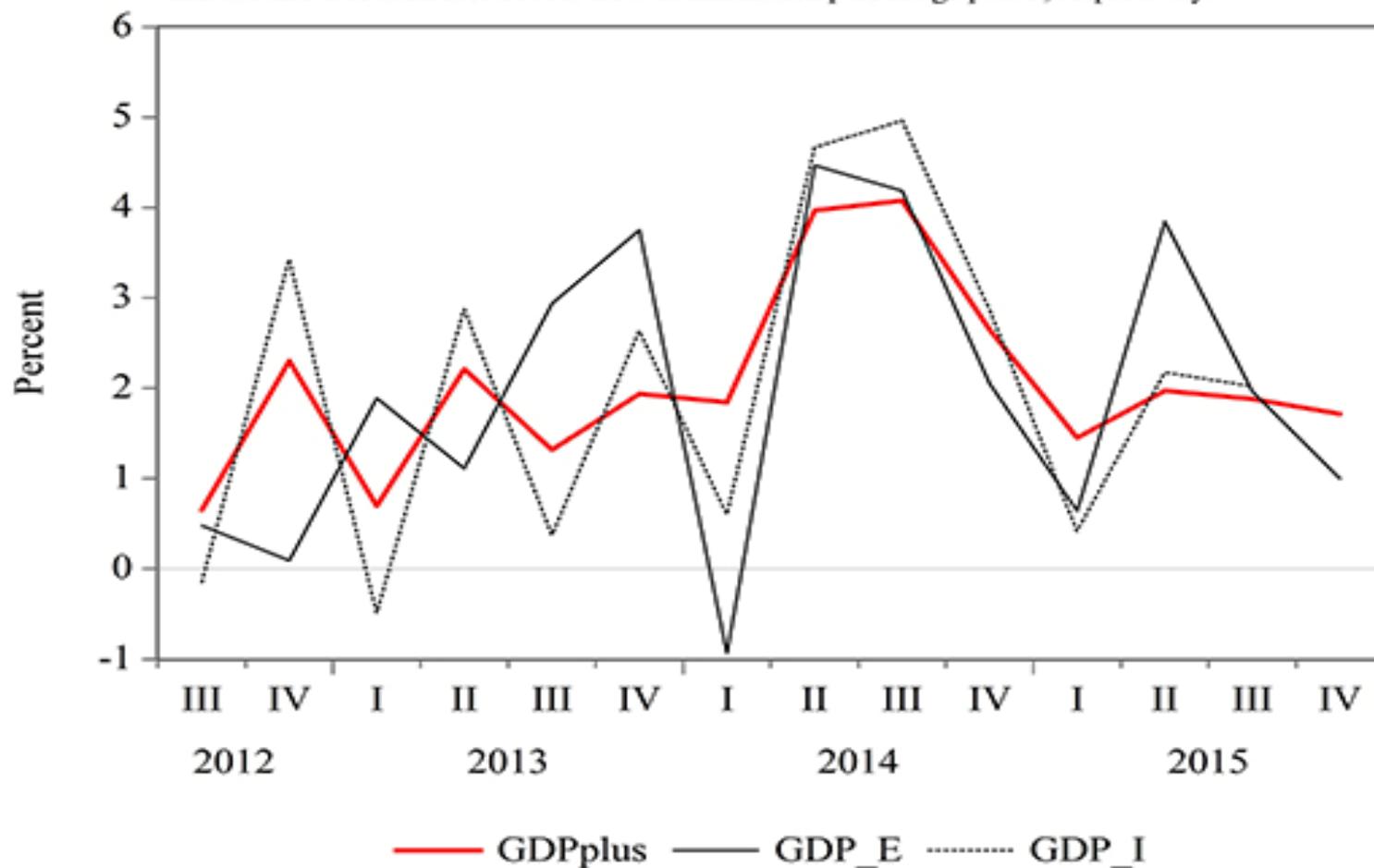
Forecasters Predict Lower Growth over the Next Three Years

“The economy looks weaker now than it did three months ago, according to 40 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The forecasters predict real GDP will grow at an annual rate of 2.0 percent this quarter and 2.5 percent next quarter. On an annual-average over annual-average basis, real GDP will grow 2.1 percent in 2016, down 0.5 percentage point from the previous estimate. The forecasters predict real GDP will grow 2.4 percent in 2017 and 2.7 percent in 2018, both down 0.1 percentage point from the estimates of three months ago. For 2019, real GDP is estimated to grow at 2.3 percent.” – The Federal Reserve Bank of Philadelphia

Philadelphia Fed: GDP Growth

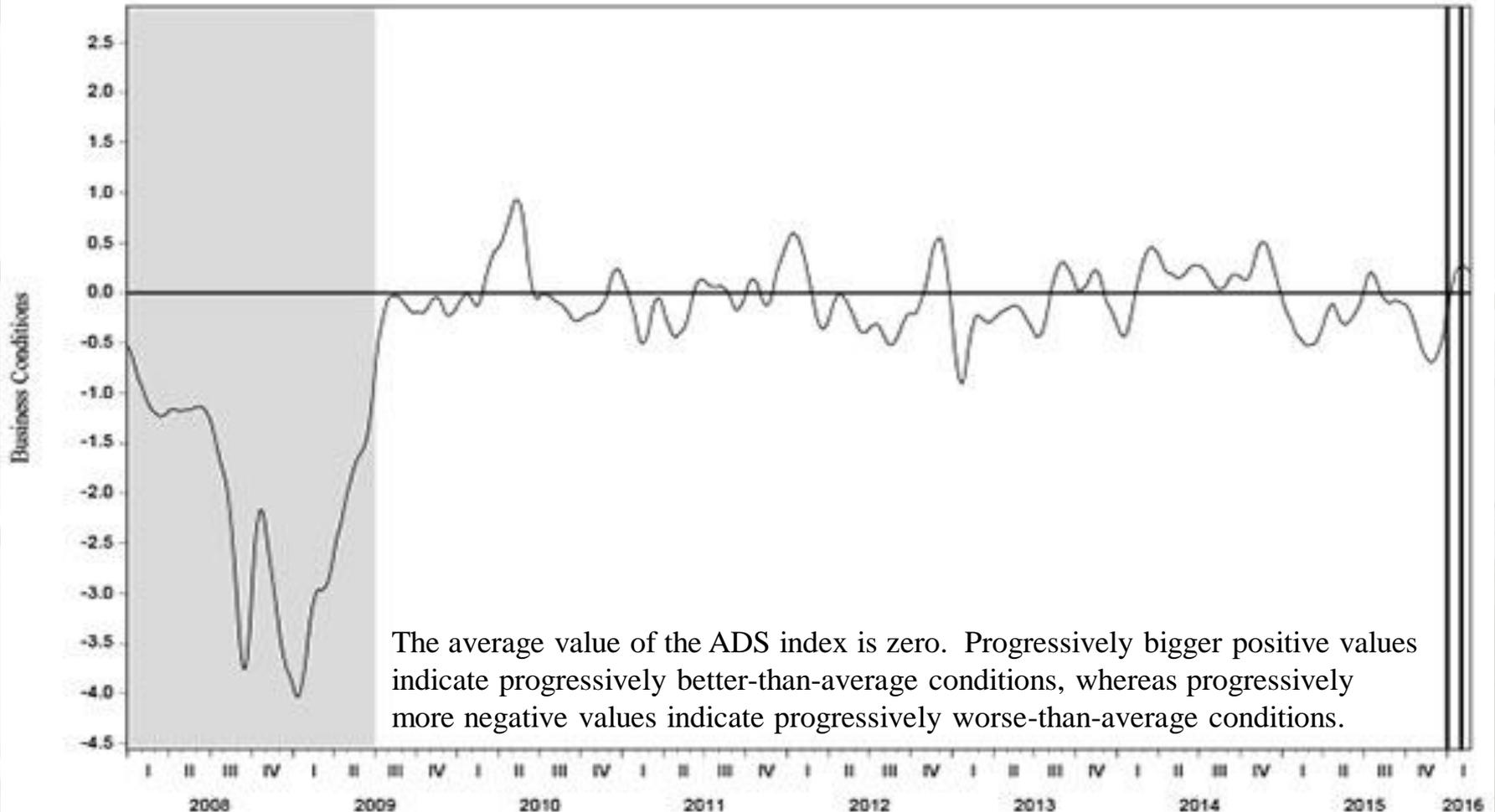
GDP Growth

GDPplus is a measure of the quarter-over-quarter rate of growth of real GDP in annualized percentage points. GDP_E and GDP_I are quarter-over-quarter rates of growth of expenditure and income-side measures of real GDP in annualized percentage points, respectively.



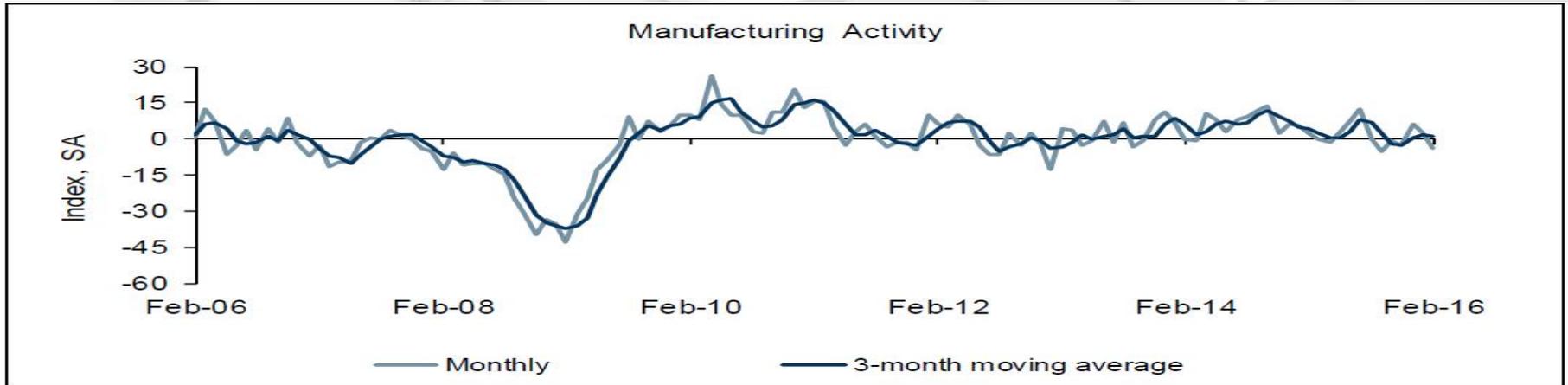
Philadelphia Fed: Aruoba-Diebold-Scotti Business Conditions Index

Aruoba-Diebold-Scotti Business Conditions Index (12/31/2007-02/26/2016)



The average value of the ADS index is zero. Progressively bigger positive values indicate progressively better-than-average conditions, whereas progressively more negative values indicate progressively worse-than-average conditions.

U.S. Economic Indicators



THE FEDERAL RESERVE BANK OF RICHMOND
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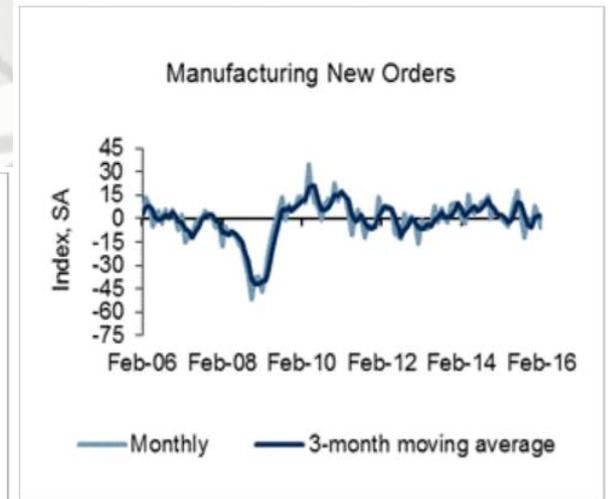
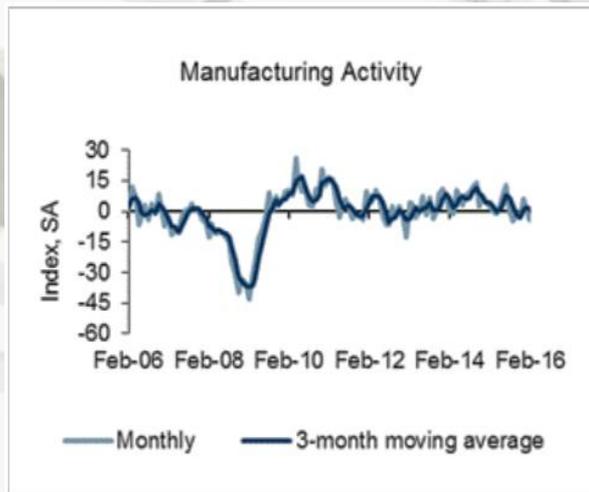
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The Federal Reserve Bank of Richmond Manufacturing Sector Activity Slowed; New Orders Declined, Employment Increased Modestly

“Fifth District manufacturing activity slowed in February... . Shipments and the volume of new orders decreased modestly this month. Manufacturing hiring continued to increase at a modest pace, while average wages grew mildly and the average workweek lengthened slightly. Prices of raw materials and finished goods rose at a slower pace this month, compared to January.

