

# The Virginia Tech – U.S. Forest Service

## December 2015

### Housing Commentary: Part B



**Urs Buehlmann**

Department of Sustainable Biomaterials  
College of Natural Resources & Environment

Virginia Tech  
Blacksburg, VA  
540.231.9759

buehlmann@gmail.com

**Delton Alderman**

Forest Products Marketing Unit  
Forest Products Laboratory

U.S. Forest Service  
Madison, WI  
304.431.2734

dalderman@fs.fed.us



2016

Virginia Polytechnic Institute and State University

VCE-ANR183NP

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Interim Administrator, 1890 Extension Program, Virginia State University, Petersburg.

# Table of Contents

Slide 3: [Congressional Budget Office](#)

Slide 12: [Federal Reserve System Indicators](#)

Slide 36: [Private Indicators](#)

Slide 60: [Demographics](#)

Slide 72: [Virginia Tech Disclaimer](#)

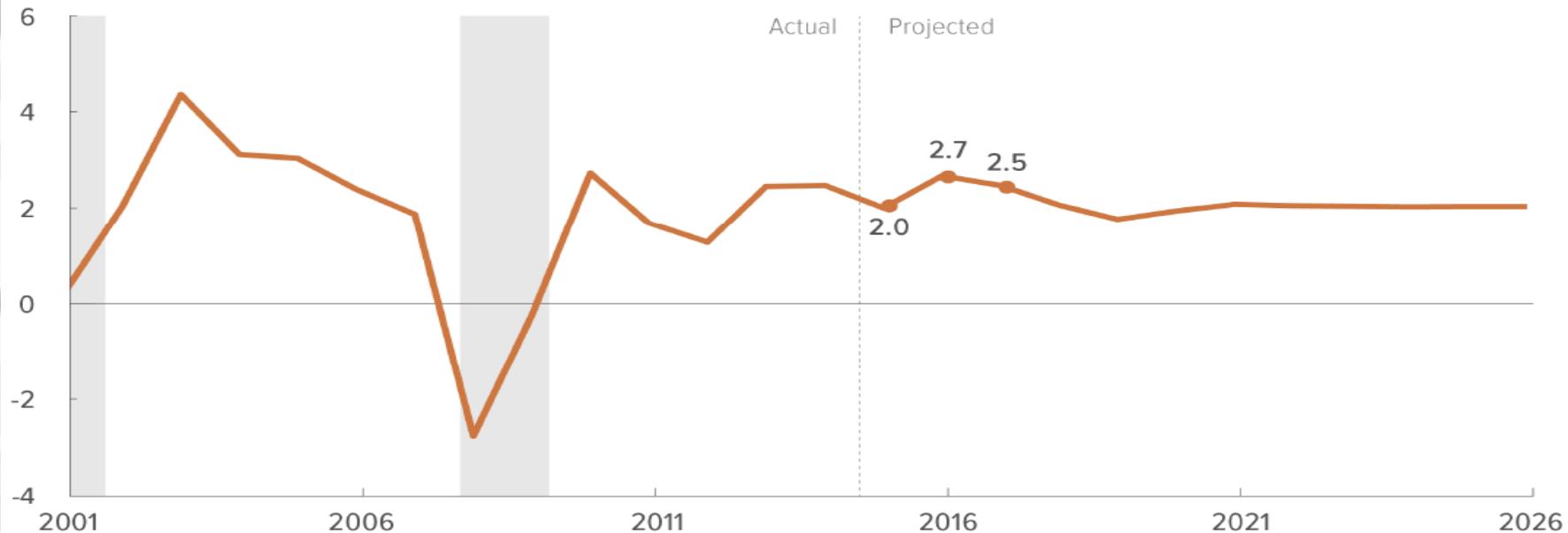
Slide 73: [USDA Disclaimer](#)

# Federal, Federal Reserve System, and Private Indicators

# Congressional Budget Office

## Growth of Real GDP

Percent, Fourth Quarter to Fourth Quarter



"If current laws governing federal taxes and spending generally remained in place, by CBO's projections, real GDP would grow by 2.7 percent this calendar year and by 2.5 percent in 2017, as measured by the change from the fourth quarter of the previous year. From 2018 through 2020, the economy would grow at an average annual rate of 2.0 percent, CBO projects.

The agency anticipates that consumer spending will be the largest single component of that growth, as it has been in the past. However, the pickup in the growth of output from 2015 to 2016 and 2017 is likely to stem largely from faster growth in investment in business capital and housing." – Congressional Budget Office

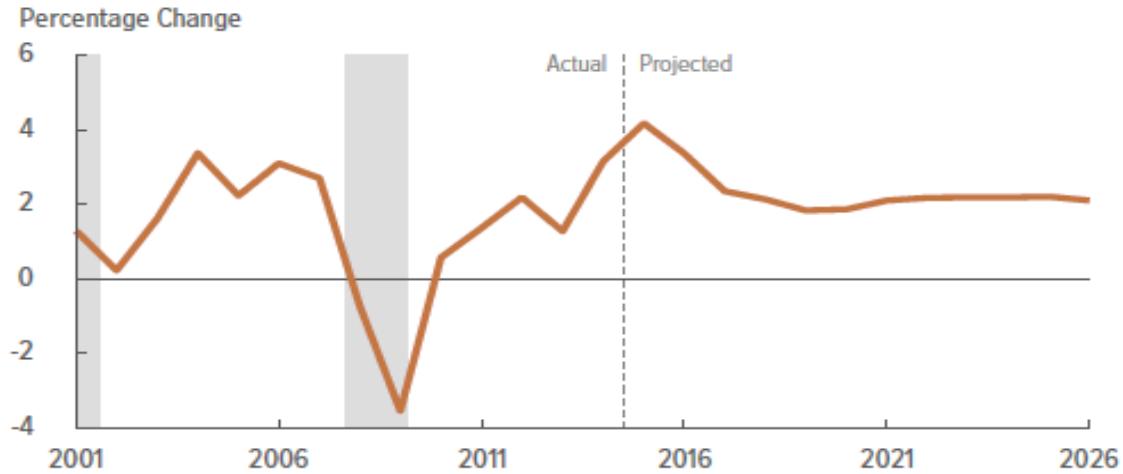
# Congressional Budget Office

Figure 2-4.

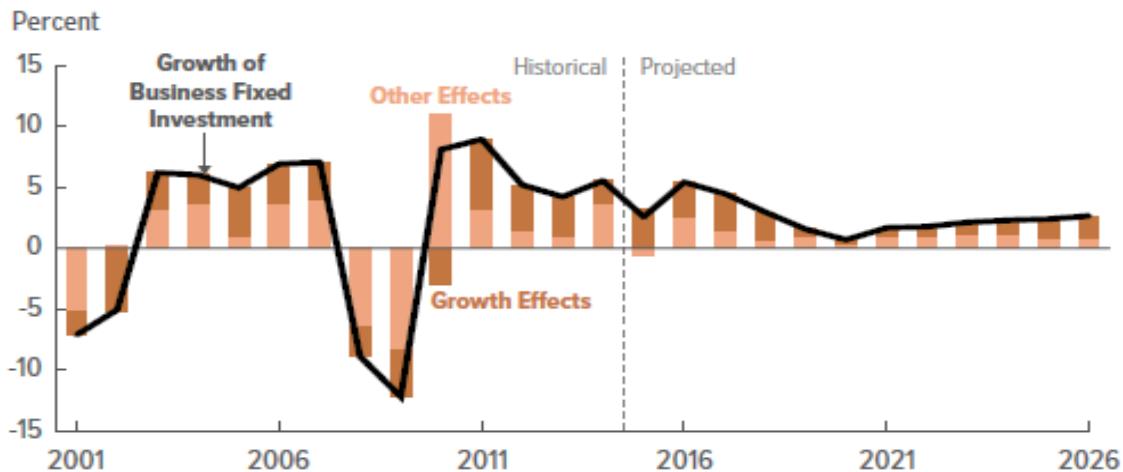
[Return to Reference 1, 2, 3, 4](#)

## Factors Underlying the Projected Contributions to the Growth of Real GDP

Solid growth in the total amount of **Inflation-adjusted compensation of employees** is projected to support growth in consumer spending in the next few years.



CBO expects the **effects of past and expected future growth of output** to drive the growth of business fixed investment over the next few years.



Source: Congressional Budget Office, using data from the Bureau of Economic Analysis, the Bureau of the Census, and the Federal Reserve.

Source: [https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51129-2016Outlook\\_OneCol.pdf](https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51129-2016Outlook_OneCol.pdf); 1/16

[Return to TOC](#)

# Congressional Budget Office

## Consumer Spending

“In CBO’s estimation, solid growth in consumer spending on goods and services will be an important contributor to the growth of real output. That contribution this year will be nearly the same as in 2015—about 1.9 percentage points (as measured from the fourth quarter of the previous year)—and then fall slightly to 1.8 percentage points in 2017. CBO estimates that consumer spending will contribute less to the growth of output thereafter.

CBO estimates that real business investment will contribute 0.6 percentage points to the growth rate of real GDP in 2016 and 0.5 percentage points in 2017—up from a contribution of 0.2 percentage points in 2015. The contribution in 2016 accounts for most of this year’s increase in the projected growth in real GDP. CBO estimates that real business investment will contribute less to the growth of output in later years. All of the contribution from business investment will be from investment in fixed assets rather than from inventory accumulation because businesses have largely restored the ratio of their inventories to sales to the desired level, in CBO’s view (Figure 2-4).”

## Residential Investment

“CBO anticipates that construction of new homes will be the primary contributor to residential investment, mainly because of expected continued strength in household formation. Other factors include less restrictive mortgage lending standards and robust demand for replacement housing units. Although mortgage lending standards remain tighter than they were before the 2007–2009 recession, they have been loosening over the past few years and probably will continue to loosen.

CBO anticipates that stronger growth in demand for housing will put upward pressure on house prices. In 2015, house prices (as measured by the Federal Housing Finance Agency’s price index for home purchases) rose by 4.4 percent (on a fourth-quarter-to-fourth-quarter basis), in CBO’s estimation. CBO projects that they will increase by 2.1 percent in 2016 and by about 2.4 percent per year, on average, over the 2017–2020 period. That outlook accounts for the projected increase in the supply of housing units, which is expected to temper the price gains resulting from stronger housing demand (Figure 2-4).” – Congressional Budget Office

# Congressional Budget Office

Figure 2-3.

[Return to Reference](#)

## Projected Contributions to the Growth of Real GDP

Projected growth of real GDP

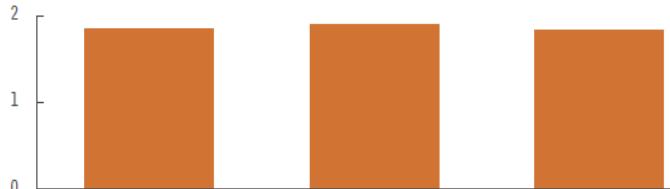
2.0%

2.7%

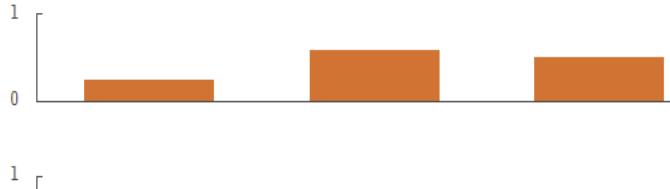
2.5%

is the sum of contributions,  
in percentage points, from . . .

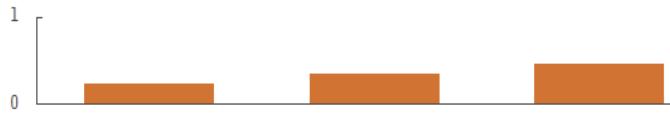
Consumer Spending



plus  
Business Investment



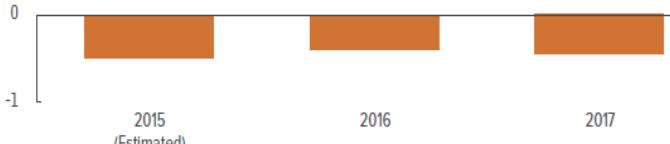
plus  
Residential Investment



plus  
Purchases by  
Federal, State, and  
Local Governments



plus  
Net Exports



Source: Congressional Budget Office.

## Residential Investment

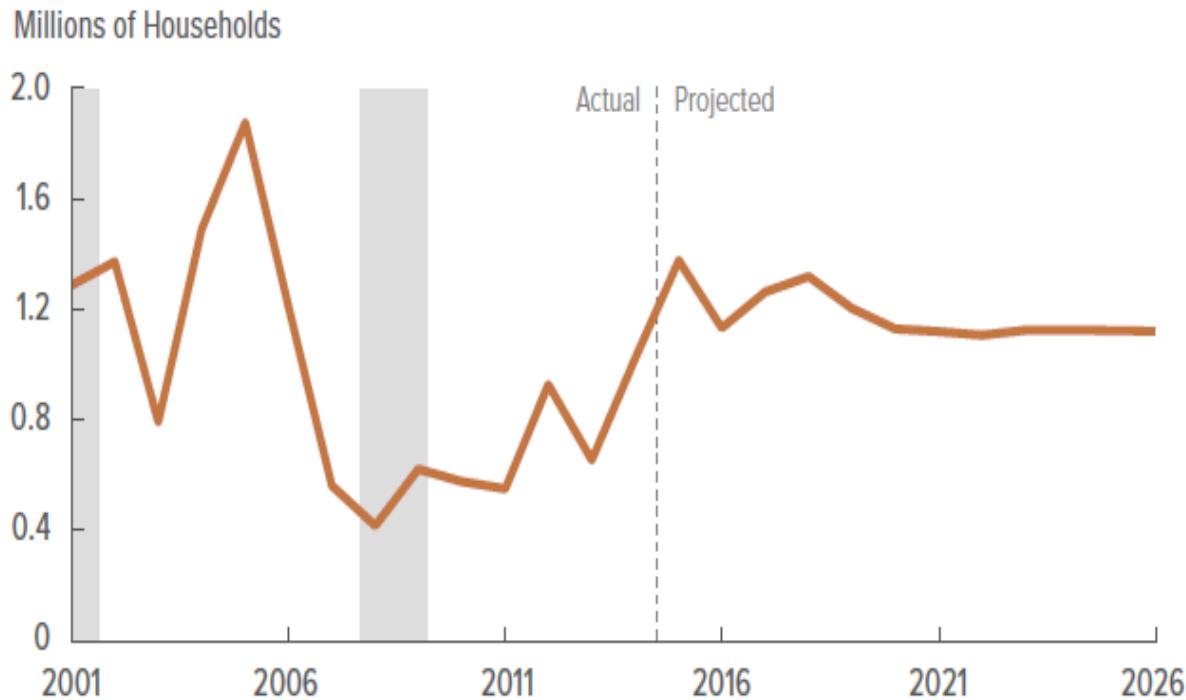
“CBO expects residential investment to grow rapidly in real terms over the next few years, even as mortgage rates begin to rise. The sector’s small size will limit its contribution to the growth of real GDP, but CBO expects the contribution will be noticeably larger than the historical average.

CBO projects that residential investment will contribute 0.4 percentage points to the average growth rate of real GDP from 2016 through 2018 – up slightly from 2015 – and a smaller amount thereafter.” – Congressional Budget Office

# Congressional Budget Office

Figure 2-4.

## Factors Underlying the Projected Contributions to the Growth of Real GDP



Household formation, along with robust demand for replacement housing units and less restrictive mortgage lending standards, will contribute to solid growth in residential investment over the next few years.

“CBO anticipates that construction of new homes will be the primary contributor to residential investment, mainly because of expected continued strength in household formation. Other factors include less restrictive mortgage lending standards and robust demand for replacement housing units. Although mortgage lending standards remain tighter than they were before the 2007–2009 recession, they have been loosening over the past few years and probably will continue to loosen.” – Congressional Budget Office

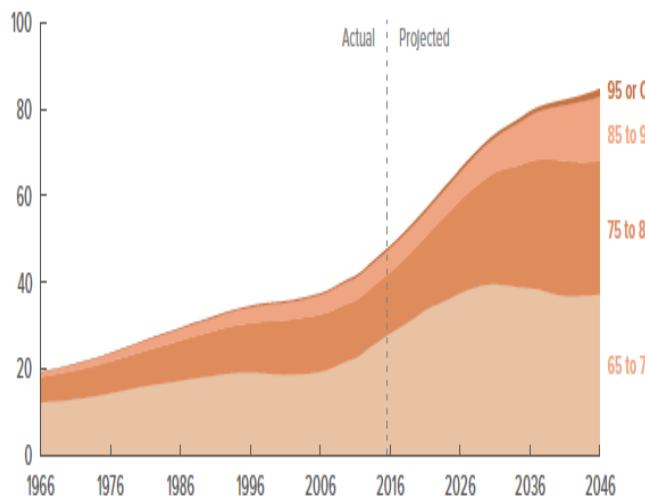
# Congressional Budget Office

Figure 3-2.

[Return to Reference](#)

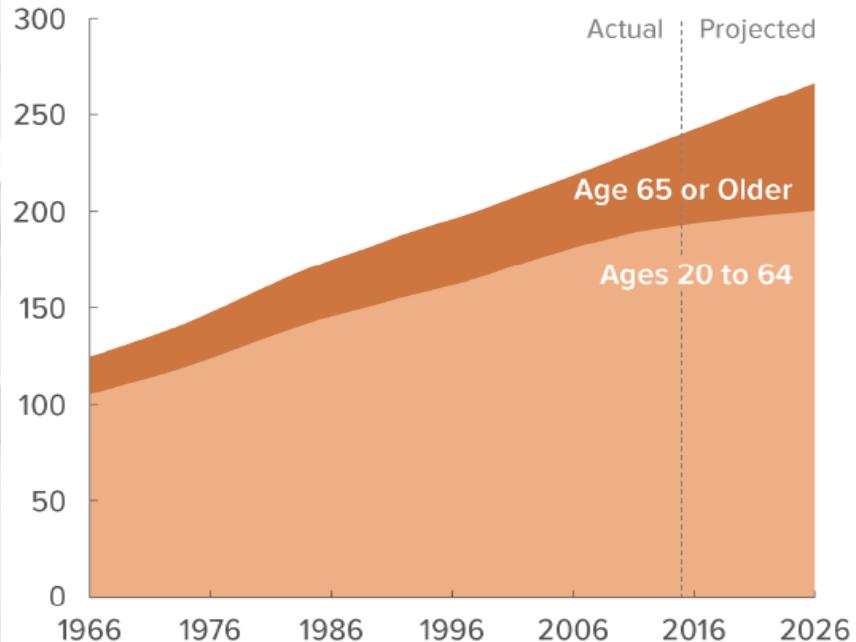
## Number of People Age 65 or Older, by Age Group

Millions of People



Source: Congressional Budget Office.

Millions of People



“Much of the growth in mandatory spending arises because the largest mandatory programs – Social Security and Medicare – provide benefits mostly to the elderly, a segment of the population that has been growing significantly and will continue doing so. The number of people age 65 and older is now more than twice what it was 50 years ago, and over the next 10 years, that number is expected to rise by more than one-third.”  
– Congressional Budget Office

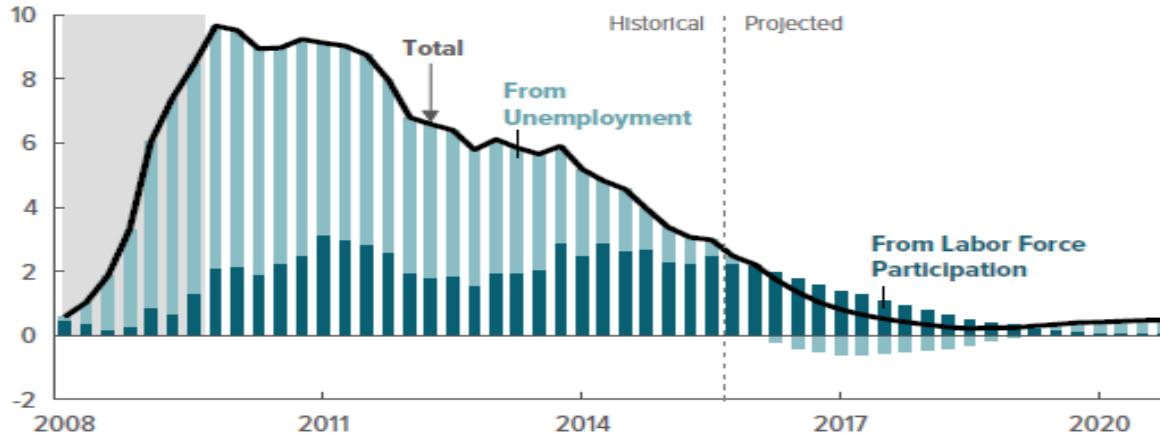
# Congressional Budget Office

Figure 2-5.

[Return to Reference](#)

## Employment Shortfall

Millions of People



Source: Congressional Budget Office, using data from the Bureau of Labor Statistics.

The employment shortfall from unemployment is the number of people who would be employed if the unemployment rate equaled its natural rate. (The natural rate is CBO's estimate of the rate arising from all sources except fluctuations in the overall demand for goods and services.) The shortfall from unemployment falls below zero from 2016 through early 2019, reflecting CBO's forecast that the unemployment rate will be below its natural rate during that period. The employment shortfall from labor force participation is the number of people who would be employed if the rate of labor force participation equaled its potential.

Data are quarterly.

“...the growth of output over the next two years will increase the demand for labor, leading to solid employment gains and virtually eliminating labor market slack. The employment shortfall is projected to shrink to a little more than 1 million people by the end of 2016 and reach  $\frac{1}{2}$  million people by the end of 2017. The projected employment shortfall over the next few years reflects CBO’s expectation that the labor force will remain smaller than its estimated potential size.

Partially offsetting that factor is the agency’s projection that the unemployment rate will fall below the estimated natural rate of unemployment (the rate that arises from all sources except fluctuations in the overall demand for goods and services). That difference shrinks the projected employment shortfall in 2016 and 2017. With that increased demand for labor, CBO projects, the increased competition for workers will boost the growth of hourly labor compensation (wages, salaries, and benefits).” – Congressional Budget Office

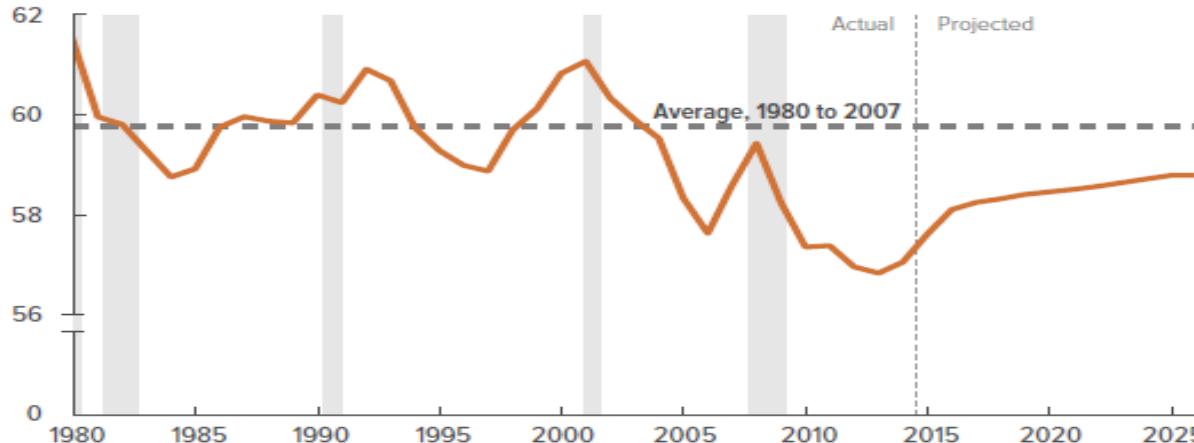
The employment shortfall has dropped sharply since 2009 because of a decline in the unemployment rate; it currently remains elevated, however, mostly from low labor force participation.

