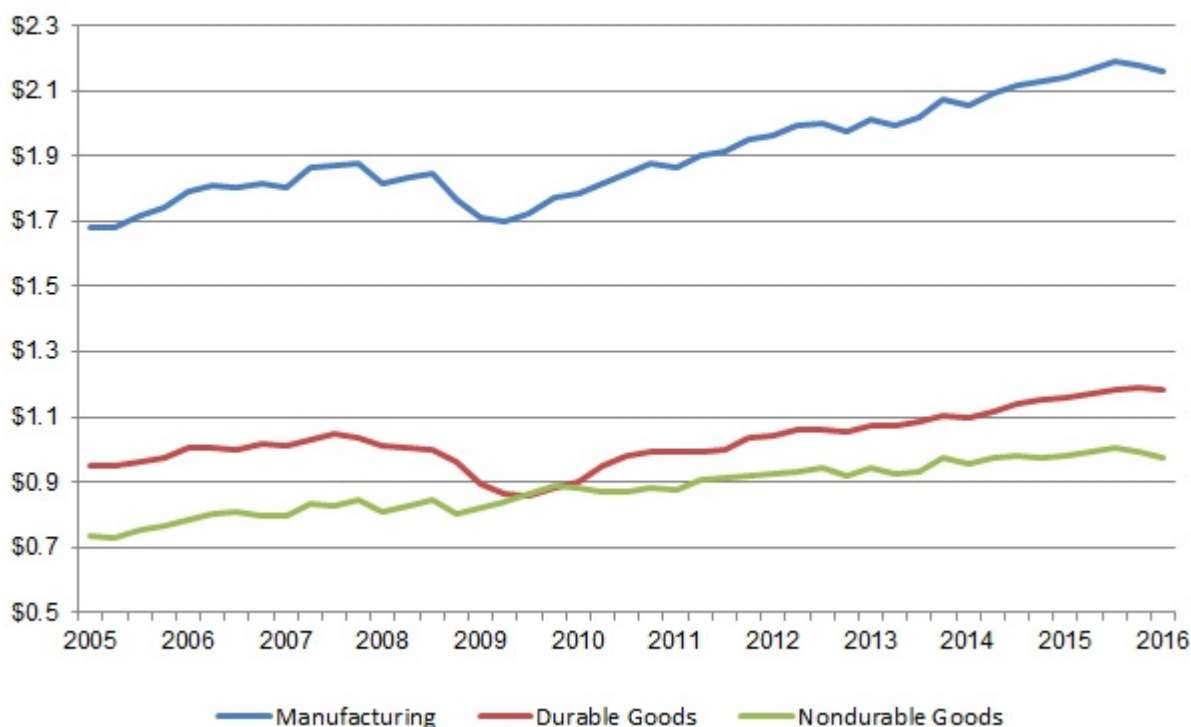




July 25, 2016

## Manufacturing's Value-Added Contributions to the U.S. Economy, in Trillions of Dollars



Later this week, we will get our first read on real GDP growth for the second quarter, which is likely to be around 2.8 percent at the annual rate. That would represent a decent rebound from the 1.1 percent [pace of growth](#) experienced in the first quarter, largely from better consumer and business spending. The relatively soft expansion seen in the first quarter was further explained last week with newly released figures on [contributions to growth by industry](#). Manufacturing added less to headline growth in the first quarter than it had in the prior two quarters, largely from a decline in real value-added output in the durable goods sector. The largest contributors to real GDP growth in the first quarter were construction, professional and business services, health care and social assistance and retail trade. The bottom line is that manufacturing accounted for 11.8 percent of real GDP in the first quarter of 2016, down from 12.1 percent and 12.0 percent in the third and fourth quarters of 2015, respectively.

Of course, we have seen mixed reports on the health of the manufacturing sector since then, and last week was no different. On the positive side, the [Markit Flash U.S. Manufacturing PMI](#) jumped to its highest level since October on strong gains for new orders, output and hiring. This mirrored the recent stabilization seen

in other sentiment surveys, such as the competing [index](#) from the Institute for Supply Management. Yet, [manufacturing sentiment](#) from the Federal Reserve Bank of Philadelphia contracted in July for the third time in the past four months, likely on post-Brexit worries. Moving forward, though, manufacturers in the Philadelphia Fed district continued to be cautiously optimistic.