Despite the current soft conditions, manufacturers remained upbeat about future business conditions. Expectations were for solid growth in shipments and in new orders in the six months ahead. Additionally, firms looked for increased capacity utilization and anticipated rising backlogs. Producers looked for shorter vendor lead times.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators



The Federal Reserve Bank of Richmond Current Activity

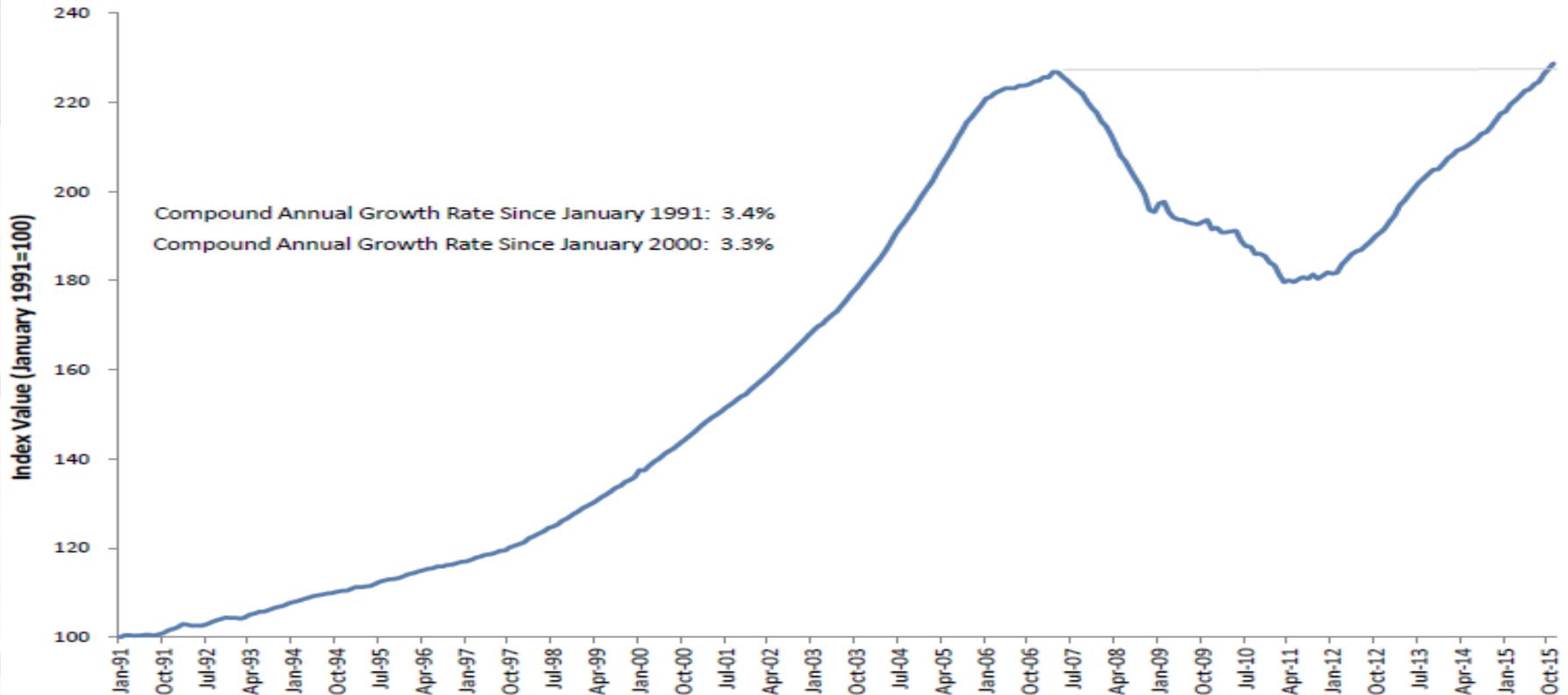
“Overall, manufacturing activity slowed in February. The composite index softened six points to a reading of -4 . Additionally, new orders and shipments decreased this month. The indicators finished at -6 and -11 , respectively. Manufacturing employment grew at the same pace as a month ago; the index remained at 9 .

Backlogs decreased in February, with the index ending 18 points lower at -14 . Capacity utilization also declined this month, pulling the index down to -5 . Vendor lead time lengthened slightly, with that indicator gaining two points to end at 6 . Finished goods inventories rose at a moderate pace in February; the index lost four points ending at a reading of 20 . Raw materials inventories also rose at a moderate pace, reaching a reading of 36 .” — Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators

Monthly House Price Index for U.S.

Purchase-Only, Seasonally Adjusted Index, January 1991 - Present

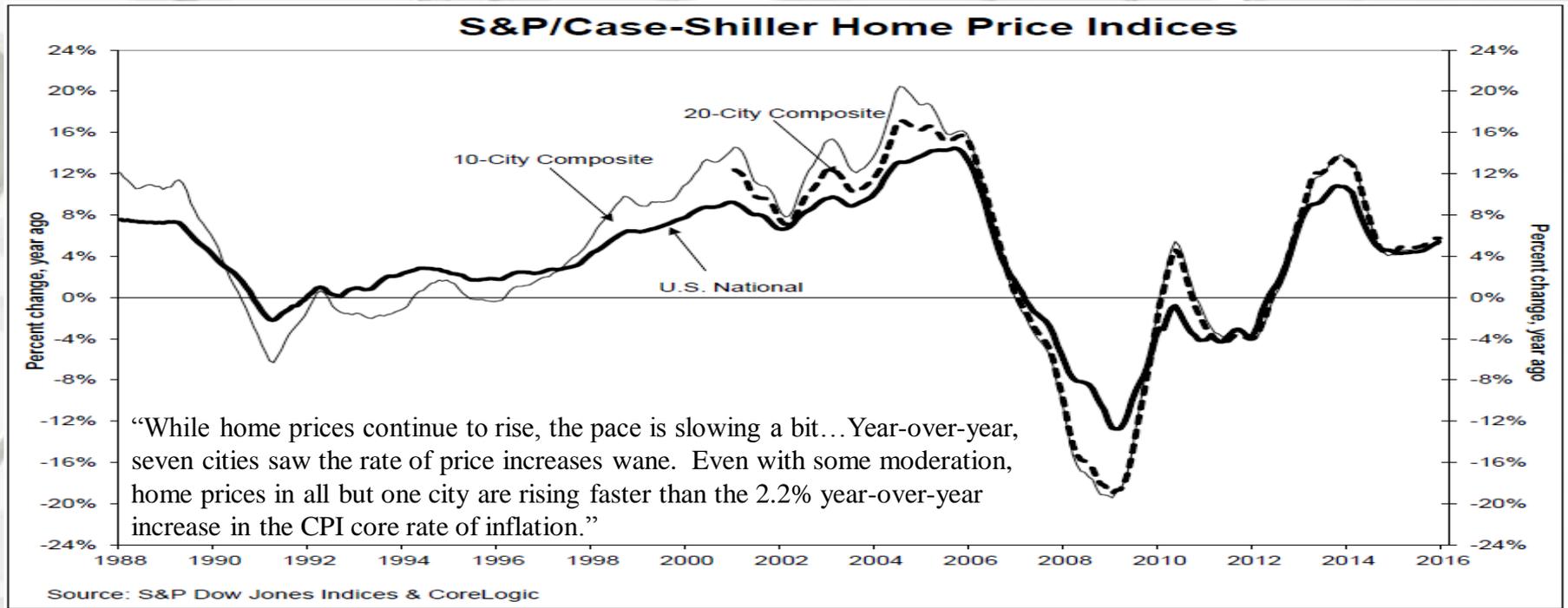


Source: FHFA

Federal Housing Finance Agency

U.S. house prices rose in November, up 0.5 percent on a seasonally adjusted basis from the previous month, according to the Federal Housing Finance Agency (FHFA) monthly House Price Index (HPI). The previously reported 0.5 percent increase in October is unchanged.

Private Indicators

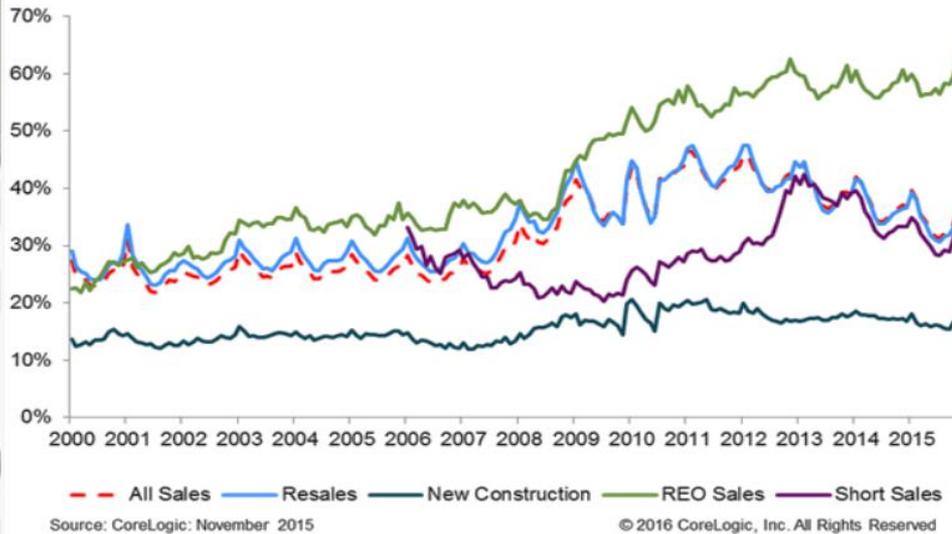


S&P/Case-Shiller Home Price Indices Home Prices Marginally Increased in December

Sparked by the stock market’s turmoil since the beginning of the year, some are concerned that the current economic expansion is aging quite rapidly. The recovery is six years old, but recoveries do not typically die of old age. Housing construction, like much of the economy, got off to a slow start in 2009-2010 and is only now beginning to show some serious strength. Continued increases in prices of existing homes, as shown in the S&P/Case-Shiller Home Price Indices, should encourage further activity in new construction. Total housing starts have stayed above an annual rate of one million starts per year since last March and single family home have been higher than 700,000 units at annual rates since June. Housing investment continues its positive contribution to GDP growth.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones Indices

Private Indicators

Figure 1: Cash Sales Share by Sale Type
Cash Sales Percent



Cash Sales Share Declines Moderated in November 2015 Cash Sales Accounted for 36 Percent of All Home Sales

“Cash sales accounted for 36.4 percent of total home sales in November 2015, down 0.7 percentage points year over year from 37.1 percent in November 2014. On a month-over-month basis, the cash sales share increased by 2.5 percentage points in November 2015 compared with October 2015.”

The cash sales share typically increases month over month in November, and due to seasonality in the housing market, cash sales share comparisons should primarily be made on a year-over-year basis. The November 2015 year-over-year decrease in cash sales share was the lowest in nearly three years. From January 2013 until October 2015 decreases in the cash sales share averaged 2.7 percentage points, ranging from -1.4 to -5.1 percentage points.

The elevated cash share for November was most likely related to the new federal mortgage rules that took effect in October 2015 (TRID) as some mortgage deals were delayed while the industry adjusted to the new mortgage rules. These delays are not expected to carry forward in future months.

The cash sales share peaked in January 2011 when cash transactions accounted for 46.6 percent of total home sales nationally. Prior to the housing crisis, the cash sales share of total home sales averaged approximately 25 percent.” – Molly Boesel, Senior Economist, CoreLogic®

Private Indicators

Household Income Trends: December 2015

Median Household Income Increases to \$57,153 in December 2015

“According to new data derived from the monthly Current Population Survey (CPS), median annual household income in December 2015 was \$57,153, up \$424 (or 0.7 percent) from the November 2015 median of \$56,729. As noted in our previous report, we have recaptured all of the ground in the median lost since the beginning of the last recession in December 2007 (\$56,698). The Sentier Household Income Index for November 2015 was 99.6 (January 2000 = 100). Thus, we are getting very close to the real level of median annual household income that existed in January 2000 (\$57,371).

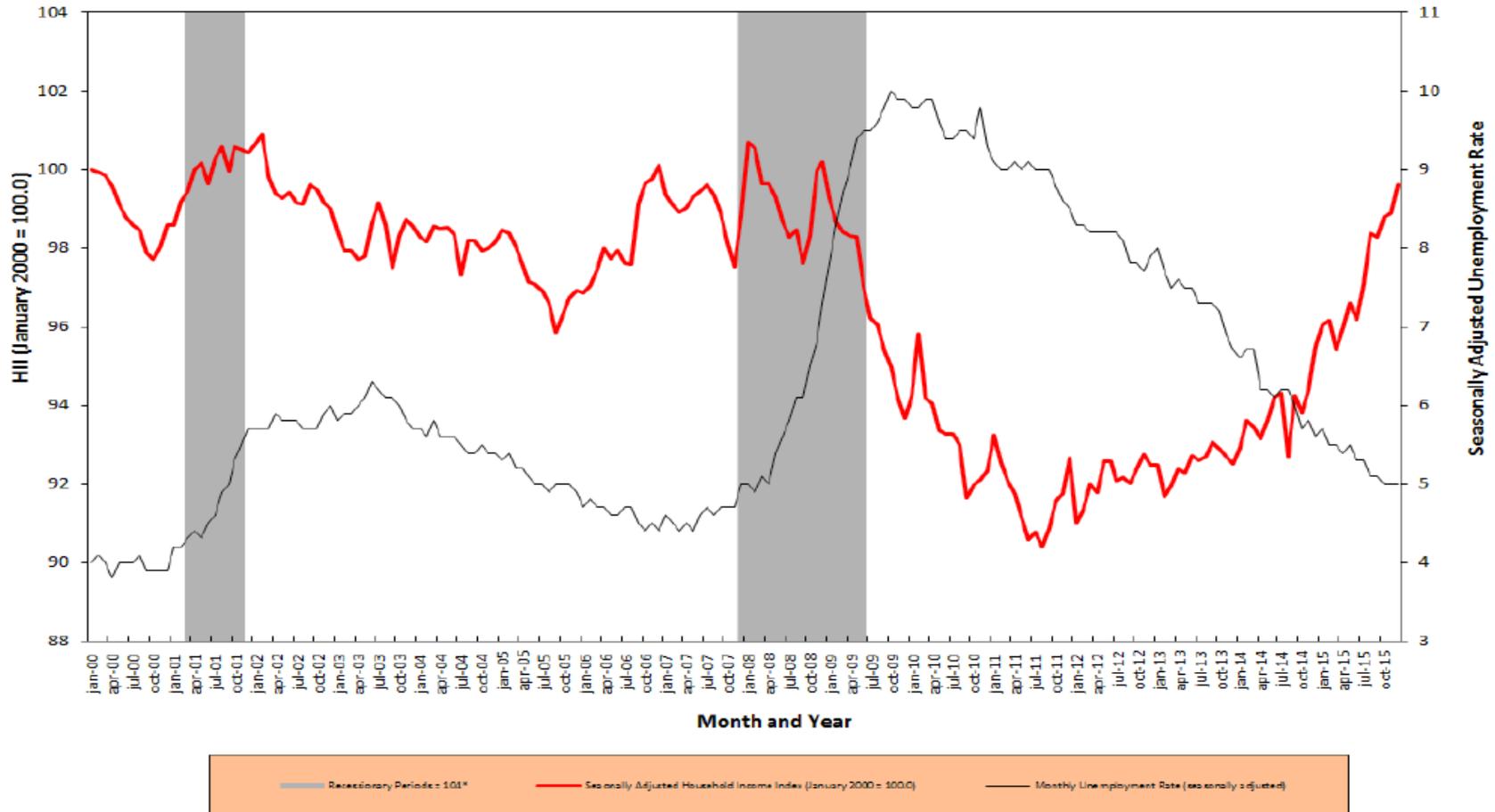
There is a generally upward trend in income that has been evident since the low point in our household income series that occurred in August 2011. Median income in December 2015 (\$57,153) was 4.3 percent higher than in December 2014 (\$54,785), and 10.2 percent higher than in August 2011 (\$51,859). However, a significant portion of the increase in real median annual household income is due to the falling price of energy. For example, if the CPI less food and energy is used instead of the CPI including all items, the increase in real median annual household income between December 2014 and December 2015 was 2.9 percent, not 4.3 percent.

