

John Williams'
Shadow Government Statistics
Analysis Behind and Beyond Government Economic Reporting

COMMENTARY NUMBER 887
April Industrial Production and Housing Starts

May 18, 2017

April Industrial Production Showed Solid Monthly Gains, Moving Off Bottom

That Said, 112 Months of Continuing Non-Expansion in U.S. Manufacturing Is the Worst String of Non-Recovery in the 99-Year History of Industrial Production

It Tops the 96-Month Post-World War II Manufacturing Realignment, and the 88-Month Slump in the First Down-Leg of the Great Depression

Still No Recovery: Activity Held Below Pre-Recession Peaks, with Production Down by 0.2% (-0.2%), Manufacturing Down by 5.6% (-5.6%) and Housing Starts Down by 48.4% (-48.4%)

Annual Revisions to Housing Starts Pushed the Series into a Downtrend, Reflecting a Near-Term Hit to Multiple-Unit Starts

2016 Durable Goods Orders Just Took a 2.8% (-2.8%) Benchmarking Hit

PLEASE NOTE: A Special Commentary, assessing the broad economic and financial outlook in the context of evolving political circumstances, reviewing today's downside annual benchmark revisions to New Orders for Durable Goods and updating consumer liquidity conditions, will follow over the weekend, likely on May 22nd. The next regular Commentary scheduled for Friday, May 26th, will cover details of headline (post-benchmark) April 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the first-revision to, second estimate of first-quarter 2017 GDP.

*Please call me at (707) 763-5786 if you have any questions or would like to talk.
Best wishes to all — John Williams*

Today's Commentary (May 18th). Annual revisions to New Residential Construction are reviewed in the *Opening Comments*, with the headline monthly details of April 2017 Residential Construction and Industrial Production discussed in the *Executive Summary*.

The *Reporting Detail* (beginning page 13) provides extended analysis and significant, additional graphics.

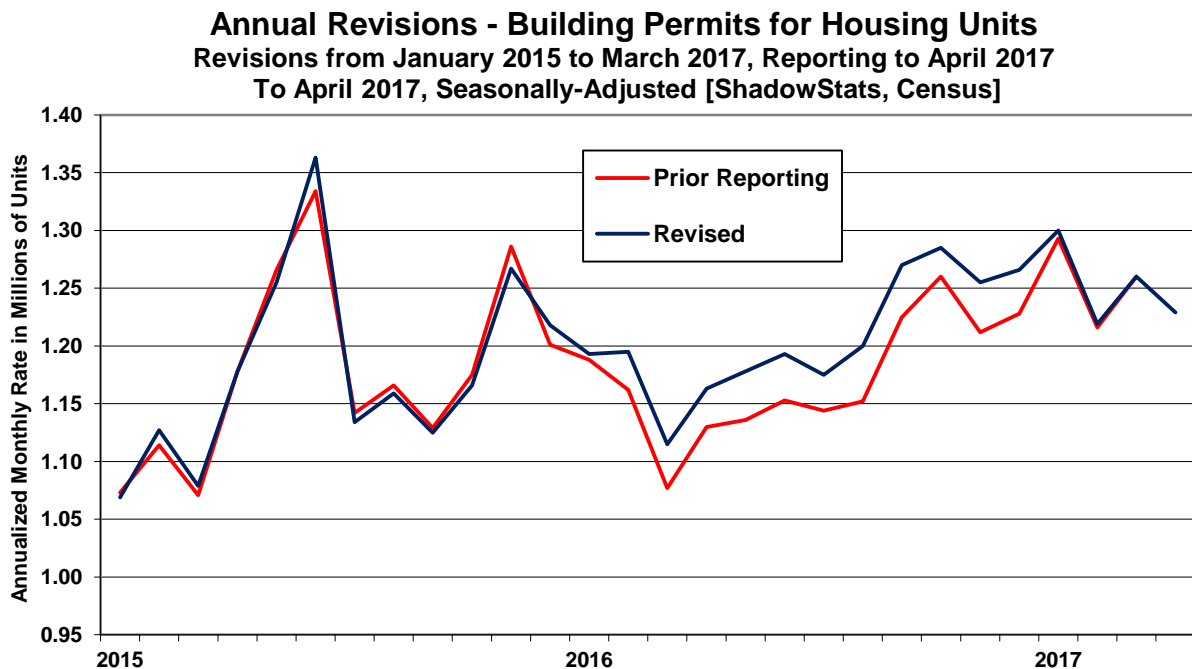
The *Week, Month and Year Ahead* (beginning page 35) reviews recent *Commentaries* and previews next week's New Orders for Durable Goods, New- and Existing-Home Sales and the first revision to first-quarter 2017 GDP.

OPENING COMMENTS AND EXECUTIVE SUMMARY

Broad Outlook Continues for Economic Stagnation and Downturn. Despite an unusually-strong, monthly showing for April Industrial production, the broad series remained in extended non-recovery. Formal new economic expansion does not begin until a series breaks above, and holds above, its pre-recession high, an issue common to the production and construction series (see [Commentary No. 876](#)).

Housing Starts Trend Turned Down in the Context of Annual Revisions. The release of April 2017 New Residential Construction on May 16th incorporated annual revisions within its headline details. The underlying building-permits series was revised back to January 2016, based on new data, but the series remained historically inconsistent and of limited predictive value versus the more-popularly-followed Housing Starts series. Otherwise, revisions to the Permits and the Starts back to January 2015 reflected nothing more than the shifting of seasonal-adjustment patterns.

Graph 1: Building Permits – Annual Revisions



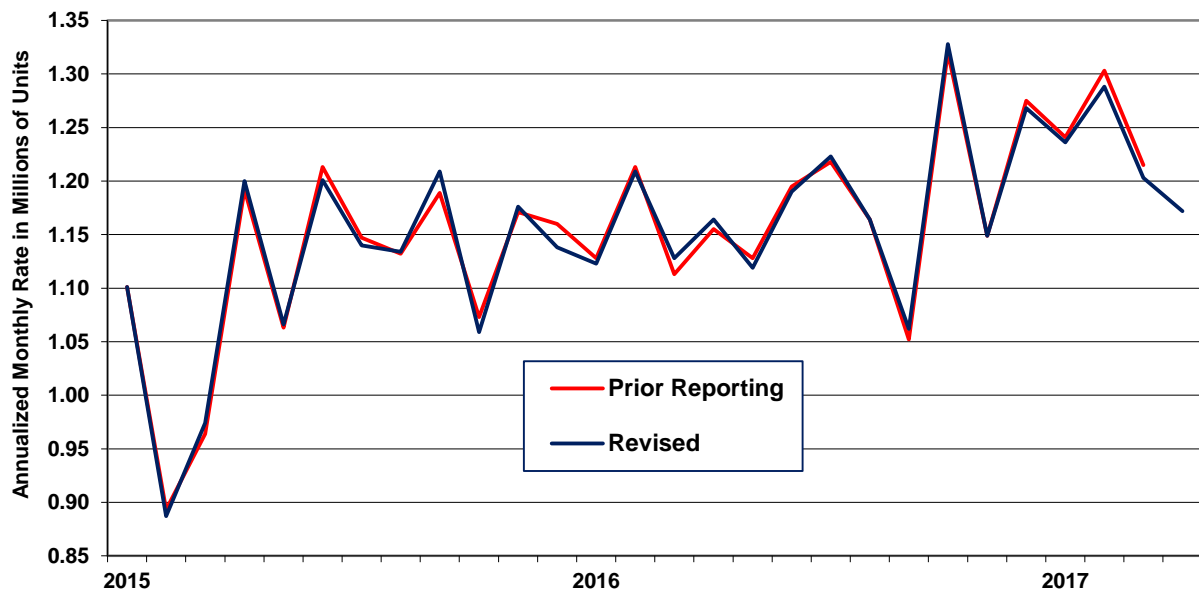
In terms of the “solid” new data, the level of annual Building Permits in 2016 revised higher by 1.4%, versus previous estimation, as shown in *Graph 1*, which also incorporates shifted seasonal factors.

In terms of just the realigned seasonal-adjustment numbers in the housing-starts categories, the effect was to establish a new, near-term downtrend, where first-quarter 2017 activity had been to the plus-side, but now shows a quarterly contraction, along with implications for a still-deeper second-quarter contraction, as shown in *Graph 2* of the aggregate series. Such reflected a sharp downshift in headline, seasonally-adjusted activity in the multiple-housing-units starts, shown in *Graph 4*, which more than offset a shift to the upside in the otherwise dominant single-unit-starts category, shown in *Graph 3*.

The latest, specific growth patterns are detailed in the *Executive Summary* and in the *Reporting Detail*.

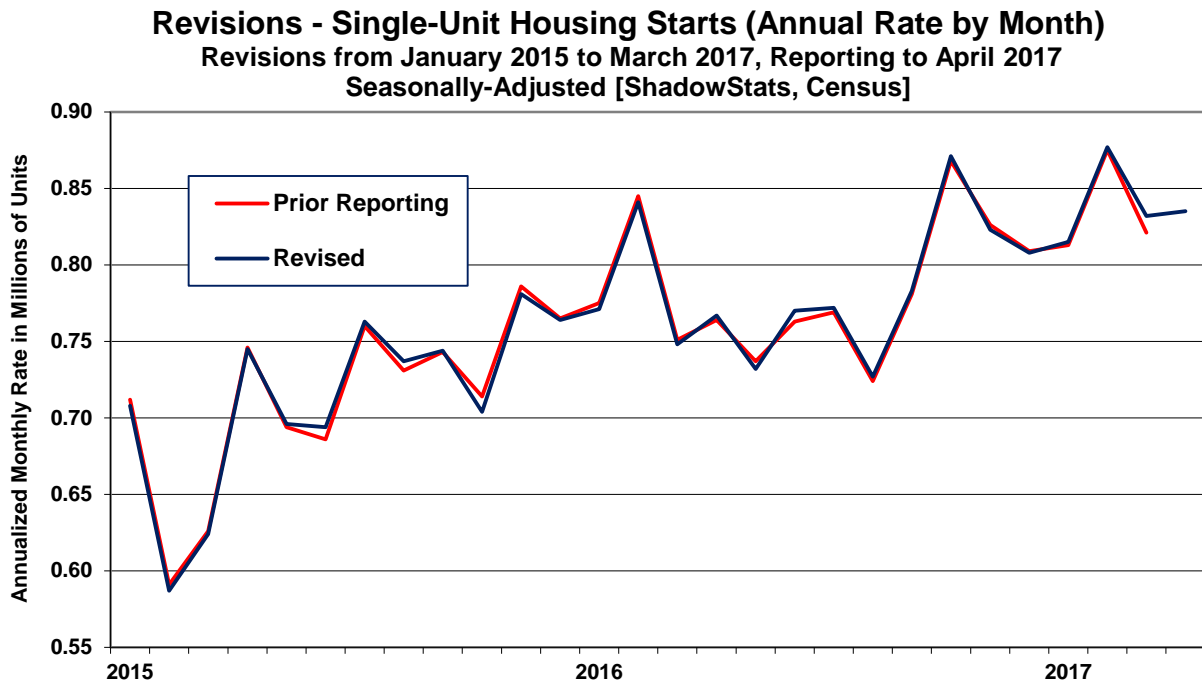
Graph 2: Total Housing Starts – Annual Revisions

Revisions - Total Housing Starts (Annual Rate by Month)
Revisions from January 2015 to March 2017, Reporting to April 2017
Seasonally-Adjusted [ShadowStats, Census]

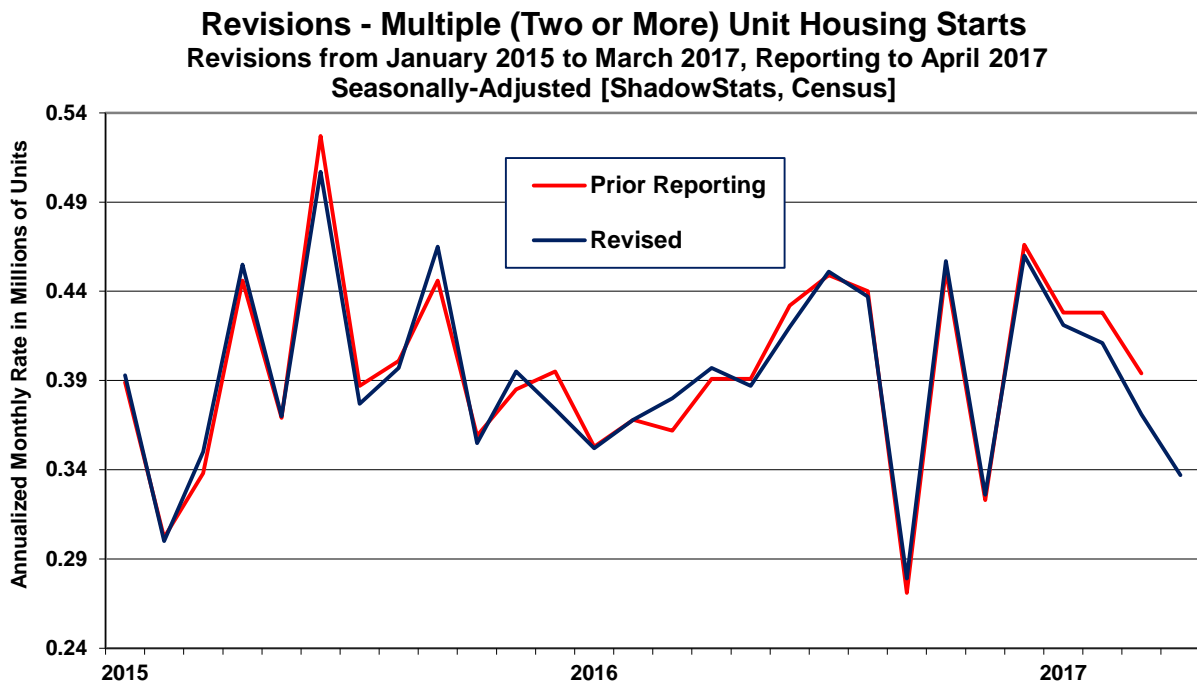


[Graphs 3 and 4 are on the following page.]

Graph 3: Single-Unit Housing Starts – Annual Revisions



Graph 4: Multiple-Unit (Two-or-More) Building Permits – Annual Revisions



Executive Summary: New Residential Construction—April 2017—Revised Seasonal Adjustments Suggested Intensifying Downturn in Otherwise Non-Recovering Stagnation. In the context of annual revisions published on May 16th, and smoothed and viewed in terms of its six-month moving average,

housing starts activity still showed a plunge from its 2006 pre-recession peak to a trough in 2009, followed by a protracted period of up-trending but non-recovering low-level activity. That flattened out in the last year or two in ongoing, low-level stagnation, and now has turned lower in the latest, benchmark-revised detail (see the *Opening Comments*, accompanying *Graph 8* and related text and *Graphs 18* and *20* in the *Reporting Detail*).

Plotted with just the raw, seasonally-adjusted monthly data, the pattern of low-level stagnation remains broadly the same, with the headline April 2017 level of starts still shy by 48.4% (-48.4%) of recovering its pre-recession peak (see *Graph 7*). In like manner, the dominant single-unit housing starts sector of this series has shown similar, low-level, non-recovering stagnation, still 54.2% (-54.2%) shy of recovering its pre-recession peak (see *Graph 9*). Although the more-volatile, multi-unit category recovered its pre-recession peak in 2015, the headline April 2017 reading was back below that peak by 25.1% (-25.1%) as seen in *Graph 11*. Separately, the building-permits series remains down by 45.7% (-45.7%) from its September 2005 pre-recession peak activity.

Headline Reporting. The April 2017 aggregate housing-starts measure showed a statistically-insignificant 2.6% (-2.6%) monthly decline, following drop of 6.6% (-6.6%) in March and a monthly gain of 4.2% in February. Level-of-activity aggregate detail is plotted in *Graphs 5* to *8* here, and in *Graphs 16*, *18*, *19* and *20* in the *Reporting Detail*.

Year-to-year change in the seasonally-adjusted, April 2017 aggregate housing-starts measure was a statistically-insignificant gain of 0.7%, versus annual gains of 6.6% in March 2017, and 6.5% in February 2017.

Where unstable housing starts reporting series can show varying patterns, that partially is due to the reporting mix of residential construction products, with the largest physical-count category of one-unit structure starts—generally for individual consumption, resulting in new home sales—versus multi-unit structure starts that reflect the building of condominiums, rental and apartment units, etc. The pace of monthly decline in the aggregate April series was dominated by multi-unit starts. Graphs of the different sectors follow in accompanying *Graphs 5* to *12*, with extended detail and graphs in the *Reporting Detail*.

A Note on the Regular Housing Starts Graphs. [This section largely is repeated from the *Reporting Detail* section.] Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,172,000 in April 2017, versus the revised 1,203,000 in March 2017. The scaling used in the aggregate housing starts and building permits *Graphs 15* to *20* in the *Reporting Detail* reflects those annualized numbers.

Nonetheless, given the nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the just-revised headline, month-to-month gain of 266,000 in October 2016 was larger than any actual level of (not change in) monthly starts, ever (in units per month, not annualized), for a single month. That is since related starts detail first was published after World War II.

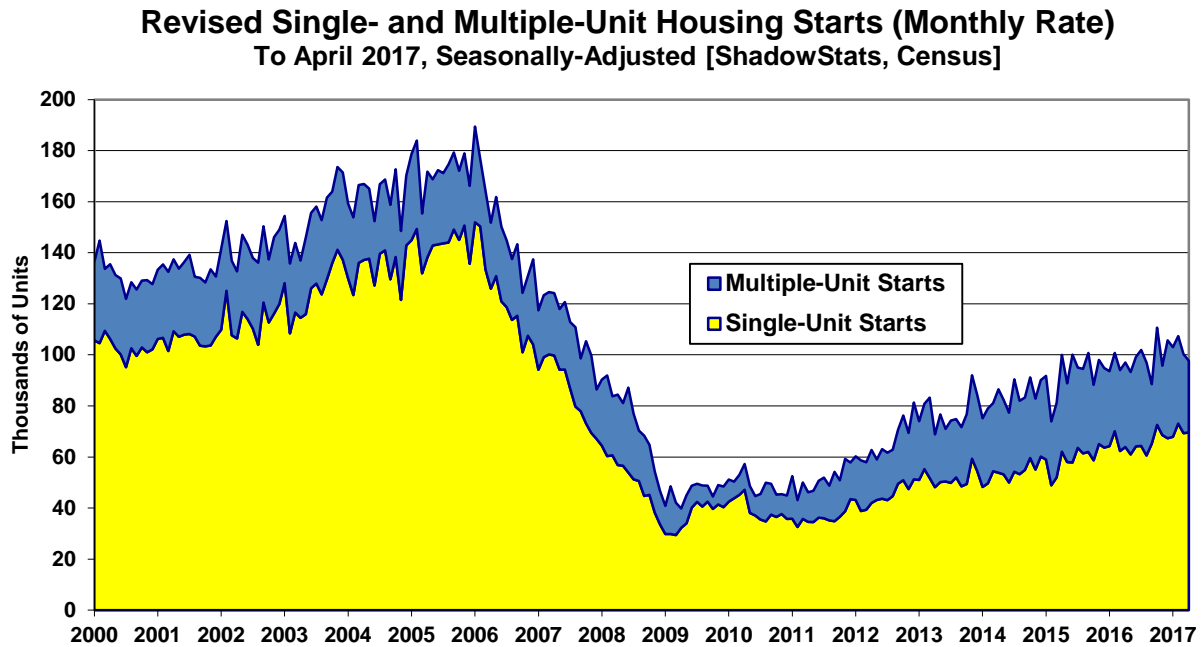
Accordingly, the monthly rate of 97,667 units in April 2017, instead of the annualized headline level of 1,172,000 units, is used in the scaling of the accompany *Graphs 5* to *12* in this *Executive Summary*. With

the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as seen in a comparison of *Graph 7* versus *Graph 16*.

