The Virginia Tech – U.S. Forest Service **April 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

dalderman@fs.fed.us

Madison, WI 304.431.2734

2016

Virginia Polytechnic Institute and State University

VCE-ANR 208NP

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 22: Private Indicators

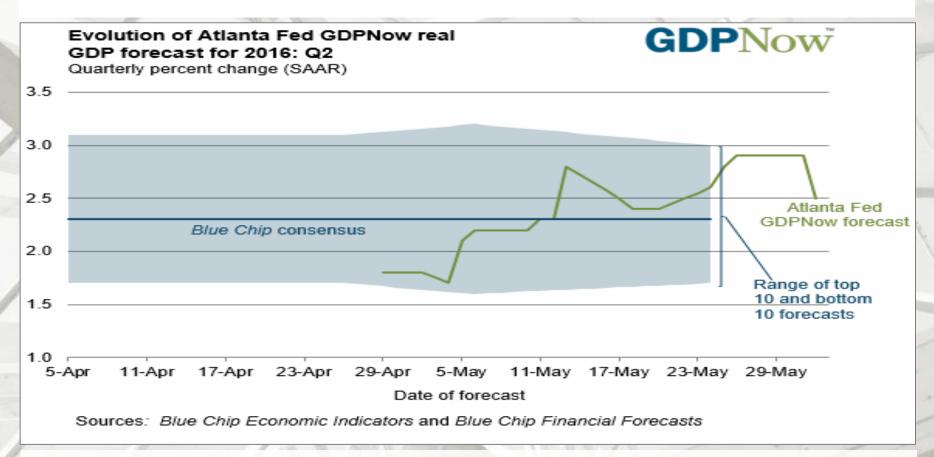
Slide 48: <u>Demographics</u>

Slide 68: Virginia Tech Disclaimer

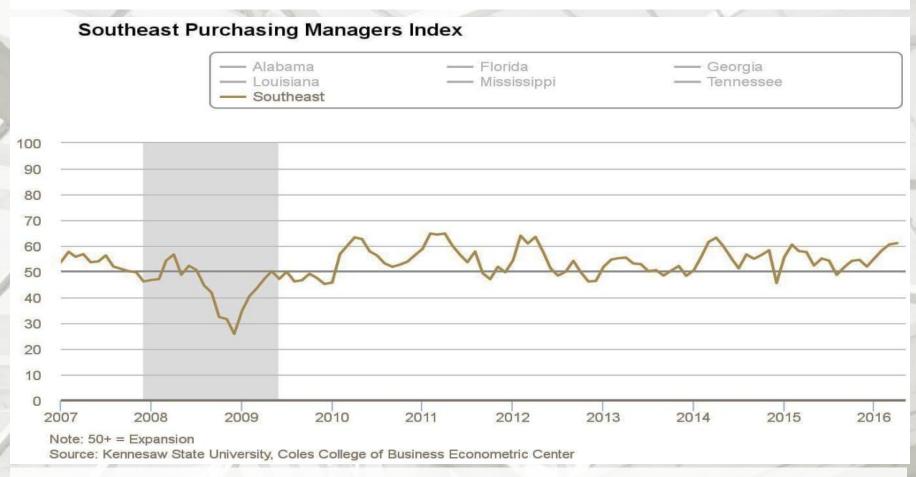
Slide 69: <u>USDA Disclaimer</u>



Atlanta Fed: GDPNowTM



"The GDPNow model forecast for real GDP growth (seasonally adjusted annual rate) in the second quarter of 2016 is **2.5 percent** on June 1, down from 2.9 percent on May 31. After this morning's construction spending release from the U.S. Census Bureau and this morning's Manufacturing ISM Report On Business from the Institute for Supply Management, the forecast for real residential investment growth decreased from 7.9 percent to 4.2 percent, the forecast for real nonresidential structures investment growth decreased from -2.8 percent to -6.5 percent, and the forecast for real government spending growth decreased from 1.2 percent to 0.4 percent."—Pat Higgins, Economist, The Federal Reserve Bank of Atlanta



The Federal Reserve Bank of Atlanta

"Kennesaw State University's Southeast Purchasing Managers Index (PMI), a composite index that measures the region's manufacturing sector based on key sector indicators, rose one-half point in April, to 61.1. The rise was driven by increases in production and employment. A reading over 50 indicates that manufacturing is expanding, while below 50 means the industry is contracting."—The Federal Reserve Bank of Atlanta

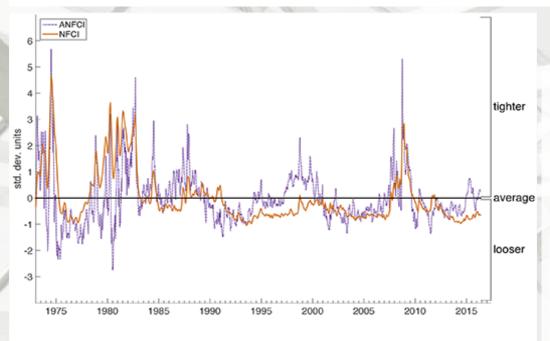




New England Labor Market Indicators

Change Previous	A	verage of	f Monthly	Data				
12 Months	Q2-15	Q3-15	Q4-15	Q1-16	Jan-16	Feb-16	Mar-16	Apr-16

Total Nonfarm: 116.3 7,224.8 7,244.3 7,259.8 7,295.2 7,277.5 7,298.0 7,310.0 7,323.3



	Current	Previous	1 Month Ago	3 Months Ago	6 Months Ago	12 Months Ago
Index	5/27/2016	5/20/2016	4/29/2016	2/26/2016	11/27/2015	5/29/2015
NFCI	-0.64	-0.64	-0.64	-0.56	-0.67	-0.80
ANFCI	0.23	0.26	0.29	-0.03	-0.49	0.68

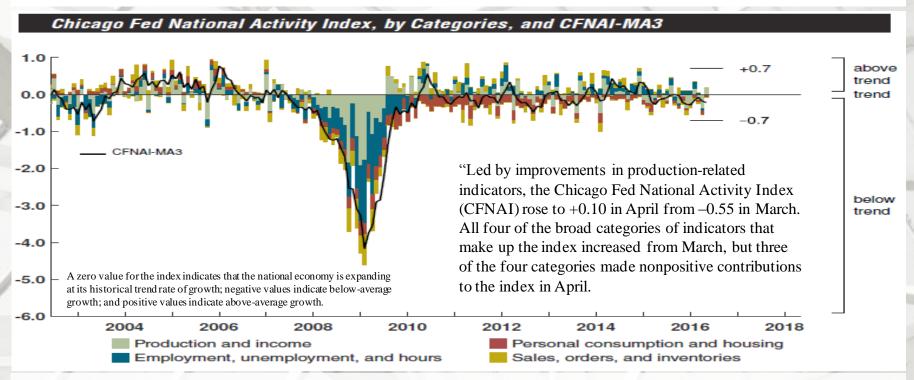
Financial Conditions Little Changed in Week Ending May 27

"The NFCI was unchanged at –0.64 in the week ending May 27. The risk and leverage subindexes decreased slightly from the previous week, while the credit subindex increased slightly and the nonfinancial leverage subindex was unchanged."

The Federal Reserve Bank of Chicago

"The ANFCI edged down to 0.23 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

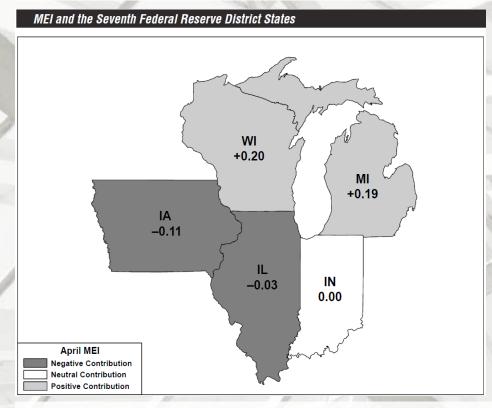


Index shows economic growth below average in April

"The index's three-month moving average, CFNAI-MA3, decreased to -0.22 in April from -0.18 in March. April'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, increased to -0.17 in April from -0.22 in March. Forty-five of the 85 individual indicators made positive contributions to the CFNAI in April, while 40 made negative contributions. Fifty-four indicators improved from March to April, while 31 indicators deteriorated. Of the indicators that improved, 16 made negative contributions." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Chicago Fed: Midwest Economy Index



Index shows Midwest economic growth steady in April

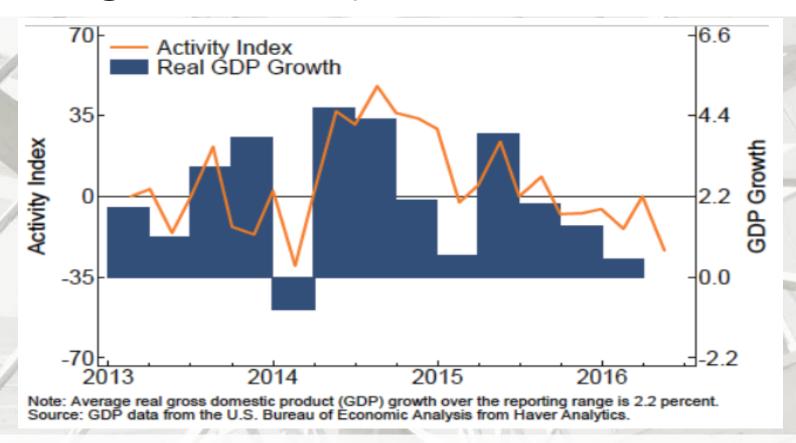
"The Midwest Economy Index (MEI) was unchanged at +0.25 in April. The relative MEI increased to +0.71 in April from +0.67 in March. April's value for the relative MEI indicates that Midwest economic growth was moderately higher than what would typically be suggested by the growth rate of the national economy.

The manufacturing sector's contribution to the MEI was +0.02 in April, up from -0.01 in March. The pace of manufacturing activity increased in Michigan and Wisconsin, but decreased in Illinois and Iowa and was unchanged in Indiana. Manufacturing's contribution to the relative MEI increased to +0.15 in April from +0.11 in March."

"The construction and mining sector's contribution to the MEI decreased to +0.04 in April from +0.08 in March. The pace of construction and mining activity was lower in Illinois, Indiana, and Michigan, but unchanged in Iowa and Wisconsin. Construction and mining's contribution to the relative MEI was +0.15 in April, down from +0.18 in March.

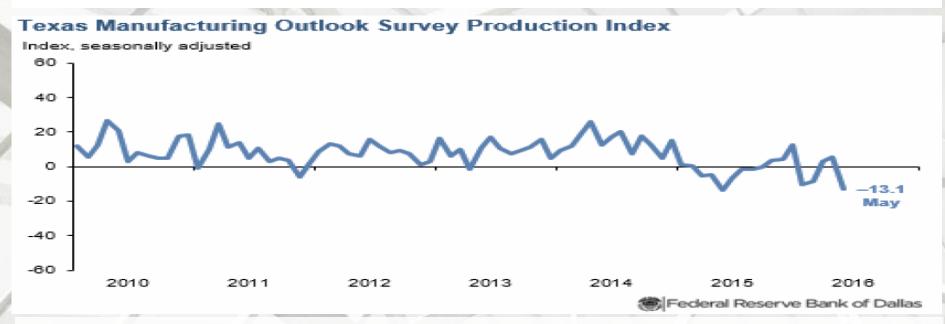
The service sector's contribution to the MEI ticked down to +0.10 in April from +0.11 in March. The pace of service sector activity was down in Indiana, Iowa, and Michigan, but up in Illinois and Wisconsin. The service sector's contribution to the relative MEI edged up to +0.32 in April from +0.30 in March." – Laura LaBarbera, Media Relations, Federal Reserve Bank of Chicago

Chicago Fed: Survey of Business Conditions



Survey shows growth slowed in April and early May

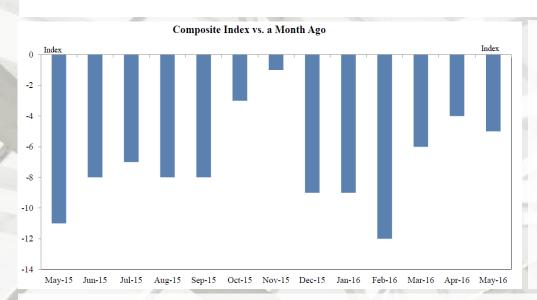
"The Chicago Fed Survey of Business Conditions (CFSBC) Activity Index decreased to -23 from zero, suggesting that growth in economic activity slowed to a modest pace in April and early May. The CFSBC Manufacturing Activity Index declined to -23 from +27, while the CFSBC Nonmanufacturing Activity Index decreased to -24 from -15." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago



The Federal Reserve Bank of Dallas Texas Manufacturing Activity Declines

"Texas factory activity declined in May after two months of increases, according to business executives responding to the Texas Manufacturing Outlook Survey. The <u>production</u> index, a key measure of state manufacturing conditions, fell from 5.8 to -13.1, hitting its lowest reading in a year. Other measures of current manufacturing activity also reflected contraction this month. The <u>new orders</u> index fell more than 20 points to -14.9 after pushing into positive territory last month. The <u>growth rate of orders</u> index has been negative since late 2014 and fell to -14.7 in May after climbing to near zero in April. The <u>capacity utilization</u> and <u>shipments</u> indexes returned to negative territory after two months of positive readings, coming in at yearlong lows of -11.0 and -11.5, respectively.