The period since August 2011 has been marked by an uneven, but generally upward trend in the level of real median annual household income. Many of the month-to-month changes in median income during this period have not been statistically significant. However, the cumulative effect of the various month-to-month changes since August 2011 resulted in the income improvement noted above. (See Figure 1 at the back of this report).” – Gordon Green and John Coder, Sentier Research, LLC

“We continue to see an upward trend in income that has been evident since the low point in August 2011. Relatively low energy prices have contributed significantly to increases in real median household income. We have recaptured all of the income losses that have occurred since the beginning of the last recession in December 2007. The December 2015 median is now only 0.4 percent lower than the median of \$57,371 in January 2000, the beginning of this statistical series.” – Gordon Green, Sentier Research, LLC

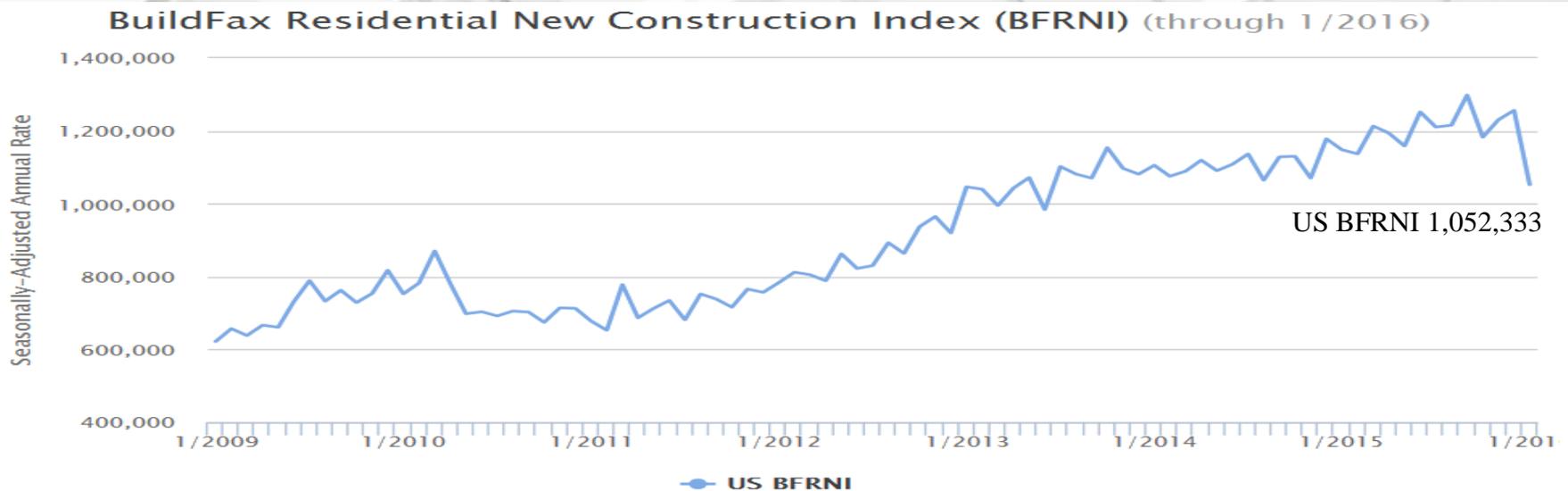
Private Indicators

Figure 1.
Median Household Income Index (HII) and Unemployment Rate by Month: January 2000 to December 2015



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 unemployment rate and the CPI-U: the U.S. Bureau of Labor Statistics.

Private Indicators



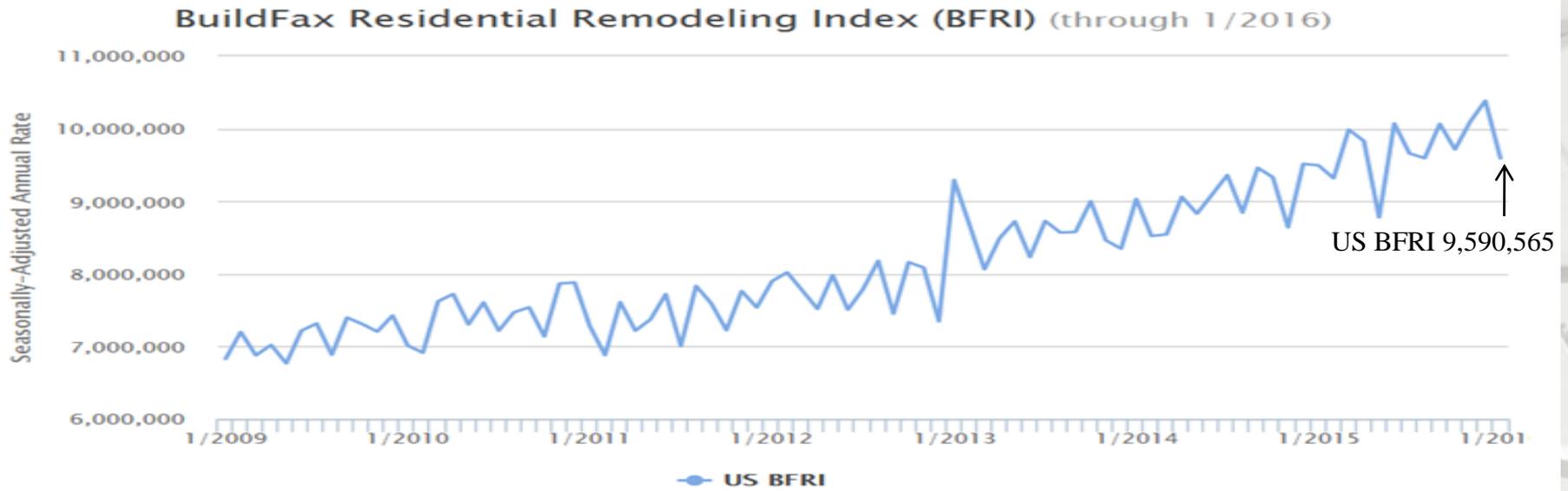
BuildFax Residential New Construction Index

“Residential new construction authorized by building permits in the United States in January were at a seasonally-adjusted annual rate of 1,052,333. This is 16% below the revised December rate of 1,256,471 and is 8% below the revised January 2015 estimate of 1,148,196. BuildFax reports on total new residential projects, this is unlike the U.S. Census that reports total number of housing units.”

Regional Residential New Construction

“Seasonally-adjusted annual rates of residential new construction across the country in January 2016 are estimated as follows: Northeast, 63,276 (down 14% from December and up 61% from January 2015); South, 511,354 (down 24% from December and down 22% from January 2015); Midwest, 224,180 (3% down from December and 5% down from January 2015); West, 276,888 (down 2% from December and up 18% from January 2015).”

Private Indicators



BuildFax Residential Remodeling Index

“Residential remodels authorized by building permits in the United States in January were at a seasonally-adjusted annual rate of 9,590,565. This is 8% below the revised December rate of 10,384,294 and is 9% above the revised January 2015 estimate of 9,495,930.”

Regional Residential Remodeling

“Seasonally-adjusted annual rates of residential remodeling across the country in January 2016 are estimated as follows: Northeast, 780,964 (down 11% from December and up 18% from January 2015); South, 4,302,040 (down 12% from December and down 3% from January 2015); Midwest, 2,037,421 (down 4% from December and up 5% from January 2015); West, 2,315,996 (down 10% from December and up 1% from January 2015).”

Private Indicators: AIA

January Architecture Billings Index

Modest slowdown in architecture firm billings in January

“Business conditions at architecture firms softened modestly in January to start the new year. The Architecture Billings Index (ABI) score of 49.6 indicates that just slightly more firms reported a decrease in firm billings than reported an increase for the month (a score over 50 indicates billings growth). This decline may be partially attributable to a surge of winter weather in many regions of the country, after what had previously been a relatively mild winter. Firms are still reporting that they have a decent amount of work in the pipeline. Inquiries into new projects remained strong in January, and the value of new design contracts continued to increase as well, albeit at a slightly slower pace than in recent months.

Architecture firm billings increased at firms in all regions of the country except the Midwest in January, most notably at firms located in the Northeast, where a modest increase was reported for only the second time in the last year and a half. Increases were also modest for firms located in the South and West regions, while firms located in the Midwest reported declining firm billings for the third consecutive month.

Business conditions were also essentially positive for firms of all specializations. Firms with an institutional specialization reported a score of 49.9, indicating that there was essentially no change in firm billings from December to January. Business conditions at firms with a residential specialization continued to recover after a slight slump in mid-2015, while billings at firms with a commercial/industrial specialization were also essentially flat for the third consecutive month.” – Jennifer Riskus, Manager of Economic Research, AIA

Private Indicators: AIA

NATIONAL

Architecture Firm Billings Soften Modestly in January

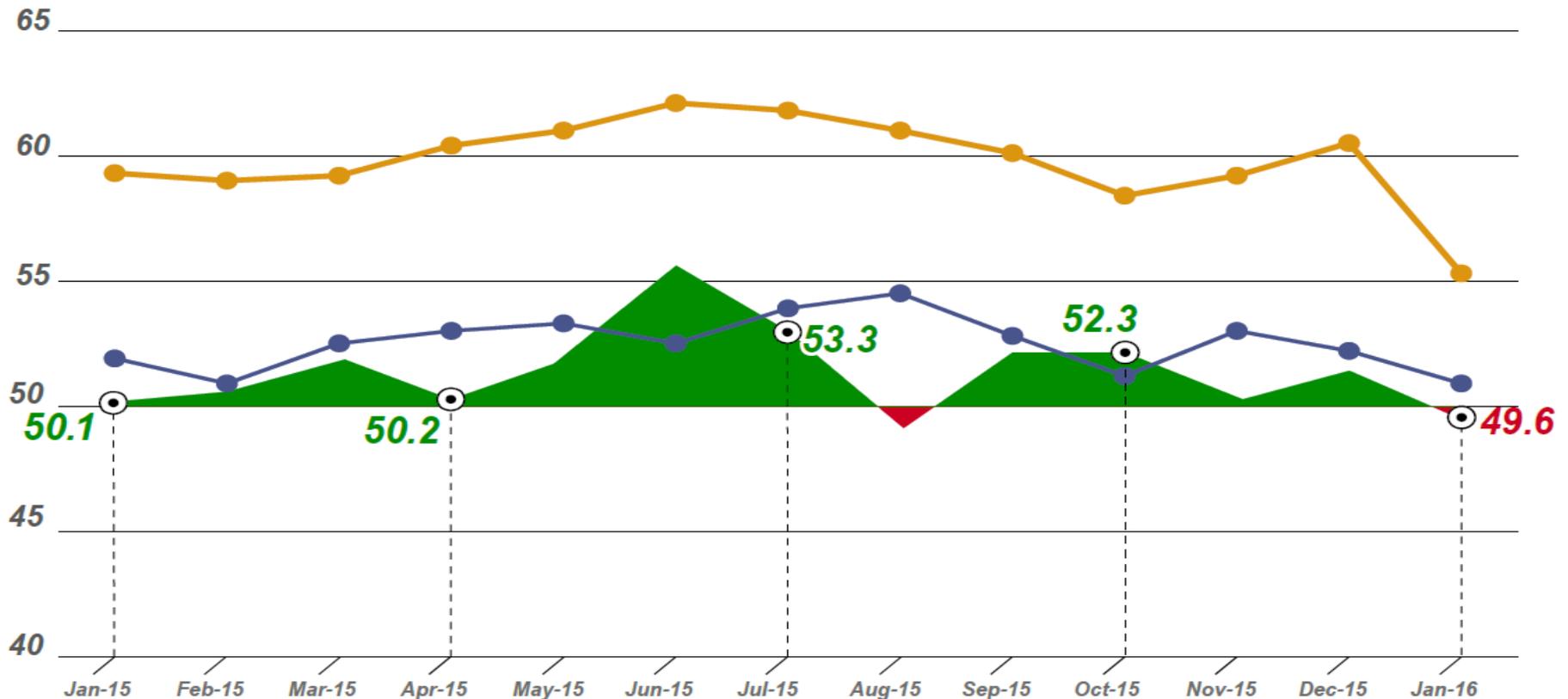
Graphs represent data from January 2015 – January 2016.