# Congressional Budget Office

Figure 2-11.

[Return to Reference](#)

Labor Income  
Percentage of Gross Domestic Income



CBO expects the labor share of income to rise but remain below its average from 1980 to the beginning of the recession in 2007.

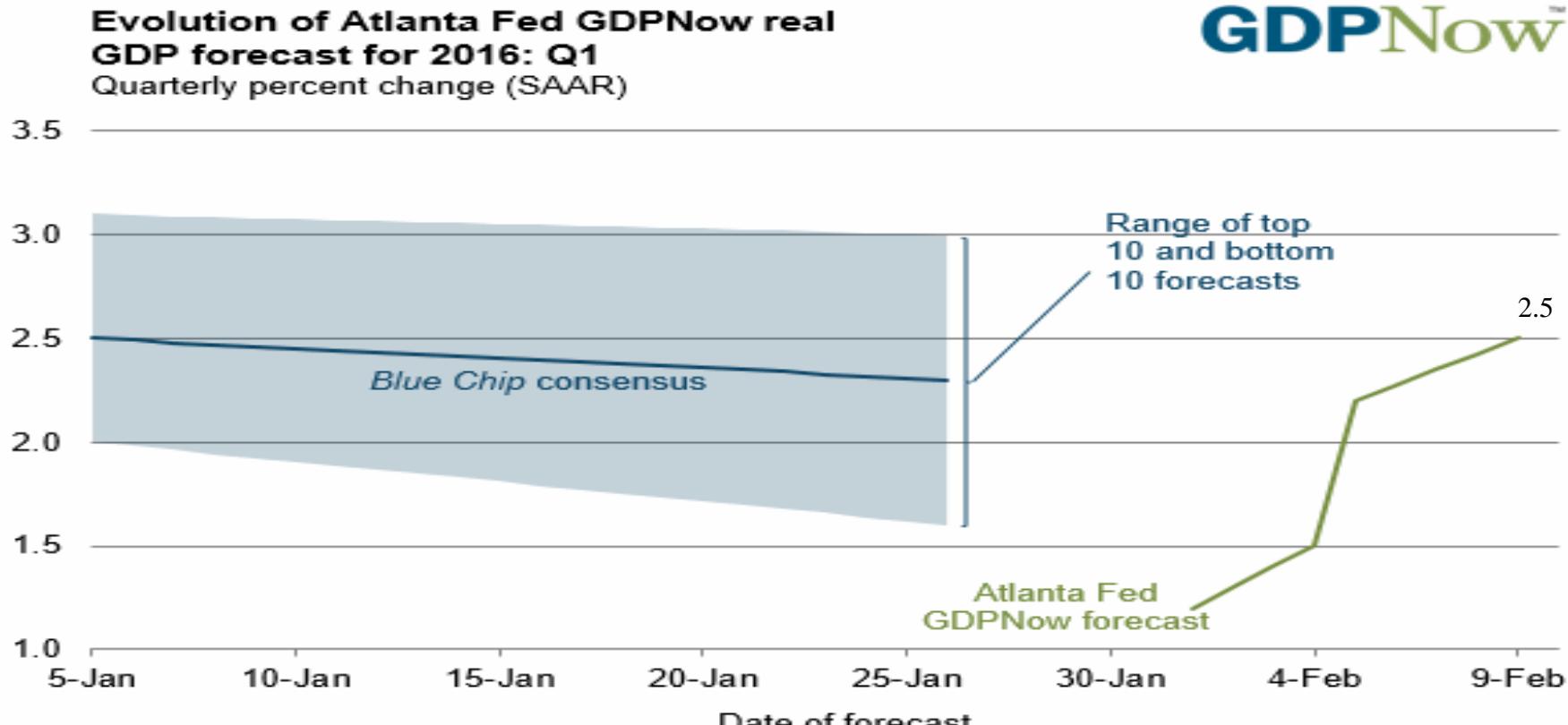
Source: Congressional Budget Office, using data from the Bureau of Economic Analysis.

## Labor Income

“In CBO’s projections, labor income grows faster than other components of GDI over the next decade, increasing its share from 57.6 percent in 2015 to 58.8 percent in 2026. CBO expects the labor share to rise because employment is expected to rise and real compensation per hour is projected to grow more strongly than productivity for several years as cyclical weakness in the labor market wanes. As a result, the bargaining power of workers will improve and the share of income going to corporate profits will be smaller. By the end of the projection period, however, real hourly compensation is projected to move in step with growth in labor productivity.

However, CBO expects that some factors that have depressed labor’s share of GDI since 2000 will continue during the coming decade. As a result, that share will not return to its 1980–2007 average of nearly 60 percent. One such factor is globalization, which has tended to move the production of labor-intensive goods and services to countries with lower labor costs. Another factor is technological change, which may have increased returns to capital more than returns to labor.” – Congressional Budget Office

# Atlanta Fed: GDPNow™



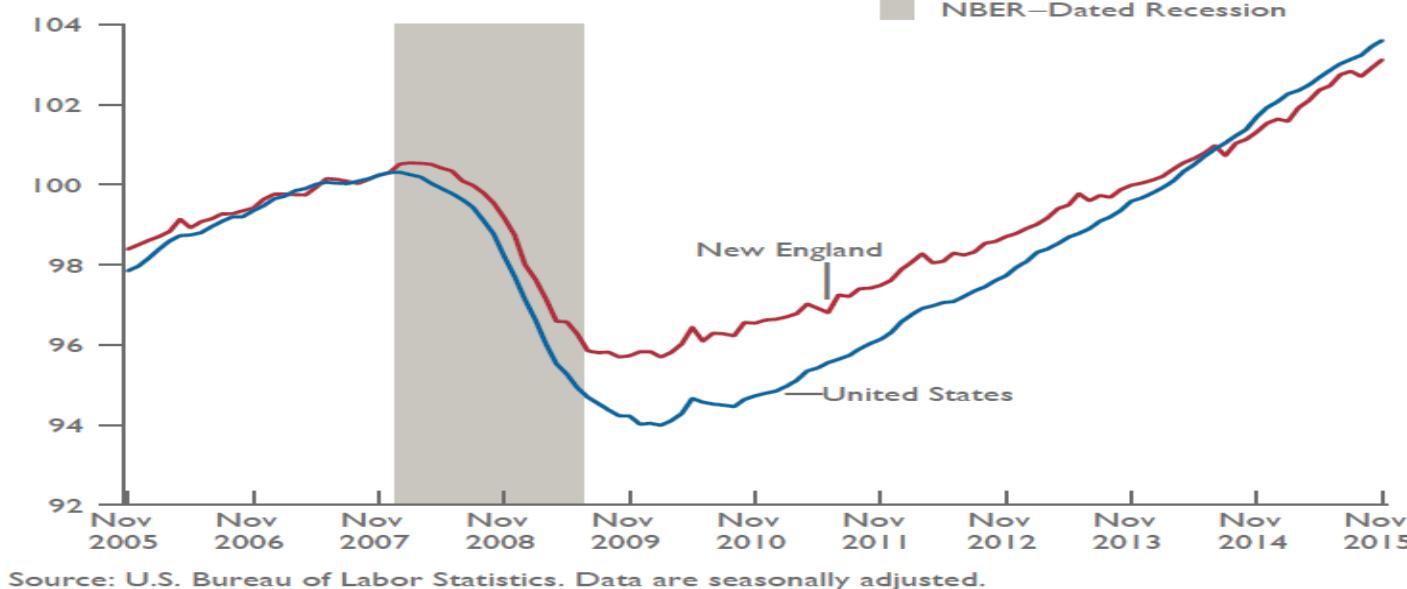
Sources: *Blue Chip Economic Indicators* and *Blue Chip Financial Forecasts*

“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the first quarter of 2016 is 2.5 percent on February 9, up from 2.2 percent on February 5. After this morning's wholesale trade report from the U.S. Census Bureau, the forecast of the first-quarter change in private inventory investment in 2009 dollars increased from -\$6 billion to \$4 billion.” – The Federal Reserve Bank of Atlanta

# U.S. Economic Indicators

## Exhibit I Nonagricultural Employment

November 2005 – November 2015  
Index 2007=100



## New England Economic Indicators

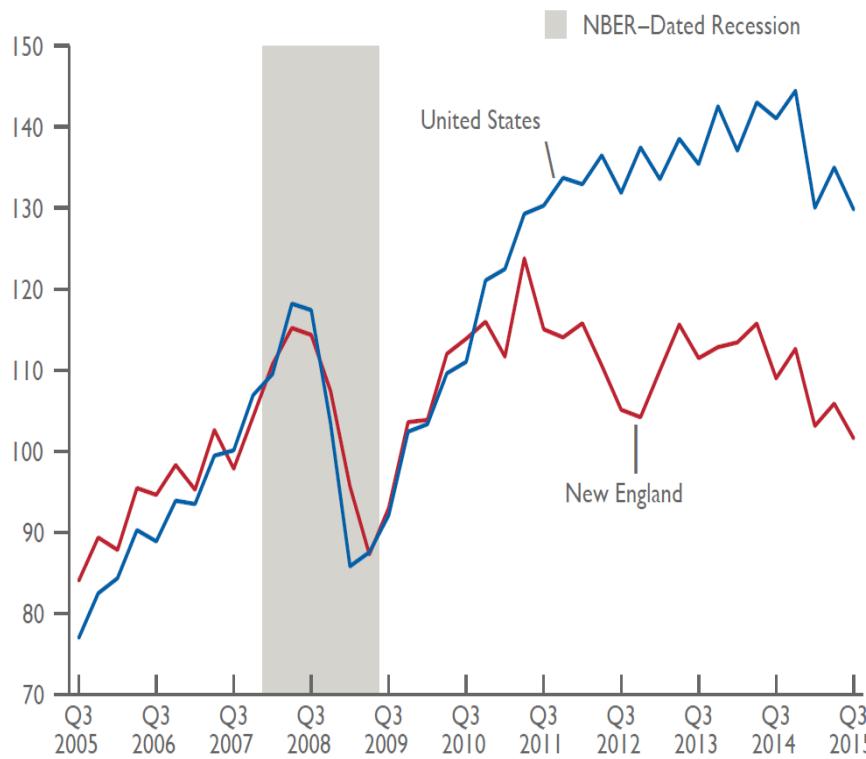
### Economic activity continued to improve throughout 2015

“In late 2015 New England and the United States continued to see modest improvements in economic indicators. Employment increased, wages and salaries rose, and unemployment rates fell. Growth in consumer prices was modest all year due to declining Fuel & Utility and Transportation costs. However, export activity declined throughout 2015 as global demand for US exports moderated, particularly in Canada.” – The Federal Reserve Bank of Boston

# U.S. Economic Indicators

## Exhibit 6 Total Merchandise Exports

Third Quarter 2005 – Third Quarter 2015  
Index 2007=100



Source: World Institute for Strategic Economic Research.

## New England Economic Indicators

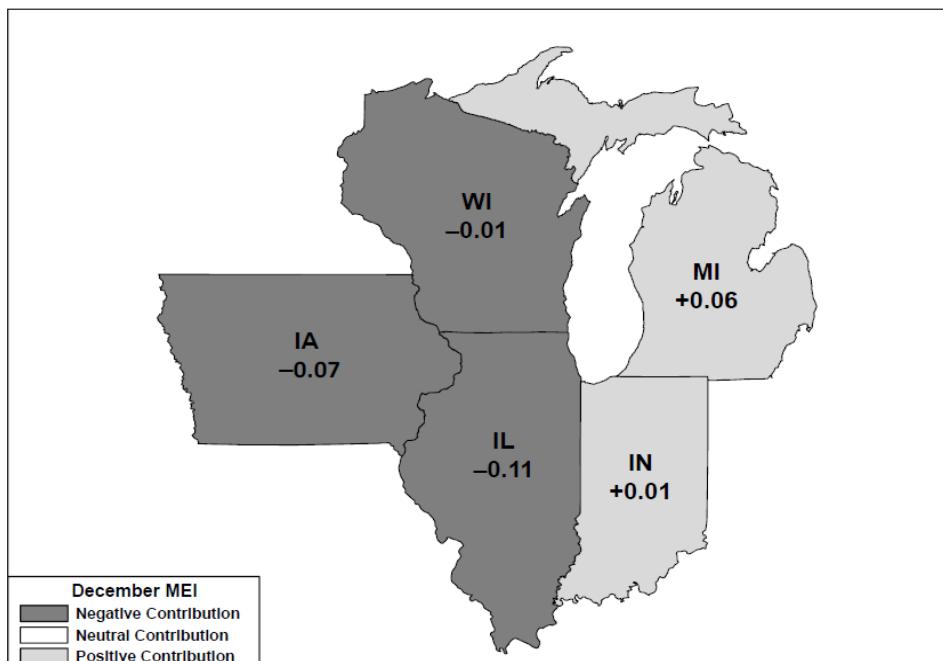
### Exports are down from all New England states in 2015

The dollar value of exports from both New England and the United States declined year-over-year through the first three quarters of 2015, most recently falling 8.0 percent nationally and dropping 6.8 percent regionally between Q3 2014 and Q3 2015. The declining value of exports this year marked the first drop in exports nationally since 2009, though New England had seen year-over-year declines as recently as 2012.

All six New England states reported declines in exports through Q3 2015, ranging from a 0.4 percent in Massachusetts to 23.7 percent in Rhode Island. While the value of exports from the region and nation are down in most major industries and to most major destinations, a large portion of the drop in export values comes from falling exports to Canada, which represents both the nation's and the region's biggest trading partner.” – The Federal Reserve Bank of Boston

# U.S. Economic Indicators

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 Index shows Midwest growth decreased slightly in December

“The Midwest Economy Index (MEI) moved up to  $-0.15$  in December from  $-0.20$  in November. The relative MEI rose to  $+0.28$  in December from  $+0.08$  in November.

December’s value for the relative MEI indicates that Midwest economic growth was somewhat higher than what would typically be suggested by the growth rate of the national economy.” – The Federal Reserve Bank of Chicago

## The Federal Reserve Bank of Chicago

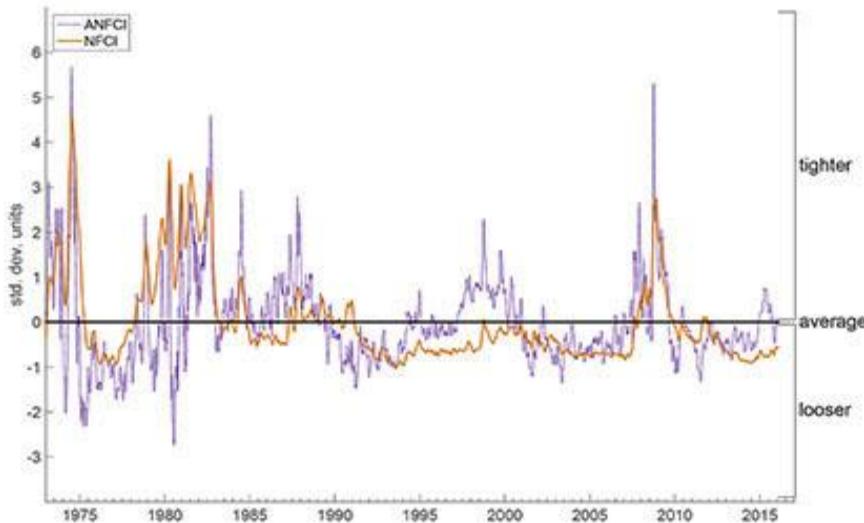
“Manufacturing’s contribution to the MEI: no change at  $-0.21$  in December.

...construction & mining sector’s MEI contribution increased to  $0.02$  in December from  $-0.06$ .... .

The service sector’s contribution to the MEI unchanged at  $-0.04$  in December .... .

The contribution from consumer spending indicators to the MEI increased to  $+0.08$  in December from  $+0.10$  in November.”

# U.S. Economic Indicators



Index	Current	Previous	1 Month Ago	3 Months Ago	6 Months Ago	12 Months Ago
NFCI	-0.56	-0.56	-0.55	-0.73	-0.73	-0.65
ANFCI	-0.06	-0.04	0.09	-0.30	0.22	0.22

## Financial Conditions Steady in Week Ending February 5

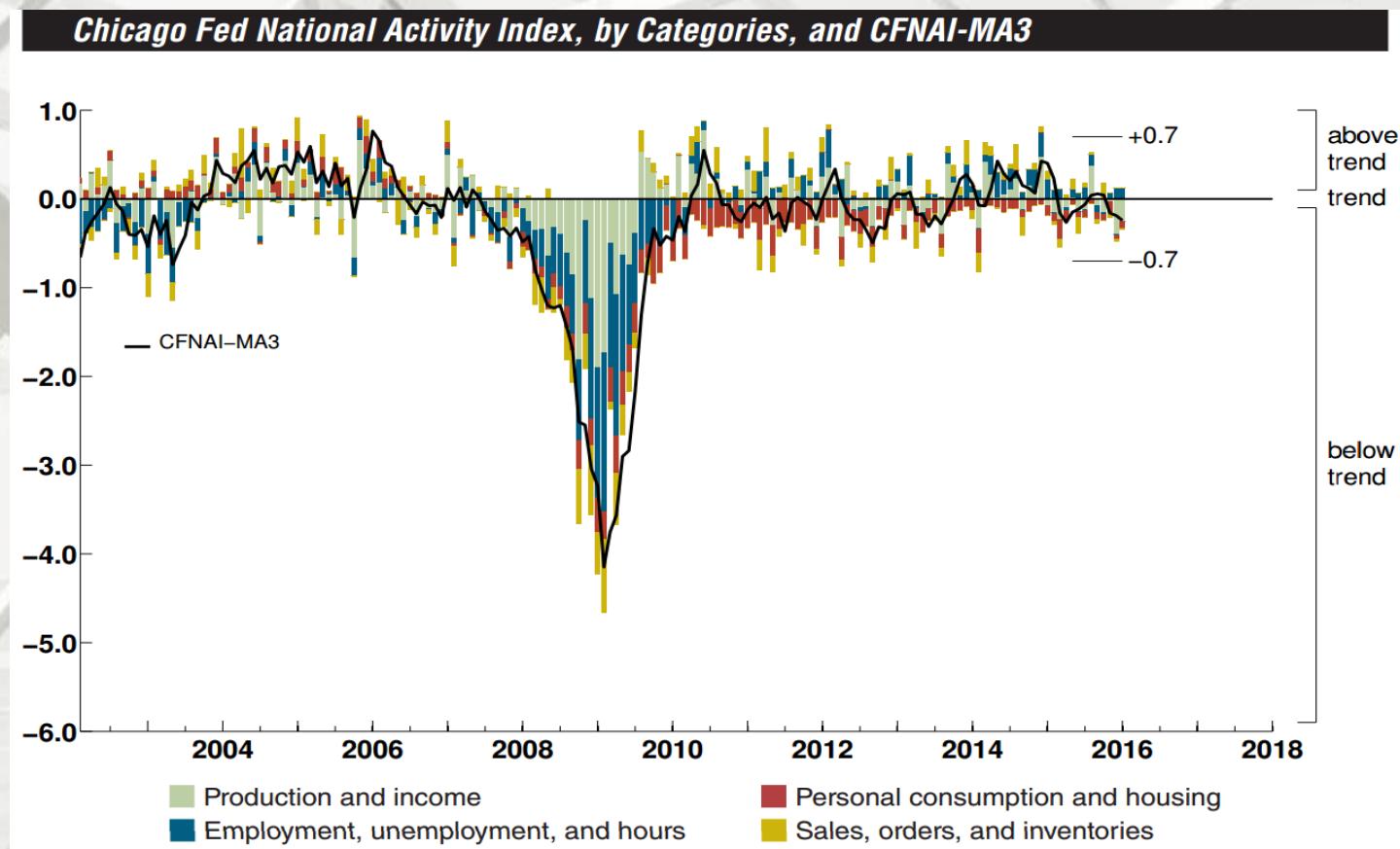
“The NFCI stood at –0.56 in the week ending February 5—roughly unchanged from the previous week.

The leverage subindex ticked down from the previous week, while the risk subindex ticked up and the credit and nonfinancial leverage subindexes were unchanged.”

## The Federal Reserve Bank of Chicago

“The ANFCI ticked down to –0.06 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).”

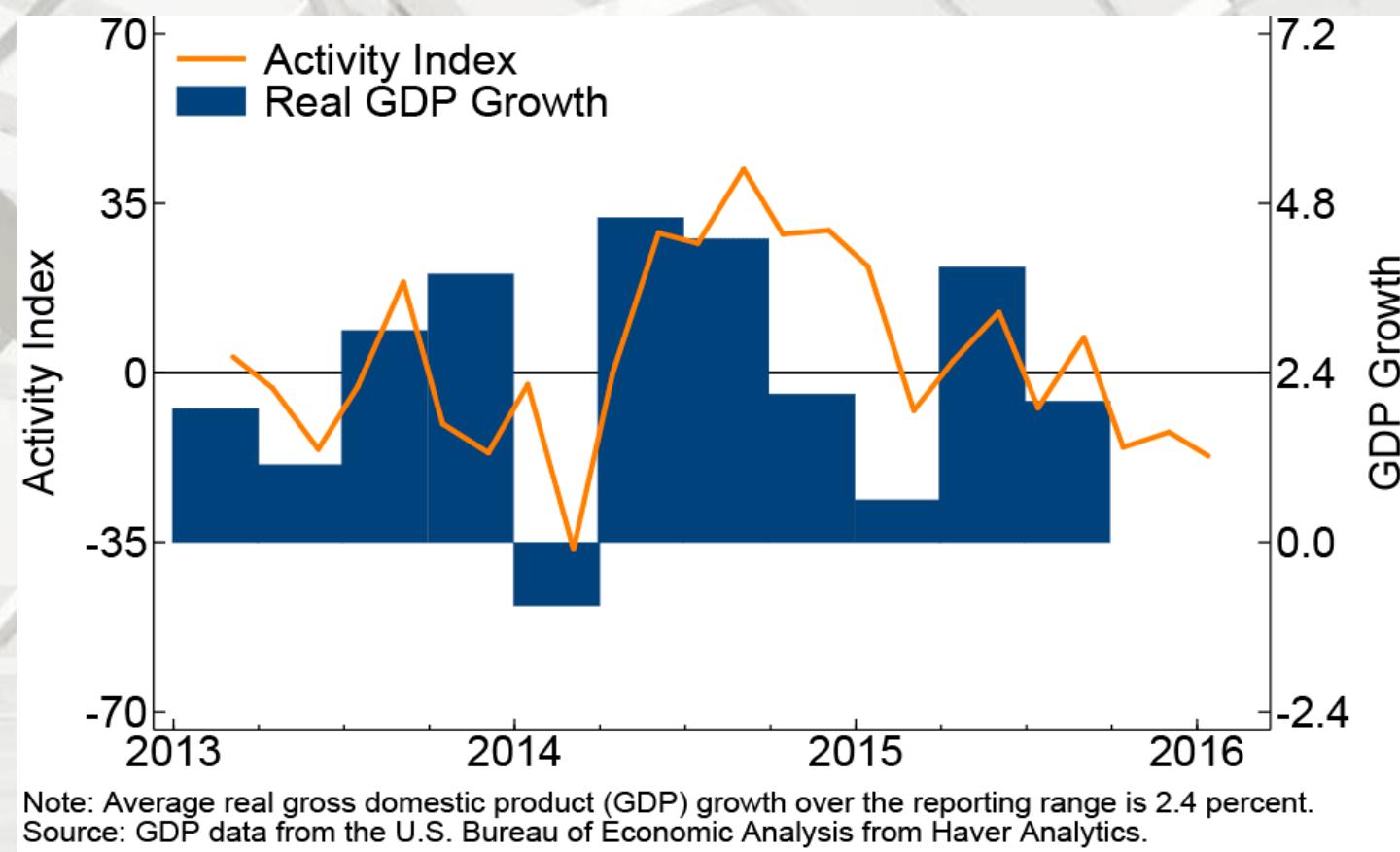
# Chicago Fed: National Activity Index



## Index economic growth below average in December

“The Chicago Fed National Activity Index (CFNAI) moved up to  $-0.22$  in December from  $-0.36$  in November. Two of the four broad categories of indicators that make up the index increased from November, but three of the four categories made negative contributions to the index in December.” – The Federal Reserve Bank of Chicago