Speaking of Brexit, the manufacturing activity in the [United Kingdom](#) contracted in July for the second time this year on decreased demand and production, with its composite index declining at its fastest rate since April 2009. In the weeks since Britain voted to leave the European Union, markets remained anxious about what that meant for the U.K. economy and for trade. Such worries also negatively impacted the [Markit Flash Eurozone Manufacturing PMI](#), which fell to a two-month low in July, mainly on slowing new orders.

Back in the United States, there were positive readings on the housing market. [New residential construction activity](#) rose to a three-month high in June, recovering a bit from a springtime lull. Housing starts increased to an annualized 1,189,000 in June on higher single-family and multifamily activity. These results are not far from 1.2 million units, a threshold that the market seems unable to maintain of late. Nonetheless, I expect that 1.21 million housing units will be started by year's end. Indeed, residential construction remained one of the brighter spots in the economy, and [home builders](#) remained mostly upbeat about the next six months. At the same time, [existing home sales](#) rose 1.1 percent in June, increasing for the fourth consecutive month. This growth was boosted by strength in the labor market and lower mortgage rates. Along those lines, [interest rates](#) on the average 30-year fixed-rate mortgage fell to 3.48 percent by the end of June, its lowest levels in more than three years, according to Freddie Mac. (They are currently averaging 3.45 percent.)

Stronger housing data and a rebound in manufacturing production in June helped to boost measures that attempt to gauge the current and future economic growth. For instance, the Conference Board [Leading Economic Index](#) (LEI) increased 0.3 percent in June, an improvement from the 0.2 percent decline seen in May. Overall, the LEI has risen by that same rate over the first six months of 2016, a relatively sluggish pace that reflects recent weaknesses in the economy. Similarly, the Chicago Federal Reserve Board's [National Activity Index](#) (NAI) increased significantly from -0.56 in May to 0.16 in June. It was only the fourth time in the past 14 months that this measure has been in positive territory, with the NAI quite volatile from month to month over that time frame. Positive numbers indicate that the U.S. economy is growing above its historical trend, with negative readings suggesting the opposite. Nonetheless, this report continued to reflect lingering challenges, with the three-month moving average still in negative territory, up from -0.39 to -0.12, and it has been negative for 17 straight months.

Beyond receiving new GDP data, the other big headline this week will come from the Federal Reserve. The Federal Open Market Committee (FOMC) will likely end its July 26–27 meeting making no changes to its current monetary policy statement. Instead, the FOMC is now expected to raise short-term interest rates at its September 20–21 meeting, assuming incoming data on the economy continue to improve between now and then, including for manufacturers. If not, look for the Fed to shift its focus for one rate hike this year to its December 13–14 meeting. Looking at the manufacturing sector, we will get advance durable goods and shipments data from the Census Bureau, with new regional surveys released from the Dallas, Kansas City and Richmond Federal Reserve Banks. Other indicators of note out this week include the latest figures for consumer sentiment, employment costs, international trade of goods and new home sales.

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*P.S. If you have not already done so, please take a moment to complete a survey that we are conducting on how firms use innovation and technology to grow their businesses. Indeed, innovation is a crucial element for the manufacturing sector for prototyping and process improvement, with firms eyeing productivity and overall efficiency gains when investing in new technologies. At the same time, manufacturers have more data than ever, with connected products changing the way that firms think about research and development,*

*operations management and even service after the sell.*

To complete this 16-question survey, please [click here](#) and submit your responses by **Friday, July 29**. Please forward to the individual in your organization who handles innovation and technology issues if you are not the right person. All responses will be kept confidential. The NAM plans to use this information to show how technologies have altered the manufacturing landscape, which will be helpful in our advocacy efforts. Thank you!

## Economic Indicators

### Last Week's Indicators:

(Summaries Appear Below)

#### Monday, July 18

NAHB Housing Market Index

#### Tuesday, July 19

Housing Starts and Permits

#### Wednesday, July 20

None

#### Thursday, July 21

Chicago Fed National Activity Index  
Conference Board Leading Indicators  
Existing Home Sales  
Gross Domestic Product by Industry (First Quarter)  
Philadelphia Fed Manufacturing Survey

#### Friday, July 22

Markit Flash Manufacturing PMIs for the United States, Eurozone  
State Employment Report

### This Week's Indicators:

#### Monday, July 25

Dallas Fed Manufacturing Survey

#### Tuesday, July 26

Conference Board Consumer Confidence  
New Home Sales  
Richmond Fed Manufacturing Survey