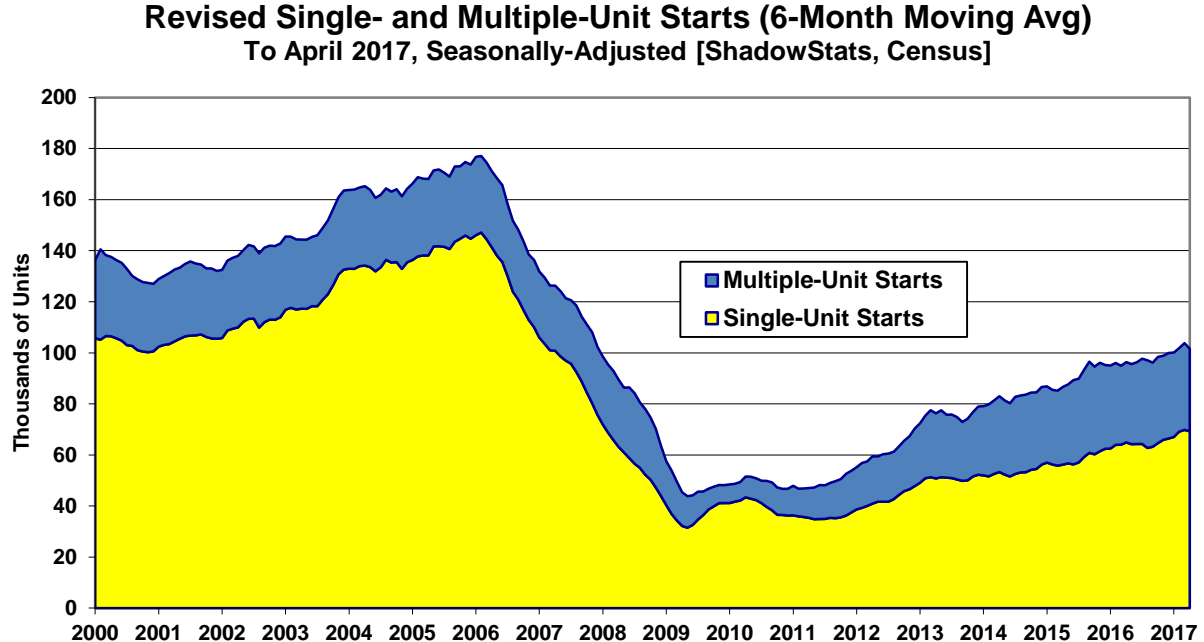
The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 pre-recession peak for the series. Against that downside-spiked low in April 2009, the April 2017 headline monthly number was up by 145%, but it still was down by 48% (-48%) from the January 2006 pre-recession high. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in relative stagnation, still at low levels that otherwise have been seen at or near the historical troughs of other recession activity of the last 70 years, as reflected in *Graphs 19* and *20* in the *Reporting Detail*. In fact, as can be seen more clearly in *Graph 20*, current housing starts activity not only has failed to recover the current pre-recession (pre-collapse into 2009) peak, but also has yet to recover to the level of any pre-recession peak activity seen in the entire post-World War II era.

[Graphs 5 to 12 begin on the next page.]

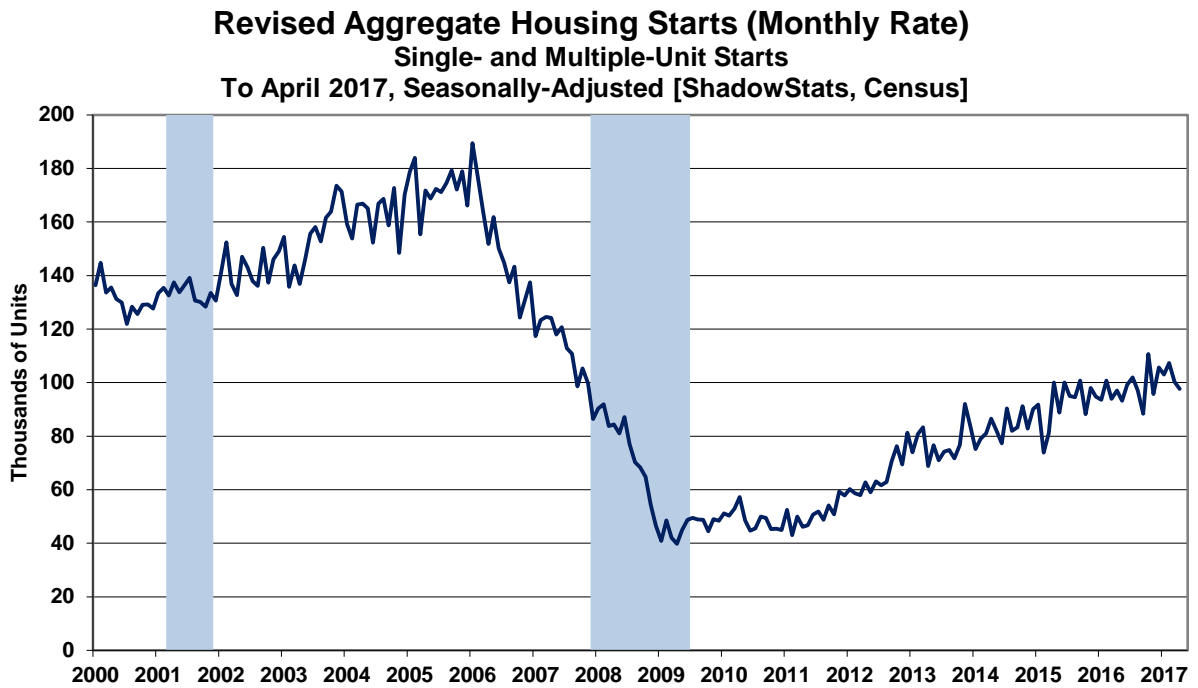
Graph 5: Single- and Multiple-Unit Housing Starts (Monthly Rate of Activity)



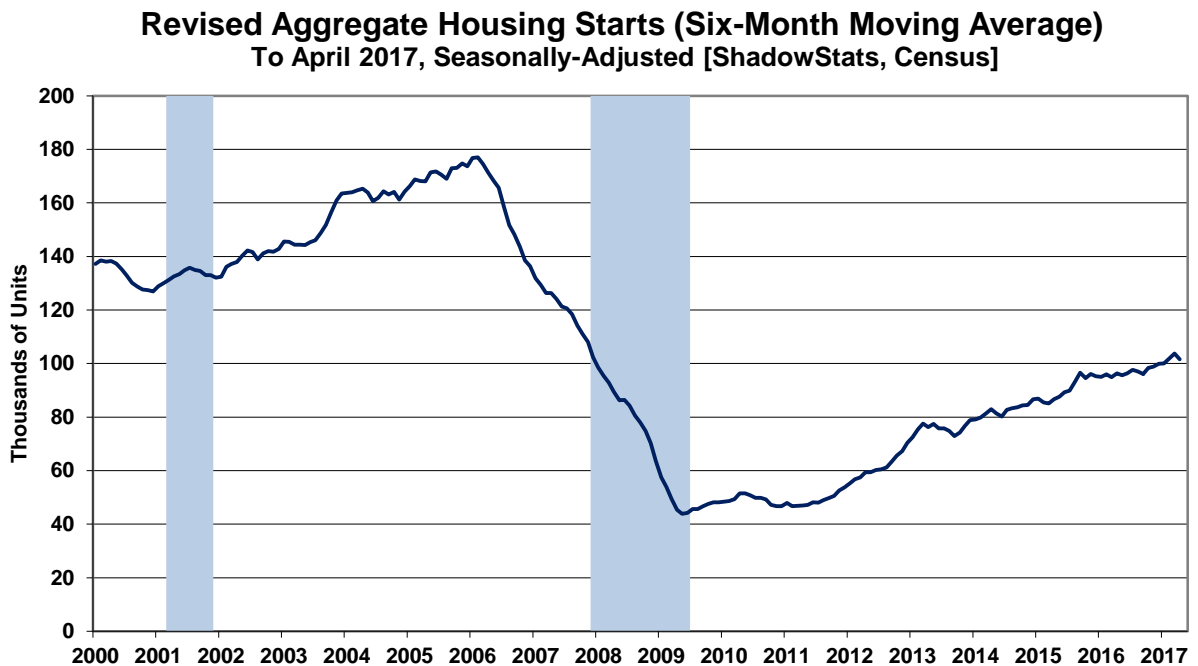
Graph 6: Single- and Multiple-Unit Starts (Six-Month Moving Average, Monthly Rate of Activity)



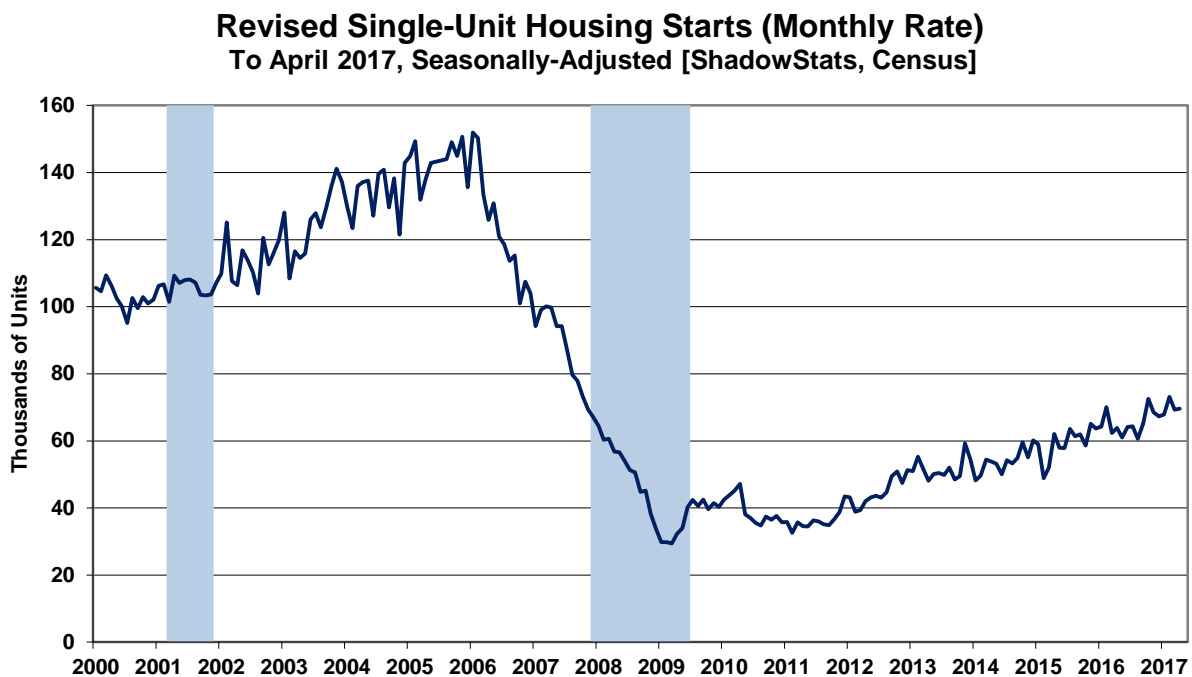
Graph 7: Aggregate Housing Starts (Monthly Rate of Activity)



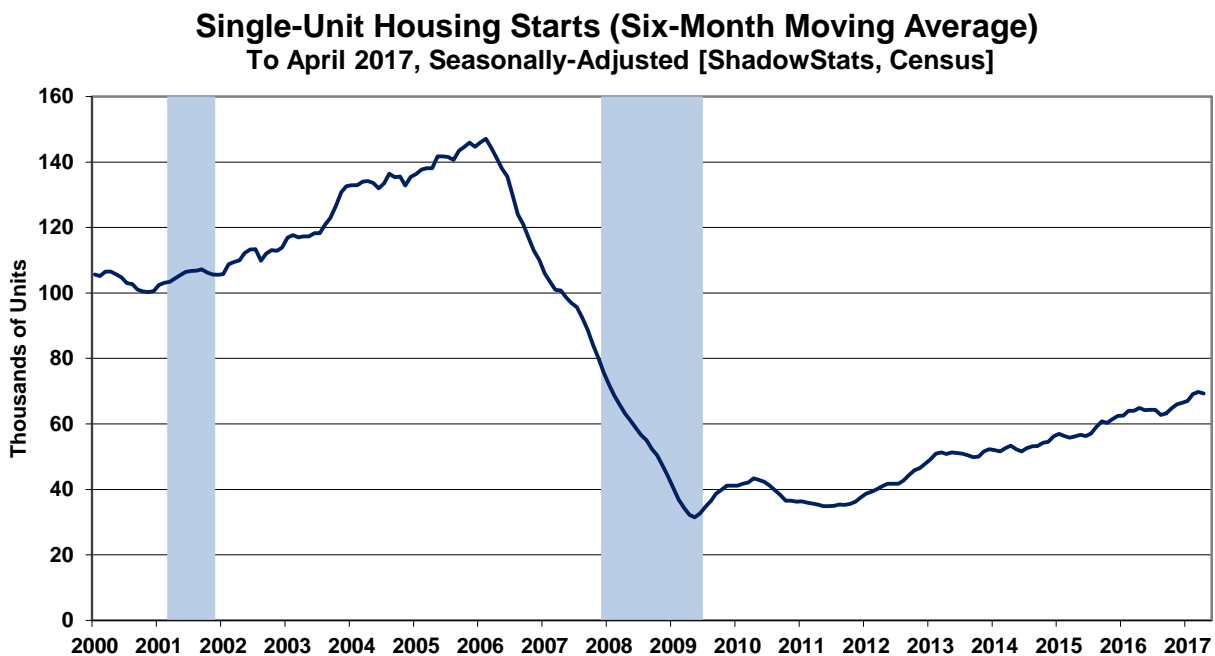
Graph 8: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



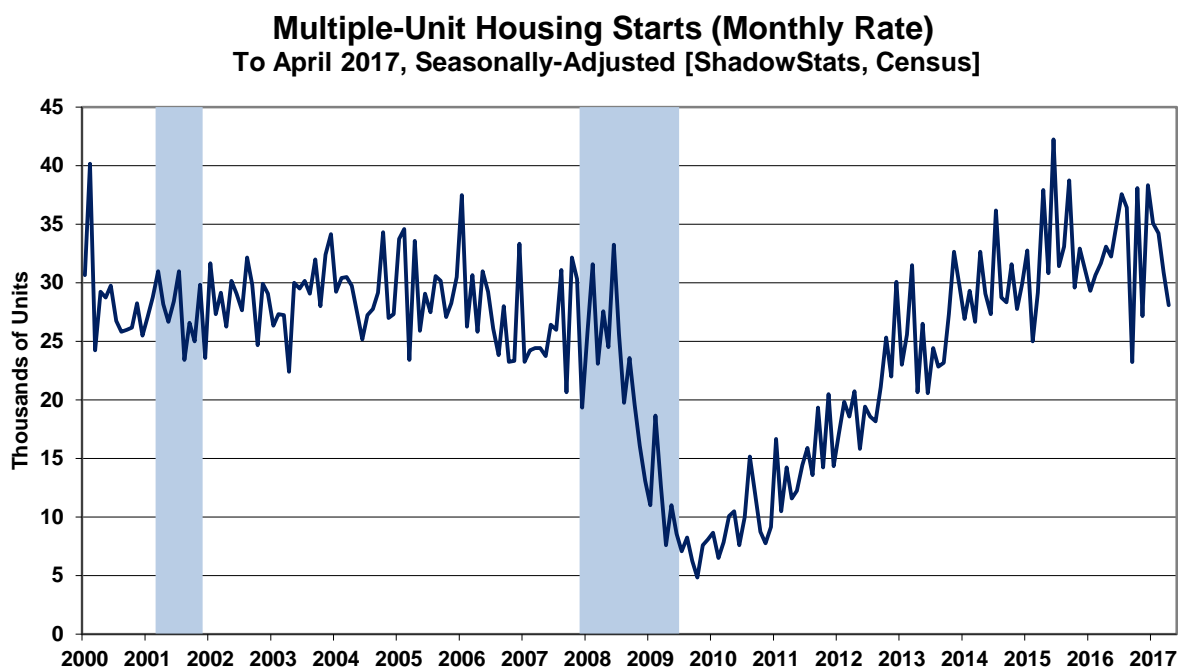
Graph 9: Single-Unit Housing Starts (Monthly Rate of Activity)



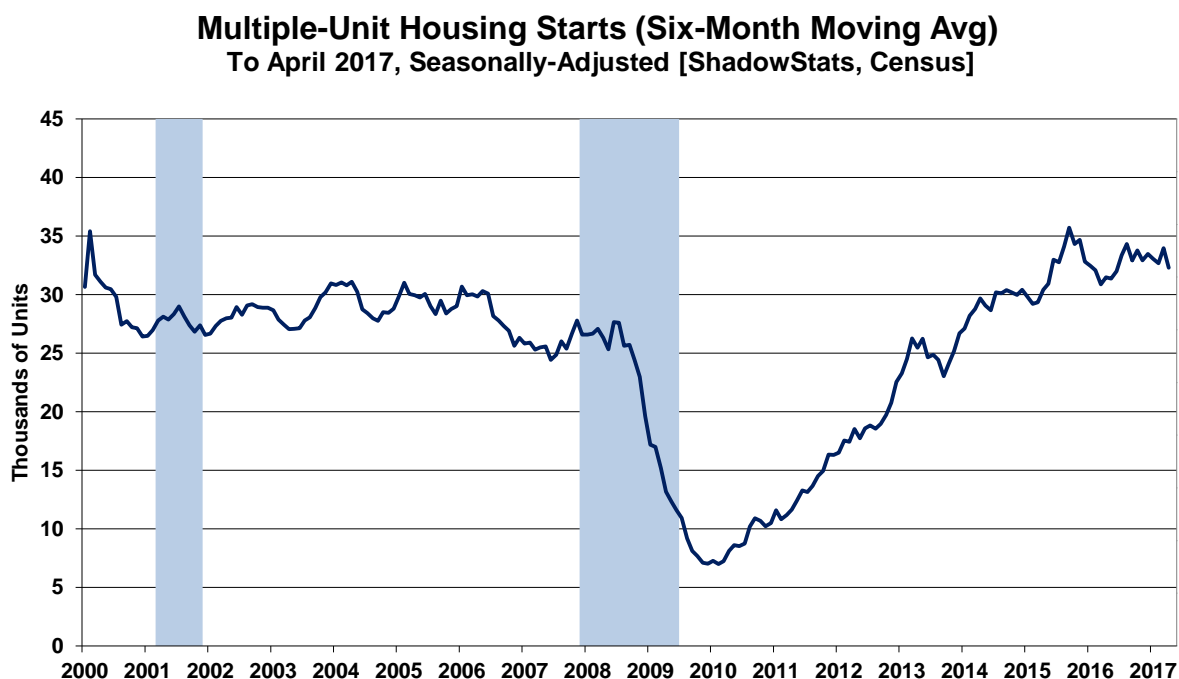
Graph 10: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



Graph 11: Multiple-Unit Housing Starts (Monthly Rate of Activity)



Graph 12: Multiple-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



Industrial Production—April 2017—Rallied Across the Manufacturing, Mining and Utilities Sectors, While Broad Activity Continued in Economic Non-Expansion. Monthly headline industrial production growth was solid across the various industry and market groups covered by the Federal Reserve, coming in above expectations. With both production and the dominant manufacturing sector up month-to-month by 1.0% in April, the series appears to be off its recent bottom.

