

COMMENTARY NUMBER 862

Industrial Production, CPI, Real Retail Sales, Housing Starts, Freight Index

January 20, 2017

Real Earnings Contracted in Fourth-Quarter 2016

**Fourth-Quarter Production Fell Quarter-to-Quarter and Year-to-Year,
Protracted Patterns Never Seen Outside of a Recession in 99-Year History of the Series**

**Despite a Large Boost from an Irregular, Weather-Driven Surge in Utilities,
December Production Still Was Down by 1.10% (-1.10%) from Its Pre-Recession High,
Down by 1.98% (-1.98%) from Its One-Month, November 2014 Recovery**

**December Manufacturing Remained Down by 6.18% (-6.18%) from
Its Never-Recovered Pre-Recession Peak**

CASS Freight Index Continued in Low-Level, Non-Recovering Stagnation

**December 2016 Monthly Inflation Firmed by 0.3%,
Pushing Annual CPI-U Inflation to a 30-Month High of 2.1%, with
CPI-W at 2.0% and ShadowStats at 9.8%**

**December Nominal Retail Sales Gains of 0.63% Month-to-Month and 4.13% Year-to-Year,
Turned to 0.34% and a Recessionary 1.99% on an Inflation-Adjusted, Real-Growth Basis**

**Net of Year-End, Incentive-Spiked Automobile Sales,
Real Holiday-Season Shopping Turned Down in November and December**

**Despite Continuing Nonsense Volatility in Monthly Data,
Smoothed Housing Starts and Permits Held in Non-Recovering, Low-Level Stagnation,
Activity Down Respectively by 46% (-46%) and 47% (-47%) from Pre-Recession Peaks**

PLEASE NOTE: The next regular Commentary, scheduled for Friday, January 27th will cover December 2016 New Orders for Durable Goods, New- and Existing-Home Sales and the first estimate of Fourth-Quarter 2016 Gross Domestic Product.

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Still No Economic Recovery Here. Annual and quarterly contractions in fourth-quarter 2016 industrial production continued in a manner never seen outside of formal recessions. For the fifth consecutive quarter, production contracted year-to-year. The quarter-to-quarter contraction in production was the sixth such circumstance in the last eight quarters, since December 2014, which eventually should mark the formal onset of the still unfolding “new” economic downturn.

Other than for a year-end spike in auto sales, which reflected year-end incentives drawing activity into fourth-quarter 2016, from first-quarter 2017, real sales in the 2016 holiday shopping season were down for November and December. Despite the auto sales, real annual growth in aggregate retail sales moved minimally back below 2.0%, reconfirming a traditional recession signal.

Surging inflation helped to knock real average weekly earnings into a fourth-quarter contraction, with December 2016 real earnings below those of December 2015.

Extreme month-to-month volatility continued in the Housing Starts series, with an 11.3% gain in December starts following a 16.5% (-16.5%) drop in November, a 25.5% jump in October and a decline of 9.6% (-9.6%) in September. Smoothed with a six-month moving average, activity has been virtually flat, recently, in low-level stagnation, with December’s level of starts still shy 46% (-46%) of recovering its pre-recession peak (see *Graph 9*). Activity in building permits, which leads the starts, at least in theory, showed effectively flat annual growth for December 2016 of 0.7%.

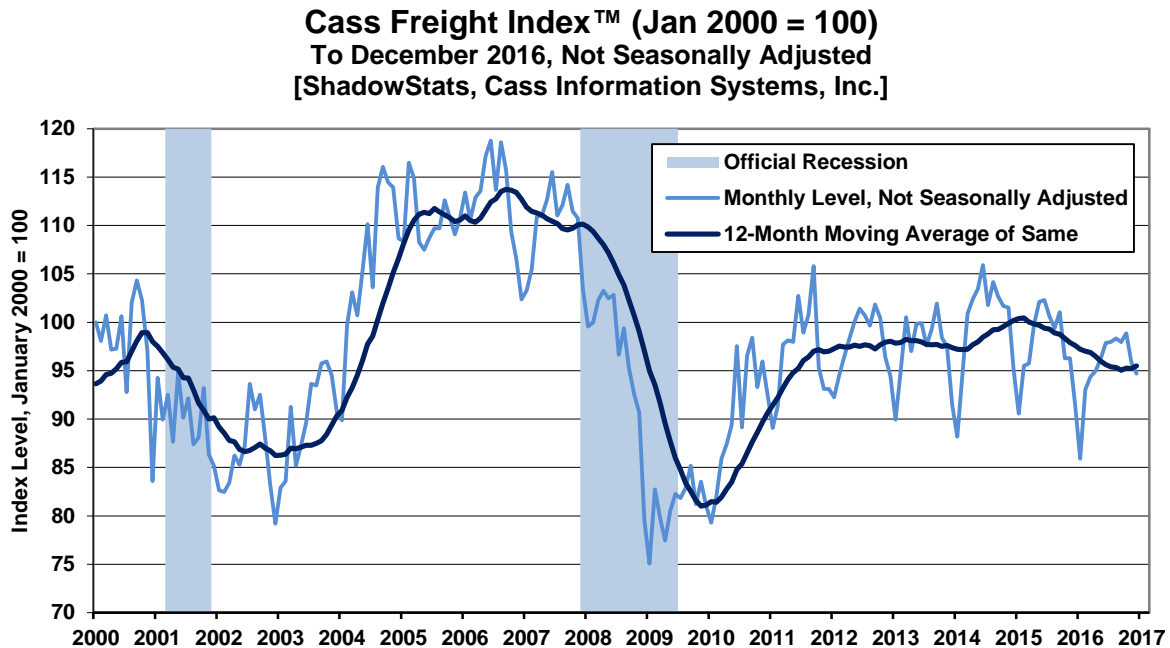
Then there are the private indicators free of government massaging and gimmicking, such as the Cass Freight Index™, which continues in non-recovering, low-level, down-trending stagnation.

The various indicators reviewed in this *Commentary* update some details covered in the broader discussion in the *ECONOMY* section of [No. 859 Special Commentary](#). Despite underlying and fundamental broad weakness in the economy, consensus expectations for the initial headline estimate of fourth-quarter 2016 GDP growth (January 27th) appear to be around 2.5%, plus-or-minus. While that is reasonably close to the post-1970 average real GDP growth of 2.8%, it is down sharply from the headline 3.5% annualized real quarterly growth in third-quarter 2016. Discussed in the *Week, Month and Year Ahead* section, the issuing Bureau of Economic Analysis (BEA) tends to target its first estimate of a given quarter’s GDP growth to match the consensus outlook. With continued trade-deficit deterioration likely in the still-pending initial estimate of the December trade shortfall, consensus GDP expectations easily

could soften further. Initial fourth-quarter GDP reporting likely will come in below 2.5%, and it would be surprising if that GDP estimate ultimately does not turn negative by its third-estimate on March 30th.

December Freight Index Continued in Non-Recovering, Low-Level Stagnation, Despite a Year-to-Year Monthly Gain. Patterns of continued non-recovery in the general economy and business activity were reflected once again in the headline detail of the December 2016 [Cass Freight Index](#)[™], despite the second month in the last three where monthly activity turned higher on a year-to-year basis.

Opening Graphs: Cass Freight Index[™] (2000-December 2016)



Beginning with [Commentary No. 782](#) (further background available there), ShadowStats published the graphic detail on the Cass Index, a measure of North American freight volume as calculated by, and used with the permission of Cass Information Systems, Inc. As background, freight activity is a basic, underlying indicator of commercial activity and broad GDP. Of the combined U.S. and Canadian (North American) GDP in 2014, roughly 91% was attributable to the United States.

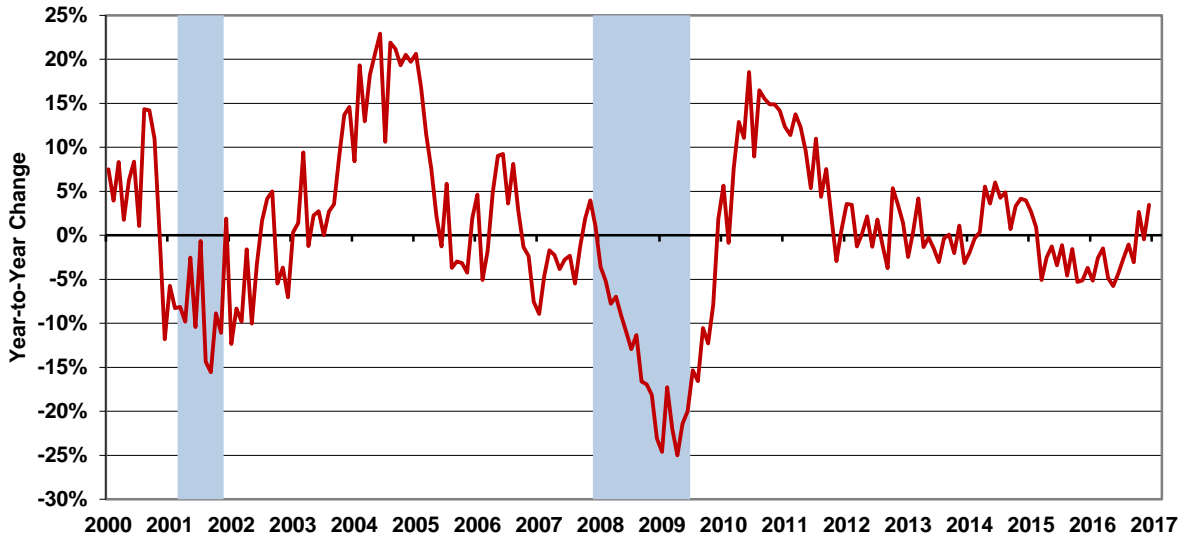
The first of the two *Opening Graphs* reflects the monthly numbers updated through December 2016. While adjusted for factors such as days in a month, the headline monthly detail is not adjusted for broad seasonality patterns, such as retailers stocking for the holiday shopping season. Accordingly, ShadowStats plots the series using a trailing twelve-month average, which tends to neutralize regular seasonal patterns over the period of a year, along with the unadjusted monthly detail plotted in the background. ShadowStats also has re-indexed the series to January 2000 = 100, so as to be consistent with other graphs used. The headline index published by Cass is based at January 1990 = 100.

The plot of the trailing twelve-month average of the freight index shows that it peaked in February 2015 and has been slowing since, through September 2016. Other than minimal upticks in October and December 2016, the level of twelve-month moving average has been flat to minus, with the December

2016 twelve-month moving average showing a decline of 4.9% (-4.9%) from the February 2015 peak average. The December 2016 average reading also was down by 2.2% (-2.2%) year-to-year, versus a 2.7% (-2.7%) annual decline in November 2016.

Opening Graphs: CASS Freight Index, Year-to-Year Percent Change, Monthly through December 2016

Cass Freight Index™ (Year-to-Year Percent Change)
 Monthly to December 2016, Not Seasonally Adjusted
 [ShadowStats, Cass Information Systems, Inc.]



Another approach to assessing not-seasonally-adjusted monthly detail is to look at year-to-year change by individual month, as plotted in the second of the *Opening Graphs*, preceding. The unadjusted monthly detail had been in continual year-to-year decline since March of 2015, down at an intensified annual rate of 3.05% (-3.05%) in September 2016. It rallied to an annual gain of 2.66% in October 2016, but fell back into year-to-year contraction of 0.05% (-0.05%) in November 2016, coming back to the plus-side by 3.46% in December 2016. As a result, fourth-quarter 2016 showed an annual gain of 1.86%, the first such gain year-to-year since fourth-quarter 2014

In combination, these *Opening Graphs* remain consistent with a pattern of collapsing economic and business activity into 2009, low-level stagnation thereafter and a renewed downturn effectively coincident with a “new” recession, which likely still will be timed from December 2014. These circumstances were reviewed in the *ECONOMY* section of [No. 859 Special Commentary](#).

Today’s Commentary (January 19th). These *Opening Comments and Executive Summary* cover summary detail of the headline reporting of December Industrial Production, Housing Starts and the CPI and related real Retail Sales and Earnings, including the regular ShadowStats graphs of production, sales and earnings corrected for the formal understatement of official inflation used in calculating those headline real numbers or index.

The *Hyperinflation Watch* reviews current circumstance tied to the U.S. dollar and gold, and related FOMC and economic and financial circumstances in the year ahead.

The *Week, Month and Year Ahead* section previews next week's reporting of December durable goods orders, new- and existing-home sales and the "advance" estimate of fourth-quarter 2016 GDP.

Executive Summary—Industrial Production—December 2016—Fifth Consecutive Quarter of Year-to-Year Contraction and a Renewed Quarter-to-Quarter Decline. In the context of downside prior-period revisions, the broad production picture rallied in December, dominated by a weather-distorted utility surge and small gains in manufacturing and mining. While aggregate year-to-year change turned positive in December 2016, for the first time in sixteen months, fourth-quarter activity contracted year-to-year for the fifth straight quarter, while quarter-to-quarter growth contracted anew, down in six of the last eight quarters. Such patterns of quarterly activity never have been seen outside of formal recessions in the 99-year history of the industrial production series.

With industrial production representing 61% of the nominal 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. With the economy 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 happy hype out of the Bureau of Economic Analysis (BEA), which guesstimates that third-quarter 2016 real GDP reflected inflation-adjusted, real broad economic activity at 11.6% above its pre-recession peak (see [Commentary No. 857](#)). No other major economic series shows anything close to that purported level of recovery, while industrial production is showing a renewed and continuing downturn (see discussion in [No. 859 Special Commentary](#)).

As of headline December 2016 reporting, Industrial Production stood below its formal pre-recession high by 1.10% (-1.10%) and was down by 1.38% (-1.38%) from its one-month "recovery" peak level of November 2014. The dominant manufacturing sector (78.5% of Industrial Production, 48% of GDP) never has recovered, with December 2016 manufacturing activity still down by 6.18% (-6.18%) from reclaiming its pre-recession peak level of activity.

An overriding issue continuing to hamper policies of the Federal Reserve, as well as the dominant contributing factor behind the major political shift seen in the 2016 presidential election (see [Commentary No. 846](#)), is that the U.S. economy never really recovered from the "2007 Recession." The unfolding "new" downturn remains no more than another down-leg in an economic collapse that began to show itself in 2005 and 2006 (again, see [No. 859 Special Commentary](#)). In the post-2016-benchmark revision era for Industrial Production, the headline (not the ShadowStats-corrected) series, again, recovered its pre-recession high only for only one month, in November 2014, and it has been in fairly-consistent monthly decline ever since, falling month-to-month in 17 out of 25 subsequent months.

Headline Industrial Production. Headline December 2016 production gained month-to-month by 0.83%, versus a downwardly-revised month-to-month decline in November of 0.64% (-0.64%), a revised October gain of 0.19% and a revised September contraction of 0.23% (-0.23%). Net of prior-period revisions, December 2016 production rose by 0.69%, versus the headline gain of 0.83%.

Detailed by major industry group, the headline December 2016 monthly aggregate production gain of 0.83% was composed of a monthly gain of 0.16% in manufacturing activity, a minimal gain of 0.03% in mining activity (including oil and gas production), and a weather-distorted surge of 6.60% in utilities activity. The gain in manufacturing reflected gains in both durable and nondurable consumer goods. The minimal gain in mining reflected increases in oil and gas extraction, oil and gas drilling, largely offset by declining activity in coal and in gold and silver mining.

Year-to-year change in December 2016 industrial production was a gain of 0.51%, the first upturn in sixteen months, a circumstance still unprecedented outside of formal recessions. That was against revised annual declines of 0.74% (-0.74%) in November 2016, of 0.73% (-0.73%) in October 2016 and of 1.05% (-1.05%) in September 2016.

Production Graphs—Corrected and Otherwise—December 2016. The regular graphs of the headline production level and annual growth detail are found in the *Reporting Detail (Graphs 19 to 22)*, along with the drill-down graphs of major subcomponents of the production series (*Graphs 23 to 36*).

The level of headline production showed a topping-out process late in 2014, followed by a deepening downturn into first- and second-quarter 2015. 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 year-to-year growth and quarter-to-quarter growth. Third-quarter 2016 growth was positive on a quarter-to-quarter basis, but remained in annual contraction for the fourth consecutive quarter.

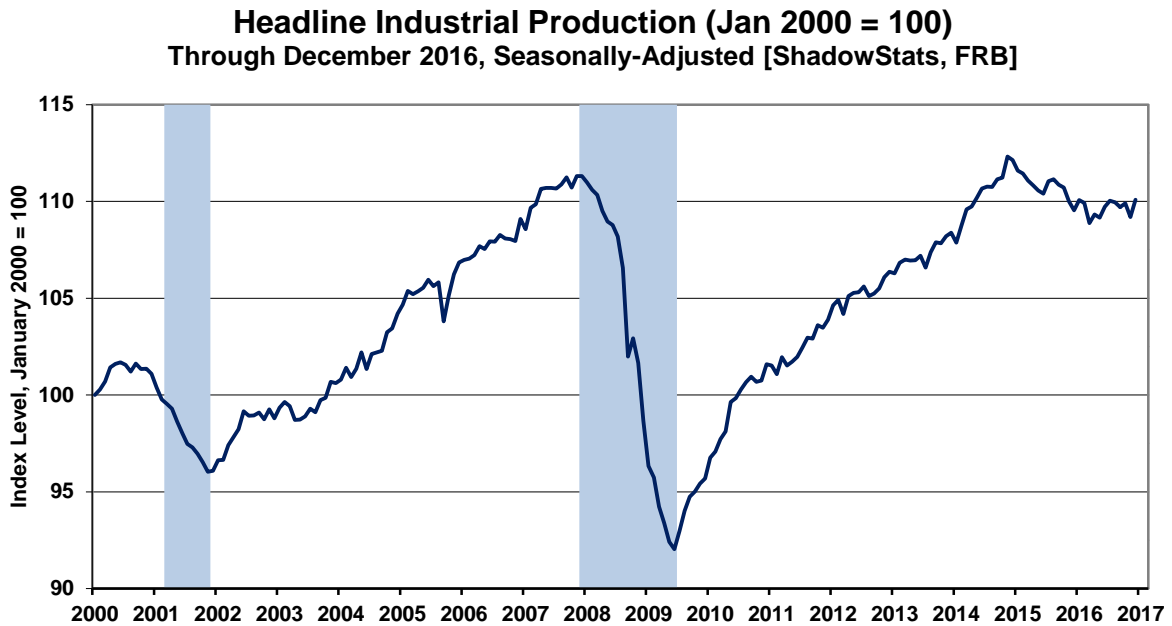
With December 2016 detail in place, fourth-quarter 2016 activity contracted for the sixth quarter-to-quarter decline in the last eight quarters as well completing the fifth straight quarter of year-to-year contraction, feats never seen in industrial production surveying outside of periods that eventually were recognized formally as recessions. Such faltering patterns of monthly, quarterly and annual decline were seen last in the depths of the economic collapse from 2007 into 2009.

Graphs 1 and *2*, 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](#)).

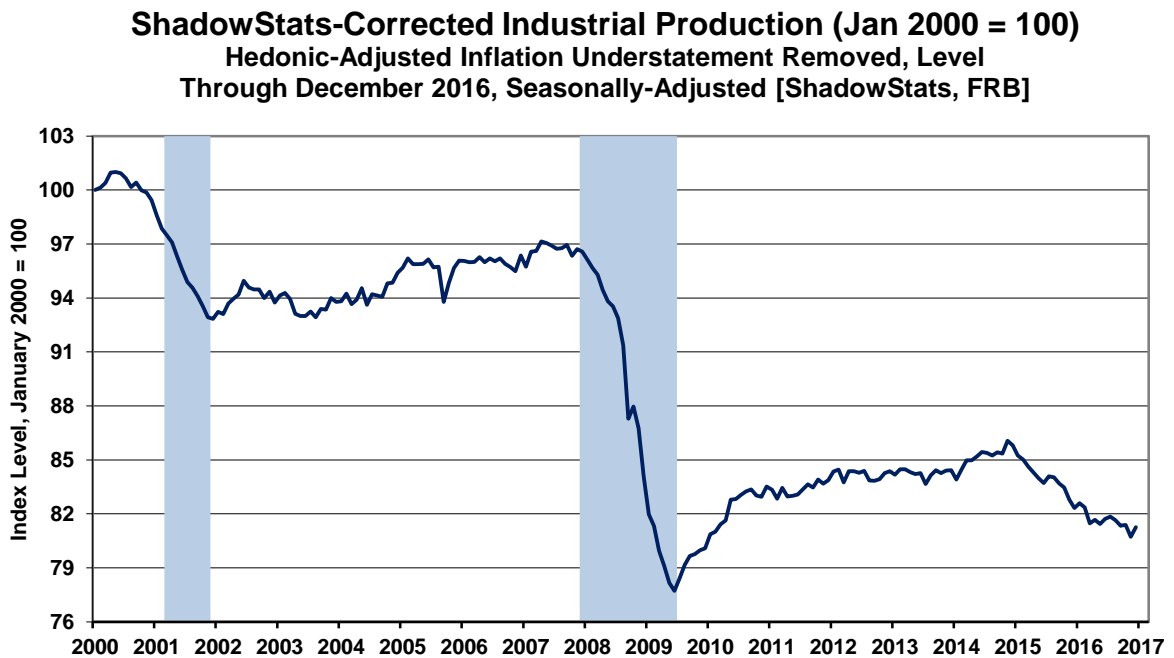
Graph 1 shows official, headline industrial production reporting, but indexed to January 2000 = 100, instead of the Fed's formal index that is set at 2012 = 100. The 2000 indexing simply provides for some consistency in the series of revamped "corrected" graphics including real retail sales (see the detail in the following CPI section), new orders for durable goods and the GDP (see [Commentary No. 857](#)) 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 1* here to *Graph 19* in the *Reporting Detail* section).

Graph 2 is a recast version of *Graph 1*, 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.

Graph 1: Indexed Headline Level of Industrial Production (Jan 2000 = 100)



Graph 2: Headline ShadowStats-Corrected Level of Industrial Production (Jan 2000 = 100)



This “corrected” *Graph 2* 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. 857](#) 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 one-month “recovery” in 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.

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 annual and quarter-to-quarter contractions, third-quarter 2016 contracted year-to-year, but was up quarter-to-quarter. Fourth-quarter 2016 activity provided the fifth straight quarter of annual contraction, along with a renewed quarterly contraction, the sixth in the last eight quarters.

December 2016 Consumer Price Index (CPI)—Headline Inflation Rose 0.3% for the Month, and to a 30-Month High of 2.1% Year-to-Year. Headline December 2016 CPI-U monthly inflation of 0.28% broadly was as expected by the consensus. Unadjusted year-to-year inflation broke above 2.0% for the first time in 30 months, since the oil price collapse of 2014. That was not a coincidence, where unadjusted year-to-year energy costs broke above zero in December 2016, and strongly so, for the first time since August 2014. Heavy, positive seasonal adjustments in the energy and “core” (ex-food and energy) inflation generated the bulk of the headline, positive monthly CPI gain. Unadjusted, headline monthly inflation was 0.03%.