Perceptions of broader business conditions were more pessimistic this month. The <u>general business activity</u> index declined from -13.9 to -20.8, and the <u>company outlook</u> index fell 10 points to -16.1." – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas



"Regional factory activity continued to drift down in May, as weakness in energy and agriculture-related manufacturing persisted. Still, firms expect a modest pickup in activity later this year.

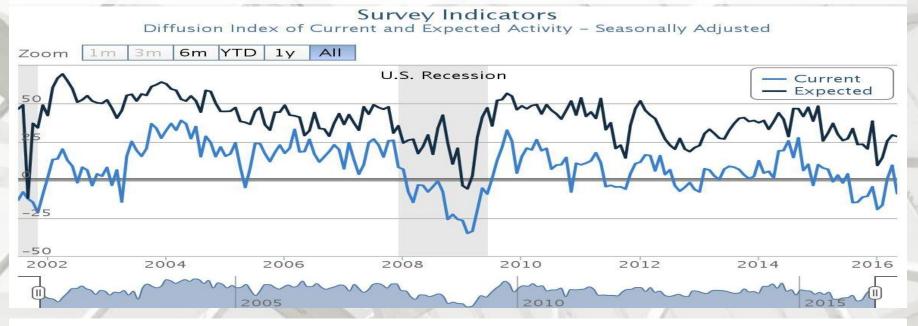
Tenth District manufacturing activity continued to decline modestly, while producers' expectations for future activity remained slightly positive. Most raw material price indexes rose moderately in May, but selling prices fell slightly."

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

"The month-over-month composite index was -5 in May, which is largely unchanged from April and March readings (Chart). The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Nondurable goods production slowed, particularly for food, chemical, and plastics production. On the other hand, durable goods production improved slightly but remained at low levels. Most month-over-month indexes were stable from the previous month. The production index fell from -8 to -11, while the shipments, news orders, employment and order backlog indexes were stable at low levels. The new orders for exports index decreased from -4 to -8. The raw materials inventory index eased from 0 to -3, while the finished goods inventory index was basically unchanged.

Year-over-year factory indexes were mixed, but generally remained weak. The composite year-over-year index was unchanged at -19, while the production, shipments, and order backlog indexes fell moderately. The new orders index improved slightly from -26 to -24, and the capital expenditures index also edged higher. The new orders for exports index moved up from -19 to -15, and both inventory indexes increased modestly."—Chad Wilkerson, Vice President and Economist, The Federal Reserve Bank of Kansas City

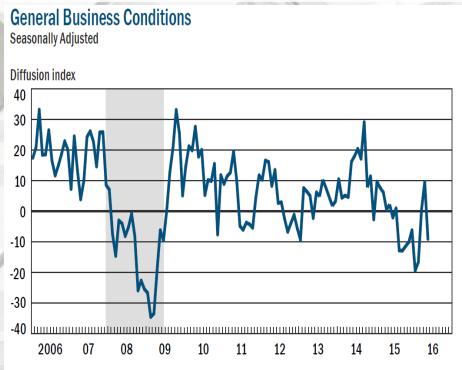
The Federal Reserve Bank of New York



Empire State Manufacturing Survey Business Conditions Worsen

"The May 2016 Empire State Manufacturing Survey indicates that business activity declined for New York manufacturers. The headline general business conditions index turned negative, falling nineteen points to -9.0. The new orders and shipments indexes also fell below zero, pointing to a decline in both orders and shipments. Survey results indicated that inventory levels were lower and delivery times shorter. The prices paid index edged down to 16.7 - a sign that moderate input price increases were continuing—and the prices received index fell below zero, suggesting a small drop in selling prices. Employment levels appeared to be little changed, while the average workweek index pointed to a decline in hours worked. The six-month outlook was somewhat less optimistic than last month, and the capital spending index plummeted to 3.1, its lowest reading in more than two years."—The Federal Reserve Bank of New York

The Federal Reserve Bank of New York



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

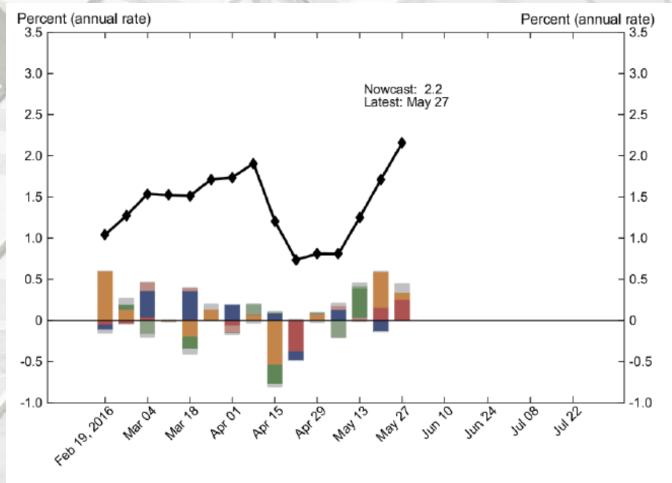
Empire State Manufacturing Survey

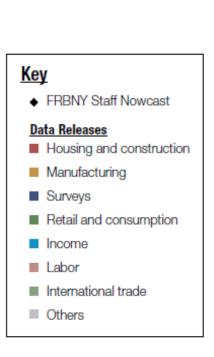
"Business activity contracted for New York manufacturing firms, according to the May 2016 survey. Following a brief foray into positive territory in March and April, the general business conditions index fell back below zero, declining nineteen points to -9.0. Nineteen percent of respondents reported that conditions had improved over the month, while 28 percent reported that conditions had worsened. The new orders index also turned negative, its seventeenpoint drop to -5.5 signaling a decrease in orders. The shipments index, down twelve points to -1.9, showed that shipments were flat, and the unfilled orders index fell to -6.3. The delivery time index, at -6.3, pointed to shorter delivery times, and the inventories index, at -7.3, suggested that inventory levels were lower." – The Federal Reserve Bank of New York

Capital Spending Index Falls Sharply

"Indexes for the six-month outlook generally suggested that firms were somewhat less optimistic about future conditions than they were in April. The index for future business conditions was little changed at 28.5, while the index for future new orders fell fourteen points to 22.4. 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 fell nineteen points to 3.1, its lowest level in more than two years, and the technology spending index fell to 6.3."—The Federal Reserve Bank of New York

The Federal Reserve Bank of New York

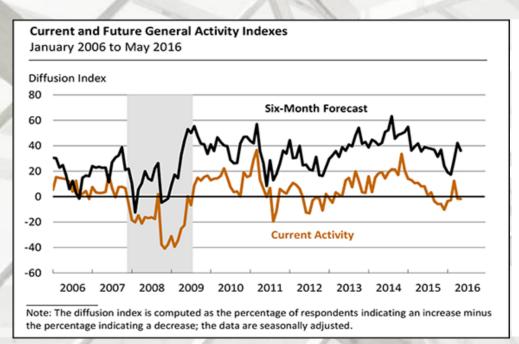




FRBNY Nowcast – 2016: Q2 GDP Growth

Source: Authors' calculations.

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



Current Indicators Remain Weak

"The diffusion index for current activity was essentially unchanged at -1.8 this month. The index has registered a negative reading in eight of the last nine months (see Chart). The current new orders index decreased for the second consecutive month, from 0.0 to -1.9 this month. Conversely, the current shipments index rose 10 points; however, the percentage of firms reporting a decline in shipments narrowly exceeded the percentage reporting an increase. As with the other broad indicators this month, the unfilled orders and delivery time indexes both remained in negative territory. The indicator for inventories rose notably to its highest reading in nine months but still registered a negative reading."

The Federal Reserve Bank of Philadelphia

May 2016 Manufacturing Business Outlook Survey

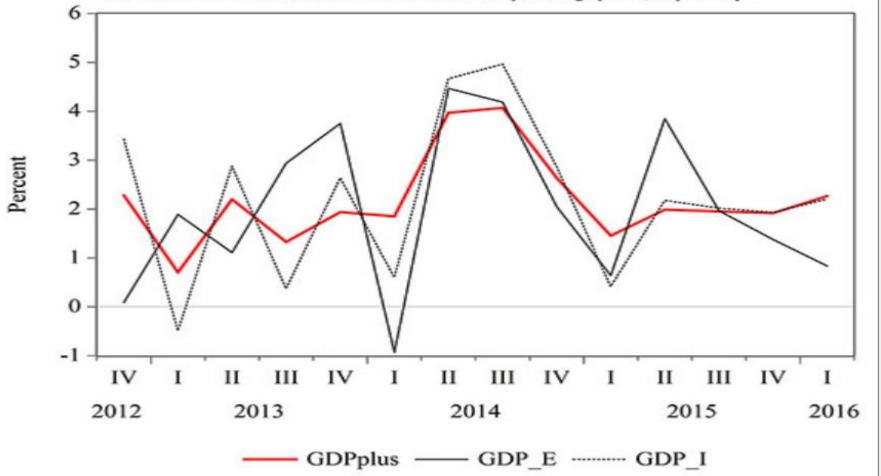
"Firms responding to the Manufacturing Business Outlook Survey continued to report tenuous growth this month. The indicator for general activity was essentially unchanged in May and remained slightly negative. Other broad indicators also reflected general weakness in business conditions. The indicator for employment improved but remained negative. Manufacturers' forecasts of future activity tempered slightly from last month, overall, but continue to suggest confidence in future growth.

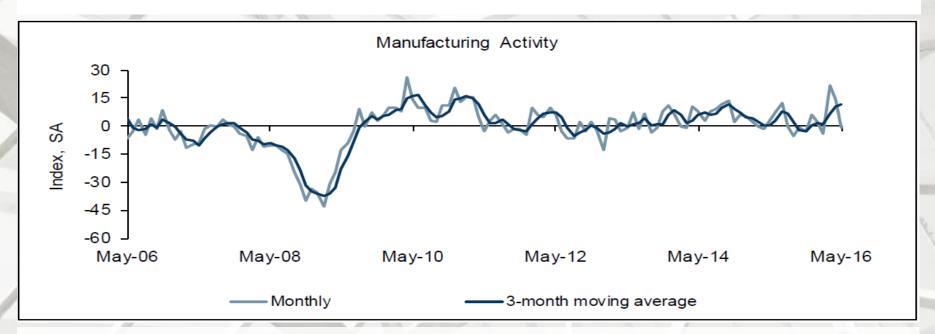
This month's Manufacturing Business Outlook Survey suggests essentially no growth of the region's manufacturing sector. The survey's indicators for general activity, new orders, shipments, and employment all remained negative. Though indicators for future conditions fell from last month, expectations for future growth continue to be positive."

Philadelphia Fed: 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.