#### Wednesday, July 27

Durable Goods Orders and Shipments  
FOMC Monetary Policy Statement

#### Thursday, July 28

International Trade in Goods (Preliminary)  
Kansas City Fed Manufacturing Survey

#### Friday, July 29

Employment Cost Index  
Gross Domestic Product (Second Quarter)  
University of Michigan Consumer Sentiment (Revised)



## Summaries for Last Week's Economic Indicators

### Chicago Fed National Activity Index

The [National Activity Index](#) (NAI) improved significantly from -0.56 in May to 0.16 in June. It was only the fourth time in the past 14 months that this measure has been in positive territory, with the NAI quite volatile from month to month over that time frame. Positive numbers indicate that the U.S. economy is growing above its historical trend, with negative readings suggesting the opposite. Manufacturing was a large part of

the upward shift, with industrial production rebounding in June. Production-related indicators added 0.18 points to the NAI for the month, which represented progress from the decline of 0.29 points in the prior release. Employment was also a positive contributor, with housing providing a slight drag.

The three-month moving average increased from -0.39 to -0.12, and it has been negative for 17 straight months. May's reading had been the lowest since August 2012, so the June moving average signified some progress, albeit with growth remaining below average. Yet, even with ongoing weaknesses, the chance of a recession remains somewhat low. The probability of a recession rises when the three-month moving average falls below -0.70.

### Conference Board Leading Indicators

The Conference Board [Leading Economic Index](#) (LEI) increased by 0.3 percent in June, rebounding from the 0.2 percent decline seen in May. Overall, the LEI rose by that same rate over the first six months of 2016, a relatively sluggish pace that reflects recent weaknesses in the economy. The good news is that manufacturing new orders provided a bit of a boost to the June data. In addition, the average weekly employment claims, building permits, interest rate spread, lending conditions and the S&P 500 each provided a positive contribution to the LEI for the month. The one category that served as a drag to the headline index in June was the average workweek of production workers, highlighting some ongoing softness in labor markets.

Meanwhile, the Conference Board Coincident Economic Index (CEI), which assesses current conditions, also grew by 0.3 percent in June. This was an improvement from being unchanged in May. All four components of the CEI—industrial production, nonfarm payrolls, personal income and manufacturing and trade sales—were positive contributors to the index in June. The production figure was a turnaround from the previous release, with manufacturing output bouncing back in June after contracting in May.

### Existing Home Sales

The National Association of Realtors® said that [existing home sales](#) rose 1.1 percent in June, increasing for the fourth consecutive month. There were 5,570,000 homes sold in June at the annual rate, up from 5,510,000 in May. This increase represented progress from February's pace of 5,070,000 units, with year-over-year growth of 3.0 percent from 5,410,000 units in June 2015. In this release, the gains occurred mainly in the Midwest and West, with fewer sales seen in the Northeast for the month. This growth was boosted by strength in the labor market and lower mortgage rates. Along those lines, [interest rates](#) on the average 30-year fixed-rate mortgage fell to 3.48 percent by the end of June, their lowest levels in more than three years, according to Freddie Mac. (Interest rates are currently averaging 3.45 percent.)

Single-family (up from 4,880,000 to 4,920,000) and condo/co-op (up from 630,000 to 650,000) sales were both higher for the month. In June, there were 4.6 months of supply on the existing home sales market, down from 4.7 months in May but up from 3.9 months in December. The median existing home price was \$247,700 in June, up 4.8 percent year-over-year.

### Gross Domestic Product by Industry (First Quarter)

As noted earlier, the U.S. economy [grew](#) by an annualized 1.1 percent in the first quarter, and the Bureau of Economic Analysis [released data](#) breaking out that growth by industry. In short, real value-added output in the manufacturing sector increased by 1.4 percent in the first quarter of 2016, slowing from 2.6 percent and 2.4 percent growth in the third and fourth quarters of 2015, respectively. As a result, manufacturers contributed 0.16 percentage points to headline growth in the first quarter, down from 0.31 percent and 0.29 percent in the prior two quarters.

Looking specifically at manufacturing in the first quarter, real value-added from nondurable goods firms rose 3.8 percent at the annual rate, but durable goods manufacturers saw output decline by 0.6 percent. Therefore, durable and nondurable goods businesses contributed -0.04 percent and 0.2 percent, respectively, to real GDP for the quarter.

Putting that figure in perspective, the largest contributors to real GDP growth in the first quarter were construction (0.36 percent), professional and business services (0.31 percent), health care and social

assistance (0.28 percent) and retail trade (0.28 percent). In contrast, significant drags to growth came from transportation and warehousing (-0.27 percent), mining (-0.15 percent) and utilities (-0.12 percent) in the first quarter.