Separately, although headline annual CPI-U inflation rose sharply to 2.1% in December 2016, versus 1.7% in November 2016, year-to-year inflation is not and has not been quite as low as indicated, when considered in the context of traditional CPI reporting and common experience. The ShadowStats-Alternate Inflation Measures showed annual inflation in December 2016 of 5.7%, based on 1990 methodologies, and 9.8%, based on 1980 methodologies (see discussion in the *Reporting Detail* section).

Where the Consumer Price Index for All Urban Consumers (CPI-U) is the broadest headline consumer-inflation number, used to adjust numerous economic measures such as retail sales for inflation effects, the narrower Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used for deflating measures such as earnings for production and nonsupervisory employees on private nonfarm payrolls. December 2016 seasonally-adjusted CPI-W rose month-to-month by 0.32%, following a gain of 0.21% in November. Unadjusted, year-to-year change in the December 2016 CPI-W was a gain of 1.99%, up from 1.51% in November 2016.

However measured, the upturn in December 2016 consumer inflation was enough to knock a chunk out of bloated headline nominal retail sales and to turn average weekly earnings into inflation-adjusted, or real, quarterly and annual contractions, the latter circumstances commonly seen only during formal recessions.

Inflation-Adjusted, Real Retail Sales—December 2016—Up by 0.34% Month-to-Month, 1.99% Year-to-Year. Discussed in [*Commentary No. 861*](#), headline nominal December 2016 Retail Sales rose by 0.63% month-to-month, versus an upwardly revised 0.18% gain in November and an upwardly revised

0.66% gain in October. December 2016 nominal retail sales rose year-to-year by 4.13%, versus an upwardly revised 3.89% in November and an upwardly-revised 4.22% gain in October 2016.

Based on a headline seasonally-adjusted monthly CPI-U December 2016 real Retail Sales rose by 0.34%, following a revised decline of 0.02% (-0.02%) in November, and a revised gain of 0.30% in October.

During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal has been in play since February 2015 (the “new” recession likely will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn. Year-to-year, December 2016 real retail sales increased by 1.99%, at that recession-signal threshold.

Real Retail Sales Graphs, Corrected and Otherwise. In the *Reporting Detail*, *Graphs 38* and *40* show the level of real retail sales activity (deflated by the CPI-U), while *Graphs 39* and *41* show year-to-year percent change. The apparent “recovery” of headline real retail sales shown in the following *Graph 3* (see also *Graph 38* in the *Reporting Detail*) generally continued into late-2014. Although headline reporting turned down in December 2014, into first-quarter 2015, it turned higher into the third-quarter 2015, slowed to a near-standstill in fourth-quarter 2015 and first-quarter 2016, with an uptick in second-quarter 2016, renewed slippage into third-quarter 2016, and with a further uptick in fourth-quarter 2016.

Nonetheless, headline real growth in retail sales continued to be overstated heavily, due to the understatement of CPI-U inflation used in deflating the retail sales series. Discussed more fully in *Chapter 9* of [2014 Hyperinflation Report—Great Economic Tumble – Second Installment](#) and [Public Commentary on Inflation Measurement](#), deflation by too-low an inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted economic growth.

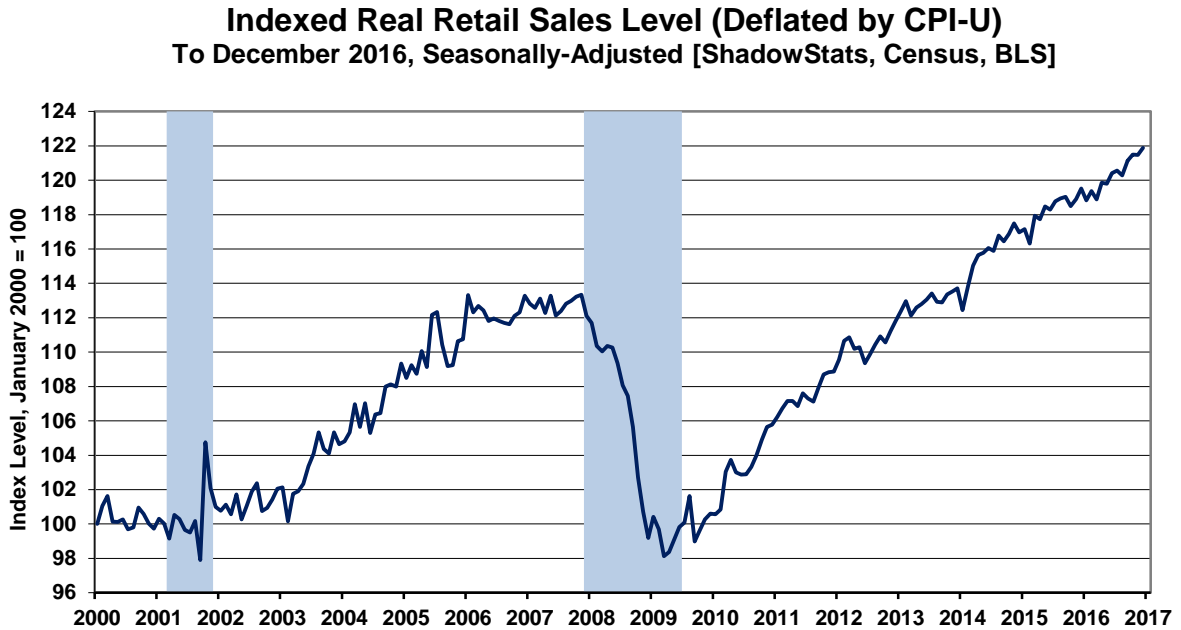
Both of the accompanying graphs are indexed to January 2000 = 100.0 to maintain consistency in the series of graphs related to corrected inflation-adjustment, including the regular plots of the “corrected” industrial production index (see the prior section), and “corrected” new orders for durable goods and “corrected” GDP (both covered in [Commentary No. 857](#) and [No. 859 Special Commentary](#)).

The first graph here reflects the official real retail sales series, except that it is indexed, instead of being expressed in dollars. The plotted patterns of activity and rates of growth are exactly same for the official series, whether the series is indexed or expressed in dollars, again, as is evident in a comparison again of *Graph 3* with *Graph 38* in the *Reporting Detail* section.

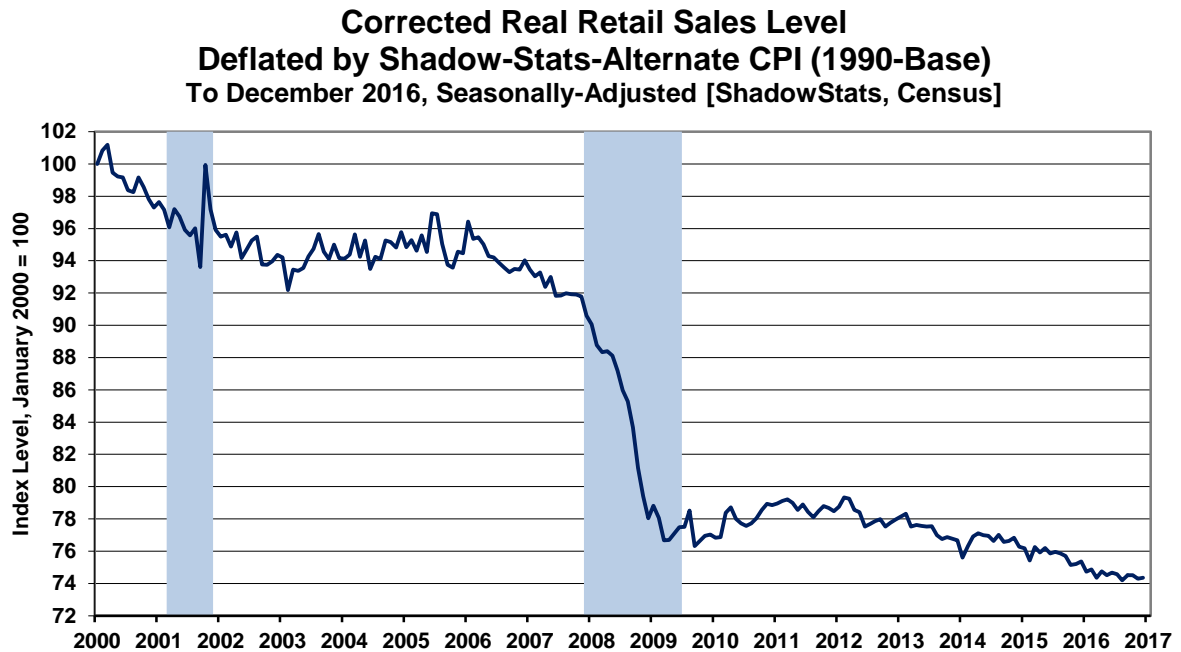
Instead of being deflated by the CPI-U, the “corrected” real retail sales numbers—in *Graph 4*—use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation. With the higher inflation of the ShadowStats measure, the revamped numbers show a pattern of plunge and stagnation and renewed downturn. That pattern generally is consistent with consumer indicators such as real average weekly earnings (see the next section), faltering consumer liquidity conditions (see the *CONSUMER LIQUIDITY* section of [No. 859 Special Commentary](#)) and most housing statistics such as the later section on Residential Investment/Housing Starts detail.

[Graphs 3 and 4 follow on the next page]

Graph 3: Headline Real Retail Sales Level, Indexed to January 2000 = 100



Graph 4: "Corrected" Real Retail Sales Level, Indexed to January 2000 = 100

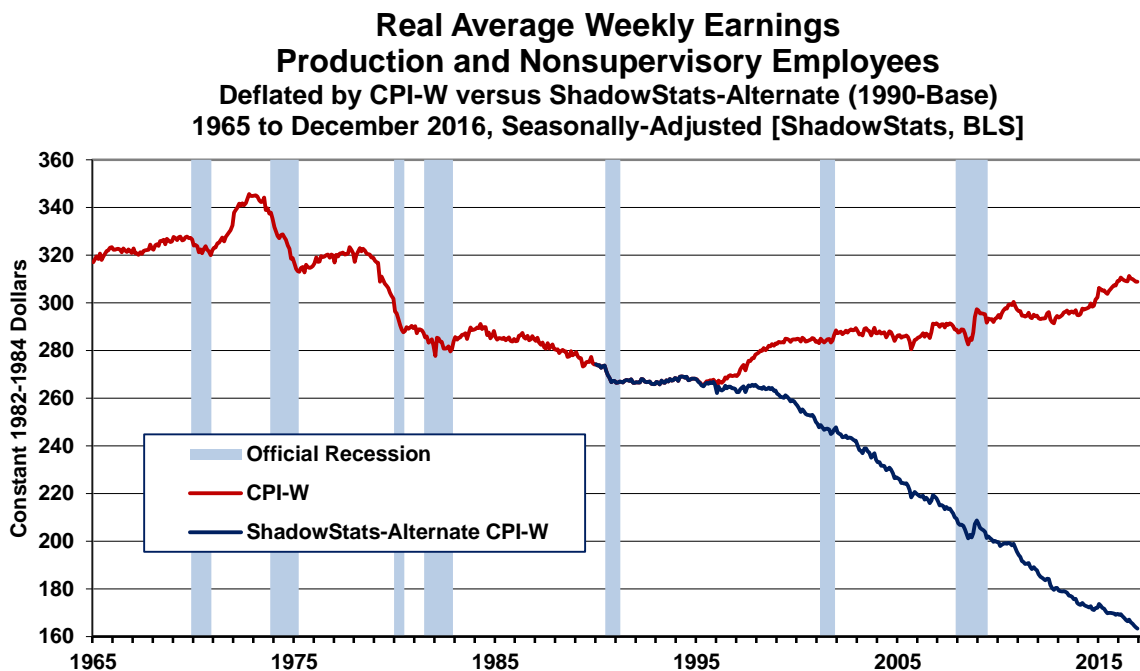


Real Average Weekly Earnings—December 2016—Fourth-Quarter Contraction, December Earnings Turned Negative Year-to-Year. In the production and nonsupervisory employees category—the only series for which there is a meaningful history, real average weekly earnings in December were

“unchanged” month-to-month at 0.00%, versus a monthly decline in November of 0.16% (-0.16%), and declines of 0.17% (-0.17%) in October, 0.11% (-0.11%) in September and 0.33% (-0.33%) in August. With the December monthly number unchanged, the November decline was the fourth consecutive monthly decline, the seventh month-to-month hit to this series in the last nine months.

Those readings put fourth-quarter 2016 into an annualized real contraction of 1.83% (-1.83%), versus annualized third-quarter 2016 growth of 1.62% and a second-quarter 2016 annualized quarter-to-quarter contraction of 0.96% (-0.96%). On a seasonally-adjusted basis, year-to-year earnings also turned negative in December 2016, down by 0.74% (-0.74%), versus an unrevised annual gain of 0.54% in November 2016 and down from a near-term peak of 3.87% in January 2015. The rally in real annual income, and the renewed slowdown at present, have been tied directly to the impact of collapsing gasoline prices, and the subsequent rebound, having reverse impact on inflation-adjusted income.

Graph 5: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date



Graph 5 plots the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much closer to common experience than the pattern suggested by the CPI-W. See the [Public Commentary on Inflation Measurement](#) for further detail.

Housing Starts—December 2016—Extreme Monthly Volatility Continued, While the Broad, Smoothed Series Remained in Low-Level, Non-Recovering Stagnation. Construction activity related

to residential real estate continued in an ongoing pattern of volatility not seen since the depths of the 1980 recession. December 2016 housing starts rallied by 11.3% in the month, following a revised November collapse of 16.5% (-16.5%), a revised surge of 25.5% in October and an unrevised drop of 9.6% (-9.6%) in September. The October jump remained the largest headline monthly increase in housing starts since a 29.0% gain in June 1980, at the depths of the 1980 recession. Such extreme volatility here is unusual, even for this notoriously-unstable and heavily-revised series, with the instabilities generated largely by massive gyrations in the multiple-unit starts category.

Nonetheless, smoothed and viewed in terms of its six-month moving average, aggregate 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, which flattened out in the last year or two (see *Graphs 9* here and *Graph 46* in the *Reporting Detail*). Plotted with just the raw, seasonally-adjusted monthly data, that pattern of low-level stagnation broadly is the same, with the headline December 2016 level of starts still shy by 46% (-46%) of recovering its pre-recession peak (see *Graphs 8* and *44*).

Similar broad patterns of activity were seen with the dominant single-unit housings starts component of the series (see *Graphs 10* and *11*), and with the related building permits series, which is a leading indicator to housing starts (see *Graphs 43* and *45* in the *Reporting Detail*). Single-unit starts and building permits remained in low levels of stagnating non-recovery, with their headline levels of December 2016 down respectively by 56% (-56%) and 47% (-47%) from recovering their pre-recession peaks.

Headline Detail. Again, the continued, broadly unstable and highly volatile aggregate Housing Starts series rallied month-to-month in December 2016 by a statistically-insignificant 11.3%, following a narrowed contraction of 16.5% (-16.5%) in November. Month-to-month volatility remained dominated by the unstable reporting in multiple-unit starts. Year-to-year change in the seasonally-adjusted, December 2016 aggregate housing-starts measure was a statistically-insignificant gain of 5.7%, versus a narrowed, annual decline in November 2016 of 5.9% (-5.9%).

The December 2016 headline monthly gain of 11.3% [November decline of 16.5% (-16.5%)] in total housing starts encompassed a headline drop of 4.0% (-4.0%) [November decline of 4.6% (-4.6%)] in the “one unit” category and a surge of 53.9% [November decline of 38.7% (-38.7%)] in the “five units or more” category.

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 1,226,000 in December 2016, versus an upwardly-revised 1,102,000 in November 2016. The scaling used in the aggregate housing starts and building permits *Graphs 43* to *47* of the *Reporting Detail* reflects those annualized numbers.

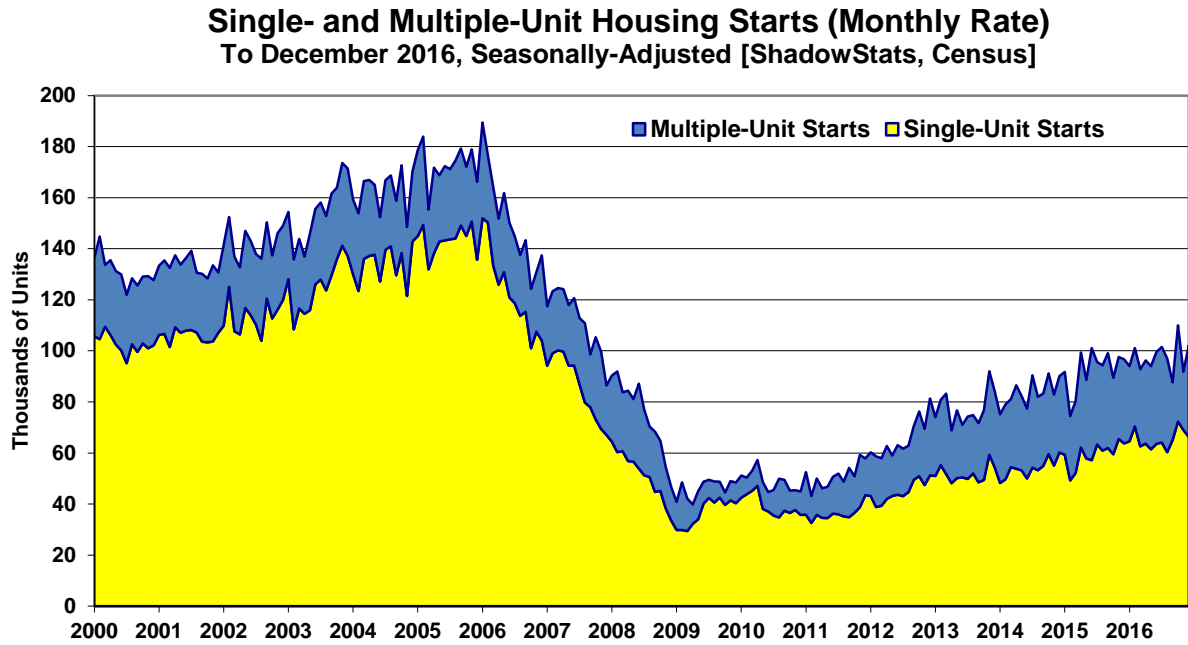
Nonetheless, given the nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the headline 268,000 annualized month-to-month gain for 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 102,167 units in December 2016, instead of the annualized headline level of 1,226,000 units, is used in the scaling of the *Graphs 6 to 13* in these *Opening Comments and 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 can be seen in a comparison of *Graph 8* versus *Graph 44* in the *Reporting Detail*.

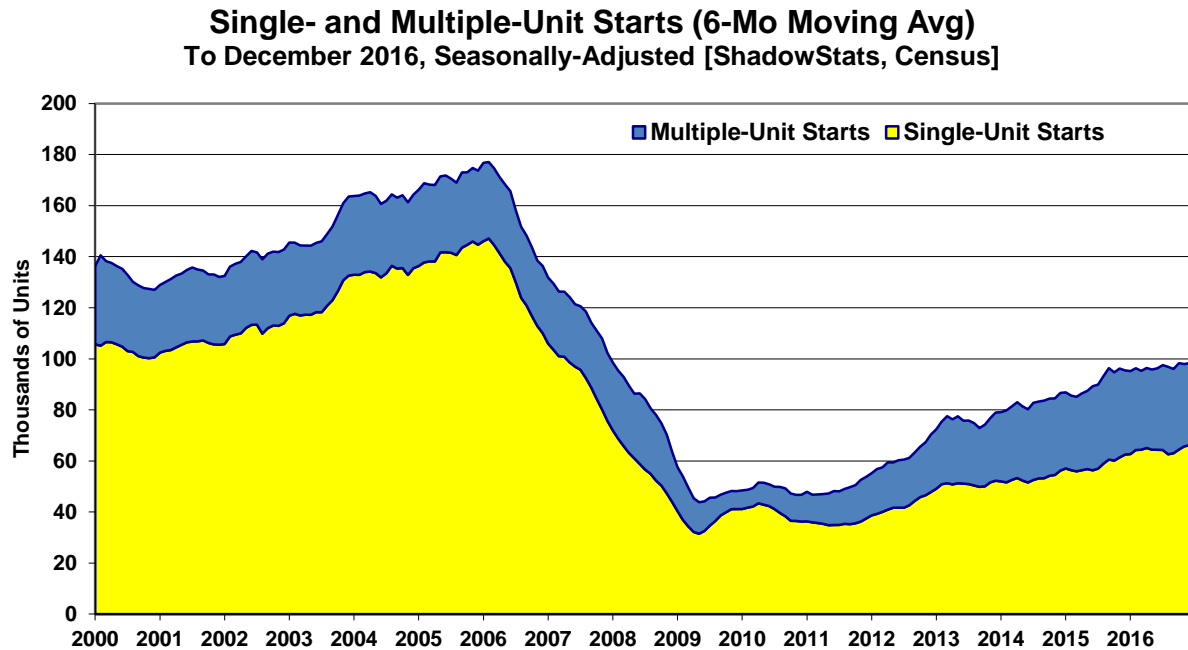
The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 pre-recession peak. Against that downside-spiked low in April 2009, the December 2016 headline number was up by 156%, but it still was down by 46% (-46%) from the January 2006 pre-recession high for the series. 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 *Graph 47* of the *Reporting Detail*.

[Graphs 6 to 13 begin on the next page.]