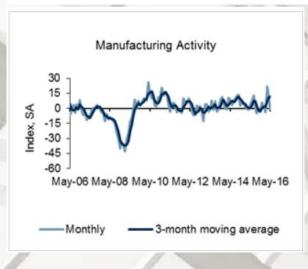




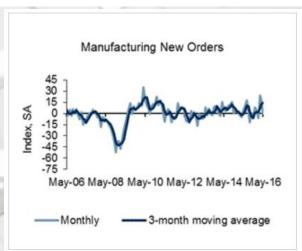
The Federal Reserve Bank of Richmond Manufacturing Sector Activity Slowed; New Orders Flattened, Backlogs Decreased

"Fifth District manufacturing activity slowed in May, according to the most recent survey by the Federal Reserve Bank of Richmond. Shipments and backlogs decreased, and order backlogs flattened this month. Manufacturing hiring rose modestly, while average wages continued to increase at a moderate pace. Prices of raw materials and finished goods rose more quickly in May, compared to last month.

Despite the soft current conditions, firms remained optimistic about future business conditions. Expectations in May were little changed from April readings. Firms expect moderate growth in shipments and in the volume of new orders in the six months ahead. In addition, manufacturers looked for rising backlogs of new orders. Producers anticipated a decline in capacity utilization and unchanged vendor lead times in the next six months."—Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond



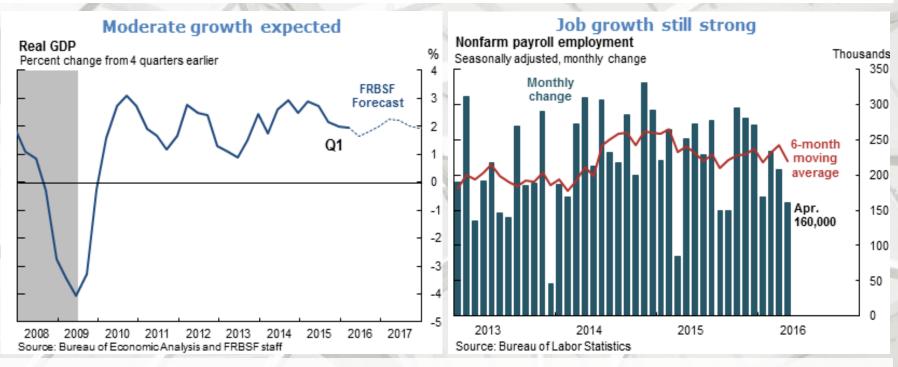




Current Activity

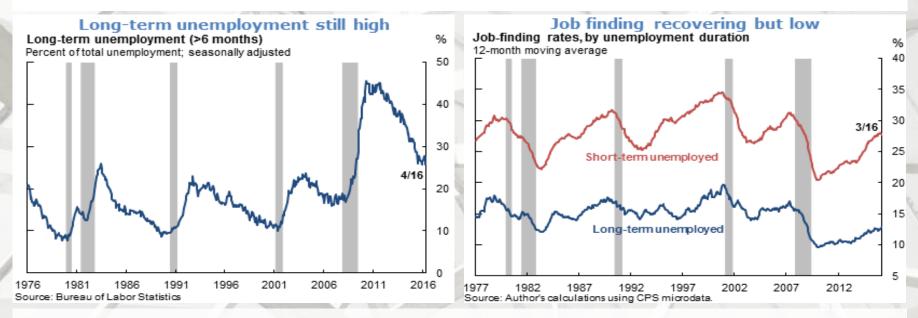
"Overall, manufacturing conditions softened in May. The composite index for manufacturing flattened to a reading of -1. The index for ship ments dropped sharply, decreasing 22 points to end at -8. Additionally, the new orders index fell 18 points, leveling off at 0. The manufacturing employment index remained at a modest reading this month; the indicator moved down four points to end at 4.

Backlogs decreased in May, with the index settling 24 points lower at a reading of -13. The capacity utilization index also slipped 24 points this month, pulling the index down to a reading of -6. Vendor lead time lengthened modestly, with that indicator gaining four points to end at 6. Finished goods inventories rose across more firms compared to a month ago – the index gained five points, ending at a reading of 19. Growth in raw materials inventories also broadened in May, with that indicator adding 10 points to end the survey period at 25." – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond



The Federal Reserve Bank of San Francisco

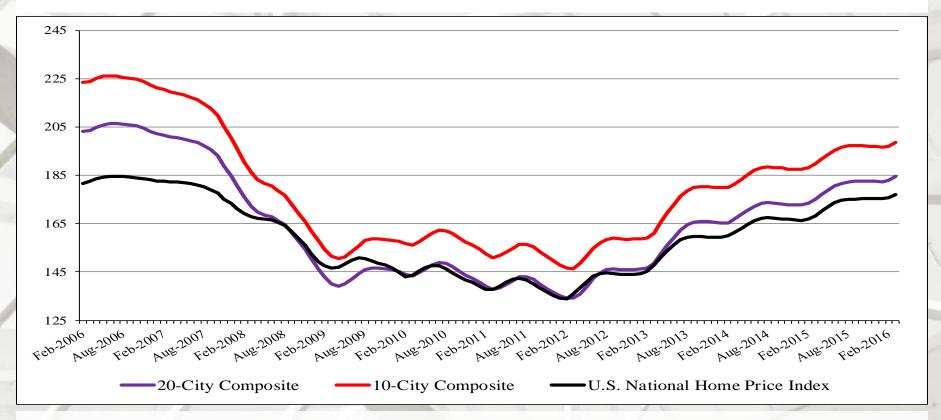
"The U.S. Bureau of Economic Analysis (BEA) reported real GDP grew at a sluggish 0.5% annual pace in the first quarter of 2016. Weak measured first-quarter growth has been a consistent pattern in recent years, and research conducted at the San Francisco Fed suggests regular seasonal fluctuations are not fully captured by the BEA's current adjustment methodology. Using a more complete seasonal adjustment suggests that growth exceeded 2% in the first quarter and, relative to four quarters earlier, GDP growth remains in line with last year's pace. We expect this pace to continue through 2016, spurred by further growth in household income and spending." – Rob Valletta, Vice President and Director of Research, The Federal Reserve Bank of San Francisco



The Federal Reserve Bank of San Francisco

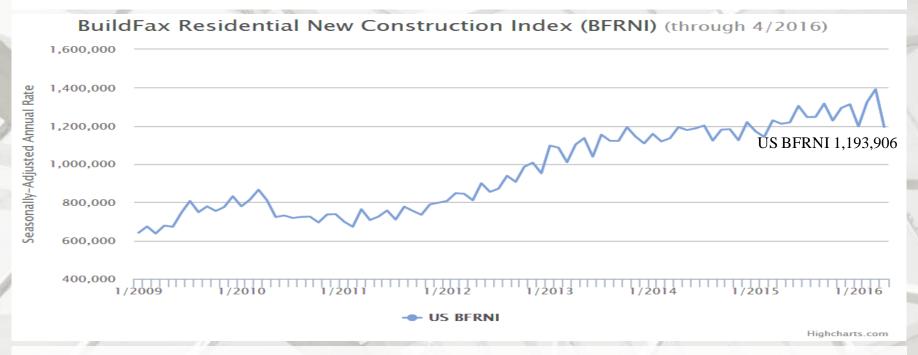
"Movement in long-term unemployment over the business cycle largely reflects changes in job-finding rates. During and immediately after the Great Recession, finding a job was difficult. As the economy improved and job opportunities increased, job-finding rates recovered, especially for those unemployed for less than six months. This in turn reduced the fraction of those who subsequently become long-term unemployed. However, job-finding rates for the long-term unemployed remain somewhat low as a result of long-term changes in the composition and behavior of the labor force.

Older workers are less likely to lose jobs than younger workers but are more likely to undertake prolonged searches when job loss occurs. As the population ages, older job seekers have comprised a rising share of the total unemployment pool, which mechanically increases long-term unemployment." – Rob Valletta, Vice President and Director of Research, The Federal Reserve Bank of San Francisco



S&P/Case-Shiller Home Price Indices Home Price Continue Steady Gains In March

"Home prices are continuing to rise at a 5% annual rate, a pace that has held since the start of 2015. The economy is supporting the price increases with improving labor markets, falling unemployment rates and extremely low mortgage rates. Another factor behind rising home prices is the limited supply of homes on the market. The number of homes currently on the market is less than two percent of the number of households in the U.S., the lowest percentage seen since the mid-1980s." – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones



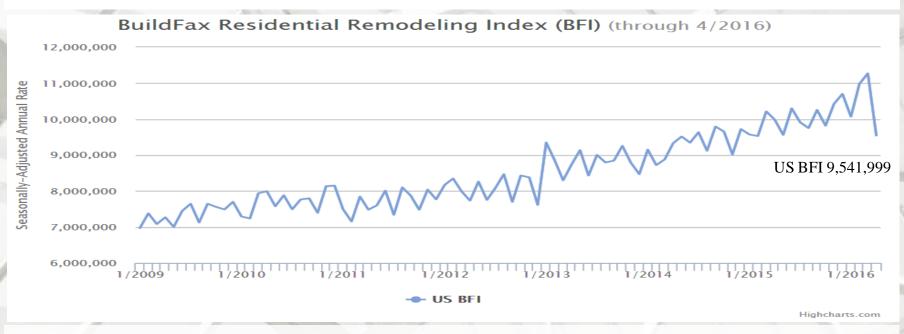
BuildFax Residential New Construction Index

"Residential new construction authorized by building permits in the United States in April were at a seasonally-adjusted annual rate of 1,193,906. This is 14.2% below the revised March rate of 1,391,504 and is 1% below the revised April 2015 estimate of 1,210,896. 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 April 2016 are estimated as follows: Northeast, 52,395 (down 25% from March and up 53% from April 2015); South, 611,722 (down 17% from March and down 12% from April 2015); Midwest, 230,402 (down 14% from March and up 8% from April 2015); West, 293,550 (down 6% from March and up 12% from April 2015)."

Return to TOC



BuildFax Residential Remodeling Index

"Residential remodels authorized by building permits in the United States in April were at a seasonally-adjusted annual rate of 9,541,999. This is 15% below the revised March rate of 11,272,608 and is 4% below the revised April 2015 estimate of 9,983,460."

Regional Residential Remodeling

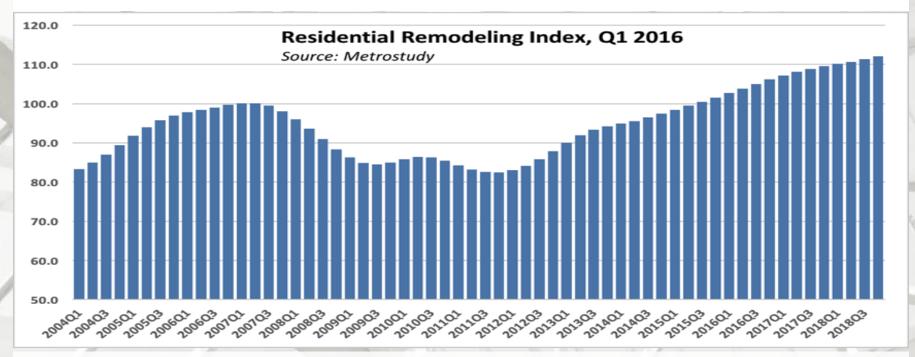
"Seasonally-adjusted annual rates of residential remodelling across the country in April 2016 are estimated as follows: Northeast, 789,096 (down 12% from March and up 4% from April 2015); South, 4,556,418 (down 16% from March and down 4% from April 2015); Midwest, 1,971,309 (down 16% from March and down 9% from April 2015); West, 2,278,705 (down 12% from March and down 4% from April 2015)."



The BuildZoom and Urban Economics Lab Index: Third Quarter 2015 National Indices For New Home Construction and Existing Home Remodeling

- "Residential remodeling is arguably a better indicator of consumer sentiment than new construction, and is of similar importance as an indicator of national economic health.
- Remodeling of existing homes has fully recovered since the housing bust, and is 3.7% above its 2005 level. In contrast, new home construction is recovering gradually and remains 54.0% below its 2005 level.
- However, year-over-year, residential new construction increased by 15.9% while residential remodeling decreased by 1.7%."—Jack Cookson, Author, BuildZoom

Private Indicators: Metrostudy Remodeling



Remodeling Activity Strengthening Nationwide, Latest RRI Shows Metrostudy index points to 4.4% growth in 2016

"Remodeling activity nationwide strengthened during the first quarter to its most robust pace in two years and looks likely to do even better for all 2016 ... The national RRI climbed to 102.7 in the first quarter. That's a 4.3% increase from 2015's first-quarter index, 1.1% better than the final quarter of 2016, and the biggest year-over-year gain for any quarter since the opening three months of 2014. Metrostudy now predicts year-over-year quarterly growth will average 4.4% in 2016 and 3.8% in 2017." – Craig Webb, Editor-in-Chief, *REMODELING*

"The housing market was one of the few bright spots among first quarter economic reports, and continued increases in sales and home values are propelling home renovations. As for jobs, the labor market flexed its muscles in March, but April's report fell short of expectations. However, April saw the third-best monthly gain in wages during the past year."