Overall, manufacturing gross output declined from \$5.868 trillion in the fourth quarter of 2015 to \$5.760 trillion in the first quarter of 2016. Gross output from durable (down from \$3.015 trillion to \$2.994 trillion) and nondurable (down from \$2.853 trillion to \$2.766 trillion) goods manufacturers also declined. This was the second straight quarterly decline in gross output, off from \$5.985 trillion in the third quarter of last year, and the data were down from an all-time high of \$6.284 trillion experienced in the third quarter of 2014.

Those findings closely mirrored the value-added data for manufacturing, which declined from \$2.179 trillion in the fourth quarter of 2015 to \$2.159 trillion in the first quarter of 2016. Value-added eased for both durable (down from \$1.188 trillion to \$1.186 trillion) and nondurable (down from \$0.992 trillion to \$0.974 trillion) firms. Value-added in manufacturing peaked at \$2.188 trillion in the third quarter of 2015.

The bottom line is that manufacturing accounted for 11.8 percent of real GDP in the first quarter of 2016, down from 12.1 percent and 12.0 percent in the third and fourth quarters of 2015, respectively.

### **Housing Starts and Permits**

The Census Bureau and the U.S. Department of Housing and Urban Development said that new [housing starts](#) rose to a three-month high in June, recovering a bit from a springtime lull. New residential construction activity increased from an annualized 1,135,000 in May to 1,189,000 in June. These results are not far from 1.2 million units, a threshold that the market seems unable to maintain of late. Nonetheless, I expect that 1.21 million housing units will be started by year's end. Indeed, residential construction remained one of the brighter spots in the economy, and builders remained mostly upbeat about the next six months (see below). With that said, housing starts were off 2.0 percent over the past 12 months, mainly from volatility in the multifamily segment. Single-family starts were more indicative of recent strength, up 13.4 percent year-over-year.

In this report, both single-family (up from 745,000 to 778,000) and multifamily (up from 390,000 to 411,000) starts data were higher in June. New single-family residential construction activity grew at its fastest pace since February and continued a slow-but-steady trend higher. Single-family housing starts have averaged 776,333 year-to-date in 2016 through June, up from 675,833 for the same time frame in 2015. At the same time, the multifamily starting pace represented a nine-month high, with these figures experiencing large swings from month-to-month. The year-over-year comparison was skewed by an outsized gain in activity in June 2015 to 527,000 units. Excluding that outlier, multifamily starts rose from an average of 368,800 through the first five months of 2015 to an average of 379,167 in the first half of 2016.

Meanwhile, housing permits increased from 1,136,000 to 1,153,000, a four-month high. Permits were slightly higher for both single-family (up from 731,000 to 738,000) and multifamily (up from 405,000 to 415,000) units. Permits are often a proxy for future activity, and in that light, the gain was somewhat encouraging, even if we might prefer faster growth. Much like the housing starts numbers, the year-over-year data were off sharply, down 13.6 percent from 1,334,000 housing permits in June 2015. The prior year's permitting rate was skewed by strong multifamily activity, as noted above. Excluding that figure, growth in permits was essentially unchanged, up from an average of 1,140,400 in the first five months of 2015 to 1,141,000 in the first half of 2016.

### **Markit Flash Manufacturing PMIs for the United States, Eurozone**

Interestingly, the last Markit survey's responses on Eurozone manufacturing activity were due on June 23, the day of the Brexit vote for the United Kingdom to exit the Eurozone. In that [survey](#), the Markit Flash Eurozone Manufacturing PMI® rose to a six-month high, with stronger data in most European markets, including Germany and the United Kingdom. Suffice it to say, the surprise—at least for financial markets—decision for Britain to leave the Eurozone has shifted sentiment since then. In the latest survey, the [Markit Flash Eurozone Manufacturing PMI](#) fell to a two-month low, down from 52.8 in June to 51.9 to July, mainly on slowing new orders (down from 53.4 to 52.0). The composite measure, which includes the service sector, edged down from 53.1 to 52.9, its lowest level since January 2015 and off from 54.3 six months ago.