Nonetheless, both production and manufacturing remained below pre-recession, peak-activity levels. In terms of protracted, economic non-expansion, the Manufacturing sector has seen its longest stretch of non-recovery in the 99-year history of Industrial Production, for 112-months and counting. In contrast, it took the post-war U.S. economy 96-months to rebuild production to its World War II peak. In the first down-leg of the Great Depression, it took 88-months to recover the pre-collapse high.

Headline Industrial Production. April 2017 production rose by 0.98% month-to-month, following a revised 0.41% gain in March and a revised gain of 0.18% in February.

Detailed by major industry group (see *Graphs 23, 25, 30 and 32* in the *Reporting Detail*), the headline April 2017 monthly aggregate gain of 0.98% was composed of a monthly gain of 0.99% in manufacturing activity, a 0.69% gain in utilities activity and a gain of 1.18% in mining activity (including oil and gas production).

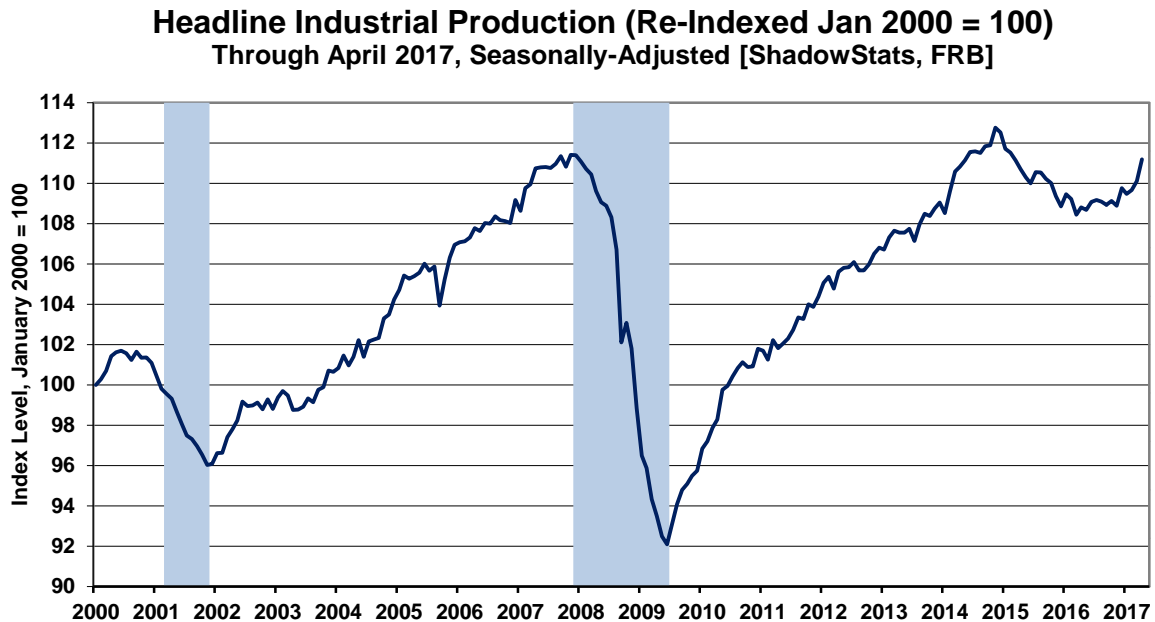
Year-to-year change in April 2017 industrial production was a gain of 2.19%, versus a revised 1.54% gain in March 2017 and a gain of 0.40% in February 2017.

Production Activity and Graphs—Corrected and Otherwise. Again, fully updated for the March 31st benchmark revisions to production (see [Commentary No. 877](#)), the regular graphs of headline production activity and annual growth detail are found in the *Reporting Detail* (*Graphs 21 to 24*), along with the drill-down graphs of major subcomponents of the production series (*Graphs 25 to 38*).

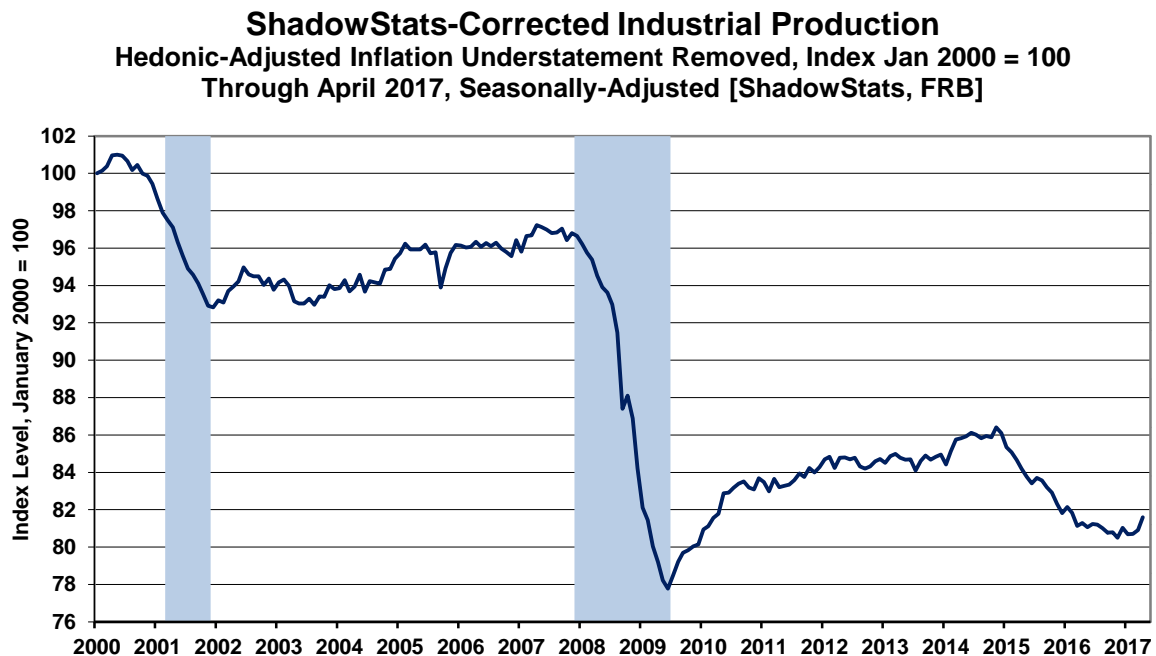
The level of headline production showed a topping-out process in third- and fourth-quarter 2014, followed by deepening quarterly downturns into first- and second-quarter 2015, with the second-quarter 2015 also beginning a string of quarterly year-to-year contractions. Third-quarter 2015 showed some bounce, but activity in fourth-quarter 2015 and in first- and second-quarter 2016 turned down anew, dropping sharply into negative quarter-to-quarter growth and continuing year-to-year decline. Third-quarter 2016 growth was positive on a quarter-to-quarter basis, but continued in annual contraction. That pattern repeated in fourth-quarter 2016. That seventh straight quarter of annual contraction was a circumstance never seen in industrial production surveying outside of periods that eventually were recognized formally as recessions. With the reporting of headline first-quarter 2017 detail, production activity showed both annual and quarterly gains, although the headline quarterly activity remained below pre-recession highs seen in 2007, the headline detail was boosted again in April 2017.

Graphs 13 and 14, which follow in this section, address reporting quality issues tied just to the overstatement of headline growth in the total series that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into real dollar terms, for inclusion in the Index of Industrial Production. Hedonic quality adjustments to the inflation estimates understate the inflation rates used in deflating those components; thus overstating the resulting inflation-adjusted growth in the headline industrial production series (see [Public Comment on Inflation](#) and *Chapter 9* of [2014 Hyperinflation Report—Great Economic Tumble](#)).

Graph 13: Indexed Headline Level of Industrial Production (Jan 2000 = 100)



Graph 14: Headline ShadowStats-Corrected Level of Industrial Production (Jan 2000 = 100)



Graph 13 shows official, headline industrial production reporting, but indexed to January 2000 = 100, instead of the Fed’s formal index that is set at 2012 = 100. The 2000 indexing simply provides for some consistency in the series of revamped “corrected” graphics including real retail sales, new orders for

durable goods and the GDP (see respectively [Commentary No. 886](#) and [Commentary No. 881](#)) and as broadly covered in the *ECONOMY* section of [No. 859 Special Commentary](#). It does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of *Graph 13* here to *Graph 23* in the *Reporting Detail* section).

Graph 14 is a recast version of *Graph 13*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official industrial-production deflators used for headline reporting.

This “corrected” *Graph 14* shows some growth in the period subsequent to the official June 2009 trough in production activity, but that upturn has been far shy of the short-lived full recovery and the renewed expansion reported in official GDP estimation (see [Commentary No. 869](#) and the *ECONOMY* section of [No. 859 Special Commentary](#)). Unlike the headline industrial production data and the headline GDP numbers, corrected production levels never recovered pre-recession highs, although the headline aggregate production index quickly backed off its official two-month “recovery” in October and November 2014, and the headline manufacturing sector never has recovered fully. Instead, the “corrected” series entered a period of protracted low-level, but up-trending, stagnation in 2010, with irregular quarterly contractions seen through 2013, an irregular uptrend into 2014, a topping-out in late-2014, generally turning lower through fourth-quarter 2016 and into 2017.

Where the corrected series has remained well shy of a formal recovery, both the official and corrected series suffered an outright contraction in both first- and second-quarter 2015; that is a pattern of severe economic weakness last seen during the economic collapse. Despite the brief third-quarter 2015 quarter-to-quarter uptick, headline fourth-quarter 2015 and first- and second-quarter 2016 industrial production continued in quarter-to-quarter contractions, but rallied thereafter. A string of seven quarters of year-to-year contraction began in second-quarter 2015 and continued through fourth-quarter 2016. With initial headline detail in place for first-quarter 2017 GDP, that quarter grew both quarter-to-quarter and year-to-year, as discussed in the *Reporting Detail*.

[The Reporting Detail contains extended analysis and graphs.]

REPORTING DETAIL

NEW RESIDENTIAL CONSTRUCTION (April 2017)

Annual Seasonal-Adjustment Revisions Suggested Intensifying Downturn in Otherwise Non-Recovering Stagnation. In the context of the May 16th annual seasonal-adjustment revisions back to 2015 (see the *Opening Comments*), and as smoothed and viewed in terms of its six-month moving

average, Housing Starts activity still showed a plunge from its 2006 pre-recession peak to a trough in 2009, followed by a protracted period of up-trending but non-recovering low-level activity. That flattened out in the last year or two in ongoing, low-level stagnation, and now has turned lower in the latest detail as seen in accompanying *Graphs 18* and *20* (and *Graph 8* and in the *Executive Summary*).

Plotted with just the raw, seasonally-adjusted monthly data, the pattern of now-downtrending low-level stagnation, shows headline April 2017 housing starts activity down by 48.4% (-48.4%) from recovering its pre-recession peak (see *Graphs 16* and *7*, respectively in this *Reporting Detail* and in the *Executive Summary*). As usual, and despite the annual revisions, none of the related monthly or annual changes was statistically significant. Lack of statistical significance remains a common denominator to nearly all the regular reporting each month of the month-to-month and year-to-year changes.

April 2017 Monthly Contraction Was Dominated by Declining Multiple-Unit Starts. Again, in the context of a reset in the historical data with annual revisions through March 2017, aggregate April 2017 housing starts declined by 2.6% (-2.6%) month-to-month. These monthly numbers remain highly unstable and are of extremely limited short-term significance, with negligible leading indications of monthly change or relative volatility provided by the related building-permits series.

Smoothed with six-month moving averages, both the housing-starts and building-permits series had been in flat-to-up-trending, but now downtrending, low-level stagnation (see *Graph 8* in the *Executive Summary* section, and *Graphs 17* and *18* here). Neither headline permits nor starts has recovered from the collapse into 2009, with current activity down from the respective pre-recession peaks by 45.7% (-45.7%) for permits, and, again, by 48.4% (-48.4%) for starts.

First-Quarter 2017 Housing Starts Turned Down Quarter-to-Quarter, in Revision, with Second-Quarter Activity Trending Still Lower. The revised, unstable total housing-starts count fell at annualized quarter-to-quarter pace of 23.7% (-23.7%) [previously down by 24.1% (-24.1%)] in first-quarter 2015, rose at an annualized 87.7% [88.9%] pace in second-quarter 2015, rose by 1.9% [0.0%] in third-quarter 2015 and then contracted at an annualized pace of 12.0% (-12.0%) [7.2% (-7.2%)] in fourth-quarter 2015.

First-quarter 2016 activity showed an annualized quarterly gain of 10.7% [6.0%], while second-quarter 2016 rose by 1.5% [2.8%]. Third-quarter 2016 activity contracted on both an annual and quarterly basis, down year-to-year by 1.0% (-1.0%), the first annual decline since first-quarter 2014, and down at an annualized quarterly pace of 2.7% (-2.7%) [5.0% (-5.0%)]. Fourth-quarter 2016 housing starts showed annualized quarterly growth of 39.0% [41.3%], up by 11.0% [10.0%] year-to-year.

First-quarter 2017 annualized quarterly change revised to a contraction of 1.9% (-1.9%) [previously a gain of 1.6%], while the year-to-year change slowed to 7.7% [previously 8.8%]. Based solely on the headline April 2017 detail, second-quarter 2017 annualized quarterly change was on early track to show a contraction of 20.8% (-20.8%), with annual growth slowing to 1.2%.

Smoothed Numbers. Despite the extreme volatility and instabilities in the housing-starts series, the general pattern of low-level stagnation continued. Again, the six-month moving-average pattern for the aggregate series remained about as flat as one ever sees, albeit now somewhat downtrending, in aggregate, still in low-level stagnation, reflecting the annual revisions (*Graphs 8* and *16*), with the same pattern of stability also seen broadly in raw monthly data (*Graphs 7* and *14*). That general pattern also can be viewed in terms of the longer-range historical graphs of aggregate activity (*Graphs 19* and *20*) at

the end of this section. Parallel graphs of monthly and six-month moving-average Building Permits detail are found in *Graphs 15* and *17*. Given the broad pattern of stagnation in both the aggregate starts and permits series, headline total April 2017 activity, again, remained well below any recovery level, with aggregate Housing Starts down from their January 2006 pre-recession high by 48.4% (-48.4%) and Building Permits down by 45.7% (-45.7%) from their September 2005 pre-recession peak activity.

Returning fully to the April 2017 housing starts monthly detail, the dominant (71.2% of total starts) single-unit housing starts sector of that series (*Graphs 9* and *10* in the *Executive Summary*) was down by 54.2% (-54.2%) from its January 2006 pre-recession peak.

In contrast the smaller count in the multiple-unit category (two units or more), 28.8% of the total, hit its recent high in June 2015, topping its pre-recession January 2006 peak by 12.7%. It had dropped back below that 2006 high by 25.1% (-25.1%) as of April 2017.

Reflected in the smoothed graphs in the *Executive Summary*, the various housing-starts series generally are flat, at a low level of stagnation (*Graph 8* for the aggregate). That reflected a blend of the low-level stagnation in the six-month-smoothed single-unit activity (*Graph 10*), with the more-volatile, smoothed multiple-unit starts (*Graph 12*) that had regained its pre-recession peak, where both series now are showing some minimal, recent downtrend.

Consumer Liquidity Problems Continue to Impair Residential Construction Activity. The extreme liquidity bind besetting consumers continues to constrain residential real estate activity, as updated in [Commentary No. 883](#) and as fully reviewed in the *CONSUMER LIQUIDITY* section of [No. 859 Special Commentary](#). Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including aggregate real estate activity. That circumstance—in the last ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending, including residential construction.

April 2017 Housing Starts, Headline Detail. The always-unstable and highly-volatile aggregate Housing Starts series declined month-to-month in April 2017, in the context of annual revisions. The Census Bureau reported May 16th, a statistically-insignificant, seasonally-adjusted, headline monthly decline in April 2017 housing starts of 2.6% (-2.6%) +/- 10.3% (all confidence intervals are expressed at the 95% level). That followed a monthly decline of 6.6% (-6.6%) in March and a monthly gain of 4.2% in February. Level-of-activity aggregate detail is plotted in *Graphs 5* to *8* of the *Executive Summary*, and in *Graphs 16*, *18*, *19* and *20* at the end of this section.

Year-to-year change in the seasonally-adjusted, April 2017 aggregate housing-starts measure was a statistically-insignificant gain of 0.7% +/- 8.2%, versus annual gains of 6.6% in March 2017, and 6.5% in February 2017.

The April 2017 headline decline of 2.6% (-2.6%) in total Housing Starts encompassed a headline gain of 0.4% in the “one unit” category and a drop of 9.6% (-9.6%) in the “five units or more” category. There is a missing balance in the “two to four units” category, which rose by 12.5% month-to-month in April. Where that category is considered too small to be meaningful, it did affect the aggregates, as discussed

later in the broader, aggregate “multiple unit” category. Most commonly, not one of the monthly or annual headline changes by category is statistically meaningful, which again was the case in April 2017.