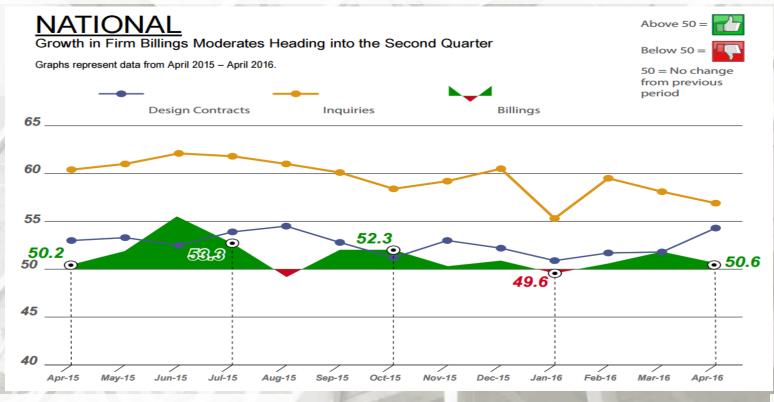
– Mark Boud, Chief Economist, Metrostudy

American Institute of Architects (AIA)

April Architecture Billings Index

Billings continue to grow at architecture firms, but more slowly in April

"After a reasonably volatile first quarter, architecture firms reported slow growth in their billings for April. The AIA's Architecture Billings Index (ABI) was 50.6 for the month, just about exactly the average for the first three months of the year. The score for new project inquiries fell to 56.9 from 58.1 in March, but the new design contracts index jumped to 54.3 in April, its highest reading since last summer." – Kermit Baker, Hon. AIA, Chief Economist, AIA



Private Indicators: AIA

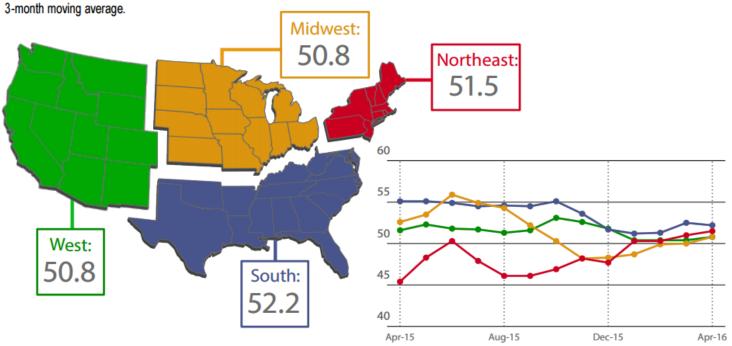
"Firms in all of the major regions of the country indicated growth for the month, although gains were uniformly modest." – Kermit Baker, Hon. AIA, Chief Economist, AIA

REGIONAL

Firms in All Regions Reporting Some Growth

Graphs represent data from April 2015 - April 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.



Private Indicators: AIA

"By sector, residential firms continue to report the strongest increases, followed by firms designing commercial/industrial facilities. Institutional firms continue to report a small decline." – Kermit Baker, Hon. AIA, Chief Economist, AIA

<u>SECTOR</u>

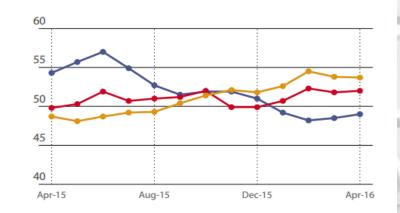
Residential Firms Still Seeing Strongest Growth, But Activity at Commercial/Industrial Firms Improving

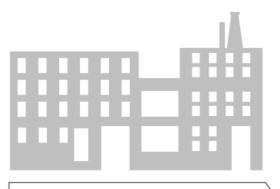
Graph represents data from April 2015 – April 2016 across the three sectors.

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.

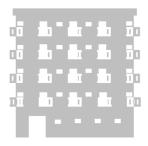




Commercial/Industrial: 52.0



Institutional: 49.0



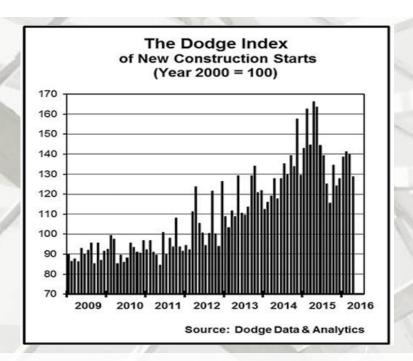
Residential: 53.7

New Construction Starts in April Slide 8 Percent

"The value of new construction starts in April fell 8% from the previous month to a seasonally adjusted annual rate of \$608.3 billion, according to Dodge Data & Analytics. Nonresidential building pulled back following its sharp March increase, and residential building also declined due to a slower pace for multifamily housing. Meanwhile, the nonbuilding construction sector showed improvement, with public works strengthening after its lackluster March performance. Through the first four months of 2016, total construction starts on an unadjusted basis were reported at \$198.4 billion, down 12% from the same month a year ago.

April's data lowered the Dodge Index to 129 (2000=100), compared to 140 for March. The Dodge Index had registered improved activity during February and March, averaging 141. April's decline returned the pace of construction starts to what was reported during the July 2015-January 2016 period, when the Dodge Index averaged 129."

"The construction start statistics on a month-to-month basis are subject to frequent ups-and-downs, so April's decline after two months of improved activity was not a surprise. The elevated volume for nonresidential building in March was not expected to be sustained in the near term, yet the strength shown by its institutional segment in March does provide an indication of where growth is likely to come over the course of 2016. The prospects for the commercial segment of nonresidential building, while still positive, have grown more tenuous given signs that banks are beginning to take a more cautious approach towards commercial real estate loans." – Robert Murray, Chief Economist, McGraw Hill Construction



	mary of Constr by Dodge Data & A				
2	Monthly Construction Starts Seasonally Adjusted Annual Rates, in Millions of Dollars				
	April 2016	March 2016	% Change		
Nonresidential Building	\$185,089	\$229,459	-19		
Residential Building	269,107	292,344	-8		
Nonbuilding Construction	154,146	140,119	+10		
Total Construction	\$608,342	\$661,922	-8		
	The Dodge Index Year 2000=100, Seasonally Adjusted				
	April 2016129				
	March 2016140				
	Year-to-Date Unadjusted T				
	4 Mos. 2016	4 Mos. 2015	% Change		
Nonresidential Building	\$58,165	\$73,482	-21		
Residential Building	88,139	81,988	+8		
	52,048	69,766	-25		
Nonbuilding Construction					
A CONTRACTOR OF THE PROPERTY O	\$198,352	\$225,236	-12		
Nonbuilding Construction Total Construction Total Construction, excluding Manufacturing Buildings, Electric Utilities & Gas Plants	\$198,352 \$174,330	\$225,236 \$182,362	-12		

"Residential building, at \$269.1 billion (annual rate), slipped 8% in April. The weaker activity was due to a slower pace for multifamily housing, which declined 26% after advancing 14% in March. There were five multifamily projects valued at \$100 or more that were entered as April starts, compared to 12 such projects in March.

Single family housing in April was unchanged from March, maintaining the essentially flat pattern that's been present for at least the past nine months. By major region, single family housing in April showed a 5% increase in the South Atlantic, but slight declines were reported in the South Central and Northeast, each down 1%; and the Midwest and West, each down 2%.

Residential building is still deriving some benefit from this year's low interest rate environment, ..." – Robert Murray, Chief Economist, McGraw Hill Construction

Deloitte: 2016 Q1 Global CFO Signals™ Still reluctant to spend

Whatever the reason, there is still not a comfort level to unleash the financial power sitting on many corporate balance sheets, and with risk appetite declining in many countries there is no telling when there might be.

United States: Moderate growth to continue, but when will wages begin rising? Global Economic Outlook, Q2 2016

"US consumers are carrying the economy in the face of slowing business investment, falling exports, and rising imports. But the strength of the consumer is largely based on a greater number of people working, rather than the increased spending power of individual workers." – Dr. Patricia Buckley, Deloitte Services LP

Eurozone: Recovery intact, institutional turmoil ahead

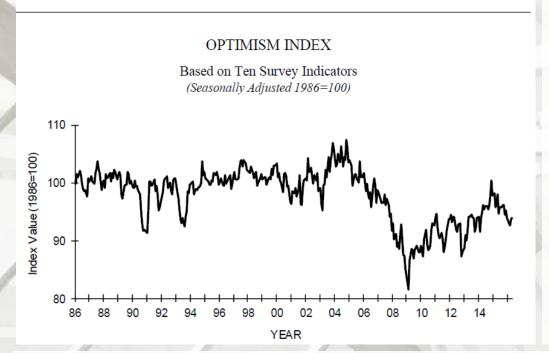
"Even though significant internal and external risks exist for the European Union, the main institutional and political risk is the possibility of a Brexit. While its consequences are difficult to predict, the political effects for the European Union could range between two scenarios." – Dr. Alexander Börsch, Deloitte Services LP

China: On the horns of a trilemma

Chinese authorities are striving to stave off a sharp decline in the renminbi's value. Yet the government's uncertain economic goals have put the country in an untenable spot.

More evidence is accumulating concerning the slowdown in Chinese growth. China's exports plunged in February, sparking worries about the state of the global economy. In February, exports denominated in US dollars fell 25.4 percent from a year earlier, the sharpest decline since early 2009. This compares with a drop of 11.2 percent in January. It is true that the February decline was likely amplified by a shift in the timing of the Lunar New Year holiday. Still, the combined decline in January and February, which excludes the impact of the holiday timing, was substantial."—Dr. Ira Kalish, Deloitte Services LP

OVERVIEW - SMALL BUSINESS OPTIMISM



Small Business Optimism Rises Modestly in May

"The Index of Small Business Optimism rose two tenths of a point in May to 93.8, a negligible increase showing no real enthusiasm for making capital outlays, increasing inventories, or expanding, according to the National Federation of Independent Business (NFIB).

At 93.8, the Index remains well below the 42-year average of 98. Four of the 10 Index components posted a gain, four declined, and two were unchanged. The biggest increase was Expected Business Conditions, which rose five points, a good sign but still nine percentage points below last year's reading."

"...Four of the 10 Index components posted a gain, four declined and two were unchanged. The entire gain in the Index was accounted for by a 5 point gain in Expected Business Conditions which remains 9 percentage points below last year's reading. The political climate continued to be the second most frequently cited reason (after weak sales) for why the current period is a bad time to expand. Although early signs of economic activity for Q2 are looking better, growth for Q1 was revised up to only 0.8 percent which is a very weak start for the year. Consumer spending looks like it might add some more energy with consumer sentiment improving a bit in May."

