

The Virginia Tech – U.S. Forest Service

March 2016

Housing Commentary: Section II



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-ANR 203NP

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: [Federal Reserve System Indicators](#)

Slide 27: [Private Indicators](#)

Slide 54: [Demographics](#)

Slide 67: [Virginia Tech Disclaimer](#)

Slide 68: [USDA Disclaimer](#)

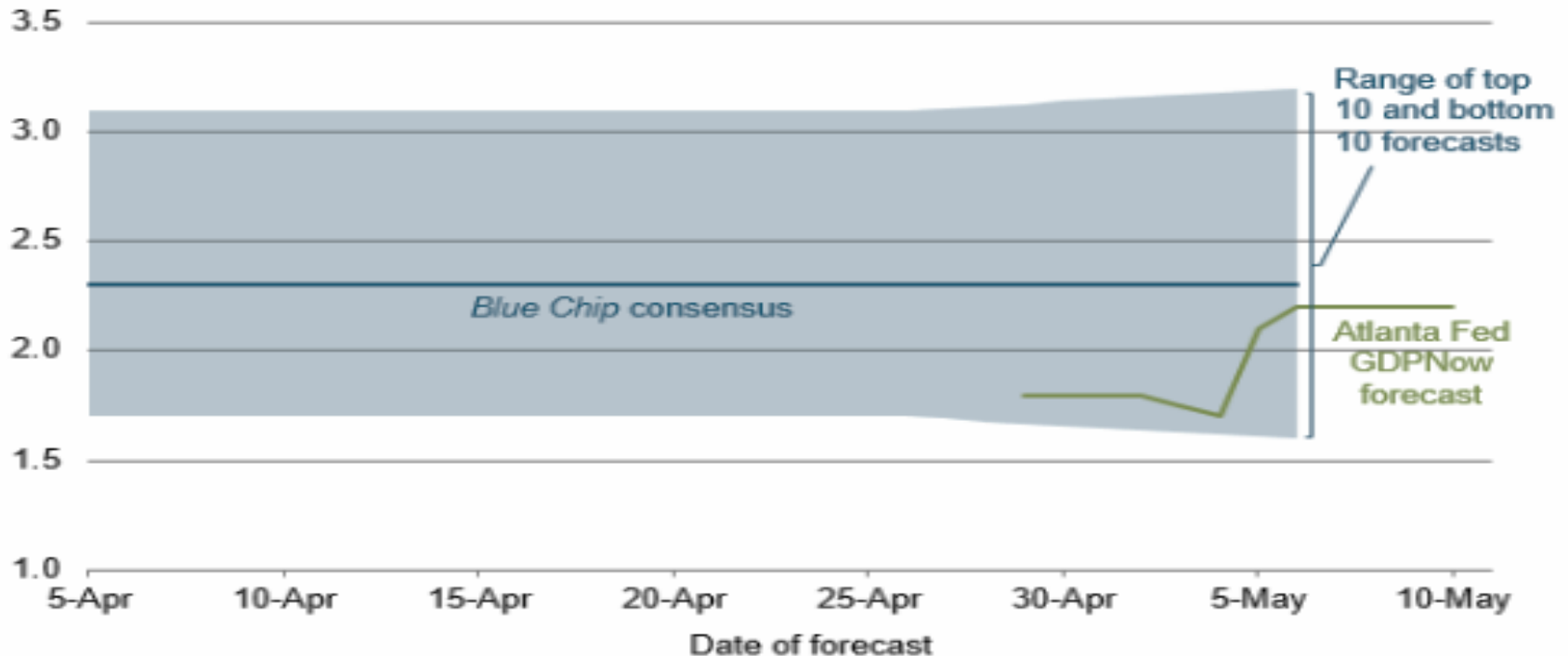
The background of the slide is a grayscale photograph of a complex wooden roof truss system. The beams are arranged in a crisscrossing pattern, creating a geometric and structural visual. The lighting is soft, highlighting the textures of the wood.

Federal Reserve System and Private Indicators

Atlanta Fed: GDPNow™

Evolution of Atlanta Fed GDPNow real
GDP forecast for 2016: Q2
Quarterly percent change (SAAR)

GDPNow™



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

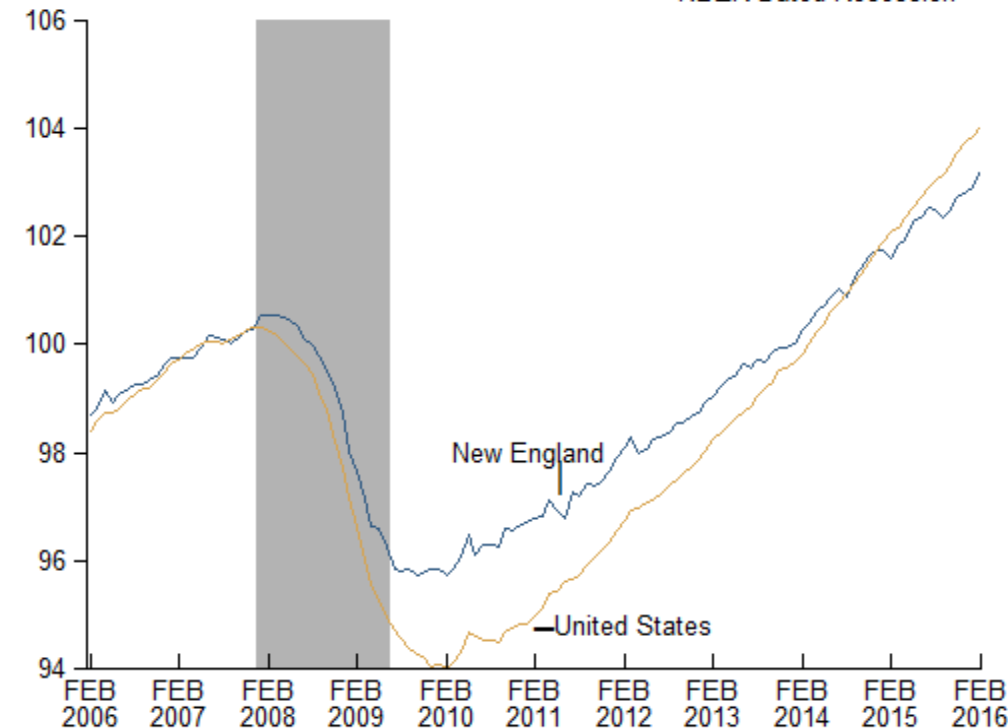
“The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the second quarter of 2016 is 2.2 percent on May 10, up from 1.7 percent on May 4. Since the previous GDPNow update on May 4, the forecast for second-quarter real consumer spending growth increased from 2.6 percent to 3.0 percent and the forecast for second-quarter real fixed investment growth increased from 0.4 percent to 2.2 percent.” – Pat Higgins, Economist, The Federal Reserve Bank of Atlanta

U.S. Economic Indicators

Exhibit 1 Nonagricultural Employment

February 2006 - February 2016
Index 2007=100

■ NBER-Dated Recession



Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted.

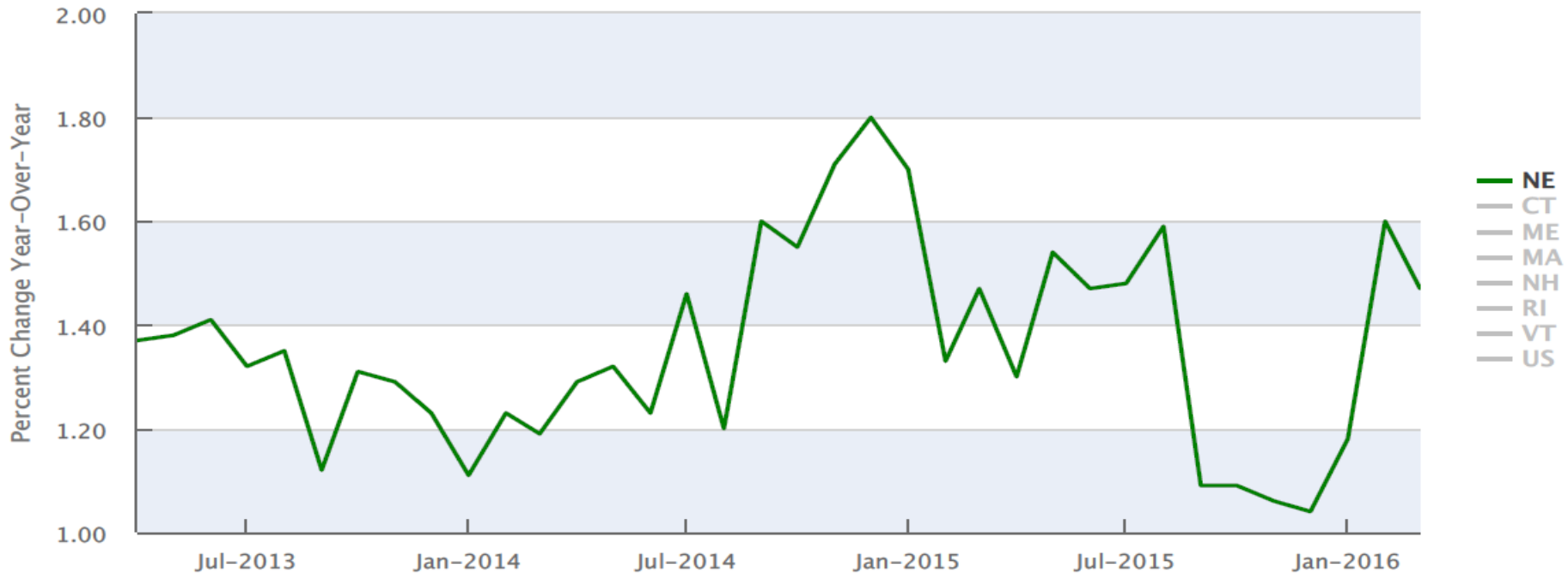
The Federal Reserve Bank of Boston

The New England economy continues to improve, but lags the nation in most measures

The New England region continues to experience moderate growth across many economic measures. Employment growth continues at a modest pace while unemployment rates continue to fall. Home prices continue to make modest gains, albeit at a slower pace than in recent quarters. Similarly, through Q4 2015 wage and salary income is up from one year earlier, but the rate of growth of such income is noticeably slower than it was one year ago. Across all metrics, except unemployment rates, New England is trailing the nation.

U.S. Economic Indicators

Payroll Employment



New England Labor Market Indicators

Change Previous
12 Months

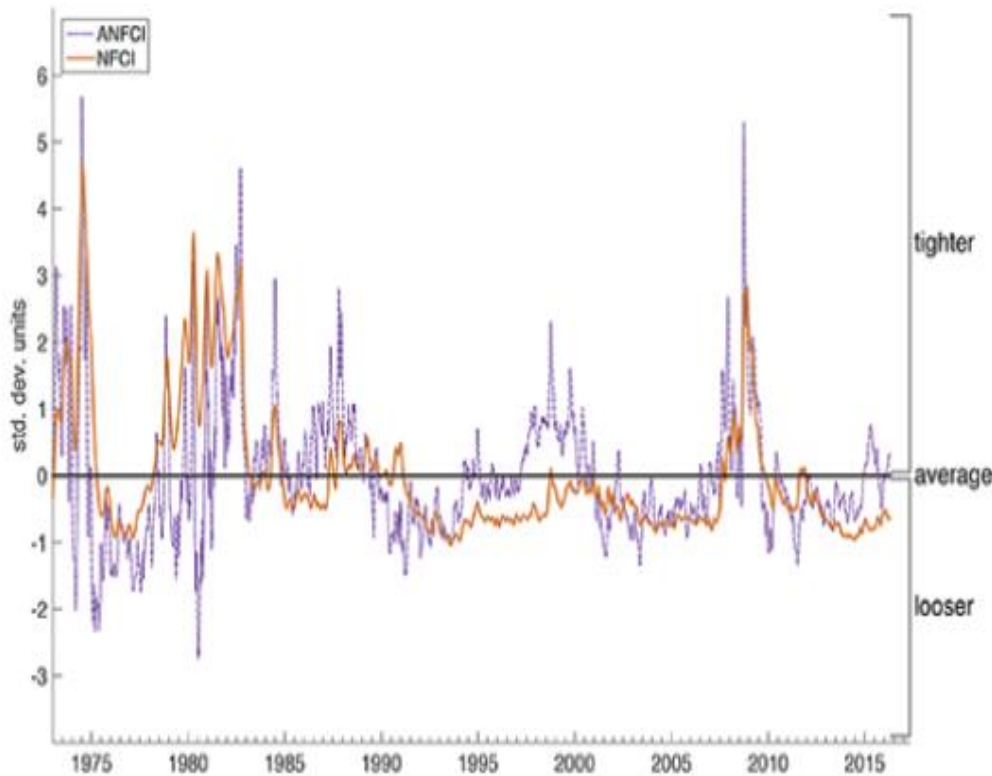
Average of Monthly Data

Q2-15 Q3-15 Q4-15 Q1-16

Dec-15 Jan-16 Feb-16 Mar-16

| | | | | | | | | |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total Nonfarm: 106.1 | 7,224.8 | 7,244.3 | 7,259.8 | 7,294.8 | 7,269.4 | 7,277.5 | 7,298.5 | 7,308.9 |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|

U.S. Economic Indicators



Financial Conditions Remain Steady in Week Ending May 6

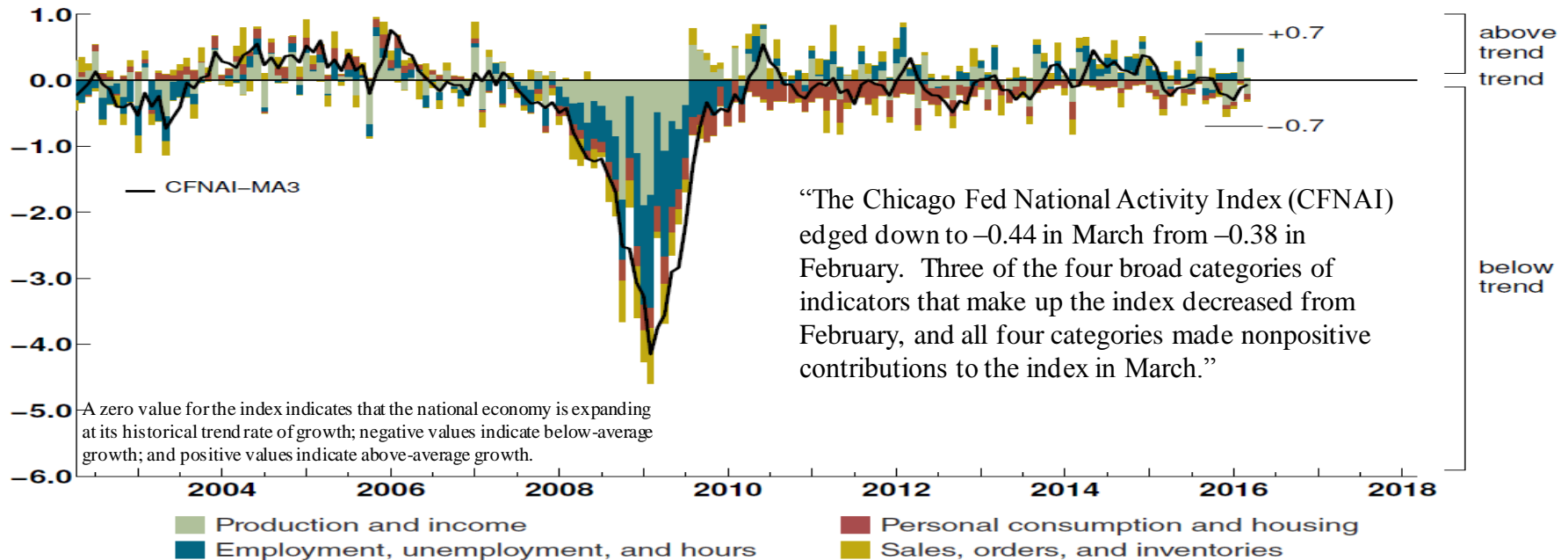
“The NFCI remained at -0.64 in the week ending May 6. The risk and nonfinancial leverage subindexes ticked up from the previous week, while the credit and leverage subindexes were unchanged.”

The Federal Reserve Bank of Chicago

“The ANFCI edged up to 0.35 from the previous week. The current level of the ANFCI indicates that financial conditions in the latest week were somewhat tighter than what would typically be suggested by current economic conditions as captured by the three-month moving average of the Chicago Fed National Activity Index (CFNAI-MA3) and three-month total inflation according to the Price Index for Personal Consumption Expenditures (PCE).” -- Scott Brave, Economic Research, The Federal Reserve Bank of Chicago

Chicago Fed: National Activity Index

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



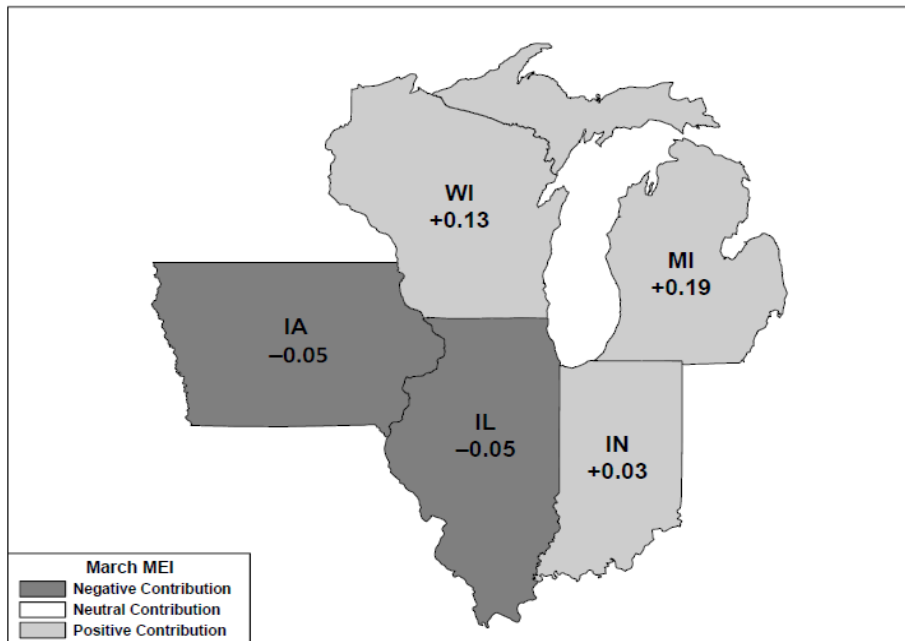
Index shows economic growth below average in March

“The index’s three-month moving average, CFNAI-MA3, decreased to -0.18 in March from -0.11 in February. March’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 CFNAI Diffusion Index, which is also a three-month moving average, declined to -0.23 in March from -0.12 in February. Twenty-seven of the 85 individual indicators made positive contributions to the CFNAI in March, while 58 made negative contributions. Forty-two indicators improved from February to March, while 42 indicators deteriorated and one was unchanged. Of the indicators that improved, 21 made negative contributions.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index

MEI and the Seventh Federal Reserve District States



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

Index shows Midwest economic growth picked up in March

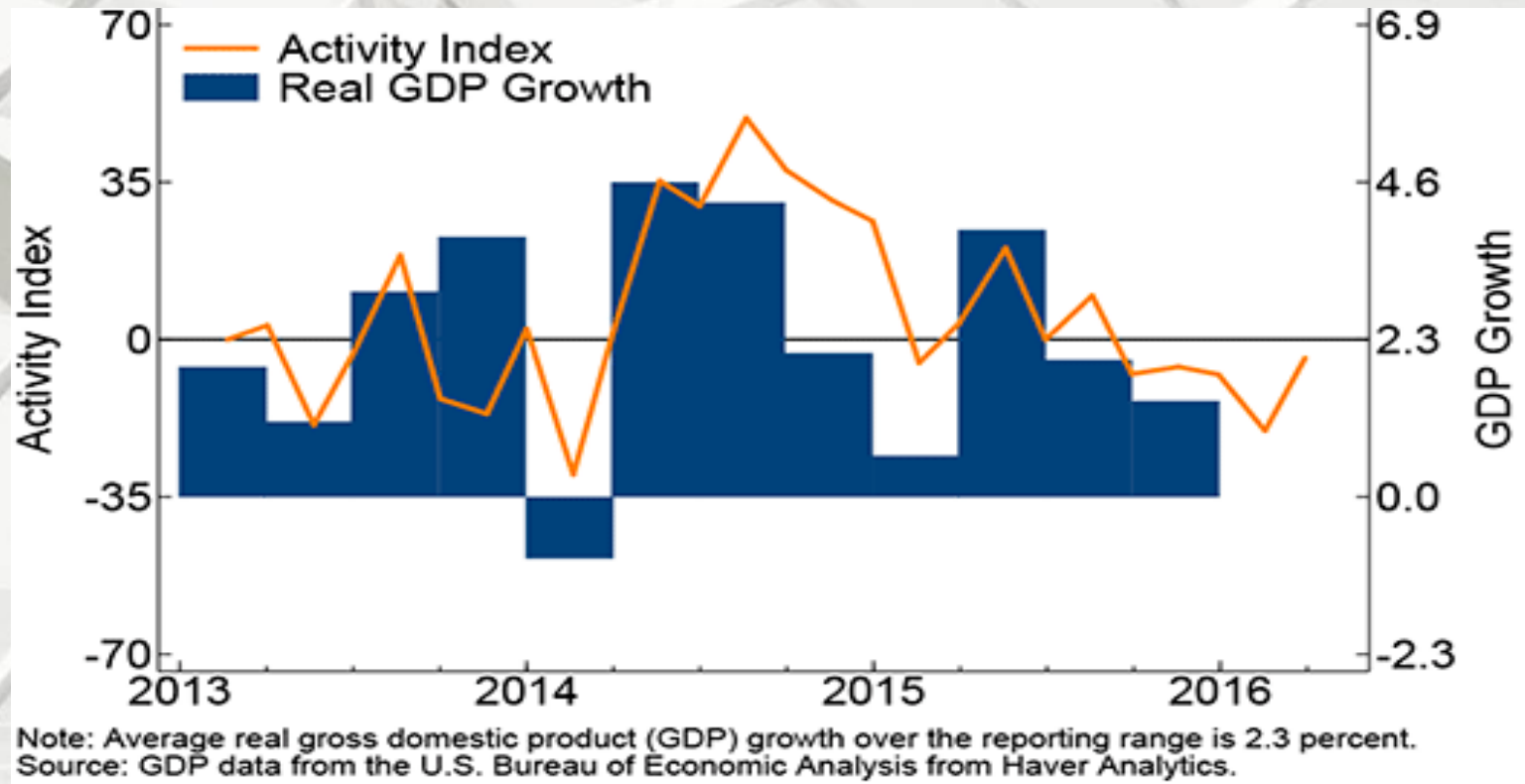
“The Midwest Economy Index (MEI) rose to +0.24 in March from +0.05 in February. The relative MEI increased to +0.67 in March from +0.60 in February. March’s value for the relative MEI indicates that Midwest economic growth was moderately higher than what would typically be suggested by the growth rate of the national economy.