Housing Starts By-Unit Category. [See Graphs 5 to 12 in the Executive Summary.] Where the irregular housing starts series can show varying patterns, that partially is due to a reporting mix of residential construction products, with the largest physical-count category of one-unit structure housing starts—generally for individual consumption, resulting in new home sales—versus multi-unit structure starts that generally reflect the building of condominiums, rental and apartment units. Again all detail here is in the context of the annual revisions.

Housing starts for single-unit structures in April 2017 gained month-to-month by a statistically-insignificant 0.4% +/- 10.1%, following a monthly decline of 5.1% (-5.1%) in March and a gain of 7.6% in February. April 2017 single-unit starts showed a statistically-insignificant annual gain of 8.9% +/- 9.8%, versus annual gains of 11.2% in March 2017 and 4.3% in February 2017 (see *Graphs 5, 6, 9 and 10* in the *Executive Summary*).

Housing starts for apartment buildings, condominiums, etc. (generally 5-units-or-more) in April 2017 declined month-to-month by a statistically-insignificant 9.6% (-9.6%) +/- 28.3%, versus declines of 7.4% (-7.4%) in March and 6.2% (-6.2%) in February. A statistically-insignificant year-to-year drop of 14.6% (-14.6%) +/- 28.0% in April 2017 followed a 1.9% (-1.9%) annual decline in March 2017, and a 10.1% gain in February 2017.

Expanding the multi-unit housing starts category to include 2-to-4-units plus 5-units-or-more usually reflects the bulk of rental- and apartment-unit activity. The Census Bureau does not publish estimates of the 2-to-4-units category, due to statistical significance problems (a general issue for the aggregate series). Nonetheless, the total multi-unit category can be estimated by subtracting the single-unit category from the total category (see *Graphs 5, 6, 11 and 12* in the *Executive Summary*).

Accordingly, the statistically-insignificant April 2017 monthly decline of 2.6% (-2.6%) in aggregate starts was composed of a statistically-insignificant gain of 0.4% in one-unit structures and a statistically-insignificant decline of 9.2% (-9.2%) in the multiple-unit structures categories (2-units-or-more, including the 5-units-or-more category). In contrast, again, ex-2-units-or-more, the multiple-unit category declined by 9.6% (-9.6%). These series all are graphed in the *Executive Summary*.

A Note on the Regular Housing Starts Graphs. [This section largely is repeated in the Executive Summary.] Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,172,000 in April 2017, versus a downwardly-revised 1,203,000 [previously 1,215,000] in March 2017. The scaling used in the accompanying aggregate housing starts and building permits *Graphs 15 to 20* reflects those annualized numbers.

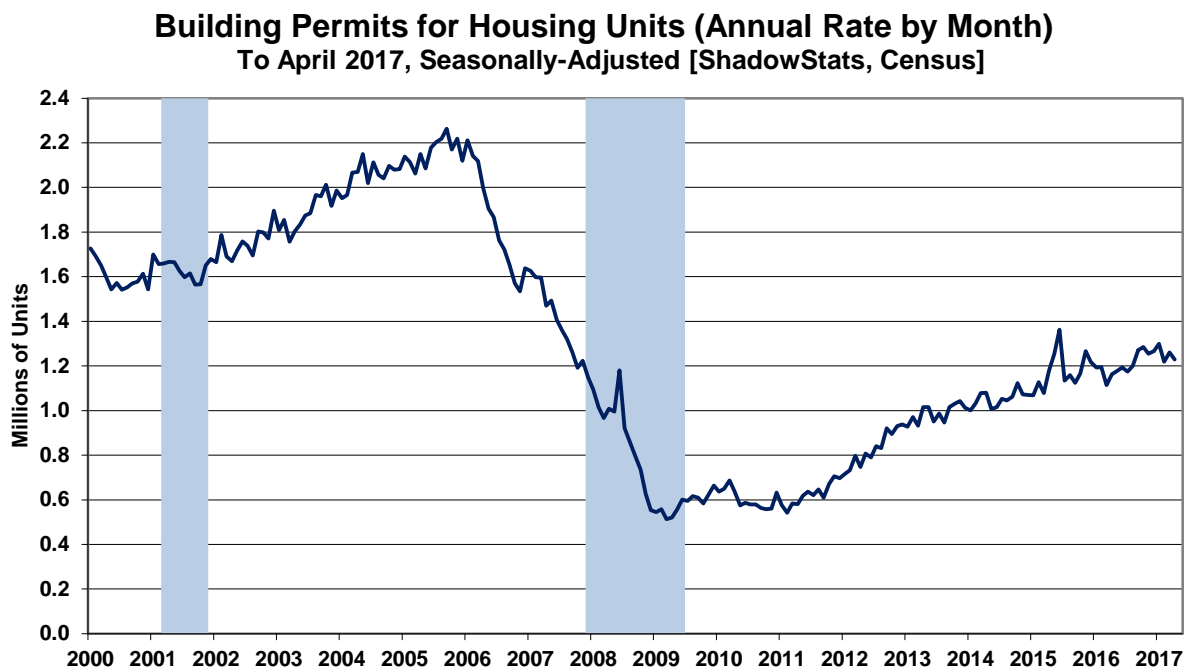
Nonetheless, given the nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the just-revised headline, month-to-month gain of 266,000 [previously 268,000] in October 2016 was larger than any actual level of (not change in) monthly starts, ever (in units per month, not annualized), for a single month. That is since related starts detail first was published after World War II.

Accordingly, the monthly rate of 97,667 units in April 2017, instead of the annualized headline level of 1,172,000 units, is used in the scaling of the *Graphs 5 to 12* in the *Executive Summary*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as seen in a comparison of *Graph 16* versus *Graph 7*.

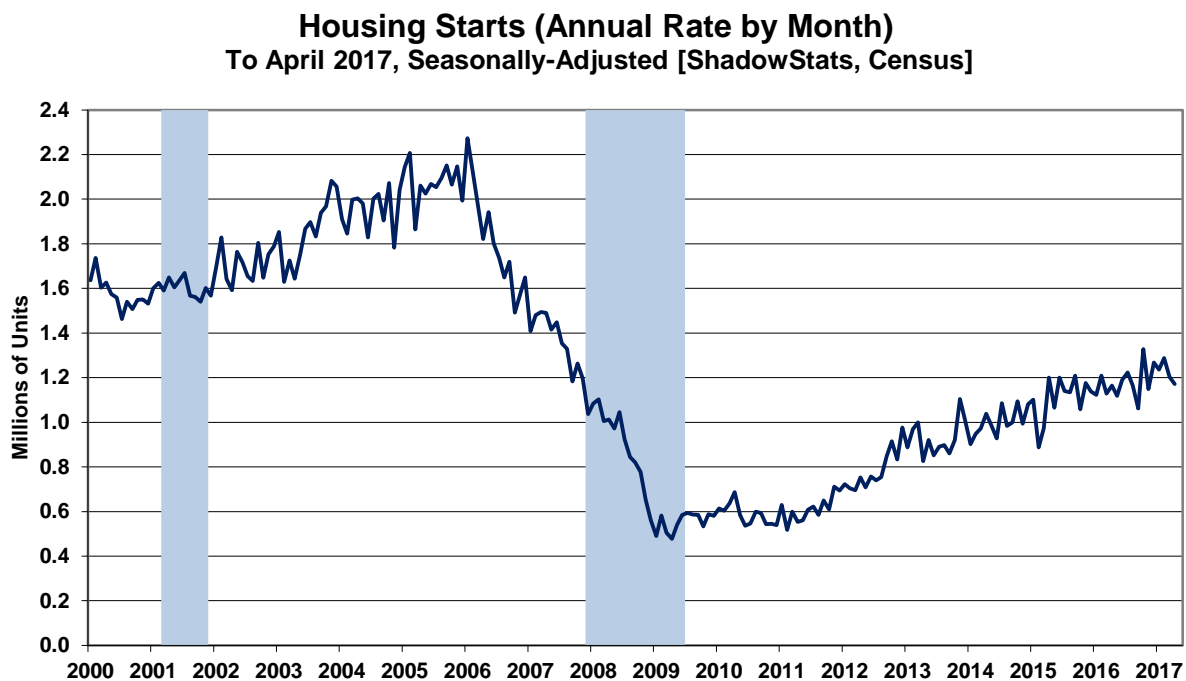
The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 pre-recession peak for the series. Against that downside-spiked low in April 2009, the April 2017 headline monthly number was up by 145%, but it still was down by 48% (-48%) from the January 2006 pre-recession high. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in relative stagnation, still at low levels that otherwise have been seen at or near the historical troughs of other recession activity of the last 70 years, as reflected in *Graphs 19* and *20*. In fact, as can be seen in *Graph 20*, current housing starts activity not only has failed to recover the current pre-recession (pre-collapse into 2009) peak, but also has yet to recover to the level of any pre-recession peak activity seen in the entire post-World War II era.

[Graphs 15 to 20 begin on the next page.]

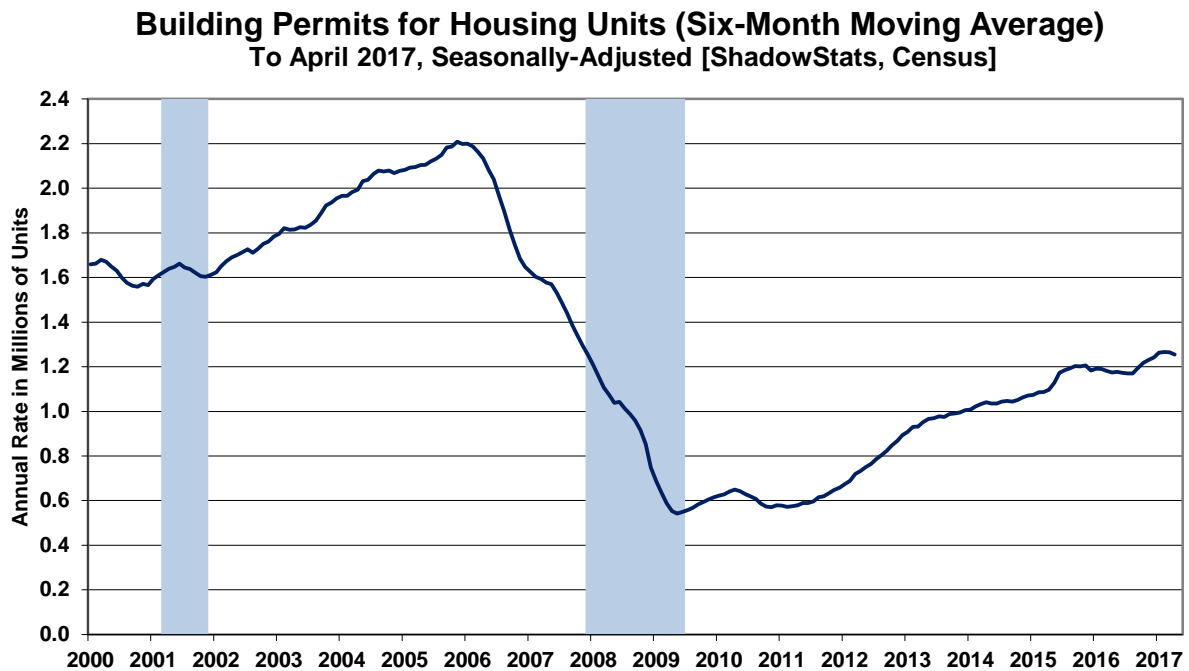
Graph 15: Building Permits (Annualized Monthly Rate of Activity), 2000 to Date



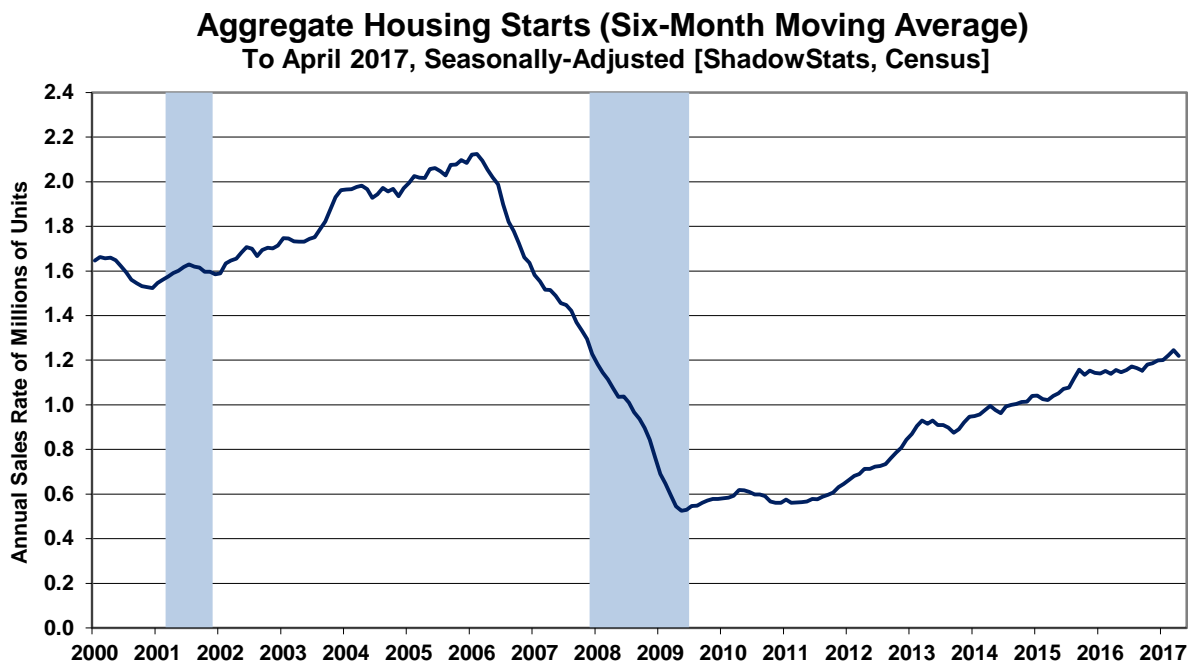
Graph 16: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date



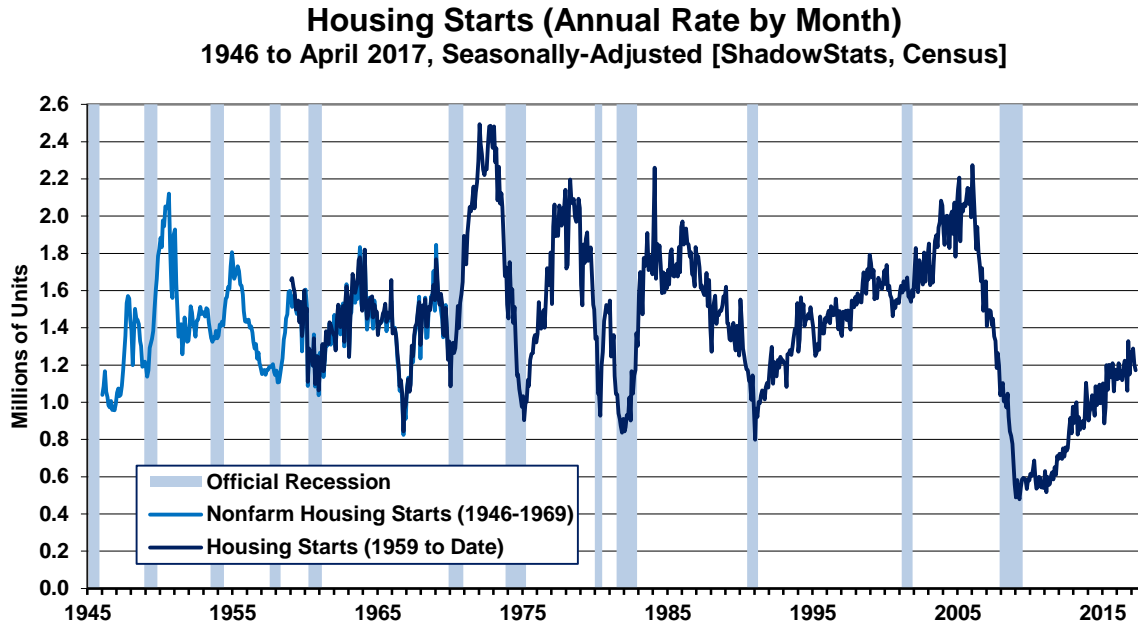
Graph 17: Building Permits (Six-Month Moving Average), 2000 to Date



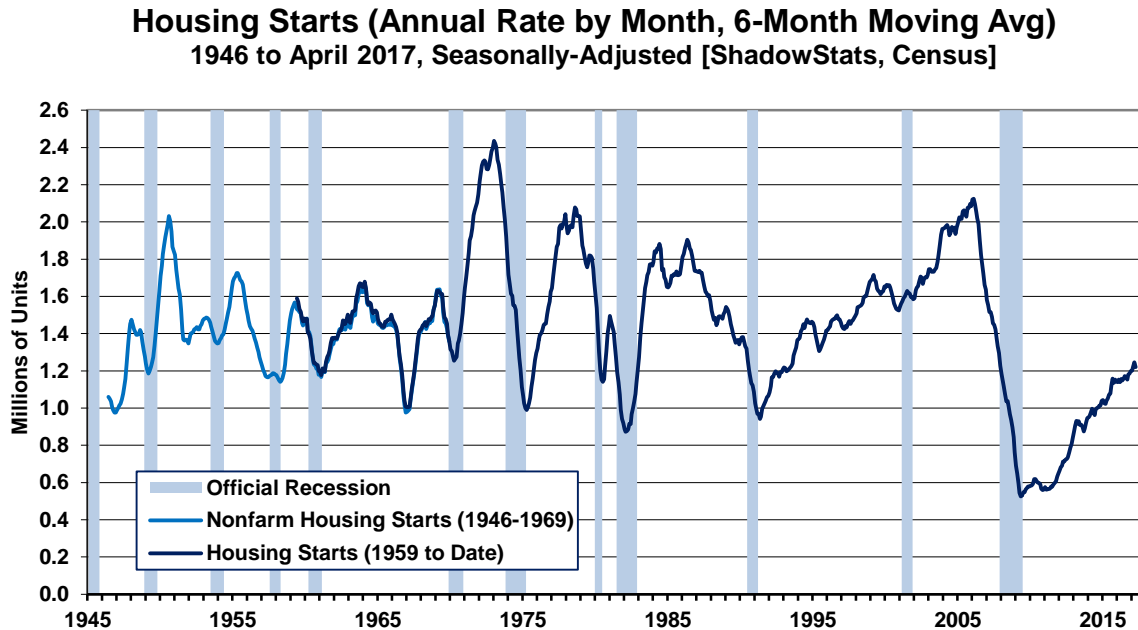
Graph 18: Housing Starts (Six-Month Moving Average), 2000 to Date



Graph 19: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date



Graph 20: Housing Starts (Annualized Monthly Rate of Activity, 6-Month Moving Avg), 1946 to Date



INDUSTRIAL PRODUCTION (April 2017)

April Production Rallied Across the Manufacturing, Mining and Utilities Sectors, While Broad Activity Continued in Economic Non-Expansion. Monthly headline industrial production growth was solid across the various industry and market groups covered each month by the Federal Reserve's Industrial Production survey, coming in above expectations. With both production and its dominant manufacturing sector up month-to-month by 1.0% in April, the series has been moving off its recent bottom. Revisions and reporting details of the next month or two will be crucial in assessing the credibility of the headline upside bump in production activity.