"The bottom line is that without an empowered small business sector, the economy will grow at a mediocre pace. Politicians in Washington credit any insignificant growth in the economy to their policies, but realistically, it's the increase in the population. At this point, we should expect the same slow growth for the rest of the year." – William Dunkelberg, Chief Economist, National Federation of Independent Business

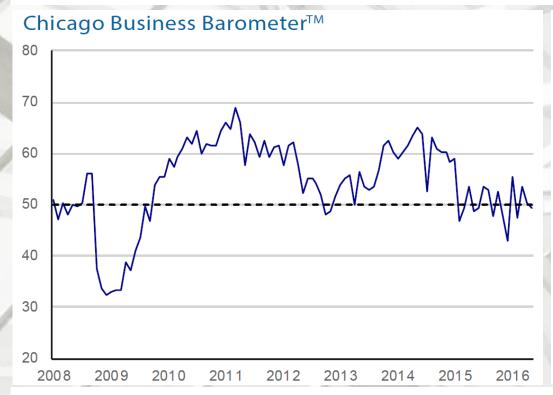
Source: www.nfib.com/surveys/small-business-economic-trends/; 6/14/16



U.S. Weekly Leading Index Increases

"The U.S. Weekly Leading Index (WLI) increased to 136.1 from 135.1. The growth rate edged up to 6.1% from 6.0%." – Economic Cycle Research Institute (ECRI)

"The U.S. economic slowdown is set to continue, as the latest WLI upturn is not sufficiently pronounced, pervasive and persistent – the three P's – to qualify as a true cyclical upturn. Rather, it partly reflects the run-up in the markets as the early-2016 recession fears among the consensus faded, with the Fed backing off its rate hike plans, the dollar weakening, and some data beating significantly lowered expectations." - Lakshamn Achuthan, Chief Operations Officer, ECRI



May Chicago Business Barometer Down 1.1 Points to 49.3

"The MNI Chicago Business Barometer fell 1.1 points to 49.3 in May from 50.4 in April, the lowest level since February and the sixth time it has been in contraction over the past 12 months.

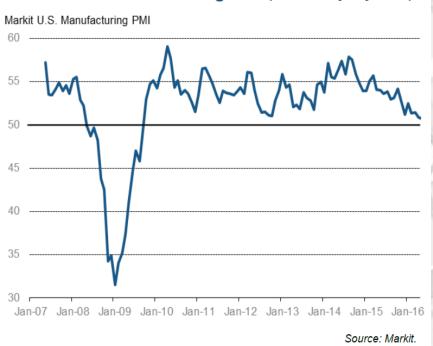
Following the decline in April, the latest results show activity stumbling in the second quarter, following only moderate growth in Q1. Barring a solid revival in June, Q2 could be the weakest outturn since Q4 2015 given the April-May average of just 49.9."

New Orders, Production and Employment Running Below 50

"The Barometer's decline was led by a 6.6 point fall in Production and was accompanied by a mild setback in New Orders, with both falling below 50. While these were the only components that fell between April and May, out of the five components which make up the Barometer, four of them were in contraction. Only Supplier Deliveries was above 50."

"While expectations are that growth in the US economy will bounce back in Q2, the evidence from the MNI Chicago Report shows activity weakening from an already low level. Firms ran down stocks at the fastest pace for more than 6 years in May, and while a rebuilding over the coming months could support output, the underlying message appears to be that businesses are not confident about the outlook for growth." – Philip Uglow, Chief Economist, MNI Indicators





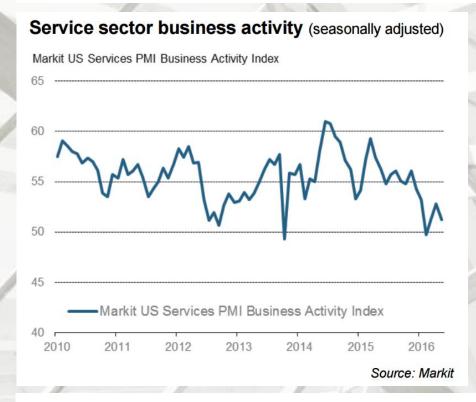
Markit U.S. Manufacturing PMI™ Weakest manufacturing performance for over six-and-a-half years

- Output falls for the first time since September 2009
- New work expands at slowest pace since December 2015
- Input cost inflation accelerates to a nine-month high

"May data pointed to another loss of momentum across the U.S. manufacturing sector. New business growth eased to its weakest so far in 2016, which contributed to a decline in production volumes for the first time in over six-and-a-half years. Survey respondents noted that subdued client demand and heightened economic uncertainty had resulted in challenging trading conditions. Manufacturing payroll numbers nonetheless picked up slightly in May, which firms linked to new product launches and sustained optimism regarding the longer-term business outlook."

"At 50.7 in May, the seasonally adjusted **Markit U.S. Manufacturing Purchasing Managers' IndexTM (PMITM)** was down fractionally from 50.8 in April and pointed to the weakest manufacturing performance since September 2009. Lower production levels were the main downward influence on the headline PMI in May. ... Anecdotal evidence suggested that softer new order growth and efforts to rein in inventory accumulation had exerted negative influences on production schedules.

The survey data indicate that factory output fell in May at its fastest rate since 2009, suggesting that manufacturing is acting as a severe drag on the economy in the second quarter. Payroll numbers are under pressure as factories worry about slower order book growth, in part linked to falling export demand but also as a result of growing uncertainty surrounding the presidential election. For those looking for a rebound in the economy after the lacklustre start to the year, the deteriorating trend in manufacturing is not going to provide any comfort."—Chris Williamson, Chief Economist, Markit®



Markit Flash U.S. Services PMI™

Weak service sector growth persists in May, while business optimism eases to its lowest for over six-and-a-half years

- Weakest rise in service sector activity for three months
- Service providers report slowest rate of staff hiring since December 2014
- Business optimism drops to its lowest record

"U.S. service providers indicated a sustained upturn in overall business activity during May, but the rate of expansion was only marginal and the weakest for three months. Survey respondents cited relatively subdued client demand and less favourable domestic economic conditions as key factors weighing on business activity in May."— Chris Williamson, Chief Economist, Markit®

"A deterioration in the survey data for May deal a blow to hopes that the US economy will rebound in the second quarter after the dismal start to the year. Service sector growth has slowed in May to one of the weakest rates seen since 2009, and manufacturing is already in its steepest downturn since the recession.

. . .

With no sign of any growth rebound and the labour market cooling, only one of the Fed's three tests for a June rate hike – rising price pressures – is passed according to the PMI data. However, with prices rising largely on the back of higher oil prices rather than a fundamental improvement in demand, it seems that even core inflationary pressures remain subdued" – Chris Williamson, Chief Economist, Markit®



Percent of the population engaged in full-time payroll employment. Each result is based on a 30-day rolling average; not seasonally adjusted.



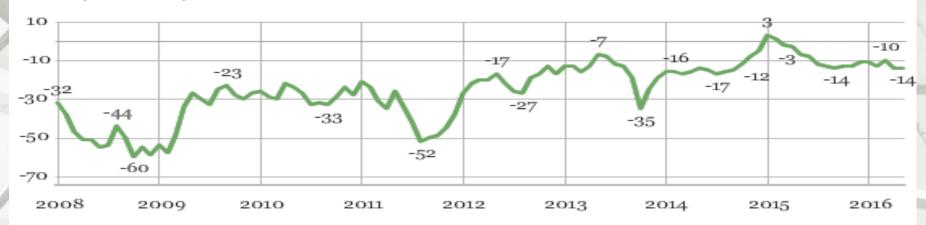
U.S. Gallup Good Jobs Rate 44.9% in April 2016

- GGJ hits 45.5%, highest for May going back to 2010
- Rate for first five months of 2016 better than in previous years
- Unemployment, after six-year low in April, nudges upward

"The Gallup Good Jobs (GGJ) rate in the U.S. was 45.5% in May, a slight increase from April's 44.9% and the highest rate for May since Gallup began measuring it in 2010. The GGJ average rate for the first five months of 2016 is 44.8% -- 0.7 percentage points higher than the average for the five-month start to 2015 and more than a full point higher than the January-May averages for any of the previous five years. The growth of the monthly rate and of the rate for the year so far suggests an underlying increase in full-time work beyond the seasonal changes in employment." – Jim Norman, Consulting Specialist, Gallup

U.S. Economic Confidence Index Improves Slightly to -14

Gallup's U.S. Economic Confidence Index -- Monthly Averages
January 2008-May 2016



Gallup Daily tracking

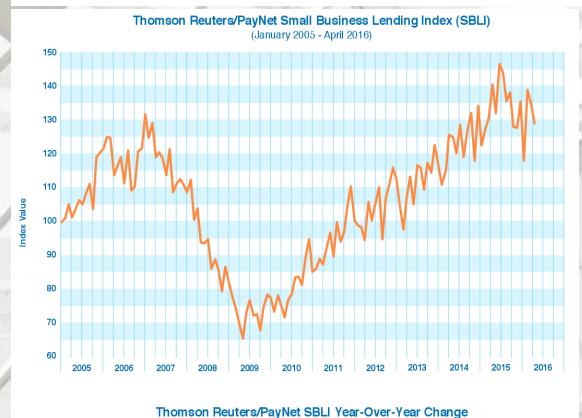
GALLUP'

- Index remained the same as in April
- Democrats, Republicans at lowest levels of confidence since 2014

"Americans' confidence in the U.S. economy was flat in May. Gallup's U.S. Economic Confidence Index averaged -14 -- the same as in April, which was a seven-month low. The latest index score was quite a bit lower than the -7 registered one year earlier, in May 2015. This year's monthly scores have consistently been lower than the comparable months in 2015, and Americans' views of the national economy have consistently skewed negative since March 2015. Still, monthly index scores from the past couple of years have been well above most of the readings in Gallup's eight-year trend, particularly the dismally low ones recorded in the years after the Great Recession." – Justin McCarthy, Journalist/Analyst, Poll, Gallup

Thomson Reuters/PayNet Small Business Lending Index

U.S. small business borrowing fell in April - PayNet



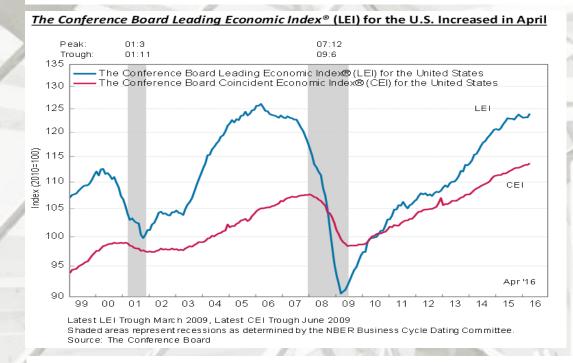
(January 2006 - April 2016)

"U.S. small business borrowing fell in April, ..., pointing to dimmer prospects of stronger economic growth in coming months.

The Thomson Reuters/PayNet Small Business Lending Index fell to 129.0, down from March's downwardly revised 135.1 and marking the index's seventh decline in the last 10 months. The PayNet index typically corresponds to U.S. gross domestic product growth one or two quarters ahead."

The drop in borrowing suggests a "slower economy ahead," said Bill Phelan, president of PayNet." Small business borrowing is a key barometer of growth because little firms tend to do much of the hiring that drives economic gains." – Ann Saphir, PayNet

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



"The U.S. LEI picked up sharply in April, with all components except consumer expectations contributing to the rebound from an essentially flat first quarter. Despite a slow start in 2016, labor market and financial indicators, and housing permits all point to a moderate growth trend continuing 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. increased 0.6 percent in April to 123.9 (2010 = 100), following no change in March, and a 0.1 percent increase in February.

The Conference Board Coincident Economic Index[®] (CEI) for the U.S. increased 0.3 percent in April to 113.6 (2010=100), following no change in March, and a 0.2 percent increase in February.

The Conference Board Lagging Economic Index® (LAG) for the U.S. increased 0.3 percent in April to 121.5 (2010 = 100), following a 0.5 percent increase in March, and a 0.4 percent increase in February.

Institute of Supply Management™

PMI® at **51.3**%

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

"Economic activity in the **manufacturing sector** expanded in May for the third consecutive month, while the **overall economy** grew for the 84th consecutive month, say the nation's supply executives in the latest **Manufacturing ISM®** *Report On Business®*.

May $PMI^{\otimes} = 51.3$ percent, an increase of 0.5 percentage point from the April reading of 50.8 percent.

New Orders = 55.7 percent, a decrease of 0.1 percentage point from the April reading of 55.8 percent.

Production = 52.6 percent, 1.6 percentage points lower than the April reading of 54.2 percent.

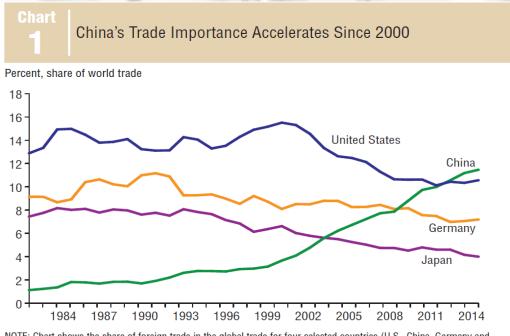
Employment =49.2 percent, the same reading as in April.