The manufacturing sector made a neutral contribution to the MEI in March, up from –0.15 in February. The pace of manufacturing activity increased in Illinois, Iowa, Michigan, and Wisconsin, but was unchanged in Indiana. Manufacturing’s contribution to the relative MEI increased to +0.12 in March from +0.09 in February.”

“The construction and mining sector’s contribution to the MEI decreased to +0.07 in March from +0.10 in February. The pace of construction and mining activity was lower in Indiana and Michigan, but higher in Wisconsin and unchanged in Illinois and Iowa. Construction and mining’s contribution to the relative MEI was +0.19 in March, down from +0.24 in February.

The service sector’s contribution to the MEI increased to +0.10 in March from +0.05 in February. The pace of service sector activity was up in Illinois and Wisconsin, but down in Indiana and Iowa and unchanged in Michigan. The service sector’s contribution to the relative MEI rose to +0.28 in March from +0.21 in February.” – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Survey of Business Conditions



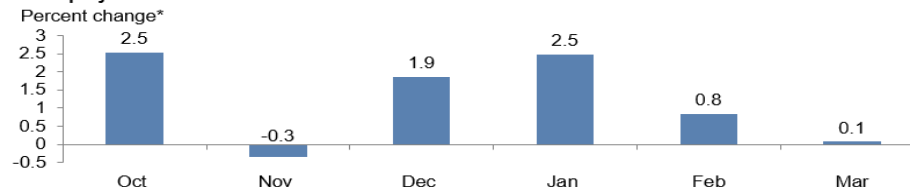
Survey shows growth picked up in late February and March

“The Chicago Fed Survey of Business Conditions (CFSBC) Activity Index increased to -4 from -20, suggesting that growth in economic activity picked up to a moderate pace in late February and March. The CFSBC Manufacturing Activity Index rose to +23 from -19, while the CFSBC Nonmanufacturing Activity Index increased to -19 from -21.” – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

U.S. Economic Indicators

Chart 1
Texas Job Growth Slows Further

A. Employment Flat in March...



B. ... Dips Slightly in First Quarter



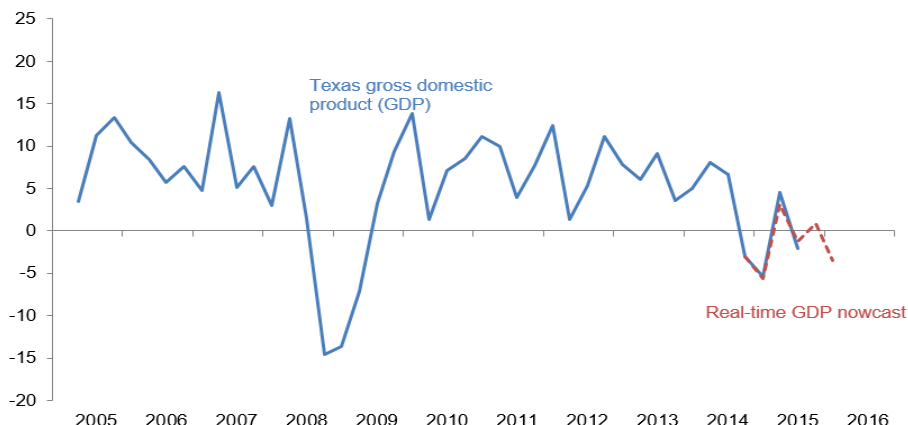
*Seasonally adjusted, annualized rate.

NOTE: Quarterly employment is last month of quarter.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal adjustments by Federal Reserve Bank of Dallas.

Chart 5
Texas Nominal GDP Likely Fell in First Quarter

Percent change, annualized



NOTES: Dashed line represents real-time estimate for 2015:Q1–2016:Q1 based on regression model. Last data point is 2015:Q3 for Texas GDP and 2016:Q1 for nowcast estimate.

SOURCES: Bureau of Economic Analysis; Federal Reserve Bank of Dallas.

The Federal Reserve Bank of Dallas

Regional Growth Continues to Stagnate

“Texas employment growth decelerated further in March to a 0.1 percent annualized rate (Chart 1A). This brings first-quarter growth to 1.1 percent (annualized rate), slightly weaker than fourth quarter 2015 but above the 0.5 percent growth seen in first quarter 2015 (Chart 1B).

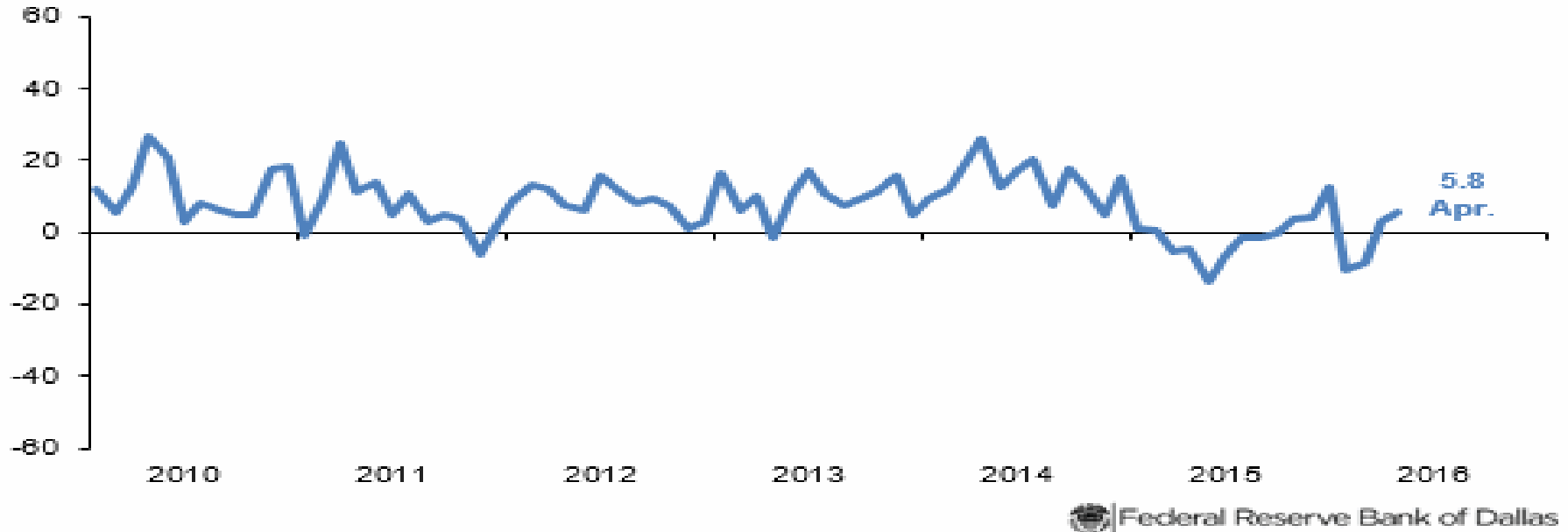
The service sector — which accounts for about 85 percent of Texas employment — continued to buoy growth in the state, as the goods-producing sector saw further declines. The service sector rose at a 2.5 percent annualized rate (63,400 jobs) in the first quarter, more than offsetting the 6.5 percent (29,800 jobs) loss on the goods side.

The Texas labor market remained tight overall, with the unemployment rate holding steady at 4.3 percent in March. Initial unemployment claims saw some increases earlier this year but have fallen in recent weeks.” – Sarah Greer, Research Analyst and Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



The Federal Reserve Bank of Dallas

Texas Manufacturing Activity Expands Again

“Texas factory activity increased for a second month in a row in April, according to business executives responding to the Texas Manufacturing Outlook Survey. The production index, a key measure of state manufacturing conditions, rose from 3.3 to 5.8, suggesting a slight pickup in output growth.

Most other indexes of current manufacturing activity also reflected growth this month. The new orders index rebounded into positive territory after four months of negative readings, coming in at 6.2. The growth rate of orders index jumped 11 points to -0.7. The capacity utilization and shipments indexes posted their second positive reading in a row and climbed to 8.2 and 7.1, respectively.” – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas

U.S. Economic Indicators

**Chart
5**

Housing Wealth Effect Halved Since Mid-2000s Peak



*Percent increase in wealth attributable to housing.

NOTE: Shaded areas are National Bureau of Economic Research dated recessions.

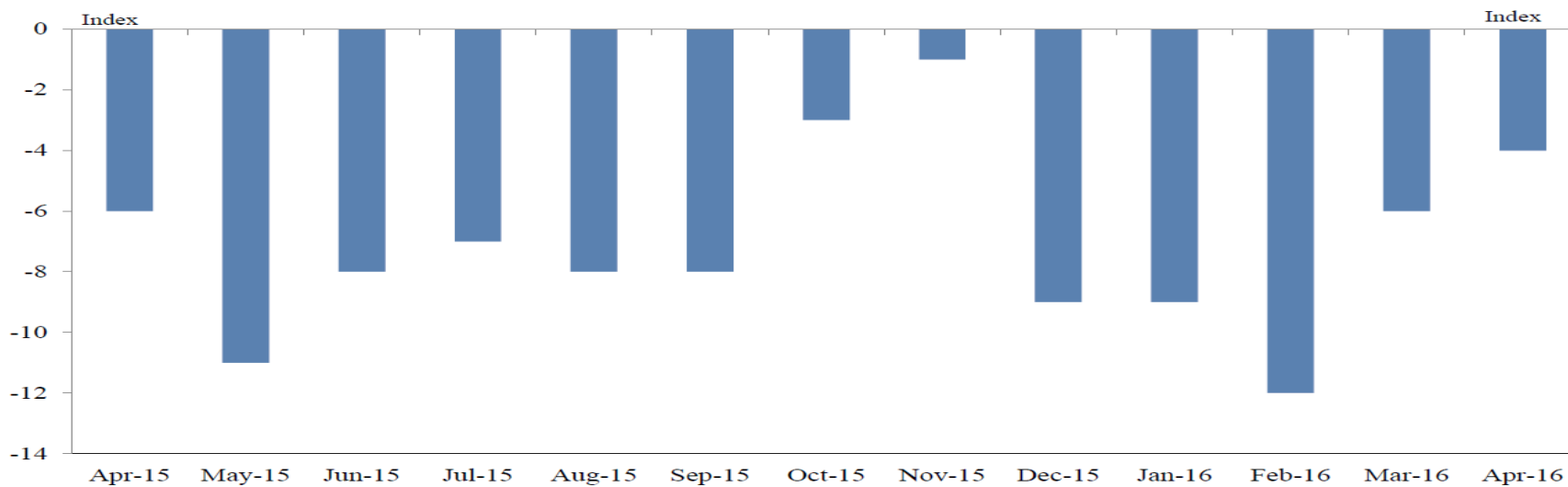
SOURCE: "How Financial Innovations and Accelerators Drive U.S. Consumption Booms and Busts," by John V. Duca, John Muellbauer and Anthony Murphy, manuscript, April 2016.

The Federal Reserve Bank of Dallas Housing Wealth Effect Halved

“The estimated housing wealth effect varies over time and captures the ability of consumers to tap into their housing wealth (Chart 5). It rose steadily from about 1.3 percent in the early 1990s to a peak of about 3.5 percent in the mid-2000s. It has since halved, to about the same level as that of the mid-1990s. During the subprime and housing booms, rising house prices and housing wealth effects propagated and amplified expansion of consumption and GDP.” – John Duca, Vice President and Associate Director of Research; Anthony Murphy, Economic Policy Advisor and Senior Economist; The Federal Reserve Bank of Dallas, and Elizabeth Organ; New York University School of Law

U.S. Economic Indicators

Composite Index vs. a Month Ago



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

“Factories reported a modest decline in activity in April, but expectations for future activity increased to their highest reading of the year. ... while producers’ expectations for future activity improved considerably. Most price indexes moved slightly higher in April, but remained at low levels. Year-over-year factory indexes were mixed, but generally remained weak.

The month-over-month composite index was -4 in April, up from -6 in March and -12 in February. The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. The slight improvement in the index came from a rise in nondurable goods production, ... Durable goods production such as metals and machinery remained negative. Most month-over-month indexes rose somewhat from the previous month. The production, shipments, and new orders for exports indexes improved slightly but remained in negative territory. In contrast, the new orders and employment indexes were negative but unchanged and the order backlog index fell from -15 to -18. The raw materials inventory edged up from -2 to 0, while the finished goods inventory index fell.” – Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

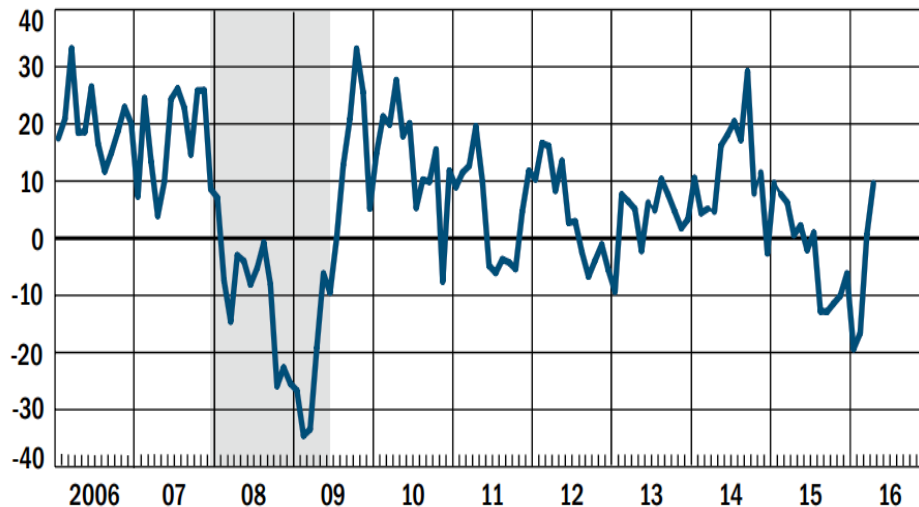
U.S. Economic Indicators

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 Improve

“Business activity expanded for New York manufacturing firms for the first time in over a year, according to the April 2016 survey. After remaining in negative territory for seven months, the general business conditions index rose to a reading slightly above zero last month, and climbed nine more points to reach 9.6 in April. 31% of respondents reported that conditions had improved over the month, while 22% reported that conditions had worsened. After a steep gain last month, the new orders index edged up two points to 11.1, pointing to an increase in orders. The shipments index edged lower but, at 10.2, still signaled a modest increase in shipments. The unfilled orders and delivery time indexes both came in close to zero. The inventories index was -4.8, indicating that inventory levels were slightly lower.”

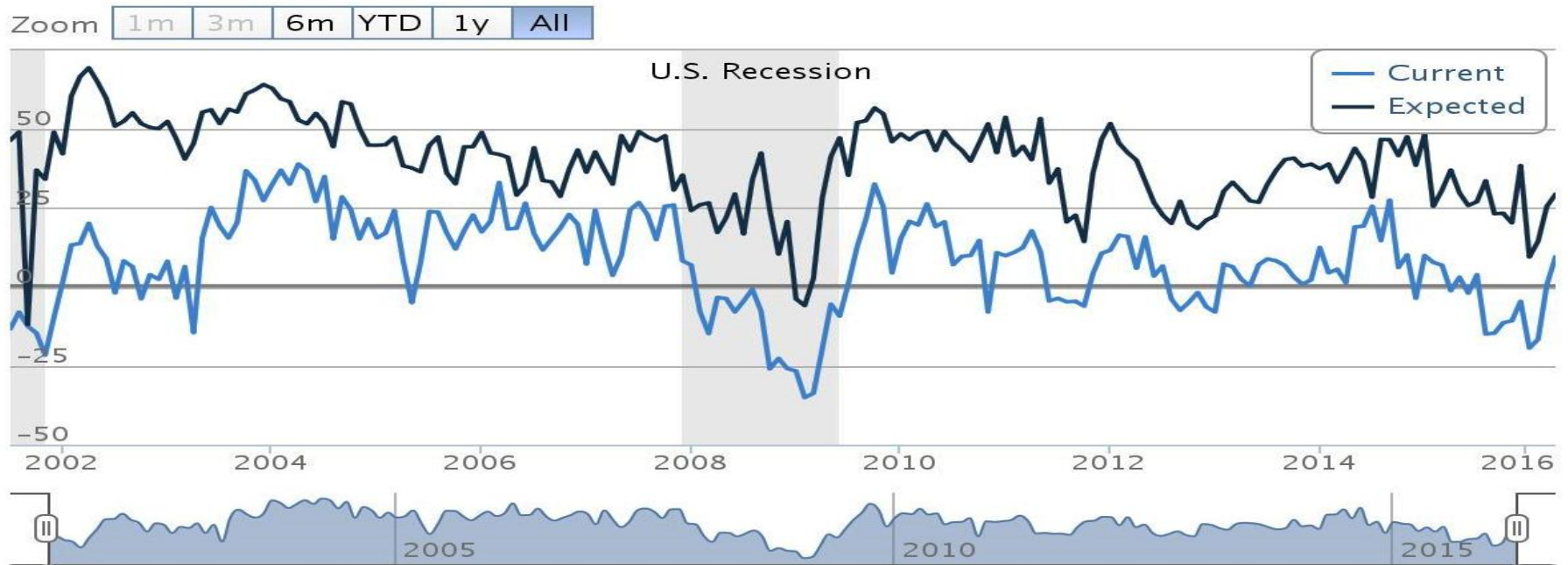
“The April 2016 *Empire State Manufacturing Survey* indicates that business activity expanded for New York manufacturers. The headline general business conditions climbed nine points to 9.6, its highest level in more than a year. The new orders and shipments indexes registered an increase in both orders and shipments, and inventories were slightly lower than last month. The prices paid index climbed sixteen points to 19.2, pointing to a pickup in input price increases, while the prices received index rose above zero, a sign that selling prices increased. Employment levels and the average workweek were little changed from March. The six-month outlook continued to improve, with the index for future business conditions rising for a third straight month.” – 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

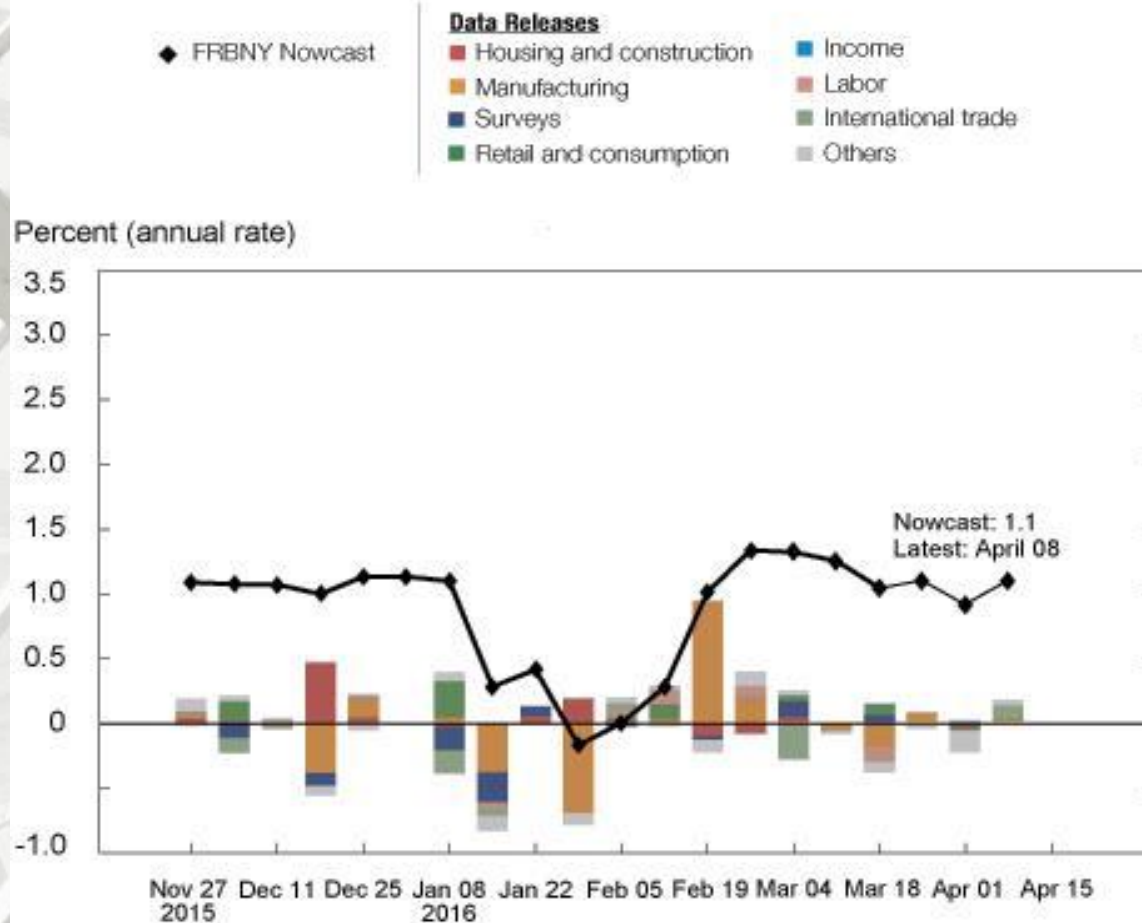
Outlook Continues To Improve

“Indexes for the six-month outlook indicated that conditions were expected to improve in the months ahead. The index for future business conditions moved up four points to 29.4 — its third consecutive rise. The index for future new orders remained elevated at 36.6, and the index for future shipments climbed to 37.2. Future employment indexes conveyed an expectation that employment levels and the average workweek would rise modestly over the next six months. The capital expenditures index climbed six points to 22.1, and the technology spending index rose to 21.2.” – The Federal Reserve Bank of New York

U.S. Economic Indicators

The Federal Reserve Bank of New York: FRBNY Nowcast

FRBNY Nowcast 2016:Q1 GDP Growth

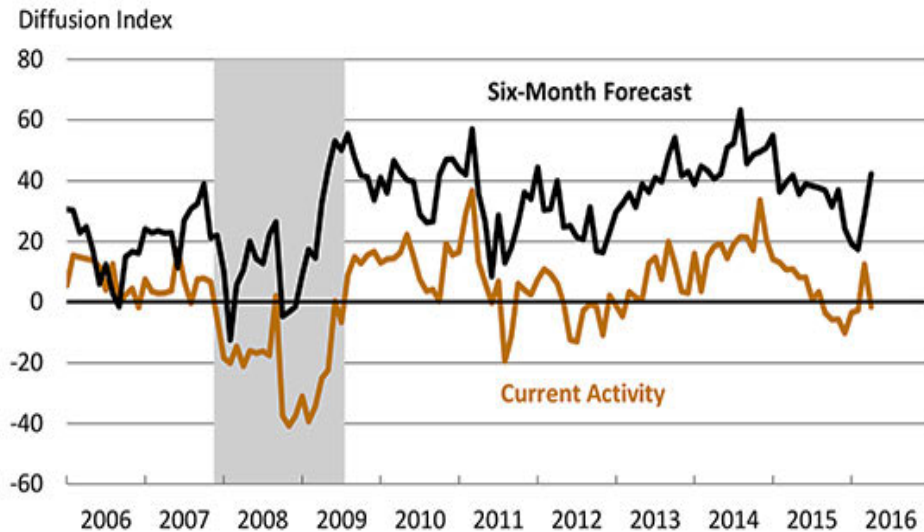


Source: Authors' calculations.