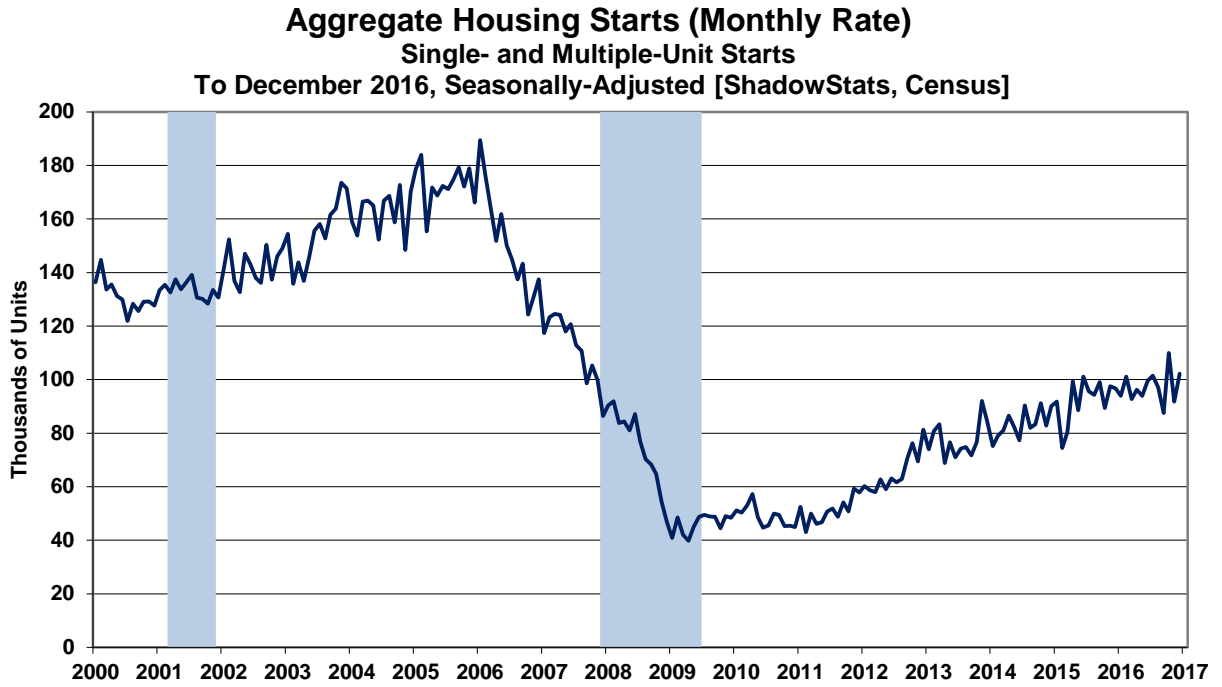
Graph 6: Single- and Multiple-Unit Housing Starts (Monthly Rate of Activity)



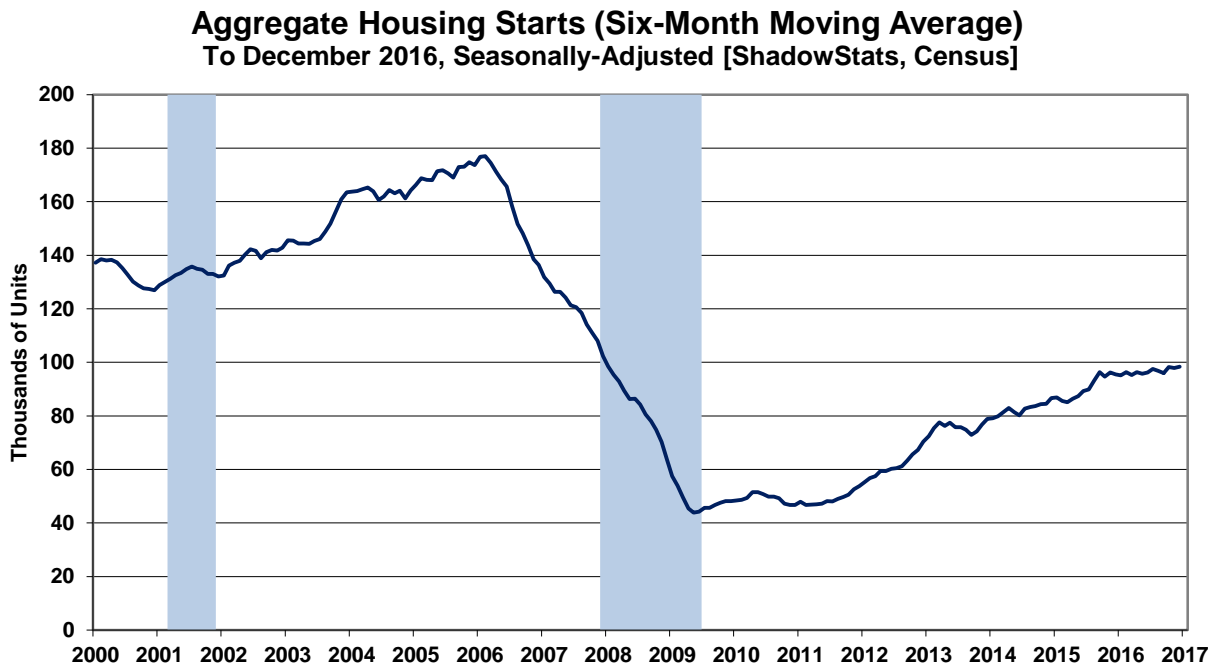
Graph 7: Single- and Multiple-Unit Starts (Six-Month Moving Average, Monthly Rate of Activity)



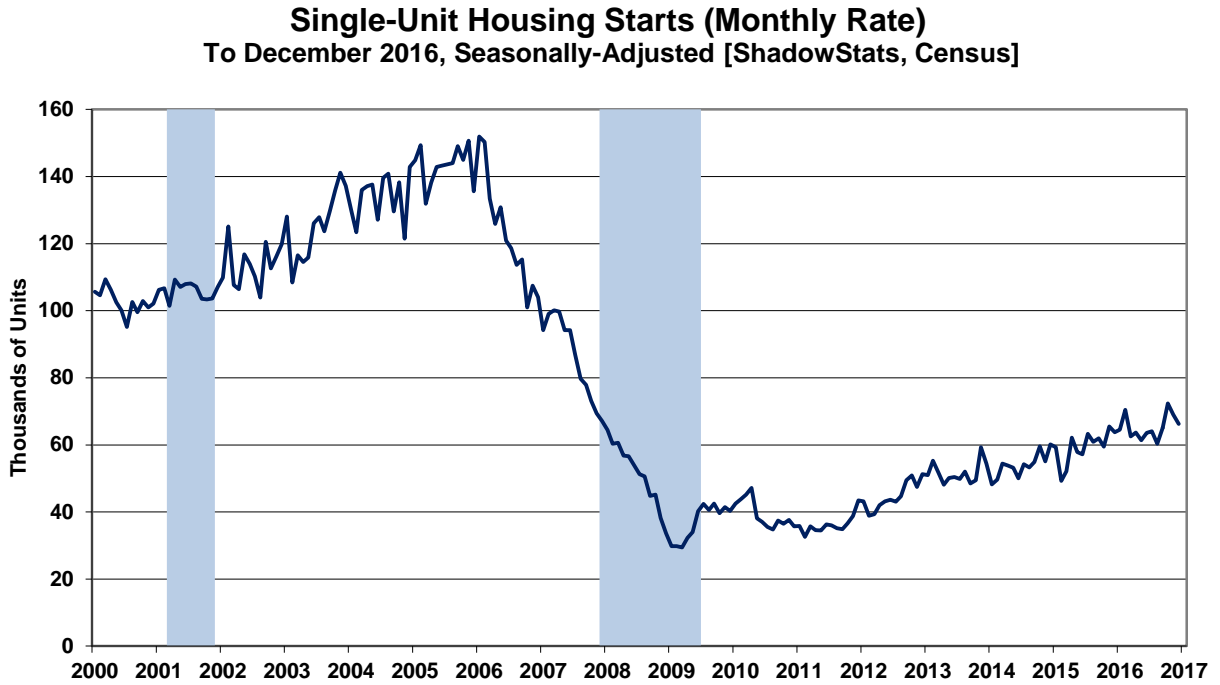
Graph 8: Aggregate Housing Starts (Monthly Rate of Activity)



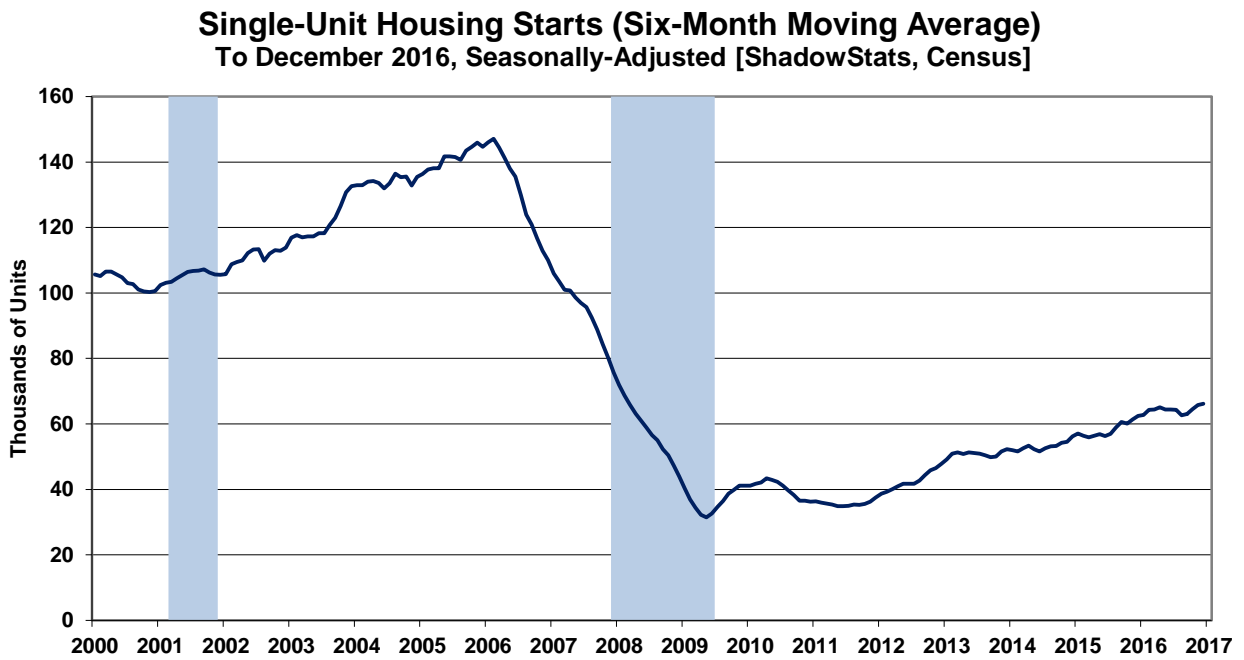
Graph 9: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



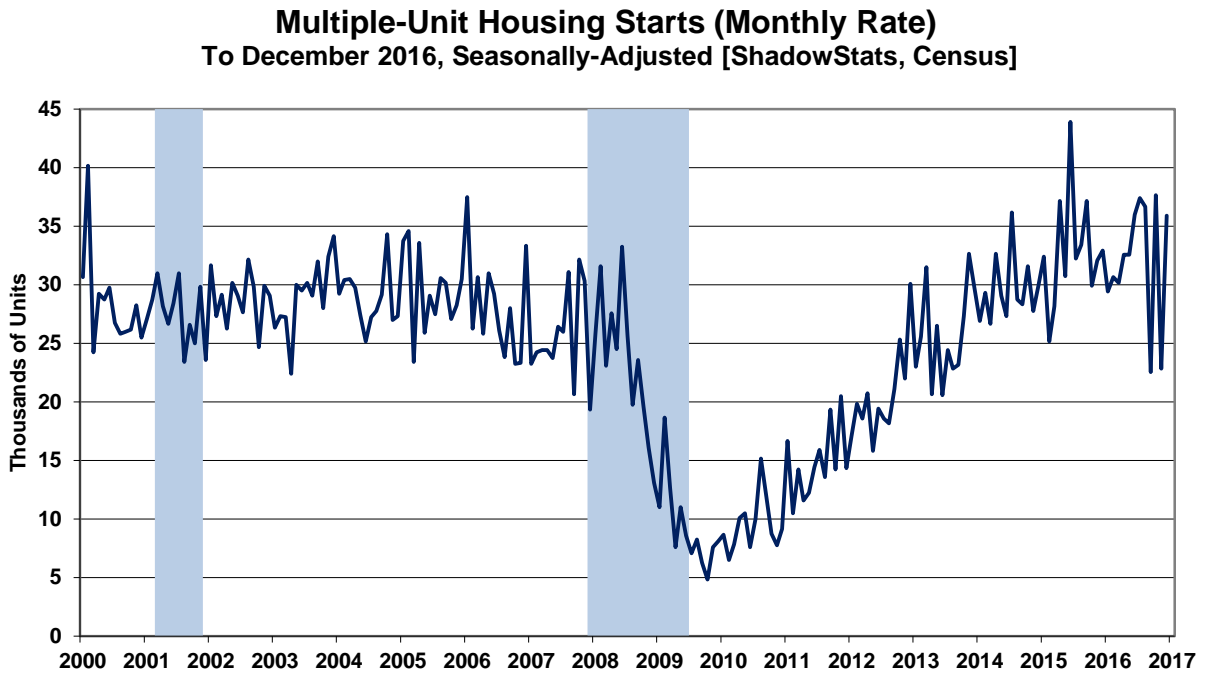
Graph 10: Single-Unit Housing Starts (Monthly Rate of Activity)



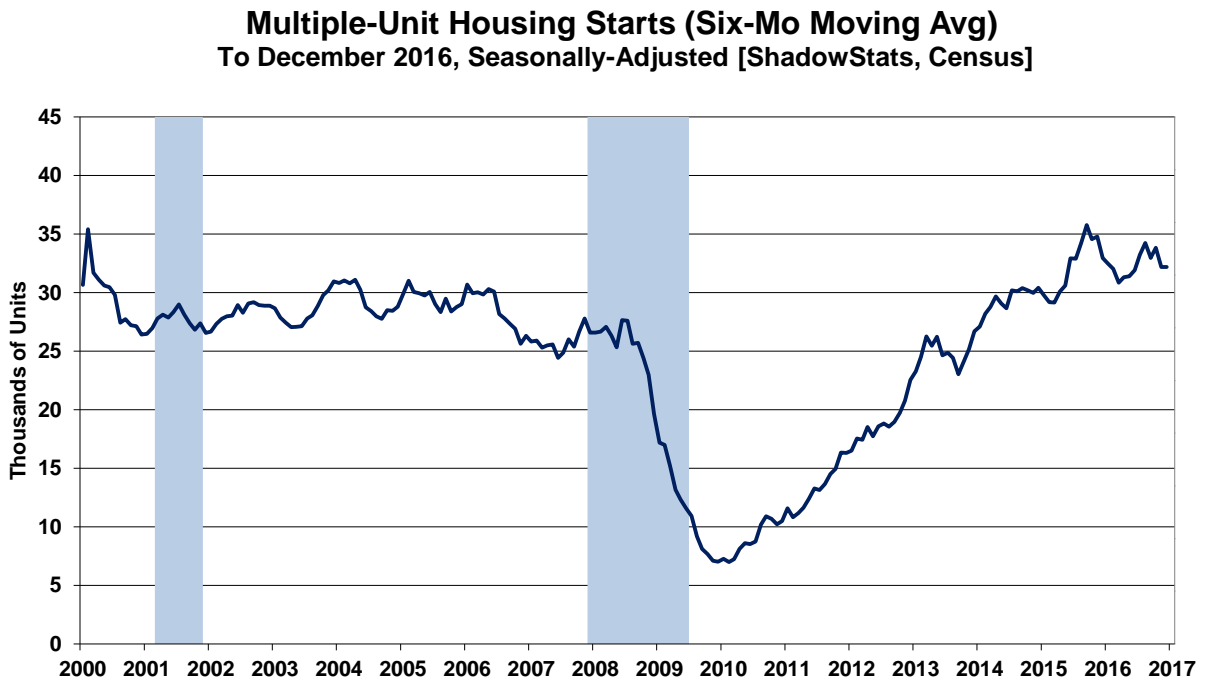
Graph 11: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



Graph 12: Multiple-Unit Housing Starts (Monthly Rate of Activity)



Graph 13: Multiple-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



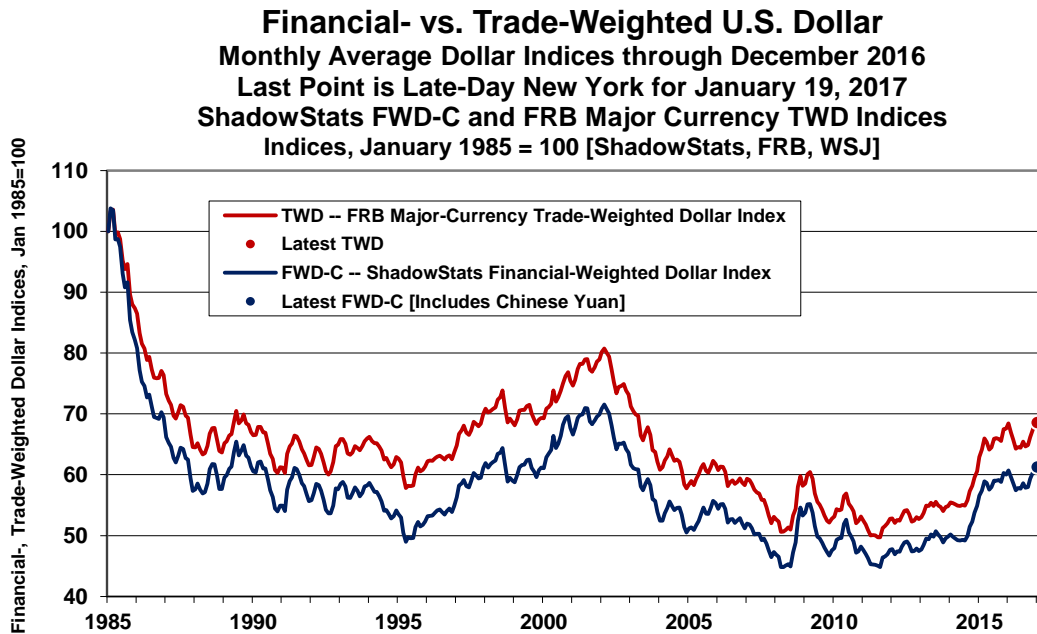
[The Reporting Detail contains significant further analysis and graphs on Industrial Production, the CPI and related series and Housing Starts.]

HYPERINFLATION WATCH

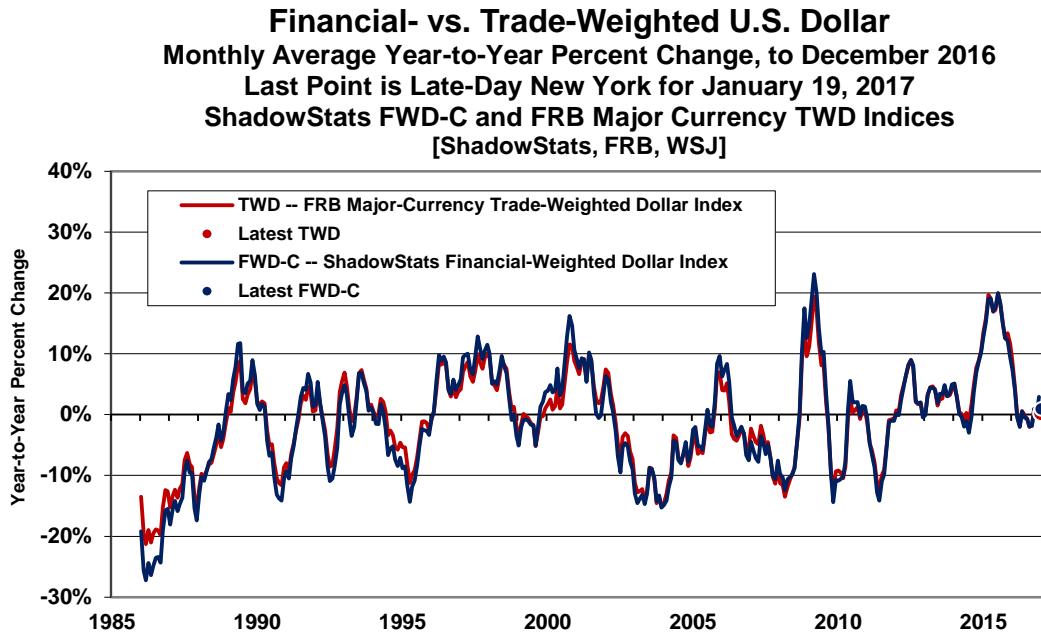
Intensifying Economic Weakness Means FOMC Pulling Back on Further Rate Hikes, Moving Towards Expanded Quantitative and Heavy Dollar Tumbling. The current ShadowStats assessment of faltering economic activity pushing the FOMC back towards an expanded form of quantitative, easing and various, possible economic and financial scenarios facing the Trump Administration were just reviewed in [No. 859 Special Commentary](#), which is included here by reference. That outlook has not changed since the *Special Commentary*.

What has changed is some subsequent weakening in headline economic detail, with the value of the U.S. dollar moving off recent highs, and gold and silver prices moving off recent bottoms. Those trends generally should continue. The updated U.S. dollar and gold graphs that usually accompany the monthly *CPI Commentary* follow: showing monthly-average plots of December prices covering the U.S. Dollar (*Graphs 14 and 15*), along with gold (*Graphs 16, 17 and 18*), where the January points on the graphs reflect late-day New York prices for Thursday, January 19th.