Inventories of raw materials = 45 percent, a decrease of 0.5 percentage point from April's 45.5 percent.

Prices = 63.5 percent, an increase of 4.5 percentage points from the April reading of 59 percent, indicating higher raw materials prices for the third consecutive month.

Manufacturing registered growth in May for the third consecutive month, as 14 of our 18 industries reported an increase in new orders in May (down from 15 in April), and 12 of our 18 industries reported an increase in production in May (down from 15 in April)." – Bradley Holcomb, CPSM, CPSD, Chair of the ISM® Manufacturing Business Survey Committee

Federal Reserve Indicators: Global



NOTE: Chart shows the share of foreign trade in the global trade for four selected countries (U.S., China, Germany and Japan).

SOURCES: International Monetary Fund's Direction of Trade Statistics (IMF DOTS) database; Haver Analytics; authors' calculations.

The Federal Reserve Bank of Dallas Impact of Chinese Slowdown on U.S. No Longer Negligible

"The impact of the Chinese economy on the U.S. has notably increased over the past two decades. Econometric modeling shows that the U.S. economy is more likely to directly and indirectly (through its trading partners) feel the impact of a negative shock to Chinese output."

The Federal Reserve Bank of Dallas

Impact of Chinese Slowdown on U.S. No Longer Negligible

"China has become a systematically important economy in the world, accounting for about one-sixth of the global economy. It is, therefore, of no surprise that a slowdown of Chinese economic activity impacts many economies globally, including the U.S.

China's share of global GDP on a purchasing power parity basis – reflecting what the value of China's goods and services would be were they sold in the U.S – rose from 2.4 percent in 1980 to 17.2 percent in 2015. Meanwhile, the U.S. share of global GDP fell from 22 percent in 1980 to 15.9 percent in 2015.3" – Alexander Chudik, Research Economist, and Arthur Hinojosa, Research Assistant, The Federal Reserve Bank of Dallas.

Federal Reserve Indicators: Global



NOTES: Chart depicts percentage-point contributions to global growth aggregate. Three definitions of global growth aggregate are considered—all based on 40 countries available in the Federal Reserve Bank of Dallas' Database of Global Economic Indicators.

SOURCES: Dallas Fed; authors' calculations.

The Federal Reserve Bank of Dallas

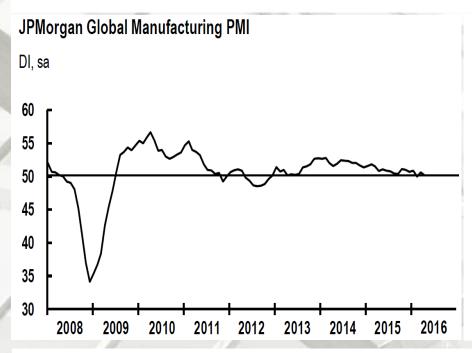
"Due to its sheer size, a Chinese slowdown (or expectations of it) can have considerable ramifications for the global demand of commodities. Declining commodity prices can affect individual economies, with exporters generally sustaining ill effects. Another important channel, through which the Chinese economy affects the U.S. and the rest of the world, is direct and indirect foreign trade in goods and services. Regardless of the direct trade exposure of the U.S. economy to China, a Chinese slowdown negatively affects U.S. foreign trade partners, which will eventually spill over to lower U.S. output growth. Such indirect (or "third country") effects can be rather important in a globalized world."

The Federal Reserve Bank of Dallas Significant Impact

Over the past few decades, China's economy has grown very strongly, similar to Korea and Taiwan previously. China has evolved into an economic juggernaut in a relatively short time, prompting economists to consider possible future impacts on U.S. and global economies.

While the U.S. economy does not have very large direct trade exposure with China, it is still significantly affected by a slowdown in Chinese output growth. Such an affect is roughly one-fifth the size of the output shock initially observed in China." – Alexander Chudik, Research Economist, and Arthur Hinojosa, Research Assistant, The Federal Reserve Bank of Dallas.

Private Indicators: Global



J.P. Morgan Global PMI™ Global manufacturing sector stagnates in May

"The global manufacturing sector maintained its lethargic start to 2016. At 50.0 in May, the J.P. Morgan Global Manufacturing PMITM – a composite index produced by J.P. Morgan and Markit in association with ISM and IFPSM – registered a reading identical to the no-change mark to signal a broad stagnation of industry.

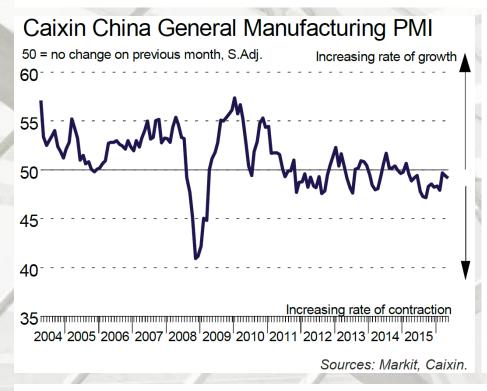
Rates of expansion in production and new orders also eased to a near-stagnation, while the pace of contraction in new export business was one of the steepest during the past three years. The muted performance of manufacturing was also reflected in the labour market, as staffing levels fell for the 4th straight month."

"National PMI data signalled that where growth was recorded this was mainly centred on North America and Europe. Downturns continued in Asia and South America. Although the US PMI remained above the 50.0 no-change mark, its rate of expansion eased to its lowest since the (Markit) survey began in October 2009. Output fell slightly for the first time in the series history, as growth in new orders slowed further and exports fell. Conditions in Mexico and Canada continued to improve at solid rates.

The euro area PMI slid to a three-month low in May, but nonetheless remained above the global average for the fifteenth month running. Almost all of the eurozone nations for which data are collected registered expansions, the exceptions being France and Greece. Elsewhere in Europe, UK manufacturing stagnated, whereas growth remained solid in Poland and the Czech Republic."

"The May PMI data suggest that the global manufacturing sector remains in a low gear. Indices for output, new orders and the headline PMI were all at, or barely above, the stagnation mark. The move up in the finished goods inventory index suggests manufacturers are still working to realign stocks with demand." – David Hensley, Director of Global Economic Coordination, J.P. Morgan

Private Indicators: Global



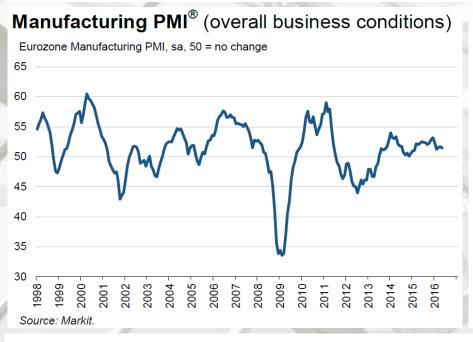
Caixin China General Manufacturing PMI™ Manufacturing PMI edges down to three-month low

"The health of China's manufacturing sector continued to decline in May, with output and new orders both falling slightly. At the same time, job shedding persisted across the sector, with the rate of reduction remaining close to February's post-global financial crisis record. Weak demand conditions underpinned further falls in both purchasing activity and inventory holdings in May. Inflationary pressures appeared to cool slightly, however, with input prices and output charges both rising at weaker rates. ... That said, the PMI reading remained consistent with only a marginal deterioration in the health of the sector overall."

- Output declines fractionally
- Total new work falls for first time since February, as new export work contracts at faster pace
- Employment continues to fall markedly

"The Caixin China General Manufacturing PMI for May came in at 49.2, down 0.2 from April's reading, marking the second consecutive monthly decline. Readings for the output and new order categories fell again, but employment improved slightly. Overall, China's economy has not been able to sustain the recovery it had in the first quarter and is in the process of bottoming out. The government still needs to make full use of proactive fiscal policy measures accompanied by a prudent monetary policy to prevent the economy from slowing further." – Dr. He Fan, Chief Economist, Caixin Insight Group

Private Indicators: Global



Markit Flash Eurozone PMI® Eurozone flash PMI falls to three-month low

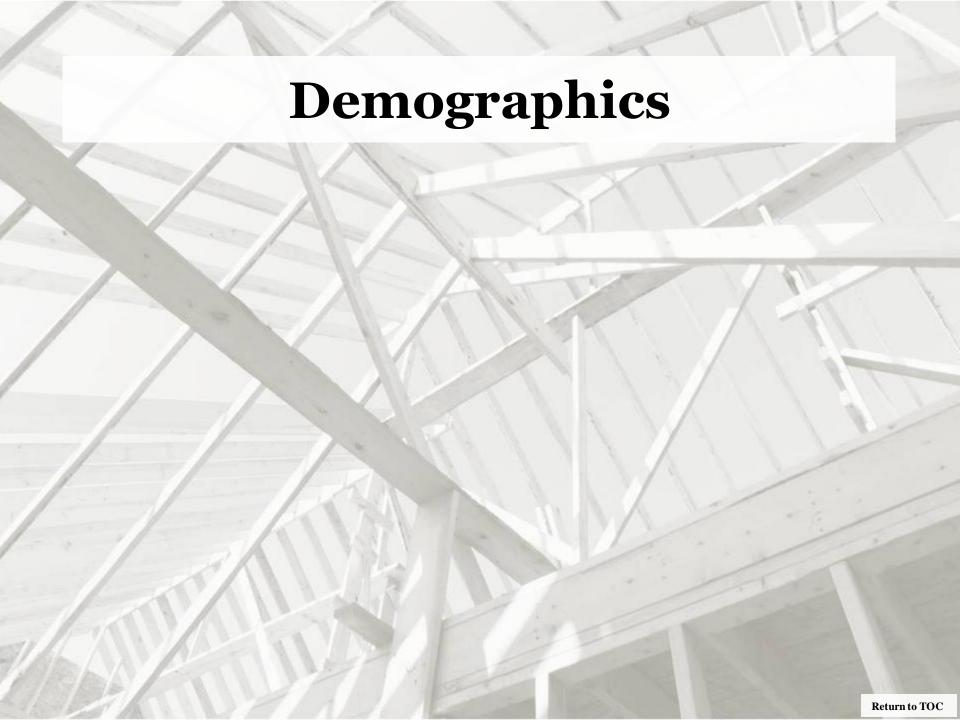
- Final Eurozone Manufacturing PMI at 51.5 in May (Flash: 51.5, April Final: 51.7)
- Expansions in six out of eight nations covered;
 downturns continue in France and Greece
- New export order growth at 16-month low

"May PMI data signalled a further growth slowdown in the eurozone manufacturing sector, as inflows of new business from both domestic and export markets continued to rise at lacklustre rates. The final Markit Eurozone Manufacturing PMI® posted a three-month low of 51.5 in May, unchanged from the earlier flash estimate and the second-weakest reading since February 2015."

"Manufacturing in the euro area remained stuck in a state of near-stagnation in May, failing to break out of the slow growth phase that has plagued producers since February. The disappointing performance of manufacturing adds to suspicions that the pace of eurozone economic growth in the second quarter has cooled after a surprisingly brisk start to the year based on the latest estimate of GDP. New orders grew at the slowest rate for over a year as demand showed signs of waning both within the euro area and further afield. Not surprisingly, companies remain reluctant to build capacity and take on extra workers, lacking signs of any imminent upturn in demand.

France and Greece remain the key areas of concern, both seeing manufacturing contracting again in May. Worryingly, however, growth has also slowed sharply in previously fast-growing countries such as Spain, Italy and Ireland, meaning there are now no signs of robust manufacturing growth evident across the region.