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

U.S. Economic Indicators

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

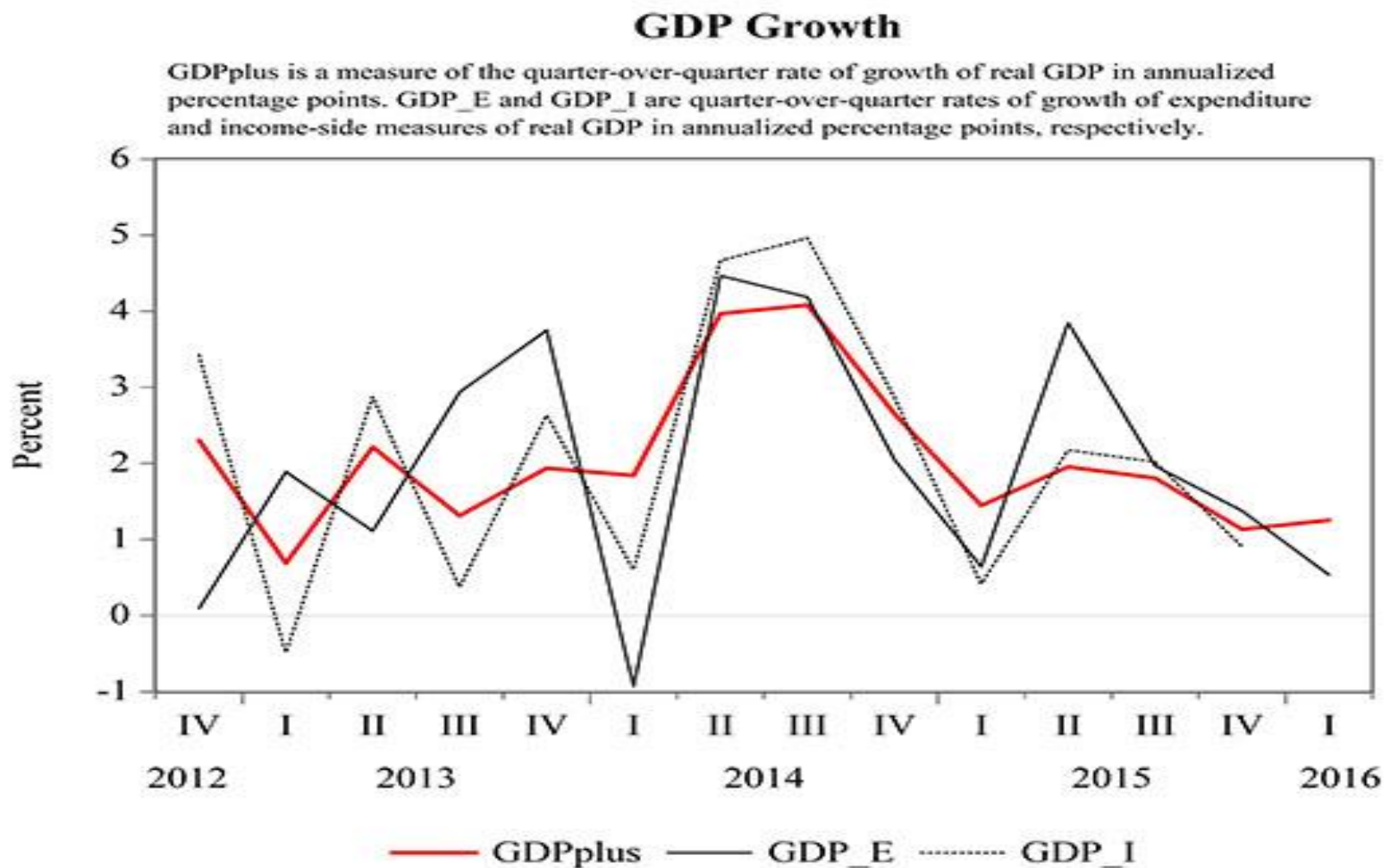
Current Indicators Fall from Last Month's Readings

“The diffusion index for current activity decreased from 12.4 in March to -1.6 this month. The index had turned positive last month following six consecutive negative readings (see Chart 1). The current new orders and shipments indexes also fell this month. The percentage of firms (23 percent) reporting a rise in new orders was exactly offset by the percentage reporting a decline. The current new orders index decreased from 15.7 to zero this month, while the current shipments index fell precipitously, from 22.1 to -10.8. The unfilled orders and delivery time indexes suggested weakness, as both indexes were in negative territory this month. Firms continued to report overall declines in inventories.”

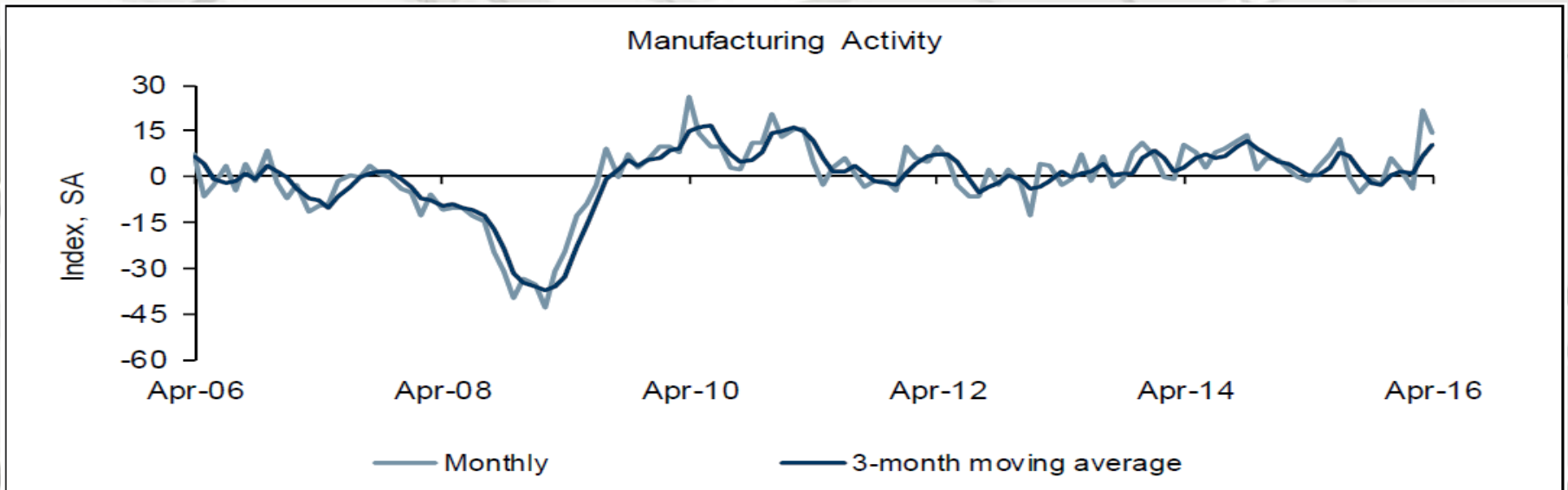
The Federal Reserve Bank of Philadelphia

“Firms responding to the Manufacturing Business Outlook Survey reported no improvement in business conditions this month. The indicator for general activity, which rose sharply in March, fell to a slightly negative reading in April. Other broad indicators suggested a similar relapse in growth that was reported last month. The indicators for both employment and work hours also fell notably. Despite weakness in current conditions, the survey’s indicators of future activity showed continued improvement, suggesting that the fallback is considered temporary.”

Philadelphia Fed: GDP Growth



U.S. Economic Indicators



The Federal Reserve Bank of Richmond

Manufacturing Sector Expanded; New Orders Remained Solid, Wage Growth Moderated

“Fifth District manufacturing activity continued to expand in April, according to the most recent survey by the Federal Reserve Bank of Richmond. Shipments and the volume of new orders remained solid. New hiring increased modestly, while the average workweek lengthened and average wage increases moderated. Prices of raw materials and finished goods rose at a faster pace compared to last month.

Manufacturers remained optimistic about future business conditions, although expectations were less buoyant compared to the past two months. Producers continued to look for solid growth in shipments and in new orders. Backlogs of new orders were expected to build more gradually in the next six months and capacity utilization was expected to increase at a slower rate. Survey participants expected unchanged vendor lead times.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators

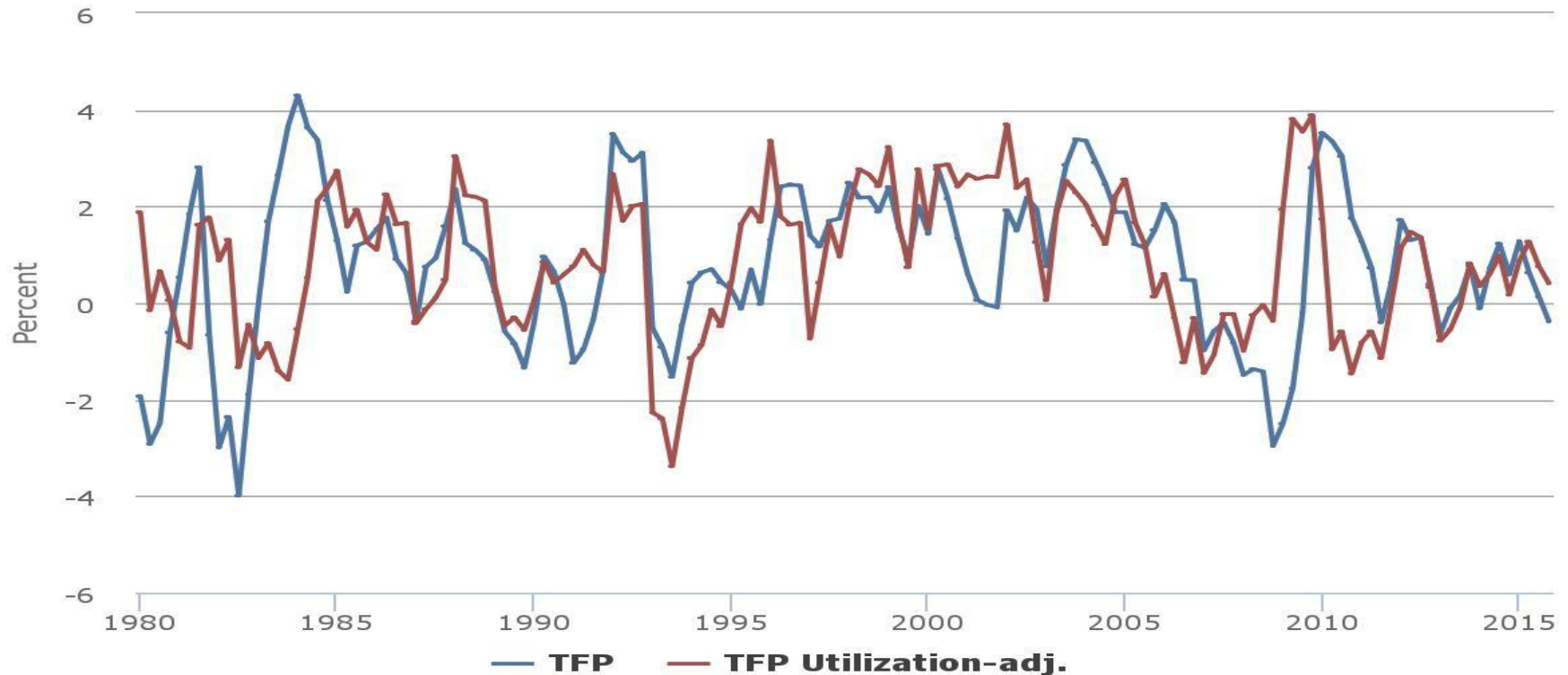


The Federal Reserve Bank of Richmond Current Activity

“Overall, manufacturing conditions remained firm in April, with some components softening from last month's robust readings. The composite index for manufacturing moved to a reading of 14, following last month's reading of 22. The index for shipments lost 13 points, while the new orders index shed six points, finishing at readings of 14 and 18, respectively. Manufacturing employment softened this month; the index settled at a modest reading of 8. Backlogs rose at a faster pace this month, pushing the index up 10 points to a reading of 11. Capacity utilization improved in April. The index edged up one point to end at 18. The vendor lead time indicator remained nearly flat this month at a reading of 2. Finished goods inventories rose at a somewhat slower pace compared to a month ago. That index lost four points, ending at a reading of 14. Additionally, raw materials inventories grew at a slower pace in April. That gauge moved down to 15 from 21.” – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond

U.S. Economic Indicators

4 Quarter Percent Change in Natural Log



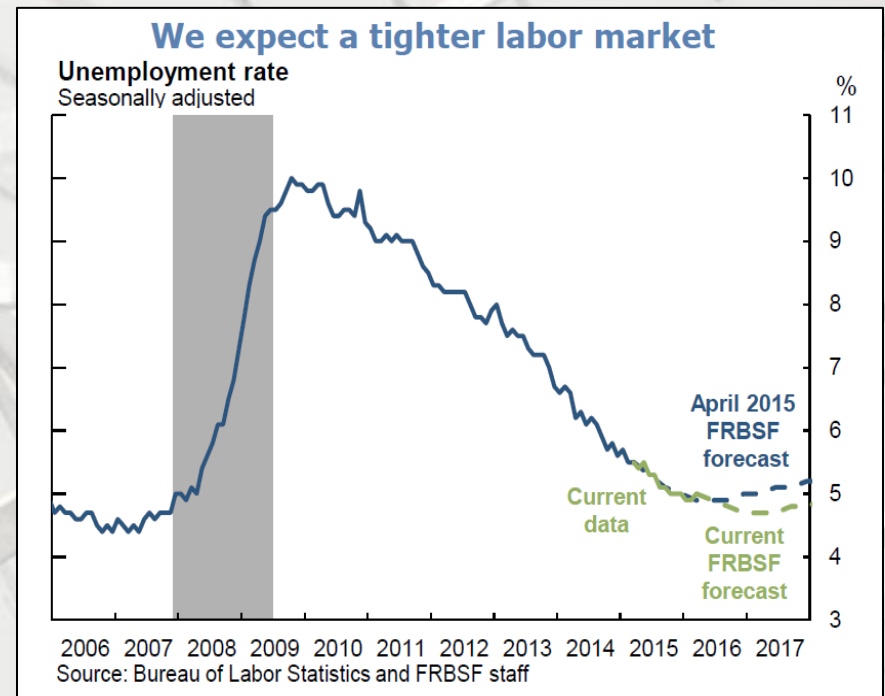
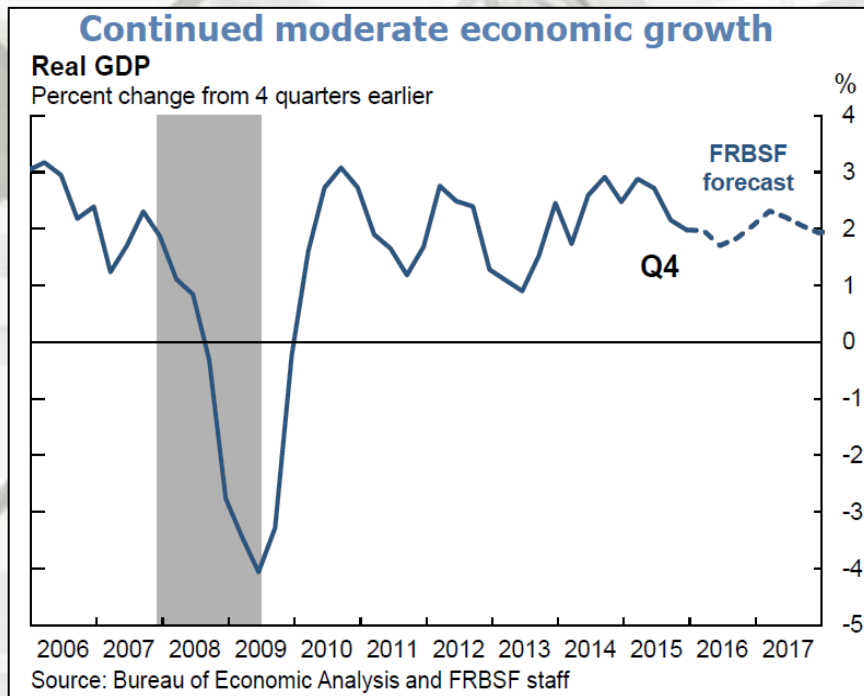
The Federal Reserve Bank of San Francisco

Total factor productivity for the U.S. business sector, adjusted for variations in factor utilization – labor effort and capital’s workweek.

Summary

“Over the past four quarters ending in the fourth quarter of 2015, Total Factor Productivity fell at a rate of -0.38% and Utilization-adjusted Total Factor Productivity grew at rate of 0.41%.” – The Federal Reserve Bank of San Francisco

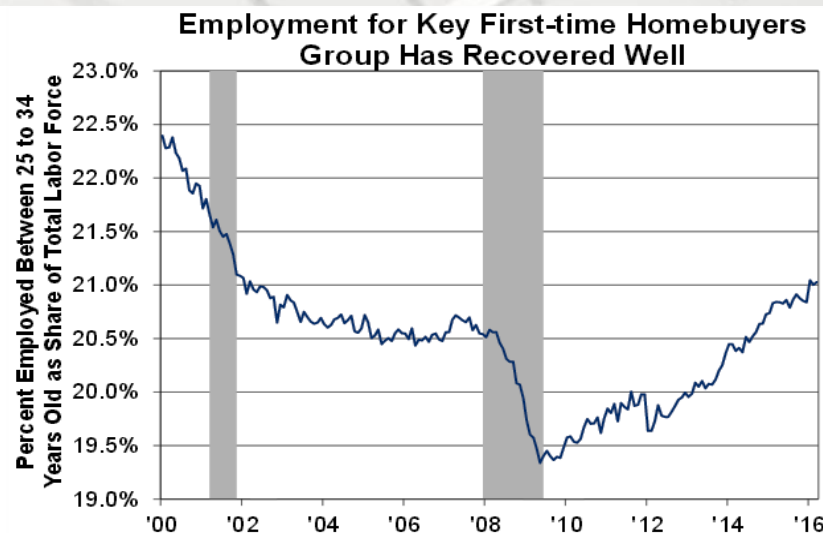
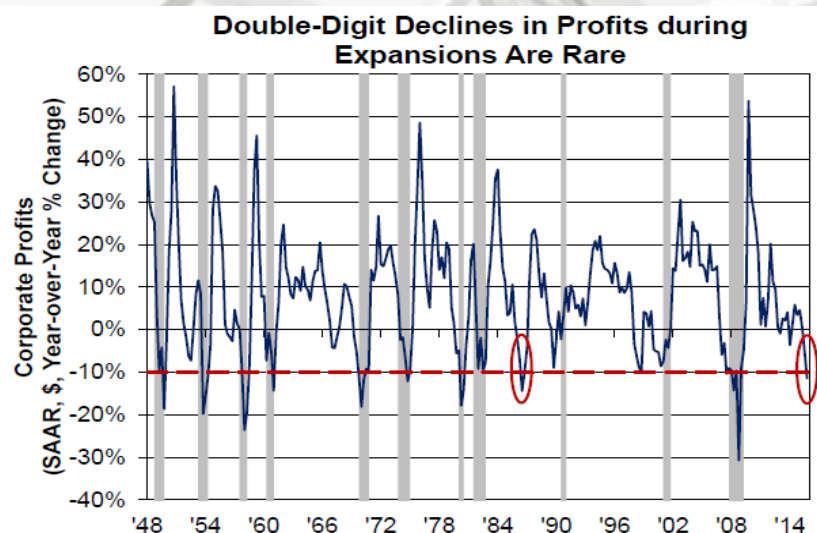
U.S. Economic Indicators



The Federal Reserve Bank of San Francisco

“Real GDP grew a respectable 2% over the four quarters of 2015. We expect continued moderate growth as consumer spending is supported by a strong labor market, improving personal income, low gas prices, and elevated household net worth. Quarterly readings on GDP can be quite volatile. We expect first-quarter real GDP to show little if any increase. However, if history is any guide, inadequate seasonal adjustment could hold down that first-quarter estimate by as much as 1¾%.” — Glenn Rudebusch, Executive Vice President and Director of Research, The Federal Reserve Bank of San Francisco

U.S. Economic Indicators



Fannie Mae

Growth Weakens Despite a Resilient Labor Market

“Fourth quarter annualized gross domestic product (GDP) grew at a 1.4 percent pace. Thus, over the past two quarters, the economy grew at just above stall speed. Corporate profits dropped for the second consecutive quarter, and fell 11.5 percent from the fourth quarter of 2014. Profits from domestic industries posted the largest quarterly drop since early 2011, which bodes poorly for business spending and the hiring outlook. So far this year, hiring has been solid despite weak economic activity, which underscores the ongoing problem of lackluster productivity growth. During the current expansion, annual productivity growth has averaged less than 1.0 percent, the worst performance for any expansion in the past 60 years.” – Doug Duncan, SVP and Chief Economist; Mark Palim, VP; Orwin Velz, Director; Frank Shaw, Analyst; and Hamilton Fout, Director, ESR Macroeconomic Forecast Team, Fannie Mae

U.S. Economic Indicators

Freddie Mac

Economic outlook darkens, but housing remains bright spot

“Recent data darkened the growth outlook for the first quarter of 2016. However, despite the disappointing economic reports, we still forecast housing to maintain its momentum in 2016.

We’ve revised down our forecast for economic growth to reflect the recent data for the first quarter, but our outlook for the balance of the year remains modestly optimistic for the economy. We maintain our positive view on housing. In fact, the declines in long-term interest rates that accompanied much of the recent news should increase mortgage market activity, particularly refinance.

Based on new data, we have revised down our forecast from 1.8 to 1.1 percent for first quarter 2016 real GDP growth. Despite the slow start to the year, we expect consumer spending, wage growth, and residential and business investment to pick up in subsequent quarters and make up for weak first quarter growth. Our projections show GDP growth to be 2 percent for 2016 and 2.3 percent for 2017.” – Sean Beckett, Chief Economist; Leonard Kiefer, Deputy Chief Economist; Penka Trentcheva, Statistician; Travell Williams, Statistician; and Genaro Villa, Financial Analyst; Economic & Housing Research Group; Freddie Mac

U.S. Economic Indicators

Freddie Mac

Housing will be an engine of growth

“With overall economic growth slowing in the first quarter, how do we remain sanguine about economic and job growth for the balance of this year? We expect housing to be an engine of growth. Construction activity will pick up as we enter the spring and summer months, and rising home values will bolster consumers and help support renewed confidence in the remaining months of this year.”

Home sales expected to be best since 2006

“Low mortgage rates and job growth will support the most home sales since 2006. Sales were slow in the first quarter, but trends in mortgage purchase applications remain robust and we expect home sales to accelerate throughout the second quarter of 2016 as we approach peak home buying season.