Nonetheless, both production and manufacturing remained below pre-recession peak-activity levels. In terms of protracted, economic non-expansion, the Manufacturing sector has seen its longest stretch of non-recovery in the 99-year history of Industrial Production, for 112-months and counting. In contrast, it took the post-war U.S. economy 96-months to rebuild production to its World War II peak. In the first down-leg of the Great Depression, it took 88-months to recover the pre-collapse high.

April 2017 headline manufacturing remained 5.6% (-5.6%) below its December 2007 pre-recession peak. Unlike the Industrial Production series, which had a brief respite in 2014 before turning down anew, parallel and rivaling the pattern of the Great Depression economy, the Manufacturing sector never has regained its prior high, even for one month (see [Commentary No. 876](#)).

One of the Better-Quality Series, Industrial Production Still Overstates Headline Activity. Despite the March 31st benchmark revisions (see [Commentary No. 877](#)), which hit historical production detail hard, current headline production reporting still overstates economic activity. Today's benchmarking of durable goods orders and shipments appears to have hit that series even harder (details follow in [Commentary No. 888](#)), with potential negative implications for headline manufacturing and related GDP. With the benchmarked 2016 industrial production representing 59% of the real value of Gross Domestic Product (GDP), as estimated by the Federal Reserve, the broad economy remains in the harsh reality of ongoing recession, one that has continued from somewhat before 2007. Although never recovering, a renewed downturn in activity has been underway since December 2014, following a period of low-level, non-recovered economic stagnation.

That is irrespective of the continuing happy hype out of the Bureau of Economic Analysis (BEA), which guesstimated first-quarter 2017 real GDP activity at 12.3% above its pre-recession peak (see [Commentary No. 883](#)). No other major economic series shows anything close to that purported level of recovery, while industrial production has shown a renewed and continuing downturn (see discussions in [Commentary No. 877](#) and [No. 859 Special Commentary](#)).

As of headline April 2017 reporting, the Industrial Production Index (2012 = 100) stood at 105.124, closing in on, but below its formal pre-recession high by 0.20% (-0.20%) and was down from its one-month "expansion" peak level of November 2014 by 1.40% (-1.40%).

The dominant manufacturing sector (76.4% of Industrial Production, 45% of GDP, as weighted in 2016) never has recovered, with March 2017 manufacturing activity still down by 5.65% (-5.65%) from reclaiming its pre-recession peak level of activity.

Those issues also were expanded upon in [Commentary No. 869](#), where the pre-benchmark, but still-relevant pattern of industrial production, in the historical context of that series and broad domestic

economic activity, has demonstrated that headline GDP activity no longer has any meaningful relationship to underlying economic reality.

Even so, allowing for the merits of the Industrial Production series, the understatement of inflation used in estimating some components of production still results in overstatement of headline production growth, as discussed in the *Executive Summary* and plotted there in *Graphs 13* and *14*.

An overriding issue continuing to hamper policies of the Federal Reserve, as well as the dominant contributing factor behind the major political shift seen with the 2016 presidential election (see [Commentary No. 846](#)), is that the U.S. economy never really has recovered from the “2007 Recession.” The unfolding “new” downturn remains no more than another down-leg in the economic collapse that began to surface in 2005 and 2006 (again, see [No. 859 Special Commentary](#)). Headline Industrial Production (not the ShadowStats-corrected series), again, recovered its pre-recession high only for only two months, in October and November 2014 and has been in fairly-consistent monthly decline ever since, falling month-to-month in 19 out of 28 months, with year-to-year decline following in 20 of the last 24 months. That said, the headline production downturn, again, might be in the process of bottoming out.

Headline Industrial Production—April 2017. The Federal Reserve Board released its first estimate of seasonally-adjusted, April 2017 Industrial Production on May 16th. In the context of the second round of post-benchmarking monthly revisions, with negligible, aggregate revisions to March 2017 activity, an upside revision to February 2017 activity, and a downside revision to November 2016, shifted some quarterly activity from fourth-quarter 2016 to first-quarter 2017.

Headline April 2017 production rose by 0.98% month-to-month, following a revised 0.41% [previously 0.55%] gain in March, a revised gain of 0.18% [previously 0.06%] in February and a revised monthly decline in January 2017 of 0.27% (-0.27%). Net of prior-period revisions, April 2017 production increased in the month by the same headline 0.98%.

Detailed by major industry group (see *Graphs 23, 25, 30* and *32*), the headline April 2017 monthly aggregate gain of 0.98% was composed of a monthly gain of 0.99% in manufacturing activity, a 0.69% gain in utilities activity and a gain of 1.18% in mining activity (including oil and gas production). The gain in manufacturing was dominated by a 1.51% monthly gain in consumer goods.

Year-to-year change in April 2017 industrial production was a gain of 2.19%, versus a revised 1.54% [previously 1.53%] in March 2017, a gain of 0.40% [previously 0.25%] in February 2017 and a gain of 0.02% [previously a decline of 0.01% (-0.01%)] in January 2017.

Quarterly and Annual Production Changes. Post-2017 annual benchmarking, year-to-year growth rates in quarterly production had continued to slow and then decline, ranging from a positive 1.72% in first-quarter 2015, to annual declines of 0.76% (-0.76%) in second-quarter 2015, 1.08% (-1.08%) in third-quarter 2015 and 2.66% (-2.66%) in fourth-quarter 2015.

The annual declines continued, down by 2.17% (-2.17%) in first-quarter 2016, by 1.34% (-1.34%) in second-quarter 2016 and by 1.24% (-1.24%) in third-quarter 2016. Fourth-quarter 2016 production contracted year-to-year for the seventh-straight (had been the fifth-straight pre-benchmarking) quarter by a revised 0.14% (-0.14%) [previously down by 0.13% (-0.13%)].

Year-to-Year Change for First-Quarter 2017. With the first revision to first-quarter 2017 detail, annual change by quarter rose by a revised 0.65% [previously 0.59%], the first annual gain since first-quarter 2015. With just one month of reporting in place, second-quarter 2017 production was on early track for an annual gain of 2.14%.

Annualized Quarter-to-Quarter. Going back to first-quarter 2015 industrial production contracted at an annualized quarterly pace of 3.30% (-3.30%), having gained by 2.72% in fourth-quarter 2014. That was followed by a quarterly contraction of 3.97% (-3.97%) in second-quarter 2015, with a third-quarter 2015 production gain of 0.37%, followed by a fourth-quarter 2015 contraction of 3.66% (-3.66%).

The first-quarter 2016 declined by 1.34% (-1.34%), quarter-to-quarter, with a second-quarter 2016 quarterly decline of 0.68% (-0.68%). Third-quarter 2016 industrial production expanded at an annualized pace of 0.78%, with the fourth-quarter 2016 gain a revised 0.71% [previously 0.74%].

Annualized First-Quarter 2017. With the first revision to first-quarter 2017 detail, the annualized quarterly gain was 1.80% [previously 1.53%]. With just one month of reporting in place, second-quarter 2017 production was on early track for an annualized quarterly gain of 5.36%.

Production Graphs. The regular two sets of long- and short-term plots of industrial production levels and annual growth rates (*Graphs 21 to 24*) set the background for the drill-down detail graphs of various components of the aggregate industrial series (*Graphs 25 to 38*).

Graphs 21 and 22, and Graphs 23 and 24 show headline industrial production activity to date. *Graph 22* shows the monthly year-to-year percent change in the aggregate series, in historical context since World War II. Post-benchmarking, activity was somewhat stronger coming into 2014, but much weaker going into 2015, as detailed in [Commentary No. 877](#).

Graph 21 shows the monthly level of the production index post-World War II, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015, with a bounce in third-quarter 2015, followed by renewed and deeper contractions in fourth-quarter 2015 and first- and second-quarter 2016, a bounce back in third-quarter with gains into 2017. Such patterns of monthly, quarterly and annual declines since late-2014 still were seen last in the economic collapse into 2009, and historically never seen outside of what would be recognized as formal recessions. *Graphs 23 and 24* show the same series in near-term detail, beginning in January 2000.

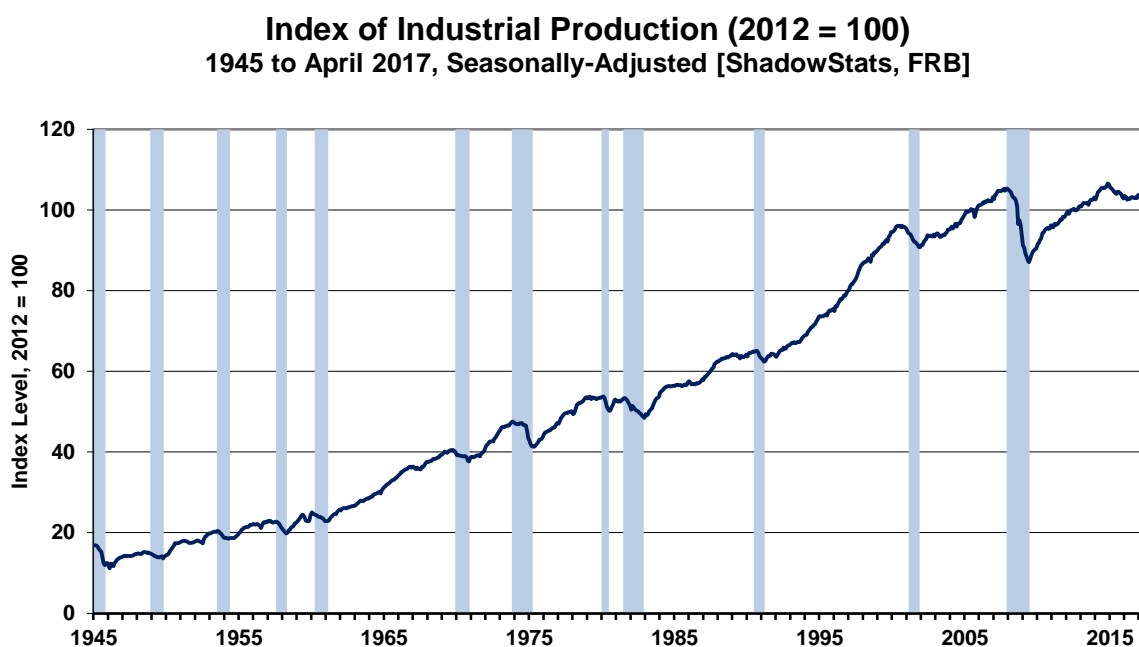
Seen most clearly in *Graph 24*, year-to-year activity dipped anew in 2013, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, turning negative, again, into 2015 and through 2016 as seen only in formal recessions. In the context of the 2017 benchmark revisions, year-to-year growth remains well off the recent relative peak for the series, which was 8.55% in June 2010, going against the official June 2009 trough of the economic collapse. Indeed, as shown in *Graph 22*, the June 2009 (the end of second-quarter 2009) year-to-year contraction of 15.43% (-15.43%) was the steepest annual decline in production since the shutdown of wartime production following World War II.

Although generally now-faltering, official production levels had moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Executive Summary* section, *Graph 14*). That series has shown more of a pattern of stagnation with a slow upside trend, since 2009, with irregular quarterly contractions interspersed. The

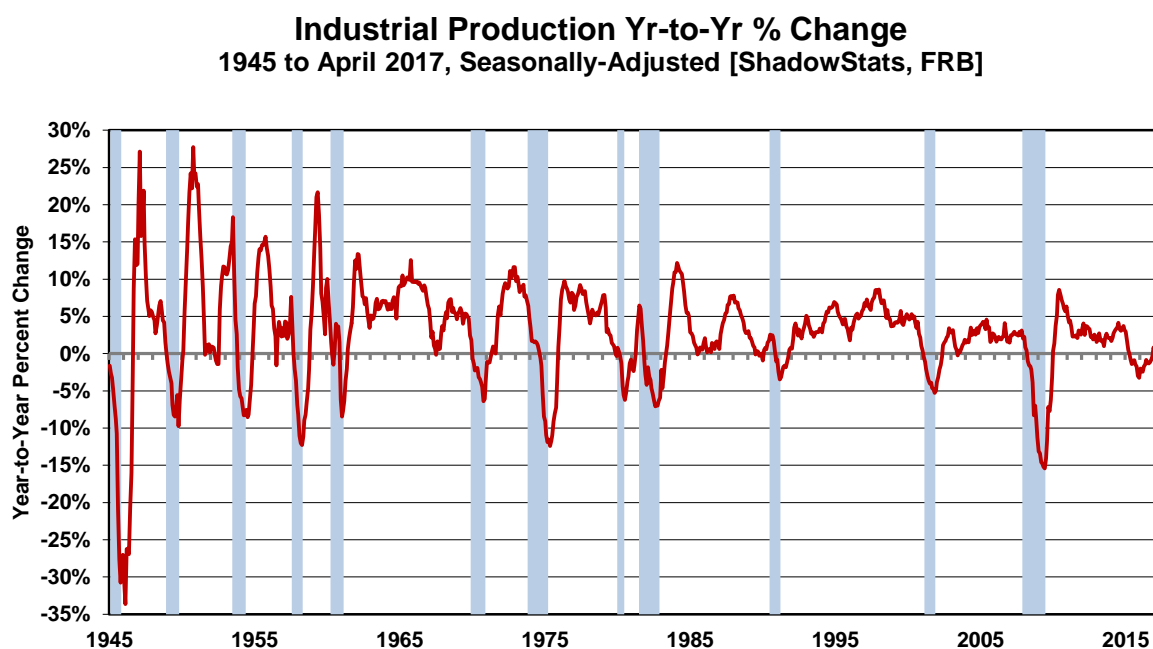
slow uptrend continued into a topping out pattern in late-2014. Headline growth—purportedly already neutered of any inflation impact—contracted in both first- and second-quarter 2015, moved minimally higher into third-quarter 2015, contracted into second-quarter 2016, and turned positive in third-quarter 2016 through early 2017. The “corrected” series has contracted quarter-to-quarter throughout 2016 and into 2017.

[Graphs 21 and 22 follow on the next page.]

Graph 21: Index of Industrial Production (Aggregate) since 1945

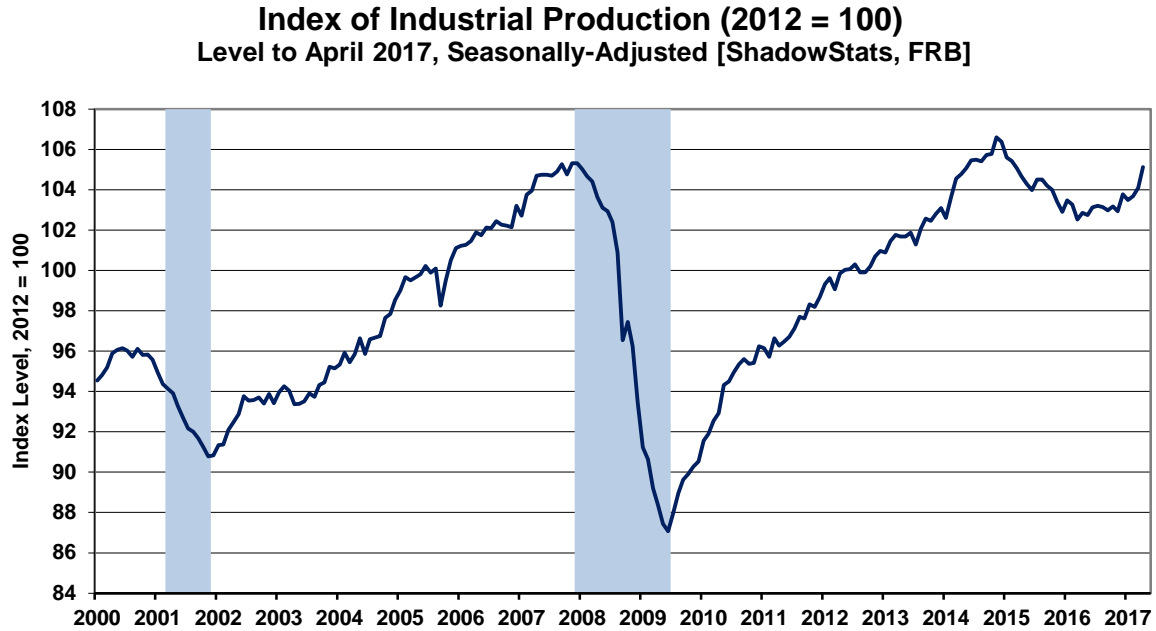


Graph 22: Industrial Production, Year-to-Year Percent Change since 1945

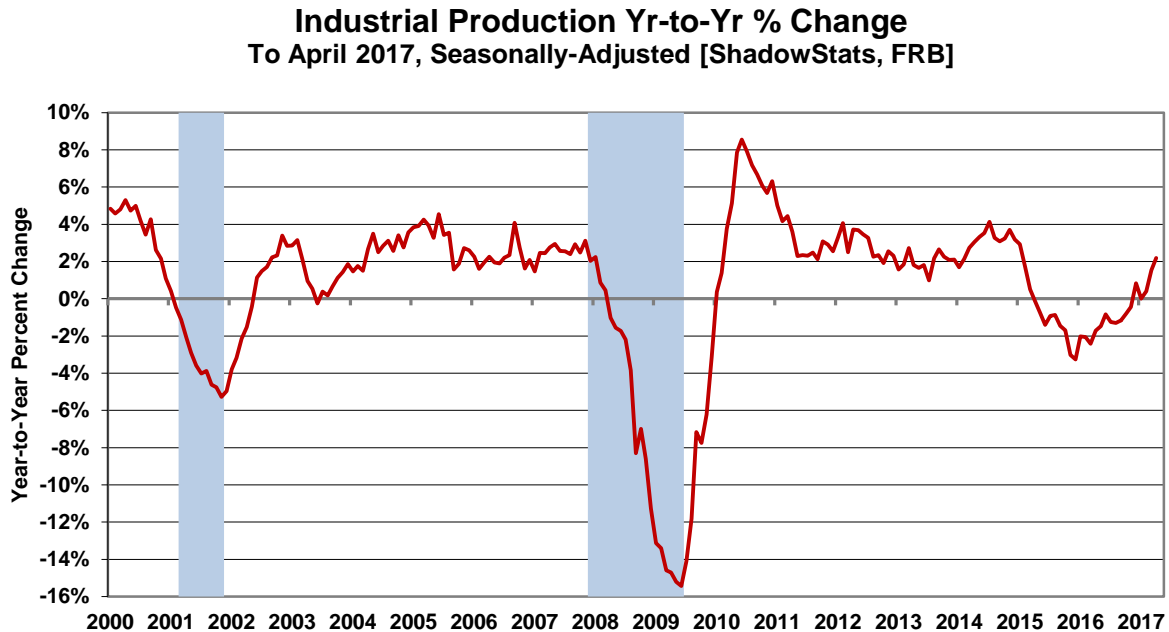


Drilling Down into the April 2017 U.S. Industrial Production Detail. Graphs 23, 25, 30 and 32 show headline reporting of industrial production and its major components.