The overall slowing of manufacturing activity confounds expectations that recoveries will accelerate on the back of the ECB stimulus announced earlier in the year. Hopes remain pinned on forthcoming corporate bond purchases and new tranches of ultracheap bank loans from the ECB providing an extra boost in coming months." – Chris Williamson, Chief Economist, Markit®



Homeownership by Generation, 2015

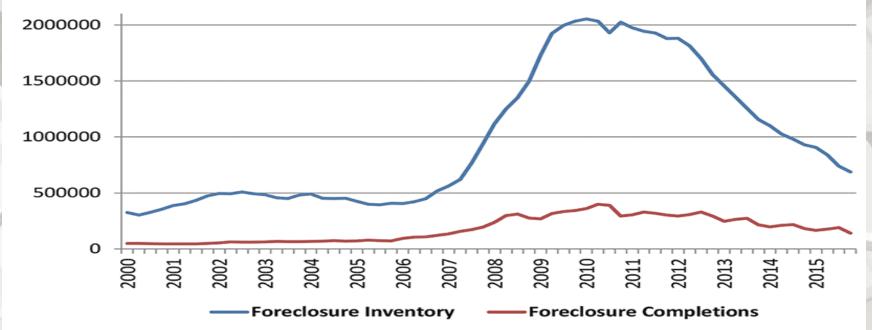
"The Baby-Boom generation is no longer the largest, having been surpassed by Millennials in 2011. But Boomers still dominate homeownership. According to a Demo Memo analysis of Census Bureau data, here are the homeownership rates (and share of homeowners) by generation in 2015." – Cheryl Russell, Demographer and Editorial Director, New Strategist Press

Homeownership rate by generation (and share of total)

Total households:	63.7 percent are homeowners (100%)
Millennial:	39.8 percent are homeowners (18%)
Generation X:	64.8 percent are homeowners (22%)
Baby Boom:	75.5 percent are homeowners (41%)
Older Americans:	78.7 percent are homeowners (20%)

Note: In 2015 Millennials were under age 39; Gen Xers were 39 to 50; Boomers were 51 to 69."

Figure 2: Remaining Foreclosure Inventory and Quarterly Volume of Completed Foreclosures



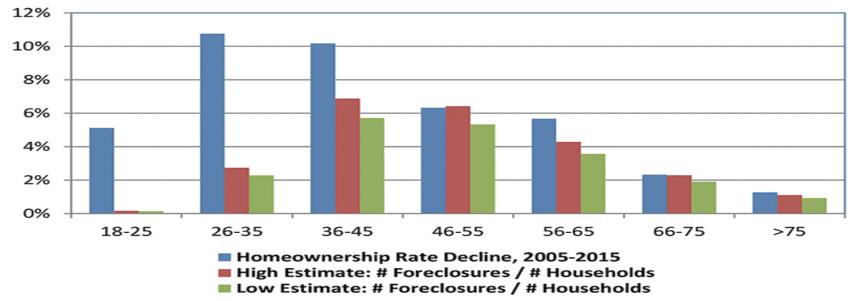
Source: JCHS tabulations. Foreclosure completions include foreclosure sales, short sales, and deed-in-lieu transactions from CoreLogic data. Foreclosure inventory from Mortgage Bankers Association data.

© Harvard Joint Center for Housing Studies. All rights reserved.

How Much of the Homeownership Rate Decline from 2005-2015 is Due to Foreclosures?

"First, the estimates suggest that foreclosure-related homeownership exits may explain about half or more of the decade-long homeownership rate decline. Second, and equally important, this means that foreclosures are likely to continue to put downward pressure on the homeownership rate until the foreclosure inventory clears and the volume of foreclosure completions returns to a normal level." – Jon Spader, Senior Research Associate, Harvard Joint Center for Housing Studies

Figure 3: Comparison of the Homeownership Rate Decline to Foreclosure-Related Homeownership Exits by Age Group



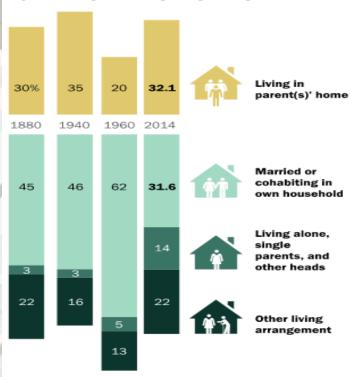
Sources: JCHS tabulations of Current Population Survey data and CoreLogic data on foreclosure completions. © Harvard Joint Center for Housing Studies. All rights reserved.

How Much of the Homeownership Rate Decline from 2005-2015 is Due to Foreclosures?

"Lastly, these conclusions do not mean that other factors have not also played a role; Figure 3 clearly shows that sluggish rates of homeownership entry among younger households have also contributed to the decline in the homeownership rate between 2005 and 2015. In fact, the slowdown in homeownership entries among young households has likely played an increasing role in homeownership rate declines over time – and will be central to homeownership rate changes in coming years. Instead, the focus on foreclosures in this blog is simply a reminder that foreclosure volumes have not fully dissipated as a headwind to recovery of the homeownership rate." – Jon Spader, Senior Research Associate, Harvard Joint Center for Housing Studies

Living with a parent is the most common young adult living arrangement for the first time on record

% of 18- to 34-year-olds by living arrangement



Note: "Living in parent(s)' home" means residing in a household headed by a parent regardless of the young adult's partnership status. "Other heads" include young adults who are the household head and living with roommates or boarders. "Other living arrangements" include living in the home of a grandparent, an aunt/uncle or a sibling or residing in a group quarters living arrangement (college dormitory or correctional facility).

Source: Pew Research Center tabulations of the 1880, 1940 and 1960 U.S. decennial censuses and 2014 American Community Survey (IPUMS)

PEW RESEARCH CENTER

For First Time in Modern Era, Living With Parents Edges Out Other Living Arrangements for 18- to 34-Year-Olds

Share living with spouse or partner continues to fall

"This turn of events is fueled primarily by the dramatic drop in the share of young Americans who are choosing to settle down romantically before age 35. Dating back to 1880, the most common living arrangement among young adults has been living with a romantic partner, whether a spouse or a significant other. This type of arrangement peaked around 1960, when 62% of the nation's 18- to 34-year-olds were living with a spouse or partner in their own household, and only one-in-five were living with their parents.

By 2014, 31.6% of young adults were living with a spouse or partner in their own household, below the share living in the home of their parent(s) (32.1%). Some 14% of young adults were heading up a household in which they lived alone, were a single parent or lived with one or more roommates. The remaining 22% lived in the home of another family member (such as a grandparent, in-law or sibling), a non-relative, or in group quarters (college dormitories fall into this category)."—Richard Fry, Senior Researcher, Pew Research Center

Young men are now more likely to live with a parent than to live with a spouse or partner; not so for women



Note: "Living in parent(s)" home" means residing in a household headed by a parent regardless of the young adult's partnership status.

Source: Pew Research Centertabulations of the 1880-2000 U.S. decennial censuses and 2010 and 2014 American Community Surveys (IPUMS)

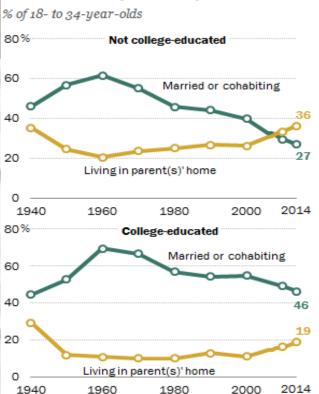
PEW RESEARCH CENTER

"It's worth noting that the overall share of young adults living with their parents was not at a record high in 2014. This arrangement peaked around 1940, when about 35% of the nation's 18-to 34-year-olds lived with mom and/or dad (compared with 32% in 2014). What has changed, instead, is the relative share adopting different ways of living in early adulthood, with the decline of romantic coupling pushing living at home to the top of a much less uniform list of living arrangements.

Among young adults, living arrangements differ significantly by gender. For men ages 18 to 34, living at home with mom and/or dad has been the dominant living arrangement since 2009. In 2014, 28% of young men were living with a spouse or partner in their own home, while 35% were living in the home of their parent(s). For their part, young women are on the cusp of crossing over this threshold: They are still more likely to be living with a spouse or romantic partner (35%) than they are to be living with their parent(s) (29%).

In 2014, more young women (16%) than young men (13%) were heading up a household without a spouse or partner. This is mainly because women are more likely than men to be single parents living with their children. For their part, young men (25%) are more likely than young women (19%) to be living in the home of another family member, a non-relative or in some type of group quarters."—Richard Fry, Senior Researcher, Pew Research Center

As of 2008 less-educated young adults are more likely to live with a parent than to live with a spouse or partner



Note: "Living in parent(s)" home" means residing in a household headed by a parent regardless of the young adult's partnership status. "College-educated" refers to those with a bachelor's degree or more.

Source: Pew Research Centertabulations of the 1880-2000 U.S. decennial censuses and 2006-2010 and 2014 American Community Surveys (IPUMS)

PEW RESEARCH CENTER

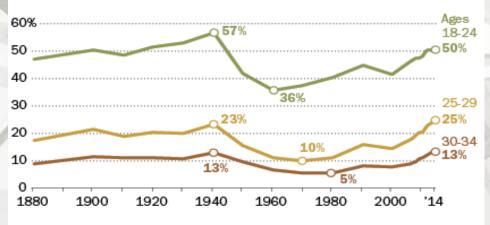
Educational attainment, race and ethnicity linked to young adult living arrangements

"Beyond gender, young adults' living arrangements differ considerably by education and racial and ethnic background — both of which are tied to economic wherewithal. For young adults without a bachelor's degree, as of 2008 living at home with their parents was more prevalent than living with a romantic partner. By 2014, 36% of 18- to 34-year-olds who had not completed a bachelor's degree were living with their parent(s) while 27% were living with a spouse or partner. Among college graduates, in 2014 46% were married or living with a partner, and only 19% were living with their parent(s). Young adults with a college degree have fared much better in the labor market than their less-educated counterparts, which has in turn made it easier to establish their own households.

Among racial and ethnic groups, record-high shares of black and Hispanic young adults (36% for each group) lived in the home of their parent(s) in 2014. By comparison, 30% of white young adults lived at home. White young adults are more likely to be living with a spouse or partner (36%). But the trends are similar for all major racial and ethnic groups including whites: Since 1960 a greater share are living at home and fewer are married or cohabiting and living in their own household."—Richard Fry, Senior Researcher, Pew Research Center

Record share of 25- to 34-year-olds living in parents' home

Share of U.S. young adults (ages 18-34) living in their parent(s)' home, by age



Note: "Living in parent(s)" home" means residing in a household headed by a parent regardless of the young adult's partnership status.

Source: Pew Research Center tabulations of the 1880-2000 U.S. decennial censuses and the 2006-2014 American Community Surveys (IPUMS).

PEW RESEARCH CENTER

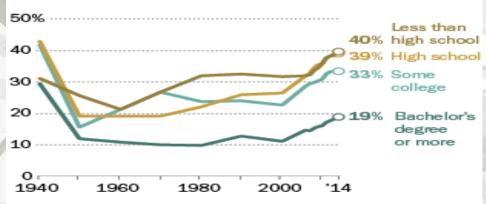
Increase in living with parents driven by those ages 25-34, non-college grads

"A recent Pew Research Center analysis of census data found that in 2014, for the first time in more than 130 years, 18- to 34-year-olds in the U.S. were more likely to be living in their parents' home than with a spouse or partner in their own household. A closer analysis of the data helps explain why: Adults in their late 20s and early 30s are living with their parents at record or near-record levels." – Drew DeSilver, Senior Writer, Pew Research Center

"Since at least 1880, which is as far back as the census data go, the youngest group of young adults (those ages 18 to 24) have consistently been the most likely to live with their parents — which makes sense, given that they're also the most likely to be unmarried and/or still in school. In 2014, half of all 18- to 24-year-olds lived in the home of one or both parents, up modestly from 46% in 2006." — Drew DeSilver, Senior Writer, Pew Research Center

College graduates least likely to live with parents

Share of U.S. young adults (ages 18-34) living in their parent(s)' home, by educational attainment



Note: "Living in parent(s)' home" means residing in a household headed by a parent regardless of the young adult's partnership status.

Source: Pew Research Center tabulations of the 1940-2000 U.S. decennial censuses and the 2006-2014 American Community Surveys (IPUMS).