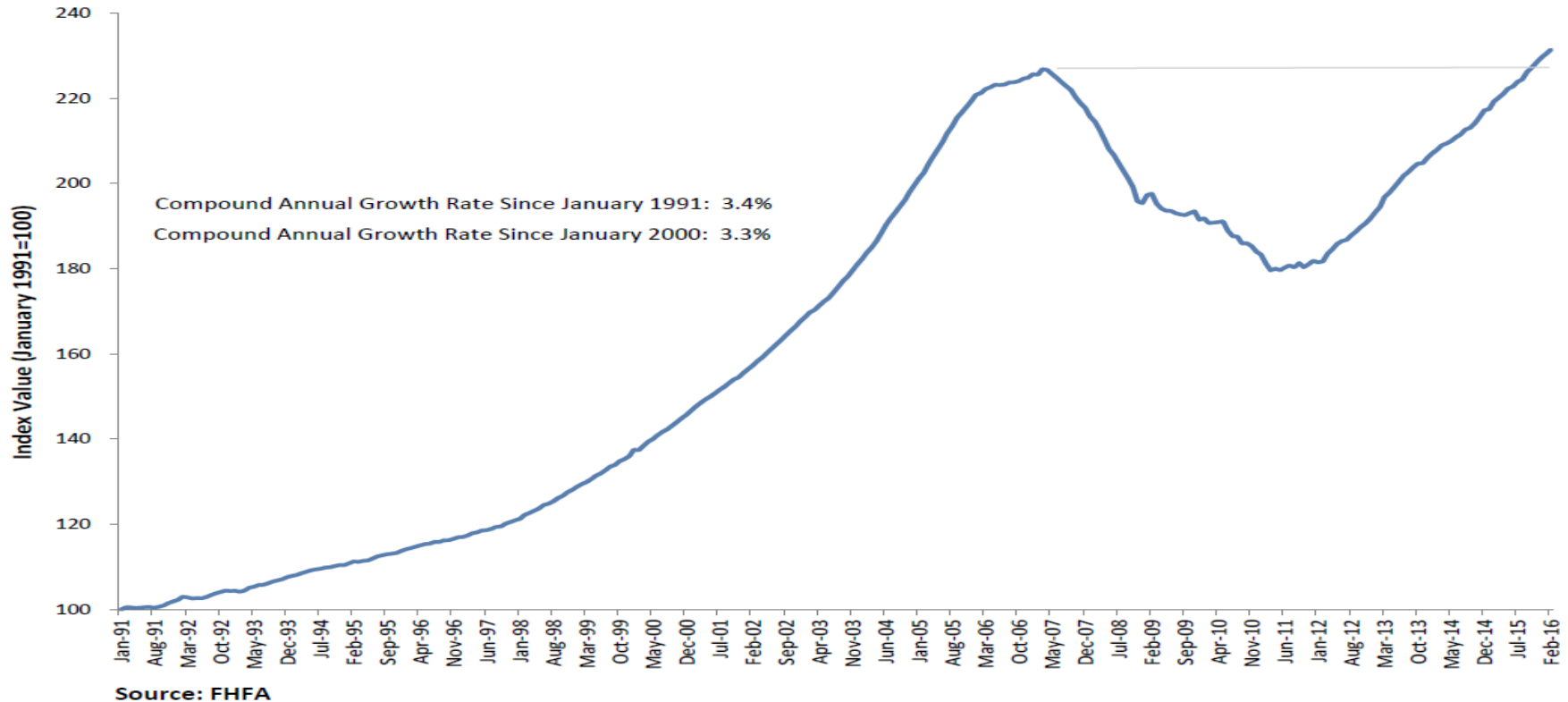
Chronically low levels of for-sale inventory remain a challenge for home sales. Reports from across the country indicate that many markets have low levels of available homes for-sale. National data from the National Association of Realtors® shows that the number of existing homes for sale has remained flat over the past three years even as the number of home sales has accelerated.

At the current rate of construction, people should get used to seeing headlines about low inventory of for-sale homes in many markets for years to come. Demographics and demand are only going to increase the pressure on the housing stock.” – Sean Beckett, Chief Economist; Leonard Kiefer, Deputy Chief Economist; Penka Trentcheva, Statistician; Travell Williams, Statistician; and Genaro Villa, Financial Analyst; Economic & Housing Research Group; Freddie Mac

U.S. Economic Indicators

Monthly House Price Index for U.S.

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

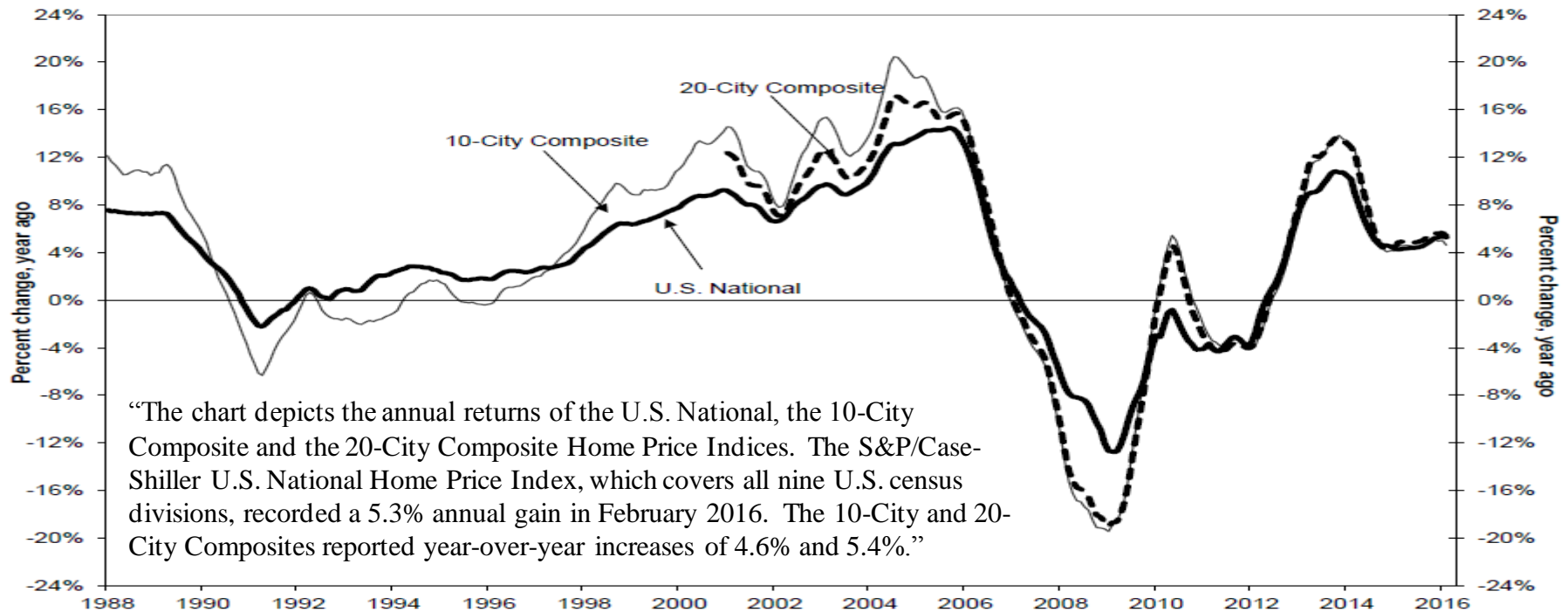


Federal Housing Finance Agency

“U.S. house prices rose in February, up 0.4 percent on a seasonally adjusted basis from the previous month. From February 2015 to February 2016, house prices were up 5.6 percent. For the nine census divisions, seasonally adjusted monthly price changes from January 2016 to February 2016 ranged from -0.7 percent in the South Atlantic division to +1.7 percent in the Middle Atlantic division. The 12-month changes were all positive, ranging from +2.5 percent in the New England division to +8.4 percent in the Pacific division.”

Private Indicators

S&P/Case-Shiller Home Price Indices



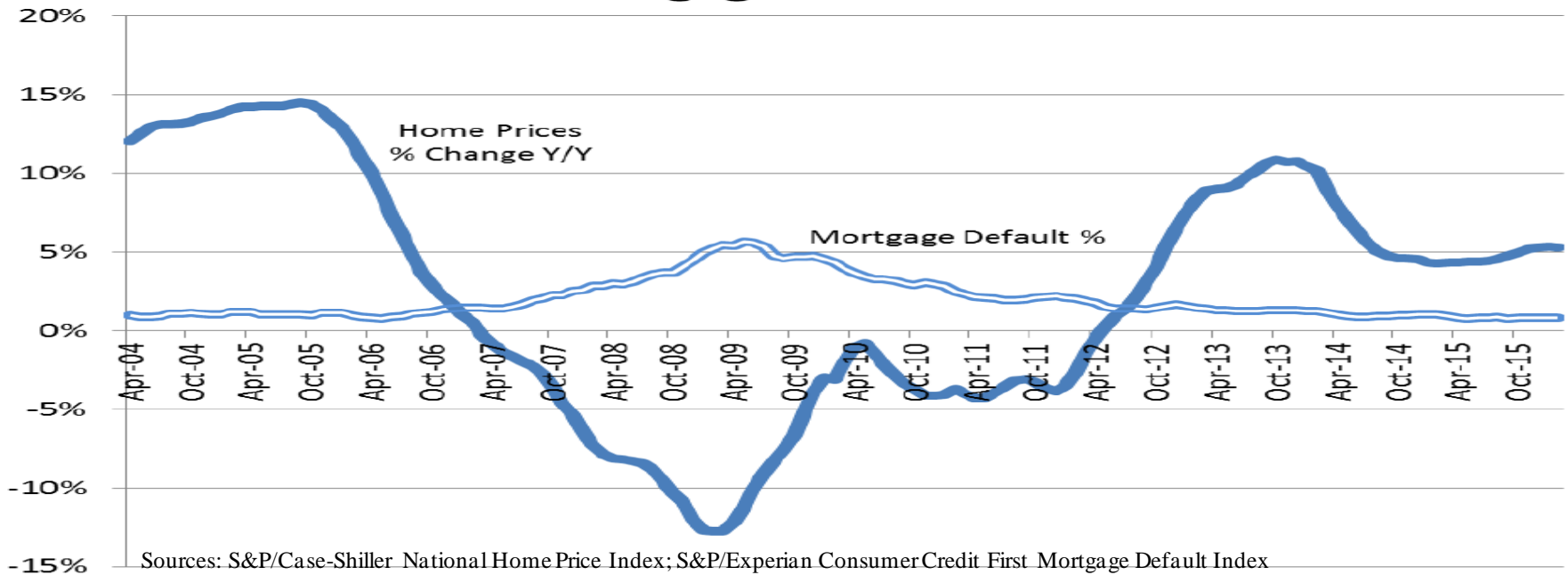
Source: S&P Dow Jones Indices & CoreLogic

S&P/Case-Shiller Home Price Indices Home Price Increases Slow Down in February

“Home prices continue to rise twice as fast as inflation, but the pace is easing off in the most recent numbers. The year-over-year figures for the 10-City and 20-City Composites both slowed and 13 of the 20 cities saw slower year-over-year numbers compared to last month. The slower growth rate is evident in the monthly seasonally adjusted numbers: six cities experienced smaller monthly gains in February compared to January, when no city saw growth. Among the six were Seattle, Portland OR, and San Diego, all of which were very strong last time.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones

Private Indicators

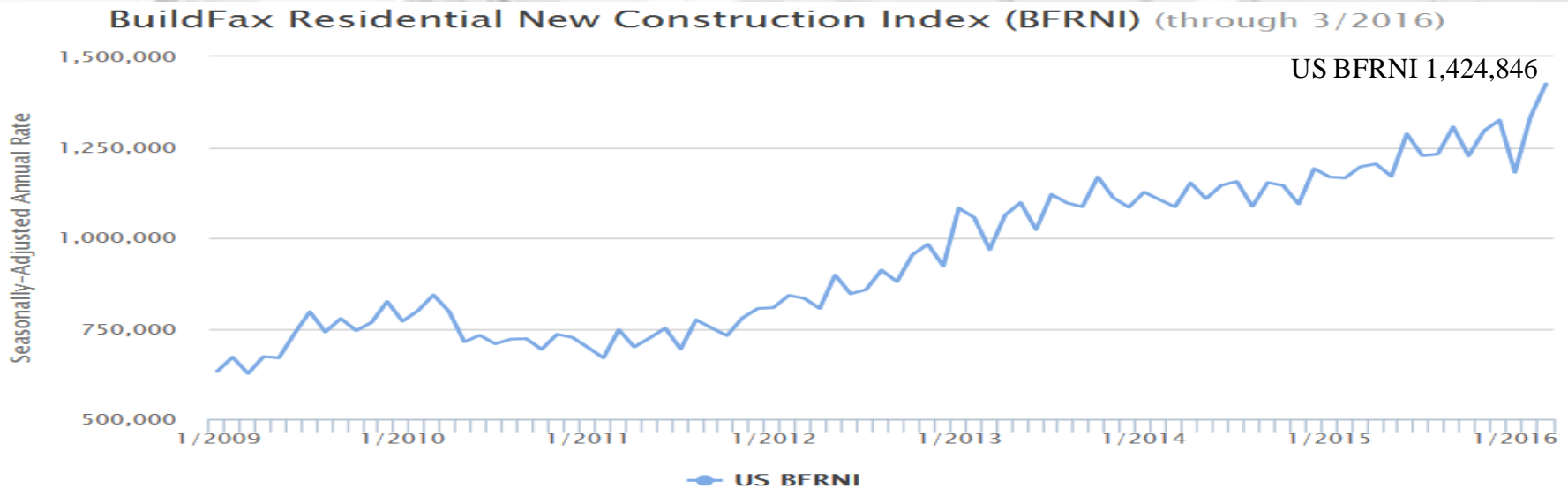
Year-over-Year Change in Home Prices and Mortgage Default Rates



S&P/Case-Shiller Home Price Indices

Mortgage defaults are an important measure of the health of the housing market. Memories of the financial crisis are dominated by rising defaults as much as by falling home prices (see chart). Today as well, the mortgage default rate continues to mirror the path of home prices. Currently, the default rate on first mortgages is about three-quarters of one percent, a touch lower than in 2004. Moreover, the figure has drifted down in the last two years. While financing is not an issue for home buyers, rising prices are a concern in many parts of the country. The visible supply of homes on the market is low at 4.8 months in the last report. Home owners looking to sell their house and trade up to a larger house or a more desirable location are concerned with finding that new house. Additionally, the pace of new single family home construction and sales has not completely recovered from the recession.” – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones Indices

Private Indicators



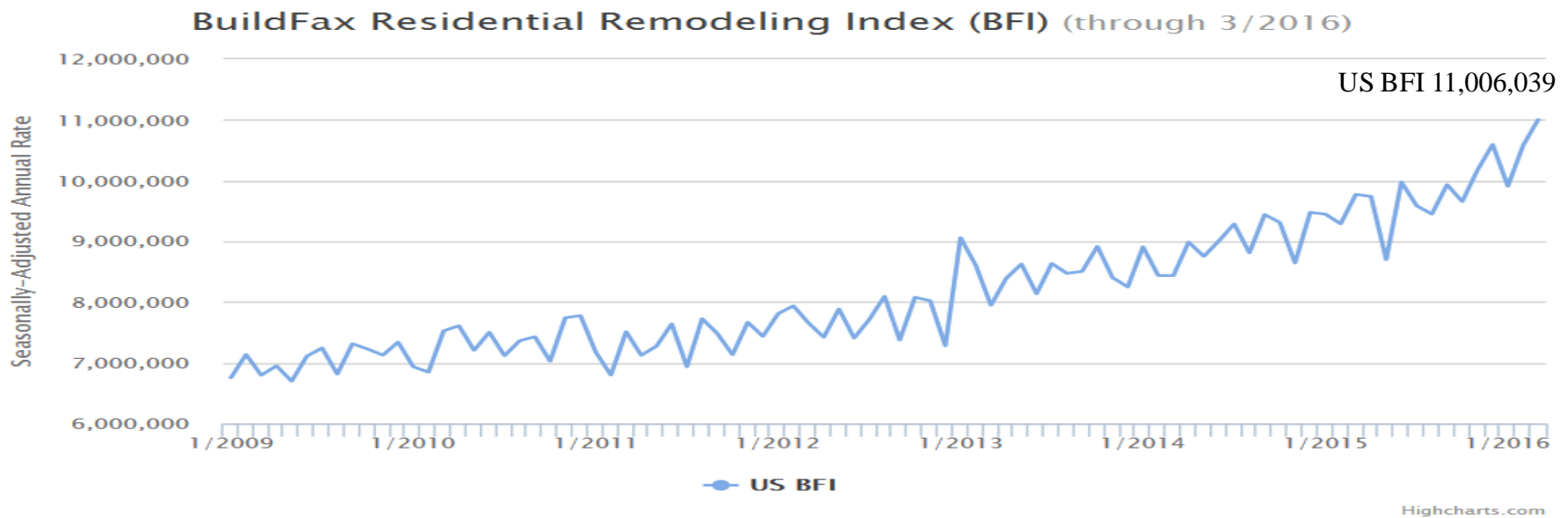
BuildFax Residential New Construction Index

“Residential new construction authorized by building permits in the United States in March were at a seasonally-adjusted annual rate of 1,424,846. This is 7% above the revised February rate of 1,332,974 and is 19% above the revised March 2015 estimate of 1,196,360. 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 March 2016 are estimated as follows: Northeast, 72,298 (up 24% from February and up 115% from March 2015); South, 746,290 (up 5% from February and up 6% from March 2015); Midwest, 316,288 (up 19% from February and up 52% from March 2015); West, 303,430 (up 1% from February and up 18% from March 2015).”

Private Indicators



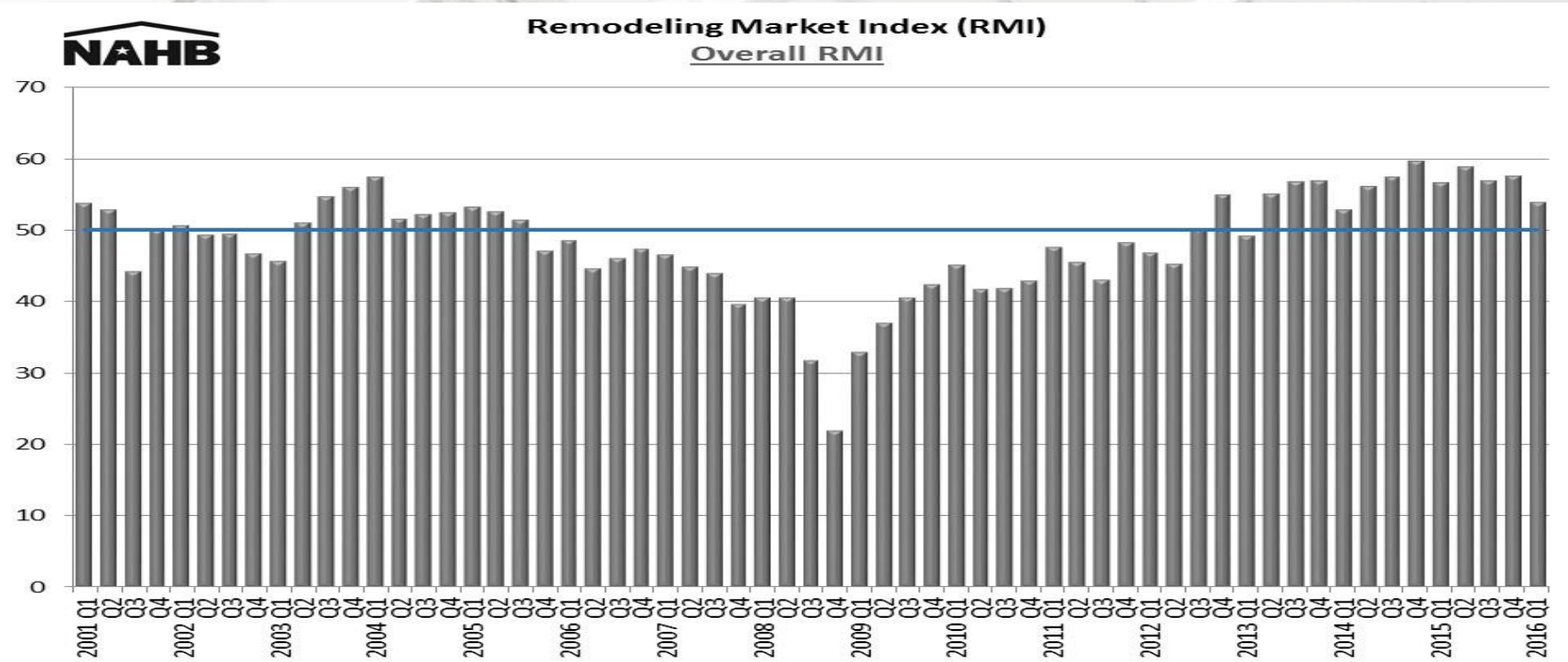
BuildFax Residential Remodeling Index

“Residential remodels authorized by building permits in the United States in March were at a seasonally-adjusted annual rate of 11,006,039. This is 4% above the revised February rate of 10,575,964 and is 13% above the revised March 2015 estimate of 9,772,723.”

Regional Residential Remodeling

“Seasonally-adjusted annual rates of residential remodeling across the country in March 2016 are estimated as follows: Northeast, 850,718 (up 1% from February and up 33% from March 2015); South, 5,162,971 (up 2% from February and up 10% from March 2015); Midwest, 2,599,500 (up 21% from February and up 29% from March 2015); West, 2,519,754 (down 1% from February and up 0% from March 2015).”

NAHB: Remodeling



“The National Association of Home Builder’s Remodeling Market Index (RMI) dropped four points to 54 in the first quarter of 2016 (Exhibit 1). Although the index posted a decline, it is still above the breakeven point of 50, which signals that more remodelers report market activity is higher (compared to the prior quarter) than report it is lower.

The overall RMI consists of two sub-indices: the current market conditions and future market indicators. This quarter, the current market conditions component of the RMI stayed about the same at a reading of 55 (down one point from the previous quarter) (Exhibit 2). Among its subcomponents, major additions & alterations increased one point to 55, minor additions & alterations dropped two points to 54, and maintenance & repairs declined by two points to 56.” – Carmel Ford, Research Associate, NAHB

JCHS: Remodeling

“Strongly accelerating growth in home improvement and repair spending is expected heading into 2017, according to the newly re-benchmarked Leading Indicator of Remodeling Activity (LIRA) released today by the Remodeling Futures Program at the Joint Center for Housing Studies of Harvard University. The new and improved LIRA projects that home remodeling spending will increase 8.6% by the end of 2016 and then further accelerate to 9.7% by the first quarter of next year.