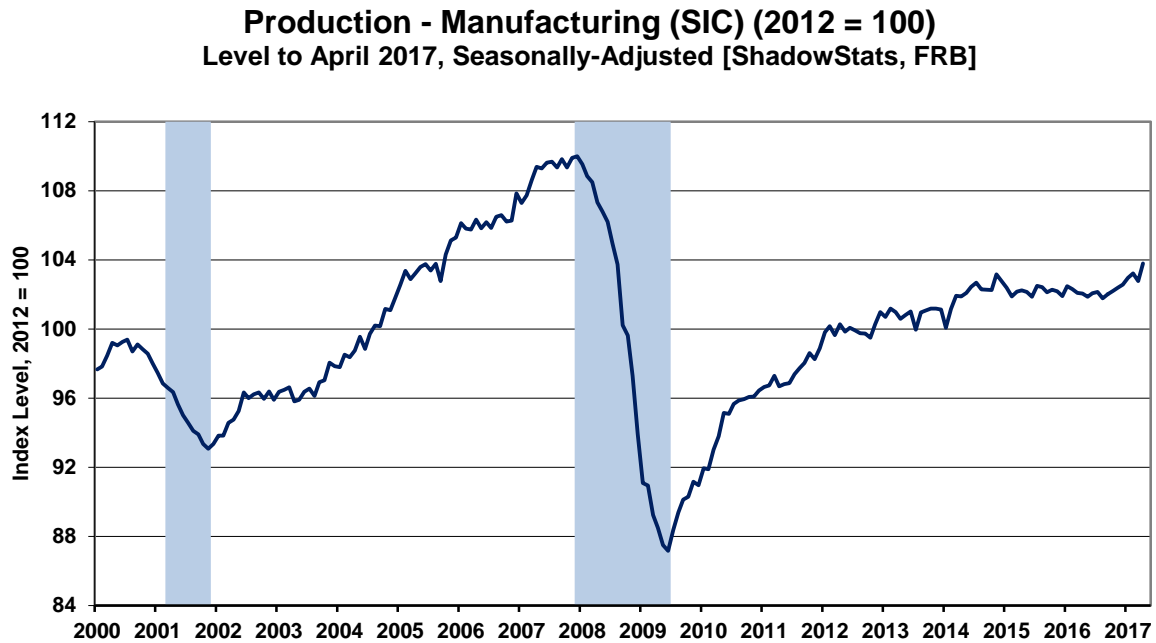
Graph 23: Index of Aggregate Industrial Production since 2000



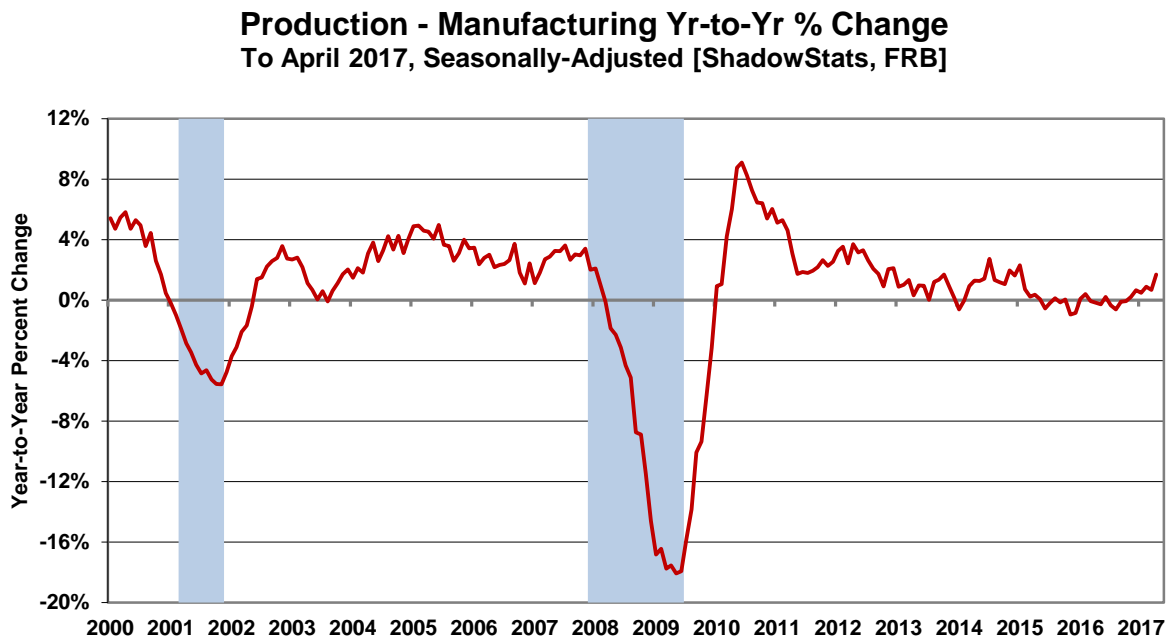
Graph 24: Aggregate Industrial Production, Year-to-Year Percent Change since 2000



Graph 25: Industrial Production - Manufacturing (76.4% of the IIP in 2016)



Graph 26: Industrial Production - Manufacturing, Year-to-Year Percent Change Since 2000



The aggregate index (*Graph 23*) contracted quarter-to-quarter in both first- and second-quarter 2015, with a third-quarter 2015 bounce, followed by ongoing, consecutive quarterly contractions from fourth-quarter 2015 through second-quarter 2016. Year-to-year declines by quarter were seen for seven consecutive

quarters, from second-quarter 2015 through fourth-quarter 2016, with first-quarter 2017 activity positive on both a quarterly and annual basis, a trend continuing into April. Nonetheless, first-quarter production levels in April 2017 still held below the peak activity seen before the economic collapse into 2009.

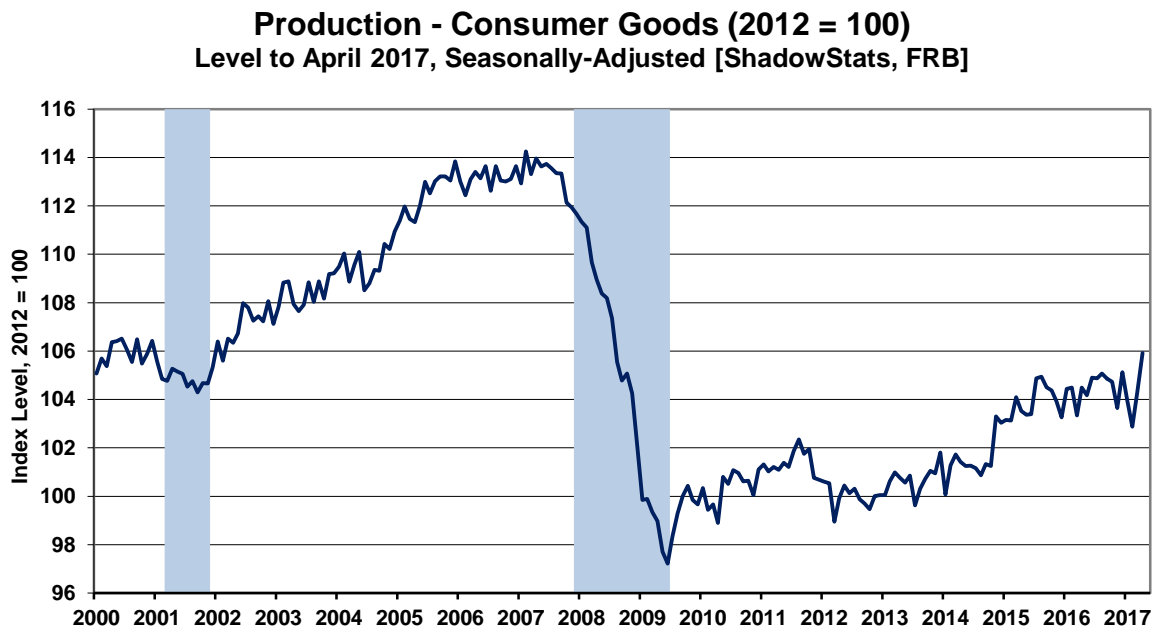
Shown in *Graphs 25, 30 and 32*, of the three major industry groups, manufacturing, utilities and mining, manufacturing rose month-to-month in April 2017 reporting.

Graph 25 of the dominant manufacturing sector showed a month-to-month gain of 0.99% in April 2017, dominated by automobile production in consumer durable goods, having declined by 0.43% (-0.43%) in March and having gained 0.25% in February. *Graph 26* reflects annual growth patterns in manufacturing, which jumped in April 2017. It had been fluttering at low levels since an initial bounce off the 2009 trough, down year-to-year in the six months through October, turning to the plus-side in November 2016 to date.

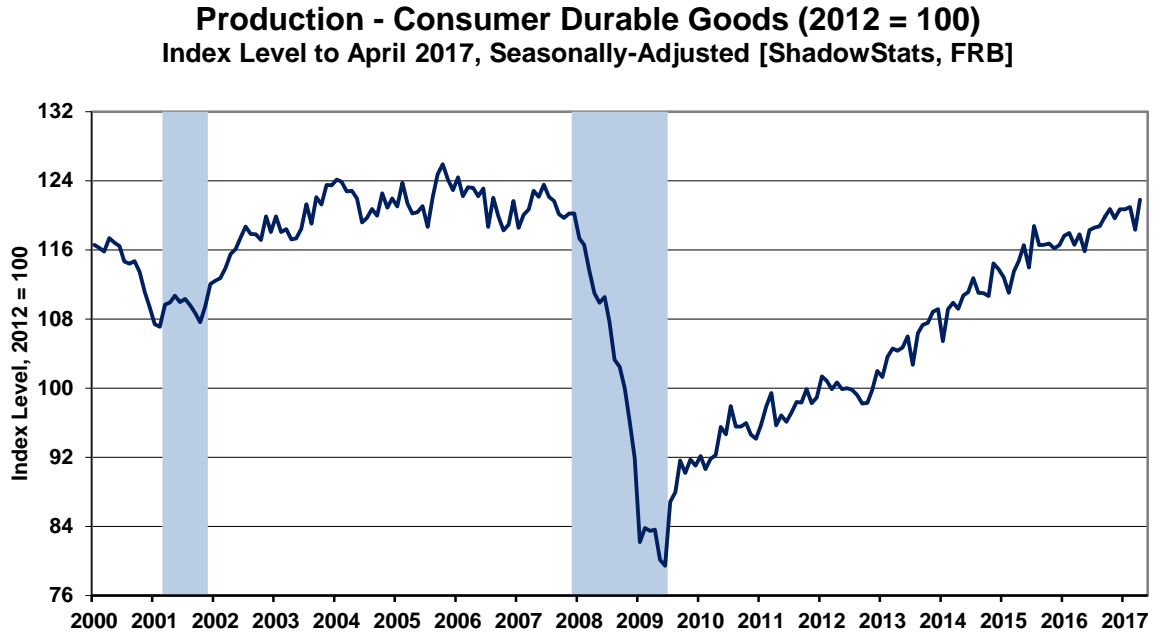
Consumer Goods production increased in April 2017 by 1.51%, having gained 1.43% in March and having declined by 1.06% (-1.06%) in February (see *Graphs 27 to 29*).

Headline March 2017 Consumer Goods detail reflected a surge in durable goods of 2.95%, which largely reflected increased auto production in the relative context of downside revisions to March activity, with nondurables rallying by 1.10%, in the context of an upside revision to March activity, reflected in *Graph 28* and *Graph 29*.

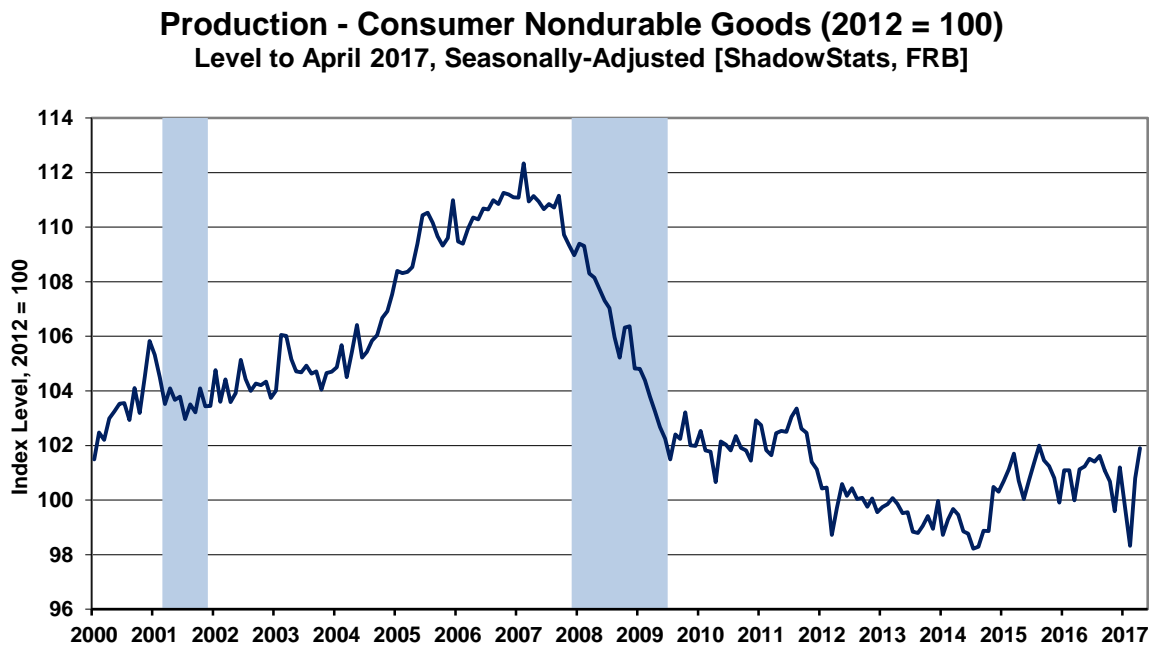
Graph 27: Consumer Goods (28.2% of the Aggregate in 2016)



Graph 28: Durable Consumer Goods (6.3% of the Aggregate in 2016)



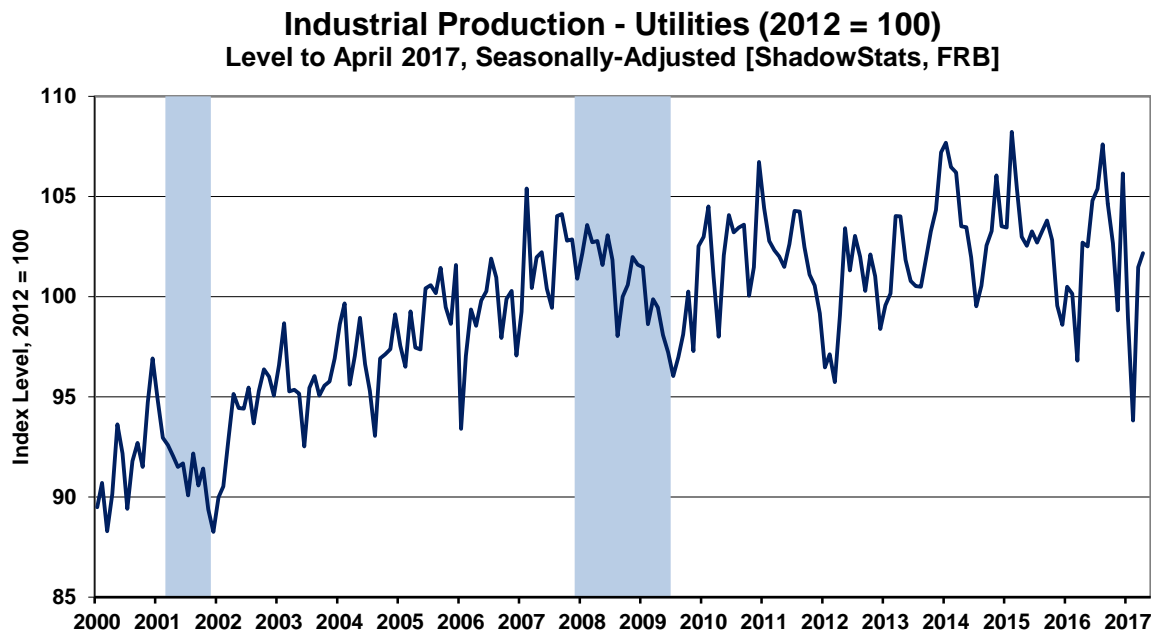
Graph 29: Nondurable Consumer Goods (21.9% of the Aggregate in 2016)



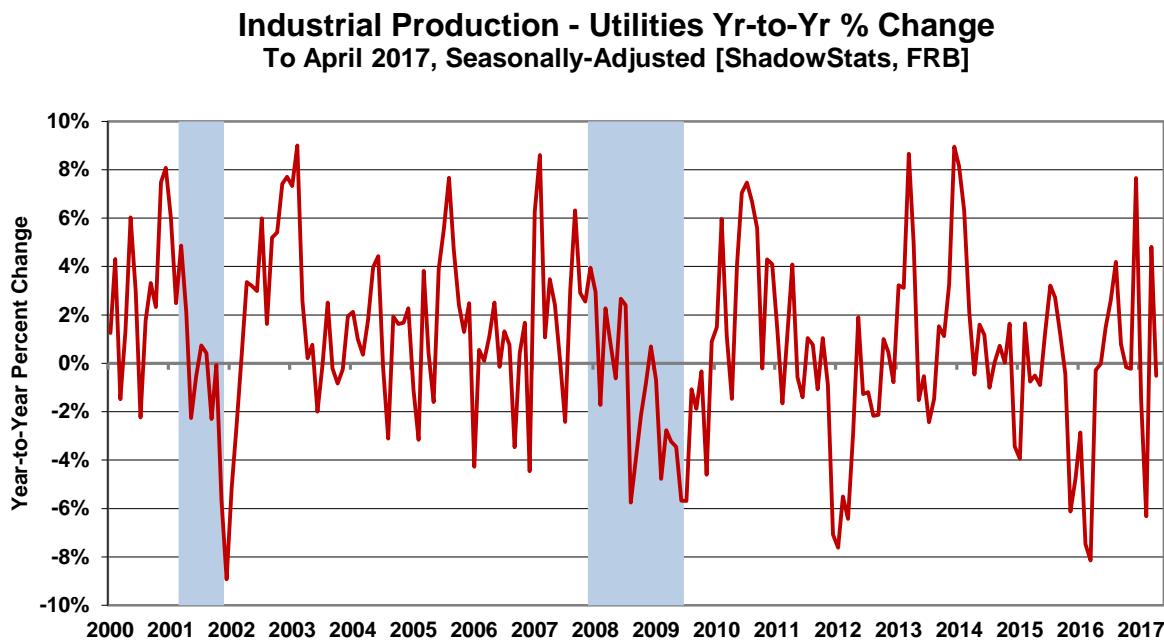
Monthly volatility in the utilities sector (*Graph 30*) usually reflects unseasonable shifts in weather conditions and reversals of same. The headline surge of 0.69% in April reflected a return to more-normal activity, where the revised 8.16% [previously 8.62%] monthly gain in March had been the largest monthly gain in the history of the series, sharply offsetting a revised plunge of 5.19% (-5.19%)

[previously 5.78% (-5.78%)] in February 2017 and a minimally revised drop of 6.79% (-6.79%) in January 2017. Such distortions tend to balance out over the period of a year.