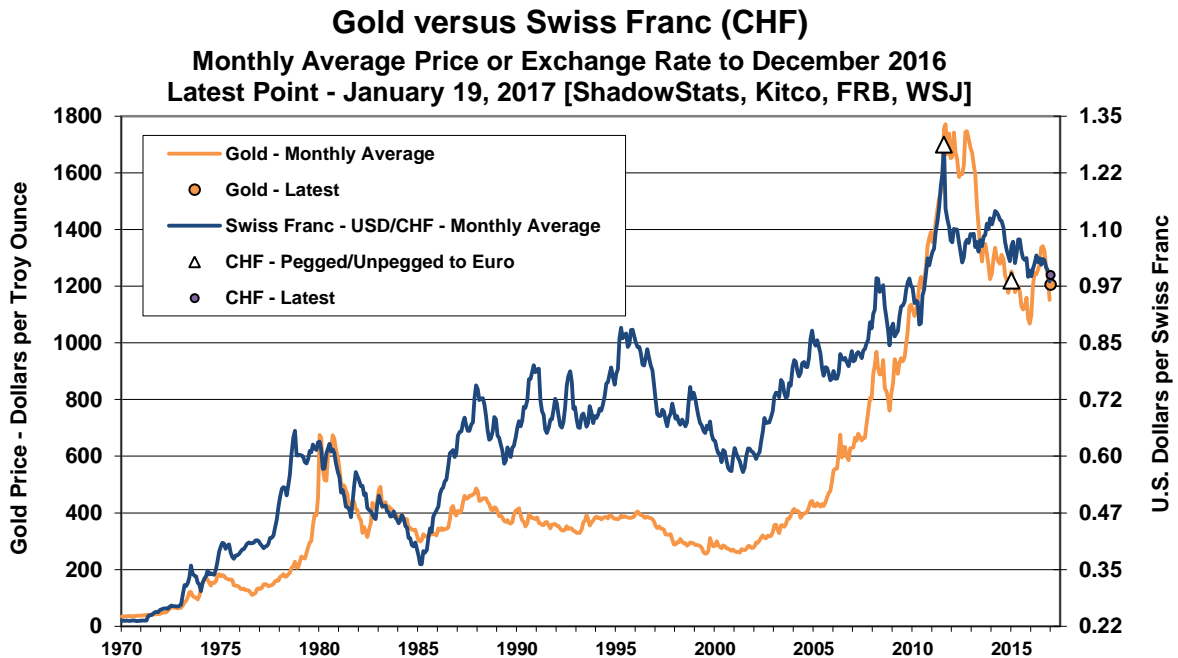
Graph 14: Financial- versus Trade-Weighted U.S. Dollar



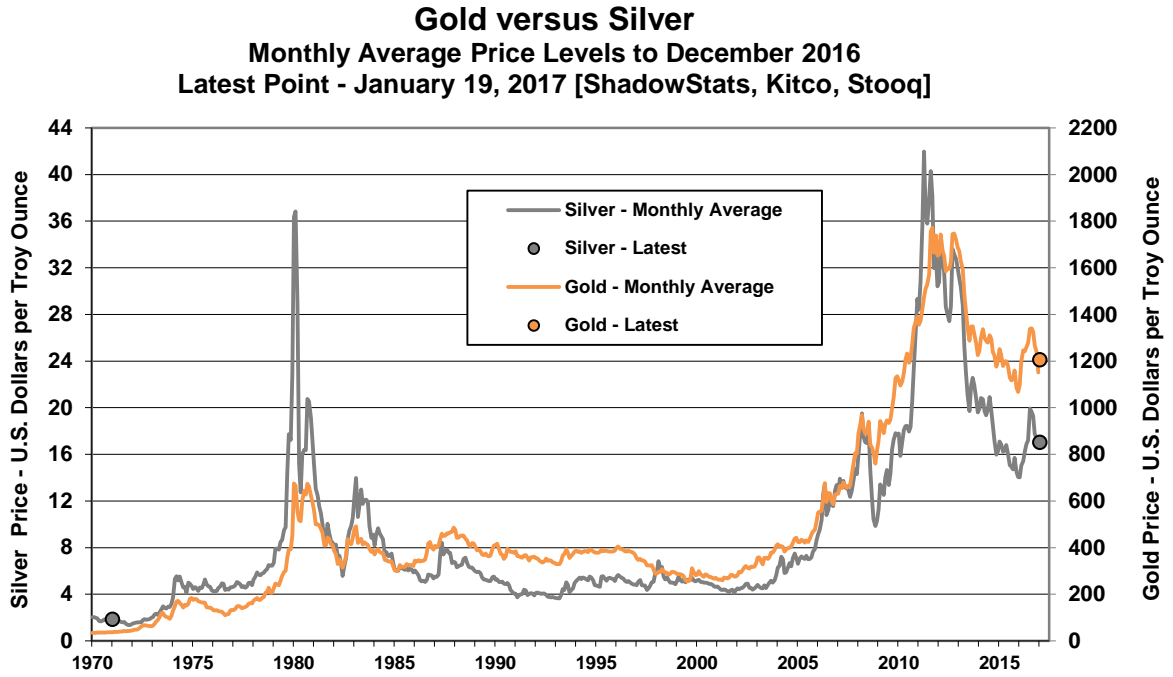
Graph 15: Year-to-Year Change, Financial- versus Trade-Weighted U.S. Dollar



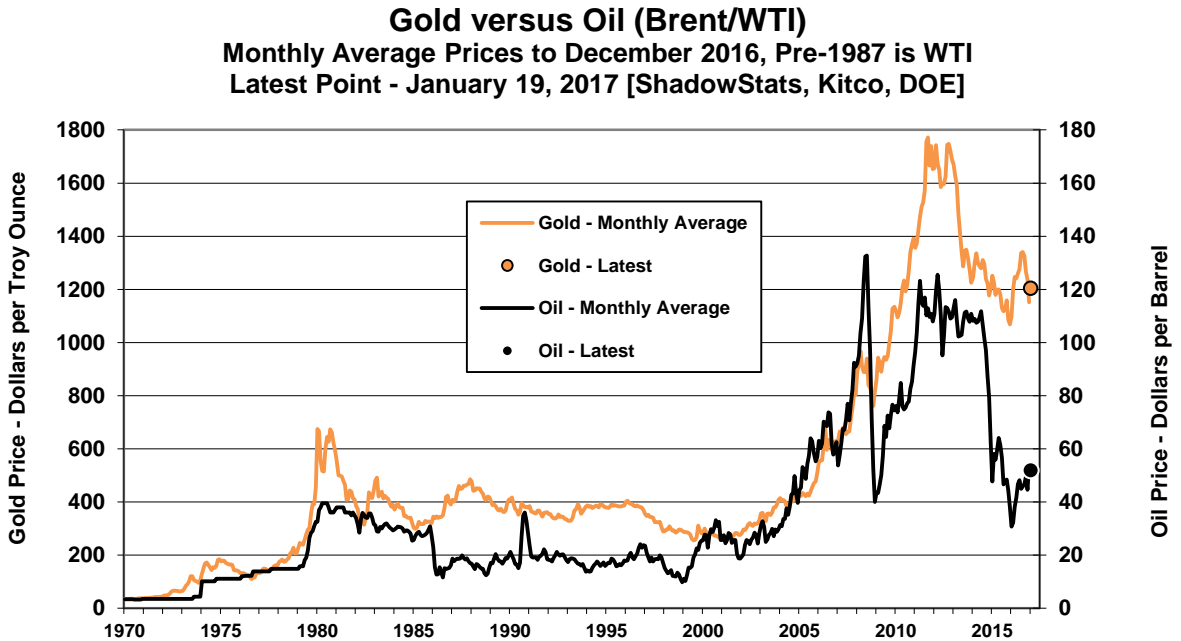
Graph 16: Gold versus the Swiss Franc



Graph 17: Gold versus Silver



Graph 18: Gold versus Oil



REPORTING DETAIL

INDUSTRIAL PRODUCTION (December 2016)

Fourth-Quarter 2016 Contracted Quarter-to-Quarter and Year-to-Year. In the context of downside prior-period revisions, the broad production picture rallied in December, dominated by a weather-distorted utility surge and small gains in manufacturing and mining. While aggregate year-to-year change turned positive in December 2016, for the first time in sixteen months, fourth-quarter activity contracted year-to-year for the fifth straight quarter, while quarter-to-quarter growth contracted anew, down in six of the last eight quarters. Such patterns of quarterly activity never have been seen outside of formal recessions in the 99-year history of the industrial production series.

With industrial production representing 61% of the nominal 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 happy hype out of the Bureau of Economic Analysis (BEA), which guesstimates that third-quarter 2016 real GDP reflected inflation-adjusted, real broad economic activity at 11.6% above its pre-recession peak (see [Commentary No. 857](#)). No other major economic series shows anything close to that purported level of recovery, while industrial production is showing a renewed and continuing downturn (see discussion in [No. 859 Special Commentary](#)).

As of headline December 2016 reporting, the Industrial Production Index at 104.571 stood below its formal pre-recession high by 1.10% (-1.10%) and was down by 1.38% (-1.38%) from its one-month “recovery” peak level of November 2014.

The dominant manufacturing sector (78.5% of Industrial Production, 48% of GDP) never has recovered, with December 2016 manufacturing activity still down by 6.18% (-6.18%) from reclaiming its pre-recession peak level of activity.

An overriding issue continuing to hamper policies of the Federal Reserve, as well as the dominant contributing factor behind the major political shift seen in the 2016 presidential election (see [Commentary No. 846](#)), is that the U.S. economy never really recovered from the “2007 Recession.” The unfolding “new” downturn remains no more than another down-leg in an economic collapse that began to show itself in 2005 and 2006 (again, see [No. 859 Special Commentary](#)). In the post-2016-benchmark revision era for Industrial Production, the headline (not the ShadowStats-corrected) series, again, recovered its pre-recession high only for only one month, in November 2014, and it has been in fairly-consistent monthly decline ever since, falling month-to-month in 17 out of 25 subsequent months.

Headline Industrial Production—December 2016. The Federal Reserve Board released its first estimate of seasonally-adjusted, December 2016 industrial production on January 18th. Headline December 2016 production gained month-to-month by 0.83%, versus a revised month-to-month decline in November of 0.64% (-0.64%) [previously down by 0.44% (-0.44%)], a revised October gain of 0.19% [previously up by 0.07%, initially up by 0.04%] and a revised September contraction of 0.23% (-0.23%) [previously down by 0.20% (-0.20%), by 0.23% (-0.23%), initially up by 0.06%]. Net of prior-period revisions, December 2016 production rose by 0.69%, versus the headline gain of 0.83%.

Detailed by major industry group (see *Graphs 21, 23, 26 and 30*), the headline December 2016 monthly aggregate production gain of 0.83% was composed of a monthly gain of 0.16% in manufacturing activity, a minimal gain of 0.03% in mining activity (including oil and gas production), and a weather-distorted surge of 6.60% in utilities activity. The gain in manufacturing reflected gains in both durable and nondurable consumer goods. The minimal gain in mining reflected increases in oil and gas extraction, oil and gas drilling, largely offset by declining activity in coal and in gold and silver mining.

Year-to-year change in December 2016 industrial production was a gain of 0.51%, the first upturn in sixteen months, a circumstance still unprecedented outside of formal recessions. That was against revised annual declines of 0.74% (-0.74%) in November 2016, of 0.73% (-0.73%) in October 2016 and of 1.05% (-1.05%) in September 2016.

Quarterly and Annual Production Contractions. Fourth-quarter 2016 production contracted year-to-year for the fifth straight quarter, down by 0.32% (-0.32%). Year-to-year growth rates in quarterly production have continued to slow and then decline, ranging from a positive 2.43% in first-quarter 2015, to 0.36% in second-quarter 2015, to 0.12% in third-quarter 2015, to annual declines of 1.62% (-1.62%) in fourth-quarter 2015, 1.57% (-1.57%) in first-quarter 2016, down by 1.08% (-1.08%) in second-quarter 2016 and by 1.01% (-1.01%) in third-quarter 2016.

Annualized Quarter-to-Quarter. Going back a year, first-quarter 2015 industrial production contracted at an annualized quarterly pace of 1.85% (-1.85%), followed by a second-quarter 2015 contraction of 2.75% (-2.75%), with a third-quarter 2015 production gain of 1.53%, followed by a fourth-quarter 2015 contraction of 3.33% (-3.33%).

The first-quarter 2016 quarterly decline was 1.66% (-1.66%), with the second-quarter 2016 quarterly decline of by 0.81% (-0.81%). Third-quarter 2016 industrial production expanded at a revised annualized pace of 1.81%, with fourth-quarter 2016 contracting at an annualized pace of 0.60% (-0.60%).

Production Graphs. The regular two sets of plots for long- and short-term industrial production levels and annual growth rates (*Graphs 19 to 22*) set the background for the drill-down detail graphs of various components of the aggregate industrial series (*Graphs 23 to 36*).

Graphs 19 and 20, and Graphs 21 and 22 show headline industrial production activity to date. *Graph 20* shows the monthly year-to-year percent change in the aggregate series, in historical context since World War II. With the headline annual gain in monthly production currently at 0.51% in December 2016, but still negative for fourth-quarter 2016, the fifth such consecutive quarter.

Graph 19 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

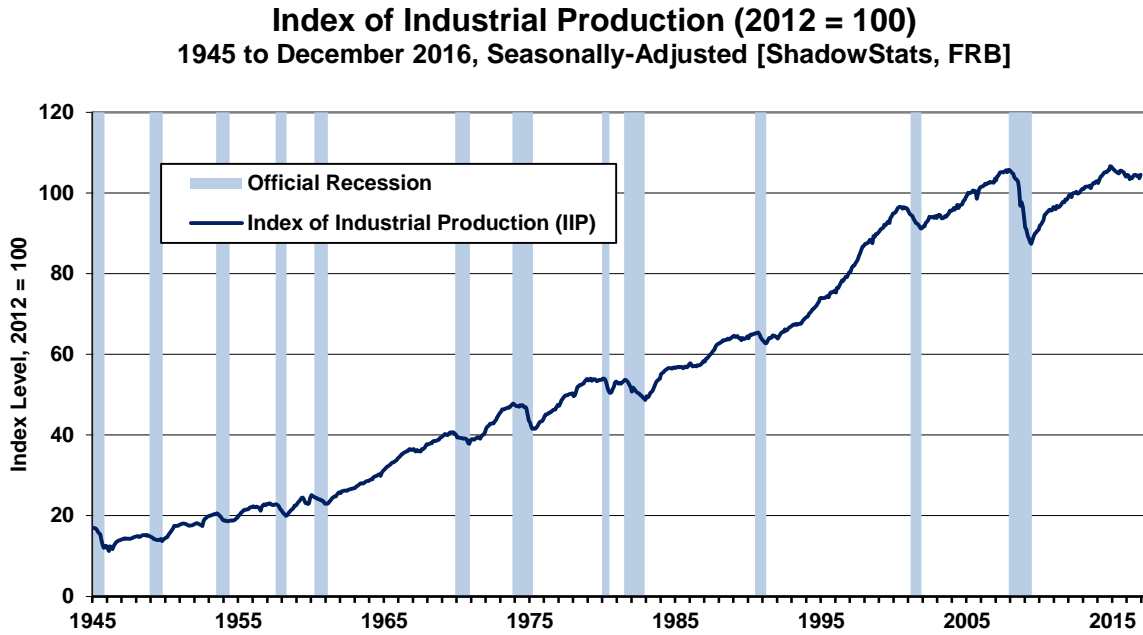
second-quarter 2016, a bounce back in third quarter, but with renewed quarterly contraction in fourth-quarter 2016. Such patterns of monthly, quarterly and annual declines were seen last in the economic collapse into 2009. *Graphs 21* and *22* show the same series in near-term detail, beginning in January 2000.

Seen most clearly in *Graph 22*, the pattern of year-to-year activity dipped anew in 2013, again, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, now having turned negative, again, as seen only in formal recessions. Year-to-year growth remains well off the recent relative peak for the series, which was 8.48% in June 2010, going against the official June 2009 trough of the economic collapse. Indeed, as shown in *Graph 20*, the June 2009 (the end of second-quarter 2009) year-to-year contraction of 15.40% (-15.40%) was the steepest annual decline in production since the shutdown of wartime production following World War II.

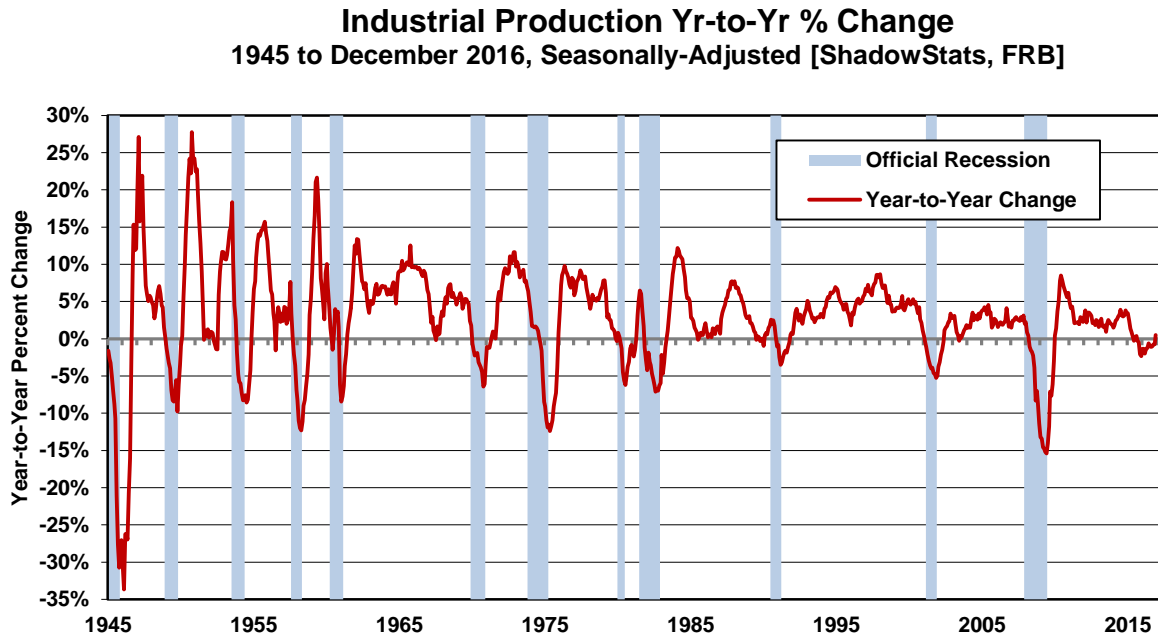
Although generally now-faltering, official production levels had moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Executive Summary* section, *Graph 2*) that series has shown more of a pattern 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, rallied into third-quarter 2015, contracted into second-quarter 2016, bounced in third-quarter 2016 and is head lower again in fourth-quarter 2016. The “corrected” series has contracted quarter-to-quarter throughout 2016.

[Graphs 19 and 20 follow on the next page.]

Graph 19: Index of Industrial Production (Aggregate) since 1945

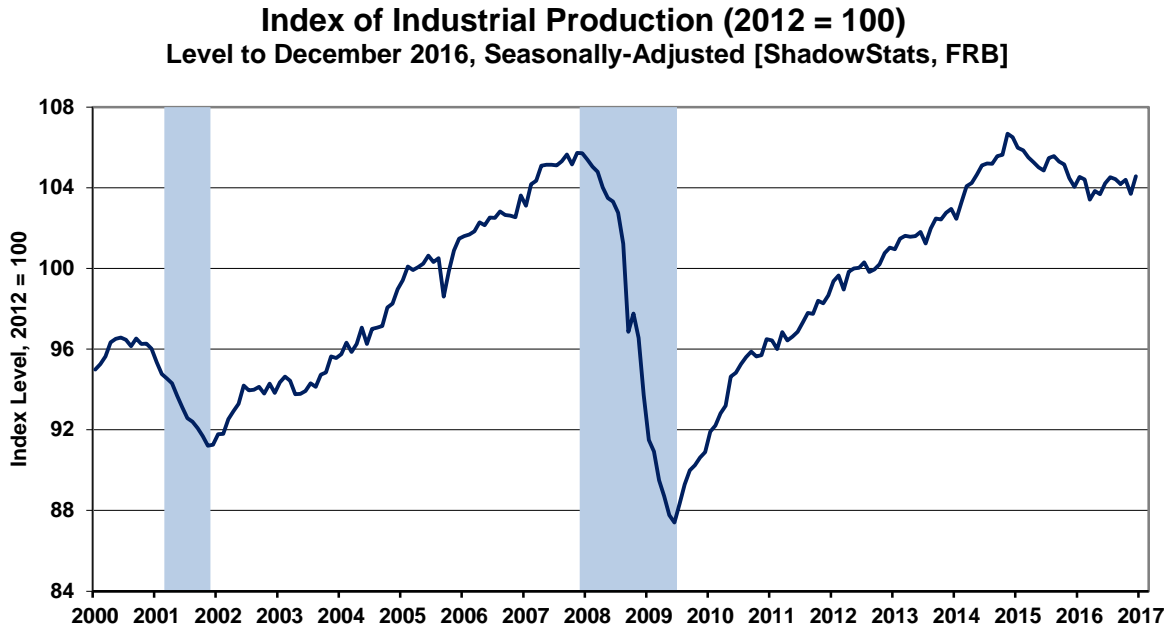


Graph 20: Industrial Production, Year-to-Year Percent Change since 1945

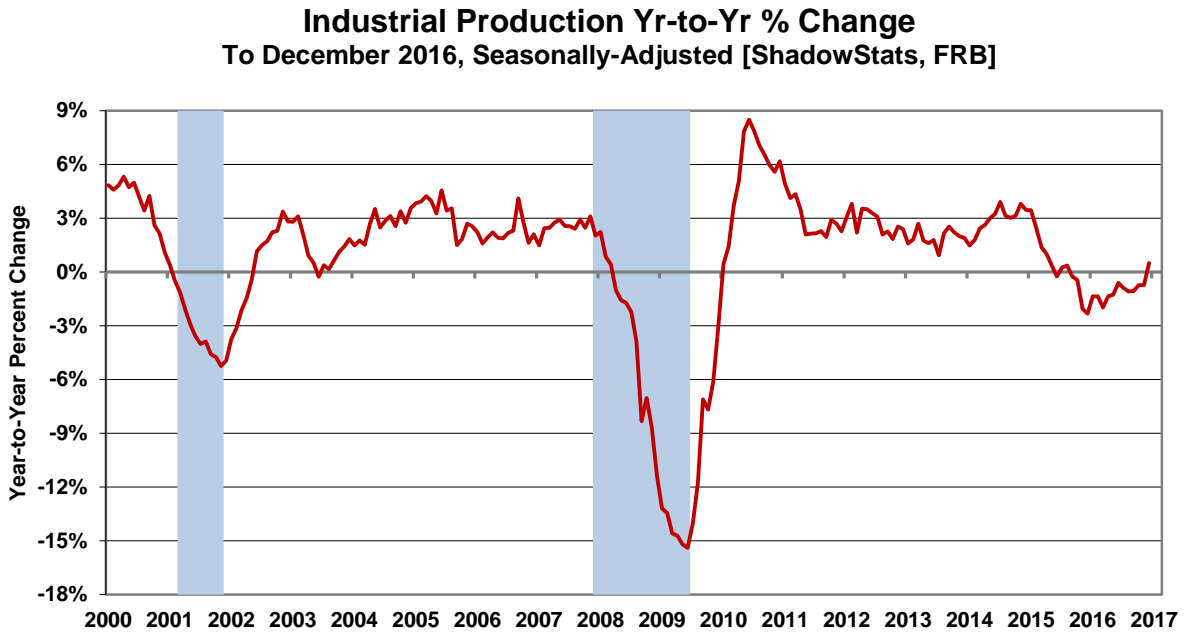


Drilling Down into the December 2016 U.S. Industrial Production Detail. Graphs 21, 23, 28 and 32 show headline reporting of industrial production and its major components.