Above 50 = 

Below 50 = 

50 = No change from previous period

—●— Design Contracts —●— Inquiries  Billings



Private Indicators: AIA

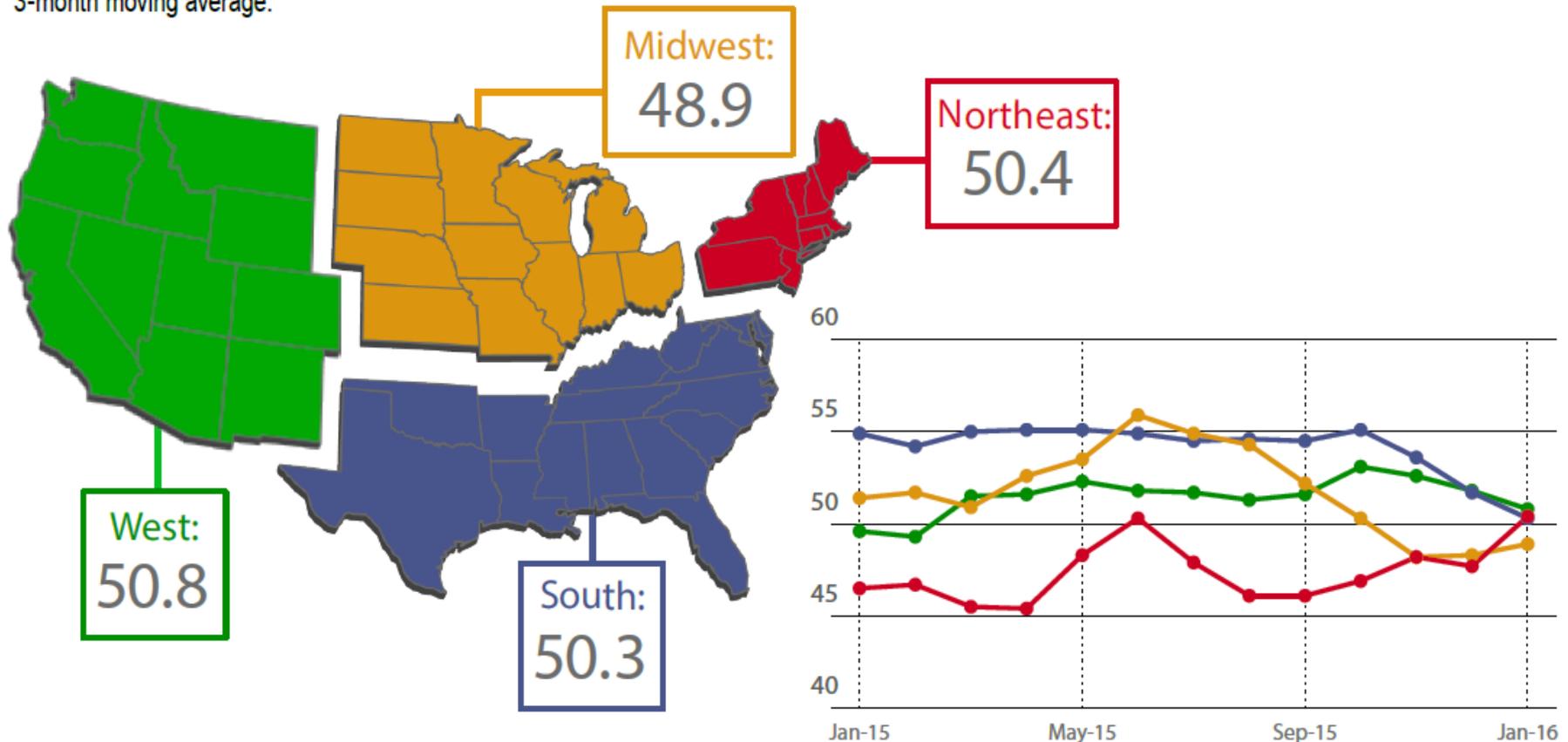
REGIONAL

Business Conditions Improve Modestly in All Regions Except Midwest

Graphs represent data from January 2015 – January 2016 across the four regions.

50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease.

3-month moving average.



Private Indicators: AIA

SECTOR

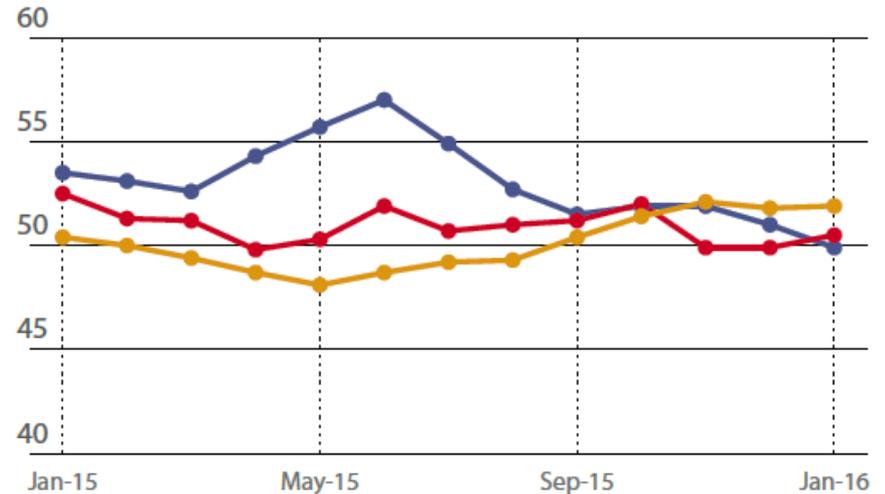
Firms with a Residential Specialization
Continue to Rebound from Mid-2015 Slump

Graph represents data from January 2015 – January 2016 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.

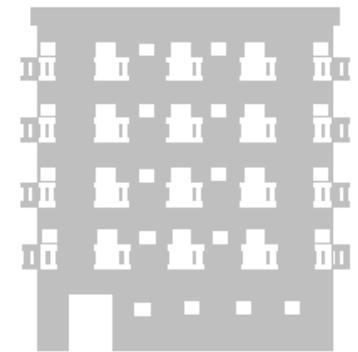
3-month moving average.



Commercial/Industrial: 50.5



Institutional: 49.9



Residential: 51.9

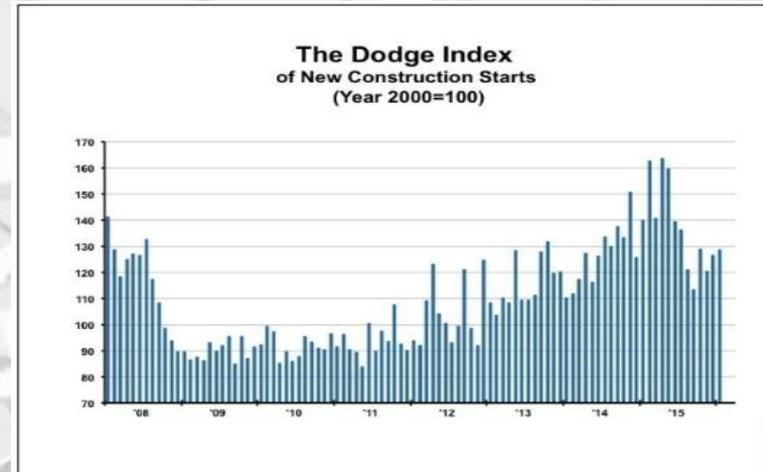
Private Indicators

January Construction Starts Rise 2 Percent

“The value of new construction starts in January grew 2% to a seasonally adjusted annual rate of \$607.9 billion, according to Dodge Data & Analytics. The gain for total construction relative to December reflected moderate growth for housing. At the same time, nonresidential building retreated slightly in January, as increases for commercial building and manufacturing plant construction were offset by diminished activity for institutional building. On an unadjusted basis, total construction starts in January were reported at \$40.6 billion, down 14% from the same month a year ago... .

The 14% decline for total construction starts on an unadjusted basis for January 2016 relative to January 2015 was the result of this performance by sector – residential building, up 13%; nonresidential building, down 5%; and nonbuilding construction, down 45%.

Residential building in January advanced 5% to \$294.0 billion (annual rate), helped by a 6% gain for single family housing. January's improved pace for single family housing may be the initial sign that it's moving beyond the lengthy plateau that took hold during the second half of 2015. Admittedly, though, the winter readings on housing can be volatile and more monthly gains are needed before it's possible to say that growth for single family housing is being re-established. Multifamily housing in January increased 2%, showing further strengthening on top of the 22% jump that was reported in December. There were nine multifamily projects valued at \$100 million or more that reached groundbreaking in January... .” – Robert Murray, Chief Economist, McGraw Hill Construction



MONTHLY SUMMARY OF CONSTRUCTION STARTS
Prepared by Dodge Data & Analytics

MONTHLY CONSTRUCTION STARTS
Seasonally Adjusted Annual Rates, In Millions of Dollars

| | December 2015 | November 2015 | % Change |
|---------------------------------|----------------------|----------------------|-----------------|
| Nonresidential Building | \$178,540 | \$174,156 | +3 |
| Residential Building | 278,062 | 262,996 | +6 |
| Nonbuilding Construction | <u>134,975</u> | <u>131,609</u> | <u>+3</u> |
| TOTAL Construction | \$591,577 | \$568,761 | +4 |

THE DODGE INDEX
(Year 2000=100, Seasonally Adjusted)

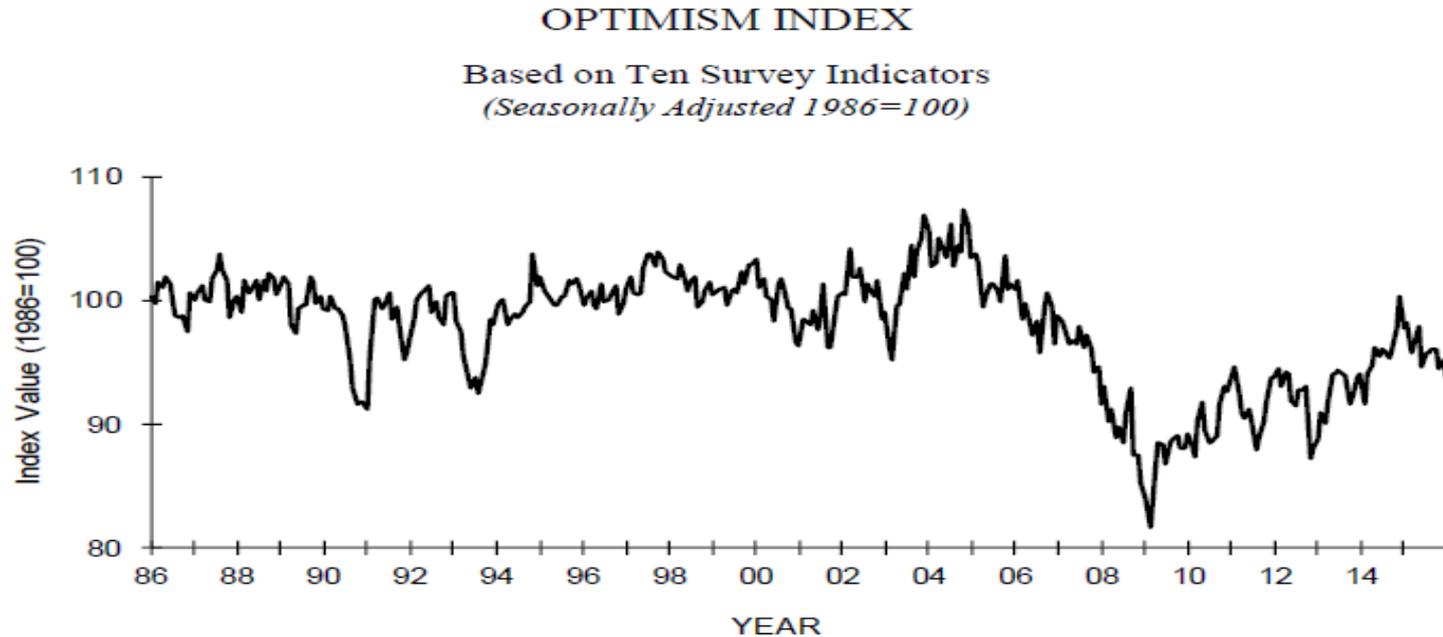
December 2015.....125
November 2015.....120

YEAR-TO-DATE CONSTRUCTION STARTS
Unadjusted Totals, In Millions of Dollars

| | 12 Mos. 2015 | 12 Mos. 2014 | % Change |
|---------------------------------|---------------------|---------------------|-----------------|
| Nonresidential Building | \$204,151 | \$221,342 | -8 |
| Residential Building | 265,376 | 232,049 | +14 |
| Nonbuilding Construction | <u>176,020</u> | <u>143,672</u> | <u>+23</u> |
| TOTAL Construction | \$645,547 | \$597,063 | +8 |