Graph 30: Industrial Production - Utilities (10.6% of the Aggregate in 2016)

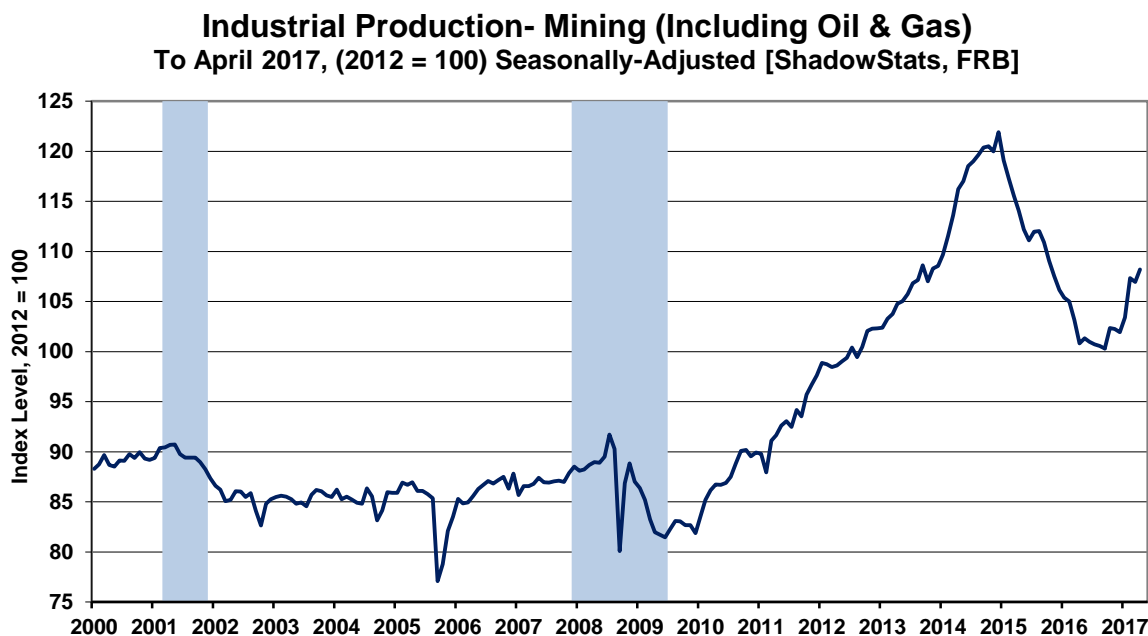


Graph 31: Industrial Production - Utilities, Year-to-Year Percent Change Since 2000

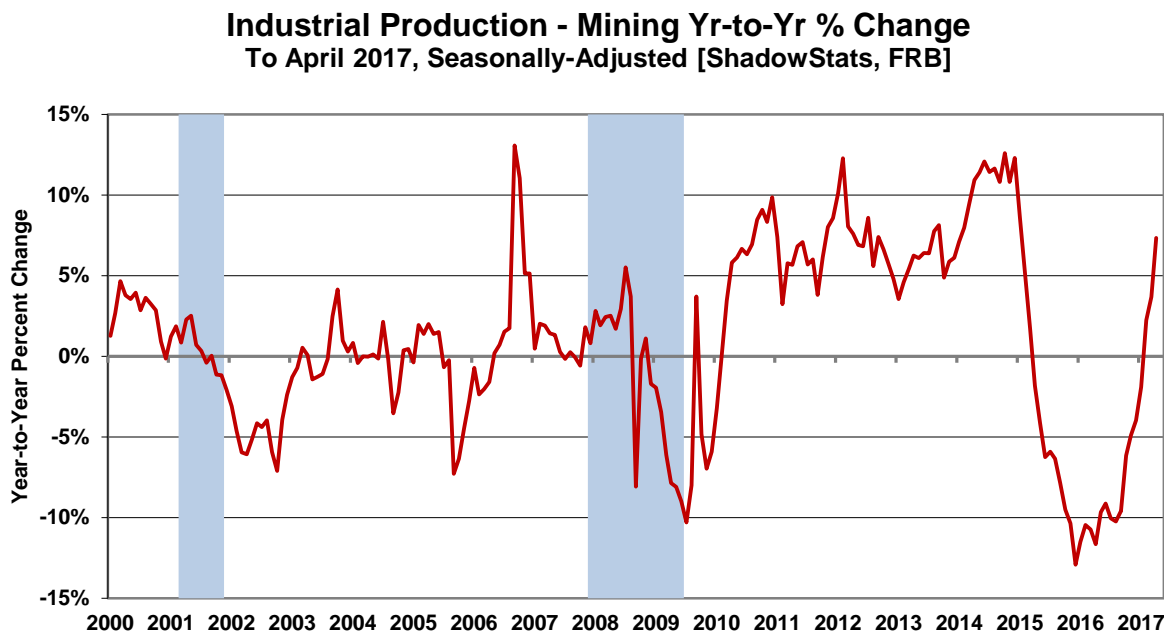


Activity in the mining sector (*Graph 32*), particularly in oil and gas exploration and production, and increasingly in gold and coal mining, remains the near-term focus of this analysis.

Graph 32: Industrial Production - Mining, Including Oil and Gas (12.9% of the Aggregate in 2016)



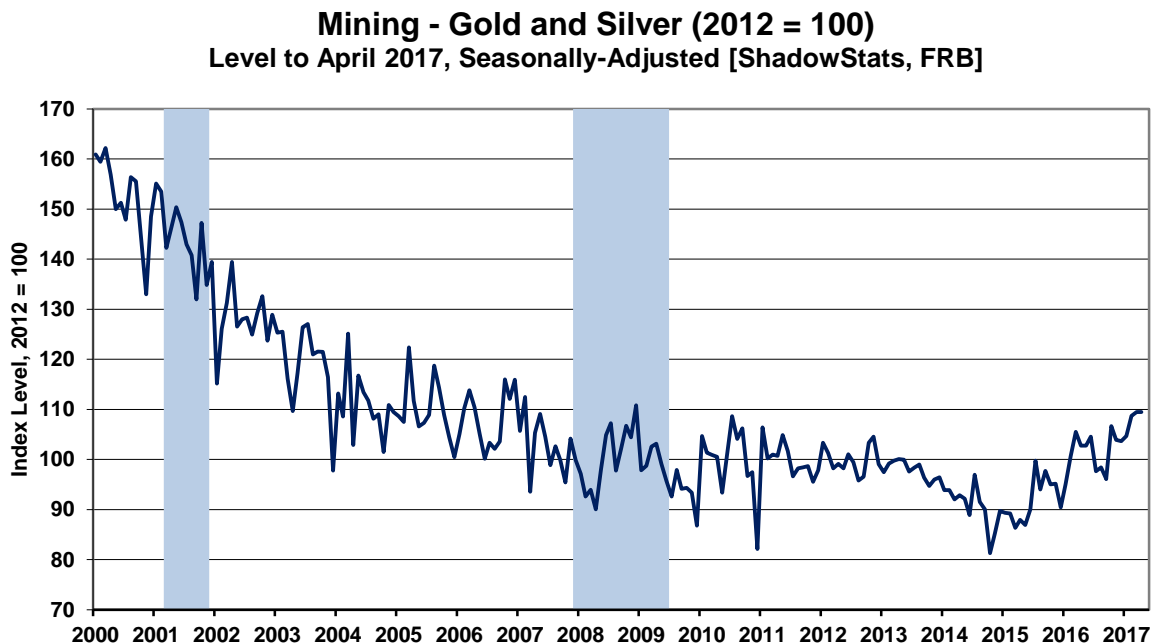
Graph 33: Industrial Production - Mining, Year-to-Year Percent Change



The mining sector, including oil and gas production, easily recovered its pre-recession high and accounted for the full “recovery,” albeit extremely short-lived (just the months of October and November 2014), as seen in the aggregate Industrial Production detail since the economic collapse (see detail in [Commentary No. 877](#)). Since then, however, mining production turned down sharply, reflecting a number of factors, including the impact of largely orchestrated lower oil prices, which subsequently have fluctuated, tied to dollar and supply issues, as well, as U.S. government actions during the Obama Administration to limit coal consumption and production. Year-to-year Mining Sector activity in (*Graph 33*) in February 2017 broke to the plus-side, to an upwardly revised 2.23%, for the first time since February 2015, up by an upwardly-revised 3.69% in March 2017 and by 7.33% in April 2017. Mining has moved off bottom, thanks to some general rebound in coal production and a bottoming and monthly upturns in oil and gas extraction and exploration and an upturn in gold and silver production (see *Graphs 34* through 38). That said, other than for flat monthly production in April 2017 oil and gas extraction and gold and silver mining, the other key areas boosted April monthly activity by 1.18%.

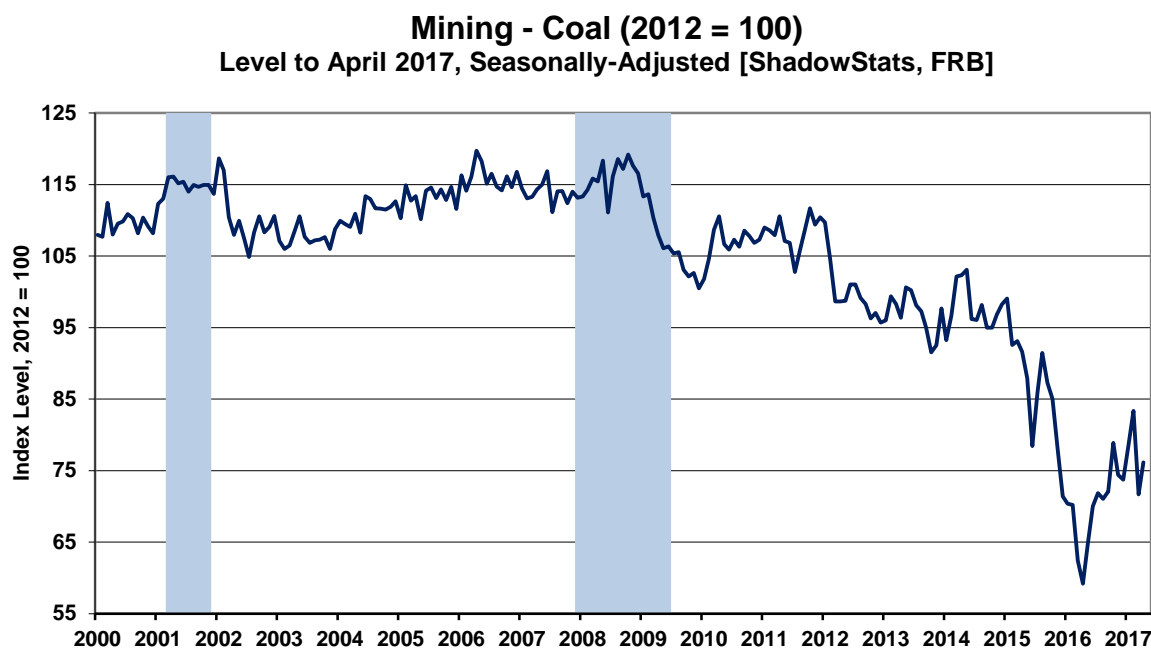
Graph 34 reflects generally increasing gold and silver mining activity (revised to an uptrend with the benchmark revision). Headline April 2017 detail was flat, but still the strongest level of gold and silver mining since December 2008, irrespective of the pummeling given the prices of precious metals in recent years with central-bank orchestrated market manipulations as well as recent price volatility in the markets.

Graph 34: Mining – Gold and Silver Mining (Since 2000)

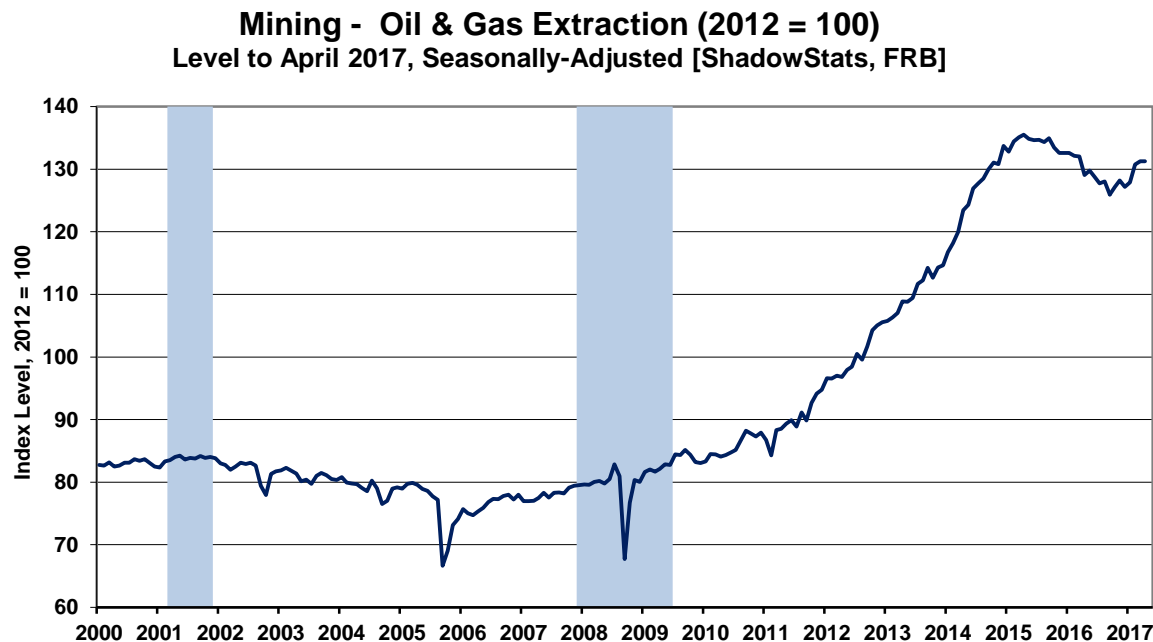


As with gold and silver mining, coal mining was benchmarked higher in recent years. *Graph 35* still shows a general rebound in the level of monthly coal production, with April 2017 activity up for the month by 6.26% having taken an extremely large monthly hit of 14.01% (-14.01%) in March, having gained by 6.26% in February and 6.37% in January. Despite annual growth in April 2017 activity surging to 28.59%, current activity, though, still is down sharply, by 26.92% (-26.92%), from its near-term production peak in May 2014.

Graph 35: Mining - Coal Mining (Since 2000)



Graph 36: Mining – U.S. Oil & Gas Extraction (Since 2000)

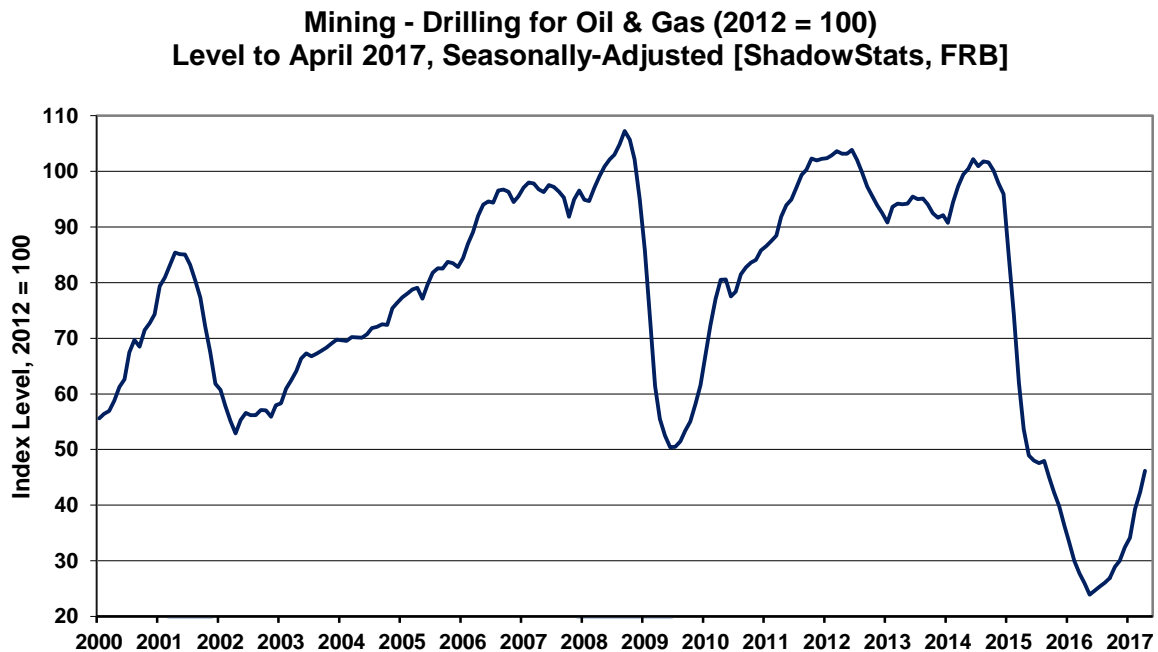


With oil prices fluctuating above recent lows, April 2017 oil and gas extraction was unchanged at 0.00% for April 2017, the month, having gained 0.41% in March and 2.24% in February. April 2017 activity, however, remained 3.11% (-3.11%) off its all-time high of March 2015.

Exploration in terms of oil and gas drilling (*Graph 37*) has continued to increase in what increasingly looks like a bottoming process, up by 9.02% month-to-month in April 2017, having gained 7.71% in March and 15.09% in February. The series remains collapsed, although year-to-year growth broke to the plus-side by 2.42% in January 2017, soaring to 31.13% in February 2017, 52.46% in March 2017 and 77.51% in April 2017.