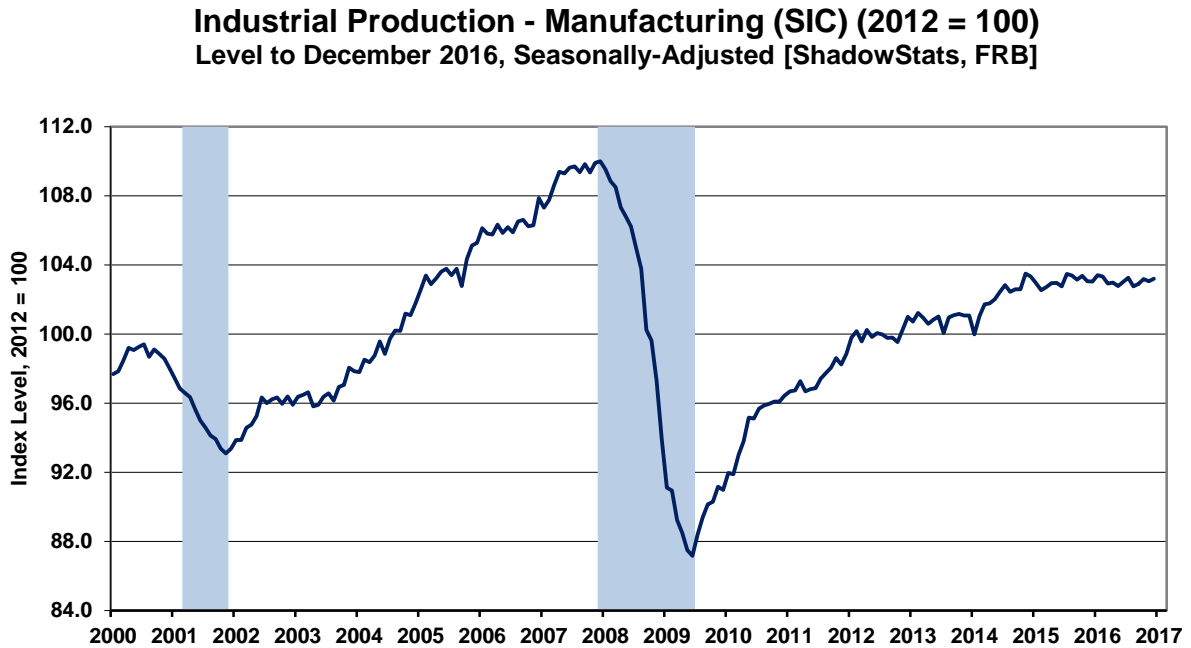
Graph 21: Index of Aggregate Industrial Production since 2000



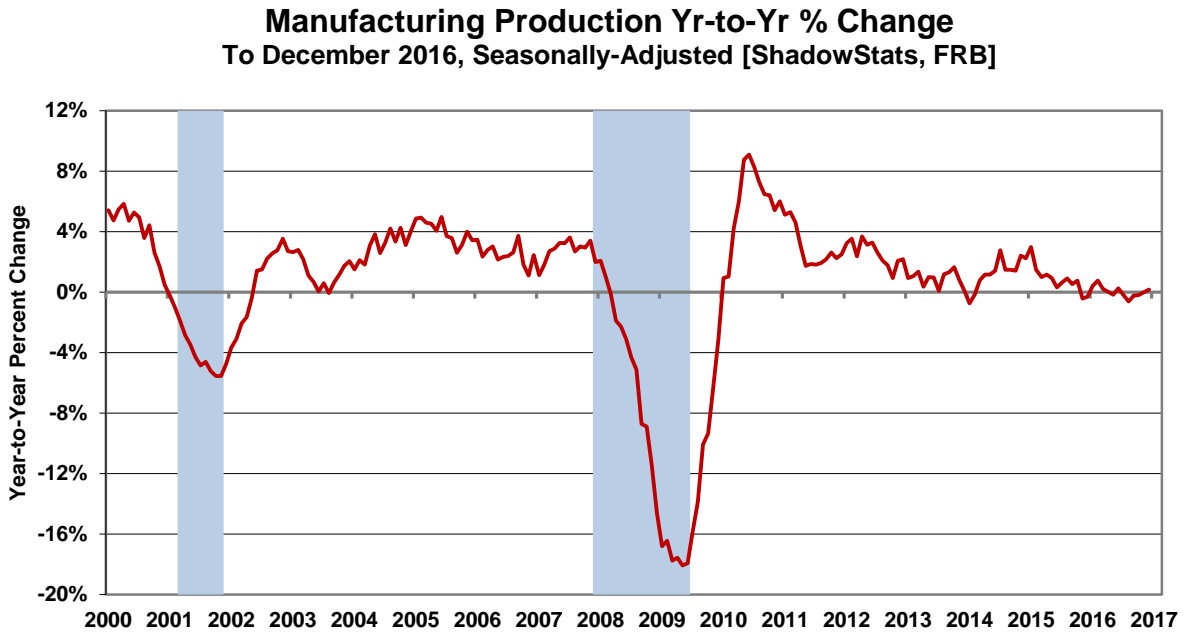
Graph 22: Aggregate Industrial Production, Year-to-Year Percent Change since 2000



Graph 23: Industrial Production - Manufacturing (78.48% of the Aggregate in 2015)



Graph 24: Industrial Production - Manufacturing, Year-to-Year Percent Change Since 2000



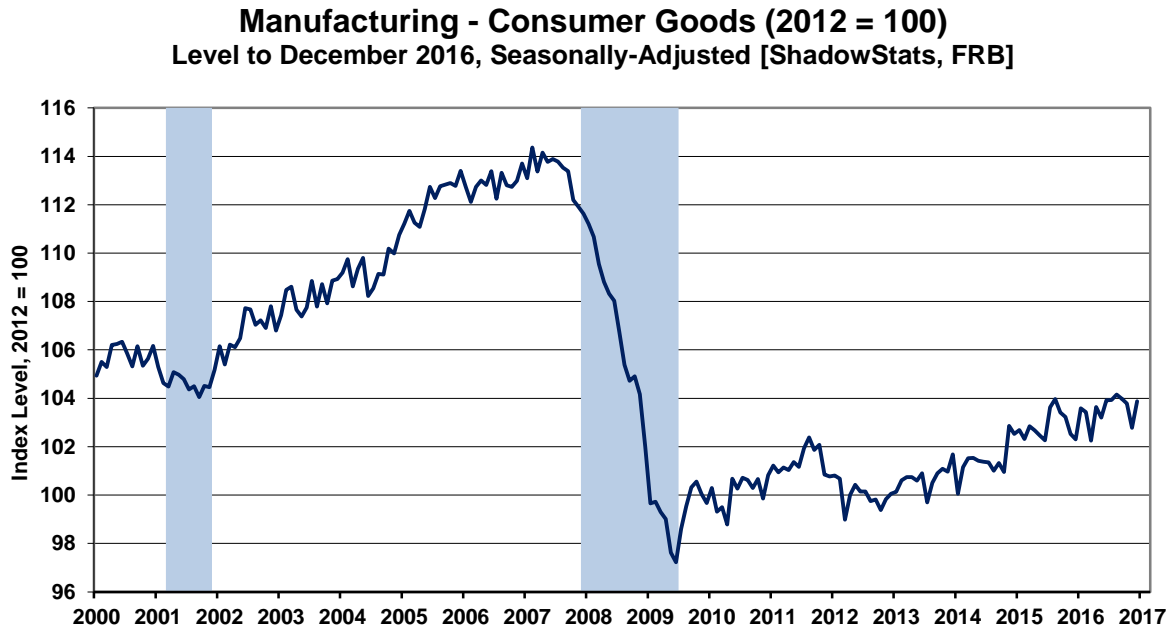
The broad, aggregate index (*Graph 21*) contracted in both first- and second-quarter 2015, with a third-quarter 2015 bounce, followed by ongoing, consecutive quarterly and annual contractions in fourth-quarter 2015, first-quarter 2016 and second-quarter 2016, with another bounce in third-quarter 2016, but a

renewed decline in fourth-quarter 2016. Fourth-quarter 2016 also was the fifth consecutive annual contraction, again, a circumstance simply not seen outside of recessions, as discussed earlier.

Shown in *Graphs 23, 28 and 30*, of the three major industry groups, manufacturing, mining and utilities, only utilities showed a significant increase in December 2016 reporting.

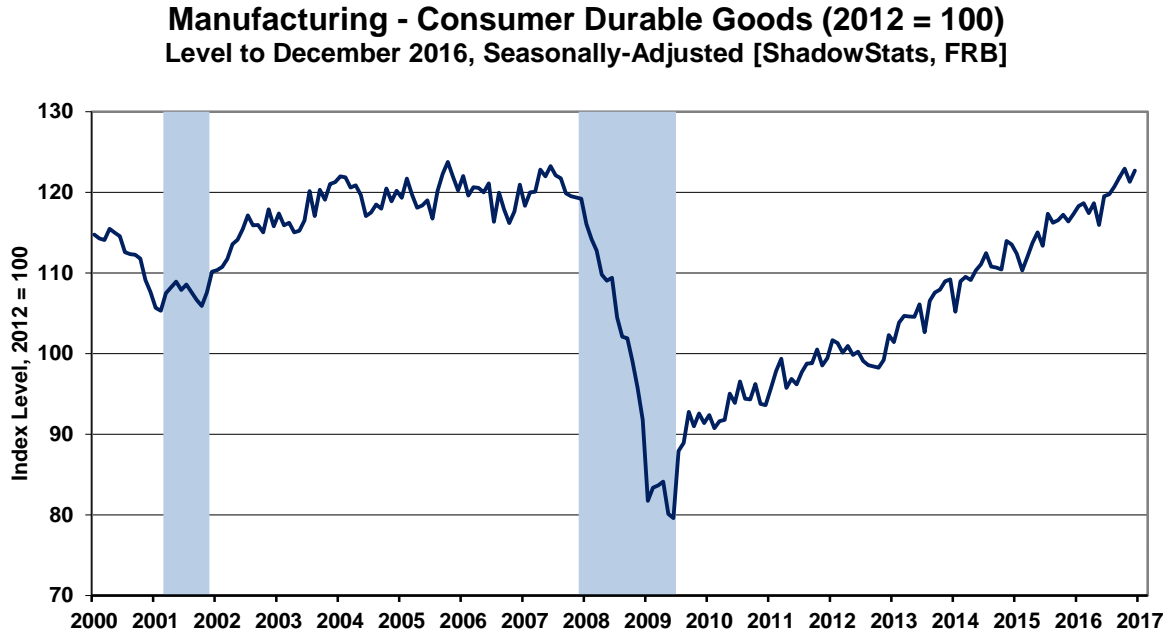
Graph 23 of the dominant manufacturing sector showed a month-to-month gain of 0.16% in December 2016, following a revised contraction of 0.12% (-0.12%) [previously down by 0.06% (-0.06%)]. Consumer goods manufacturing rebounded in December, largely offsetting monthly declines in November (see *Graphs 25 to 27*). *Graph 24* reflects annual growth patterns in manufacturing, which had been fluttering at low levels since an initial bounce off the 2009 trough, down year-to-year in the six months through November, turning to the plus-side by 0.17% in December 2016.

Graph 25: Consumer Goods (27.08% of the Aggregate in 2015)

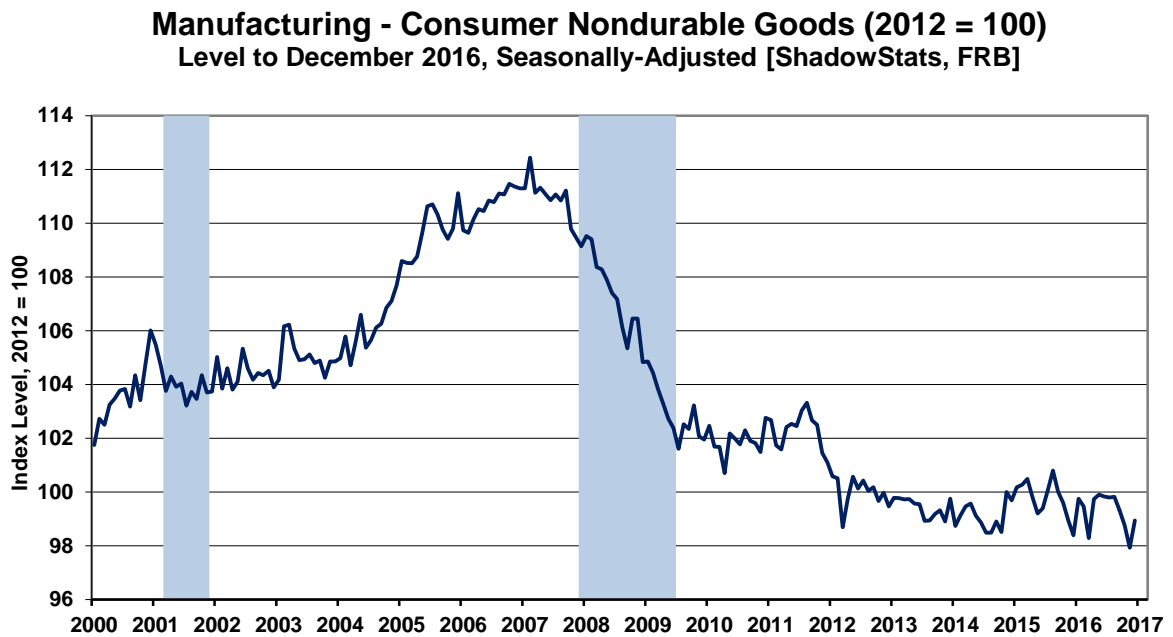


[Graphs 26 and 27 follow on the next page.]

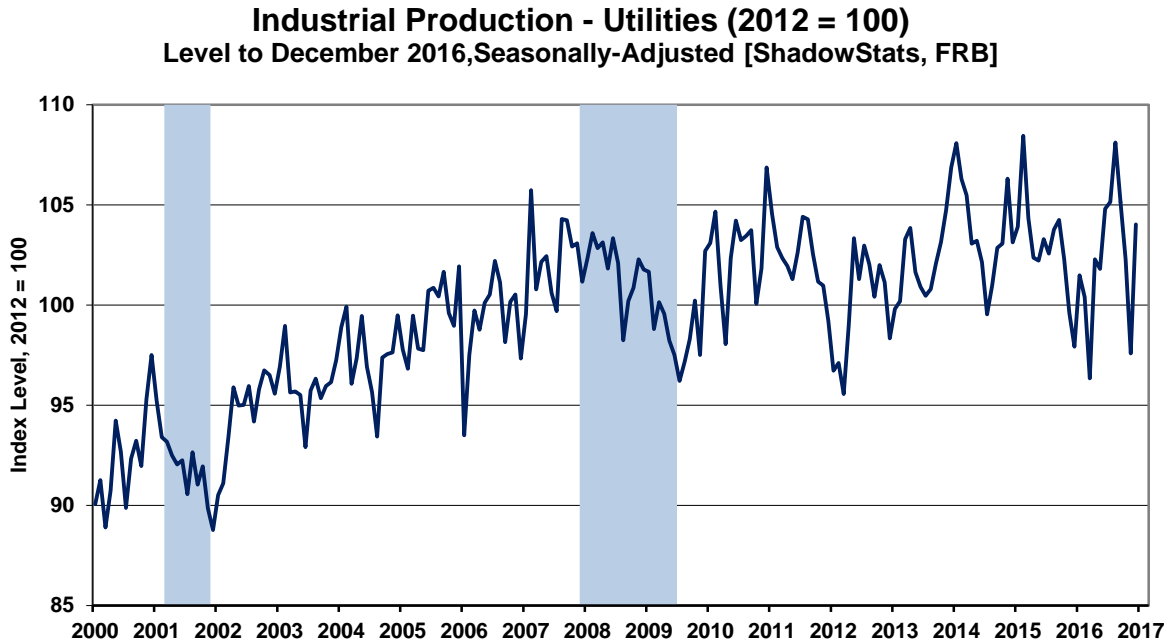
Graph 26: Durable Consumer Goods (6.36% of the Aggregate in 2015)



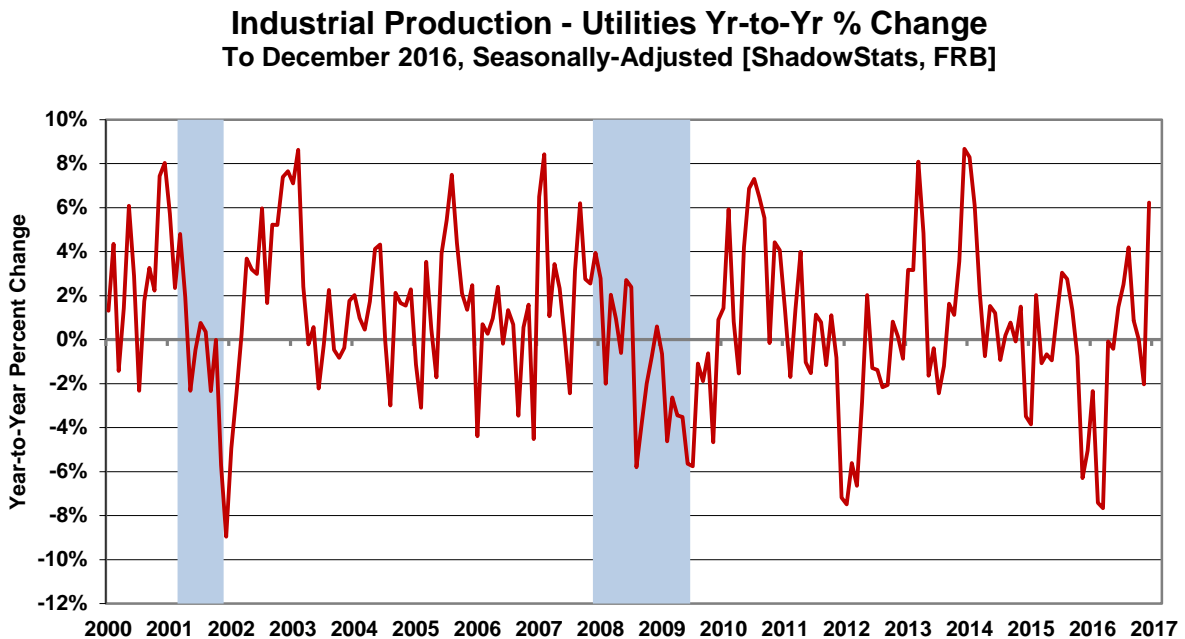
Graph 27: Nondurable Consumer Goods (20.73% of the Aggregate in 2015)



Graph 28: Industrial Production - Utilities (10.76% of the Aggregate in 2015)

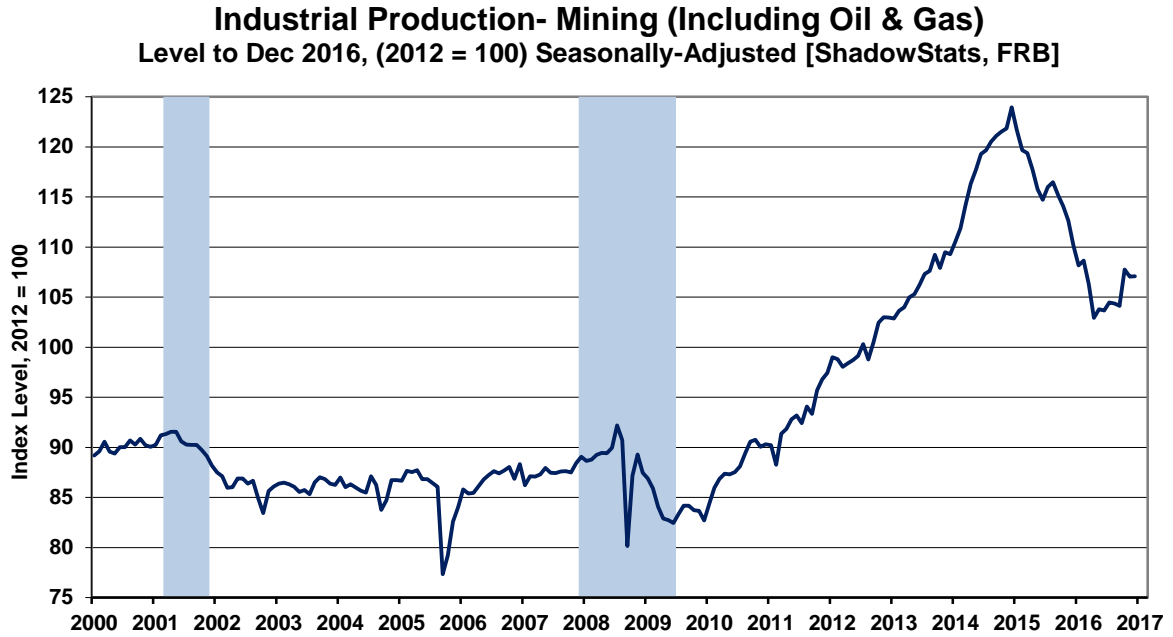


Graph 29: Industrial Production - Utilities, Year-to-Year Percent Change Since 2000

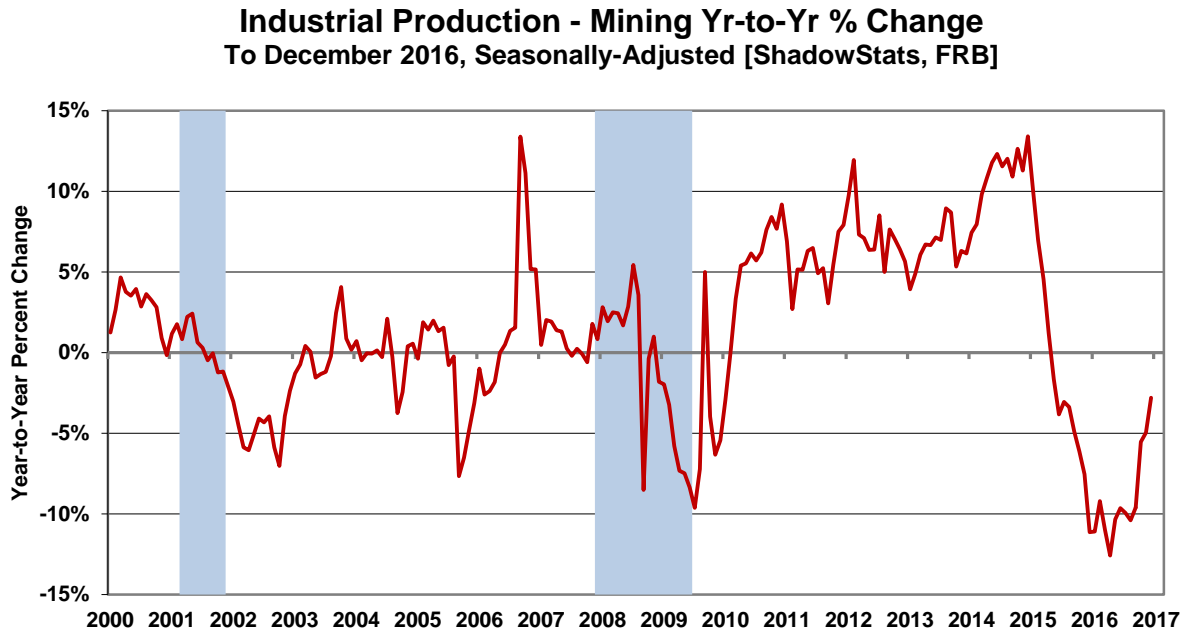


Monthly volatility in the utilities sector (*Graph 28*) usually reflects unseasonable shifts in weather conditions and reversals of same. The 6.60% monthly surge in December 2016 and the 4.57% (-4.57%) plunge in November 2016 utilities were of that nature. Those distortions tend to balance out over time.