Our freshly recalibrated indicator now forecasts a broader segment of the national residential remodeling market that includes both improvement and repair activity to the owner-occupied housing stock. With this re-benchmarking, the LIRA now more accurately sizes the remodeling market and continues to anticipate major turning points in the spending cycle.” – Abbe Will, Research Analyst, Joint Center for Housing Studies

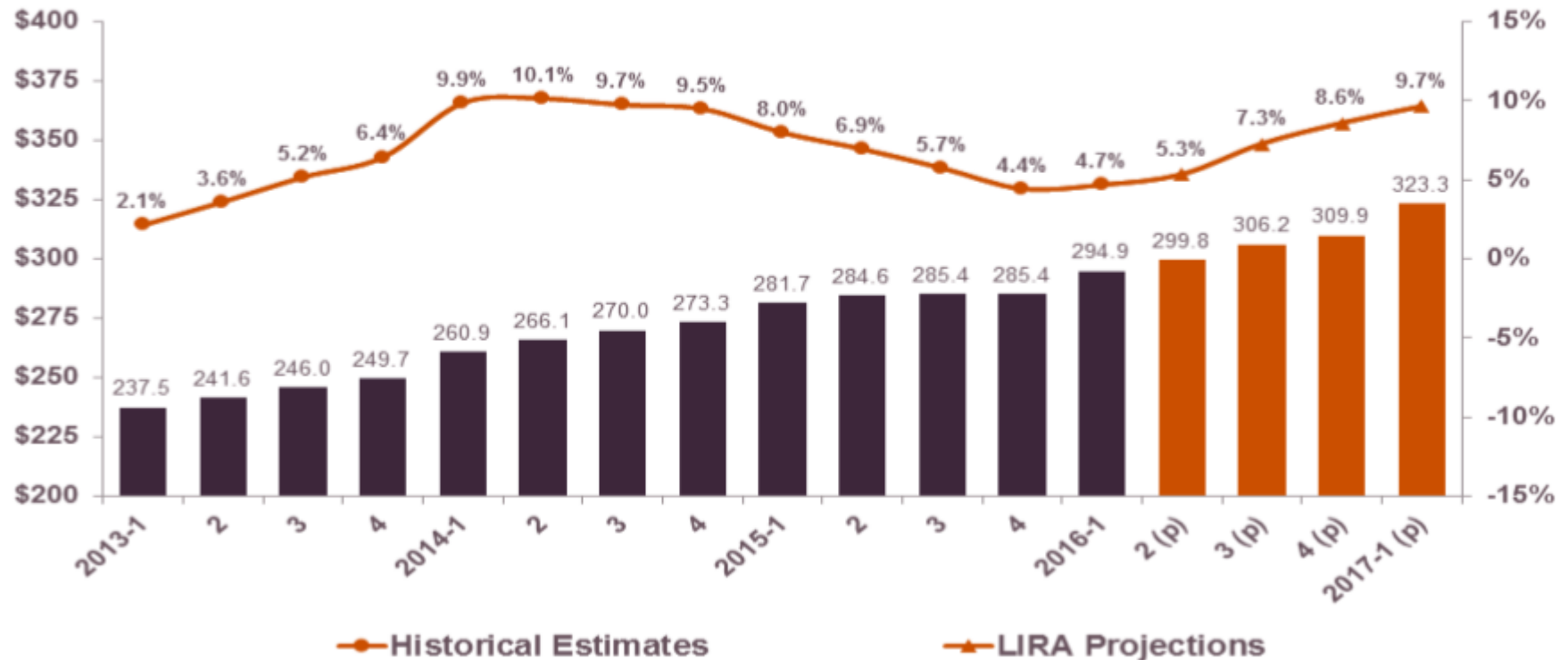
“Ongoing gains in home prices and sales are encouraging more homeowners to pursue larger-scale improvement projects this year compared to last with permitted projects climbing at a good pace. On the strength of these gains, the level of annual spending for remodeling and repairs is expected to reach nearly \$325 billion nationally by early next year.” – Chris Herbert, Managing Director of the Joint Center for Housing Studies

JCHS: Remodeling

Leading Indicator of Remodeling Activity – First Quarter 2016

Homeowner Improvements & Repairs
Four-Quarter Moving Total
Billions

Four-Quarter Moving
Rate of Change



Notes: The former LIRA modeled homeowner improvement activity only, while the re-benchmarked LIRA models home improvement and repair activity. Historical estimates are produced using the LIRA model until American Housing Survey data become available.
Source: Joint Center for Housing Studies.

Private Indicators: AIA

March Architecture Billings Index

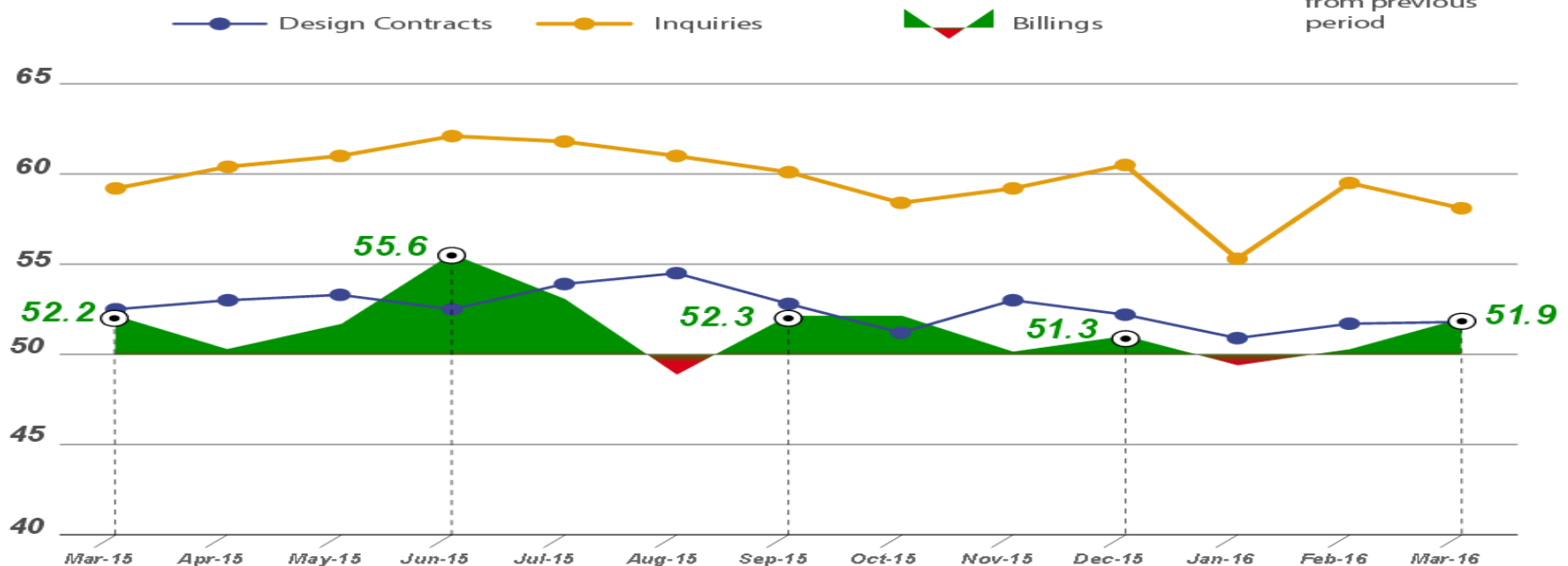
Architecture firm end 2016's first quarter with an upturn in billings

“After a slight decline in January and a weak recovery in February, architecture firms were reporting healthier business conditions in March. The AIA’s Architecture Billings Index (ABI) was 51.9, reflecting the strongest month-to-month growth since last October. New project inquiries, at 58.1 for the month showed somewhat slower growth than the February reading, while the new design contracts index of 51.8 showed a very modest acceleration from the 51.7 reading in February.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

NATIONAL

Architecture Firm Billings Close Out First Quarter on an Upswing

Graphs represent data from March 2015 – March 2016.



Private Indicators: AIA

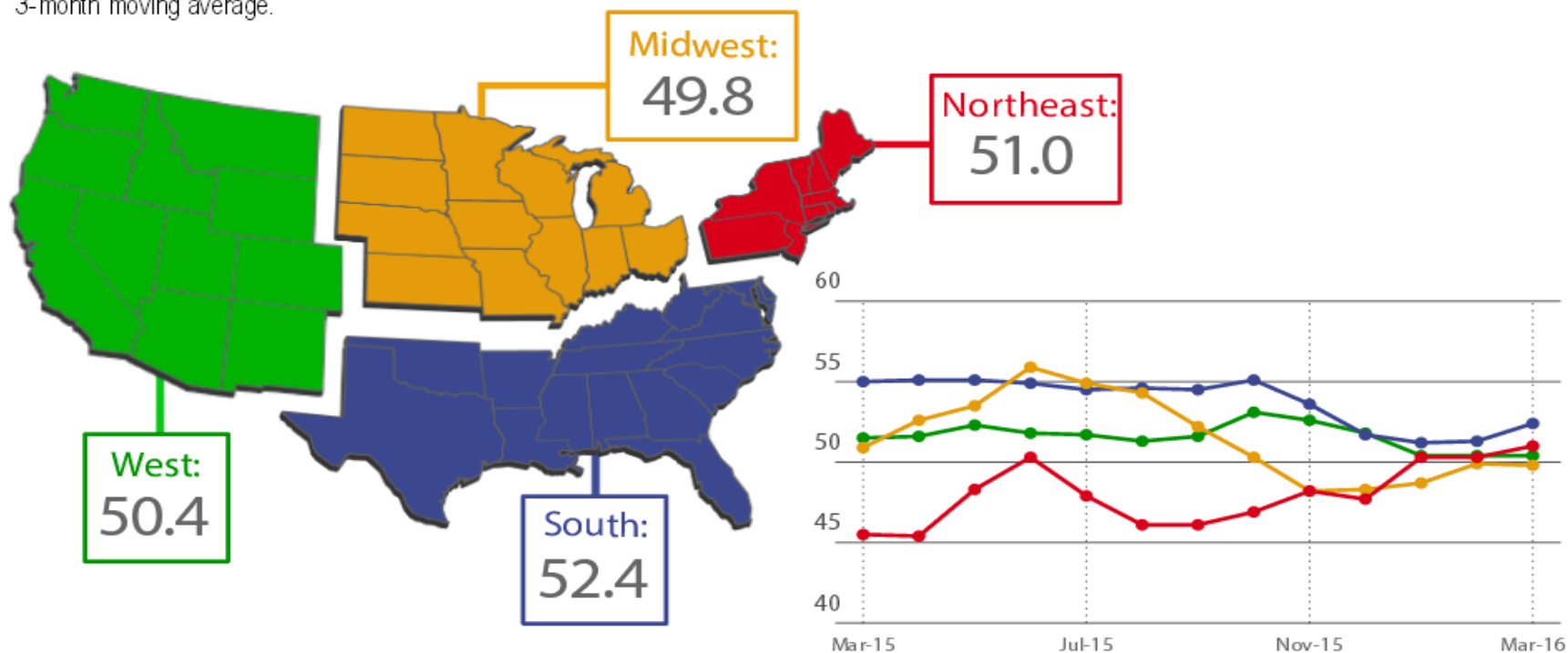
“Firms in the Midwest reported a very small reduction in billings in March, while firms in the other three regions noted token to healthy gains. In general, Sunbelt firms in the South and West are on a somewhat stronger pace than their Frostbelt counterparts.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

REGIONAL

Midwest Firms See Continued Weakness; Firms in Other Regions Report Modest Growth

Graphs represent data from March 2015 – March 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

“By sector, residential firms have reported strong and accelerating business conditions this quarter, commercial/industry modest and stable growth, while institutional firms have seen steady deterioration in business conditions through the quarter.” – Kermit Baker, Hon. AIA, Chief Economist, AIA

SECTOR

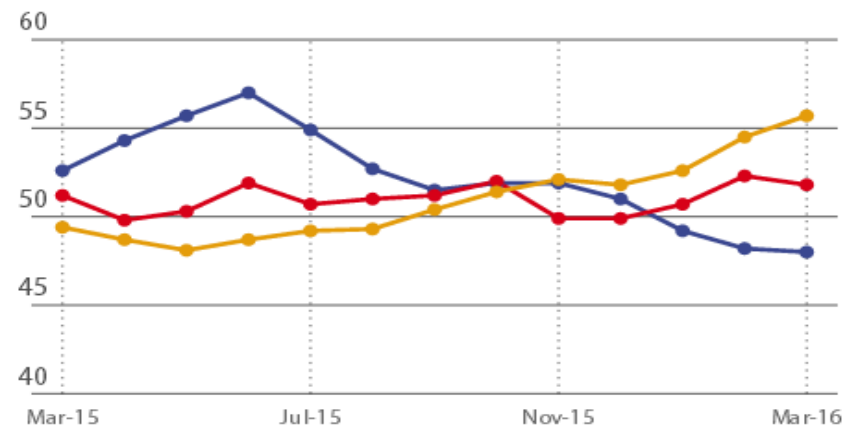
Upswing at Residential Firms and Slide at Institutional Firms Continue in March

Graph represents data from March 2015 – March 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.

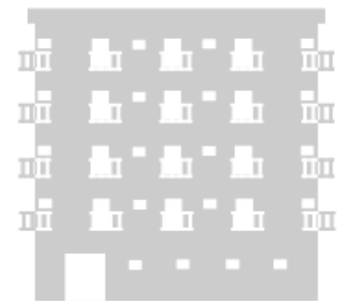
3-month moving average.



Commercial/Industrial: 51.8



Institutional: 48.0



Residential: 55.7

Private Indicators

March Construction Eases Back One Percent

“At a seasonally adjusted annual rate of \$660.5 billion, new construction starts in March receded 1% from February’s pace, according to Dodge Data & Analytics. Total construction starts had jumped 13% in February, led by a huge gain for the electric utility and gas plant category. ... In addition, residential building in March registered moderate growth, helped by the continued strength for multifamily housing. During the first three months of 2016, total construction starts on an unadjusted basis were \$141.7 billion, down 10% from the same period a year ago... .

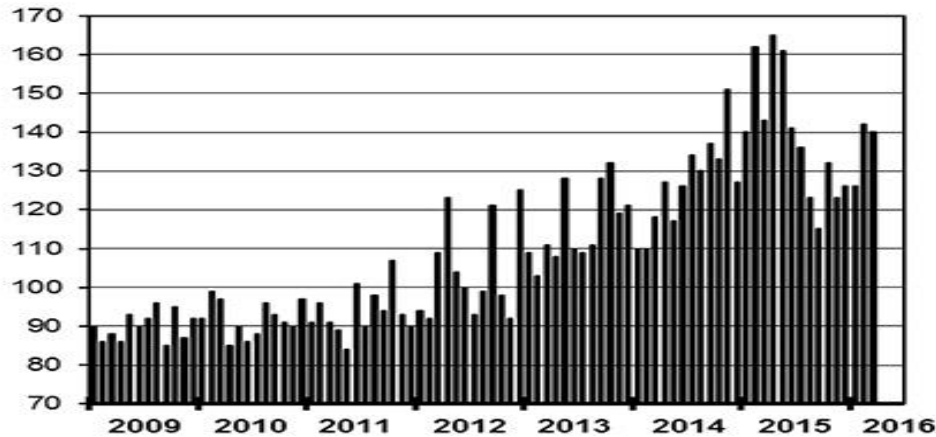
The March data produced a reading of 140 for the Dodge Index (2000=100), compared to a revised 142 for February. Both February and March came in higher than the sluggish 126 average for the Dodge Index during the previous seven months. While March construction activity was down slightly from February, it stayed above the lackluster performance witnessed during the second half of last year that continued through January. What’s noteworthy about the March report is the renewed strength shown by nonresidential building, and in particular its institutional building segment. ... Assuming this pattern gets repeated over the course of 2016, it would be an important factor behind nonresidential building reestablishing an upward trend.

The 10% decline for total construction starts on an unadjusted basis during the first three months of 2016 compared to last year was due to a varied pattern by major sector. Nonresidential building dropped 9% year-to-date, with manufacturing plant construction down 53%, the institutional building segment down 9%, while the commercial building segment ran counter with a 5% gain. Residential building grew 12% year-to-date, with similar growth for single family housing, up 11%; and multifamily housing, up 13%. Nonbuilding construction plummeted 34% year-to-date, with public works down 28% and electric utilities/gas plants down 42%. The reduced amounts for public works and electric utilities/gas plants so far in 2016 are relative to particularly strong activity during the first three months of 2015, with respective gains of 18% and 439% compared to the same period of 2014.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

March 2016 Construction Starts

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



Source: Dodge Data & Analytics

Monthly Construction Starts Seasonally Adjusted Annual Rates, in Millions of Dollars

| | March 2016 | February 2016 | % Change |
|--|------------|---------------|----------|
| Nonresidential Building | \$228,104 | \$185,081 | +23 |
| Residential Building | 292,028 | 284,336 | +3 |
| Nonbuilding Construction | 140,400 | 200,665 | -30 |
| Total Construction | \$660,532 | \$670,082 | -1 |
| Total Construction, excluding Electric Utilities & Gas Plants | \$605,961 | \$582,261 | +4 |

The Dodge Index
Year 2000=100, Seasonally Adjusted
March 2016140
February 2016...142

Year-to-Date Construction Starts Unadjusted Totals, in Millions of Dollars

| | 3 Mos. 2016 | 3 Mos. 2015 | % Change |
|--|-------------|-------------|----------|
| Nonresidential Building | \$42,106 | \$46,095 | -9 |
| Residential Building | 63,603 | 56,815 | +12 |
| Nonbuilding Construction | 36,024 | 54,313 | -34 |
| Total Construction | \$141,733 | \$157,223 | -10 |
| Total Construction, excluding Electric Utilities & Gas Plants | \$128,157 | \$133,969 | -4 |

“Residential building, at \$292.0 billion (annual rate), grew 3% in March. Multifamily housing increased 15%, bouncing back following a 6% decline in February, as it continues to proceed at a brisk pace. There were 12 multifamily projects valued at \$100 million or more that reached groundbreaking in March. ... During the first three months of 2016, the leading metropolitan areas in terms of the dollar amount of multifamily starts were the following – New York NY, Miami FL, Boston MA, San Francisco CA, and Los Angeles CA. The NY NY metropolitan area comprised 25% of the national multifamily dollar amount during the January-March period, staying close for now to the 27% share that was reported for the full year 2015. Single family housing in March slipped 2%, essentially remaining close to its February pace. By major region, March showed this pattern for single family housing relative to February – the Northeast, up 6%; the South Atlantic, up 2%; the West, down 2%; the South Central, down 4%; and the Midwest, down 10%.” – Robert Murray, Chief Economist, McGraw Hill Construction

Private Indicators

Deloitte US Economic Forecast: 2016 Q1

Scenarios

“The baseline (55 percent probability): Weak foreign demand weighs on growth. US domestic demand is strong enough to provide employment for workers returning to the labor force for a couple of years, and the unemployment rate remains about 5 percent. GDP annual growth hits a maximum of 2.5 percent. In the medium term, low productivity growth puts a ceiling on the economy, and by 2019 US GDP growth is below 2 percent, despite the fact that the labor market is at full employment. Inflation remains subdued.

Recession (5 percent): China’s financial problems create a drag on its economy, and growth slows substantially. This triggers a financial panic in East Asia, as investors in countries connected by supply chains to China seek to reduce risk. Volatility in Europe increases, as does market valuation of the riskiness of euro assets, adding to the panic. Several US financial institutions find themselves long on euro- and China-related assets at the wrong time. The result: a global financial panic. Capital flows into the United States to avoid risk in Europe and Asia, and the US dollar climbs even higher. The financial panic throws the US economy into recession. Timely Fed action offsets the financial crisis after several months, leading to relatively fast growth during the recovery.

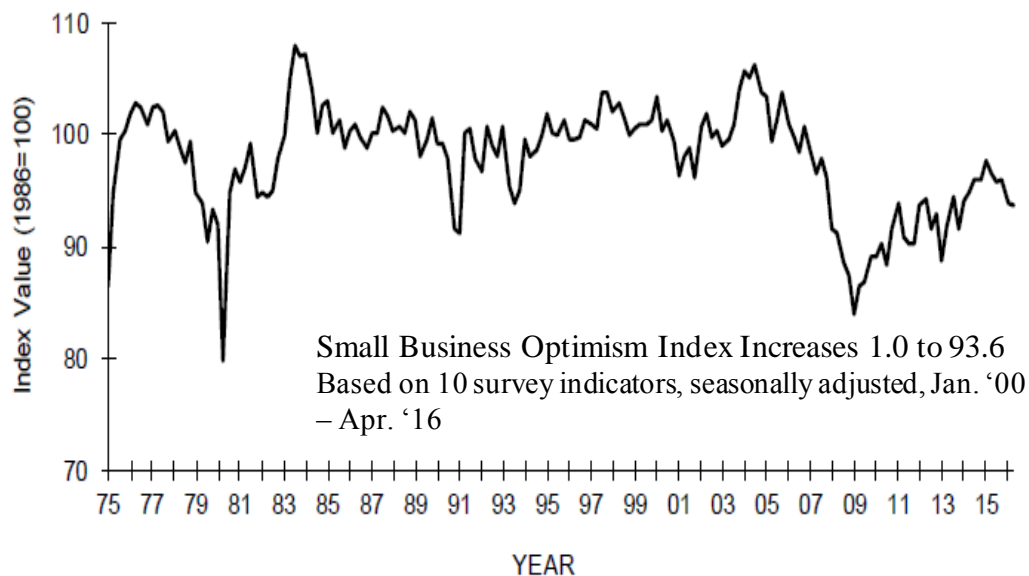
Slower growth (25 percent): Weak economic conditions abroad, financial turmoil, and flight from risky assets cuts demand below the level required for labor market equilibrium. Although the participation rate climbs slightly, hoped-for jobs disappear and the unemployment rate rises. Despite that increase, the Fed slowly raises interest rates, helping to keep a cap on inflation. GDP growth stays below 2 percent for the foreseeable future.

Coordinated global boom (15 percent): Terrorism and refugee problems prove to be only minor obstacles for European economies, and the continent finally begins to pull out of the doldrums. Emerging markets also pick up momentum as China resolves its financial problems, and India and Brazil start to adopt more reforms. Capital flows out of the United States and into Europe and the developing world, pushing the dollar lower, further enhancing US exports. Lower US energy prices make the United States even more competitive. At home, the resolution of budget issues at both the federal and state levels allows more money to flow into infrastructure investment, creating short-term demand and long-term productivity growth.” – Dr. Daniel Bachman, Senior Manager US Macroeconomics, Deloitte Services LP

Private Indicators

OPTIMISM INDEX

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



Small Business Optimism Increases One Point in April

“The Index of Small Business Optimism rose 1 point in April to 93.6, but owners still cannot find qualified workers to fill open positions and cite a poor economy and the political climate as their two main reasons for not expanding, according to the National Federation of Independent Business’ (NFIB) monthly economic survey released today.