Private Indicators

OVERVIEW - SMALL BUSINESS OPTIMISM

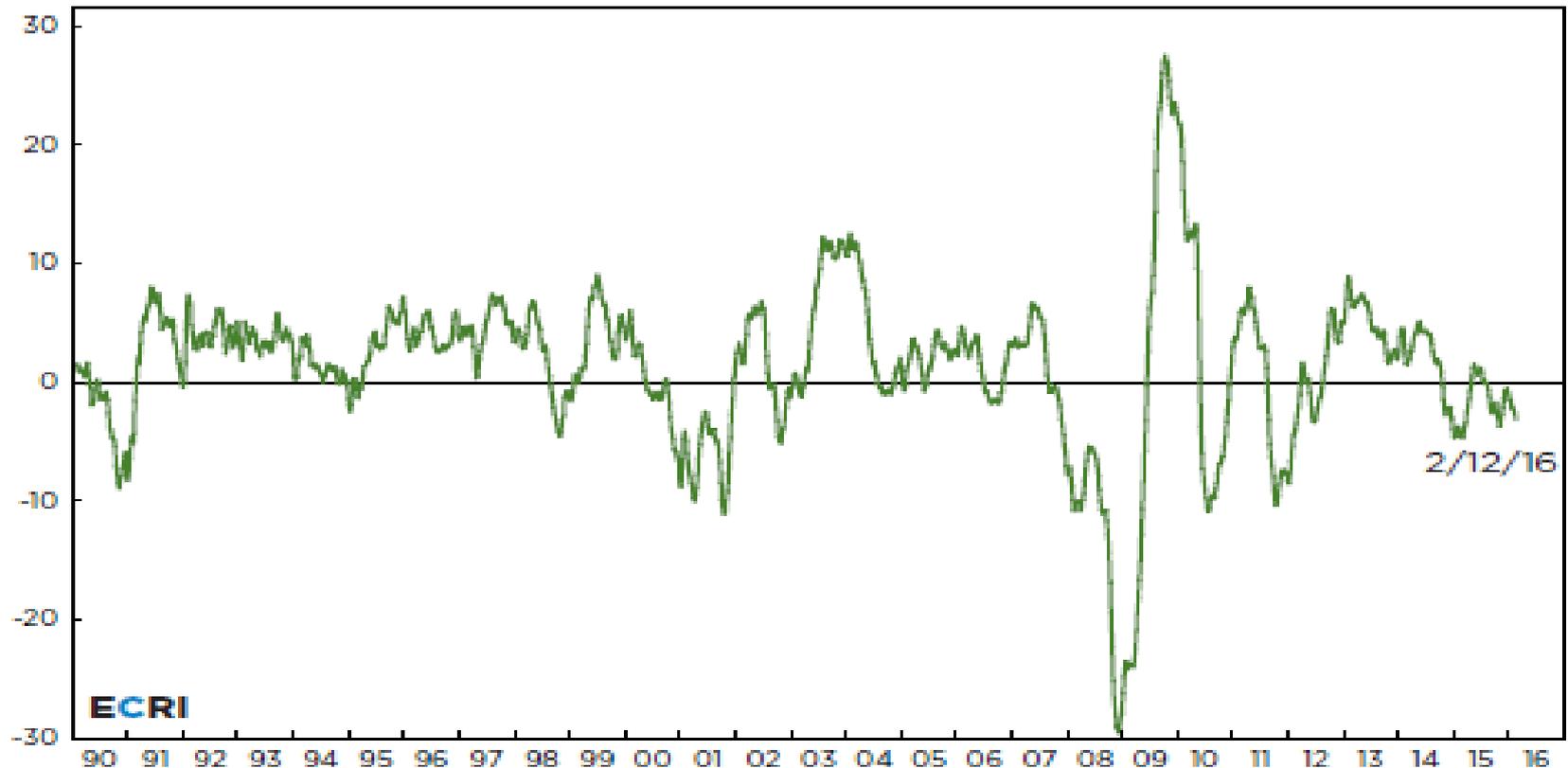


Small Business Optimism Falls Again This Month

“The Index of Small Business Optimism fell 1 point from January, falling to 92.9. None of the 10 Index components posted a gain, six posted small declines, and four were unchanged. Overall, a “ho hum” outcome, confirming that the small business sector is not headed up with any strength, just trading water waiting for a good reason to invest in the future. Spending and hiring plans weakened a bit as expectations for growth in real sales volumes fell. Earnings trends worsened a bit as owners continued to report widespread gains in worker compensation while holding the line on price increases. The political climate continued to be the second most frequently cited reason for the current period being a bad time to expand.” – William Dunkelberg, Chief Economist, National Federation of Independent Business

Private Indicators

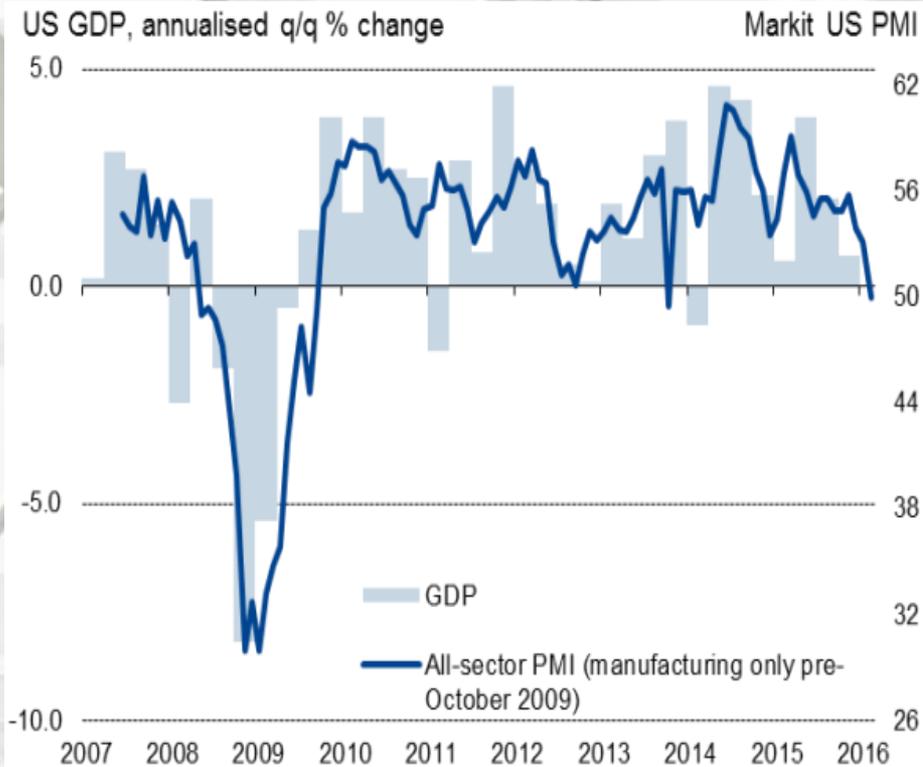
Weekly Leading Index, Growth Rate (%)



U.S. Weekly Leading Index Falls

“The U.S. Weekly Leading Index falls to 128.6 from 130.0. The growth rate decreases to -3.1% from -2.6%.” – ECRI

Private Indicators



US flash PMI signals heightened economic downturn risk

“Markit’s PMI survey data show a significant risk of the US economy falling into contraction in the first quarter. The flash PMI for February shows business activity stagnating as growth slowed for a third successive month. Slumping business confidence and an increased downturn in order book backlogs suggest there’s worse to come.

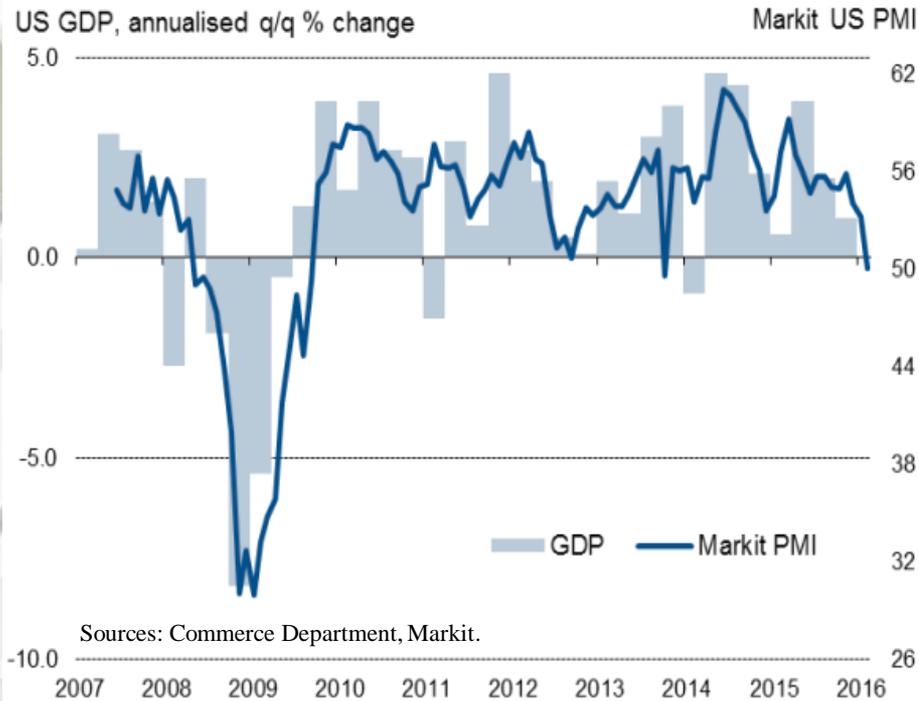
The composite Output Index from the manufacturing and services PMI surveys sank from 53.2 in January to 50.1 in February, according to the ‘flash’ releases, which are based on approximately 85% of usual monthly replies.

With the exception of the government shutdown in October 2013, the February reading was the worse since the recession. Business activity in services fell for the first time since the shutdown, accompanying a marked slowdown to near-stagnation in manufacturing.”

“It’s worth remembering that the month saw adverse weather affecting many parts of the country, so some bounce-back may be seen in March. But the weather can only explain part of the slowdown. It’s clear that business confidence in the service sector has faltered significantly, reaching the lowest level in five-and-a-half years in February.

Optimism about the outlook has been on a downward trend over the past two years, with worries about the global economic outlook, financial market volatility, the presidential election and interest rate policy all taking a further toll on business morale in February. ” – Chris Williamson, Chief Economist, Markit®

Private Indicators



US GDP revised higher but first quarter economic growth risks escalate

“News that the US economy showed signs of stalling in February has been swiftly followed by a confirmation of weak economic growth late last year. The recent clutch of disappointing data raises worries that the US economy is slowing sharply, wrong-footing policy makers who decided to hike interest rates for the first time in almost a decade late last year.

Official data showed that the US economy grew at an annualised rate of 1.0% in the final three months of last year, up from a previously estimated 0.7% expansion and above economists’ expectations but down sharply from 2.0% in the third quarter and 3.9% in the second quarter.”

“Unfortunately, the cause of the upward revision bodes ill for the first quarter. The GDP number was revised higher in part due to a bigger than previously thought contribution from inventories, something which often happens due to weaker than expected demand, meaning inventories could act as a drag in the first quarter as excess stock levels are wound down again. Final sales, which strip out inventories, rose at an annualised rate of 1.2%, down from 2.7% in the third quarter and 3.9% in the second. Consumer spending growth, a key driver of the US upturn, was meanwhile revised down to 2.0% compared with a prior estimate of 2.2%.

The trend in the economy looks to be deteriorating further in the first quarter. Markit’s flash PMI fell sharply in both manufacturing and services in February, pointing to a stagnation of the economy. Forward looking indicators such as business optimism and order books suggests business activity could fall in March.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Markit U.S. Services PMI Business Activity Index



Markit Flash U.S. Services PMI™

Services activity falls for the first time since October 2013

“Key points:

- Weakest service sector performance for almost two-and-a-half years
- New business and employment growth sustained in February
- Business confidence slips to its lowest since August 2010 ”

“February data pointed to a fractional reduction in U.S. service sector business activity, which ended a 27-month period of sustained growth. At the same time, new business volumes expanded at the slowest rate since January 2015 and service providers were the least optimistic about their growth prospects for five-and-a-half years.

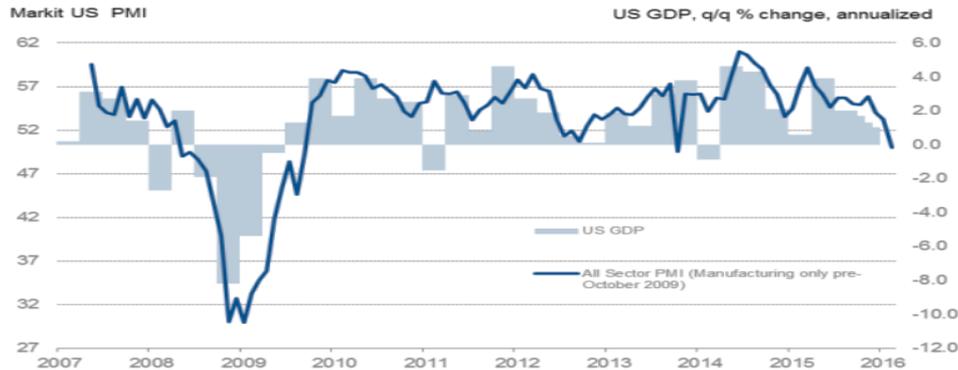
Survey respondents noted that heightened uncertainty about wider economic outlook, and reluctance among clients to commit to new projects, were factors that had weighed on their business sentiment.

While temporary disruptions related to heavy snowfall on the east coast was a factor weighing on the services index, anecdotal evidence from survey respondents also suggested that softer new business growth and concerns about the underlying economic outlook had placed downward pressure on business activity during February.

Adjusted for seasonal influences, the final Markit U.S. Services Business Activity Index registered 49.7 in February, down from 53.2 in January and below the neutral 50.0 value for the first time in almost two-and-a-half years. As a result, the latest reading indicated the weakest service sector performance the government shutdown disrupted business activity in October 2013.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Markit U.S. Composite PMI™ Output Index



Source: Markit, US. Bureau of Economic Analysis.

Markit U.S. Composite PMI™

“The seasonally adjusted final Markit U.S. Composite PMI™ Output Index posted 50.0 in February, thereby signalling that private sector output was unchanged over the month.

Moreover, the index was down from 53.2 in January and the weakest recorded since October 2013.”

“Business activity stagnated in February as malaise spread from the manufacturing sector to services. The Markit PMIs are signalling a stagnation of the economy in February, suggesting growth has deteriorated further since late last year.

Prices pressures are waning again in line with faltering demand. Average prices charged for goods and services are dropping once again, down for the first time in five months, as firms compete to win new business.

Worse may be to come, as inflows of new business have slowed sharply, causing backlogs of work across both sectors to fall at the fastest rate seen since the 2008-9 financial crisis. Such weak demand suggests that business activity and price discounting look set to continue.