PEW RESEARCH CENTER

"But over that same period the share of 25- to 29-year-olds living in their parents' home has risen more sharply – from 18% in 2006 to 25% in 2014, among the highest levels on record. And the 13% of 30- to 34-year-olds living with their parents in 2013 and 2014 (up from 9% in 2006) is the highest level for that group since 1940. (Other census data suggest that the share of 25- to 34-year-olds living with their parents continued to rise into 2015.)" – Drew DeSilver, Senior Writer, Pew Research Center

"Despite the popular image of college-educated adults moving back into the family nest after graduation, young adults with at least a bachelor's degree are the least likely to live with their parents (19% did in 2014). And the share of college grads doing so has risen less sharply than that of young adults with a high school education or less. Since 1960 (the overall low point for 18- to 34-year-olds living at home), the living-at-home share of college grads has grown by 74%, as opposed to a 103% increase for young adults with only a high school diploma and an 87% increase for those who did not finish high school." – Drew DeSilver, Senior Writer, Pew Research Center

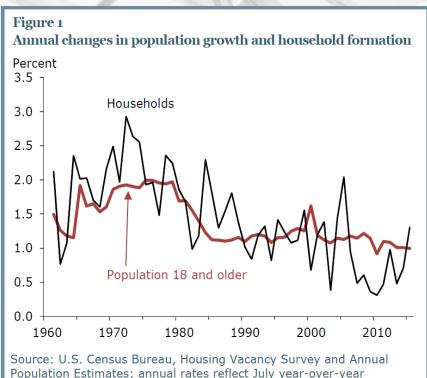
Figure 2

25

20

Percent (ages 18-24)

Heads of households as share of age group population



Supplement and Annual Population Estimates. **Household Formation among Young Adults**

15 Ages 25-29 (right scale) 10 1960 1970 1980 1990 2000 2010 Source: U.S. Census Bureau, CPS Annual Social and Economic

"The muted housing recovery in recent years can be traced in part to slower household formation among young adults. Analysis suggests that the boom and bust in housing has been a key factor. Recent weakness in household formation relative to population growth among young adults represents a reversal of the unusual strength during the boom years. The net effect has left shares of current young adults heading households at

levels similar to those in the mid-1990s before the housing boom." – Fred Furlong, Group Vice President,

Economic Research Department, The Federal Reserve Bank of San Francisco

Percent

Age 35+ (right scale)

Ages 18 to 24

(left scale)

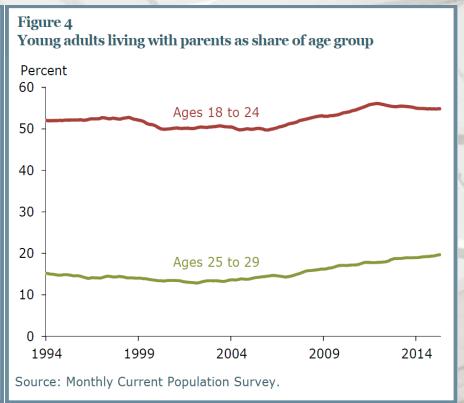
Aaes 30-34 (right scale) 60

55

45

percent changes.

Figure 3 Headship and homeownership as share of age group population Households (%) Homeownership (%) 60 40 Ownership, ages 35-44 35 55 Headship, ages 35-44 50 30 25 45 Headship, ages 25-29 40 20 35 15 Ownership, ages 25-29 30 10 1982 1987 1992 1997 2002 2007 2012 Source: U.S. Census Bureau CPS Annual Social and Economic Supplement, Annual Population Estimates, and Housing Vacancies.



Author's calculations.

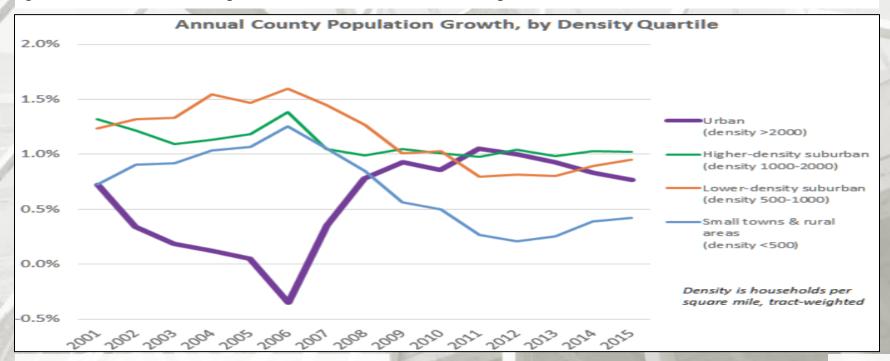
Implications for household formation

"The key drivers of household formation over time are population growth and the evolution of headship rates. This Letter has noted that the slow pace of household formation in the Great Recession and recovery was due primarily to a decline in headship rates, especially among young adults. To a large degree, that decline has retraced the marked rise in shares of young adults setting up households during the housing boom. There are reasons to believe this apparent realignment is nearing completion. The shares of young adults heading households now are similar to rates seen at the start of the housing boom. Moreover, while more young adults are living at home longer, data suggest they are continuing to transition to higher headship rates as they get older.

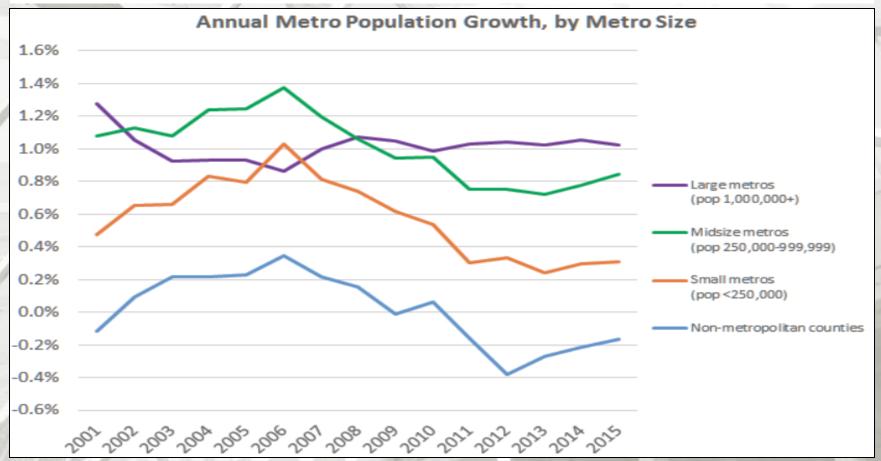
To the extent that headship rates among various age groups stabilize, household formation can be expected to more closely follow the growth in adult population. In that regard, the most recent Census Bureau projection for the 18 and older population is about 1% per year, on average, through 2020. In that baseline projection, older age groups tend to have the highest growth rates. Since the older group also has traditionally higher shares of heads of households, this should mean a higher headship rate overall. Given current 12-month annual headship rates by age group, the Census Bureau projections imply household formations averaging on the order of 1.4 to 1.5 million per year through 2020. That compares favorably to an average of a little less than 900,000 annually over the past five years." – Fred Furlong, Group Vice President, Economic Research Department, The Federal Reserve Bank of San Francisco

"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



"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



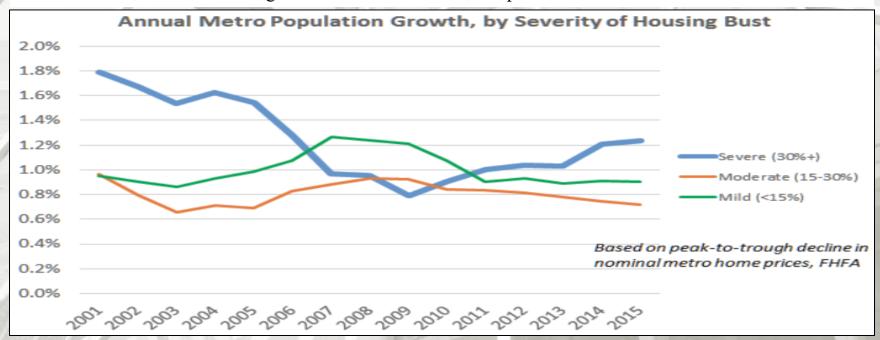
The Longer View: Population Trends Are Getting Back to Old Patterns

"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

"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





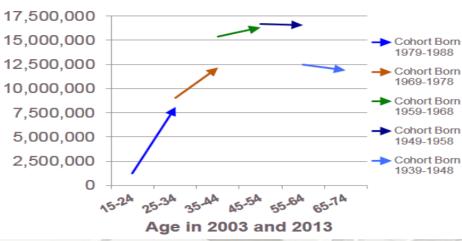
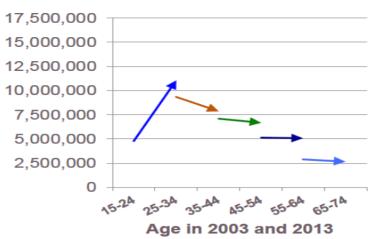


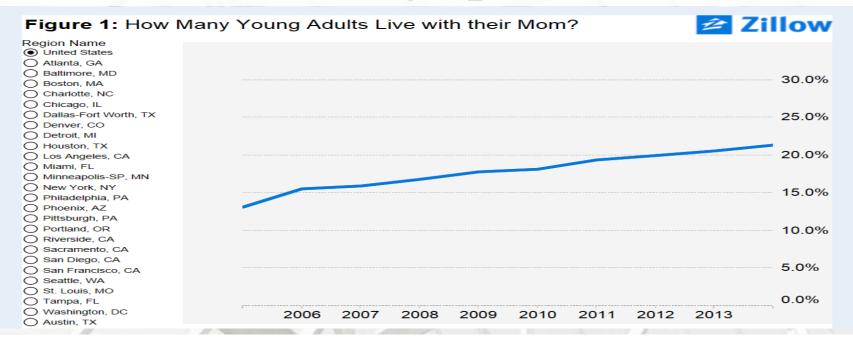
Figure 4 - Cohort Trends in Number of Renter Households: 2003-2013



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

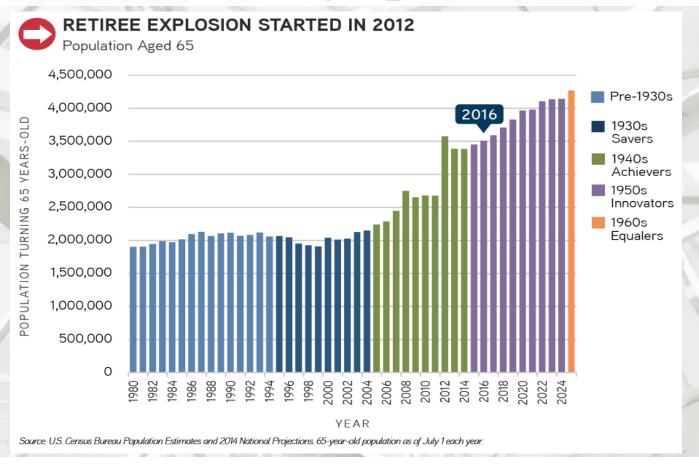


Mothers & Their Millennials: Where Working-Age Millennials are Still Living with Mom

"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



The Retiree Surge Is Here

"Only 10 years ago, 2.2 million people were turning 65 each year. That number has surged to 3.5 million this year and will grow to 4.2 million in 2025! Tomorrow's retirees will completely transform the housing industry. We have done a tremendous amount of research on this group, all of whom were born in the 1950s. We call them the *Innovators* because they have created so many innovations throughout their lives." – Lesley Deutch, Principal, John Burns Real Estate Consulting

The Retiree Surge Is Here Innovators

"They are:

- Tech savvy, which began with their space race fascination as kids
- Family-oriented, with almost 50% reporting that they intend to live with their parent or adult child in the near future
- More affluent than any prior generation of retirees, thanks to:
 - o Careers that perfectly coincided with a strong economy
 - o A workaholic attitude that led to more double-income households and delayed retirement
 - o 80% homeownership, with the majority having no mortgage today
 - o 30 years of falling interest rates boosting home values and retirement accounts

All of these factors above will play into the Innovators' next housing move. They will:

- Innovate "retirement" to be more about health, family, experiences, and continuing to work rather than strictly leisure
- Move several more times, including selling their home and choosing to rent for a few years in an urban area that is walkable to entertainment
- Focus more on living near their kids, with huge rewards to the builders who sell multigenerational-living homes that satisfy Innovators' needs
- Continue migrating south, but not just to the traditional retirement areas, as they will want to be near their kids and a job" Lesley Deutch, Principal, John Burns Real Estate Consulting

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.