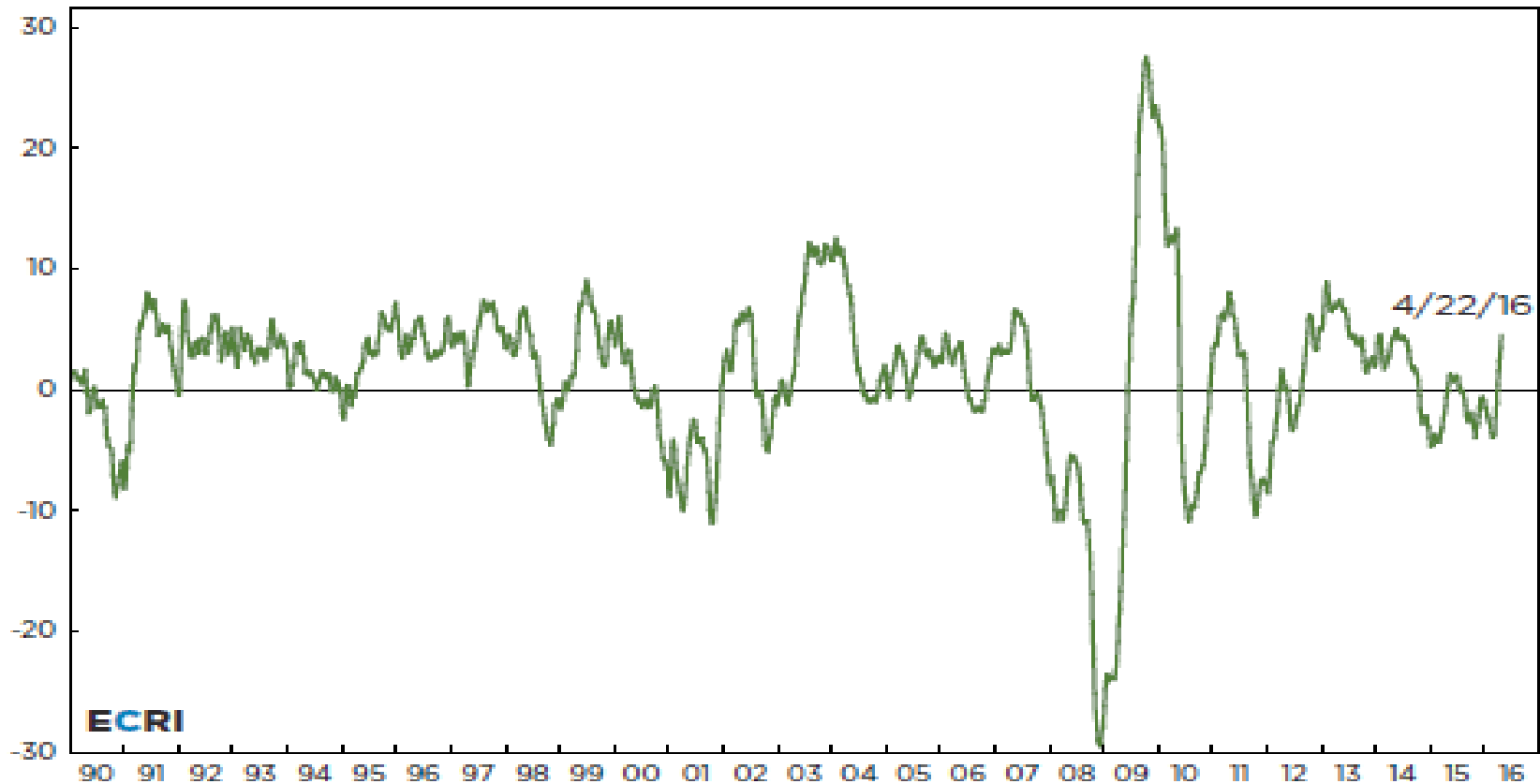
The overall Index of Small Business Optimism rose 1 point in April and now stands at 93.6, which is still well below the 42-year average of 98. Five of the 10 Index components posted a gain, four were unchanged, and one posted a small decline. The biggest increase in the Index was owners reporting that they had job openings that were hard to fill. This suggests that not only are labor markets tightening, but owners cannot find qualified workers to hire.”

“The political climate continued to be the second most frequently cited reason for why owners think the current period is a bad time to expand. Small business owners who expect business conditions to improve in the next six months was the only component to decline and now sits at a -18 percent.”

“Despite a gain in NFIB’s optimism reading, small business owners remain extremely pessimistic about the economy, and rightfully so. It was a relief to see the Index turn up, ending a long string of declines. However, it’s still down from December 2014 when the Index hit an expansion high of 100. Overall, there is no exuberance to be found in the economy and small business owners will just continue to plod along.” – William Dunkelberg, Chief Economist, National Federation of Independent Business

Private Indicators

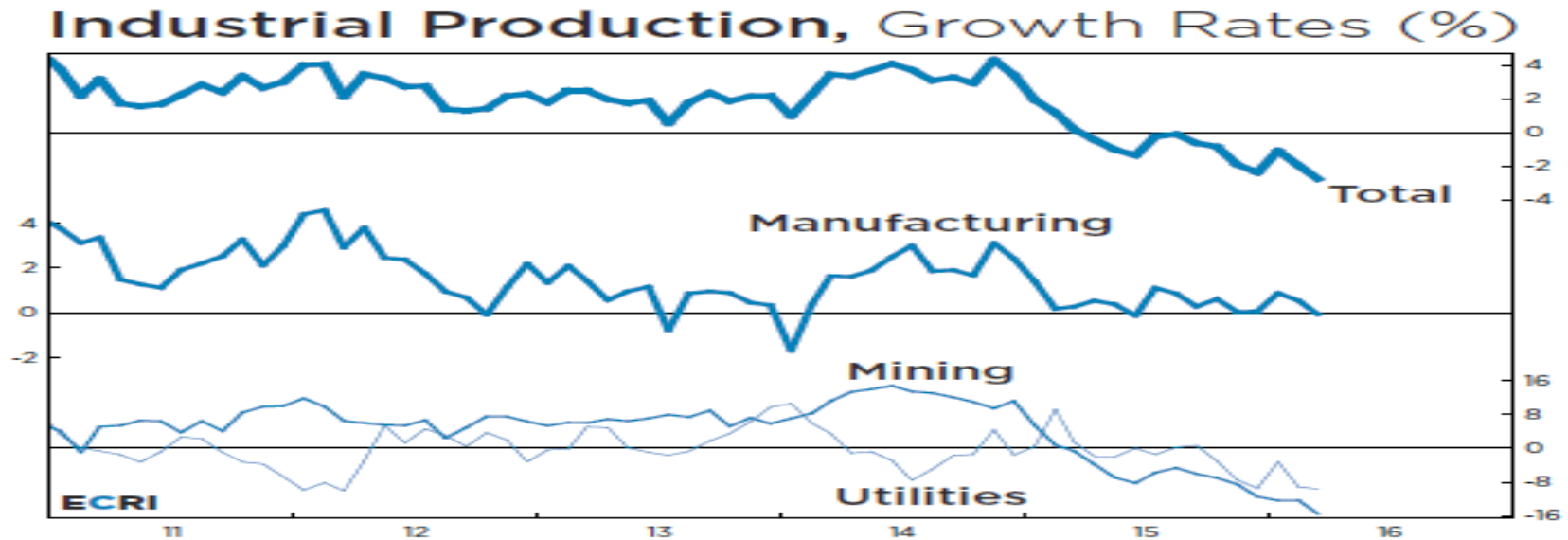
Weekly Leading Index, Growth Rate (%)



U.S. Weekly Leading Index Ticks Up

“The U.S. Weekly Leading Index ticks up to 135.5 from 135.2. The growth rate increases to 4.5% from 3.5%.” – Economic Cycle Research Institute (ECRI)

Private Indicators



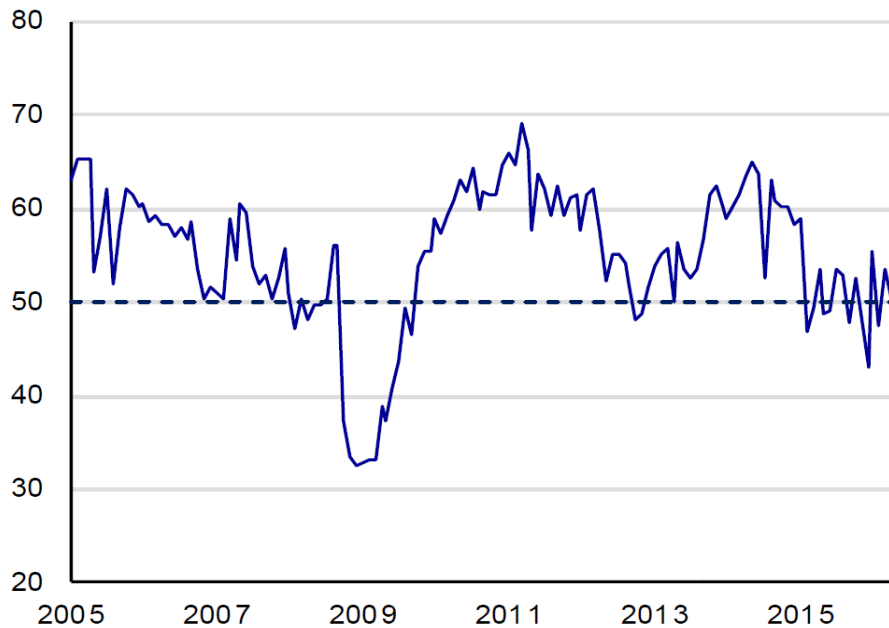
Hard Data Confirms Industrial Slowdown

“Earlier this month, the industrial production (IP) release disappointed the consensus, adding to a slew of weak economic data. Clearly, despite the spreading conviction that the growth outlook for the U.S. economy in general, and the manufacturing sector in particular, had improved materially, the hard data tell a very different story.

As the chart shows, the smoothed growth rate of IP has now plummeted to a 6½-year low (top line). Indeed, IP growth for mining has nosedived to a 7½-year low (thicker blue line, lower panel), and IP growth for utilities has sunk to a four-year low (thinner blue line, lower panel). But growth in IP for manufacturing – which is quadruple the size of mining – has fallen well below its late 2014 high and sits a hair’s breadth above a 26-month low (middle line). This is because IP growth rates for both durable and non-durable goods have weakened lately (not shown).” – ECRI

Private Indicators

Chicago Business Barometer™



April Chicago Business Barometer Down 3.2 Points to 50.4

“The Chicago Business Barometer decreased 3.2 points to 50.4 in April from 53.6 in March led by a fall in New Orders and a sharp drop in Order Backlogs. It marks a slow start to the second quarter, with most measures down from levels seen a year earlier.

Three of the five Barometer components decreased between March and April, with only Production and Supplier Deliveries posting increases on the month. April’s decline left the three-month trend running at a softer pace of 50.5, having ended Q1 at the highest level in over a year.”

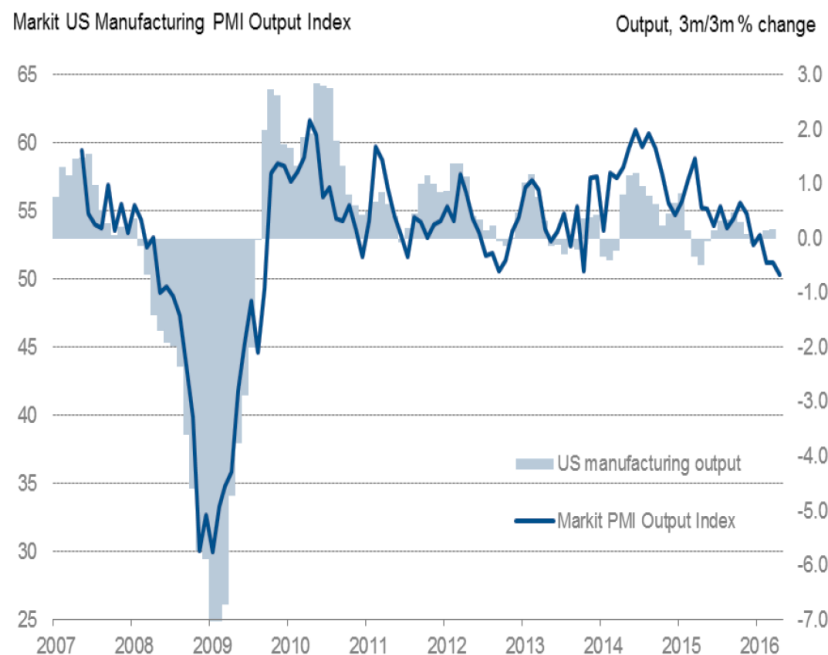
New Orders and Backlogs Fall to the Lowest Since December 2015

“The decline in the Barometer was led by a fall in New Orders, leaving it at the lowest level since December 2015. Order Backlogs, which last month increased to slightly below 50, saw a double-digit decline in April, while Employment moved back into contraction. Production posted a small rise while Supplier Deliveries increased sharply to the highest since October 2014.

This was a disappointing start to the second quarter, with the Barometer barely above the neutral 50 mark in April. Against a backdrop of softer domestic demand and the slowdown abroad, panellists are now more worried about the impact a rate hike might have on business than they were at the same time last year.” – Philip Uglow, Chief Economist, MNI Indicators

Private Indicators

Manufacturing output



Sources: Markit, U.S. Federal Reserve.

Markit U.S. Manufacturing PMI™ — final data

U.S. manufacturing output close to stagnation in April

“April data indicated that U.S. manufacturers started the second quarter of 2016 with a renewed slowdown in production and new business growth. At the same time, employment levels were close to stagnation and input buying dropped at the fastest pace for two-and-a-half years, amid reports of slower than expected demand during the latest survey period.

Adjusted for seasonal influences, the final Markit U.S. Manufacturing Purchasing Managers’ Index™ (PMI™) registered 50.8 in April, down from 51.5 in March and only slightly above the 50.0 no-change threshold. The latest reading was weaker than the average seen in Q1 2016 (51.7) and signalled the slowest improvement in overall business conditions for just over six-and-a-half years.”

“The April PMI data suggest there’s no end in sight to the current downturn in manufacturing activity. The survey indicates that factory output is dropping at an annualized rate of approximately 3%, and factory headcounts are being culled at a rate of around 10,000 per month.

Destocking is also very much in evidence as companies often reported weaker than expected demand and exports are slumping at the fastest rate for one and a half years.

Rather than reviving after a disappointingly weak first quarter, the data flow therefore appears to be worsening in the second quarter, raising question marks over whether GDP growth will improve on the near-stalling seen in the first three months of the year.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

Service sector business activity (seasonally adjusted)



Sources: Markit

Markit Flash U.S. Services PMI™ U.S. service sector growth remains subdued in April

“April data pointed to only a modest rebound in business activity across the U.S. service economy. At 52.1, up from 51.3 in March, the seasonally adjusted Markit Flash U.S. Services PMI™ Business Activity Index picked up further from February’s 28-month low and was above the neutral 50.0 threshold. The latest survey indicated that business activity expanded at a slightly faster pace than that recorded during the first quarter of 2016 (51.4 on average).” – Chris Williamson, Chief Economist, Markit®

“The upturn in the rate of growth of business activity and increased inflows of new orders suggest the economy should see GDP rise at an increased rate in the second quarter, but growth is clearly far more fragile than this time last year. Viewed alongside the recent poor performance of the manufacturing sector, which reported its worst month since October 2009, the survey suggests the economy grew at an annualized rate of just 0.8% at the start of the second quarter, only marginally above the pace signalled for the first quarter.

Survey responses indicate that persistent weak demand from domestic and overseas customers, the struggling energy sector, the strong dollar and election worries are all eating into business optimism.

The current pace of growth is also only being supported by price reductions, as an increasing number of firms offer discounts to win sales. Job creation has also slowed as a result of cost-cutting pressures and uncertainty over the outlook, but remains solid. The surveys point to another 150,000 non-farm payroll increase in April, as robust service sector hiring continues to offset factory job losses.” – Chris Williamson, Chief Economist, Markit®

Private Indicators

U.S. Gallup Good Jobs Employment Rates

Monthly trend, January 2010-April 2016

■ % of adult population employed full time for an employer



Gallup Daily tracking

GALLUP®

GALLUP DAILY

REAL UNEMPLOYMENT
Department of Labor (U-6)

9.8% +0.1

GALLUP GOOD JOBS
Percent of Adult Population

45.2% +0.2

ENGAGED AT WORK

30.3% -

ECONOMIC CONFIDENCE

-13 +2

U.S. Gallup Good Jobs Rate 44.9% in April 2016

- Highest Gallup Good Jobs rate in any April since 2010
- Unemployment down to 5.2%, lowest in any month since 2010
- Workforce participation up 0.4 points to 67.3%

“The Gallup Good Jobs (GGJ) rate in the U.S. was 44.9% in April. This is up nominally from the March rate (44.4%) and, although lower than a number of months last summer and fall, it is higher than the rate in any April since Gallup began measuring it in 2010. The current rate is a full percentage point higher than in April 2015, suggesting an underlying increase in full-time work beyond seasonal changes in employment.” – Ben Ryan, Consulting Specialist, Gallup

Private Indicators

U.S. Economic Confidence Down in April

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

January 2008-April 2016



Gallup Daily tracking

GALLUP®

- Economic Confidence Index averages -14, down from -10
- Americans' economic outlook is lowest since November 2013
- All party groups are slightly more negative about economy

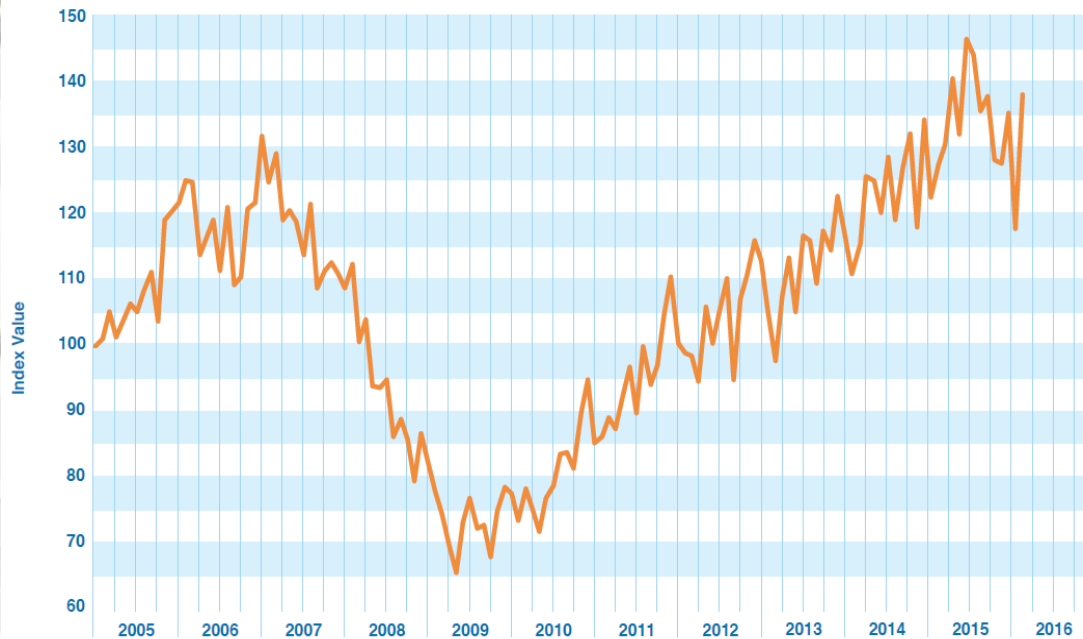
“Americans' confidence in the economy retreated in April, with Gallup's Economic Confidence Index averaging -14 for the month, down from -10 in March. The April average ties with September 2015 as numerically the worst since confidence started climbing toward positive territory in late 2014 and early 2015 after gas prices began to decline.” – Jeffrey M. Jones, Managing Editor-Gallup Poll, Gallup

Private Indicators

Thomson Reuters/PayNet Small Business Lending Index

U.S. Small Business Lending Increases Sharply: PayNet

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



“U.S. small business borrowing rose 17 percent in February, data released on Monday showed, making up for ground lost over the past several months that had raised prospects of weak economic growth ahead.

The Thomson Reuters/PayNet Small Business Lending Index jumped to 138 in February from January's downward-revised 117.7, the lowest level in nearly two years. The PayNet index typically corresponds to U.S. gross domestic product growth one or two quarters ahead.”

“Borrowing and investment have “come back to life,” said Bill Phelan, president of PayNet, adding that he expects lending growth to “plod along” rather than boom in coming months.

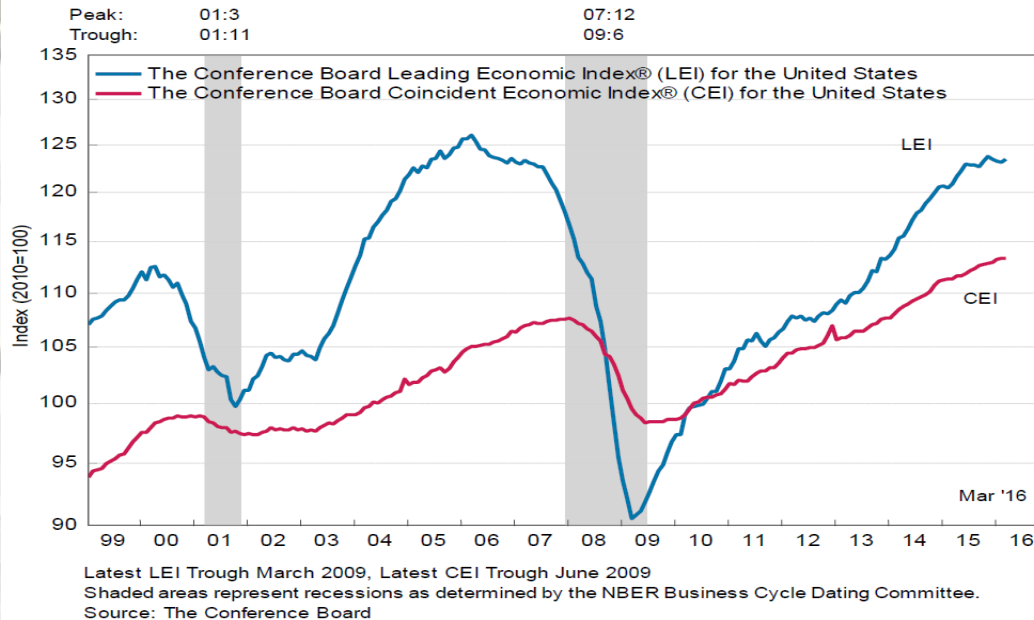
Small business borrowing is a key barometer of growth because little firms tend to do much of the hiring that drives economic gains. Loans more than 30 days past due fell in February to 1.47 percent, separate data from PayNet showed. The decline suggests improving financial health even as companies borrow more.” – Ann Saphir, PayNet

Private Indicators

The Conference Board Leading Economic Index®

The Conference Board Leading Economic Index® (LEI) for the U.S. Increased

The Conference Board Leading Economic Index® (LEI) for the U.S. Increased in March



“With the March gain, the U.S. LEI’s six-month growth rate improved slightly but still points to slow, although not slowing, growth in the coming quarters. Rebounding stock prices were offset by a decline in housing permits, but nonetheless there were widespread gains among the leading indicators. Financial conditions, as well as expected improvements in manufacturing, should support a modest growth environment in 2016.” – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

“The Conference Board **Leading** Economic Index® (LEI) for the U.S. was unchanged in March, remaining at 113.3 (2010 = 100), following a 0.1 percent increase in February, and a 0.3 percent increase in January.