# Chicago Fed: Survey of Business Conditions

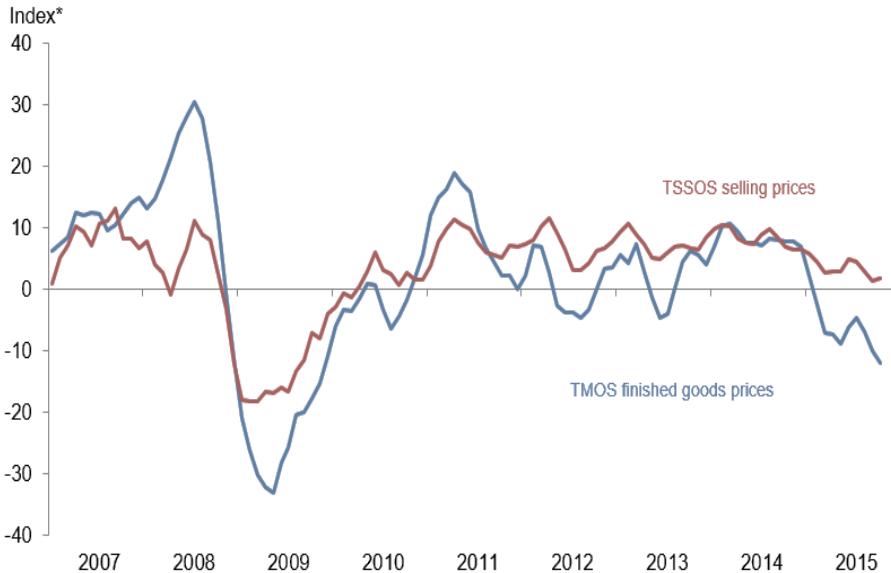


“The Chicago Fed Survey of Business Conditions (CFSBC) Activity Index declined to -17 from -12, suggesting that growth in economic activity continued at a modest pace in late November and December. The CFSBC Manufacturing Activity Index rose to -20 from -37, and the CFSBC Nonmanufacturing Activity Index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

# U.S. Economic Indicators

Chart 5

Manufacturing Continues to See Downward Price Pressure

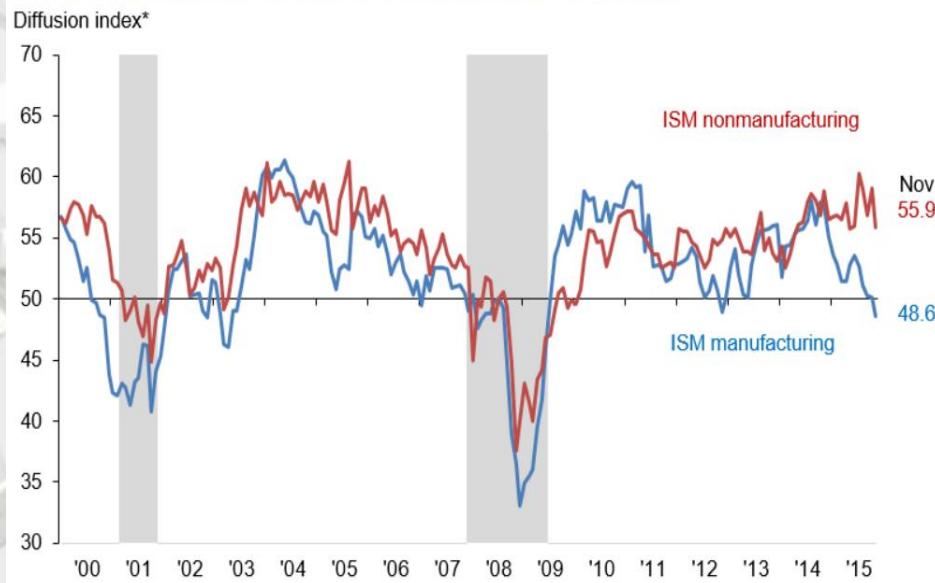


\*Seasonally adjusted, three-month moving average.

SOURCE: Federal Reserve Bank of Dallas' Texas Manufacturing Outlook Survey (TMOS) and Texas Service Sector Outlook Survey (TSSOS).

Chart 2

Manufacturing and Service Sectors Continue to Diverge



\*50+ = economic expansion.

NOTE: Shaded areas indicate recession.

SOURCES: Institute for Supply Management; National Bureau of Economic Research.

## The Federal Reserve Bank of Dallas

### Regional Economic Outlook Remains Mixed Going into 2016

“The strong dollar and renewed fall in energy prices have put further downward pressure on prices. TBOS questions on current finished goods prices indicate that manufacturing respondents faced price declines for the 10<sup>th</sup> consecutive month in December. While service sector prices continue to rise, the number of respondents indicating price decreases has picked up considerably since last year.

Recent data from the Institute for Supply Management suggest that the service sector continued to expand in October and December, while the manufacturing sector dipped into contractionary territory in December.”

# U.S. Economic Indicators

## The Federal Reserve Bank of Dallas Texas Manufacturing Activity Falls Sharply

“Texas factory activity fell sharply in January, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index – a key measure of state manufacturing conditions – dropped 23 points, from 12.7 to -10.2, suggesting output declined this month after growing throughout fourth quarter 2015.

Other indexes of current manufacturing activity also indicated contraction in January. The survey’s demand measures – the new orders index and the growth rate of orders index – led the falloff in production with negative readings last month, and these indexes pushed further negative in January. The new orders index edged down to -9.2, and the growth rate of orders index fell to -17.5, its lowest level in a year. The capacity utilization index fell 15 points from 8.1 to -7, and the shipments index also posted a double-digit decline into negative territory, coming in at -11.

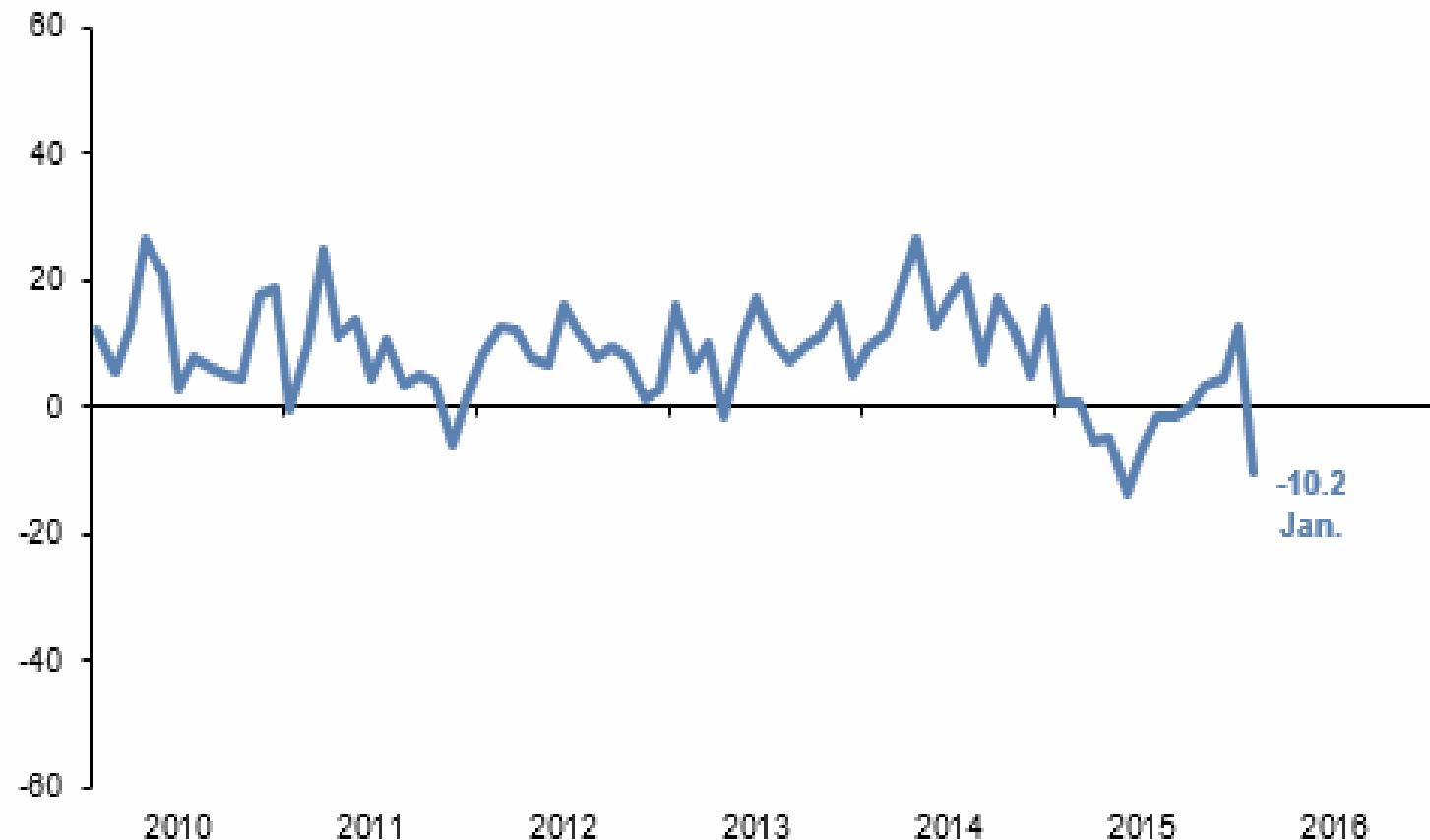
Perceptions of broader business conditions weakened markedly in January. The general business activity and company outlook indexes fell to their lowest readings since April 2009, when Texas was in recession. The general business activity index fell 13 points to -34.6, and the company outlook index slipped to -19.5.

Expectations regarding future business conditions weakened notably in January. The index of future general business activity fell 22 points to -24, and the index of future company outlook fell to -1.3, its first negative reading in nearly seven years. Indexes for future manufacturing activity generally declined but remained solidly positive.”

# U.S. Economic Indicators

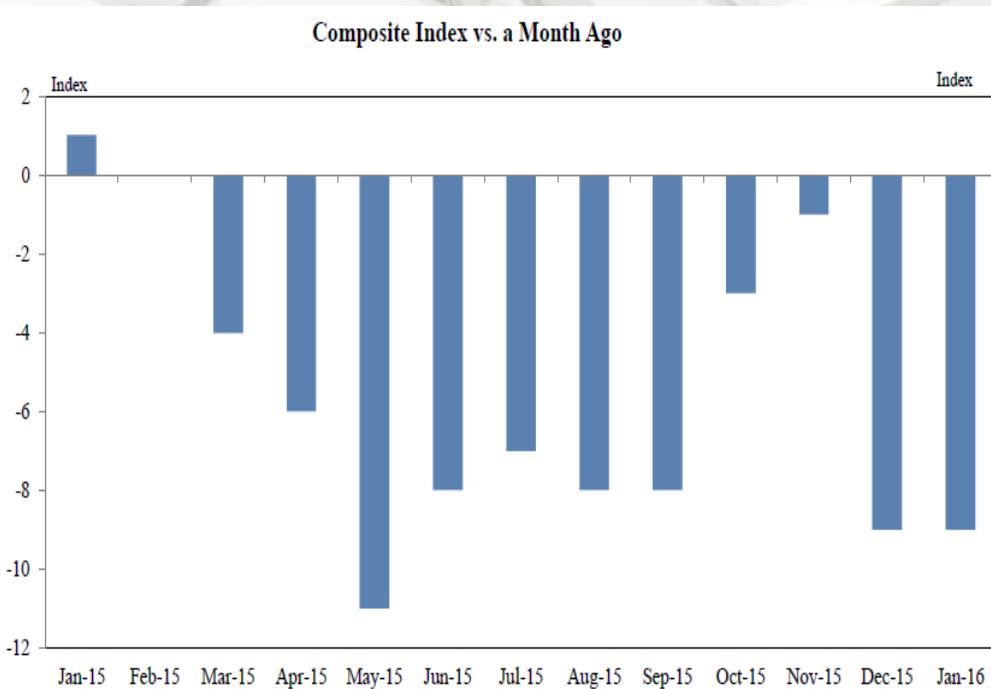
## Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

# U.S. Economic Indicators



“Tenth District manufacturing activity fell again in January, while producers’ expectations for future activity remained solid. Most price indexes declined modestly. The month-over-month composite index was -9 in January, unchanged from -9 in December but down from -1 in November. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Activity improved somewhat at nondurable goods factories, while durable goods saw further weakening, particularly for machinery and computer and electronic equipment.”

## The Federal Reserve Bank of Kansas City Tenth District Manufacturing Fell Again

“Most month-over-month indexes were mixed. The production and shipments indexes remained slightly negative, while the employment and new orders for exports indexes improved. Conversely, the new orders and order backlog indexes both fell to their lowest levels in six years. The raw materials inventory increased from -15 to -2, and the finished goods inventory index also rose but remained in negative territory.

Year-over-year factory indexes were mixed in January. The composite year-over-year index inched up from -15 to -13, and the production, shipments, and new orders indexes also moved higher but remained well below zero. The employment index was largely unchanged at -15. The order backlog index fell to a six year low, and the capital expenditures index declined again. Both inventory indexes eased slightly.” – Federal Reserve Bank of Kansas City

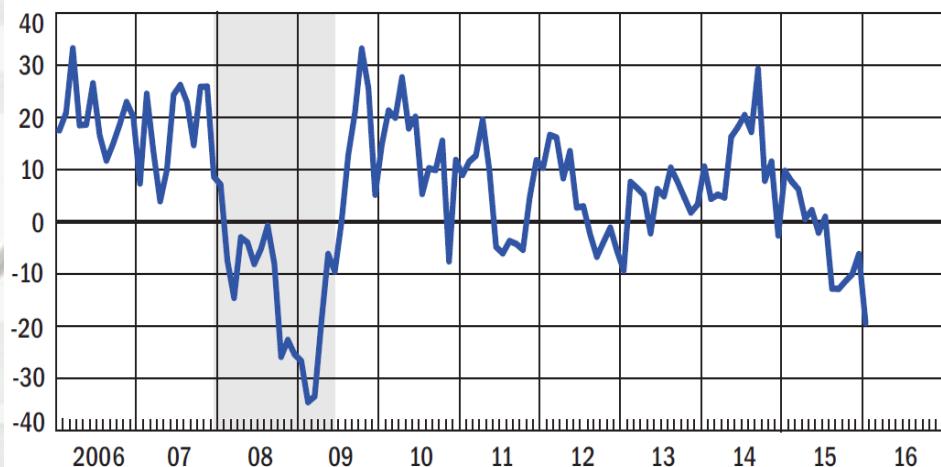
# U.S. Economic Indicators

## 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 Conditions at Their Worst since the Great Recession

“Business activity declined for New York manufacturing firms more sharply than at any time since the 2007-09 recession, according to the January 2016 survey.

The general business conditions index remained below zero for a sixth consecutive month...its lowest level since early 2009. The new orders index plunged seventeen points to -23.5, indicating a substantial decline in orders. After rising above zero last month, the shipments index retreated nineteen points to -14.4—evidence of a sizable drop in shipments.”

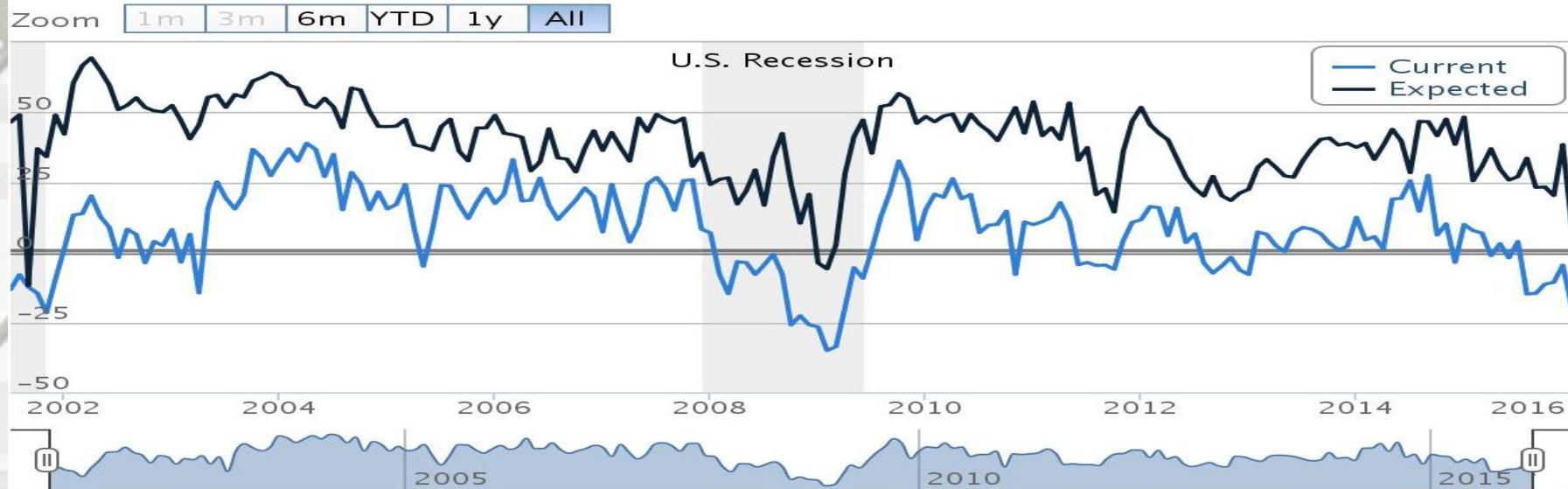
“The January 2016 *Empire State Manufacturing Survey* indicates that business activity declined for New York manufacturers at the fastest pace since the Great Recession. The headline general business conditions index fell thirteen points to -19.4. The new orders and shipments indexes plummeted, indicating a steep decline in both orders and shipments. Price indexes suggested that both input prices and selling prices increased. Labor market conditions continued to deteriorate, with employment indexes remaining in negative territory. The six-month outlook was noticeably weaker, with the index for future general business conditions falling to its lowest level since early 2009.” – 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 Plummetts

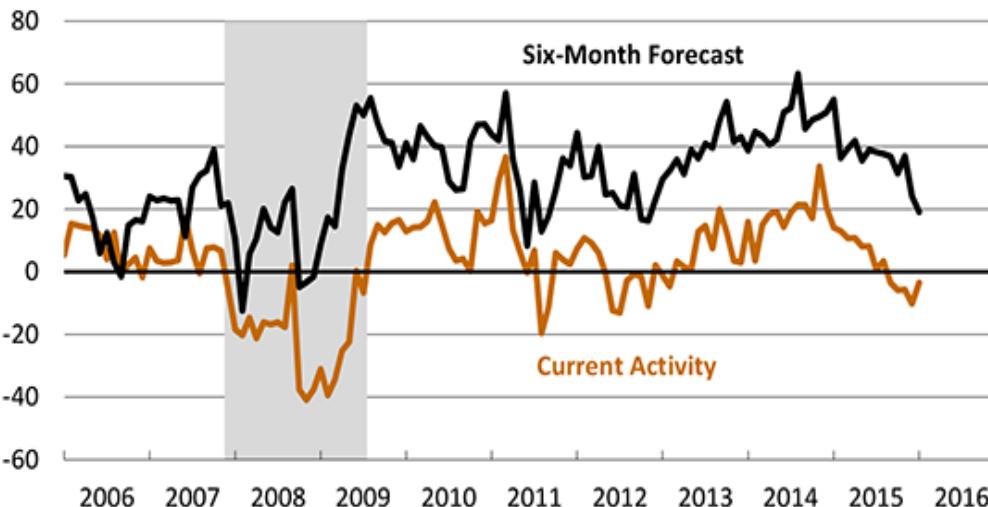
“Indexes for the six-month outlook fell sharply this month, suggesting that optimism about future business conditions weakened considerably. The index for future business conditions plunged twenty-six points to 9.5, its lowest level since 2009. The indexes for future new orders and future shipments also fell sharply. Only small improvements in labor market conditions were expected in the months ahead, with the index for expected number of employees falling to 4.0. The capital expenditures index held steady at 15.0, and the technology spending index was unchanged at 9.0.” – The Federal Reserve Bank of New York

# U.S. Economic Indicators

Chart 1. Current and Future General Activity Indexes

January 2006 to January 2016

Diffusion Index



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.

## Most Current Suggest Weak Activity

“The diffusion index for current activity increased from a revised reading of -10.2 in December to -3.5 and has now been negative for five consecutive months. The index for current new orders remained negative but increased 10 points, to -1.4.

Firms reported an increase in shipments to begin the new year: The shipments index increased 12 points, its first positive reading in four months. Firms reported continued declines in inventories: The inventories index remained negative and decreased 10 points. Firms’ backlog of unfilled orders also declined this month, and delivery times were shorter . . .”

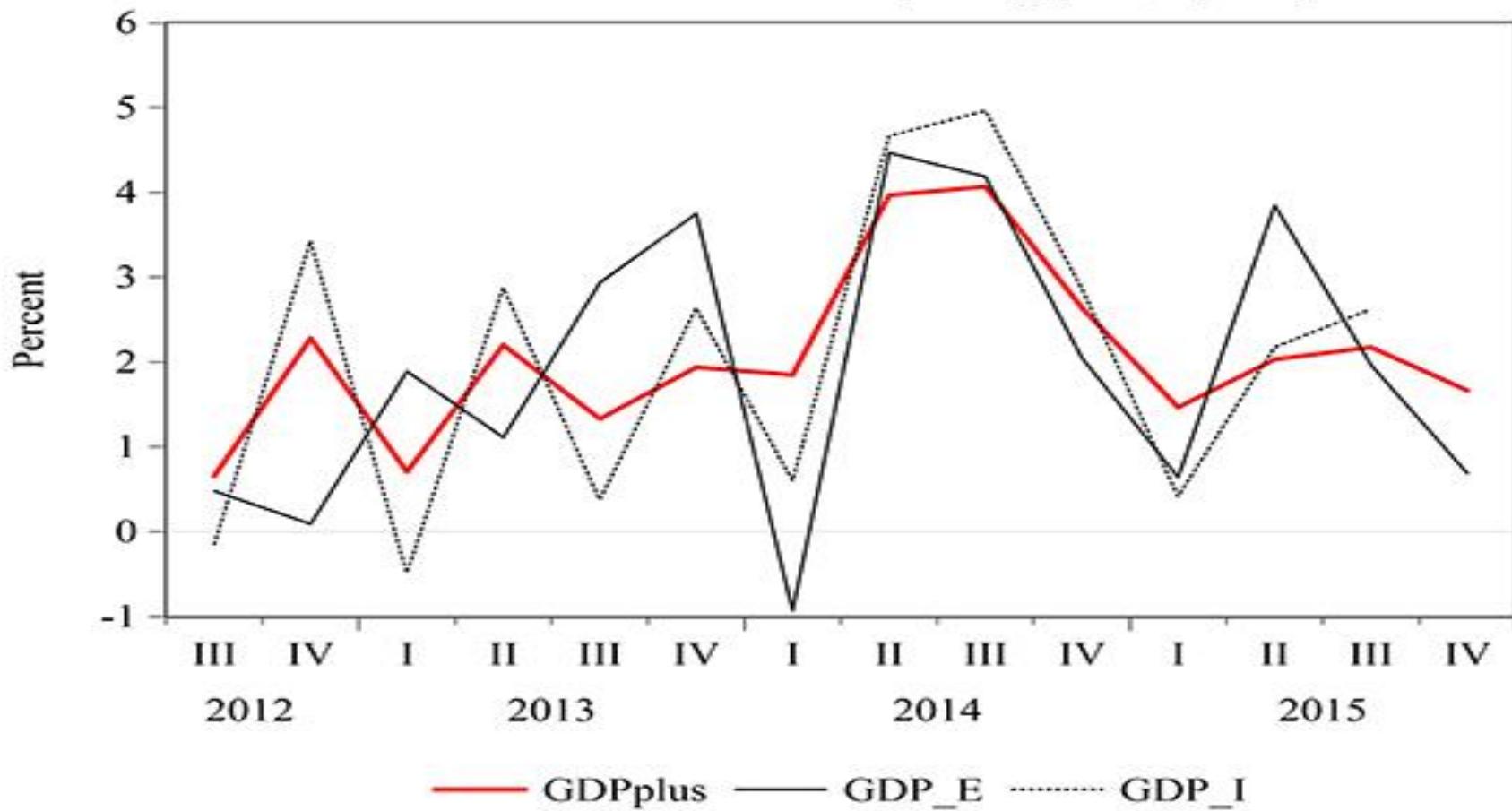
## The Federal Reserve Bank of Philadelphia

“Manufacturing conditions in the region contracted modestly this month, according to firms responding to the January *Manufacturing Business Outlook Survey*. The indicator for general activity remained negative this month; however, it rebounded from a lower reading in December. Other indicators offered mixed signals: Shipments increased this month, but new orders and employment declined modestly. The survey’s price indexes suggest continued downward pressure on manufacturing prices. With respect to the manufacturers’ forecasts, nearly all the survey’s future indicators showed continued weakening this month while remaining positive.”