However, perhaps the brightest warning light is the downturn in business optimism to the joint-lowest recorded by the survey, suggesting firms are bracing themselves for trouble ahead. The only positive note in the PMI report is the sustained robust rate of job creation in the services sector, though it seems inevitable that firms will take a more cautious approach to hiring if demand continues to wane in coming months.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

U.S. Economic Confidence Steady in February

Gallup's U.S. Economic Confidence Index -- Monthly Averages

January 2008-February 2016



Gallup Daily tracking

GALLUP

GALLUP DAILY

REAL UNEMPLOYMENT
Department of Labor (U-6)

9.9% -

GALLUP GOOD JOBS
Percent of Adult Population

44.5% -0.2

ENGAGED AT WORK

33.2% -0.8

ECONOMIC CONFIDENCE

-12 +1

“Americans’ confidence in the U.S. economy has held steady since July. Gallup's Economic Confidence Index averaged -13 in February, within the narrow range of -14 to -11 recorded over the past eight months. Consumers' confidence in the economy is notably lower than a year ago, when the index registered +1 for February -- one of only two positive monthly readings since 2008. Still, despite economic confidence declining over the past year, consumers remain much more upbeat than they were during the Great Recession and post-recession years of 2009 to 2011.” – Justin McCarthy, Gallup

Private Indicators

Thomson Reuters/PayNet Small Business Lending Index

U.S. small business borrowing sank in 2015: PayNet

Thomson Reuters/PayNet Small Business Lending Index (SBLI)
(January 2005 - January 2016)



Thomson Reuters/PayNet SBLI Year-Over-Year Change
(January 2006 - January 2016)

“U.S. small business borrowing fell in December from a year earlier, data released Monday showed, a fresh sign that economic growth may weaken in the coming months.

The Thomson Reuters/PayNet Small Business Lending Index registered 132.4 in December, up from a downwardly revised November reading of 127.3 but below the December 2014 reading of 134.1. Lending had risen sharply earlier in the year.

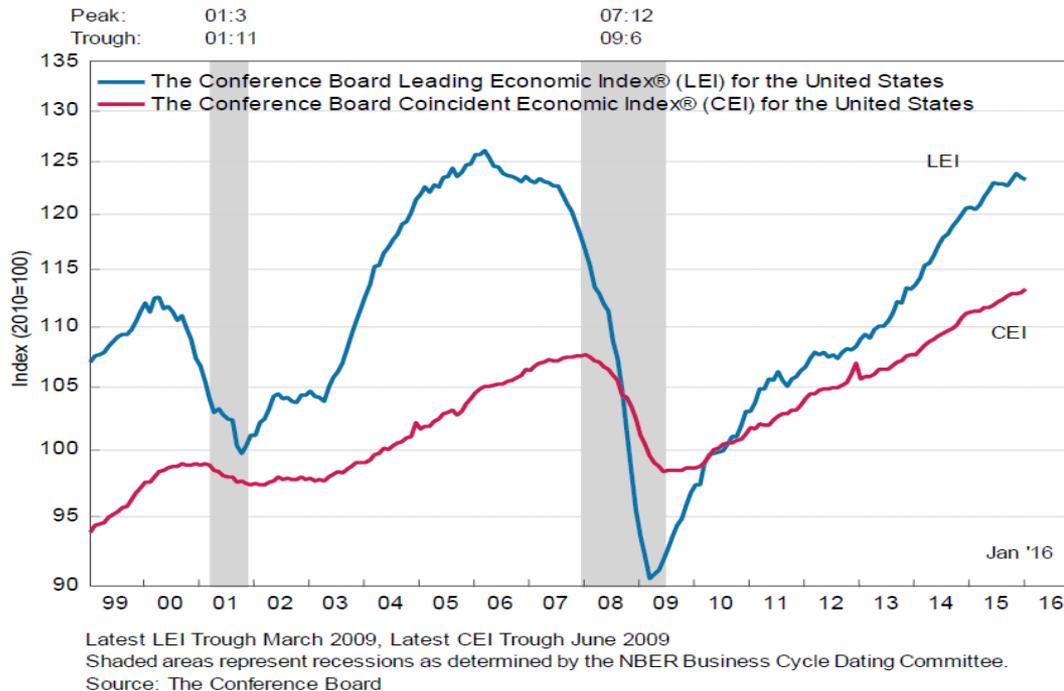
“Dropping oil prices and slowing world growth are taking a toll on U.S. economic growth, which slowed to a 0.7 percent annual pace in the last quarter of 2015. Small business borrowing is a key barometer of growth because it is the little firms that tend to do much of the hiring that fuels economic growth. Lending slowed sharply to small businesses in mining and agriculture, as well as in wholesale trade, transportation and construction, the figures showed. Texas was particularly hard hit.”

“What started as a full gallop in 2015 is barely trotting along now. We are barely replacing worn-out assets here.” – Bill Phelan, President, PayNet

Private Indicators

The Conference Board Leading Economic Index[®] (LEI) for the U.S. Declined The index declined 0.2 percent in January to 123.2

The Conference Board Leading Economic Index[®] (LEI) for the U.S. Declined in January



“The U.S. LEI fell slightly in January, driven primarily by large declines in stock prices and further weakness in initial claims for unemployment insurance.

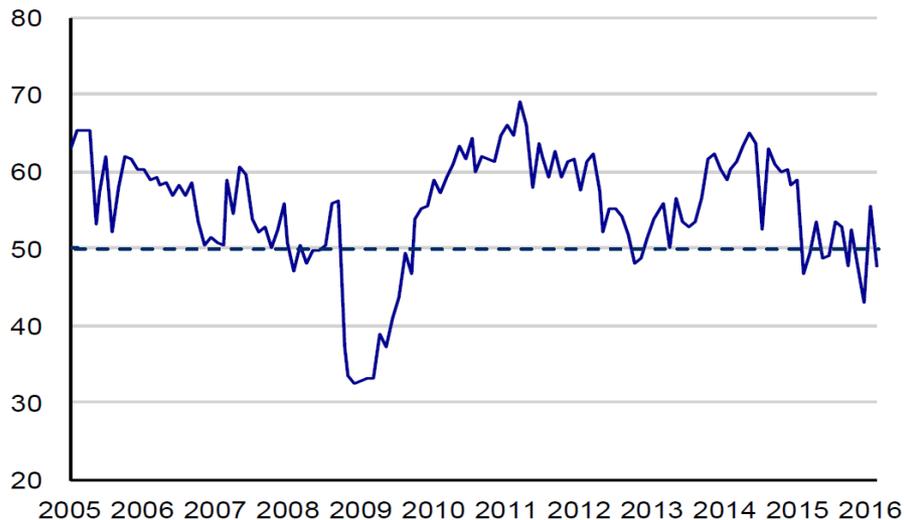
Despite back-to-back monthly declines, the index doesn't signal a significant increase in the risk of recession, and its six-month growth rate remains consistent with a modest economic expansion through early 2016.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

“The Conference Board Coincident Economic Index[®] (CEI) for the U.S. increased 0.3 percent in January to 113.2 (2010 = 100), following a 0.1 percent increase in December, and no change in November.

The Conference Board Lagging Economic Index[®] (LAG) for the U.S. increased 0.1 percent in January to 120.0 (2010 = 100), following a 0.2 percent increase in December, and a 0.4 percent increase in November.” – The Conference Board

Private Indicators

Chicago Business Barometer™



Feb Chicago Business Barometer™ Down 8.0 pts to 47.6

“The Chicago Business Barometer recoiled 8.0 points to 47.6 in February following a sharp increase to 55.6 in the previous month, led by significant declines in Production and New Orders.

Four of the five Barometer components declined between January and February, with only Supplier Deliveries posting an increase on the month. While the latest fall left the Barometer running a little below the 12-month average of 50.1, following significant weakness in Q4 2015, activity looks set to rebound in Q1.”

Institute of Supply Management™ Production Plunges While Employment Lowest Since 2009

“The Barometer’s decline was led by an 18.5 drop in Production, which completely reversed January’s near 16 point gain, pushing it back into contraction. New Orders also fell sharply and Order Backlogs slipped further into contraction, a situation that has persisted for a year. Employment also declined significantly, leaving it at the lowest since November 2009 and the fifth consecutive month below 50.

Firms continued to drawdown stocks in February, with Inventories remaining in contraction for the fourth consecutive month. Prices paid contracted at a faster pace in February to stand at the lowest since July 2009 as oil and other commodity prices continued to fall. In a special question put to the panel this month, 48% said that lower oil prices were helping business, mainly due to lower freight and transportation costs. 26% of respondents said that lower oil prices were hurting business, while 26% said they had little or no impact on their business.

If one looks beyond the gyrations seen over the past three months then trend activity has been running a little below the 50 neutral mark, highlighting continued sluggish activity levels, with manufacturers under particular pressure. Still, given the weakness in Q4, it looks like activity should pick up during Q1.” – Philip Uglow, Chief Economist, MNI Indicators

Private Indicators

February Manufacturing ISM® Report on Business®

PMI® at 49.5%

“Economic activity in the **manufacturing sector** contracted in February for the fifth consecutive month, while the **overall economy grew** for the 81st consecutive month, say the nation’s supply executives in the latest **Manufacturing ISM® Report On Business®**.

Four of the five Barometer components declined between January and February, with only Supplier Deliveries posting an increase on the month. While the latest fall left the Barometer running a little below the 12-month average of 50.1, following significant weakness in Q4 2015, activity looks set to rebound in Q1.”

New Orders and Production Growing, Employment and Inventories Contracting, Supplier Deliveries Faster

“The February PMI® registered 49.5 percent, an increase of 1.3 percentage points from the January reading of 48.2 percent. The New Orders Index registered 51.5 percent, the same reading as in January. The Production Index registered 52.8 percent, 2.6 percentage points higher than the January reading of 50.2 percent. The Employment Index registered 48.5 percent, 2.6 percentage points above the January reading of 45.9 percent. Inventories of raw materials registered 45 percent, an increase of 1.5 percentage points above the January reading of 43.5 percent. The Prices Index registered 38.5 percent, an increase of 5 percentage points above the January reading of 33.5 percent, indicating lower raw materials prices for the 16th consecutive month. Comments from the panel indicate a more positive view of demand than in January, as 12 of our 18 industries report an increase in new orders, while four industries report a decrease in new orders.” – Bradley J. Holcomb, CPSM, CPSD, chair of the Institute for Supply Management® Manufacturing Business Survey Committee.

Private Indicators

February Manufacturing ISM®

| MANUFACTURING AT A GLANCE FEBRUARY 2016 | | | | | | |
|--|------------------------|------------------------|-------------------------------|-------------|----------------------|--------------------|
| Index | Series Index Feb | Series Index Jan | Percentage Point Change | Direction | Rate of Change | Trend* (Months) |
| PMI® | 49.5 | 48.2 | +1.3 | Contracting | Slower | 5 |
| New Orders | 51.5 | 51.5 | 0.0 | Growing | Same | 2 |
| Production | 52.8 | 50.2 | +2.6 | Growing | Faster | 2 |
| Employment | 48.5 | 45.9 | +2.6 | Contracting | Slower | 3 |
| Supplier Deliveries | 49.7 | 50.0 | -0.3 | Faster | From Unchanged | 1 |
| Inventories | 45.0 | 43.5 | +1.5 | Contracting | Slower | 8 |
| Customers' Inventories | 47.0 | 51.5 | -4.5 | Too Low | From Too High | 1 |
| Prices | 38.5 | 33.5 | +5.0 | Decreasing | Slower | 16 |
| Backlog of Orders | 48.5 | 43.0 | +5.5 | Contracting | Slower | 9 |
| Exports | 46.5 | 47.0 | -0.5 | Contracting | Faster | 2 |
| Imports | 49.0 | 51.0 | -2.0 | Contracting | From Growing | 1 |
| OVERALL ECONOMY | | | | Growing | Faster | 81 |
| Manufacturing Sector | | | | Contracting | Slower | 5 |

Manufacturing ISM® Report On Business® data is seasonally adjusted for New Orders, Production, Employment and Supplier Deliveries indexes. *Number of months moving in current direction.

Private Indicators: Global



Global Manufacturing PMI™ Summary

50 = no change on prior month.

| Index | Jan. | Feb. | +/- | Summary |
|---------------|------|------|-----|-------------------------|
| Global PMI | 50.9 | 50.0 | - | Stagnation, from rising |
| Output | 51.5 | 50.2 | - | Expanding, slower rate |
| New Orders | 51.4 | 50.4 | - | Expanding, slower rate |
| New Exports | 50.5 | 49.4 | - | Falling, from rising |
| Employment | 50.3 | 49.5 | - | Falling, from rising |
| Input Prices | 47.7 | 48.1 | + | Falling, slower rate |
| Output Prices | 49.4 | 48.9 | - | Falling, faster rate |

J.P. Morgan Global Manufacturing PMI™

Global Manufacturing PMI signals stagnation in February

“February saw the growth rate of global manufacturing output slow to near-stagnation. Inflows of new business rose only marginally, while new export orders and employment both contracted. The J.P. Morgan Global Manufacturing PMI™ – posted 50.0 in February, a 39-month low and identical to the no change level that signals stagnation.

The downturn in emerging nations accelerated to its fastest since last September, while growth across the developed markets slowed to a 33-month low. Manufacturing production and new orders both rose only slightly during February, with the respective rates of increase the weakest since the final quarter of 2012. Output growth slowed in the US, the eurozone, Japan, the UK and India. Production volumes contracted in China, Taiwan, Indonesia, Malaysia, Brazil and Canada.”

“The Global Manufacturing PMI posted at the stagnation mark in February, further highlighting the fragility of global industry at the start of the year. Inflows of new business and production volumes barely rose, while the trend in international trade deteriorated. Market conditions will need to improve in the short run if global manufacturing is to avoid falling back into contraction.” – David Hensley, Director of Global Economic Coordination, J.P. Morgan

Private Indicators: Global



Markit® Global PMI™

“Global economic growth slowed to near-stagnation in February, according to PMI™ survey data. The JPMorgan Global PMI™, compiled by Markit® from its worldwide business surveys, sank to 50.6 from 52.6 in January, its lowest level since October 2012. Moreover, the index was down from 53.2 in January and the weakest recorded since October 2013.