Graph 30: Industrial Production - Mining, Including Oil and Gas (10.76% of the Aggregate in 2015)



Graph 31: Industrial Production - Mining, Year-to-Year Percent Change



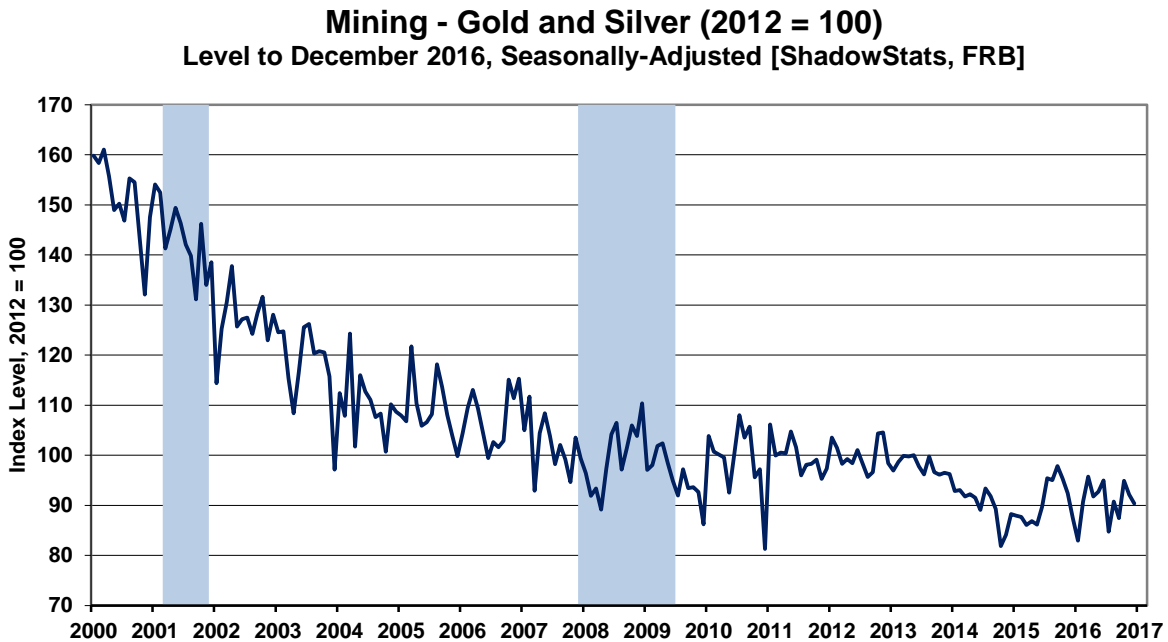
Activity in the mining sector (*Graph 30*), particularly in oil and gas exploration and production, and in coal production, still remains the near-term focus of this analysis. The sector easily recovered its pre-recession high and accounted for the full “recovery,” albeit extremely short-lived, seen in the aggregate

production detail since the economic collapse. Since then, however, mining production had turned down sharply, reflecting a number of factors, including the impact of largely orchestrated lower oil prices, which subsequently have been up and down tied to dollar and supply issues, as well as U.S. government actions to limit coal consumption and production. Year-to-year mining activity (*Graph 31*), still down by 2.79% (-2.79%), has moved off bottom, thanks to a brief rebound in coal production and a bottoming and minimal upturn following the collapse of oil and gas exploration.

Graph 32 reflects slowing monthly production continuing off the near-term-trough in activity for gold and silver, irrespective of the pummeling given the prices of precious metals in recent years by central-bank orchestrated market as well as recent price volatility in the markets.

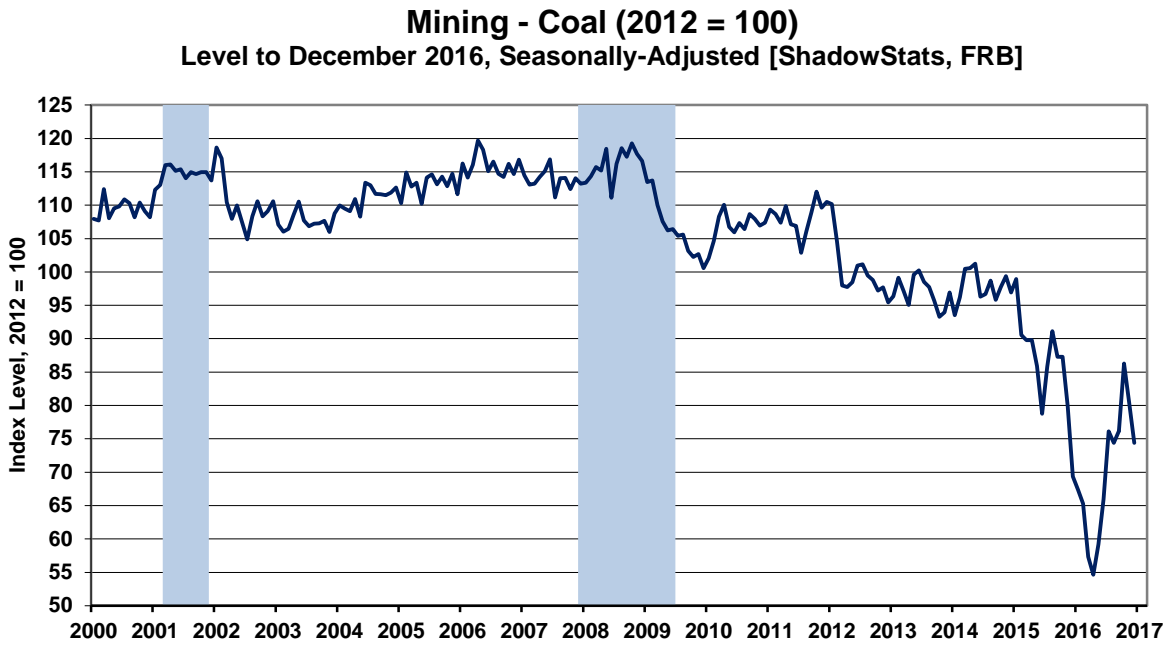
Graph 33 still shows an extraordinary rebound in monthly coal production, which was down year-to-year by 18.39% (-18.39%) in August 2016, but now is up year-to-year by 7.24% as of December 2016, although the latest month-to-month activity was in sharp decline, and although current activity still is down sharply from its near-term May 2014 production peak.

Graph 32: Mining – Gold and Silver Mining (Since 2000)

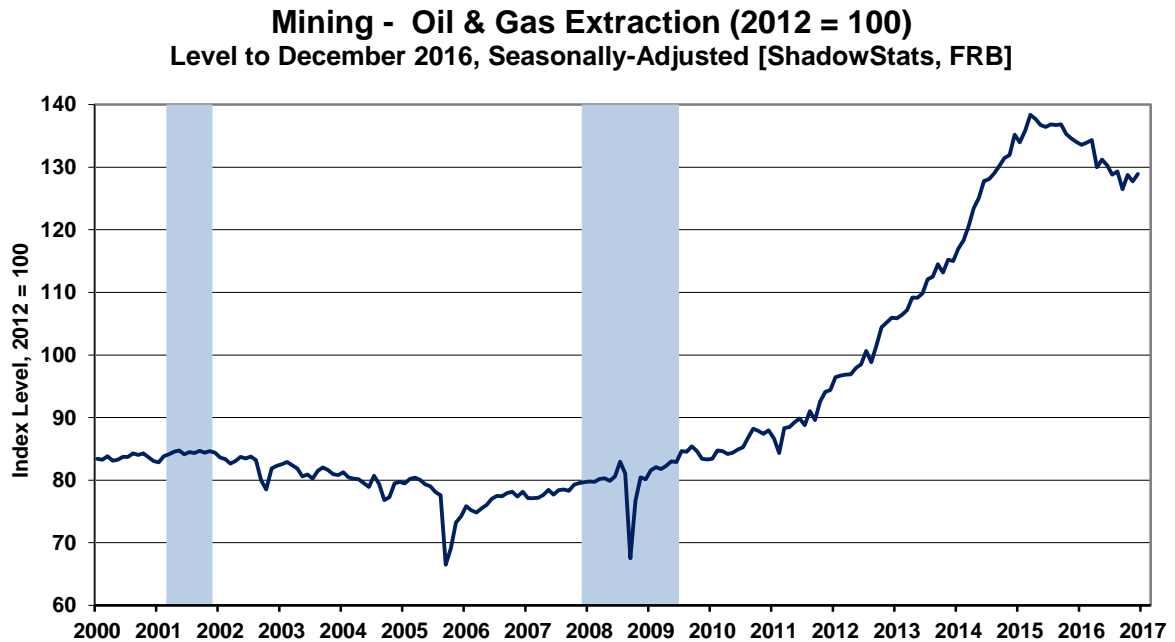


[Graphs 33 and 34 follow on the next page.]

Graph 33: Mining - Coal Mining (Since 2000)



Graph 34: Mining – U.S. Oil & Gas Extraction (Since 2000)

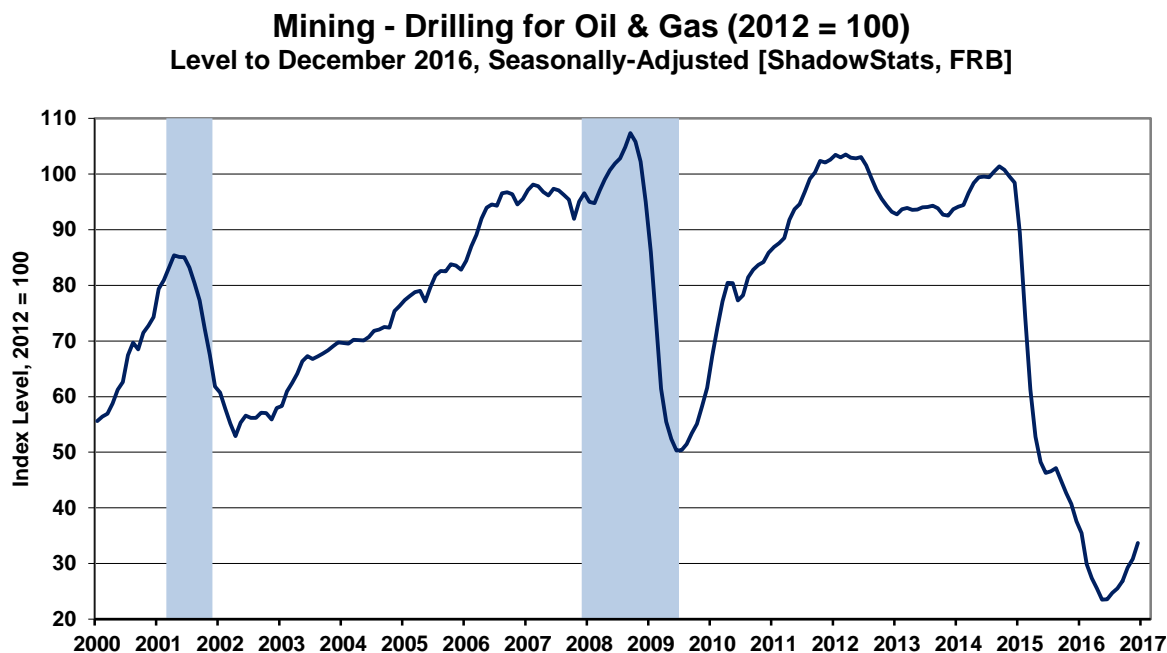


With oil prices fluctuating above recent lows, oil and gas extraction just gained 0.89% for the month of December, still remaining well off its all-time high.

Exploration in terms of oil and gas drilling (*Graph 35*) has continued to move higher in what increasingly looks like a bottoming process, up by 9.35% month-to-month in December.

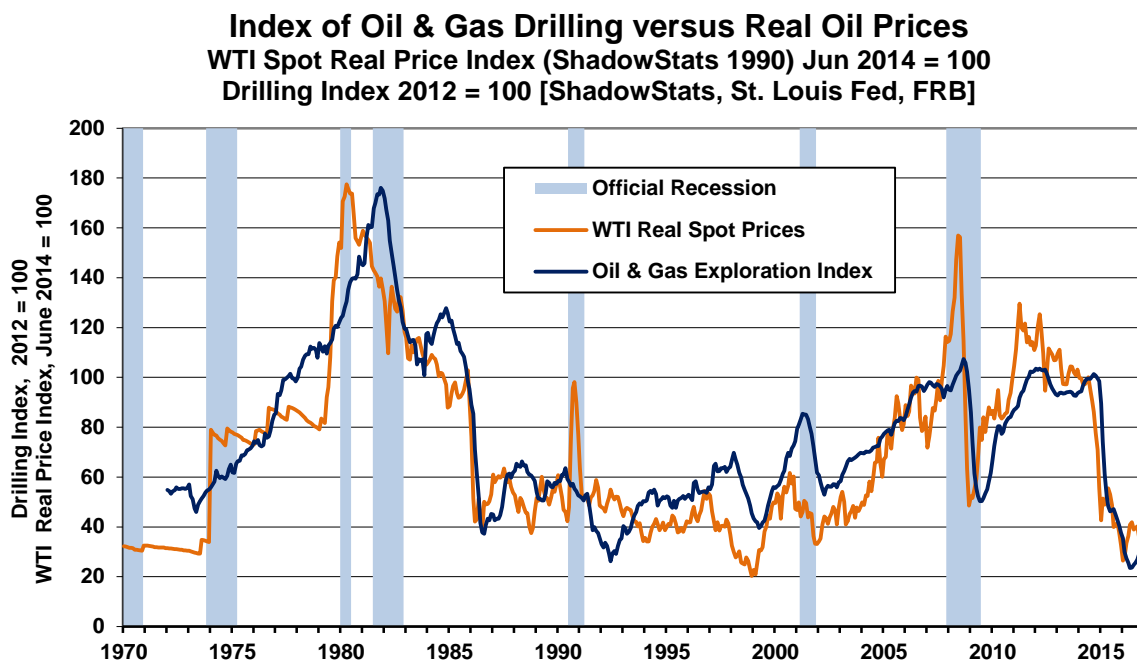
Regularly discussed here, the collapse in drilling largely was an artefact of the massive U.S. dollar rally and oil-price plunge that began in July 2014. Those shifts appeared, at least initially, to be U.S.-orchestrated covert actions designed to stress Russia, financially, in response the circumstance in Ukraine. Since the related September 2014 peak in oil drilling, activity there still has collapsed by 67% (-67%).

Graph 35: U.S. Drilling for Oil & Gas (Since 2000)



Shown in *Graph 36*, with some lag following the sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing, indeed, appears to be in its early stages. The oil price index used is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the ShadowStats Alternate CPI measure (1990 Base).

When the dollar recently started to weaken anew, dollar-denominated oil prices also began 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—U.S. dollar-denominated oil prices should rally (see [General Commentary No. 811](#)). That said, post-election, the U.S. dollar has rallied sharply, but there has not been a commensurate decline in oil prices, with supply being tightened artificially (see the discussion in [No. 859 Special Commentary](#)).

Graph 36: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)**CONSUMER PRICE INDEX—CPI (December 2016)**

Headline CPI-U Inflation Rose by 0.3% for the Month, 2.1% Year-to-Year. Headline December 2016 CPI-U monthly inflation of 0.3% [up by 0.28% at the second decimal point] generally was as expected by the consensus. Unadjusted year-to-year inflation broke above 2.0% for the first time in 30 months, since the oil price collapse of 2014. That is not a coincidence. Unadjusted year-to-year energy costs in December 2016 broke above zero, and strongly so, for the first time since August 2014.

Heavy, positive seasonal adjustments in the energy and “core” (ex-food and energy) generated the bulk of the headline, positive monthly CPI gain. Unadjusted, headline monthly inflation was “unchanged” at 0.0% [up by 0.03% at the second decimal point].

Separately, although headline annual CPI-U inflation rose sharply to 2.1% in December 2016, versus 1.7% in November 2016, year-to-year inflation is not and has not been quite as low as indicated, when considered in the context of traditional CPI reporting and common experience. The ShadowStats-Alternate Inflation Measures showed annual inflation in December 2016 of 5.7%, based on 1990 methodologies, and 9.8%, based on 1980 methodologies.

Longer-Range Inflation Outlook. Despite the strong U.S. dollar rally subsequent to the election and the Fed’s rate hike—and some tempering of same (see the *Hyperinflation Watch*)—as discussed in [No. 859 Special Commentary](#), a tremendous threat to the dollar and systemic liquidity and stability continues, tied

to the U.S. Federal Reserve's inability to resolve fundamentally the 2008 financial collapse, other than having bought limited additional time with its emergency stopgap measures. Since the 2008 crisis, domestic- and global-banking systems have not been stabilized in a healthy or sustainable manner. Efforts to stimulate a non-recovering U.S. economy, amidst renewed faltering activity, have been nil, up through the advent of the Trump era. Given standard lead times, positive impact from a likely post-inauguration 2017 stimulus packages would not have significant effect until early-2018, at the earliest, a time lapse fraught with potential disaster created by an incapacitated Fed, fighting to the death a battle it already lost in the 2008 panic.

Such should become increasingly obvious as faltering economic activity stresses domestic systemic-liquidity issues, pushing the U.S. central bank backs towards expanded quantitative easing in first-half 2017. That would generate high risk of extreme flight from the U.S. dollar—a massive dollar debasement—threatening an increasingly-rapid upturn in energy and dollar-based commodity inflation, driving headline U.S. inflation much higher.

Compounding the high-risk of a near-term run on the U.S. dollar remains mounting recognition in global markets that the U.S. Federal Reserve and other central banks still have no effective idea as to how to boost current economic activity, how to stabilize the global banking-system solvency, or otherwise how to slog their way out of a self-generated quagmire.

Notes on Different Measures of the Consumer Price Index

The Consumer Price Index (CPI) is the broadest inflation measure published by the U.S. Government, through the Bureau of Labor Statistics (BLS), Department of Labor:

*The **CPI-U (Consumer Price Index for All Urban Consumers)** is the monthly headline inflation number (seasonally adjusted) and is the broadest in its coverage, representing the buying patterns of all urban consumers. Its standard measure is not seasonally-adjusted, and it never is revised on that basis except for outright errors.*

*The **CPI-W (CPI for Urban Wage Earners and Clerical Workers)** covers the more-narrow universe of urban wage earners and clerical workers and is used in determining cost of living adjustments in government programs such as Social Security. Otherwise, its background is the same as the CPI-U.*

*The **C-CPI-U (Chain-Weighted CPI-U)** is an experimental measure, where the weighting of components is fully substitution based. It generally shows lower annual inflation rate than the CPI-U and CPI-W. The latter two measures once had fixed weightings—so as to measure the cost of living of maintaining a constant standard of living—but now are quasi-substitution-based. Since it is fully substitution based, the series tends to reflect lower inflation than the other CPI measures. Accordingly, the C-CPI-U is the “new inflation” measure being proffered by Congress and the White House as a tool for reducing Social Security cost-of-living adjustments by stealth. Moving to accommodate the Congress, the BLS introduced changes to the C-CPI-U estimation process with the February 26, 2015 reporting of January 2015 inflation, aimed at finalizing the C-CPI-U estimates on a more-timely basis, and enhancing its ability to produce lower headline inflation than the traditional CPI-U.*

*The **ShadowStats Alternative CPI-U Measures** are attempts at adjusting reported CPI-U inflation for the impact of methodological change of recent decades designed to move the concept of the CPI away from being a measure of the cost of living needed to maintain a constant standard of living. There are two measures, where*

the first is based on reporting methodologies in place as of 1980, and the second is based on reporting methodologies in place as of 1990.

CPI-U. The Bureau of Labor Statistics reported January 18th that the headline, seasonally-adjusted December 2016 CPI-U rose by 0.3% month-to-month, up by 0.28% at the second decimal point. That followed a 0.2% month-to-month gain, up by 0.20% at the second decimal point in November, up by 0.4% month-to-month, up by 0.36% at the second decimal point in October and a gain of 0.3% month-to-month, up by 0.29% at the second decimal point in September.

The adjusted headline December 2016 inflation increase was boosted by positive seasonal adjustments to the energy and “core” (ex-food and energy) sectors. On an unadjusted basis, monthly December 2016 CPI-U gained 0.03%, having declined by 0.15% (-0.15%) in November, and having increased by 0.12% in October and by 0.24% in September.

December 2016 seasonal adjustments for monthly gasoline inflation were positive, “boosting” an unadjusted headline monthly gain of 1.76% in gasoline prices into an adjusted gain of 2.96%. The Department of Energy (DOE) had estimated an unadjusted monthly gain in gasoline prices of 2.30%.

Major CPI-U Groups. Encompassed by the seasonally-adjusted monthly CPI-U gain of 0.28% in December 2016 [up by an unadjusted 0.03%], December food inflation declined by a seasonally-adjusted 0.05% (-0.05%) [down by 0.05% (-0.05%) unadjusted], December energy inflation rose by a seasonally-adjusted 1.46% [up by an unadjusted 0.99%], while the adjusted December “core” (ex-food and energy) inflation rate was up by 0.23% [down by 0.04% (-0.04%) unadjusted]. Separately, core CPI-U inflation showed unadjusted year-to-year inflation of 2.20% in December 2016, versus 2.11% in November 2016, 2.14% in October 2016 and 2.21% in September 2016.

Quarterly CPI-U On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-U rose by 3.44% in fourth-quarter 2016, having gained 1.63% in third-quarter 2016, 2.53% in second-quarter 2016 and having declined by 0.31% (-0.31%) in first-quarter 2016.

On an unadjusted, year-to-year basis, annual inflation by quarter was up by 1.80% in fourth-quarter 2016, 1.12% in third-quarter 2016, 1.05% in second-quarter 2016 and 1.08% in first-quarter 2016.

Annual Average CPI-U. The annual average CPI-U inflation rate was 1.26% in 2016, versus 0.12% in 2015.

Year-to-Year CPI-U. Not seasonally adjusted, December 2016 year-to-year inflation for the CPI-U rose to 2.1% (2.07% at the second decimal point, versus 1.7% (1.69% at the second decimal point) in November 2016, versus 1.6% (1.64% at the second decimal point) in October 2016 and 1.5% (1.46% at the second decimal point) in September 2016.

Year-to-year, CPI-U inflation would increase or decrease in next month’s January 2017 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, negligible headline gain of 0.03% in January 2016 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for January 2016, the

difference in January's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the December 2016 annual inflation rate of 2.07%. Given an early guess of a seasonally-adjusted gain of 0.3%, in the monthly January 2017 CPI-U, that would move the annual CPI-U inflation rate for January 2017 up to about 2.4%, plus-or-minus, depending on rounding.

CPI-W. The December 2016 seasonally-adjusted, headline CPI-W, which is a narrower series and has greater weighting for gasoline than does the CPI-U, rose month-to-month by 0.32%, following gains of 0.21% in November, 0.40% in October and 0.34% in September. On an unadjusted basis, the monthly CPI-W rose by 0.07% in December 2016, having declined by 0.22% (-0.22%) in November and having gained by 0.10% in October and 0.25% in September.

Quarter-to-Quarter CPI-W. On an annualized quarter-to-quarter basis, the seasonally-adjusted CPI-W rose by 3.80% in fourth-quarter 2016, versus 1.40% in third-quarter 2016 and 2.56% in second-quarter 2016, and having declined in first-quarter 2016 by 1.08% (-1.08%). On an unadjusted year-to-year basis, annual inflation by quarter was up by 1.65% in fourth-quarter 2016, versus 0.76% in third-quarter 2016, 0.71% in second-quarter 2016 and 0.79% in first-quarter 2016.

Annual CPI-W. The annual average CPI-W inflation rate was 0.98% in 2016, versus an annual average contraction of 0.41% (-0.41%) in 2015.

Year-to-Year CPI-W. Unadjusted, year-to-year change in December 2016 CPI-W was a gain of 1.99%, up from 1.51% in November 2016, 1.45% in October 2016 and 1.22% in September 2016.

Chained-CPI-U. The headline C-CPI-U is not seasonally adjusted. Headline December 2016 C-CPI-U annual inflation came in at 2.03%, versus 1.54% in November, 1.48% in October 2016 and 1.27% in September 2016.