# Philadelphia Fed: GDP Growth

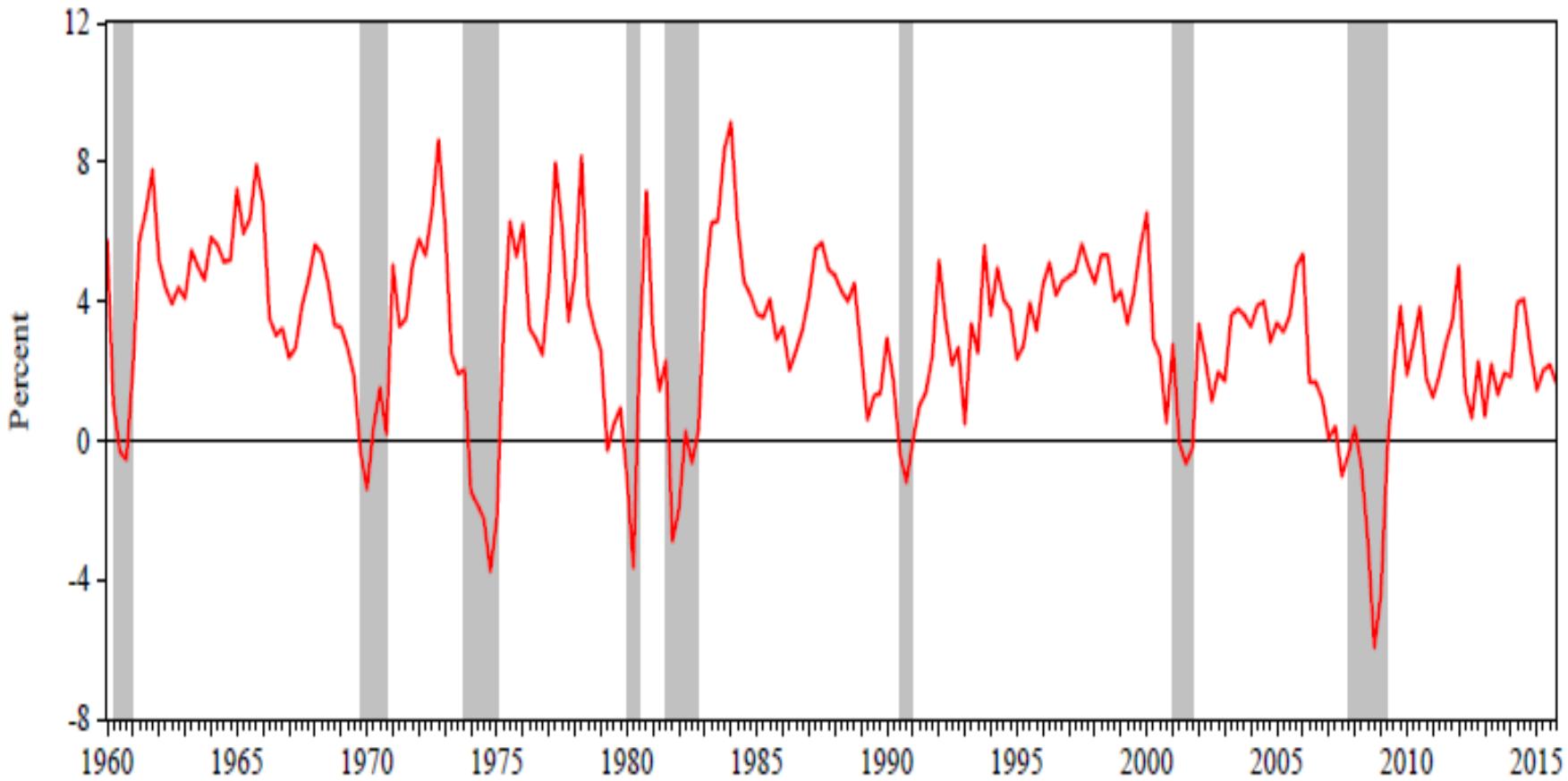
## GDP Growth

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.



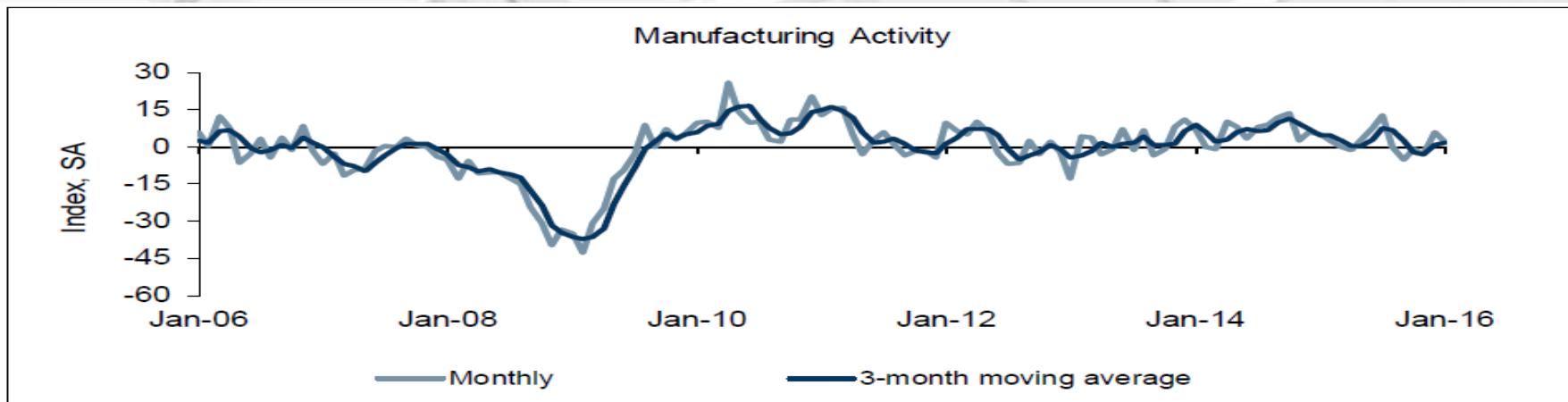
# Philadelphia Fed: GDPplus

GDPplus



Note: GDPplus is a measure of the quarter-over-quarter rate of growth of real GDP in annualized percentage points. Shaded bars are NBER recessions.  
The line plotted was constructed using the latest data available as of January 29, 2016.

# U.S. Economic Indicators



THE FEDERAL RESERVE BANK OF RICHMOND  
RICHMOND • BALTIMORE • CHARLOTTE

1

## The Federal Reserve Bank of Richmond

### Manufacturing Sector Activity Expanded Mildly; New Orders Increased Modestly, Average Wages Rose Moderately

“Fifth District manufacturing activity grew mildly in January, according to the most recent survey by the Federal Reserve Bank of Richmond. The volume of new orders grew modestly this month, although shipments decreased. Hiring increased at a slightly slower pace compared to last month, although average wages continued to increase at a moderate pace in January, and the average workweek lengthened. Raw materials prices rose at a somewhat slower pace, while prices of finished goods rose at a faster pace than in December. Manufacturers were more optimistic about future business conditions than they were a month ago.”

# U.S. Economic Indicators



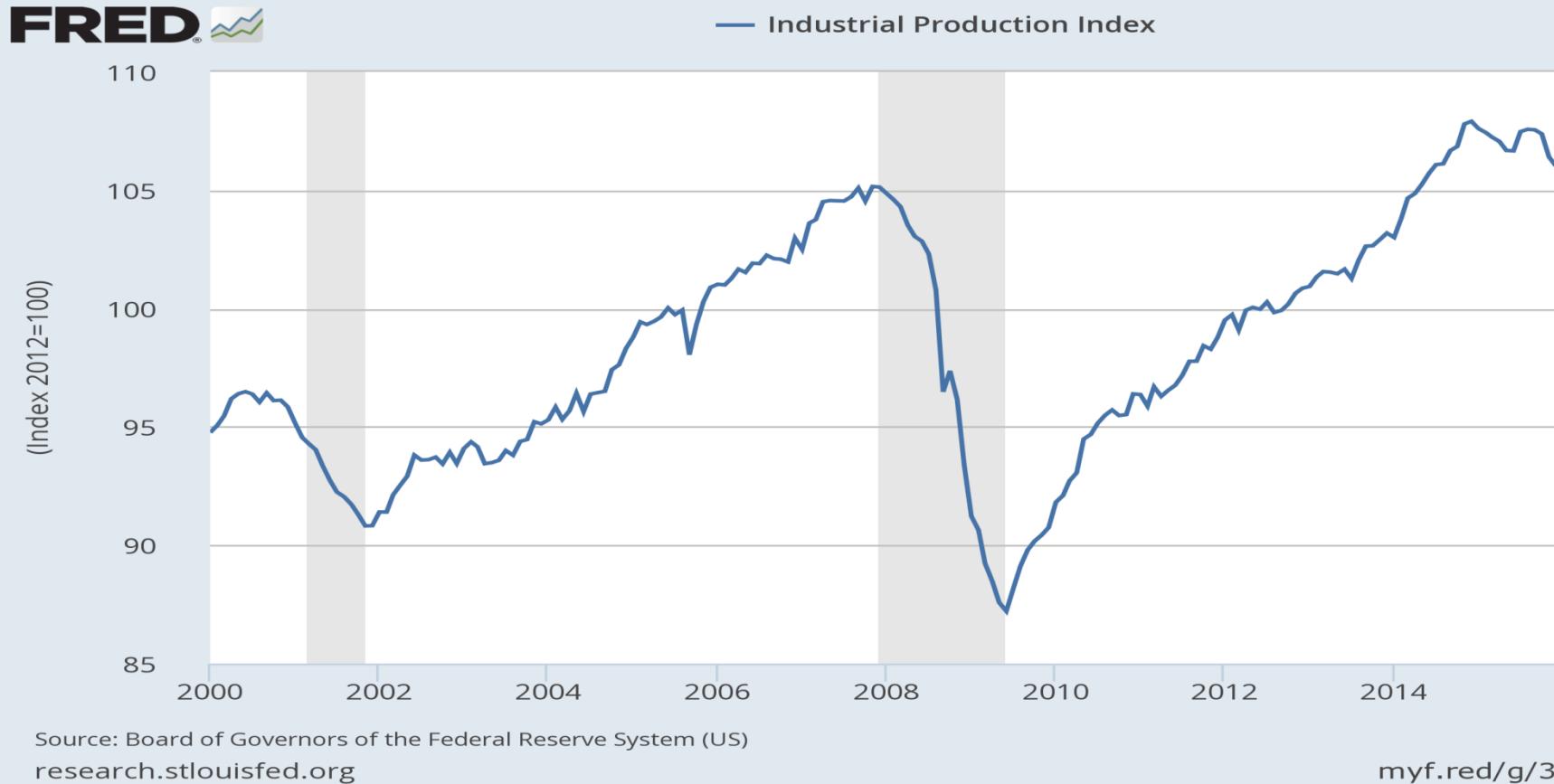
## The Federal Reserve Bank of Richmond Current Activity

“Overall, manufacturing activity grew mildly in January, but the growth was slower compared to a month earlier. The composite index lost four points, softening to a nearly flat reading of 2. New orders grew modestly in January, although the index slipped four points from a month earlier to end at 4. In addition, the index for shipments decreased to a reading of -6. Hiring moderated this month. At an index of 9, the indicator finished three points lower compared to last month.

Backlogs of new orders grew modestly in January, the index gained four points to end at 4, however capacity utilization slowed to a flat reading of 0. Vendor lead time lengthened only slightly this month with the index adding one point to end at 4. Finished goods inventories and raw materials inventories rose at a moderate pace, the indicators finished at 24 and 21 respectively, little changed from the month ago readings of 27 and 23 .

Producers remained positive about business conditions for the six months ahead. They expected strong growth in shipments and in the volume of new orders. The indexes for expected shipments and new orders ended at readings of 34 and 28 respectively compared to a month ago readings of 24 and 23.”

# U.S. Economic Indicators



## Industrial Production Index

“The Industrial Production Index (INDPRO) is an economic indicator that measures real output for all facilities located in the United States manufacturing, mining, and electric, and gas utilities (excluding those in U.S. territories).”

Month-over-month and year-over-year capacity utilization decreased -0.36% and -1.75%, respectively.

# U.S. Economic Indicators

**FRED** 

Industrial Production: Durable manufacturing: Wood product

(Index 2012=100)



Source: Board of Governors of the Federal Reserve System (US)  
[research.stlouisfed.org](https://research.stlouisfed.org)

[myf.red/g/39vw](https://myf.red/g/39vw)

## Industrial Production: Durable manufacturing → Wood product

Month-over-month and year-over-year durable manufacturing of wood products increased 0.75% and 1.77%, respectively.

# U.S. Economic Indicators

**FRED** 

— Capacity Utilization: Manufacturing (NAICS)



Source: Board of Governors of the Federal Reserve System (US)  
[research.stlouisfed.org](http://research.stlouisfed.org)

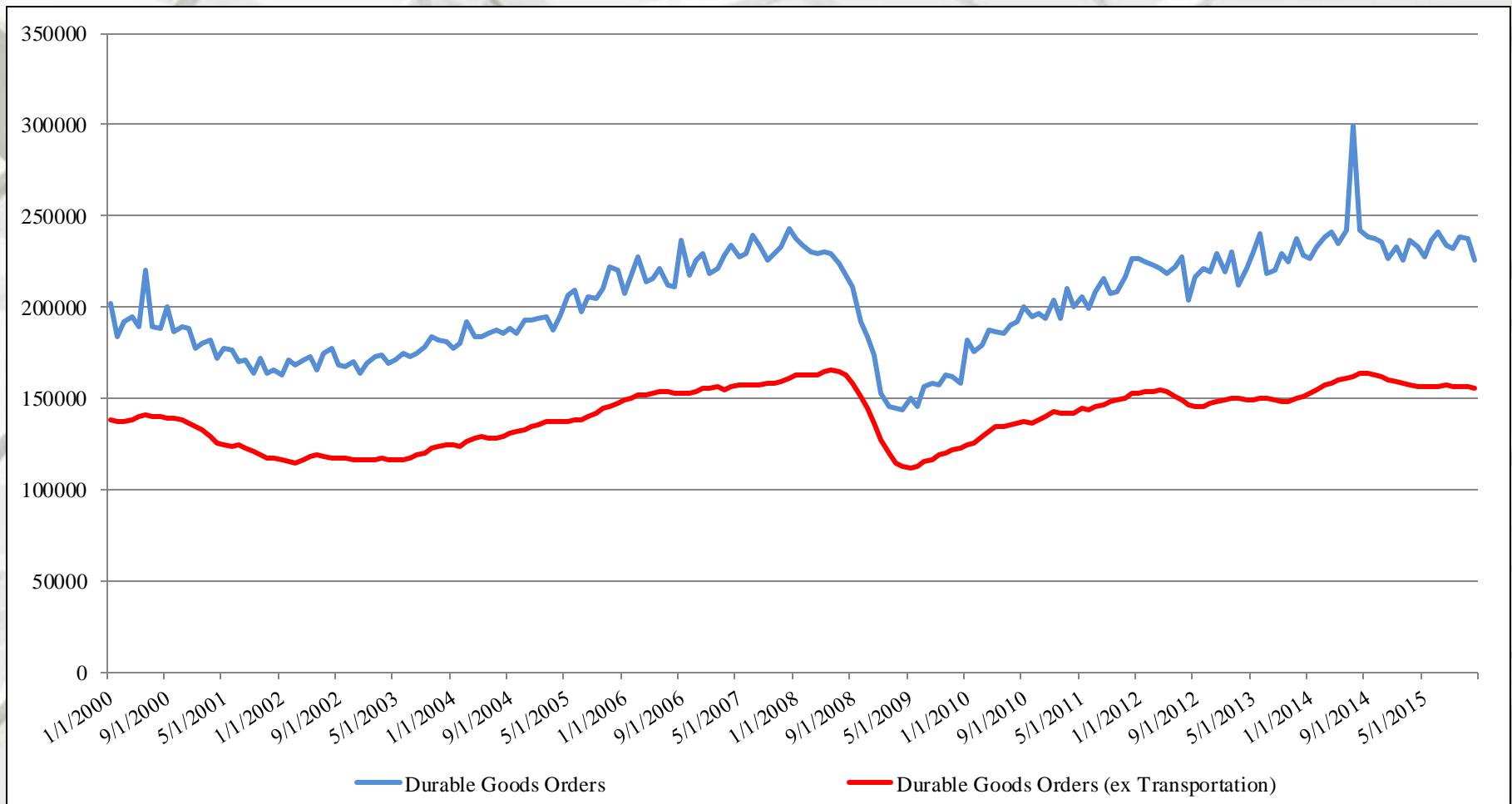
[myf.red/g/2Wpt](https://myf.red/g/2Wpt)

## Capacity Utilization

The manufacturing capacity utilization rate is a rate that measures the utilization of a country's available manufacturing productive volume. It is a measure of potential output and actual output that can indicate slack in manufacturing and it provides a metric for potential output.

Month-over-month and year-over-year capacity utilization decreased -0.26% and -0.65%, respectively.

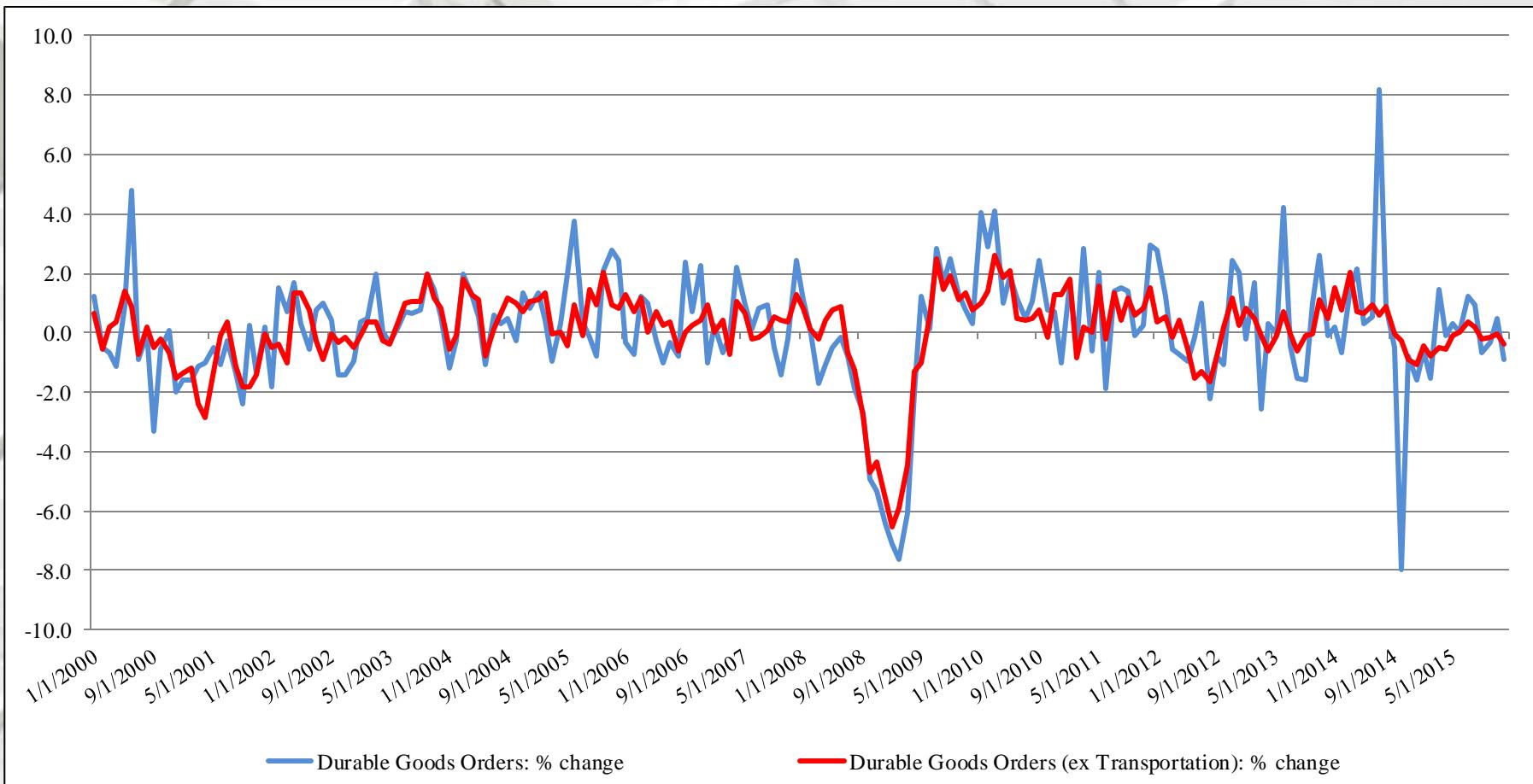
# U.S. Economic Indicators



## Durable Goods Orders

“...are tangible commodities that can be stored or inventoried and that have an average life of at least three years.”  
Percentage change month-over-month and year-over-year: -5.1% and -0.6%, respectively.