The Conference Board **Coincident** Economic Index® (CEI) was unchanged in March, remaining at 113.3 (2010 = 100), following a 0.1 percent increase in February, and a 0.3 percent increase in January.

The Conference Board **Lagging** Economic Index® (LAG) for the U.S. increased 0.4 percent in March to 120.9 (2010 = 100), following a 0.5 percent increase in February, and a 0.1 percent increase in January.” – The Conference Board

Private Indicators

Institute of Supply Management™

PMI® at 50.8%

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

“The April PMI® registered 50.8 percent, a decrease of 1 percentage point from the March reading of 51.8 percent.

The New Orders Index registered 55.8 percent, a decrease of 2.5 percentage points from the March reading of 58.3 percent.

The Production Index registered 54.2 percent, 1.1 percentage points lower than the March reading of 55.3 percent.

The Employment Index registered 49.2 percent, 1.1 percentage points above the March reading of 48.1 percent.

Inventories of raw materials registered 45.5 percent, a decrease of 1.5 percentage points from the March reading of 47 percent.

The Prices Index registered 59 percent, an increase of 7.5 percentage points from the March reading of 51.5 percent, indicating higher raw materials prices for the second consecutive month.

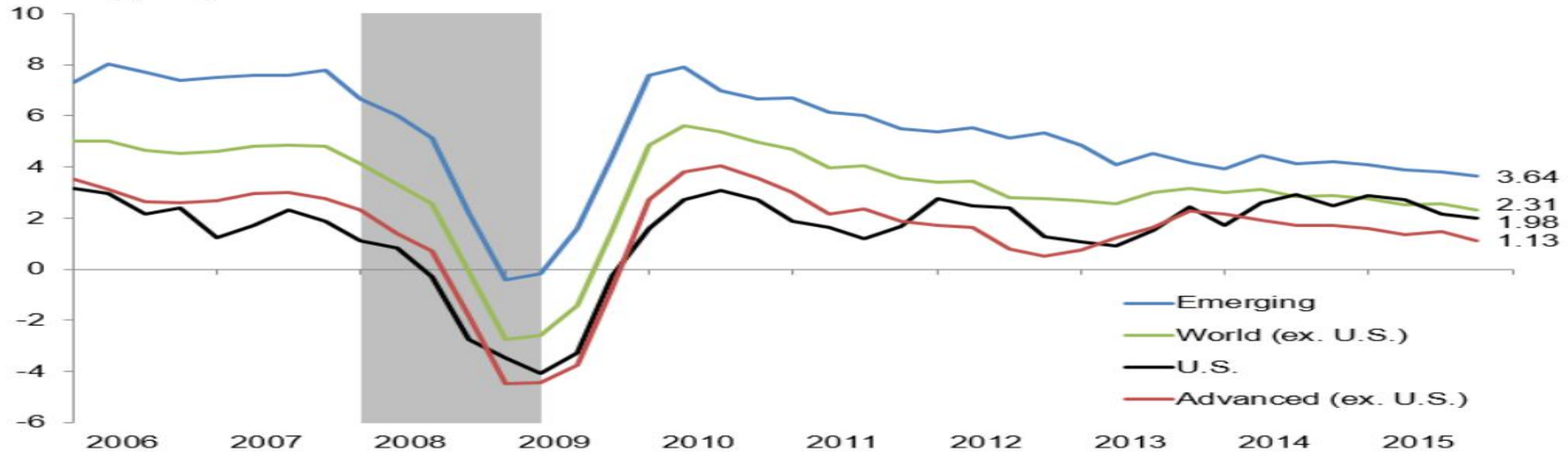
Manufacturing registered growth in April for the second consecutive month, as 15 of our 18 industries reported an increase in new orders in April (up from 13 in March), and 15 of our 18 industries reported an increase in production in April (up from 12 in March).” – Bradley Holcomb, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee.

Federal Reserve Indicators: Global

Chart 1

Fourth-Quarter GDP Growth Revised Slightly Upward

Percent, year/year



NOTES: Aggregated using U.S. trade weights. Shaded bar indicates global recession.

SOURCES: Database of Global Economic Indicators; Haver Analytics; author's calculations.

The Federal Reserve Bank of Dallas

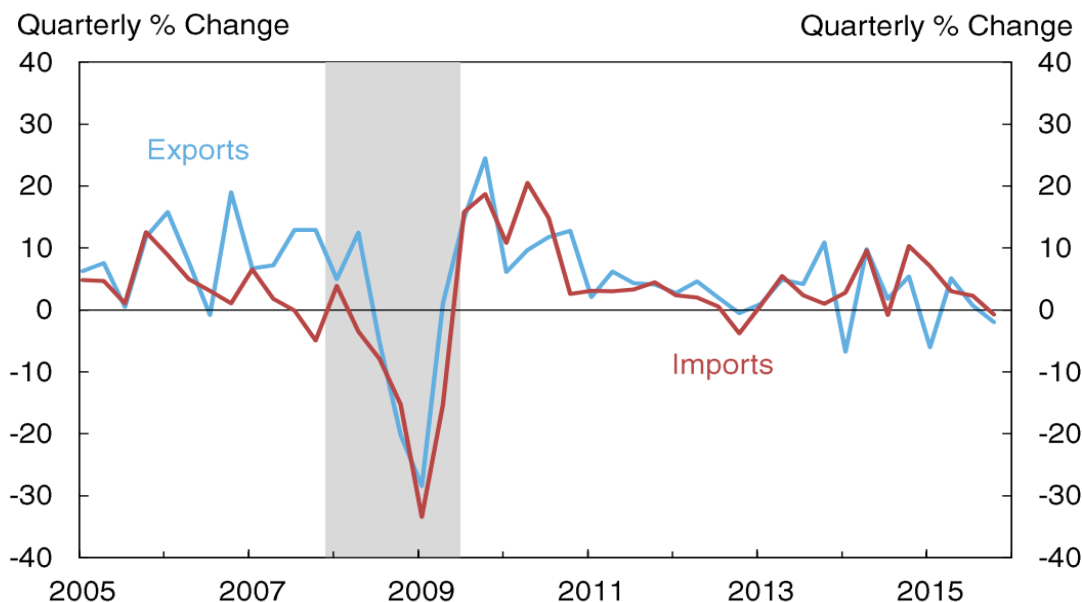
Outlook Mostly Unchanged as Global Risks Persist

“Year-over-year global GDP growth for the fourth quarter was revised up slightly over the past month (Chart 1). Real U.S. GDP growth edged up to 1.98 percent. Other significant revisions included a 0.17 percentage point increase to growth in the U.K., a 0.36 percentage point increase in Hungary and a 1.22 percentage point increase in Greece.

The IMF released its latest World Economic Outlook (WEO) in April, which included 2016 and 2017 GDP growth forecasts. The projections for 2016 are 2.40 percent for the U.S., 2.33 percent for the world (excluding U.S.), 1.47 for advanced economies (excluding U.S.) and 3.09 for emerging economies. The projections for 2017 are 2.50 percent for the U.S., 3.02 for the world (ex. U.S.), 1.72 for advanced economies (ex. U.S.) and 4.16 for emerging economies.” – Kelvin Viridi, Research Assistant, Globalization and Monetary Policy Institute, The Federal Reserve Bank of Dallas.

Federal Reserve Indicators: Global

Real Exports and Imports of Goods and Services



Source: Bureau of Economic Analysis,
via Haver Analytics

Note: Shading shows NBER recessions.

Federal Reserve Bank of New York Export Growth Slumped in Q4

“Real exports fell 2.7 percent in 2015Q4 (SAAR), following low growth Q3.

Exports rebounded in February, offsetting the 2.2 percent decline in January.

Over the year, real export growth was slightly positive, after four consecutive months of negative growth.

Real imports fell 0.7 percent in 2015Q4 (SAAR), following sluggish growth in the previous quarter.

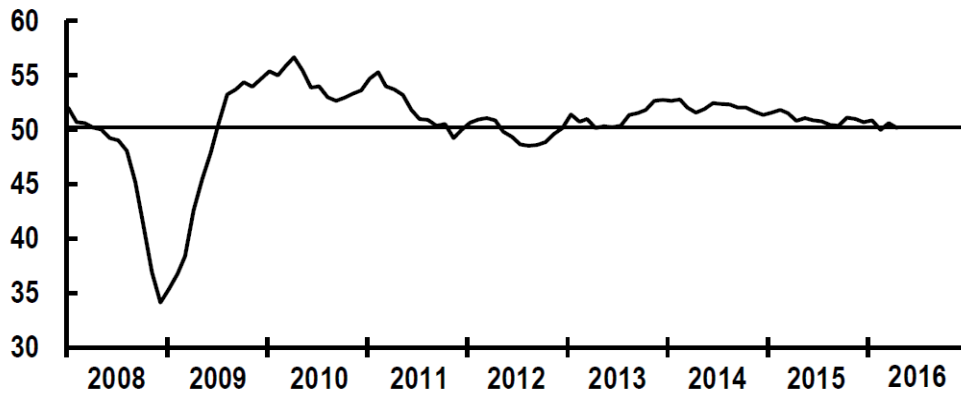
After showing very weak or negative growth since September 2015, real nonoil imports were up 2.4% in February.

Net exports subtracted 0.3 percentage point from the GDP growth in the second half of 2014.” – Research & Statistics Group, The Federal Reserve Bank of New York

Private Indicators: Global

JPMorgan Global Manufacturing PMI

DI, sa



J.P. Morgan Global PMI™

“The growth rate of the global manufacturing sector ground to a near-standstill at the start of the second quarter. At 50.1 in April, the J.P. Morgan Global Manufacturing PMI™ – a composite index produced by J.P. Morgan and Markit in association with ISM and IFPSM – posted a reading barely above its no-change level of 50.0 and the second weakest during the past forty months.”

J.P. Morgan Global PMI™

Global manufacturing remains in slow growth gear during April

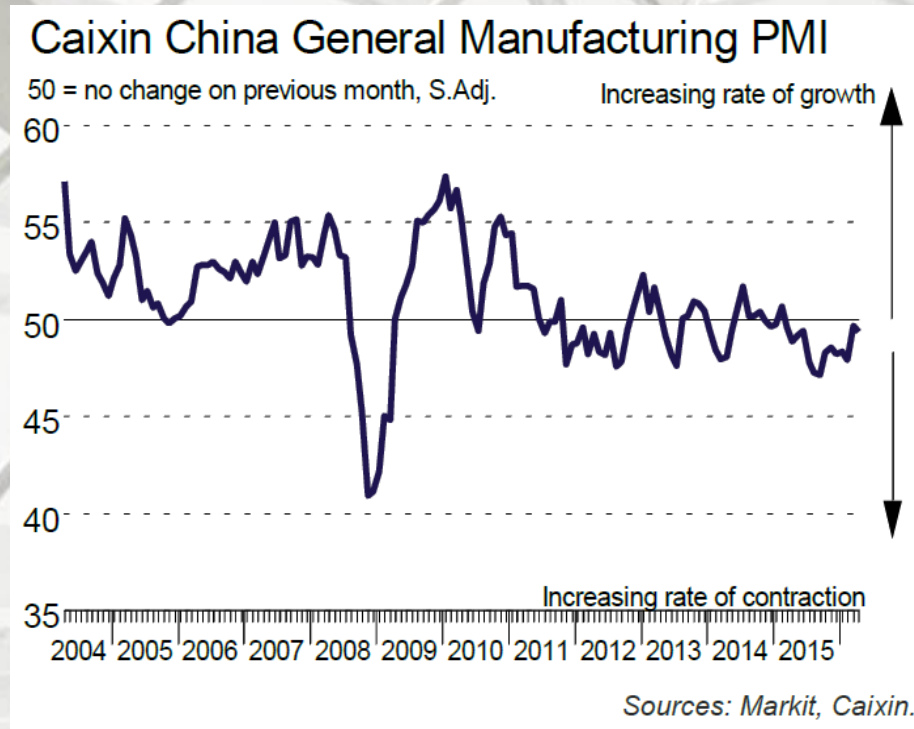
“Rates of expansion in output and new orders also decelerated back towards the broadly stagnant outcomes registered in February. Conditions remained muted in many domestic markets, while international trade flows continued to deteriorate. The level of new export business fell for the third straight month and to the greatest extent since September of last year.

The performances of the main industry groups covered by the survey all remained lacklustre during April. Output growth slowed to marginal rates at both consumer and intermediate goods producers, while the investment goods sector stagnated.

Developed and emerging markets both exhibited a degree of weakness during the latest survey month. Developed nations (on average) saw their combined pace of output expansion slow to a three-year low. Production growth slipped to a 16-month low in the European Union, to a (Markit) survey low in the US and declined at the fastest pace in two years in Japan.”

“The latest PMI data indicate global manufacturing output is growing at an anemic pace, similar to the past year. What is notable is the sharp drop in the PMI finished goods inventory index. Once manufacturers have aligned inventories with sales, faster production gains should ensue.” – David Hensley, Director of Global Economic Coordination, J.P. Morgan

Private Indicators: Global



Caixin China General Manufacturing PMI™ PMI signals further marginal deterioration in operating conditions in April

“Operating conditions across China’s manufacturing sector continued to deteriorate in April, albeit marginally. Output was little-changed from the previous month, as total new orders stagnated and new export work fell for the fifth month in a row. Relatively weak market conditions and muted client demand contributed to a further solid decline in staff numbers.

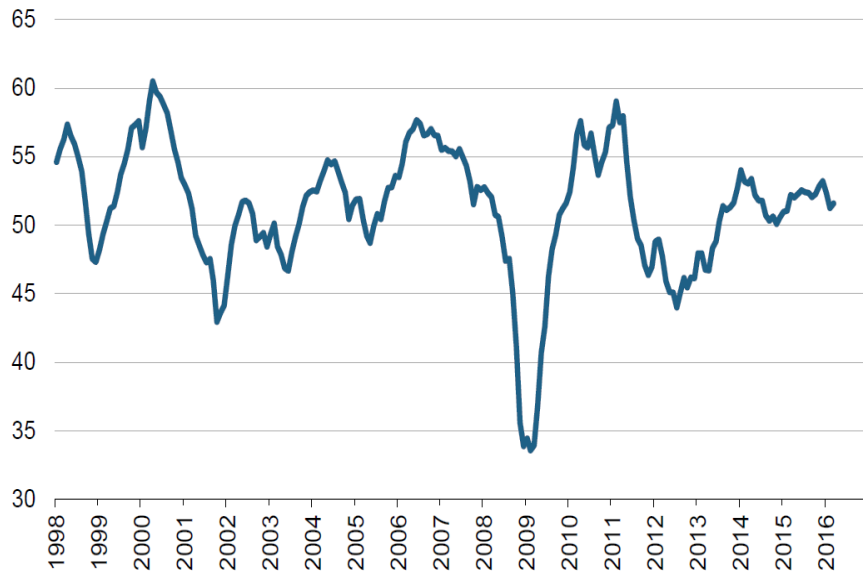
Companies also displayed cautious inventory policies in April, with stocks of finished goods and inputs both falling at faster rates. Prices data indicated that inflationary pressures intensified across the sector in April, with input costs rising at the quickest pace since January 2013, which in turn underpinned the quickest rise in output charges since October 2011.”

“The Caixin China General Manufacturing PMI for April came in at 49.4, down 0.3 points from March's reading. All of the index's categories indicated conditions worsened month-on-month, with output slipping back below the 50-point neutral level. The fluctuations indicate the economy lacks a solid foundation for recovery and is still in the process of bottoming out. The government needs to keep a close watch on the risk of a further economic downturn.” – Dr. He Fan, Chief Economist, Caixin Insight Group

Private Indicators

Manufacturing PMI® (overall business conditions)

Eurozone Manufacturing PMI, sa, 50 = no change



Source: Markit.

Markit Flash Eurozone PMI® – final data Growth remains lacklustre as French downturn deepens

“Conditions in the eurozone manufacturing sector remained lacklustre at the start of the second quarter, as rates of expansion eased for both production and incoming new orders. Brighter news was provided on the employment and price fronts, as jobs growth gained momentum and deflationary pressures moderated.

The final Markit Eurozone Manufacturing PMI® ticked higher for a second successive month, posting three-month high of 51.7. This was above March’s 51.6, the earlier flash estimate of 51.5 and the long-run survey average of 51.4. The reading was nonetheless among the weakest registered over the past year.”

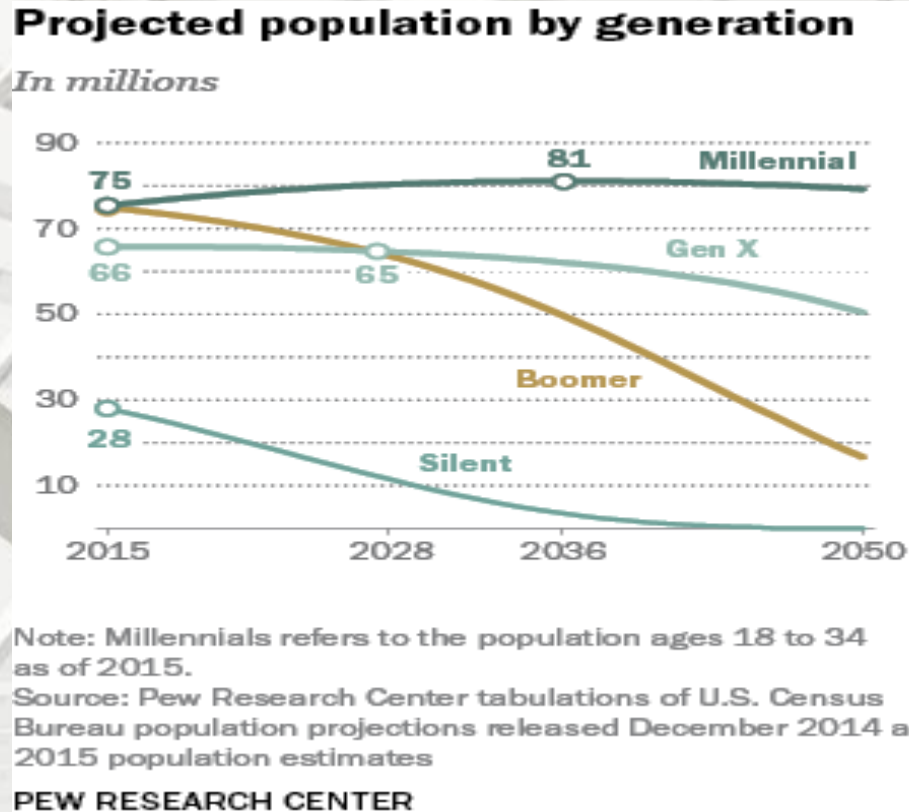
“The PMI has now edged higher for two successive months, but has improved only marginally from what was a worryingly low base earlier in the year. The survey is signalling an anaemic annual rate of growth of manufacturing production of just less than 1%, which is half the pace seen in the months leading up to the recent slowdown.

Prices also continue to fall, both in terms of raw material costs and average prices charged for goods leaving the factory gate, albeit at reduced rates compared to prior months. The survey data therefore so far show no signs of ECB stimulus or the weaker euro helping to revive the manufacturing sector, at least for the euro area as a whole. Hopes are therefore pinned on recent signs of increased bank lending and more aggressive quantitative easing providing the much-needed boost.” – Chris Williamson, Chief Economist, Markit®

The background of the slide is a grayscale photograph of a complex wooden roof truss system. The beams are arranged in a crisscrossing pattern, creating a series of triangles and other geometric shapes. The lighting is bright, casting shadows that emphasize the three-dimensional structure of the wood.

Demographics

Demographics



Millennials overtake Baby Boomers as America's largest generation

“Millennials have surpassed Baby Boomers as the nation’s largest living generation, according to population estimates released this month by the U.S. Census Bureau. Millennials, whom we define as those ages 18-34 in 2015, now number 75.4 million, surpassing the 74.9 million Baby Boomers (ages 51-69). And Generation X (ages 35-50 in 2015) is projected to pass the Boomers in population by 2028.” – Richard Fry, senior researcher, Pew Research Center

Demographics

The Generations Defined

The Millennial Generation

Born: 1981 to 1997

Age of adults in 2015: 18 to 34*

Generation X

Born: 1965 to 1980

Age in 2015: 35 to 50

The Baby Boom Generation

Born: 1946 to 1964

Age in 2015: 51 to 69

The Silent Generation

Born: 1928 to 1945

Age in 2015: 70 to 87

The Greatest Generation

Born: Before 1928

Age in 2015: 88 to 100

* No chronological end point has been set for this group. For the purpose of following a cleanly defined group, Millennials are defined as those ages 18 to 34 in 2015.

PEW RESEARCH CENTER

Millennials overtake Baby Boomers as America's largest generation

“The Millennial generation continues to grow as young immigrants expand its ranks. Boomers – whose generation was defined by the boom in U.S. births following World War II – are older and their numbers shrinking as the number of deaths among them exceeds the number of older immigrants arriving in the country.”

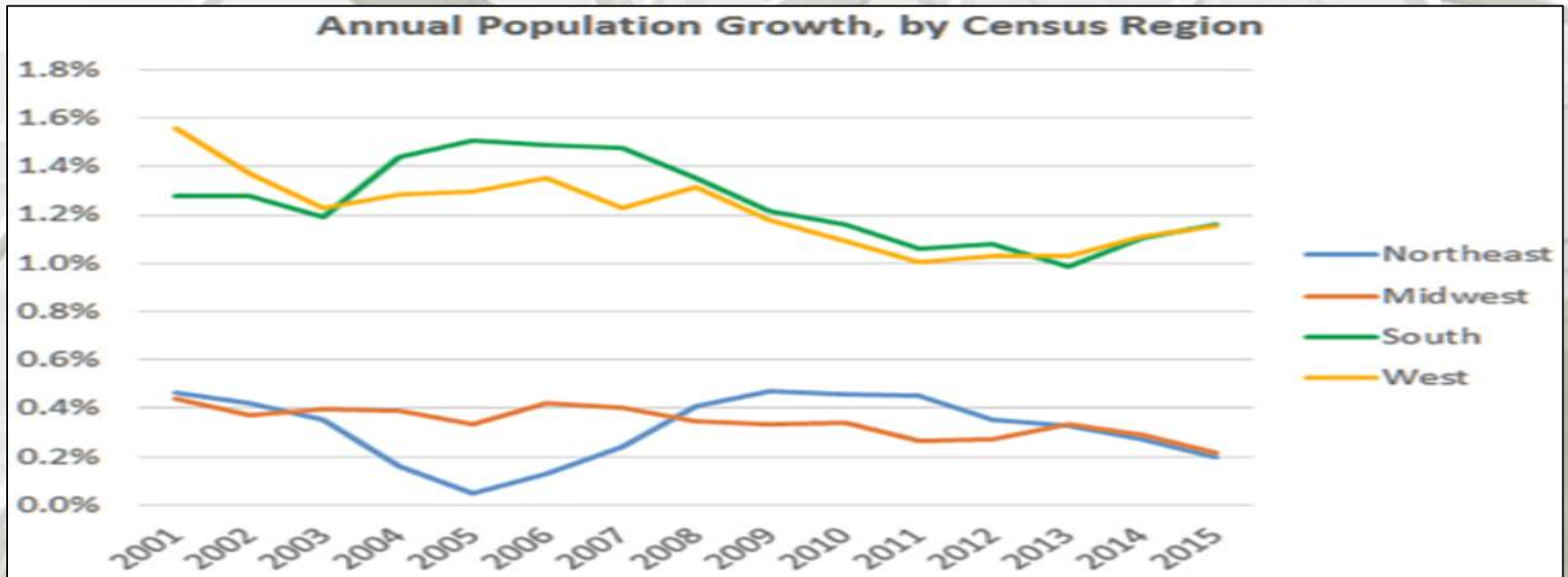
– Richard Fry, senior researcher, Pew Research Center

Demographics

Population Trends Favor the Sunbelt and the Suburbs

“The lists of the fastest and slowing growing metros hint at general patterns in recent population growth. Looking at all counties in the U.S., not just those in metropolitan areas, reveals three trends.