Worse may be to come, as companies’ expectations about future business activity in the global services sector fell to the lowest in over four-and-a-half years.”

J.P. Morgan Global PMI™

Global PMI sinks to lowest since October 2012

“Weakness was again most pronounced in the emerging markets, where the PMI hit its second-lowest since March 2009, dropping below the 50.0 neutral level from 50.2 in January to 49.1. Developed world economies meanwhile reported the weakest growth since April 2013, with the PMI sliding from 53.3 in January to 51.2.

It wasn’t just output that stumbled. Global order books showed the smallest increase for almost three years and employment growth also waned, though net job creation continued to be recorded in the service sector, offsetting job losses in manufacturing. The weakening of demand growth led to a further intensification of deflationary pressures, with average prices charged for goods and services falling slightly, down for the first time in five months.

The slowdown was also broad-based by sector, with near-stalling growth seen in both global manufacturing and services, where PMI output readings of 50.2 and 50.7 respectively were recorded, the lowest since late-2012 in both cases.” – Chris Williamson, Chief Economist, Markit®

Private Indicators: Global



Markit® Global PMI™

“Global economic growth slowed to near-stagnation in February, according to PMI™ survey data. The JPMorgan Global PMI™, compiled by Markit® from its worldwide business surveys, sank to 50.6 from 52.6 in January, its lowest level since October 2012. Moreover, the index was down from 53.2 in January and the weakest recorded since October 2013.

Worse may be to come, as companies’ expectations about future business activity in the global services sector fell to the lowest in over four-and-a-half years.”

J.P. Morgan Global PMI™

Global factory activity stagnates and payrolls fall

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Private Indicators: Global



China manufacturing PMI shows steepest job losses for seven years

“The Caixin China General Manufacturing PMI™ survey, compiled by Markit, showed business conditions deteriorating at the fastest rate for five months in February. The PMI dropped from 48.4 in January to 48.0.

Production fell at the steepest rate since last September as new order inflows fell for the eleventh time in the past 12 months. Exports led the decline in new order books.

Backlogs of work – which measures firms’ pipelines of orders received but not yet completed – showed the first fall in ten months. Reduced backlogs of work are an indication of firms having excess capacity relative to demand. Stocks of finished goods fell at the fastest rate for over four years as many firms deliberately wound-down inventories in the face of weak demand, focusing on cost-cutting.”

“Perhaps most worrying of all, however, was the accelerating pace of job losses signalled by the survey. Factory employment suffered the largest monthly fall since January 2009, when jobs were being culled at the height of the global financial crisis. The steepening decline in employment indicates that the process of reducing excess capacity in the manufacturing sector is still very much ongoing. We note that larger firms have seen particularly steep job cutting, with a more modest rate of job losses seen in smaller firms.

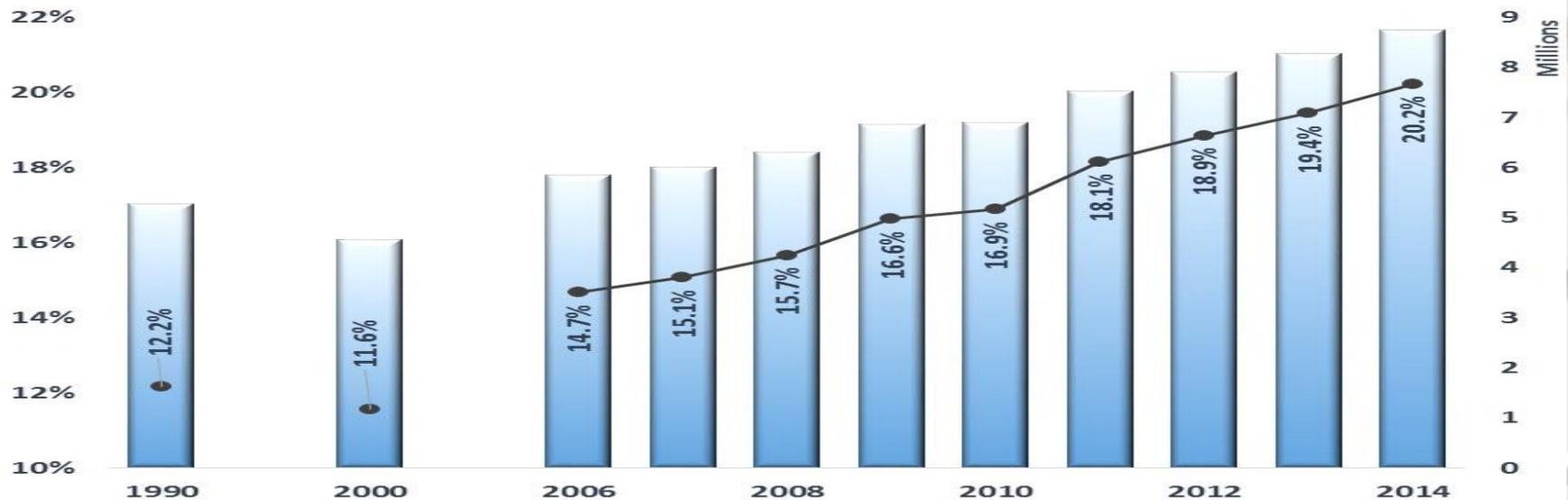
Consumer facing businesses are suffering the worst conditions, reporting the steepest downturns in production and exports since the global financial crisis in recent months, raising concerns about the extent to which global consumer spending is being buoyed by lower oil prices. Demand, including exports sales, of investment goods such as plant and machinery, has been somewhat more stable in prior months, though declined sharply again in February.” – Chris Williamson, Chief Economist, Markit®



Demographics

Demographics

Young Adults 25 to 34 Living With Parents or In-Laws



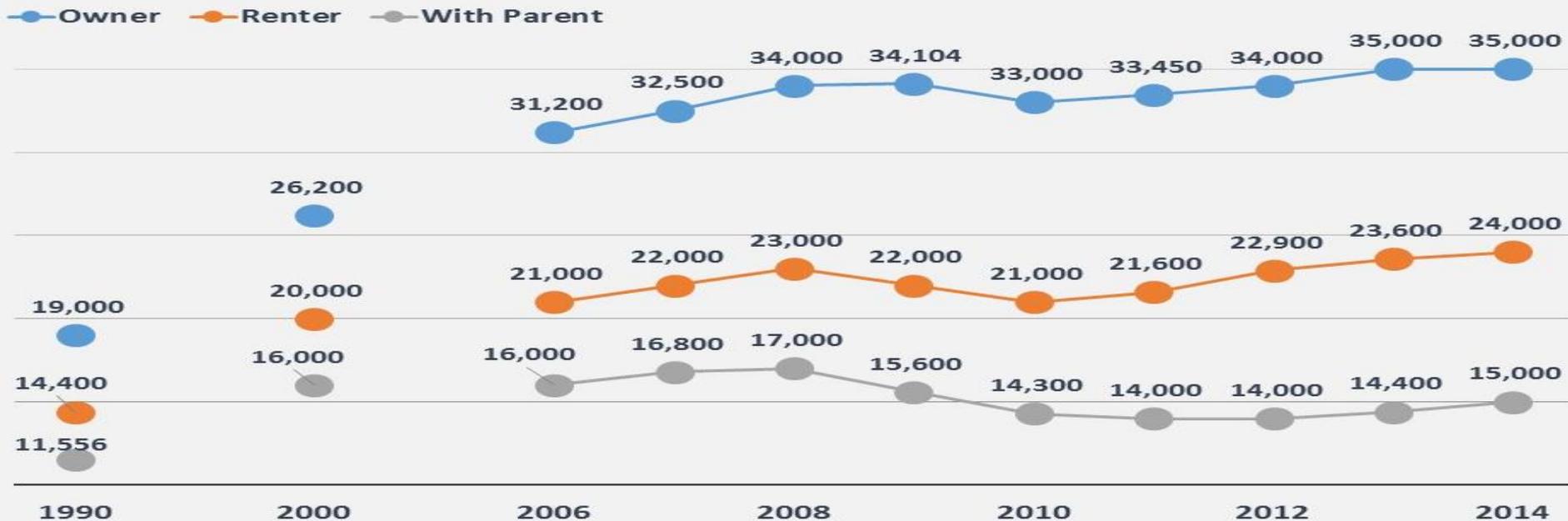
Source: 1990, 2000 Decennial Census PUMS, 2006-2014 ACS PUMS, NAHB estimates

Young Adult Households That Did Not Form

“...two million households headed by 25 – 34 year olds are missing from the current housing market but could have been active players if the headship rates remained at the 2000 levels. Instead, a rising number of young adults choose to stay with their parents or parents-in-law. As of 2014, more than 20 percent of young adults ages 25 to 34, or 8.8 million, live in homes of their parents or parents-in-law. This represents a sharp increase since 2000 when less than 12 percent, or 4.6 million, lived with parents. Even going back to 1990, when the youngest baby boomers filled the 25-34 age bracket, those living with parents accounted for 12.2 percent, or 5.3 million.

The rising probabilities of young adults to live with parents undoubtedly coincide with several recent demographic trends, such as the growing tendencies of 25-34 year olds to marry and have children later in life. A changing ethnic and cultural make-up of young adults proved to be less relevant since the share of immigrants in this age bracket actually declined from 2006 to 2014, and the share of Hispanics (who form larger households and later in life) fluctuated around 20 percent, with no clear trend, since at least 2006.” – Natalia Siniavskaia, Housing Policy Economist, NAHB

Young Adults Ages 25-34



Source: 1990, 2000 Decennial Census PUMS, 2006-2014 ACS PUMS, NAHB estimates

Young Adult Households That Did Not Form

“Homeownership rates for this age group [25-34] dropped from close to 47 percent in 2006 to 37 percent in 2014. The study points at the lack of income growth for young adults as a factor undermining their economic ability for independent living and homeownership. The analysis shows that 25-34 year olds were most severely affected by stagnating incomes. This age group showed virtually no personal income growth since 2006 while the median income for older groups grew almost 11 percent.

The income gap also widened between homeowners ages 25-34 and those who stay with parents. Young adults who own a home are the top earners in their age group. They also registered significant gains in personal income (though not adjusted for inflation), with the median income rising from \$26,200 in 2000, to \$31,200 in 2006 and further to \$35,000 by 2014. Meanwhile, young adults living with parents earn significantly less than their peers do, partially because they are twice as likely to be unemployed. More importantly, this group registered no growth in median personal income since 2000. More concerning, their median personal income is now lower than it was 14 years ago, \$15,000 in 2014 compared to \$16,000 in 2000.

The analysis suggests that the income requirements for independent living, and especially for owning a home, increased over the years, leaving many young adults with stagnating incomes behind at homes of their parents.” – Natalia Siniavskaia, Housing Policy Economist, NAHB

Demographics

From Own To Rent: Who Lost The American Dream?

“Older millennials, minorities, especially Hispanics, men and the wealthy in overheated housing markets were most likely to be displaced from homeowners to renters.

The financial crisis of 2008 created the biggest disruption to the U.S. housing market since the Great Depression. From the top of the housing bubble roughly a decade ago until just recently, there’s been a five percentage-point increase in the number of renters to owners to 43.3% from 38.5%. But who are these renters?

- **Older Millennials.** Young adults aged 26 to 34, historically the prime age group for first-time home buying, find themselves unable to make the leap from renters to homeowners.
- Even though women still rent at a higher rate, 44% compared to 38.1%, **men** were three-times more likely to move from owning to renting.
- **Hispanic households.** This racial group saw an increase at nearly twice the rate of Whites, African-Americans and Asians.
- **Las Vegas,** where the number of renting households jumped nine percentage points to 49.4% of all households in the nine years prior to 2015.
- **Upper middle-class and wealthy** The rate at which they shifted to renting from owning was greater than middle and lower income households. That’s in part because lower and middle-income households were already renting at significantly higher rates — homeownership among the wealthy remained above 80%, compared to less than 50% for poorer households.
- And finally, **everyone.** That’s because the average rent rose 22.3% in the 50 biggest housing markets (the cumulative rate of inflation for the period between 2006 and 2014 was 17.4%). Worse, the increase came at a time when the U.S. median household income (for the entire nation, not just the top 50 markets) fell 4.2%.” – Mark Uh, Data Scientist, Trulia

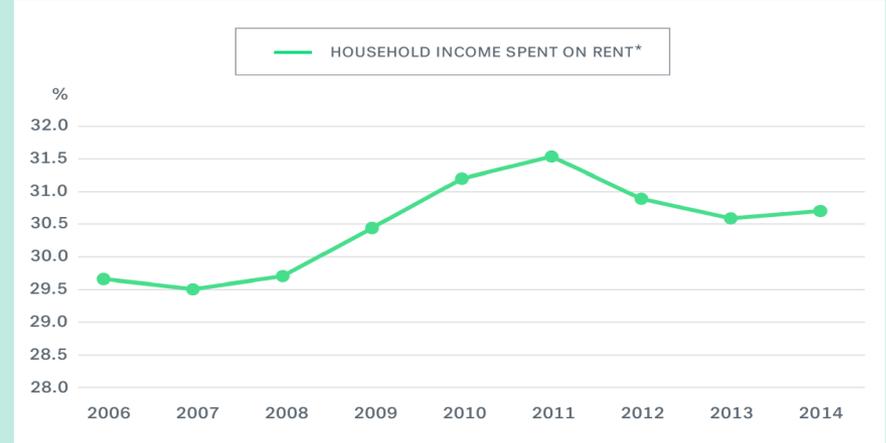
Demographics

Owners And Renters Breakdown



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Household Income Spent On Rent