# U.S. Economic Indicators

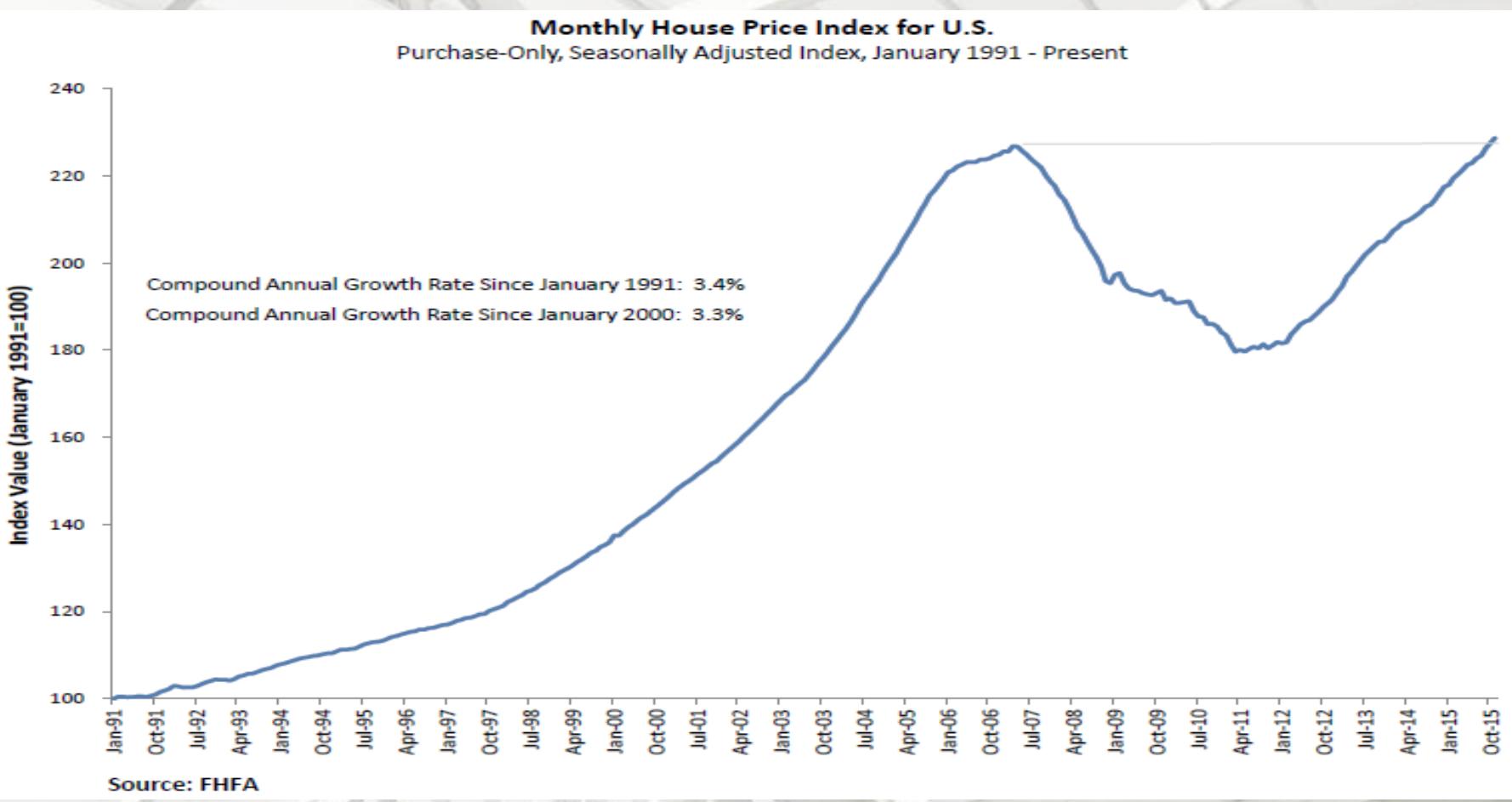


## Durable Goods Orders – ex Transportation

Durable goods orders less transportation equipment (e.g., aircraft).

Presented is percentage change month-over-month based on a three month running average. Month-over-month and year-over-year change: -0.4% and -2.6%, respectively.

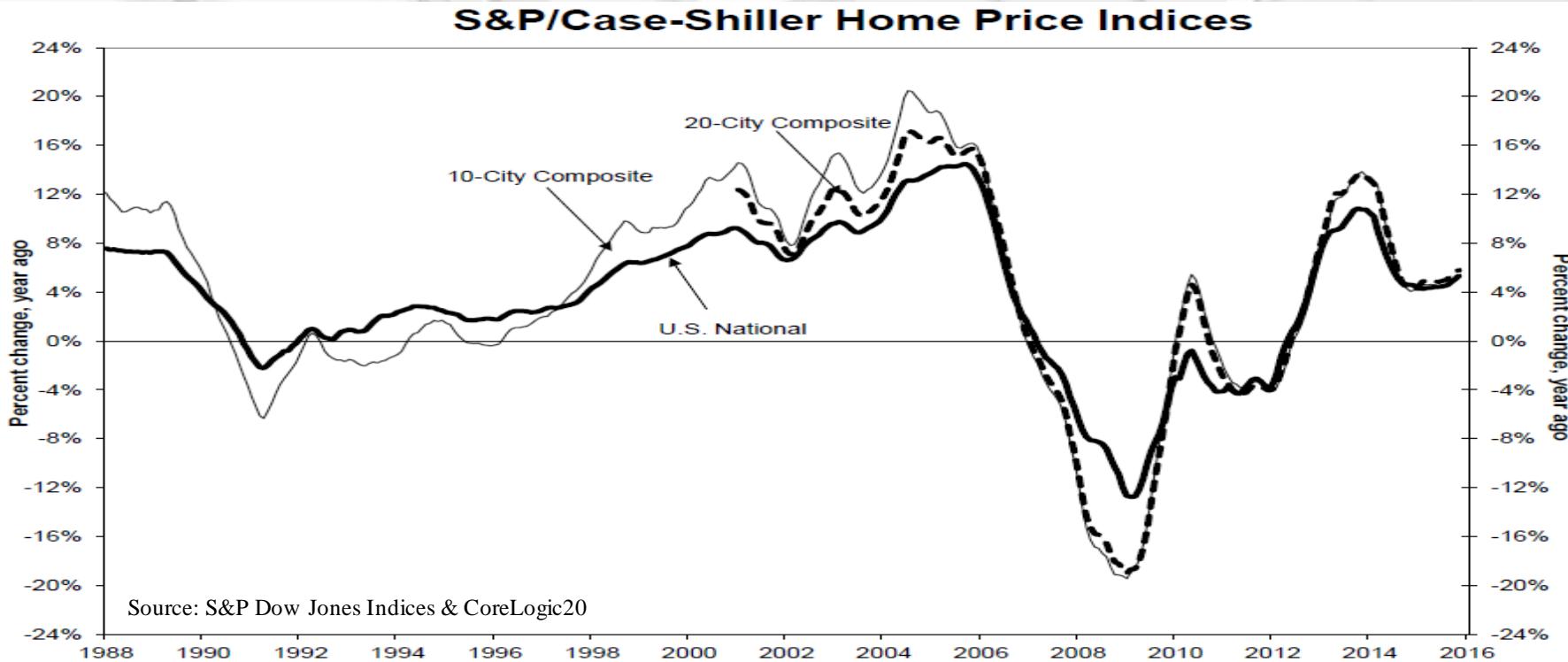
# U.S. Economic Indicators



## 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

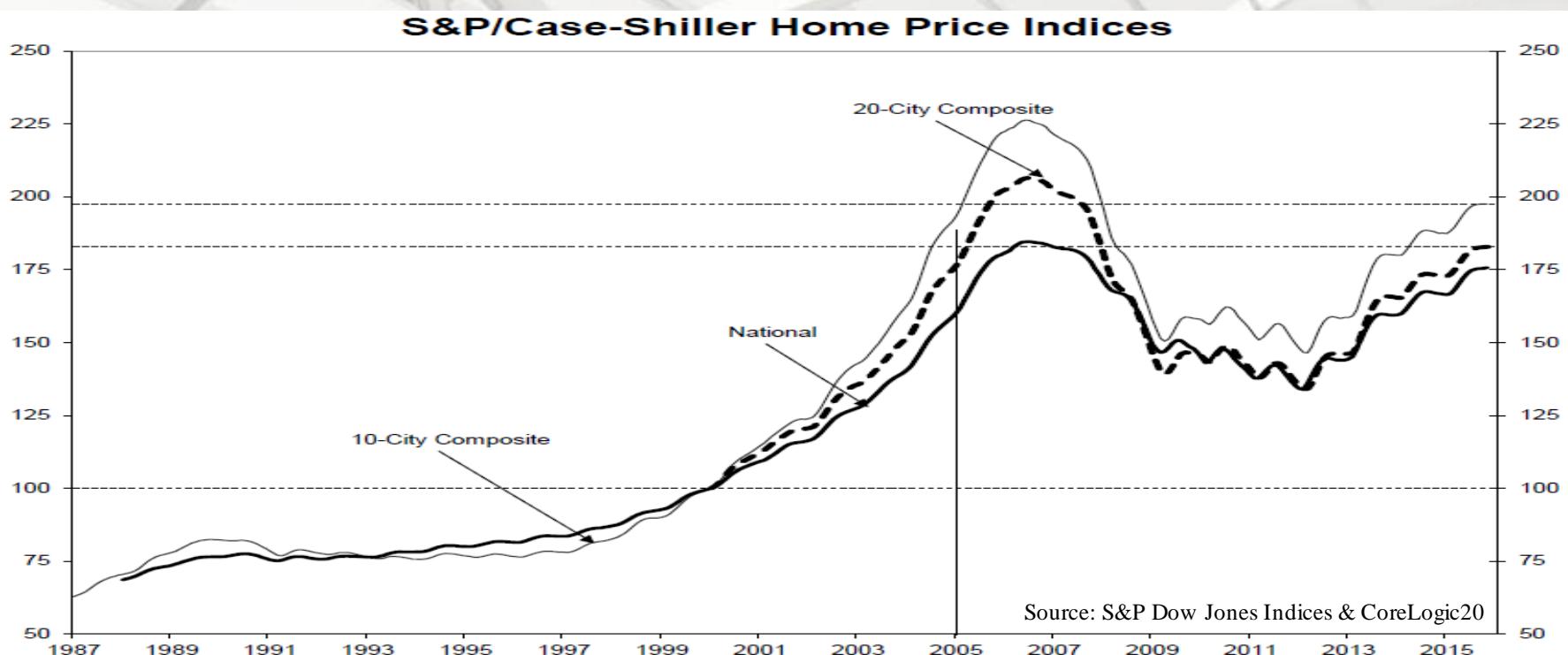


### S&P/Case-Shiller Home Price Indices Home Prices Continue to Increase in November

“The S&P/Case-Shiller U.S. National Home Price Index, which covers all nine U.S. census divisions, recorded a 5.3% annual gain in November 2015. The 10-City and 20-City Composites reported year-over-year increases of 5.3% and 5.8%.”

“Data released today for November 2015 show that home prices continued their rise across the country over the last 12 months. The S&P/Case-Shiller U.S. National Home Price Index, covering all nine U.S. census divisions, recorded a slightly higher year-over-year gain with a 5.3% annual increase in November 2015 versus a 5.1% increase in October 2015. The 10-City Composite increased 5.3% in the year to November compared to 5.0% previously. The 20-City Composite’s year-over-year gain was 5.8% versus 5.5% reported in October.”

# Private Indicators



## S&P/Case-Shiller Home Price Indices

“As of November 2015, average home prices for the MSAs within the 10-City and 20-City Composites are back to their winter 2007 levels. Measured from their June/July 2006 peaks, the peak-to-current decline for both Composites is approximately 11-13%. Since the March 2012 lows, the 10-City and 20-City Composites have recovered 34.9% and 36.4%.”

“Home prices extended their gains, supported by continued low mortgage rates, tight supplies and an improving labor market. Sales of existing homes were up 6.5% in 2015 vs. 2014, and the number of homes on the market averaged about a 4.8 months’ supply during the year; both numbers suggest a seller’s market. The consumer portion of the economy is doing well; like housing, automobile sales were quite strong last year. Other parts of the economy are not faring as well. Businesses in the oil and energy sectors are suffering from the 75% drop in oil prices in the last 18 months. Moreover, the strong U.S. dollar is slowing exports. Housing is not large enough to offset all of these weak spots.” – Dr. David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones Indices

# Private Indicators

## **6.4 Million U.S. Properties Seriously Underwater at End of 2015, Down 616,000 From Year Ago and Half of Peak in Q2 2012**

**“11.5 percent of Properties with Mortgage Are Underwater, Down From Peak of 28.6 percent;  
Number of Equity Rich Properties Increases 1.3 million in 2015 to 12.6 million;  
Half of All U.S. Properties in Foreclosure Have Some Equity”**

...the end of 2015 there were 6.4 million (6,436,381) U.S. properties seriously underwater — where the combined loan amount secured by the property is at least 25 percent higher than the property's estimated market value — representing 11.5 percent of all properties with a mortgage.

As of the end of 2015 there were 12.6 million (12,621,274) U.S. properties that were equity rich (at least 50 percent equity), representing 22.5 percent of all properties with a mortgage. The number of equity rich properties at the end of 2015 was up 2.1 million (2,145,015) from the 10.5 million (10,476,259) representing 19.2 percent of all properties with a mortgage at the end of Q3 2015 and up 1.4 million (1,371,628) from the 11.2 million (11,249,646) representing 20.3 percent of all properties with a mortgage at the end of 2014.”

“Over the past three and a half years, the number of seriously underwater properties has been cut in half, but we continue to deal with a long tail of seriously underwater properties, and it will likely be another five years at least before most of those remaining underwater properties move into positive equity territory. At the other end of the spectrum, the growing number of equity rich properties reflects a moribund move-up market and restrained leveraging of home equity by U.S. homeowners.”  
– Daren Blomquist, Vice President, RealtyTrac®

# Private Indicators

## Distressed Sales Accounted for 12 Percent of Homes Sold Nationally in November 2015

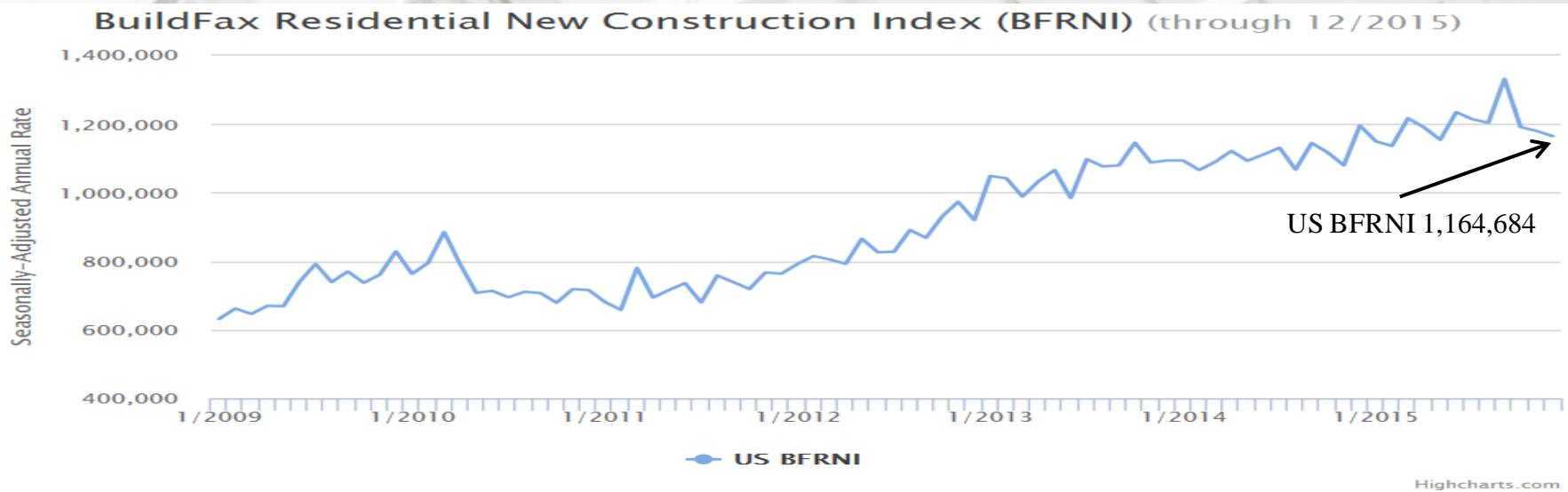
- “Of total sales in November 2015, distressed sales made up 11.9% and real estate-owned (REO) sales made up 8.7%
- Maryland remains the state with the largest share of distressed sales among all states at 20.3%
- Denver-Aurora-Lakewood, CO had the lowest distressed sales share among the largest Core Based Statistical Areas (CBSAs) at 3.1%

Distressed sales, which include REOs and short sales, accounted for 11.9 percent of total home sales nationally in November 2015, down 1.9 percentage points from November 2014 and up 1.4 percentage points from October 2015. This month-over-month increase was expected due to seasonality, and the magnitude of the change was in line with previous Novembers.

Within the distressed category, REO sales accounted for 8.7 percent and short sales accounted for 3.2 percent of total home sales in November 2015. The REO sales share was 1.5 percentage points below the November 2014 share and is the lowest for the month of November since 2007. The short sales share fell below 4 percent in mid-2014 and has remained in the 3-4 percent range since then.

At its peak in January 2009, distressed sales totaled 32.4 percent of all sales, with REO sales representing 27.9 percent of that share. While distressed sales play an important role in clearing the housing market of foreclosed properties, they sell at a discount to non-distressed sales, and when the share of distressed sales is high, it can pull down the prices of non-distressed sales. There will always be some level of distress in the housing market, and by comparison, the pre-crisis share of distressed sales was traditionally about 2 percent. If the current year-over-year decrease in the distressed sales share continues, it will reach that “normal” 2-percent mark in mid-2019.” – Molly Boesel, Senior Economist, CoreLogic®

# Private Indicators



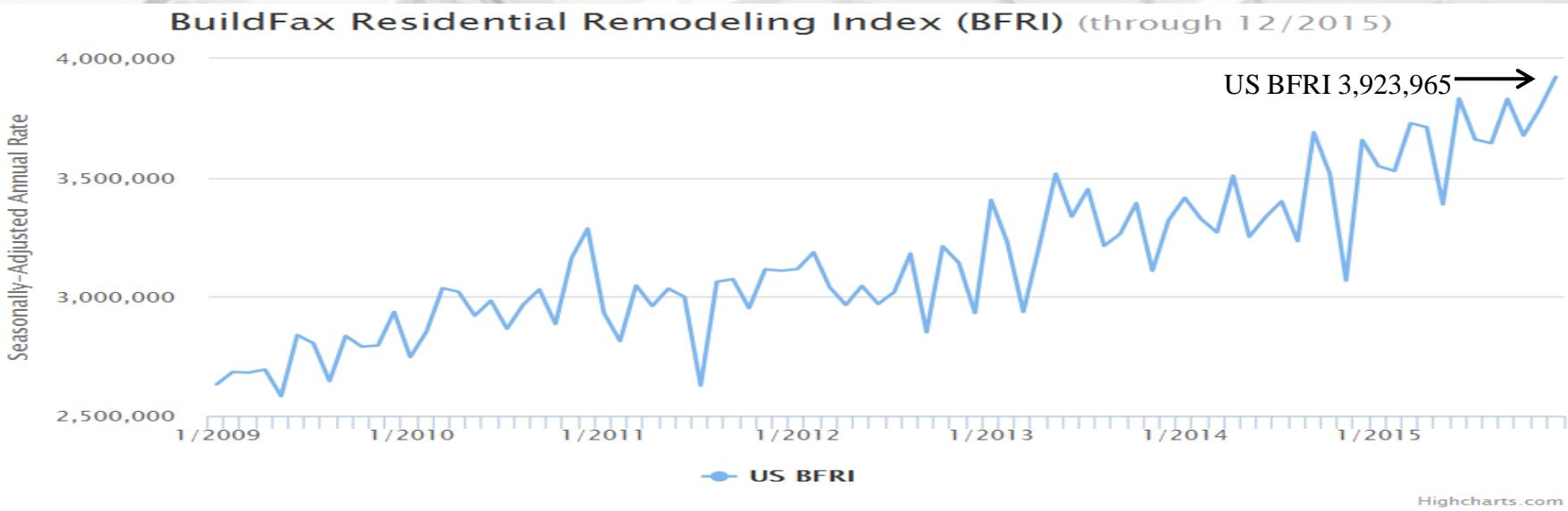
## BuildFax Residential New Construction Index

“Residential new construction authorized by building permits in the United States in December were at a SAAR of 1,164,684. This is -1.3% below the revised November rate of 1,179,802 and is -2.6% below the revised December 2014 estimate of 1,195,625. 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

“SAARs of residential new construction across the country in December 2015 are estimated as follows: Northeast, 75,039 (up 4% from November and up 78.7% from December 2014); South, 670,553 (up 8% from November and down 7.0% from December 2014); Midwest, 175,778 (down -19% from November and down -15% from December 2014); West, 272,690 (down -14% from November and up 2% from December 2014).”

# Private Indicators



## BuildFax Residential Remodeling Index

“Residential remodels authorized by building permits in the United States in December were at a SAAR of 3,923,965. This is 3.6% above the revised November rate of 3,789,358 and is 7.3% above the revised December 2014 estimate of 3,658,435.”

## Regional Residential Remodeling

“SAARs of residential remodeling across the country in December 2015 are estimated as follows: Northeast, 1,825,927 (down -7% from November and down -1% from December 2014); South, 1,641,487 (up 1% from November and up 8% from December 2014); Midwest, 395,137 (down -8% from November and down -17% from December 2014); West, 1,121,021 (up 12.6% from November and up 31% from December 2014).”

# Private Indicators

## December Architecture Billings Index

### Architecture Billings Index Experience Modest Late Fall Downturn

“Business conditions at architecture firms softened modestly in November, with an ABI score of 49.3 (any score below 50 indicates a billings decline). While this was the fourth month of 2015 that has seen a decline in firm billings, it follows two months of growth, and only slightly more firms reported a decrease in billings than reported an increase. In addition, inquiries into new work and the value of new design contracts continued to increase in November, indicating that there is still a steady stream of new work coming in for many firms.

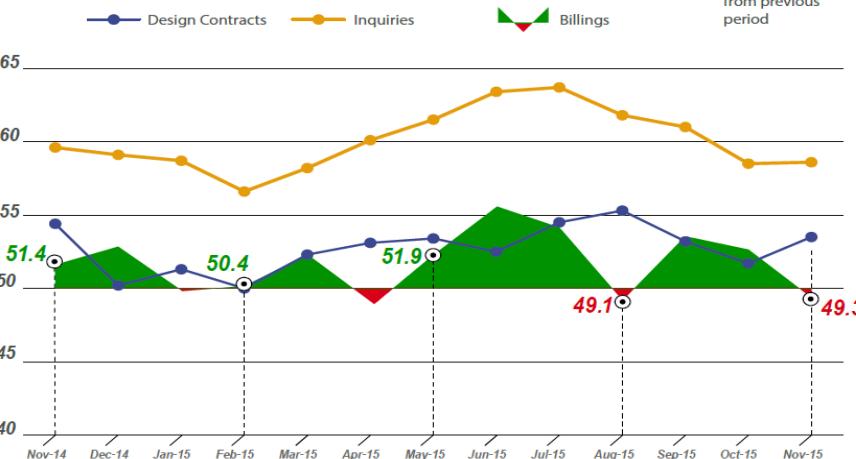
Business conditions at firms located in the Northeast remained soft in November, as they have for nearly the entire year. Billings also slipped modestly at firms located in the South, although they remained positive at firms located in the Sunbelt regions of the South and West. In addition, firms of all specializations reported billings growth in November, as firms with a residential specialization continue to recover from a seven-month period of softness earlier in the year (figures for sectors and regions are computed as three-month moving averages).” – Jennifer Riskus, Manager of Economic Research, AIA

# Private Indicators

## NATIONAL

Architecture Firm Billings Soften in November

Graphs represent data from November 2014 – November 2015.

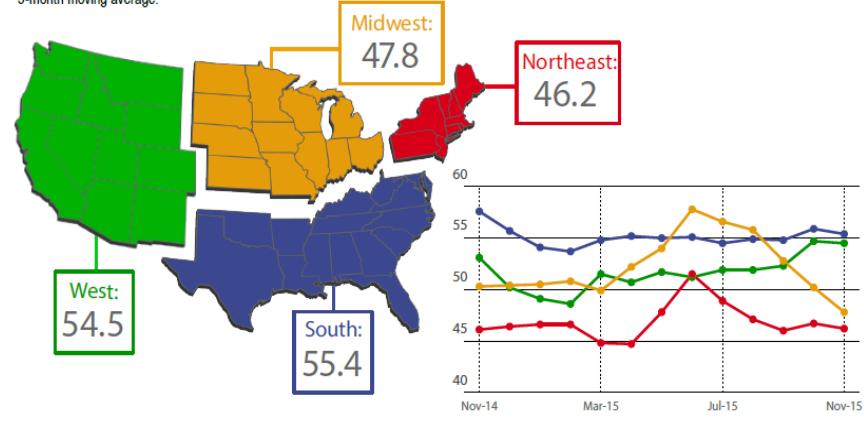


## REGIONAL

Business Conditions Remain Depressed in Northeast, Soften in Midwest

Graphs represent data from November 2014 – November 2015 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.