Regularly discussed here, the collapse in drilling largely was an artefact of the massive U.S. dollar rally and oil-price plunge that began in July 2014. Those shifts appeared, at least initially, to be U.S.-orchestrated covert actions designed to stress Russia, financially, in response the circumstance in Ukraine. From the related August 2014 peak in oil drilling, March 2017 activity was down by 54.63% (-54.63%).

Graph 37: U.S. Drilling for Oil & Gas (Since 2000)

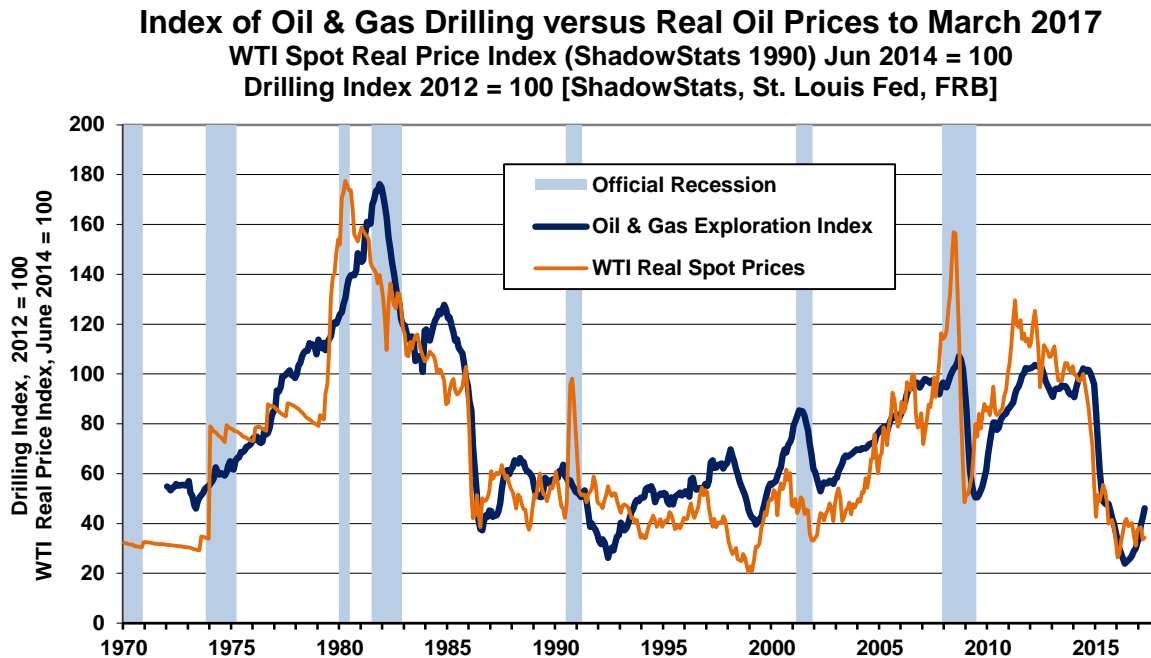


Shown in *Graph 38*, with some lag following sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing in exploration, indeed, appears to be in its early stages in response to the recent bottoming in oil price. The oil price index used here is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the ShadowStats Alternate CPI measure (1990 Base). The graph lines have been highlighted to show more clearly the price-level movement, which visually has coincided graphically with the movement in the drilling levels for the last couple of months.

When the dollar weakens, dollar-denominated oil prices also begin to strengthen, even in a circumstance with excess supply conditions. At such time as the U.S. dollar declines meaningfully—ShadowStats looks for a massive sell-off in the dollar in the year ahead (see the *Hyperinflation Watch* in [Commentary No. 886](#))—U.S. dollar-denominated oil prices should rally sharply (see also [General Commentary No. 811](#)). That said, post-election, the U.S. dollar has rallied, but there has not been a commensurate decline in oil prices. Instead, with supply being tightened artificially (see the discussion in [No. 859 Special](#)

[Commentary](#)), oil prices generally have increased and oil and gas extraction and exploration have picked up accordingly, with some lag. As the dollar weakens anew, artificial supply constraints likely will ease.

Graph 38: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)



WEEK, MONTH AND YEAR AHEAD

Continued Economic Weakness, Stagnation and Downturn, in Headline Reporting, Should Compromise Fed Policies, Pummeling the U.S. Dollar and Boosting the Price of Gold. Recent economic reporting will be reviewed in *Special Commentary No. 888*, including an assessment of today's (May 18th) release of downside annual-benchmark revisions to New Orders for Durable Goods. For example, the headline hit to the nominal level of orders in 2016 was 2.8% (-2.8%). *No. 888* most likely will be published on May 22nd. The accompanying economic review will provide a full update of *Consumer Liquidity Conditions*, including the latest faltering in real Consumer Credit Outstanding and the continued flattening/somewhat uptrending, but still-high level of Consumer Sentiment, as published by the University of Michigan in its advance estimate for May 2017.

The broad outlook in terms of the economic and financial environments also will be updated here, with consideration of unfolding political developments in Washington, D.C. Otherwise, the general text following here, except for the *Pending Economic Releases*, has changed little from the prior *Commentary*.

In the context of the *Opening Special Comments* of [Special Commentary No. 885](#), and as discussed the *Opening Comments* of [Commentary No. 883](#), the developing downshift in economic expectations increasingly should move market expectations for Federal Reserve policy away from rate hikes and the normalization of the Fed's balance sheet, towards renewed quantitative easing. The problem for the U.S. central bank remains that faltering domestic economic activity stresses banking-system solvency. Aside from formal obligations of the Fed to maintain healthy domestic economic and inflation conditions, the central bank's primary function, in practice, always has been to keep the banking system afloat. The near-absolute failure of that function in 2008 remains the primary ongoing and unresolved problem for the Fed, and it is one of the ongoing primary issues preventing the return of U.S. economic activity to normal functioning.

The outlook for future FOMC activity is updated in the *Hyperinflation Watch* of [Commentary No. 886](#), and remains otherwise as reviewed in the *Opening Comments* and *Hyperinflation Watch* of [Commentary No. 880](#), and as previously reviewed in [Commentary No. 873](#). The circumstances and outlook remain as broadly outlined in [No. 859 Special Commentary](#).

Otherwise, the following discussion has changed little from other recent comments. As reflected in common experience, actual U.S. economic activity generally continues in stagnation or downturn, never having recovered fully its level of pre-economic-collapse (its pre-2007-recession peak). While the latest headline GDP shows economic expansion of 12.3% since that series purportedly recovered its 2007-pre-recession high in 2011, no other "recovered" economic series has come close to showing that expansion either in terms of magnitude or in the purported brevity of the depression. Most of the better-quality series have remained in continuing, not-recovered status, in a period of protracted downturn that now rivals that of the Great Depression (see [Commentary No. 869](#)). With new signals in hand of intensifying, near-term economic woes, the FOMC soon should shift policies, once again, reverting to some form of quantitative easing, in an effort to address related, intensifying solvency risks in the domestic banking system.

Discussed in [No. 859 Special Commentary](#), the Trump Administration continues to face extraordinarily difficult times, but has a chance to turn the tide on factors savaging the U.S. economy and on prospects for long-range U.S. Treasury solvency and for stability and strength in the U.S. dollar. Any forthcoming economic stimulus faces a nine-month to one-year lead-time—now moved well into 2018—before it meaningfully affects the broad economy. Needed at the same time are a credible plan for bringing the U.S. long-term budget deficit (sovereign solvency issues) under control, and action to bring the Federal Reserve under control and/or to reorganize the banking system. These actions broadly are necessary to restore domestic-economic and financial-system tranquility (again, see *No. 859*), and they will not happen without the cooperation of the U.S. Congress.

Prior General Background. [No. 859 Special Commentary](#) updated near-term economic and inflation conditions, and the outlook for same, including the general economic, inflation and systemic distortions evolving out of the Panic of 2008 that have continued in play, and which, again, need to be addressed by the new Administration in the immediate future (see also the *Hyperinflation Watch* of [Commentary No. 862](#) and [Commentary No. 869](#)).

Contrary to the official reporting of an economy that collapsed from 2007 into 2009 and then recovered strongly into ongoing expansion, underlying domestic reality remains that the U.S. economy started to turn down somewhat before 2007, collapsed into 2009 but never recovered fully. While the economy bounced off its 2009 trough, it entered a period of low-level stagnation and then began to turn down anew in December 2014, a month that eventually should mark the beginning of a “new” formal recession (see [General Commentary No. 867](#)).

Coincident with and tied to the economic crash and the Panic of 2008, the U.S. banking system moved to the brink of collapse, a circumstance from which U.S. and global central-bank policies never have recovered. Unwilling to admit its loss of systemic control, the Federal Reserve had been making loud noises of continuing to raise interest rates, in order to contain an overheating economy, but that “overheating” activity has started to fade. As this ongoing crisis evolves towards its unhappy end, the U.S. dollar ultimately should face unprecedented debasement with a resulting runaway domestic inflation.

Broad economic and systemic conditions are reviewed regularly, with the following *Commentaries* of particular note: [Special Commentary No. 885](#), [Commentary No. 869](#), [No. 777 Year-End Special Commentary](#) (December 2015), [No. 742 Special Commentary: A World Increasingly Out of Balance](#) (August 2015) and [No. 692 Special Commentary: 2015 - A World Out of Balance](#) (February 2015). Those publications updated the long-standing hyperinflation and economic outlooks published in [2014 Hyperinflation Report—The End Game Begins – First Installment Revised](#) (April 2014) and [2014 Hyperinflation Report—Great Economic Tumble – Second Installment](#) (April 2014). The two *Hyperinflation* installments remain the primary background material for the hyperinflation circumstance. Other references on underlying economic reality are the [Public Commentary on Inflation Measurement](#) and the [Public Commentary on Unemployment Measurement](#).

Recent Commentaries (Most-Recent Coverage of Specific Series or with Special Features):

[Commentary No. 886](#) reviewed the headline details of the April 2017 CPI and PPI detail, along with headline reporting of nominal and real Retail Sales, real Average Weekly Earnings and regular monthly review of U.S. dollar conditions and prospects.

[Special Commentary No. 885](#), entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, reviewed the unusual nature of the headline reporting of the April 2017 employment and unemployment details.

[Commentary No. 884](#) reviewed the March 2017 details for the U.S. Trade Deficit and Construction Spending and the Conference Boards’ reporting of April 2017 Help Wanted OnLine.

[Commentary No. 883](#) covered the headline detail for the “advance” or first-estimate of first-quarter GDP, along with an update to *Consumer Liquidity Conditions*.

[Commentary No. 882](#) summarized the annual benchmark revisions to Retail Sales and reviewed the March 2017 releases of New Orders for Durable Goods and for New- and Existing-Home Sales.

[Commentary No. 881](#) reviewed March 2017 Industrial Production, Housing Starts and the Cass Freight Index™, along with an economic update in advance of the initial first-quarter 2017 GDP estimate.

[Commentary No. 880](#) detailed the prior March 2017 headline reporting the of both Real and Nominal Retail Sales, Real Earnings, the CPI, the PPI and updated Consumer Liquidity, where mounting stresses on consumer income and credit are signaling major economic issues ahead.

[Commentary No. 879](#) covered March 2007 Employment and Unemployment, Help-Wanted Advertising and an update on monetary policy and Money Supply M3 (the ShadowStats Ongoing Measure).

[Commentary No. 878](#) reviewed detail on the February 2007 Trade Deficit and Construction Spending, along with the latest update on Consumer Liquidity conditions.

[Commentary No. 877](#) outlined the nature of the downside annual benchmark revisions to industrial production, along with implications for pending annual revisions to Retail Sales, Durable Goods Orders and the GDP.

[Commentary No. 876](#) current headline economic activity in the context of formal definitions of the business cycle (no other major series come close to the booming GDP, which is covered in its third revision to fourth-quarter activity. Also the February 2017 SentierResearch reading on real median household income was highlighted.

[Commentary No. 875](#) assessed and clarified formal definitions of the U.S. business cycle, which were expanded upon significantly, subsequently, in *No. 876*. It also provided the standard review of the headline February 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the Cass Freight Index™.

[Commentary No. 873](#) discussed prospects for future tightening and/or a return to quantitative easing by the FOMC, along with the prior review of the February 2017 Residential Construction reporting.

[Commentary No. 872](#) offered some initial comment on the FOMC rate hike, in conjunction with the review of last month's February 2017 Retail Sales (real and nominal), Real Earnings and the CPI and PPI.

[Commentary No. 871](#) covered prior reporting of February Labor Conditions, updated Consumer Liquidity and the ShadowStats Ongoing M3 Measure for February 2017, and a revised FOMC outlook.

[Commentary No. 869](#) reviewed and assessed underlying economic reality and a broad variety of indicators in the context of the second-estimate of fourth-quarter 2016 GDP.

[General Commentary No. 867](#) assessed mixed signals for a second bottoming of the economic collapse into 2009, which otherwise never recovered its level of pre-recession activity. Such was in the context of contracting and faltering industrial production that now rivals the economic collapse in the Great Depression as to duration. Also covered were the prior January 2017 New- and Existing Home Sales.

[Commentary No. 864](#) analyzed January 2017 Employment and Unemployment detail, including benchmark and population revisions, and estimates of December Construction Spending, Household Income, along with the prior update to Consumer Liquidity.

[Commentary No. 861](#) covered the December 2016 nominal Retail Sales, the PPI, with a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations. The GAAP-detail will be reviewed in a *Special Commentary*.

[No. 859 Special Commentary](#) reviewed and previewed economic, financial and systemic developments of the year passed and the year or so ahead.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. Significant reporting-quality problems remain with most major economic series. Beyond the pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended to understate inflation and to

overstate economic activity—as generally viewed in the common experience of Main Street, U.S.A.—ongoing headline reporting issues are tied largely to systemic distortions of monthly seasonal adjustments.

Data instabilities—induced partially by the still-evolving economic turmoil of the last eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn provide particularly unstable headline economic results, with the use of concurrent seasonal adjustments (as seen with retail sales, durable goods orders, employment and unemployment data). That issue is discussed and explored in the labor-numbers related [Supplemental Commentary No. 784-A](#) and [Commentary No. 695](#).

Further, discussed in [Commentary No. 778](#), a heretofore unheard of spate of “processing errors” surfaced in 2016 surveys of earnings (Bureau of Labor Statistics) and construction spending (Census Bureau). This is suggestive of deteriorating internal oversight and control of the U.S. government’s headline economic reporting. That construction-spending issue now appears to have been structured as a gimmick to help boost the July 2016 GDP benchmark revisions, aimed at smoothing the headline reporting of the GDP business cycle, instead of detailing the business cycle and reflecting broad economic trends accurately, as discussed in [Commentary No. 823](#).

Combined with ongoing allegations in the last year or two of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series (see [Commentary No. 669](#)). John Crudele of the *New York Post* has continued his investigations in reporting irregularities: [Crudele Investigation](#), [Crudele on Census Bureau Fraud](#) and [John Crudele on Retail Sales](#) (worth a review in the context of the recently-published 2017 retail sales benchmarking).

PENDING ECONOMIC RELEASES: Existing- and New-Home Sales April 2017). The April 2017 New-Home Sales report is due from the Census Bureau on Tuesday, May 23rd, with April Existing-Home Sales due for release on Wednesday, May 24th, from the National Association of Realtors (NAR). Both New- and Existing-Home Sales will be covered in the *Commentary No. 889* of May 26th.

The extreme liquidity bind besetting consumers continues to constrain residential real estate activity, as updated in [Commentary No. 883](#) and as fully reviewed in the *CONSUMER LIQUIDITY* section of [No. 859 Special Commentary](#). Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including real estate activity. That circumstance—in the last ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity.

Where the private housing sector never recovered from the business collapse of 2006 into 2009, there remains no chance of a near-term, sustainable turnaround in home-sales activity, without a fundamental upturn in consumer and banking-liquidity conditions. That does not appear to be in the offing.

Smoothed for regular extreme and nonsensical monthly gyrations, a pattern of low-level stagnation in New-Home Sales also should remain in play for that series. While the pattern of low-level stagnation in new sales has continued to fluctuate in recent months, it recently has begun to show somewhat of

weakening trend, which likely will intensify. Monthly changes in activity here rarely are statistically-significant, amidst otherwise unstable headline reporting and revisions.

Headline Existing-Home Sales should continue their current general pattern of low-level stagnation. Although there is an uptrend in the smoothed, six-month moving average, that should flatten out again.

New Orders for Durable Goods (April 2017). The Census Bureau will report April New Orders for Durable Goods on Friday, May 26th, which will be covered in *Commentary No. 889* of that date. That reporting will be in the context of the downside annual benchmark revisions, released today, May 18th, with that benchmarking to be reviewed in *Special Commentary No. 888*, likely to be published on May 22nd. Net of irregular activity in commercial aircraft orders, aggregate orders likely continued a pattern of down-trending real stagnation, although, again, that outlook will be updated in *No. 888*.

Commercial aircraft orders are booked for the long-term—years in advance—so they have only limited impact on near-term production. Further, by their nature, these types of orders do not lend themselves to seasonal adjustment. As a result, the durable goods measure that best serves as a leading indicator to broad production—a near-term leading indicator of broad economic activity and the GDP—is the activity in new orders, ex-commercial aircraft, adjusted for inflation.

In inflation-adjusted real terms, reflecting PPI-related inflation for “manufactured durable goods,” nominal order weakness increasingly will be exacerbated by rising inflation, with monthly inflation of 0.24% in both April 2017 and March 2017 and 0.18% in February 2017. Year-to-year annual inflation continued to rise, hitting 1.87% in April 2017, versus 1.75% in March 2017 and 1.45% in February 2017 (see prior [Commentary No. 886](#)).

Gross Domestic Product (GDP)—First-Quarter 2017, Second-Estimate, First-Revision. The Bureau of Economic Analysis (BEA) will publish its second guesstimate of, or first revision to first-quarter 2017 Gross Domestic Product (GDP) on Friday, May 26th. Detail will be covered in *Commentary No. 889* of that date. Also to be released are the initial estimate of first-quarter 2017 Gross Domestic Income (GDI), which is the theoretical income-side equivalent to the GDP’s consumption side, and the initial estimate of first-quarter 2017 Gross National Product (GNP), which encompasses the narrower GDP measure, adding in the effects of trade flows in factor income (interest and dividend payments). The GDI and GNP often add unusual twists to the headline GDP estimate.

The first revision to GDP likely will be minimal and should keep the headline annualized real growth rate statistically indistinguishable from “no growth.” Discussed in [Commentary No. 883](#), the initial growth estimate was a below-consensus 0.69%. The outlook here will be updated in pending *Special Commentary No. 888*.