See discussions in the earlier CPI [Commentary No. 721](#) and in the opening notes in the *CPI Section* of [Commentary No. 699](#) as to recent changes in the series. More-frequent revisions and earlier finalization of monthly detail have been designed to groom the C-CPI-U series as the new Cost of Living Adjustment (COLA) index of choice for the budget-deficit-strapped federal government, as discussed in the [Public Commentary on Inflation Measurement](#).

Caution: Artificially-low inflation numbers estimated by the U.S. Government and used in fields ranging from Social Security COLAs (see the 2017 CPI-W estimate discussion in [Commentary No. 841](#)) to determining income-tax brackets, have been redesigned in recent decades specifically to help reduce the federal deficit. They are harmfully misleading to anyone using a government CPI estimate as a meaningful cost-of-living measure for guidance on income or investment purposes.

Alternate Consumer Inflation Measures. The ShadowStats-Alternate Consumer Inflation Measures are constructed on top of the unadjusted CPI-U series. Adjusted to 1990 methodologies—the ShadowStats-Alternate Consumer Inflation Measure (1990-Base)—year-to-year annual inflation was roughly 5.7% in December 2016, versus 5.3% in November 2016, 5.2% in October 2016 and 5.0% in September 2016.

The December 2016 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, was at about 9.8% (9.81%) at

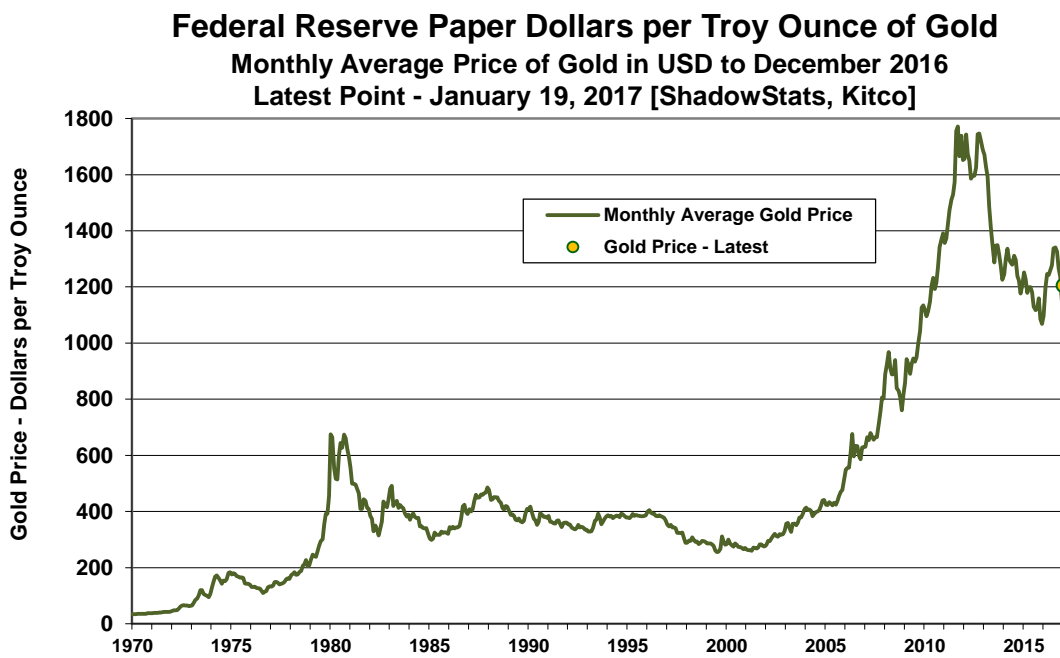
the second decimal point), versus 9.4% (9.40%) in November 2016, versus 9.3% (9.34%) in October 2016 and 9.1% (9.15%) in September 2016.

Note: The ShadowStats-Alternate Consumer Inflation Measures largely have been reverse-engineered from BLS estimates of the anticipated impact on annual CPI inflation from various changes made to CPI reporting methodology since the early 1980s, as also incorporated in the CPI-U-RS series. That series provides an official estimate of historical inflation, assuming that all current methodologies were in place going back in time. The changes reflected there are parallel with and of the same magnitude of change as estimated by the BLS, when a given methodology was changed.

The ShadowStats estimates are adjusted on an additive basis for the cumulative impact on the annual inflation rate from the various BLS changes in methodology (reversing the net aggregate inflation reductions by the BLS). The series are adjusted by ShadowStats for those aggregate changes, but the series otherwise are not recalculated.

Over the decades, the BLS has altered the meaning of the CPI from being a measure of the cost of living needed to maintain a constant standard of living, to something that neither reflects the constant-standard-of-living concept nor measures adequately what most consumers view as out-of-pocket expenditures. Roughly five percentage points of the additive ShadowStats adjustment since 1980 reflect the BLS's formal estimate of the annual impact of methodological changes; roughly, two percentage points reflect changes by the BLS, where ShadowStats has estimated the impact not otherwise published by the BLS. For example, the BLS does not consider more-frequent weightings of the CPI series or shifting the nature of retail outlets to be changes in methodology. Yet those changes have had the effect of reducing headline inflation from what it would have been otherwise (See [Public Commentary on Inflation Measurement](#) for further details.)

Graph 37: Monthly Average Gold Price in Dollars (Federal Reserve Notes)



Gold and Silver Historic High Prices Adjusted for December 2016 CPI-U/ShadowStats Inflation—

***CPI-U: GOLD at \$2,638 per Troy Ounce, SILVER at \$153 per Troy Ounce
ShadowStats: GOLD at \$13,517 per Troy Ounce, SILVER at \$786 per Troy Ounce***

Despite the September 5, 2011 historic-high gold price of \$1,895.00 per troy ounce (London afternoon fix), and despite the multi-decade-high silver price of \$48.70 per troy ounce (London fix of April 28, 2011), gold and silver prices have yet to re-hit their 1980 historic levels, adjusted for inflation. The earlier all-time high of \$850.00 (London afternoon fix, per Kitco.com) for gold on January 21, 1980 would be \$2,638 per troy ounce, based on December 2016 CPI-U-adjusted dollars, and \$13,517 per troy ounce, based on December 2016 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (all series here are not seasonally adjusted).

In like manner, the all-time high nominal price for silver in January 1980 of \$49.45 per troy ounce (London afternoon fix, per silverinstitute.org)—although approached in 2011—still has not been hit since 1980, including in terms of inflation-adjusted dollars. Based on December 2016 CPI-U inflation, the 1980 silver-price peak would be \$153 per troy ounce and would be \$786 per troy ounce in terms of the December 2016 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (again, all series not seasonally adjusted).

Shown in *Table 1*, on page 47 of [No. 859 Special Commentary](#), over the decades, the increases in gold and silver prices have compensated for more than the loss of the purchasing power of the U.S. dollar as reflected by CPI inflation. They also effectively have come close to fully compensating for the loss of purchasing power of the dollar based on the ShadowStats-Alternate Consumer Price Measure (1980-Methodologies Base).

Real (Inflation-Adjusted) Retail Sales—December 2016—Up by 0.34% Month-to-Month, 1.99% Year-to-Year. Discussed in [Commentary No. 861](#), headline nominal December 2016 Retail Sales rose by 0.63% month-to-month, versus an upwardly revised 0.18% [previously 0.08%] gain in November and an upwardly revised 0.66% [previously 0.62%, initially 0.82%] gain in October. December 2016 nominal retail sales rose year-to-year by 4.13%, versus an upwardly revised 3.89% [previously 3.75%] in November and an upwardly-revised 4.22% [previously 4.18%, initially 4.30%] gain in October 2016.

The preceding numbers were before any consideration for the effects of inflation. The initial monthly and annual inflation-adjusted real growth rates for December 2016 Retail Sales, and the trends for annualized quarterly real changes in retail sales follow, based on the accompanying detail of the headline December 2016 CPI-U.

Headline Real Growth. Based on a headline seasonally-adjusted monthly CPI-U gains of 0.28% in December 2016, 0.20% in November 2016, and 0.36% in October 2016, December 2016 real Retail Sales rose by 0.34%, following a revised decline of 0.02% (-0.02%) [previously down by 0.12% (-0.12%)] in November, and a revised gain of 0.30% [previously 0.26%, initially 0.47%] in October.

Intense Signal of Recession in Annual Real Growth Resumed. During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal has been in play since February 2015 (the “new” recession likely will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn.

Year-to-year, December 2016 real retail sales increased by 1.99%, at that recession-signal threshold. November 2016 real retail sales increased by a revised 2.15% [previously 2.02%], with October 2016 annual real retail sales revising to 2.53% [previously 2.49%]. Recent games-playing with auto sales incentives has shifted monthly patterns there, which should balance out in weaker first-quarter 2017 sales activity. With initial fourth-quarter 2016 reporting in place, annual real growth rose to 2.22%, versus 1.47% in third-quarter 2016 reporting, 1.56% in second-quarter 2016 and 1.62% in first-quarter 2016, the recession signal has remained intense, consistent with an unfolding economic downturn. Where the fourth-quarter annual growth is bloated, again, that should soften in the months ahead. *Graphs 39 and 41*, following, show the latest patterns of headline annual real retail sales growth.

Fourth-Quarter 2016 Annualized Real Growth Rose versus Third-Quarter 2016. Initial fourth-quarter 2016, annualized real quarterly Retail Sales growth picked up to an annualized pace of 3.21%, versus a revised third-quarter pace of 2.22% [previously 2.17%, initially 2.12%], versus an unrevised 3.37% annualized growth in second-quarter 2016. Such was against a revised estimate of annualized quarterly real growth of 0.18% [previously 0.20%, initially 0.10%]—effectively flat—in first-quarter 2016.

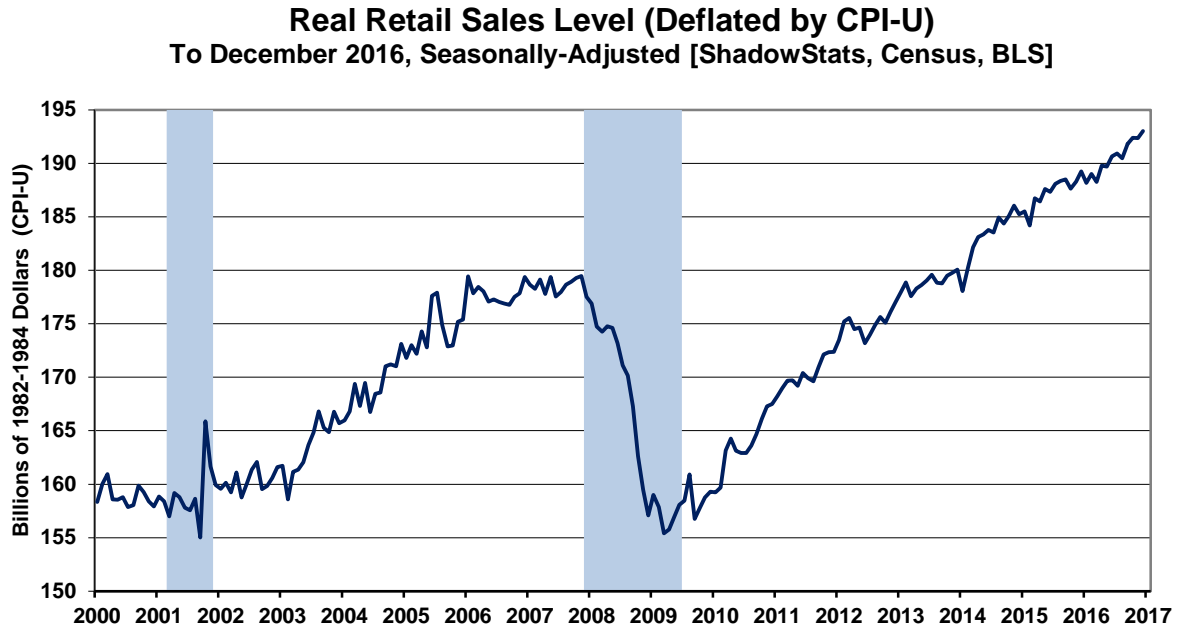
Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as reviewed in the *CONSUMER LIQUIDITY* section of [No. 859 Special Commentary](#). Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise. That circumstance—in the last nine-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.

As headline consumer inflation continues its upside climb in the year ahead, and as overall retail sales continue to suffer from the ongoing consumer liquidity squeeze, the real retail sales data generally should continue to trend meaningfully lower, in what eventually should gain recognition as a formal “new” recession.

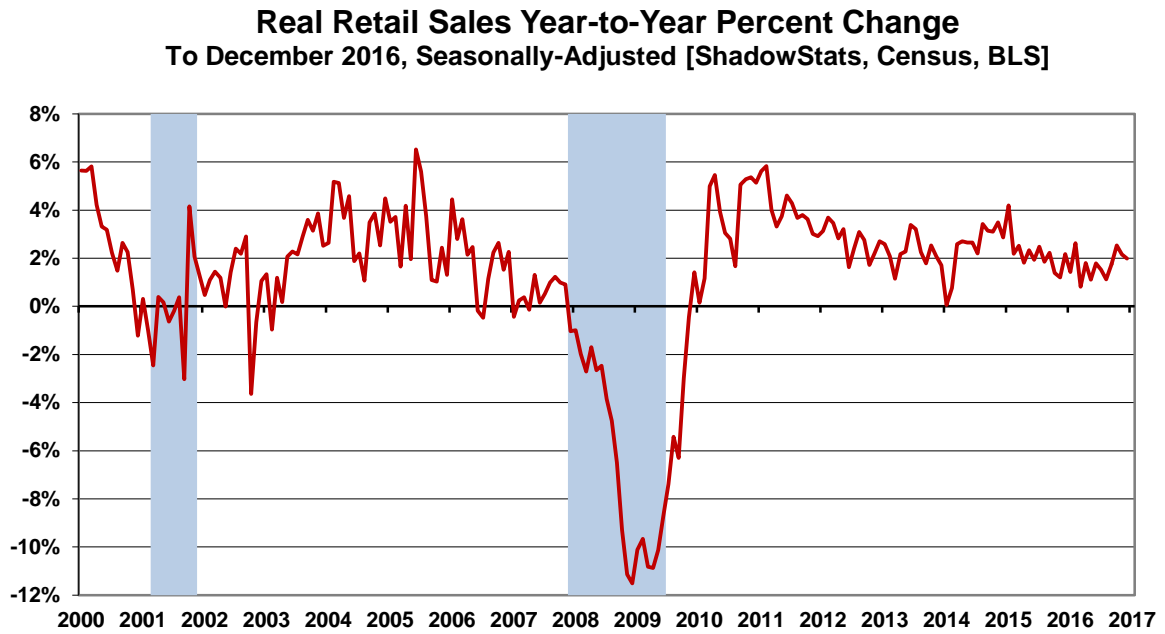
Real Retail Sales Graphs. *Graph 38*, the first of the four graphs following, shows the level of real retail sales activity (deflated by the CPI-U) since 2000; *Graph 39* shows the year-to-year percent change for the same period. Annual real growth had slowed markedly into fourth-quarter 2015 and 2016, generating an intense recession signal. *Graphs 40 and 41* show the level of, and annual growth in, real retail sales (and its predecessor series) in full post-World War II detail.

[Graphs 38 to 41 begin on the next page.]

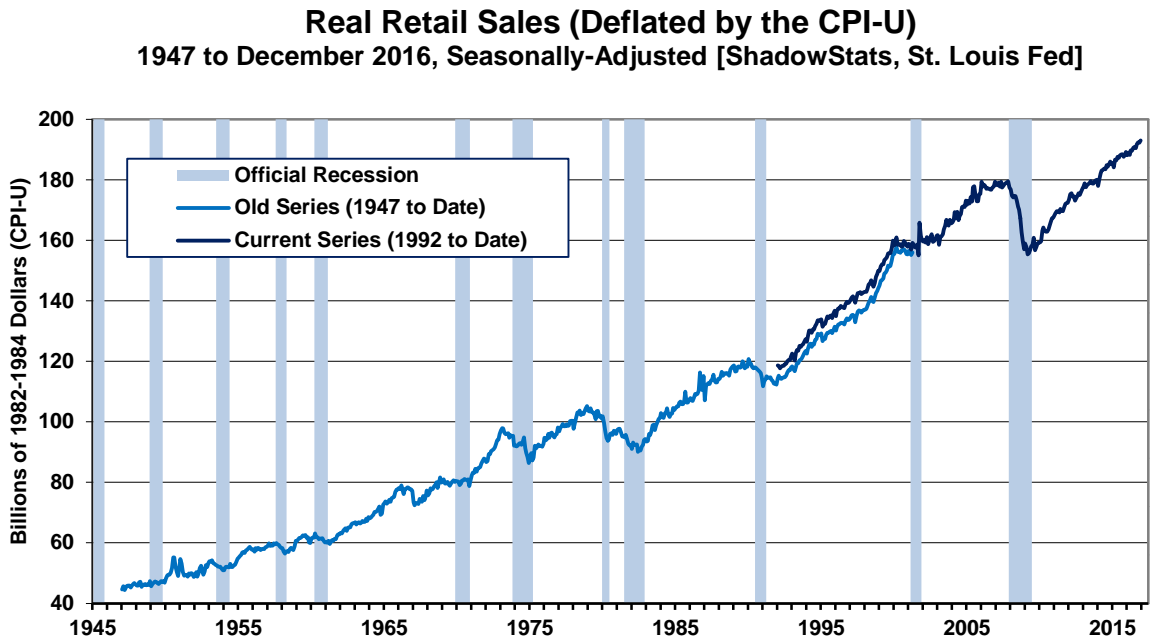
Graph 38: Level of Real Retail Sales (2000 to 2016)



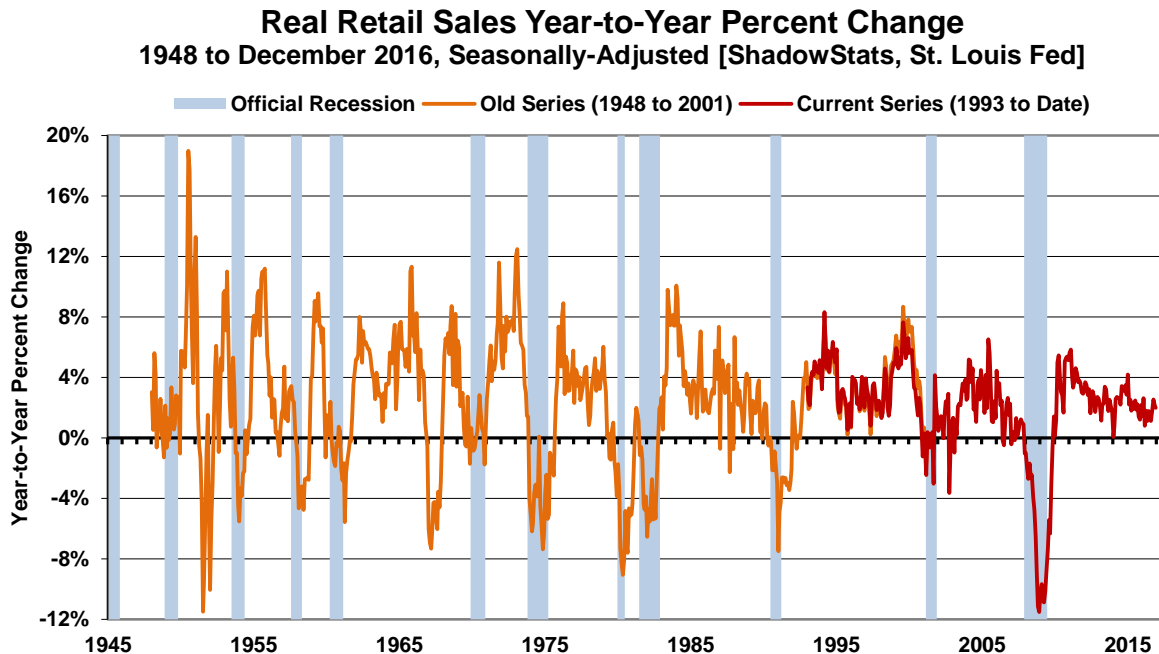
Graph 39: Real Retail Sales (2000 to 2016), Year-to-Year Percent Change



Graph 40: Level of Real Retail Sales (1947 to 2016)



Graph 41: Real Retail Sales (1948 to 2016), Year-to-Year Percent Change



The relative strength seen in the real retail series since the economic trough in 2009 largely has reflected the understatement of the rate of inflation used in deflating the series. Discussed more fully in *Chapter 9* of [2014 Hyperinflation Report—Great Economic Tumble – Second Installment](#), deflation by too low an

inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted, real economic growth. Shown in the latest “corrected” real retail sales—*Graph 4* in the *Executive Summary* section—with the deflation rates corrected for the understated inflation reporting of the CPI-U, the recent pattern of real sales activity has turned increasingly negative. The corrected graph shows that the post-2009 period of protracted stagnation ended, and a period of renewed and ongoing contraction began in second-quarter 2012 and continues to date. The corrected real retail sales numbers use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation instead of the CPI-U.

Real Average Weekly Earnings—December 2016—Fourth-Quarter Real Earnings Contracted at a 1.83% (-1.83%) Annualized Pace, December Earnings Turned Negative Year-to-Year. The headline estimate for December 2016 real average weekly earnings was published coincident with release of the December CPI-W. In the production and nonsupervisory employees category—the only series for which there is a meaningful history, real average weekly earnings in December were “unchanged” month-to-month at 0.00%, versus a deeper monthly decline in November of 0.16% (-0.16%) [previously down by 0.11% (-0.11%)], a narrowed October monthly decline of 0.17% (-0.17%) [previously 0.22% (-0.22%)], and unrevised declines of 0.11% (-0.11%) in September and 0.33% (-0.33%) in August. With the December monthly number unchanged, the November decline was the fourth consecutive monthly decline, the seventh month-to-month hit to this series in the last nine months.

Those readings put fourth-quarter 2016 into an annualized real contraction of 1.83% (-1.83%), versus annualized third-quarter 2016 growth of 1.62% and a second-quarter 2016 annualized quarter-to-quarter contraction of 0.96% (-0.96%).

On a seasonally-adjusted basis, year-to-year earnings turned negative, down by 0.74% (-0.74%) in December 2016, versus an unrevised annual gain of 0.54% in November 2016, versus a near-term peak of 3.87% in January 2015. The rally in real annual income and the subsequent slowdown have been tied directly to the impact of collapsing gasoline prices, and the subsequent rebound, having reverse impact on inflation-adjusted income.

While these usually heavily revised and seasonally-adjusted monthly changes are without much, if any, meaning in the near-term—effectively reporting garbage—over the longer term and quarterly, and particularly the benchmarked trends tend to be of some substance. As with the BLS reporting tied to the nonfarm payrolls, the headline seasonally-adjusted data here are not comparable due to reporting issues with concurrent seasonal factor adjustments (see *Headline Distortions from Shifting Concurrent-Seasonal Factors* in [Commentary No. 860](#)). The reporting in this series remains particularly unstable and is subject to the pending benchmark revisions to payroll activity.