## SECTOR

Firms of All Specializations Seeing Healthy Trends

Graph represents data from November 2014 – November 2015 across the three sectors.

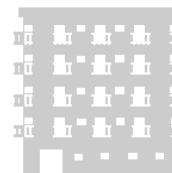
50 represents the diffusion center.  
A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease.  
3-month moving average.



Commercial/Industrial: 51.0



Institutional: 52.0



Residential: 53.8

# Private Indicators

## New Construction Starts in December Improve 4 Percent

"New construction starts in December advanced 4% to a seasonally adjusted annual rate of \$591.6 billion.... The December gain follows a 5% decline in November, and brings total construction activity back close to the amount that was reported in October. December showed moderate increases for each of the three main construction sectors – nonresidential building, residential building, and nonbuilding construction (public works and electric utilities). For 2015 as a whole, total construction starts climbed 8% to \$645.5 billion. This continues the pattern of moderate expansion for total construction starts registered during the previous three years – 2012, up 12%; 2013, up 11%; and 2014, up 9%.

Residential building slipped 3% in the third quarter, due to flattening activity for single family housing.... Residential building in December increased 6% to \$278.1 billion (annual rate). Multifamily housing finished the year on a strong note, rebounding 22% after slipping 5% in November. Single family housing in December was unchanged from its pace in November, essentially staying with the flat pattern that emerged during the second half of 2015.

The 2015 amount for residential building was \$265.4 billion, up 14% and stronger than the 10% gain that was reported for 2014. Single family housing grew 13% in dollar terms, showing some improvement after the 3% rise in the previous year. The regional pattern for single family housing in 2015 revealed gains in all five major regions...." – 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>
<b>TOTAL Construction</b>	<b>\$591,577</b>	<b>\$568,761</b>	<b>+4</b>

THE DODGE INDEX  
(Year 2000=100, Seasonally Adjusted)  
December 2015....125  
November 2015....120

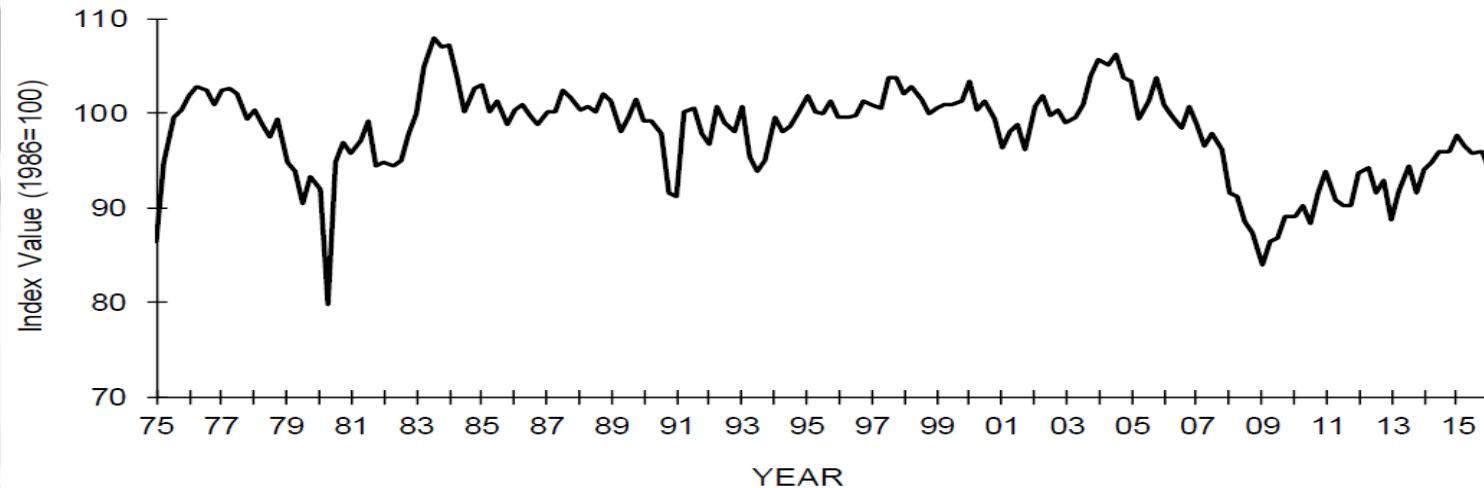
#### YEAR-TO-DATE CONSTRUCTION STARTS Unadjusted Totals, In Millions of Dollars

	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>
<b>TOTAL Construction</b>	<b>\$645,547</b>	<b>\$597,063</b>	<b>+8</b>

# Private Indicators

## OPTIMISM INDEX

Based on Ten Survey Indicators  
(Seasonally Adjusted 1986=100)



### After Modest Gain Last Month, Small Business Optimism Takes a Stumble

"The Index of Small Business Optimism fell 1.3 points from December, falling to 93.9. Neither the tumultuous stock market nor the Federal Reserve's rate hike left much of a mark on small business owners beyond a frown in the Index represented by a further weakening of expectations for business conditions and expected real sales volumes. Those two Index components accounted for most of the decline. ... Actual spending and hiring numbers held up pretty well as the real economy plods forward. However plans to create jobs did fade, but maintained respectable levels (for this recovery). Reports of hard-to-fill job openings rose to expansion-high levels (tighter labor market, lower unemployment rate). Inconsistencies in the BLS job reports reconciled themselves with NFIB (and other) forecasts, growth over two months is about the average achieved over the past year, and that isn't great." – William Dunkelberg, Chief Economist, National Federation of Independent Business

# Private Indicators



## Markit Flash U.S. Manufacturing PMI™ signals further growth slowdown at start of year

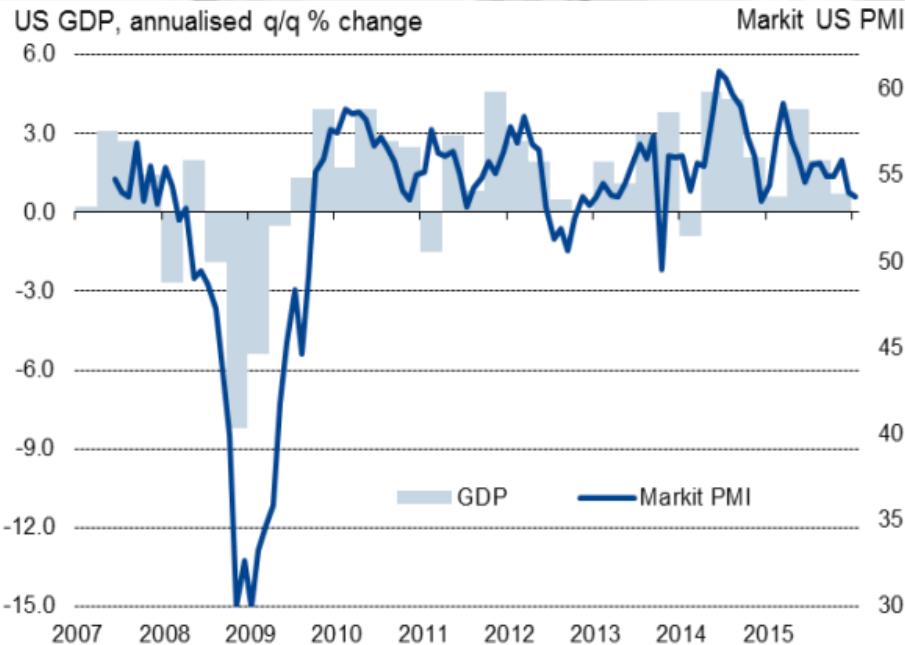
“The first survey data of business activity in 2016 indicate an inauspicious start to the year for the US economy.

A struggling manufacturing economy is being accompanied by a services sector where growth showed further signs of losing momentum in January even before the bad weather hit.

The seasonally adjusted Markit Flash U.S. Composite PMI Output Index registered 53.7 in January, down slightly from 54.0 in December. Although the index still pointed to a solid increase in private sector output, the rate of expansion was the lowest since December 2014.”

“Although a stronger rise in manufacturing output was seen during January as the ‘flash’ manufacturing output index rose to 54.0, up from 52.5 in December, the rate of growth remained below that seen throughout much of last year as producers continued to face headwinds that include weak overseas demand and the strong dollar. At the same time, the equivalent flash index of business activity in the far-larger services sector slipped to 53.7 in January from 54.3 in December, its lowest since December 2014.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators



## Markit® : US economy slowed sharply in late 2015 with warning lights flashing for 2016

"US economic growth slowed sharply in the final quarter of last year, according to the first official estimate. At least some of the weakness looks temporary, but there are also signs that the underlying pace of expansion is on the wane."

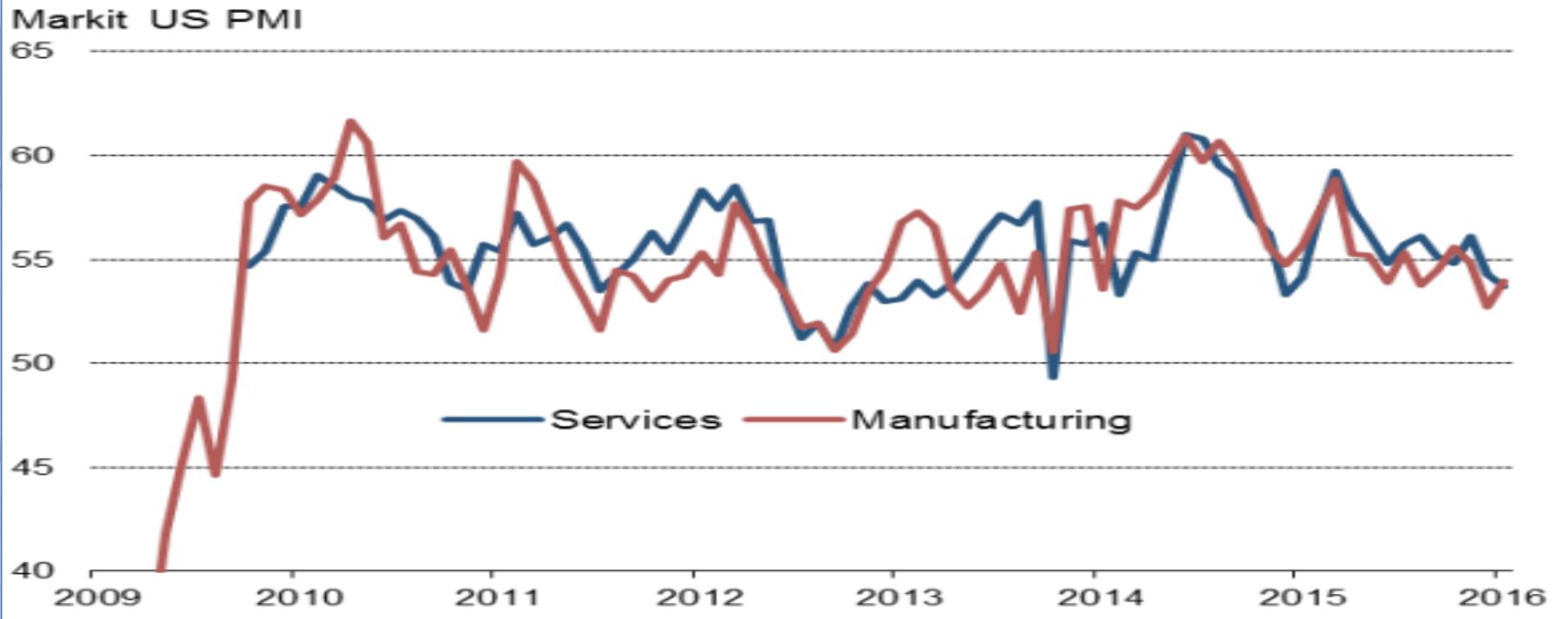
Gross domestic product rose at an annualised rate of just 0.7% in the three months to December, down from 2.0% in the third quarter. The final quarter's reading completes a year in which the economy grew 2.4%, unchanged on the expansion seen in 2014."

## Markit® PMI points to further Q1 weakness

"Rising inventories meanwhile took almost half a percentage point off the pace of growth, and the mild weather also led to reduced demand for energy for heating, adding further to evidence that the slowdown may prove temporary. If the economy merely hit a speed bump, GDP could rebound in the first quarter.

However, the recent increase in financial market uncertainty, and expectations of an upward trend in interest rates in 2016, may mean consumers and businesses will continue to show reluctance to spend. There are already signs that we should expect a further disappointment in the first quarter GDP number. Markit's flash PMIs pointed to a further slackening-off in the rate of economic growth at the start of the year. The official first quarter GDP data have also typically been weak in recent years, appearing to retain some seasonality, a pattern which may well be repeated in 2016." – Chris Williamson, Chief Economist, Markit®

# Private Indicators



## Markit Flash U.S. Manufacturing PMI™

"The data are by no means disastrous, signalling a 1.5% annualised rate of economic growth at the start of the year. They survey measures of new order inflows and employment meanwhile improved; off last year's highs but signalling fairly robust expansions. The employment indices from the two surveys are consistent with non-farm payrolls rising by 205k in January.

However, a drop in the survey's gauge of business confidence about the outlook to one of its lowest for five years suggests that firms are bracing themselves for worse to come. Worries about financial market volatility, the impact of slower growth overseas, a downturn in the energy sector and uncertainty about higher interest rates all took their toll and set the scene for further weakness in coming months." – Chris Williamson, Chief Economist, Markit®

# Private Indicators

## U.S. Economic Confidence Index Flat at -11 in January

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

January 2008-January 2016



Gallup Daily tracking

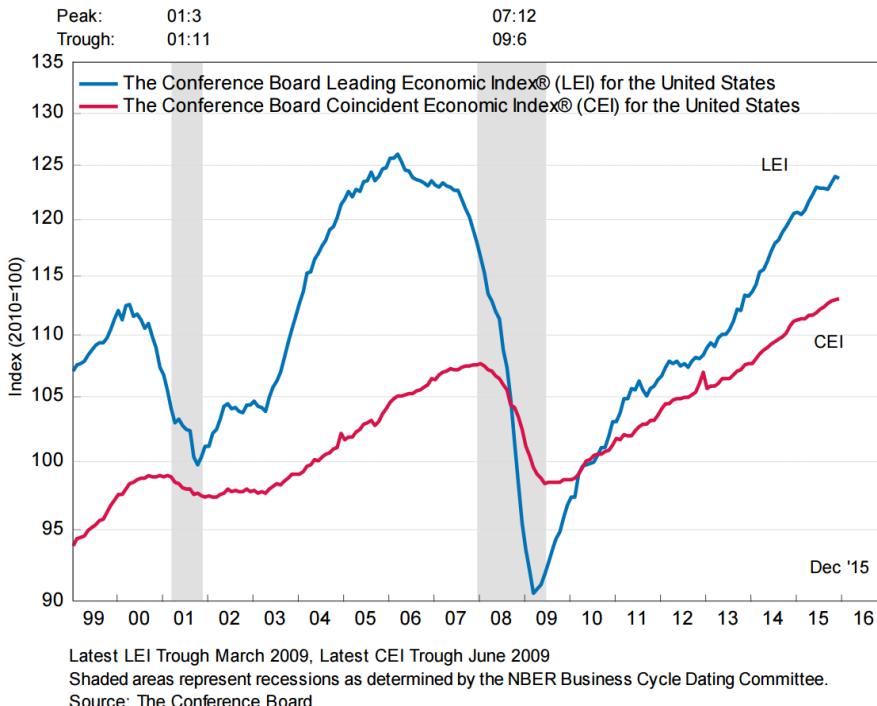
GALLUP®

"Americans' confidence in the economy last month was unchanged from December. Gallup's U.S. Economic Confidence Index averaged -11 for the month of January. This is much higher than most monthly averages recorded since 2008, but is still below the post-recession high of +3 found in January 2015." – Justin McCarthy, Gallup

# Private Indicators

## The Conference Board Leading Economic Index® (LEI) for the U.S. Declined Slightly Moderate Economic Growth to Continue in Near Term

*The Conference Board Leading Economic Index® (LEI) for the U.S. Declined in December*



“The U.S. LEI fell slightly in December, led by a drop in housing permits and weak new orders in manufacturing. However, the index continues to suggest moderate growth in the near-term despite the economy losing some momentum at the end of 2015. While the LEI’s growth rate has been on the decline, it’s too early to interpret this as a substantial rise in the risk of recession.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

“The Conference Board Coincident Economic Index® (CEI) for the U.S. increased 0.1 percent in December to 113.0 (2010 = 100), following a 0.1 percent increase in November, and a 0.2 percent increase in October.

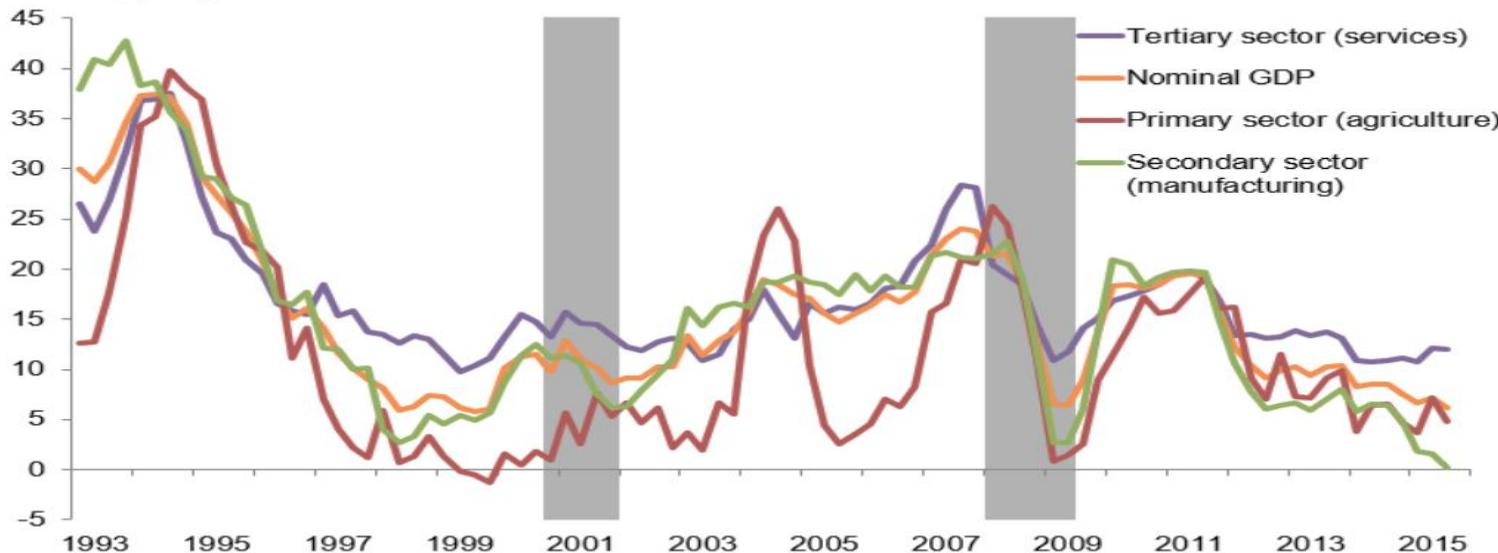
The Conference Board Lagging Economic Index® (LAG) for the U.S. increased 0.2 percent in December to 119.9 (2010 = 100), following a 0.3 percent increase in November, and a 0.2 percent increase in October.” –  
The Conference Board

# Global Economic Indicators

Chart 5

## China's Nominal Growth in Manufacturing Stalls in Third Quarter 2015

Percent, year/year



NOTES: Shaded bars indicate global recessions.

SOURCES: China's National Bureau of Statistics; Haver Analytics.

## The Federal Reserve Bank of Dallas China's Slowdown Poses Challenges

“China’s annual growth of 6.9 percent for 2015 was the slowest in 25 years as its economy continued to rebalance from export-driven to consumption-driven (services-oriented) growth. Growth in the secondary (manufacturing) sector fell to a record low of 0.2 percent year over year in nominal terms in third quarter 2015 (Chart 5), while real growth slid to 5.7 percent year over year. The growth discrepancy arises from sizable price declines that are partly related to overcapacity in certain industries and the fall in commodity prices. Policy uncertainty and further signs of manufacturing weakness together have contributed to heightened concerns about the depth of China’s economic slowdown.” – Valerie Grossman and Enrique Martínez-García, The Federal Reserve Bank of Dallas

# Private Indicators: Global



## Global economy starts 2016 on unsure footing

"The global economy had a disappointing start to the year, seeing the weakest monthly expansion for 13 months in January according to PMI data compiled by Markit. The PMI data are consistent with global GDP growing at an annualised rate of just under 2%. Services saw one of the weakest expansions recorded over the past three years, while manufacturing growth held at December's lacklustre pace.

Markit's US PMI surveys fell at the start of 2016 to signal one of the weakest expansions since October 2012. New sector data showed manufacturers, notably of basic materials, being hurt by the strong dollar and weak global demand, but the exchange rate is also hitting services such as tourism. However, demand for consumer goods remained buoyant, meaning the PMI series point to a quarterly GDP growth rate of 0.3%."

"The PMI surveys for the emerging markets collectively improved slightly on the decline seen in December, but remaining indicative of just 4% annual GDP growth, highlighting how the emerging markets continue to act as a drag on global growth. All of the BRIC nations saw higher PMI readings, but India remained the only shining light. Ongoing downturns were again evident in Brazil and Russia, alongside a stagnant Chinese economy.

Developed world growth eased to one of the lowest seen over the past 2½ years in January, pointing to a further easing of annual GDP growth to just over 1%. Slowdowns were seen in both the US and eurozone, contrasting with faster expansions in the UK and Japan. While some comfort can be gained from the fact that all four-largest developed world economies are still expanding, only the UK showed impressive growth." –Chris Williamson, Chief Economist, Markit®

# Private Indicators: Global



## Stronger services growth offsets manufacturing downturn in China

“China’s services economy showed signs of renewed life at the start of the year, helping to offset a deepening downturn in the manufacturing sector. The Caixin services PMI survey...showed the strongest monthly expansion of business activity since last July, contrasting with manufacturing, which saw the largest drop in output since September.

The combined signal from the surveys was merely one of stabilisation, the composite index rising from 49.4 in December to 50.1. The extent of China’s industrial downturn is further highlighted by the weakness of China’s manufacturing PMI being surpassed only by that of Brazil in the January global rankings.”

“But the latest survey results nevertheless provide further evidence of China’s transition from a manufacturing-oriented economy towards services. Service sector growth was led by the financial services and communications sectors, with more modest growth seen in hotels & restaurants and other consumer services. Business services saw mixed results, in part due to industrial-focused service providers struggling amid the manufacturing downturn. Similar, transport service providers acted as a drag on the wider services economy as goods shipment volumes remained subdued.

While the drop in manufacturing employment seen during the month was one of the steepest since the height of the global financial crisis, service sector job creation recovered to the fastest seen since last July. Although job losses in manufacturing continued to outweigh hiring in services, the overall drop in employment signalled by the two surveys was the weakest for six months, albeit by the smallest of margins. The fastest rate of job creation was seen in financial services, followed by communications.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators: Global



**Global manufacturing remained in the doldrums at the start of the year**

"The JPMorgan Global Manufacturing PMI rose from 50.7 in December to 50.9, signalling a marginal increase in the rate of activity growth but running just below the average of 51.0 seen throughout last year.