*Weighted median % of income spent for all 50 metros

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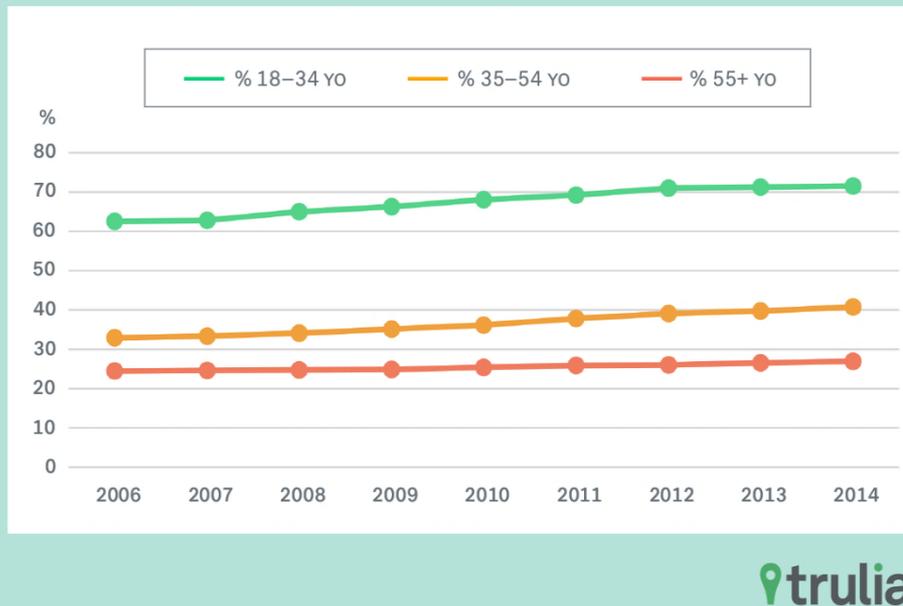
A Steady Decline in Homeownership and Increase in Renting

“While America is still far from becoming a nation of renters, the percentage of renters in the 50 largest U.S. metros who rent rose from 36.1%, pre-crisis in 2006, to 41.1%, post-crisis 2014. This is a 5-percentage point jump. Meanwhile, homeownership declined 5 percentage points. More than half of the areas with the greatest shift from owners to renters were on the seaboards.

Not only are the percentage of renters increasing, so are the rents – which have risen faster than incomes. Average rents in the top 50 markets have risen 22.3%, while incomes nationally fell 5.8% in the nine years since 2006. To put this into context, a typical household spent just 29.7% of their income on rent in 2006. Since the economic crisis, this number peaked in 2011 at 31.5%, then fell slightly to 30.7% in 2014.” – Mark Uh, Data Scientist, Trulia

Demographics

Age Breakdown



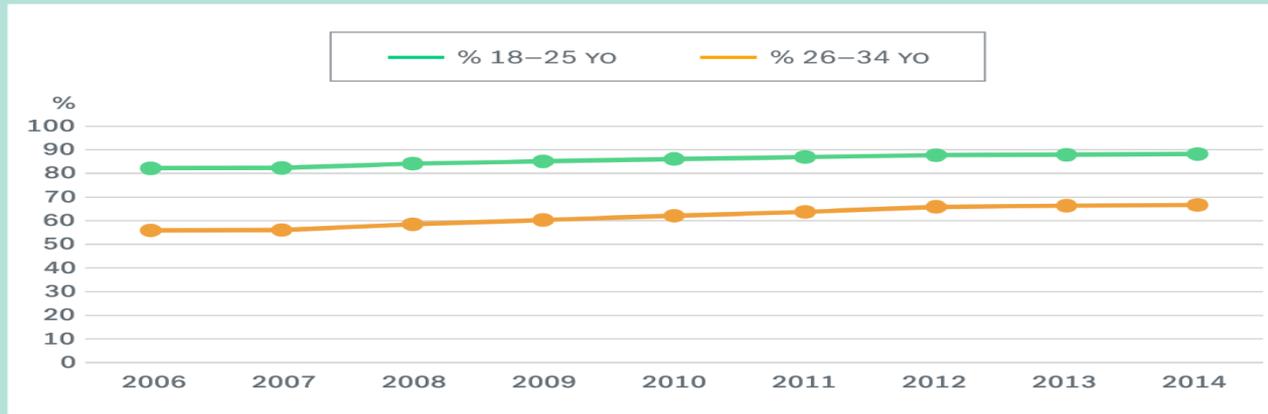
Young Adults Unable to Achieve American Dream

“When it came to age, the financial crisis spared no one. Across all age groups (18-34, 35-54, and 55 and older), there was an increase in renting. Eighteen-to-34-year-olds had the biggest jump, by 9.1 percentage points. In fact, 71.6% of young adults in 2014 were renters rather than homeowners.” – Mark Uh, Data Scientist, Trulia

“Surprisingly, the 35-to-54-year-old population also saw a very sizeable increase in renting, which rose 7.8 percentage points. Before the crisis, 35-to-54-year-olds were actively involved in buying homes. We suspect that many in this age-segment lost their jobs during the crisis. As a result, they were subsequently forced out of their homes via foreclosure, and were forced to enter the rental market.” – Mark Uh, Data Scientist, Trulia

Demographics

Millennial Age Breakdown



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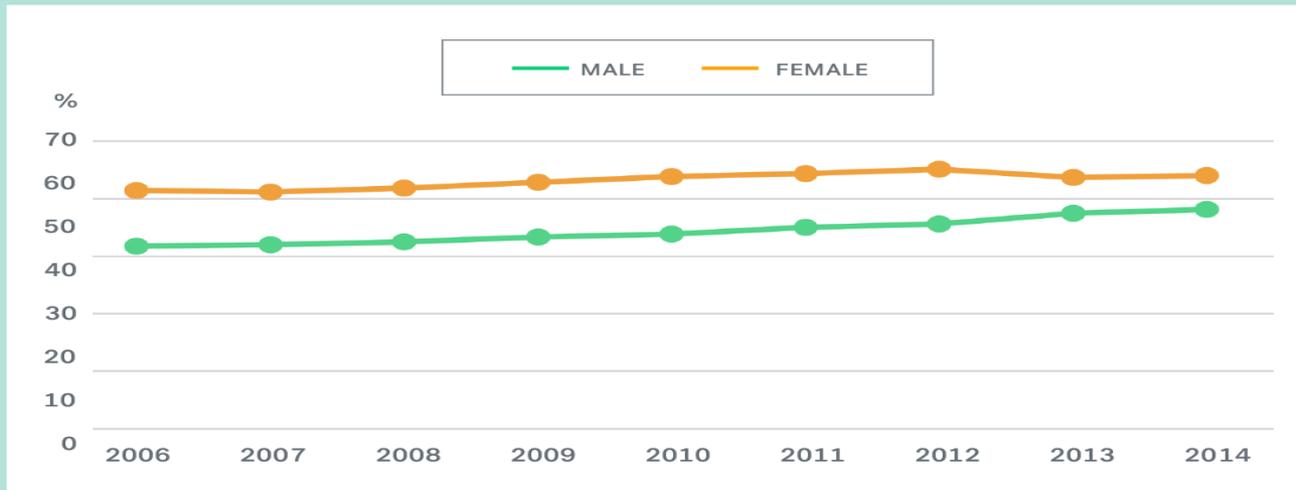
Young Adults Unable to Achieve American Dream

“Contrary to popular belief, the large jump in renters among 18-34 year olds is not just a reflection of the kids leaving the nest and forming their own households as renters. When we separated the 18-34 year-old group into two smaller segments (18-25 year olds vs. 26-34 year olds), the results, we found older millennials of today were disproportionately affected:

The younger 18-25 year-old group only saw a 5.9 percentage point jump in renting from 2006 to 2014, while the older 26-34 year-old group saw a surprising 10.9 percentage point jump. Traditionally, young adults have become first-time homebuyers as they grow older and have advancing in their careers and incomes. This suggests that the fundamental shifts in the economy (job loss, low-income growth, diminishing affordability of homes) may have caused the increase in renting for those in the 18-34 year-old group.” – Mark Uh, Data Scientist, Trulia

Demographics

Gender Breakdown



 trulia

More Men Became Renters Post-Crisis

“Looking at the heads of households by gender, we saw a larger shift from homeownership to renting by households lead by men. With a 6.4-point gain, men saw a larger increase in renting than women post-crisis, up just 2.6 percentage points.

However, keep in mind that because we’re looking at the head of households, this may include dual-income households where both a man and woman reside. Households led by women tend to be renters. Before and after the crisis, a greater proportion of women, 41.4% in 2006 and 44% in 2014, rented than men.” – Mark Uh, Data Scientist, Trulia

Demographics

Income Breakdown



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Owner To Renter: By Income

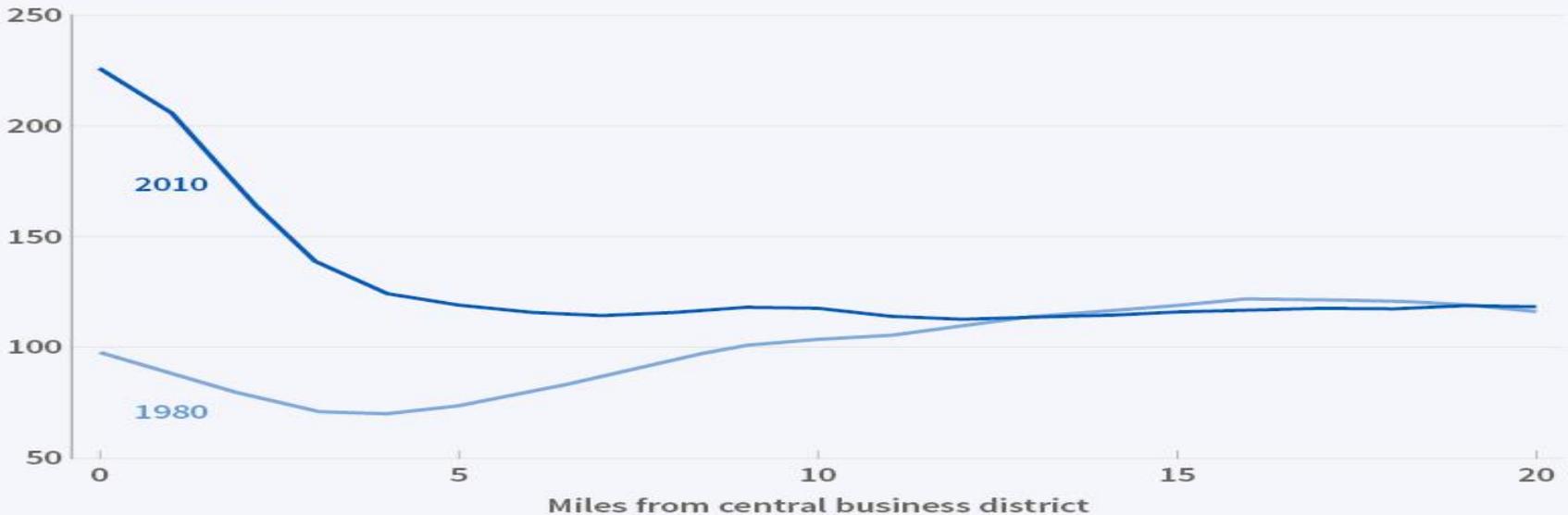
“The great recession of 2008 certainly had a great impact on the rich. While poorer households are generally more likely to rent rather than wealthier households, we surprisingly found higher increases in rental rates among the top and upper-middle income earners.

The **poorest households had the biggest increase in percentage of income spent on paying rent** rising a whopping 6.8 percentage points, followed by the lower-middle class households at 2.6 percentage points. This goes on to show that the **poorest of households have not seen their income growth accelerate as quickly as that of rent increases on starter rental units.**” – Mark Uh, Data Scientist, Trulia

Demographics

HOME PRICES AND DISTANCE TO THE CITY CENTER

000s, 1980 dollars



Source: Authors' calculations, decennial censuses and the American Community Survey data

Time-Starved Skilled Workers May Be Driving Gentrification

Moving closer to city centers is a time-saver for better-educated, better-paid 'leisure losers;' their preferences seemingly have reversed the long-standing trend toward suburbanization.

“In the period following World War II, suburbanization dominated the U.S. landscape. However, as the century drew to a close, urban gentrification, a broad-based rehabilitation of the central city as the place to work, live, and play, emerged as an important development. Since the 1980s, and more so recently, poverty has been rising faster in suburban areas than in cities. Between 2000 and 2010, for example, poverty rates in Manhattan and Brooklyn declined by 10 percent, while poverty rose on Staten Island, the most suburban of New York City's five boroughs.” – Lena Edlund and Maria Micaela Sviatschi – Columbia University and Cecilia Machado – Vargas Foundation

Demographics

Time-Starved Skilled Workers May Be Driving Gentrification

“...in 1980, U.S. central-city residential real estate carried only a slight price premium. In fact, prices were higher for properties more than ten miles away from city centers than for those that were closer. By 2000, city centers were commanding the highest prices, with prices falling sharply with distance for the first five miles, and then holding steady as distance increased further.

The scarcity of leisure time for college-educated workers is a prime factor in their movement toward city centers, the researchers propose. Between 1985 and 2005, there was a contraction in leisure time among college-educated men, while there was an increase in leisure among those with less education. For women, leisure contracted across the board, but at twice the rate for college-educated women compared to non-college-educated women. This time crunch leaves workers keen on time-saving hacks, the researchers say, and living close to work is an important one. Especially for skilled workers, that means being close to the city center.

The researchers argue that gentrification may be the result of high-income households seeking to protect increasingly scarce leisure by reducing time spent on low-utility activities such as commuting. In other words, they trace the rise of centrality as the local amenity of choice (a departure from the earlier trend of suburbanization) to high-income households being increasingly leisure-starved.” – Lena Edlund and Maria Micaela Sviatschi, Columbia University, and Cecilia Machado, Vargas Foundation, respectively.

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