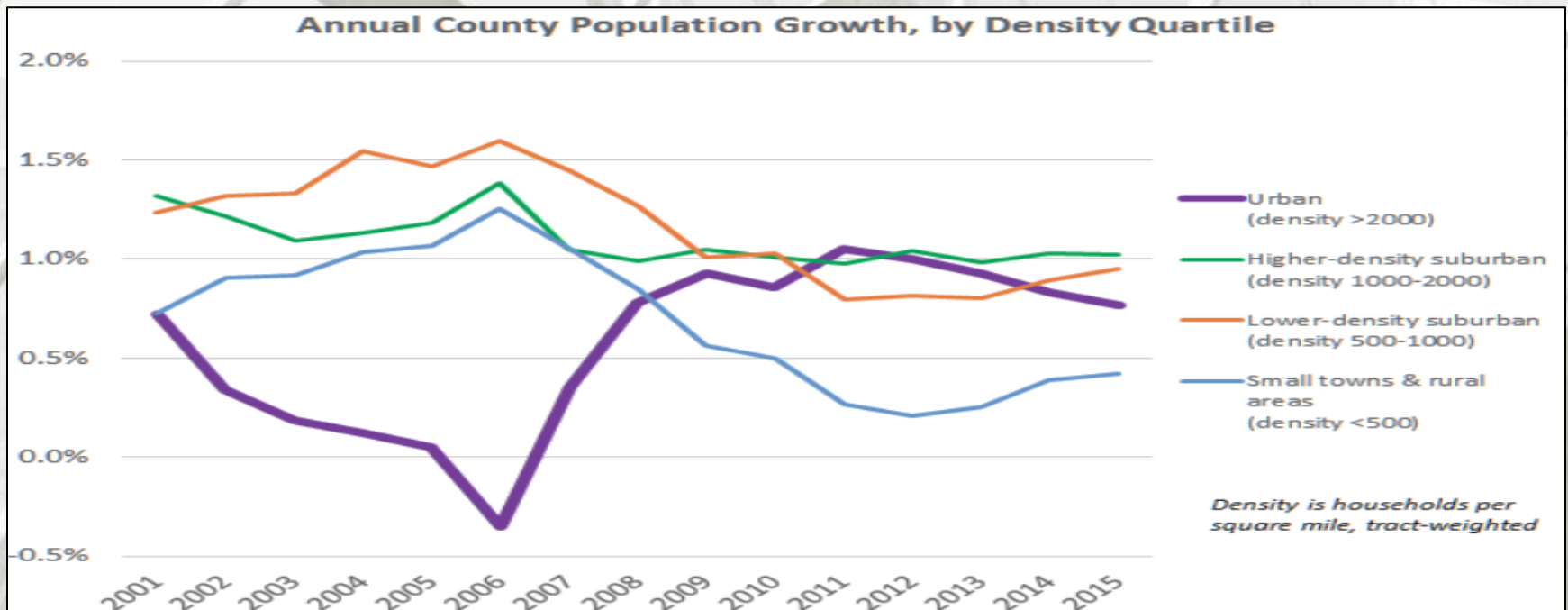
The first is the accelerating shift of population toward the Sunbelt. Among the four Census regions, the South and West both had population growth of 1.2 percent in 2015, far ahead of the 0.2 percent growth in both the Northeast and Midwest. Population growth in the South and West has outpaced that in the Northeast and the Midwest for decades, as well as in each year since 2000 throughout the housing bubble, bust, and recovery. The gap narrowed somewhat after the bubble burst, as population growth quickened in the Northeast between 2008 and 2012. Since 2013, however, population growth in the South and West has accelerated, while growth in the Northeast and Midwest has slowed, thus widening the gap between those two Sunbelt regions and the rest of the country.” – Jed Kolko, Independent Economist and Consultant



Demographics

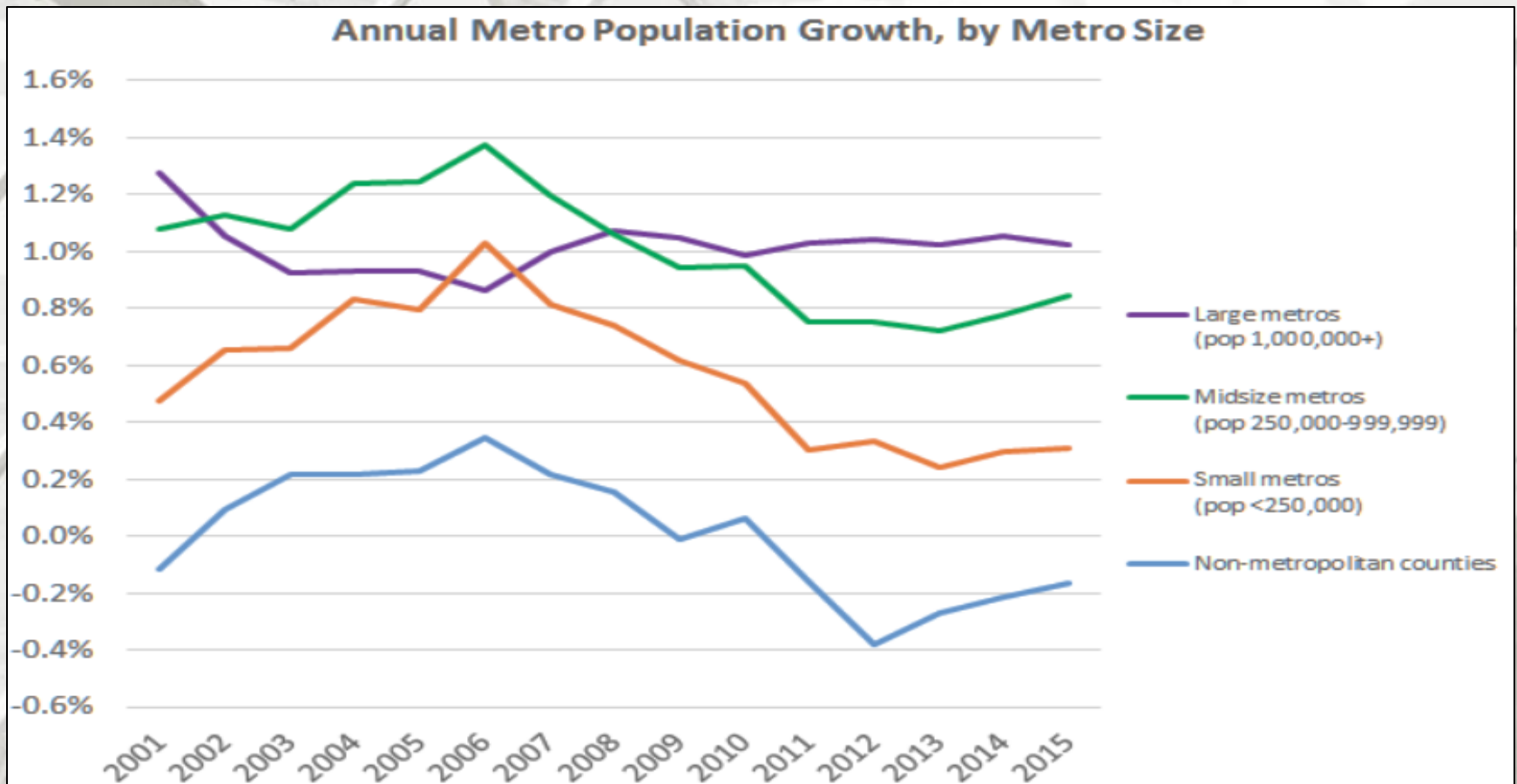
“The second trend is the recent slowdown in population growth in urban counties (defined as those with tract-weighted density of at least 2000 households per square mile). Both higher-density suburban counties and lower-density suburban counties had faster population growth than urban counties in 2015, and the gap between suburban and urban county growth was larger in 2015 than in 2014. In short, suburbanization accelerated in 2015.

While population growth in urban counties has clearly recovered from the housing bubble, during which urban counties lagged for many years and even lost population in 2006, the rebound in urban population growth was brief. Urban counties outpaced all other areas only in 2011, and urban growth in 2015 slowed to its lowest level since 2007. Growth in small towns & rural areas – the lowest-density counties – remained behind that of urban, higher-density suburban, and lower-density suburban counties in 2015, even though small towns & rural areas grew in 2015 at the fastest pace since 2010.” – Jed Kolko, Independent Economist and Consultant



Demographics

“The third trend is that metropolitan areas with at least one million people grew faster in 2015 than midsize and smaller metros did, just as in every year since 2008. While this is a reversal of the bubble years in the early 2000s, when midsize metros grew faster, it is a return to the pre-bubble pattern: In the 1980s and 1990s, as in the post-2008 period, population growth was faster in million-plus metros than in midsize metros, smaller metros, and non-metropolitan areas. (Micropolitan areas counted as metros in this analysis.)” – Jed Kolko, Independent Economist and Consultant



Demographics

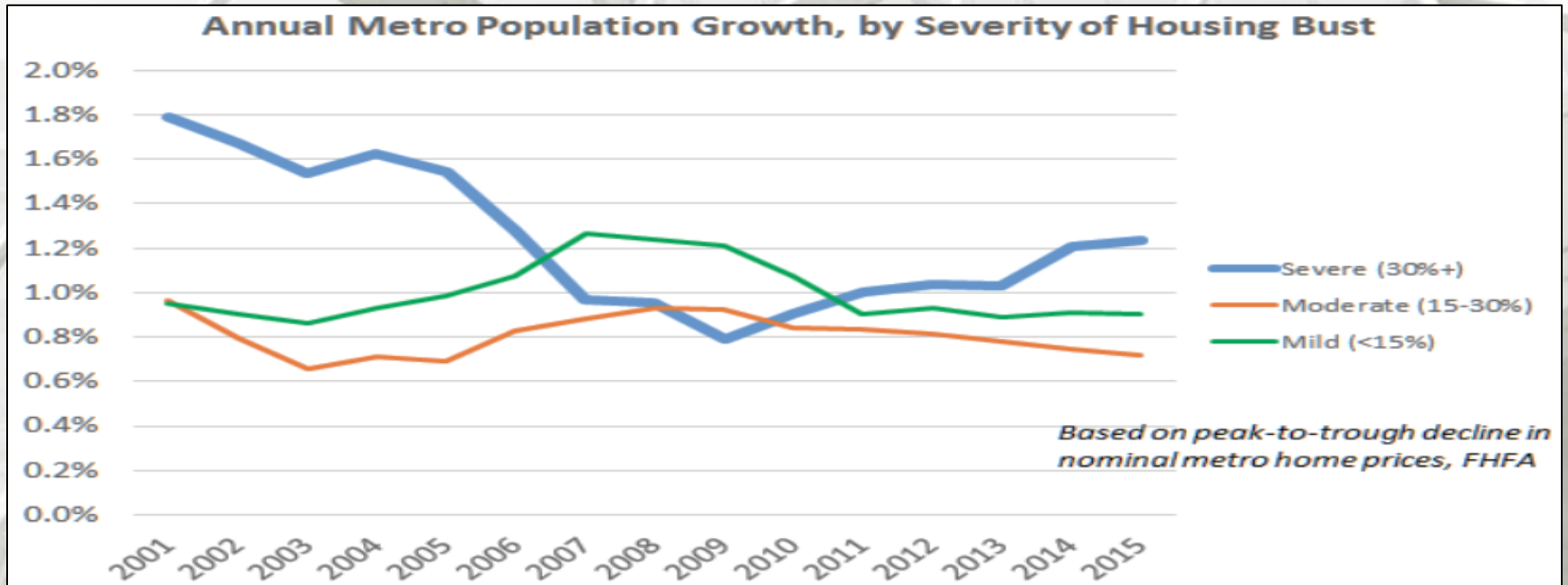
The Longer View: Population Trends Are Getting Back to Old Patterns

“Since 2000 population trends have reflected the housing boom, bust, and recovery. The boom, lasting until 2006, favored the suburbs, where most new single-family homes were built (or overbuilt). Then, in the housing bust, patterns reversed, with urban counties and large metros rebounding while suburban and rural growth slowed. Now, as the recovery continues, old patterns – from before the 2000s – are returning.

For starters, compare population growth in metros by the severity of their local housing bust. In the hardest-hit metros, where prices climbed during the bubble and then fell 30% or more, population growth slowed dramatically from 2006 to 2009. Note that population in these metros started to slow before the bubble reached its height in 2006, as rising prices hurt affordability, and continued when the bubble burst as people lost their homes and local job markets suffered. In contrast, in metros with a relatively mild housing bust (price declines of 15% or less), population growth accelerated in 2007-2009: their economies held up better in the recession than the hardest-hit metros did. But since 2011, the metros with the severest housing bust have once again had the fastest population growth, and their lead over metros that had a moderate or mild bust has grown. Lower housing prices and stabilized local economies have attracted people back to metros that suffered the worst. In five of the ten large metros with the fastest population growth in 2015 (the four Florida metros plus Las Vegas) home prices fell more than 45% in the housing bust.” – Jed Kolko, Independent Economist and Consultant

Demographics

“But it’s not just that population growth patterns today more like they did during early years of the bubble. Rather, local population growth trends increasingly look like they did before the bubble, in the 1980s and 1990s. As local population patterns look more like the pre-bubble period, with accelerating growth in the suburbs and the Sunbelt, it becomes clearer that some of the population shifts during the housing bubble and bust were temporary and reflected the extreme housing cycle. In particular, the acceleration of population growth in the Northeast in 2009-2011 and moment when urban growth surpassed suburban growth in 2011 look like reactions to a housing bubble that brought unsustainable growth to the suburbs and the Sunbelt. That’s not to say that nothing has changed: There have been dramatic shifts since the pre-bubble years in the composition of local populations. College-educated young adults are much more likely to live in high-density urban neighborhoods than they used to, while seniors are increasingly likely to remain in suburban single-family homes. But, in aggregate, local population growth in 2015 looks ever more like it used to before the housing bubble, with the Sunbelt and the suburbs widening their leads.” – Jed Kolko, Independent Economist and Consultant



Demographics

Figure 3 - Cohort Trends in Number of Owner Households: 2003-2013

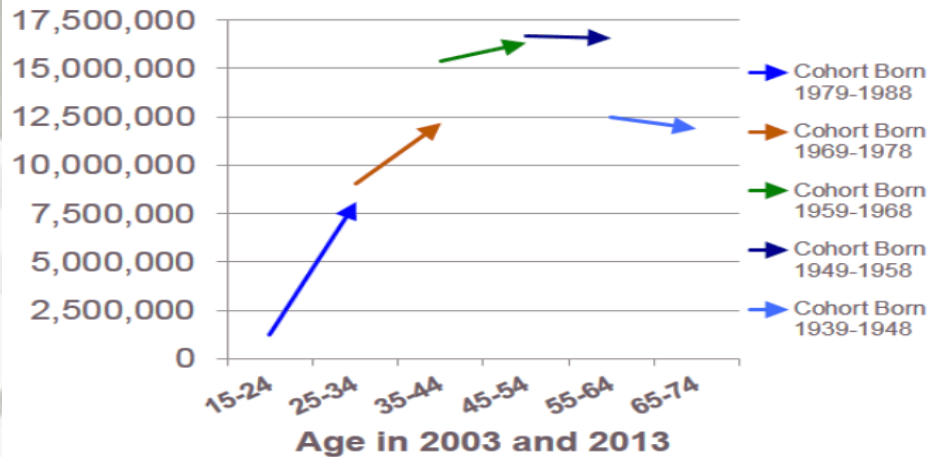
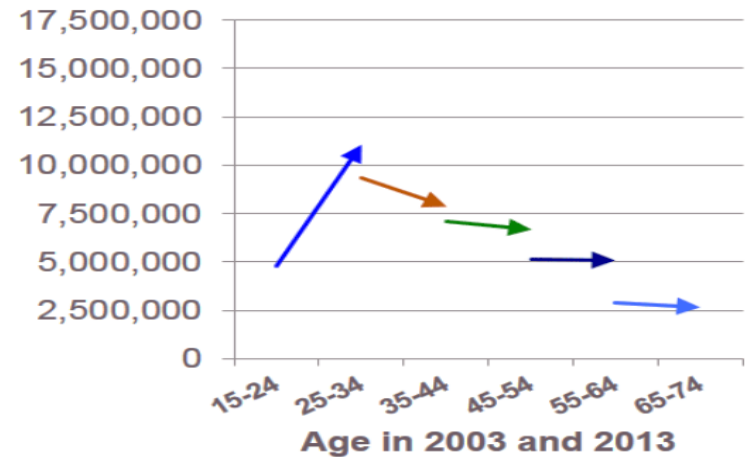


Figure 4 - Cohort Trends in Number of Renter Households: 2003-2013



Millennial Housing Issues in Perspective: Visualizing Cohort Trends in Population Size, Household Numbers, Ownership and Renting

“In spite of having a noticeably larger population at age 25-34 compared to the next oldest cohort (red line), and a slightly larger number of total households at the same age, owner households were almost a million fewer. In addition, this next oldest cohort also shows levels of owner household formation well below what was achieved by the cohort born 1959-1968 (green line) when it was age 35-44 in 2003. Finally, the 1959-1968 cohort had slightly fewer owners in 2013 than the next oldest cohort (purple line) at age 45-54 despite having both 4+ million more people and 1.2 million more total households.

But we must not lose sight of the fact that the older 1959-1968 and 1949-1958 cohorts aged into their 40s and 50s during a very different economic period (1993-2003) with better income growth, looser mortgage lending standards and more affordable newly built housing. The number of owner households that these older cohorts achieved at ages 25-34, 35-44, and 45-54 might not be a proper benchmark by which to judge the progress of today’s younger cohorts.” – George Masnick, Senior Research Fellow, Harvard Joint Center for Housing Studies

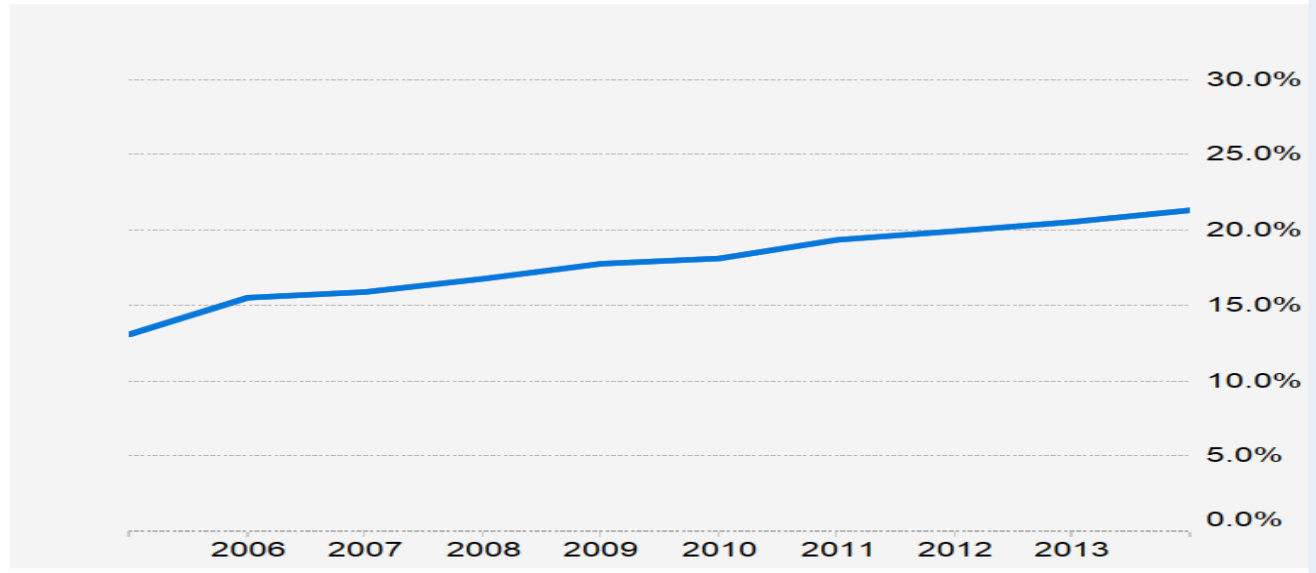
Demographics

Figure 1: How Many Young Adults Live with their Mom?



Region Name

- ☒ United States
- ☐ Atlanta, GA
- ☐ Baltimore, MD
- ☐ Boston, MA
- ☐ Charlotte, NC
- ☐ Chicago, IL
- ☐ Dallas-Fort Worth, TX
- ☐ Denver, CO
- ☐ Detroit, MI
- ☐ Houston, TX
- ☐ Los Angeles, CA
- ☐ Miami, FL
- ☐ Minneapolis-SP, MN
- ☐ New York, NY
- ☐ Philadelphia, PA
- ☐ Phoenix, AZ
- ☐ Pittsburgh, PA
- ☐ Portland, OR
- ☐ Riverside, CA
- ☐ Sacramento, CA
- ☐ San Diego, CA
- ☐ San Francisco, CA
- ☐ Seattle, WA
- ☐ St. Louis, MO
- ☐ Tampa, FL
- ☐ Washington, DC
- ☐ Austin, TX



Mothers & Their Millennials: Where Working-Age Millennials are Still Living with Mom

“More than one-in-five of the nation’s 24-to-34-year-olds won’t have far to travel on Mother’s Day this Sunday. Almost 10 million working-age millennials nationwide live with their moms, according to a Zillow analysis of American Community Survey data.

The national rate of working-age millennials living with mom has climbed every year over the past decade, from 13.1 percent in 2005 to 21.4 percent in 2014 (figure 1). This uptick is tied to a combination of the current rental affordability crisis – particularly for lower-earning younger workers – and the weak economy many of these millennials graduated into, limiting their job options. In 2014, 14.1 percent of 24-to-34-year-olds living with their mom were unemployed, compared to just 6.1 percent of their peers not living with mom.

And given that first-time homebuyers rent longer than ever before, these boomerang kids probably won’t be buying their own place anytime soon. All 35 of the nation’s largest metros experienced a rise in millennials living with their mothers over this same time span.” – Jamie Anderson, Data Scientist, 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.