Digging a little deeper, manufacturing activity in the [United Kingdom](#) (down from 52.1 to 49.1) contracted in July for the second time this year on decreased demand and production, with its composite index (down from 52.4 to 47.7) declining at its fastest rate since April 2009. At the same time, [Germany](#) (down from 54.5 to 53.7) slowed a little for the month, but continued to expand modestly. In addition, [French manufacturers](#) (up from 48.1 to 48.5) remained in negative territory, contracting for the fifth consecutive month, albeit at a slower pace.

Meanwhile, the [Markit Flash U.S. Manufacturing PMI](#) jumped from 51.3 to 52.9, its highest level since October. Stronger growth in new orders (up from 52.4 to 54.2), output (up from 50.9 to 53.9) and employment (up from 52.0 to 53.4) helped to buoy July's headline index, which has rebounded strongly from May's 50.7 reading, its slowest pace of expansion since September 2009. Nonetheless, export growth (down from 52.5 to 52.4) decreased marginally but expanded modestly.

### **NAHB Housing Market Index**

The National Association of Home Builders (NAHB) and Wells Fargo said that confidence slipped a little in July after rebounding in June. The [Housing Market Index](#) (HMI) declined from 60 in June to 59 in July, which is essentially the year-to-date average for this measure. Sentiment among builders has declined since peaking in October at 65. In contrast to the marginal decrease in the headline number, the data demonstrated improving sales conditions in every region of the country except for the South.

In addition, the HMI has now exceeded 50 for 25 straight months—the threshold above which homebuilders are more positive than negative in their outlook. Along those lines, NAHB Chief Economist Robert Dietz commented, “Job creation is solid, mortgage rates are at historic lows and household formations are rising. These factors should help to bring more buyers into the market as the year progresses.” Indeed, builders continued to predict relatively strong growth in single-family sales over the next six months, albeit with the expectations index dropping slightly from 64 to 63 in this report.

### **Philadelphia Fed Manufacturing Survey**

The Federal Reserve Bank of Philadelphia said that [manufacturing sentiment](#) in July contracted for the third time in the past four months (or the ninth time in the past 11 months). The composite index of general business activity declined from 4.7 in June to -2.9 in July. It is likely that post-Brexit worries negatively impacted assessments about the broader economy. Despite a decrease in the headline number, many of the underlying data points improved for the month. For instance, both new orders (up from -3.0 to 11.8) and shipments (up from -2.1 to 6.3) returned to expansion territory in July, which was encouraging. Indeed, the percentage of respondents suggesting that orders had increased for the month rose from 20.6 percent in June to 27.6 percent in July, with those noting declining sales dropping from 23.6 percent to 15.8 percent.

Still, the labor market figures remained negative, albeit at a slower pace in this report. The declines for hiring (up from -10.9 to -1.6) and the average workweek (up from -13.1 to -3.6) each slowed in July, but continued to contract. Reflecting that improvement, the percentage of firms noting decreased employment fell from 19.6 percent in June to 11.0 percent in July. Nonetheless, it remains clear that hiring is challenged, at least for now.

Moving forward, though, manufacturers in the Philadelphia Fed district continued to be cautiously optimistic. The forward-looking index increased from 29.8 to 33.7. More than 40 percent of those completing the survey predicted higher levels of new orders and shipments over the next six months, with 23.6 percent and 22.3 percent expecting more hiring and capital spending, respectively.

### **State Employment Report**

North Carolina created the most net new [manufacturing jobs](#) in June, according to the Bureau of Labor Statistics, adding 4,200 workers for the month. California (up 3,600), New York (up 3,000), Ohio (up 2,600) and Wisconsin (up 2,300) also topped the list of manufacturing employment gains in June. Over the past 12 months, Tennessee generated the greatest job gains, with manufacturing employment in the state up 11,400 since June 2015. Other states with the fastest job growth year-over-year included Florida (up 11,300), Michigan (up 10,500), Georgia (up 7,600) and Wisconsin (up 6,600).

The national [unemployment rate](#) fell to 4.9 percent in June, up from 4.7 percent in May. The lowest unemployment rate in the country was South Dakota at 2.7 percent. A number of states were not far behind, including New Hampshire (2.8 percent), Nebraska (3.0 percent), North Dakota (3.2 percent), Vermont (3.2 percent) and Hawaii (3.3 percent). In contrast, the highest unemployment rates were in Alaska (6.7 percent), Nevada (6.4 percent), Illinois (6.2 percent), Louisiana (6.2 percent), New Mexico (6.2 percent), Alabama (6.0 percent), the District of Columbia (6.0 percent) and West Virginia (6.0 percent).

## Connect with the Manufacturers



Questions or comments?

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