The subdued reading signals an ongoing sluggish expansion of the world's factories. The data are broadly consistent with worldwide factory output rising at an annual rate of just 2.0%."

"Exports and employment barely rose, and only modest improvements were seen in production and order books compared to December volumes. Firms also cut selling prices on average, responding to weak demand and allowing customers to benefit from the steepest drop in producers' input costs seen for a year. Production was once again characterised by modest growth in the developed world contrasting with a marginal decline in output across emerging markets on average.

Manufacturing across the emerging markets as a whole contracted for a tenth successive month, led by downturns in China and Brazil, which sat at the bottom of the global manufacturing PMI rankings." – Chris Williamson, Chief Economist, Markit®

# Private Indicators: Global

## Eurozone economic growth and the PMI



## Eurozone economy slows at start of the year and price fall intensifies

“A disappointing eurozone PMI survey for January indicated one of the weakest expansions seen over the past year and raises the prospect of further stimulus.

Business activity, order book and employment growth all lost momentum, but perhaps most worrying of all from a policymaker’s perspective is the intensification of deflationary pressures. Average prices charged for goods and services dropped at the fastest rate since last March.”

“The Markit Eurozone PMI fell from 54.3 in December to 53.6 in January, its joint-lowest since February of last year. Historical comparisons of the PMI with GDP (which show the PMI to have an 83% correlation with the official quarterly growth rate) indicate that the survey data signal a quarterly GDP growth rate for the region of just 0.4% at the start of the year.

Growth slowed in both manufacturing and services, though in both cases remained robust if not impressive. Employment also continued to grow at a solid pace, weakening compared with December but broadly consistent with a 0.4% quarterly rate of employment growth.” – Chris Williamson, Chief Economist, Markit®

# Private Indicators: Global

**Figure 1. GDP growth 2015 (percentage; forecast)**



Source: European Commission.

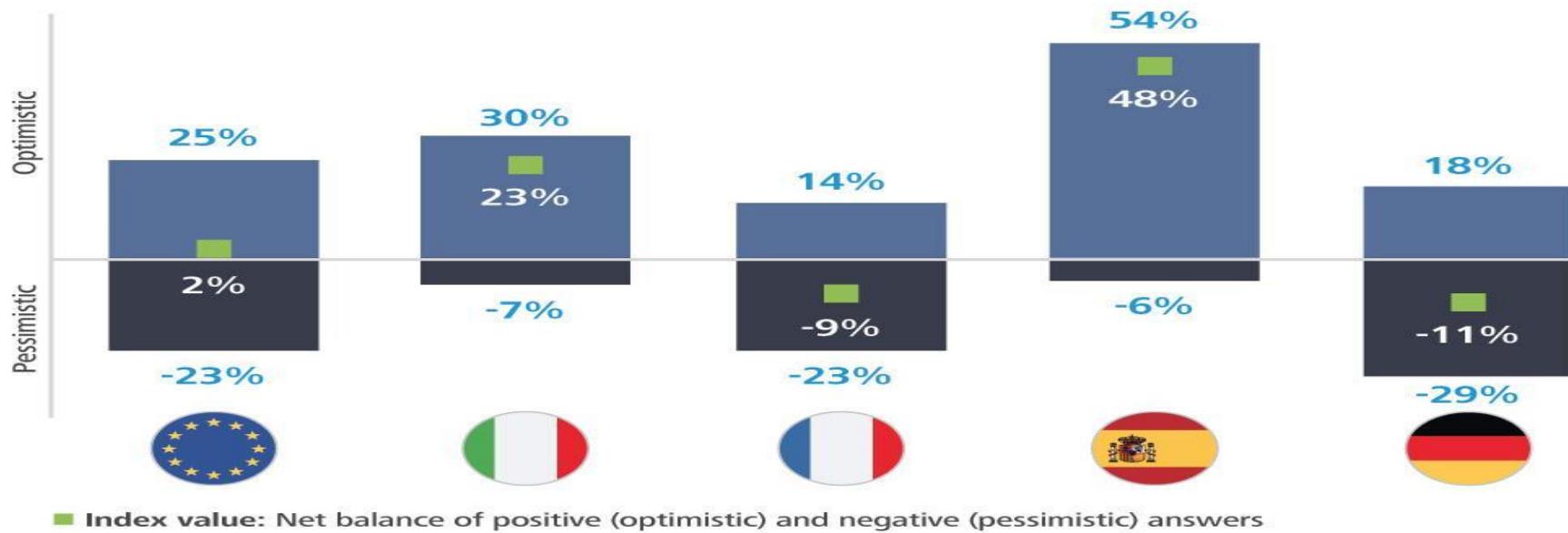
Graphic: Deloitte University Press | DUPress.com

## Eurozone: Strengthening the recovery

“...not only has the recovery continued but so have its weak underlying dynamics, making this recovery much slower than previous ones. In 2015, the Eurozone as a whole grew at 1.6 percent, after 0.9 percent in 2014.” – Dr. Alexander Börsch, Director of Research, Deloitte LLP

# Private Indicators: Global

Figure 2. Financial prospects



Source: Deloitte LLP, *European CFO Survey: Confidence heads south*, November 2015,  
<http://www.deloitteresearchemea.com/survey-pdf/deloitte-e-cfo-survey-q3-2015.pdf>.

Graphic: Deloitte University Press | DUPress.com

## Eurozone: Strengthening the recovery ... And forward to 2016

“Corporate expectations at the end of 2015 are not clear cut but demonstrate cross-country differences similar to the 2015 growth rates. The Deloitte European CFO Survey (figure 2) shows that across the EMEA region, corporate sentiment is positive, but, at an index value of 2 percent, only slightly so. Among the big Eurozone countries, the sentiment differs in unexpected ways. Whereas German and Dutch CFOs are fairly pessimistic about their current outlook, the CFOs of big Italian and Spanish firms are much more optimistic. A big part of the pessimism of German CFOs, especially in manufacturing, has to do with their high export orientation and their focus on China and the emerging markets in the few last years.” – Dr. Alexander Börsch, Director of Research, Deloitte LLP

# **Private Indicators: Global**

## **International Monetary Fund: World Economic Outlook Subdued Demand, Diminished Prospects**

- “Global growth, currently estimated at 3.1 percent in 2015, is projected at 3.4 percent in 2016 and 3.6 percent in 2017. The pickup in global activity is projected to be more gradual than in the October 2015 World Economic Outlook (WEO), especially in emerging market and developing economies.
- In advanced economies, a modest and uneven recovery is expected to continue, with a gradual further narrowing of output gaps. The picture for emerging market and developing economies is diverse but in many cases challenging. The slowdown and rebalancing of the Chinese economy, lower commodity prices, and strains in some large emerging market economies will continue to weigh on growth prospects in 2016–17. The projected pickup in growth in the next two years – despite the ongoing slowdown in China – primarily reflects forecasts of a gradual improvement of growth rates in countries currently in economic distress, notably Brazil, Russia, and some countries in the Middle East, though even this projected partial recovery could be frustrated by new economic or political shocks.
- Risks to the global outlook remain tilted to the downside and relate to ongoing adjustments in the global economy: A generalized slowdown in emerging market economies, China’s rebalancing, lower commodity prices, and the gradual exit from extraordinarily accommodative monetary conditions in the United States. If these key challenges are not successfully managed, global growth could be derailed.”

# Private Indicators: Global

## The Updated Forecast

“Global growth is projected at 3.4 percent in 2016 and 3.6 percent in 2017.

## Advanced Economies

“Growth in advanced economies is projected to rise by 0.2 percentage point in 2016 to 2.1 percent, and hold steady in 2017.”

## Emerging Market and Developing Economies

“Growth in emerging market and developing economies is projected to increase from 4 percent in 2015 – the lowest since the 2008–09 financial crisis – to 4.3 and 4.7 percent in 2016 and 2017, respectively.”

## Forecast Revisions

“Overall, forecasts for global growth have been revised downward by 0.2 percentage point for both 2016 and 2017. These revisions reflect to a substantial degree, but not exclusively, a weaker pickup in emerging economies than was forecast in October. ... Prospects for global trade growth have also been marked down by more than  $\frac{1}{2}$  percentage point for 2016 and 2017, reflecting developments in China as well as distressed economies.” – International Monetary Fund

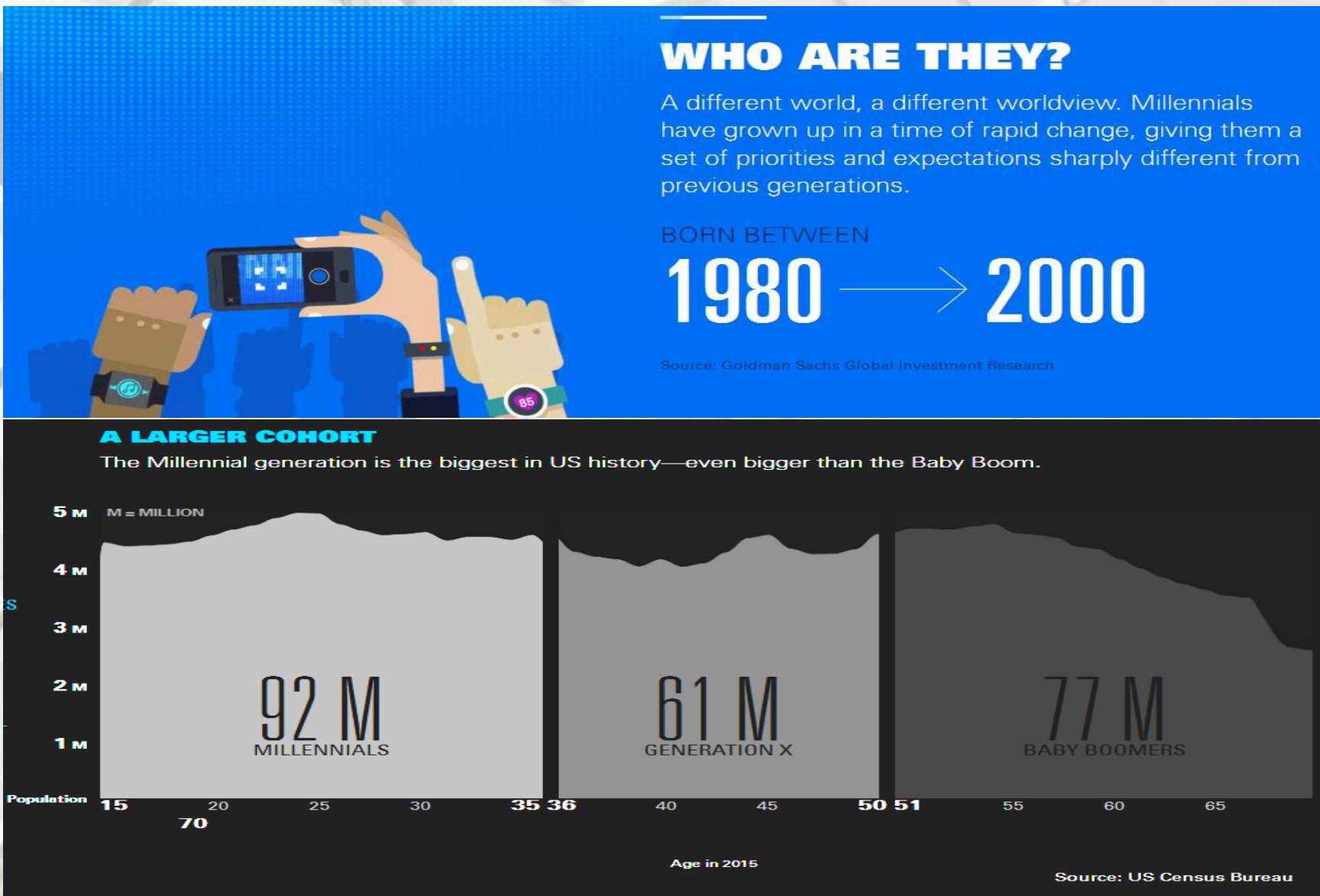
Table 1. Overview of the *World Economic Outlook* Projections  
(Percent change unless noted otherwise)

	Year over Year						Q4 over Q4			
	Estimates		Projections		Difference from October 2015 WEO Projections 1/		Estimates		Projections	
	2014	2015	2016	2017	2016	2017	2015	2016	2017	
<b>World Output 2/</b>										
Advanced Economies	3.4	3.1	3.4	3.6	-0.2	-0.2	3.0	3.4	3.6	
United States	1.8	1.9	2.1	2.1	-0.1	-0.1	1.8	2.2	2.0	
Euro Area	2.4	2.5	2.6	2.6	-0.2	-0.2	2.1	2.7	2.5	
Germany	0.9	1.5	1.7	1.7	0.1	0.0	1.5	1.8	1.6	
France	1.6	1.5	1.7	1.7	0.1	0.2	1.5	1.7	1.7	
Italy	0.2	1.1	1.3	1.5	-0.2	-0.1	1.3	1.6	1.5	
Spain	-0.4	0.8	1.3	1.2	0.0	0.0	1.3	1.3	1.1	
Japan	1.4	3.2	2.7	2.3	0.2	0.1	3.4	2.3	2.3	
United Kingdom	0.0	0.6	1.0	0.3	0.0	-0.1	1.5	1.2	-0.3	
Canada	2.9	2.2	2.2	2.2	0.0	0.0	2.0	2.2	2.2	
Other Advanced Economies 3/	2.5	1.2	1.7	2.1	0.0	-0.3	0.6	2.0	2.2	
Emerging Market and Developing Economies 4/	2.8	2.1	2.4	2.8	-0.3	-0.1	2.0	2.5	3.3	
Commonwealth of Independent States	4.6	4.0	4.3	4.7	-0.2	-0.2	4.0	4.5	4.9	
Russia	1.0	-2.8	0.0	1.7	-0.5	-0.3	-3.3	0.1	1.6	
Excluding Russia	0.6	-3.7	-1.0	1.0	-0.4	0.0	-4.1	0.2	1.4	
Emerging and Developing Asia	1.9	-0.7	2.3	3.2	-0.5	-0.8	...	...	...	
China	6.8	6.6	6.3	6.2	-0.1	-0.1	6.5	6.2	6.3	
India 5/	7.3	6.9	6.3	6.0	0.0	0.0	6.8	6.1	6.0	
ASEAN-5 6/	7.3	7.3	7.5	7.5	0.0	0.0	7.3	7.5	7.6	
Emerging and Developing Europe	4.6	4.7	4.8	5.1	-0.1	-0.2	4.6	4.8	5.5	
Latin America and the Caribbean	2.8	3.4	3.1	3.4	0.1	0.0	3.7	5.0	2.6	
Brazil	1.3	-0.3	-0.3	1.6	-1.1	-0.7	-1.5	0.3	2.0	
Mexico	0.1	-3.8	-3.5	0.0	-2.5	-2.3	-5.6	-1.6	0.5	
Middle East, North Africa, Afghanistan, and Pakistan	2.3	2.5	2.6	2.9	-0.2	-0.2	2.5	2.7	3.0	
Saudi Arabia	2.8	2.5	3.6	3.6	-0.3	-0.5	...	...	...	
Sub-Saharan Africa	3.6	3.4	12	1.9	-1.0	-1.0	3.6	0.5	2.3	
Nigeria	5.0	3.5	4.0	4.7	-0.3	-0.2	...	...	...	
South Africa	6.3	3.0	4.1	4.2	-0.2	-0.3	0.4	0.9	2.4	
<b>Memorandum</b>										
Low-Income Developing Countries	6.0	4.6	5.6	5.9	-0.2	-0.2	...	...	...	
World Growth Based on Market Exchange Rates	2.7	2.5	2.7	3.0	-0.3	-0.2	2.3	2.8	3.0	
World Trade Volume (goods and services)	3.4	2.6	3.4	4.1	-0.7	-0.5	...	...	...	
<b>Imports</b>										
Advanced Economies	3.4	4.0	3.7	4.1	-0.5	-0.4	...	...	...	
Emerging Market and Developing Economies	3.7	0.4	3.4	4.3	-1.0	-1.1	...	...	...	
<b>Commodity Prices (U.S. dollars)</b>										
Oil 7/	7.5	-47.1	-17.6	14.9	-15.2	4.8	-42.7	5.3	11.1	
Nonfuel (average based on world commodity export weights)	-4.0	-17.4	-9.5	0.4	-4.4	0.1	-19.0	-2.2	0.3	
<b>Consumer Prices</b>										
Advanced Economies	1.4	0.3	1.1	1.7	-0.1	0.0	0.4	1.3	1.9	
Emerging Market and Developing Economies 4/	5.1	5.5	5.6	5.9	0.5	1.0	7.0	9.9	20.4	
<b>London Interbank Offered Rate (percent)</b>										
On U.S. Dollar Deposits (six month)	0.3	0.5	1.2	2.2	0.0	0.0	...	...	...	
On Euro Deposits (three month)	0.2	0.0	-0.3	-0.2	-0.3	-0.3	...	...	...	
On Japanese Yen Deposits (six month)	0.2	0.1	0.1	0.1	0.0	-0.1	...	...	...	

Note: Real effective exchange rates are assumed to remain constant at the levels prevailing during November 9–December 7, 2015. Economies are listed on the basis of economic size. The aggregated quarterly data are seasonally adjusted.

# Demographics

# Goldman Sachs: Millennials Coming of Age



# Goldman Sachs: Millennials Coming of Age



## HOUSING

As Millennials enter their peak home-buying years, their reluctance to enter the housing market could change. The cohort's sheer size, plus its desire to settle down in the future, could lead to a surge in home sales.

PEAK HOME-BUYING YEARS

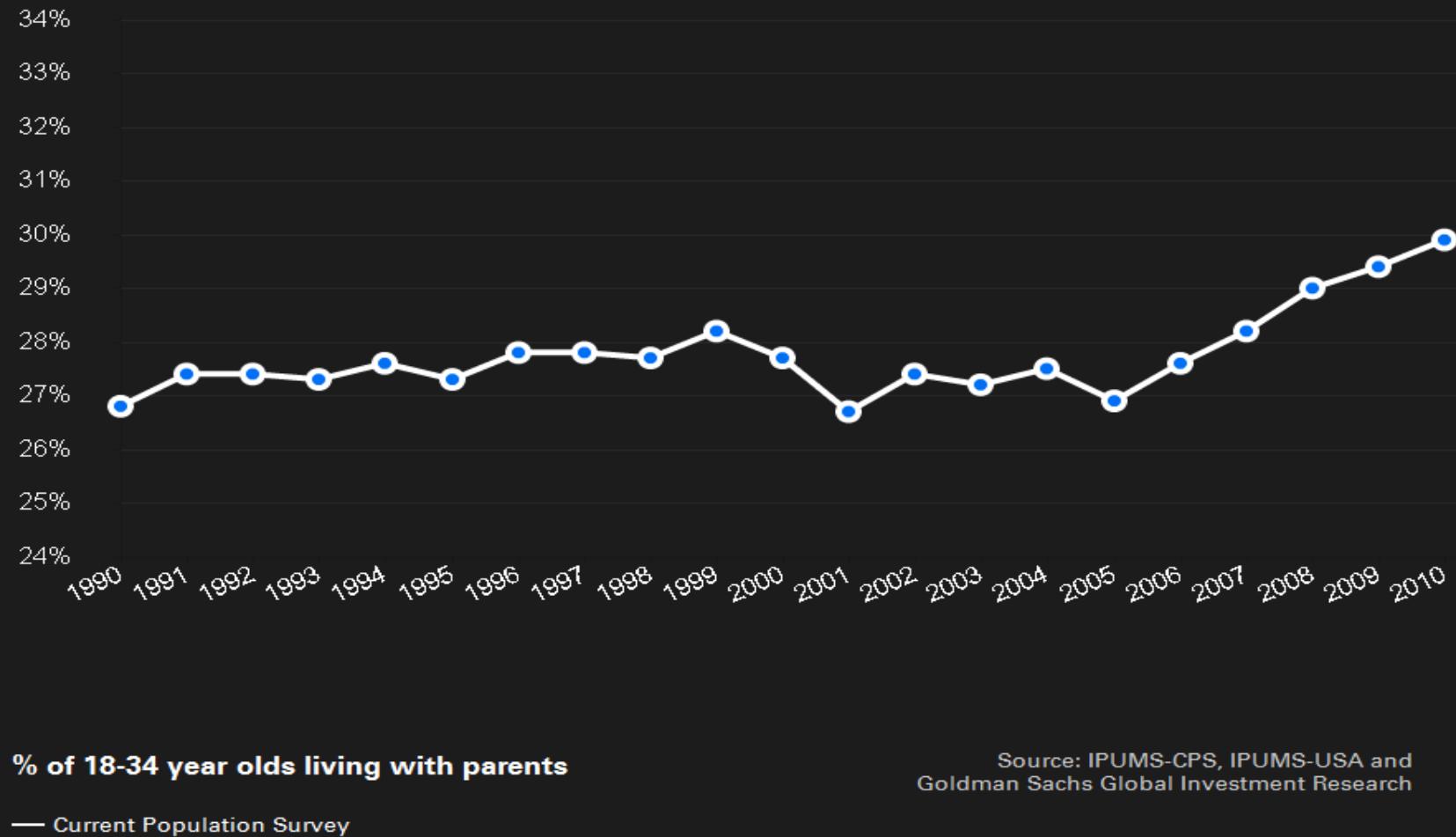
25 y/o → 45 y/o

Source: Goldman Sachs Global Investment Research

# Goldman Sachs: Millennials Coming of Age

## SNUG IN THE NEST...

A growing number of Millennials are choosing to live at home with their parents.



# Goldman Sachs: Millennials Coming of Age



## LOVE & MARRIAGE

Millennials have been putting off significant milestones like marriage and children. But that doesn't mean they want to stay single forever.



Source: Goldman Sachs Global Investment Research

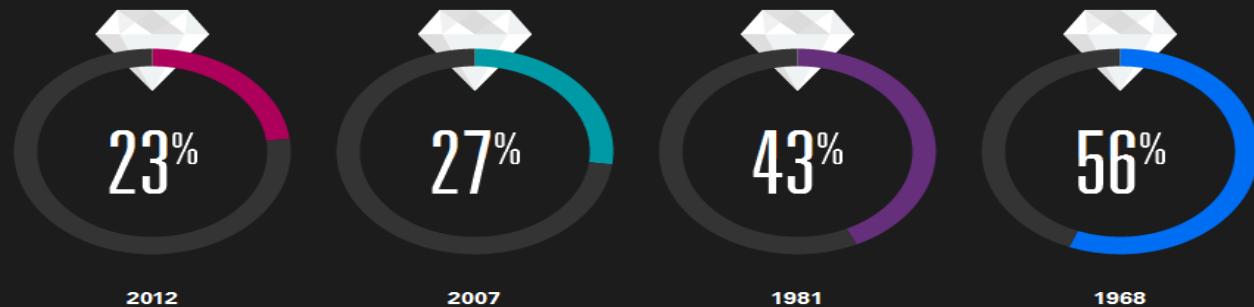
### MARRIAGE CAN WAIT

The percentage of young people married and living on their own has dropped by more than 50% since the 1960s.

MARRIAGE CAN WAIT ➔

PUTTING OFF PARENTHOOD

NEVER SAY NEVER



% of 18-31 year olds married and living in their own household

Source: Pew Research Center,  
Current Population Survey

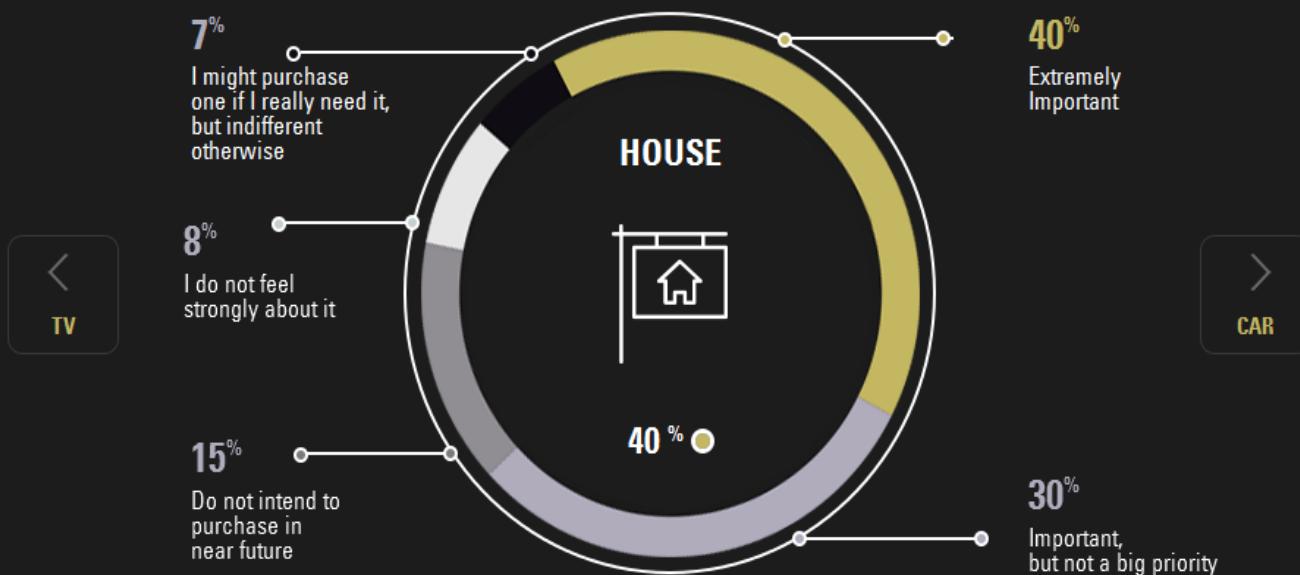
# Goldman Sachs: Millennials Coming of Age

## THE HIERARCHY OF NEEDS

The must-haves for previous generations aren't as important for Millennials. They're putting off major purchases—or avoiding them entirely.

### THE HIERARCHY OF NEEDS

### THE RENTER GENERATION



"How important is it for you to own the following?"

Source: Goldman Sachs Fortnightly  
Thoughts intern survey, 2013

# Goldman Sachs: Millennials Coming of Age

## THE TAKEAWAY

The Millennial generation is the largest in US history and as they reach their prime working and spending years, their impact on the economy is going to be huge.

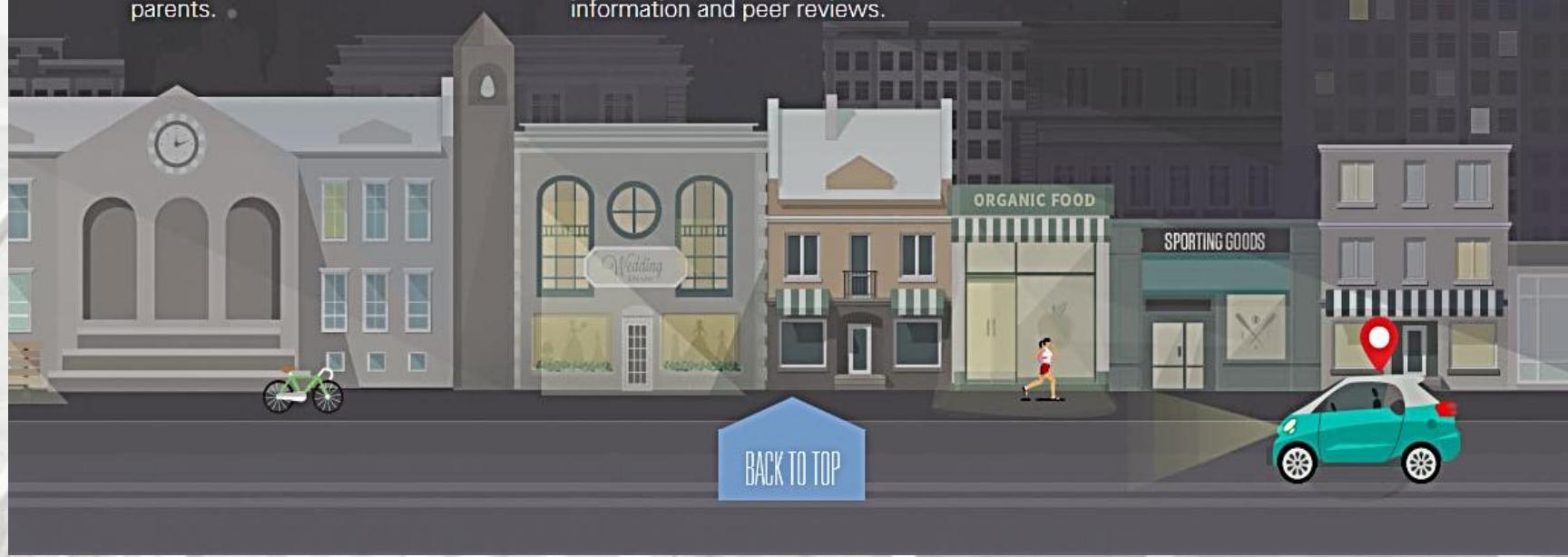
Millennials have come of age during a time of technological change, globalization and economic disruption. That's given them a different set of behaviors and experiences than their parents.

They have been slower to marry and move out on their own, and have shown different attitudes to ownership that have helped spawn what's being called a "sharing economy."

They're also the first generation of digital natives, and their affinity for technology helps shape how they shop. They are used to instant access to price comparisons, product information and peer reviews.

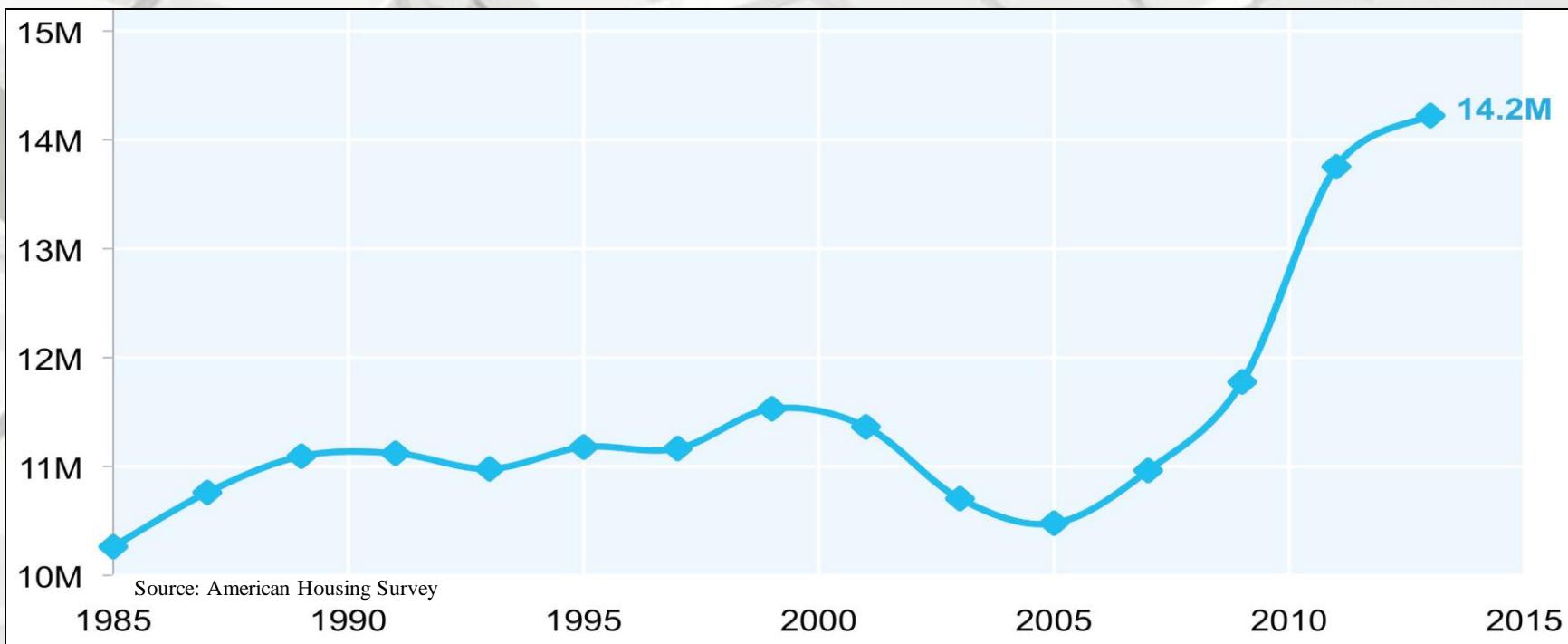
Finally, they are dedicated to wellness, devoting time and money to exercising and eating right. Their active lifestyle influences trends in everything from food and drink to fashion.

These are just some of the trends that will shape the new Millennial economy.



BACK TO TOP

# Demographics

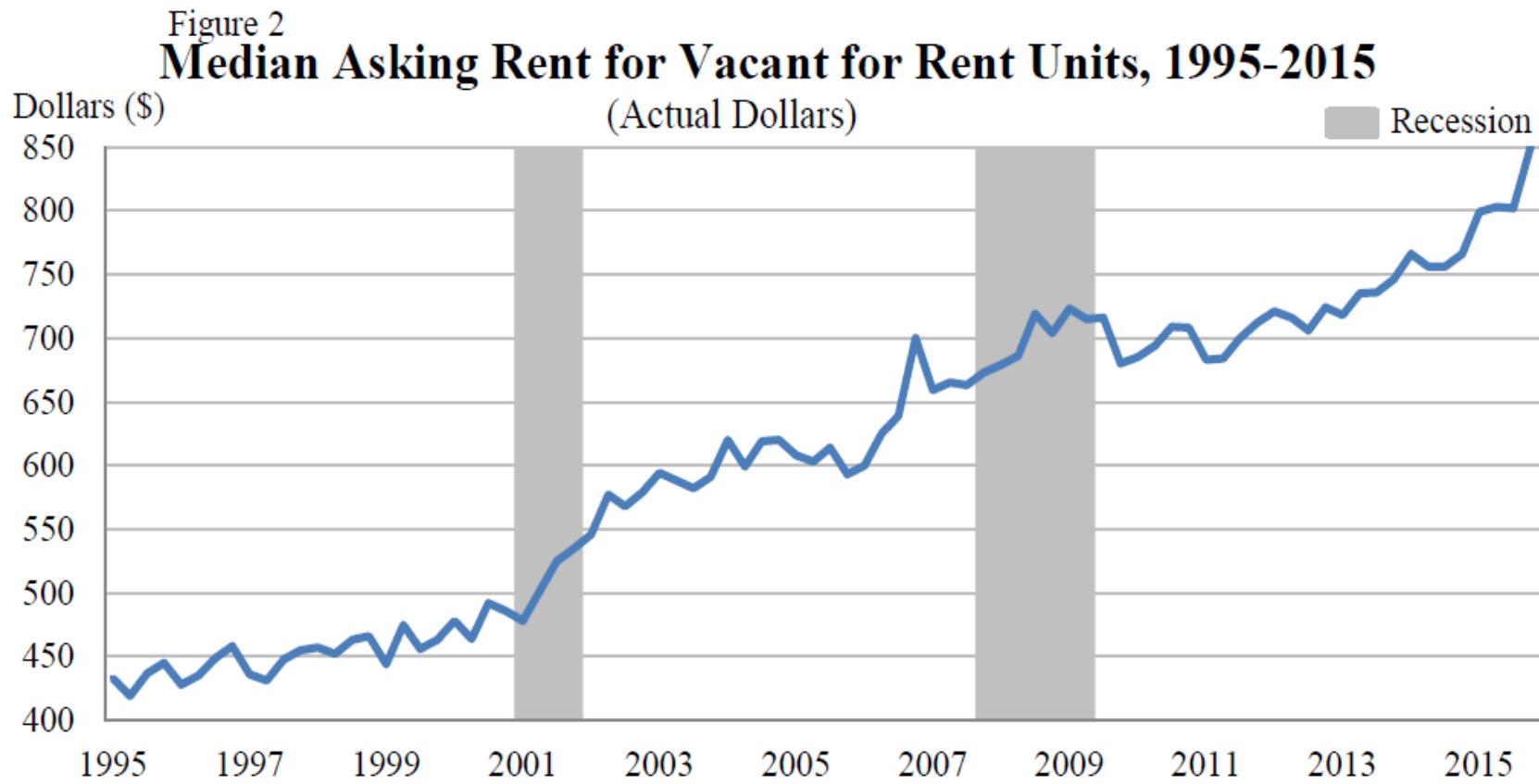


**Figure 1. Renter occupied 1-unit properties**

## The single-family rental market

“The single-family rental market expanded during the Great Recession, and, as of 2013, represented 35 percent of all rented housing units in the U.S. The growth in foreclosures increased the number of vacant single-family homes. At the same time, the reduction in the availability of mortgage credit left many families unable to purchase a home. As a consequence, many previously-owner-occupied homes became rentals.” – Sean Becketti, Chief Economist, Freddie Mac

# Demographics



### Median Rent Increased Quarter-over-Quarter and Year-over-Year

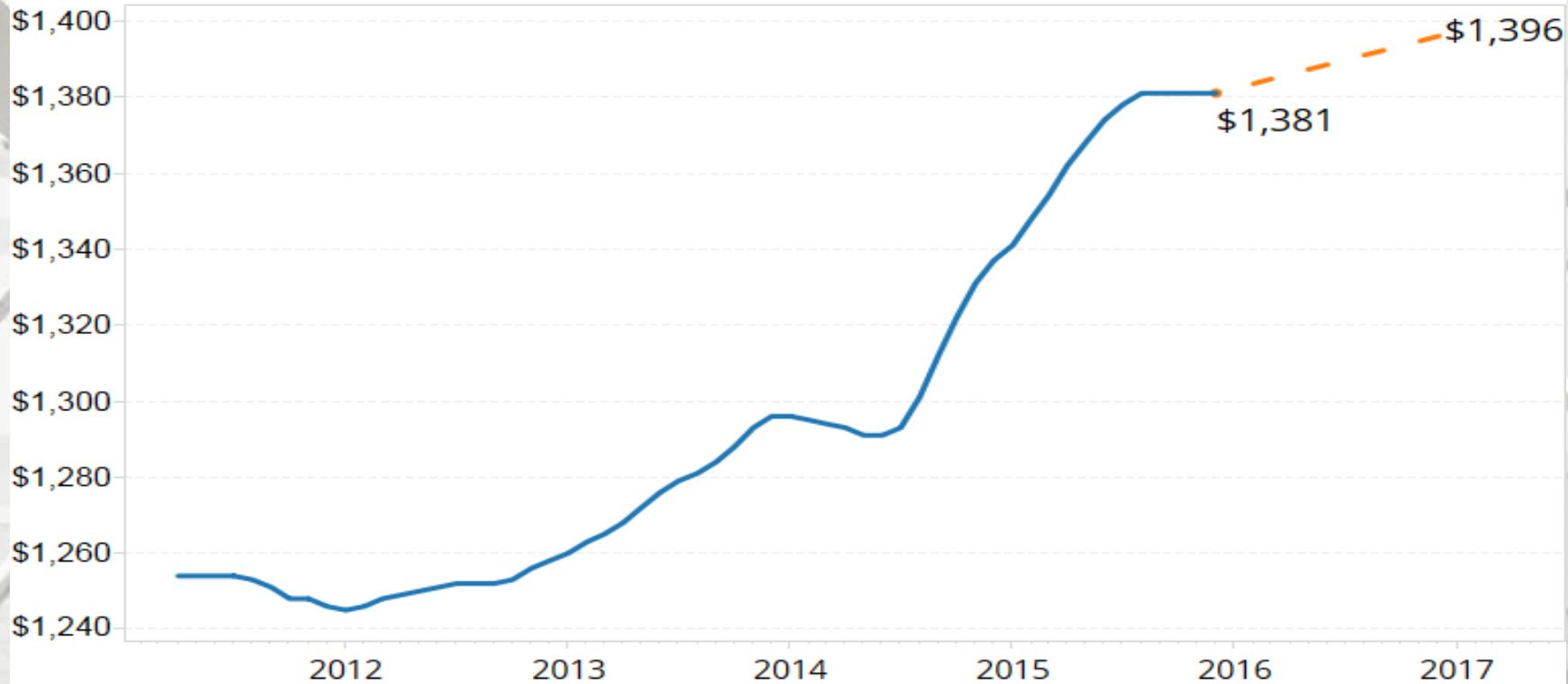
Q/Q increase = 5.9% (\$802) and Y/Y increase = 10.9% (\$766), quarterly basis.

“In the fourth quarter 2015, the median asking rent for vacant for rent units was \$850.” – Robert Callis and Melissa Kresin, Social, Economic and Housing Statistics Division, U.S. Census Bureau

# Demographics

**Figure 1:** U.S. Zillow Rent Index with Forecast

December 2015



"Hot rental markets are still going to be hot in 2016, but rents won't rise as quickly as they have been. The slowdown in rental appreciation will provide some relief for renters who've been seeing their rents rise dramatically every single year for the past few years. But the situation remains tough on the ground: rents are still rising and renters are struggling to keep up." – Svenja Gudell, Chief Economist, Zillow

# Demographics

## December Market Report: Expect Rental Growth to Cool in 2016, But Affordability Problems to Remain

- “As of December, median U.S. rents were growing at a 3.3 percent annual pace, according to the Zillow Rent Index. That pace of growth is forecasted to slow to 1.1 percent nationwide by December 2016.
- Apartment developers have ramped up in a number of large U.S. markets in the face of high demand, with more rental units coming online.
- Even with the slowdown, rents will remain unaffordable in many of the major markets across the U.S., especially on the West Coast.

For the past few years, a major theme in housing has been rapid rental growth, and the largely negative impacts that is having on the housing market on everything from homeownership rates to affordability. But over the next year, there is – some – relief in sight.

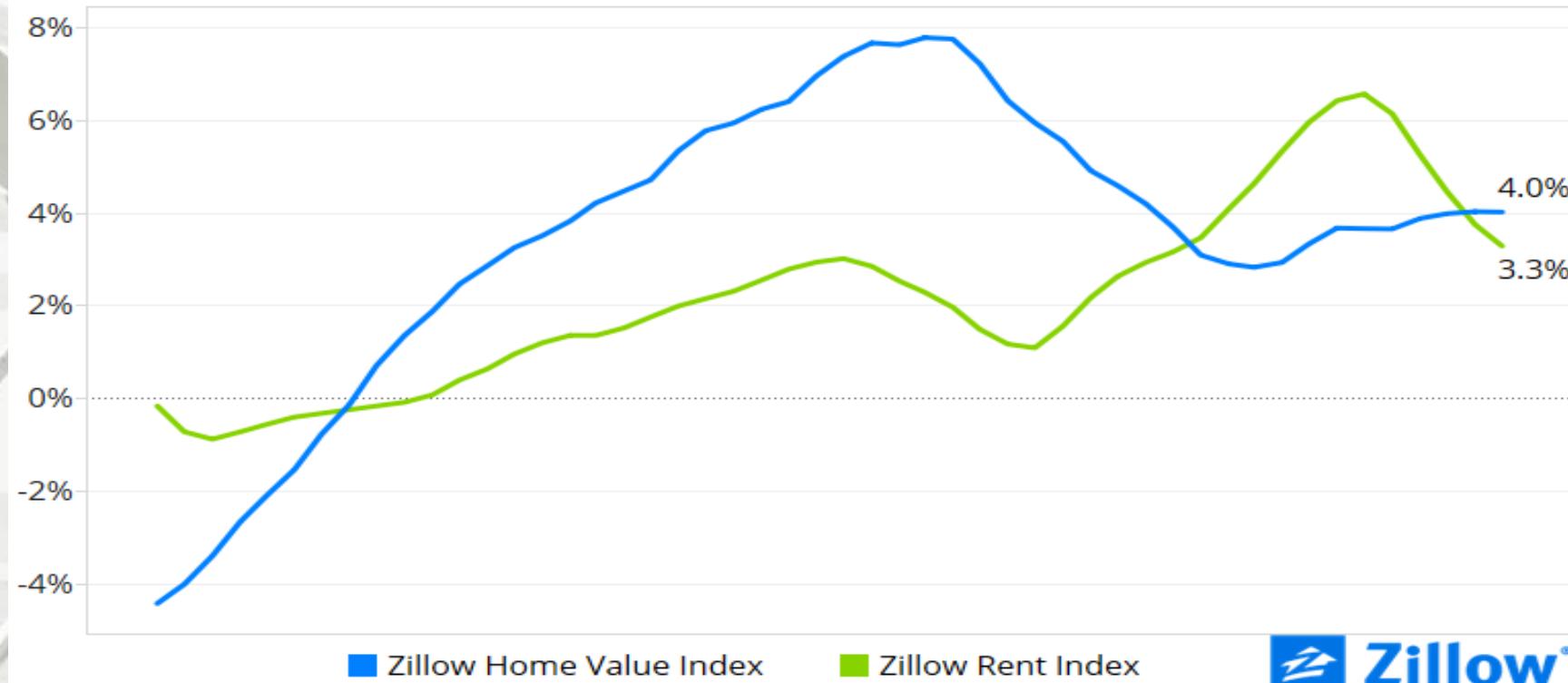
The slowdown in rental growth will undoubtedly provide some welcome relief for renters who've been experiencing sometimes dramatic rent increases every single year for the past few years. But make no mistake – even with the slowdown in rental appreciation, rents will keep rising and will remain unaffordable in many of the major markets across the U.S., especially on the West Coast.

And while the expected slowdown is significant nationally, in some local markets, rental growth will just barely cool off. ... Those are hardly large enough slowdowns to make much of a meaningful difference to renters struggling with affordability in those areas.” – Svenja Gudell, Chief Economist, Zillow

# Demographics

**Figure 3: Annual Change in U.S. Home Values and Rents**

December 2015



"In December, the median U.S. home was worth \$183,500, according to the Zillow Home Value Index, up 0.2% from November and 4% from December 2014. Annual home value growth was consistent in all three months of the fourth quarter, growing at 4% in October, November and December, an indicator of increased stability in the housing market after several years of wild up and down swings. Nationwide, home values remain 6.4% below their pre-recession, May 2007 peak of \$196,100. But in 11 of the 35 largest metro markets, median home values have never been higher, having surpassed their recession-era peaks." – Svenja Gudell, Chief Economist, Zillow

# **Virginia Tech Disclaimer**

## **Disclaimer of Non-endorsement**

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by Virginia Tech. The views and opinions of authors expressed herein do not necessarily state or reflect those of Virginia Tech, and shall not be used for advertising or product endorsement purposes.

## **Disclaimer of Liability**

With respect to documents sent out or made available from this server, neither Virginia Tech nor any of its employees, makes any warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

## **Disclaimer for External Links**

The appearance of external hyperlinks does not constitute endorsement by Virginia Tech of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, Virginia Tech does not exercise any editorial control over the information you may find at these locations. All links are provided with the intent of meeting the mission of Virginia Tech's web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

## **Nondiscrimination Notice**

Virginia Tech prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the author. Virginia Tech is an equal opportunity provider and employer.

# **U.S. Department of Agriculture Disclaimer**

## **Disclaimer of Non-endorsement**

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government, and shall not be used for advertising or product endorsement purposes.

## **Disclaimer of Liability**

With respect to documents available from this server, neither the United States Government nor any of its employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

## **Disclaimer for External Links**

The appearance of external hyperlinks does not constitute endorsement by the U.S. Department of Agriculture of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, the Department does not exercise any editorial control over the information you may find at these locations. All links are provided with the intent of meeting the mission of the Department and the Forest Service web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

## **Nondiscrimination Notice**

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202.720.2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call 800.795.3272 (voice) or 202.720.6382 (TDD). The USDA is an equal opportunity provider and employer.