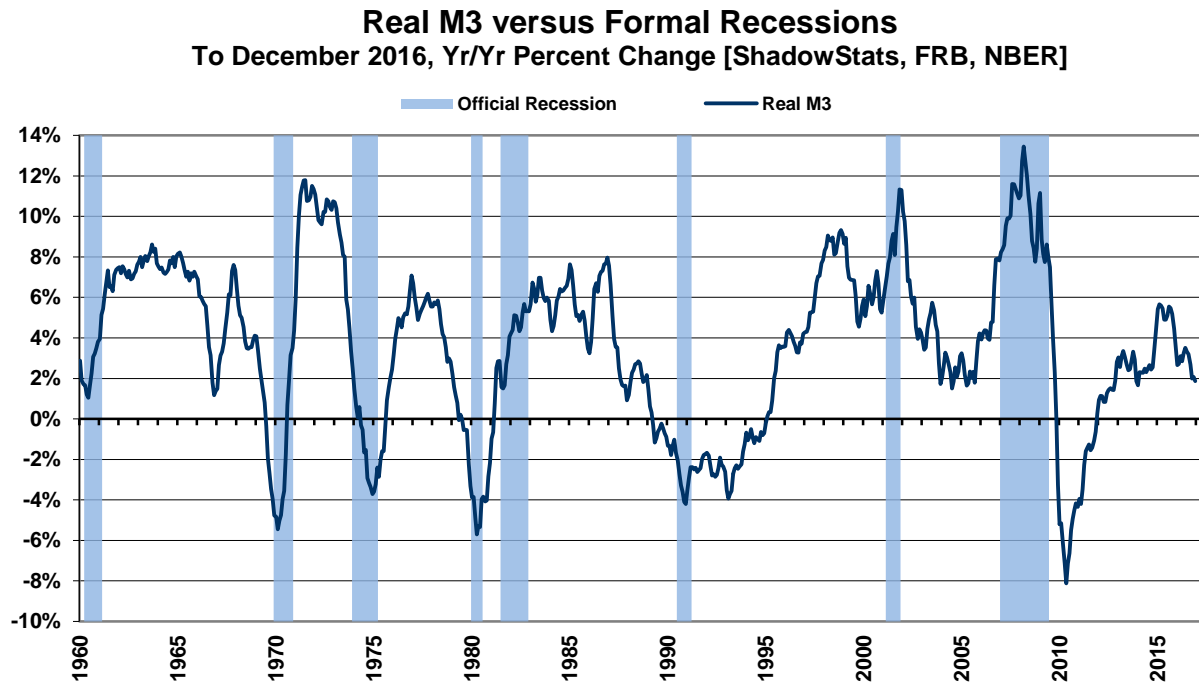
Separately, the CPI-W deflated reporting here also is distorted versus the CPI-U-deflated series, where the CPI-W—more heavily weighted with gasoline prices—tends to have much deeper, negative headline inflation, with resulting stronger headline, real growth than would be seen with the CPI-U, when gasoline prices are falling, and vice versa. Such was true again, albeit minimally so, in the December 2016 detail, where higher, seasonally-adjusted gasoline prices generated a headline monthly CPI-W gain of 0.32%, versus a CPI-U gain of 0.28%.

Found in the *Opening Comments* section, *Graph 5* plots this series, showing the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in,

the artificially-weakened headline CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much closer to common experience than the pattern suggested by the CPI-W. See the [Public Commentary on Inflation Measurement](#) for further detail.

Real (Inflation-Adjusted) Money Supply M3—December 2016—Annual Growth at a Near-Term Trough. The signal for a double-dip, multiple-dip or simply protracted, ongoing recession, based on annual contraction in the real (inflation-adjusted) broad money supply (M3), remains in place, despite real annual M3 growth having rallied in positive territory for a number of years. Shown in *Graph 42*—based on December 2016 CPI-U reporting and the latest ShadowStats-Ongoing M3 Estimate (including regular Federal Reserve Board money supply revisions)—annual inflation-adjusted growth in December 2016 M3 notched lower to a near-term trough of 1.9% (1.86%), from 2.0% in November 2016, versus 1.9% in October 2016, 2.6% in September 2016, 3.1% in August 2016, 3.3% in July 2016, 3.5% in June 2016, 3.2% in May 2016 and the prior near-term trough of 2.8% in April 2016. The 0.1% (-0.1%) decline in November’s monthly year-to-year change reflected a stronger increase in inflation growth than in annual M3 growth (see [Commentary No. 860](#)).

Graph 42: Real M3 Annual Growth versus Formal Recessions



The signal for a downturn or an intensified downturn is generated when annual growth in real M3 first turns negative in a given cycle; the signal is not dependent on the depth of the downturn or its duration. Breaking into positive territory does not generate a meaningful signal one way or the other for the broad economy. The current “new” downturn signal was generated in December 2009, even though there had been no upturn since the economy purportedly hit bottom in mid-2009. The ongoing issue here

confounding the regular signal is that the U.S. economy never has recovered fully from its collapse into 2009. The initial economic downturn never evolved into a meaningful or sustainable recovery.

Again, when real M3 growth breaks above zero, there is no signal; the signal is generated only when annual growth moves into negative territory, where it continues to head at present. The broad economy tends to follow in downturn or renewed deterioration roughly six-to-nine months after the signal. Weaknesses in a number of economic series have continued to the present, with significant new softness in recent reporting. Actual post-2009 economic activity has remained at relatively low levels of activity—in protracted stagnation, with no actual recovery (see *Graphs 2 and 4* in the *Opening Comments* and the *ECONOMY* section of [No. 859 Special Commentary](#)). Despite the purported, ongoing recovery shown in headline GDP activity, a renewed downturn in official data is underway that likely will gain official recognition as a “new” recession, in the first-half of 2017. Underlying reality remains that the economic collapse into 2009 was followed by a plateau of low-level economic activity—no meaningful upturn, no recovery from or end to the official 2007 recession—and the unfolding “new” downturn remains nothing more than a continuation and re-intensification of the downturn that began unofficially in 2006.

RESIDENTIAL CONSTRUCTION (November 2016)

Nonsense Volatility Continued in Housing Starts. In an ongoing pattern of volatility not seen since the depths of the 1980 recession, December 2016 housing starts rallied by 11.3% month-to-month, following a revised collapse of 16.5% (-16.5%) in November, a revised surge of 25.5% in October and an unrevised drop of 9.6% (-9.6%) in September. The October jump remained the largest headline monthly increase in housing starts since a 29.0% gain in June 1980, at the depths of the 1980 recession. Such extreme volatility here is unusual, even for this notoriously-unstable and heavily-revised series, with the instabilities generated largely by massive gyrations in the multiple-unit starts category.

Nonetheless, 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, which flattened out in the last year or two (see *Graphs 46 and 9*, respectively in this *Reporting Detail* and in the *Executive Summary*). Plotted with just the raw, seasonally-adjusted monthly data, the pattern of low-level stagnation broadly is the same, with the headline December 2016 level of starts still shy by 46% (-46%) of recovering its pre-recession peak (see *Graphs 44 and 8*, respectively in this *Reporting Detail* and in the *Executive Summary*).

December Gain Reflected Surging Multiple-Unit Starts with Some Offset from Declining Single-Unit Starts. In the context of an upside revision to November activity (a narrowed monthly contraction) and a downside revision to October (a somewhat lessened surge in monthly activity), aggregate December housing starts rallied by 11.3% month-to-month. Again, these monthly numbers remain highly unstable and are of extremely limited short-term significance, with negligible leading indications of such volatility provided by the related building permits series.

Smoothed with six-month moving averages, both the housing-starts and building-permits series remained in extremely-flat, low-level stagnation (see *Graph 9* in the *Executive Summary* section, and *Graphs 45*

and 46 here). Neither headline permits nor starts has recovered from the collapse into 2009, with current activity down from pre-recession peaks by 47% (-47%) for permits, and, again, by 46% (-46%) for starts.

Fourth-Quarter 2016 Housing Starts Gained Quarter-to-Quarter and Year-to-Year, Following Third-Quarter Contractions. The unstable total housing-starts count fell at annualized quarter-to-quarter pace of 24.1% (-24.1%) in first-quarter 2015, rose at an annualized 96.3% pace in second-quarter 2015, flattened out to 0.0% in third-quarter 2015, and then contracted at an annualized 7.2% (-7.2%) in fourth-quarter 2015.

First-quarter 2016 activity, which had turned down in pre-benchmark (April) reporting, had revised into positive territory, thanks largely to upside benchmark revisions to multiple-structure starts in the May 2016 detail. It holds at 6.0%. Second-quarter 2016 also held, at an annualized quarterly gain of 2.8%. Third-quarter 2016 activity was unrevised with the latest detail, holding negative on both an annual and annualized-quarterly basis, down on an annual basis by 1.0% (-1.0%), the first year-to-year decline since first-quarter 2014, and down at an annualized pace of 5.0% (-5.0%).

With initial detail in place through December 2016, fourth-quarter 2016 housing starts showed an initial annualized quarterly growth pace of 27.4%, up by 7.2% year-to-year.

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, in low-level stagnation, reflecting the most-recent headline detail (*Graphs 9 and 46*), with the same pattern of stability also seen broadly in raw monthly data (*Graphs 8 and 44*). That general pattern also can be viewed in terms of the longer-range historical graph of aggregate activity (*Graph 47*) at the end of this section. Parallel graphs of monthly and six-month moving average Building Permits detail can be compared with *Graphs 43 and 45*. Given the broad pattern of stagnation in both the aggregate starts and permits series, headline total December 2016 activity, again, remained well below any recovery level, with starts down from their January 2006 pre-recession high by 46% (-46%), and with permits down by 47% (-47%) from their September 2005 pre-recession peak activity.

Returning fully to the December 2016 housing starts detail, the dominant, single-unit housing starts component of that series (*Graphs 10 and 11* in the *Opening Comments*) remained down by 56% (-56%) from its January 2006 pre-recession peak.

Reflected in the smoothed graphs in the *Opening Comments*, the various housing-starts series generally were flat, at a low level of stagnation (*Graph 9* for the aggregate). That reflected a blend of the low-level stagnation (albeit up-trending) in the six-month-smoothed single-unit activity (*Graph 11*), with the more-volatile, smoothed multiple-unit starts (*Graph 13*), which had rebounded and held near pre-recession levels (albeit currently down-trending).

Consumer Liquidity Problems Continue to Impair Residential Construction Activity. An extreme consumer-liquidity bind continues to constrain residential real estate sales and related construction activity, as updated in [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 the 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 nine-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.

December 2016 Housing Starts, Headline Reporting. The continued, broadly unstable and highly volatile aggregate Housing Starts series rallied month-to-month in December 2016, in the context of a large decline in November that narrowed some in revision, and a surge in October activity that also narrowed in revision. The Census Bureau reported January 19th, a statistically-insignificant, seasonally-adjusted, headline monthly gain of 11.3% +/- 12.2% (all confidence intervals are expressed at the 95% level) in December 2016 housing starts.

That followed a narrowed contraction of 16.5% (-16.5%) [previously down by 18.7% (-18.7%)] in November and a downwardly-revised monthly gain in October of 25.5% [previously 27.3%, initially up by 25.5%, still the highest-percent monthly growth rate in 36 years]. Net of prior-period revisions, December 2016 housing starts rose by 12.5% for the month, instead of the headline 11.3%. Level-of-activity aggregate detail is plotted in *Graphs 7 to 10* of the *Executive Summary*, and in *Graphs 44, 46* and *47* at the end of this section.

Year-to-year change in the seasonally-adjusted, December 2016 aggregate housing-starts measure was a statistically-insignificant gain of 5.7% +/- 14.0%, versus a narrowed, annual decline in November 2016 of 5.9% (-5.9%) [previously down by 6.9% (-6.9%)] and against a downwardly-revised annual gain of 23.0% [previously 24.9%, initially up by 23.3%] in October 2016.

The December 2016 headline monthly gain of 11.3% in total housing starts encompassed a headline drop of 4.0% (-4.0%) in the “one unit” category and a surge of 53.9% in the “five units or more” category. There is a missing balance in the “two to four units” category, which exploded by 366.7% month-to-month in December, but where that category is considered to be too small to be meaningful, it did affect the aggregates, as discussed later in the broader, aggregate “multiple unit” category.

Where most commonly, not one of the monthly or annual headline changes by category is statistically meaningful, the month-to-month gain in the “five units or more” category was statistically significant in December.

Housing Starts By-Unit Category (See Graphs 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.

Housing starts for single-unit structures in December 2016 declined month-to-month by a statistically-insignificant 4.0% (-4.0%) +/- 10.8%, following a deeper monthly decline of 4.6% (-4.6%) [previously down by 4.1% (-4.1%) in November, and an upwardly-revised monthly gain of 11.1% [previously up by 10.5%, initially 10.7%] in October. Net of prior-period revisions, December 2016 single-unit starts declined by 4.0% (-4.0%), the same as the headline detail. December 2016 single-unit starts showed a statistically-insignificant annual gain of 3.9% +/- 12.8%, versus an unrevised annual gain of 5.3% in November 2016, and an upwardly-revised annual gain of 21.6% [previously up by 20.9%, initially up by 21.7%] in October 2016 (see *Graphs 8, 9, 12* and *13* in the *Executive Summary*).

Housing starts for apartment buildings, condominiums, etc. (generally 5-units-or-more) in December 2016 rose month-to-month by a statistically-significant 53.9% +/- 41.3%, versus a narrowed monthly decline of 38.7% (-38.7%) [previously 43.9% (-43.9%)] in November and a downwardly-revised gain of 72.0% [previously 79.8%, initially 74.5%] in October. Net of prior-period revisions, December 2016 gained 61.0% in the month, instead of the headline 53.9%. A statistically-insignificant year-to-year gain of 10.3% +/- 38.1% in December 2016, followed a narrowed annual contraction of 28.5% (-28.5%) [previously down by 31.7% (-31.7%)] in November 2016 and a downwardly revised gain of 27.3% [previously up by 33.1%, initially 28.2%] in October 2016.

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 6, 7, 12 and 13* in the *Executive Summary*).

Accordingly, the statistically-insignificant December 2016 monthly gain of 11.3% in aggregate starts was composed of a statistically-insignificant decline of 4.0% (-4.0%) in one-unit structures and a statistically-significant gain of 57.3% 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 gained 53.9%. These series all are graphed in the *Opening Comments and Executive Summary*.

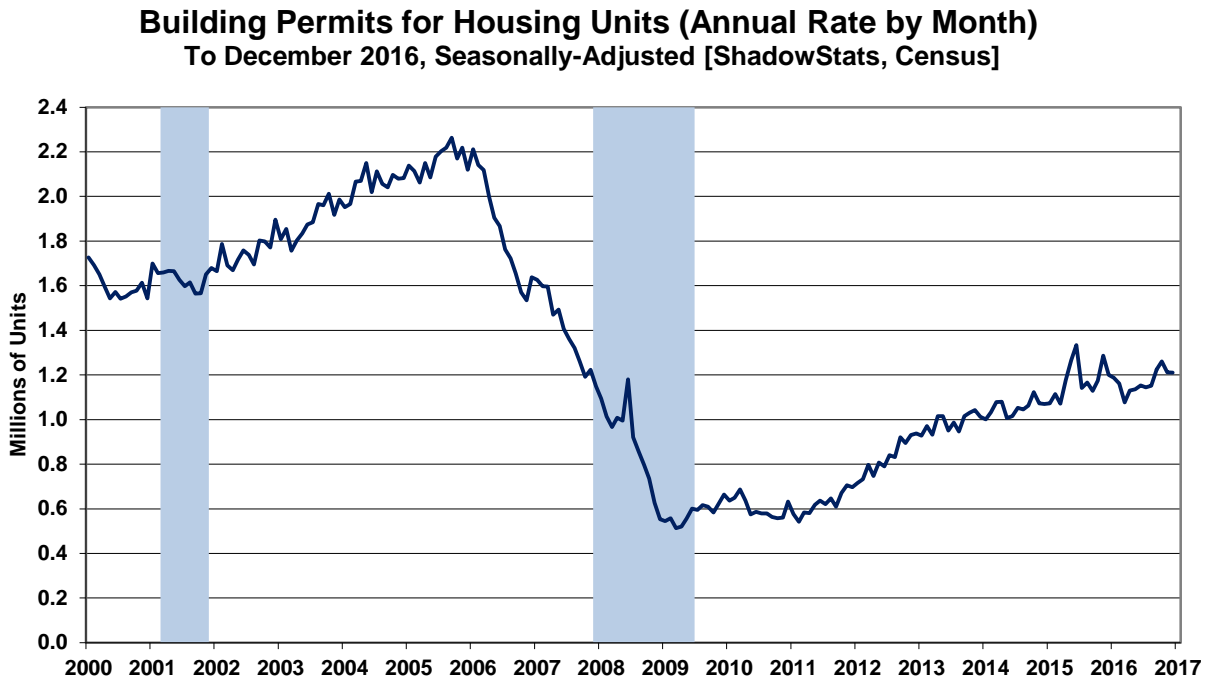
A Note on the Regular Housing Starts Graphs. [This section largely is repeated in the Executive Summary.] Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,226,000 in December 2016, versus an upwardly-revised 1,102,000 [previously 1,090,000] in November 2016. The scaling used in the aggregate housing starts and building permits *Graphs 43 to 47* 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 downwardly-revised headline 268,000 [previously 288,000, initially 269,000] month-to-month gain for October 2016, just updated along with the January 19th headline series detail, 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.

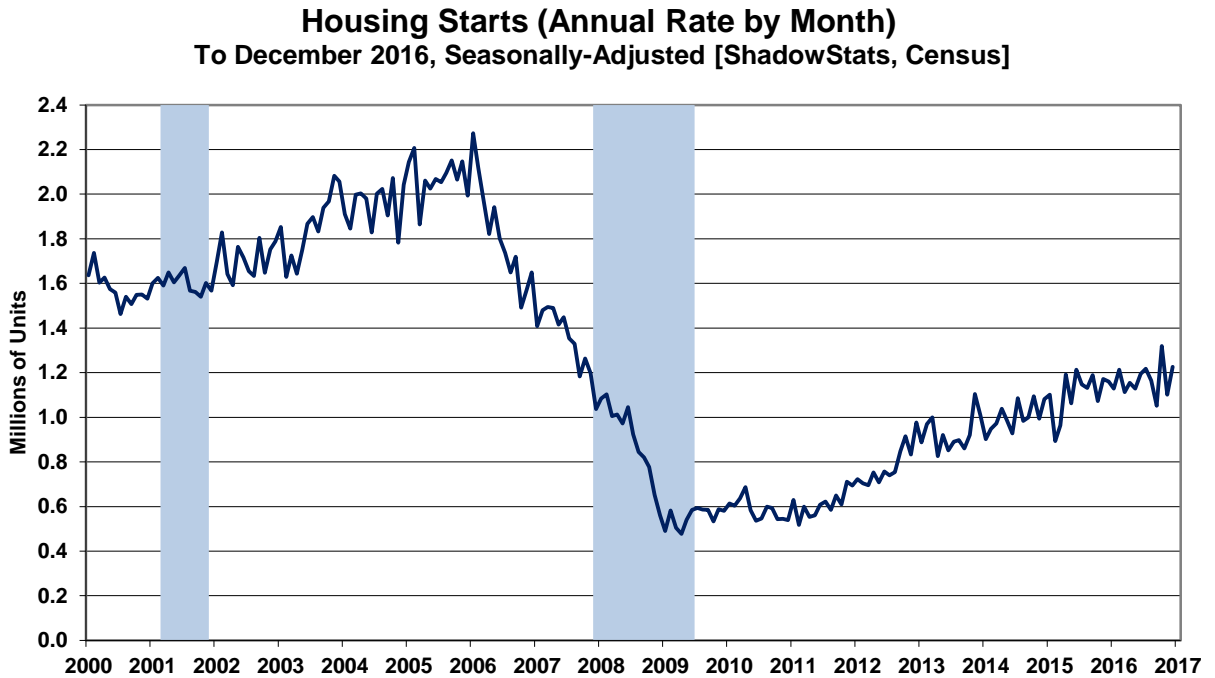
Accordingly, the monthly rate of 102,167 units in December 2016, instead of the annualized headline level of 1,226,000 units, is used in the scaling of the *Graphs 6 to 13* in the *Executive Summary*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as seen in a comparison of *Graph 44* versus *Graph 8*.

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 December 2016 headline number was up by 156%, but it still was down by 46% (-46%) 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 *Graph 47*.

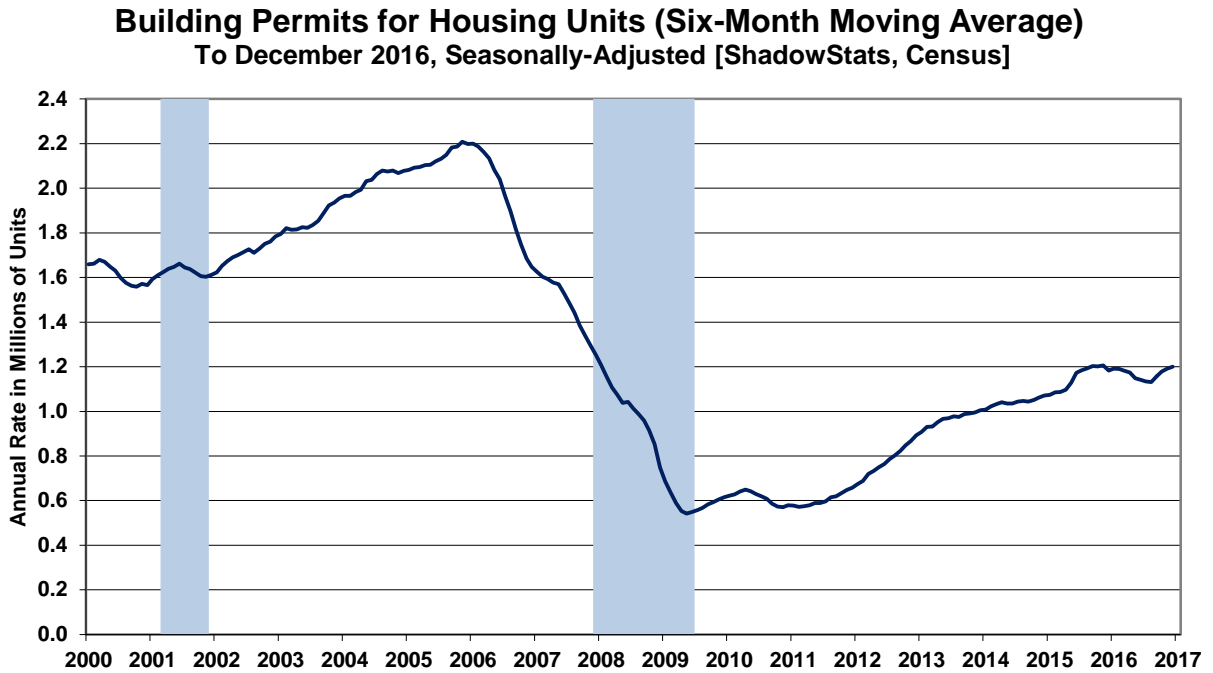
Graph 43: Building Permits (Annualized Monthly Rate of Activity), 2000 to Date



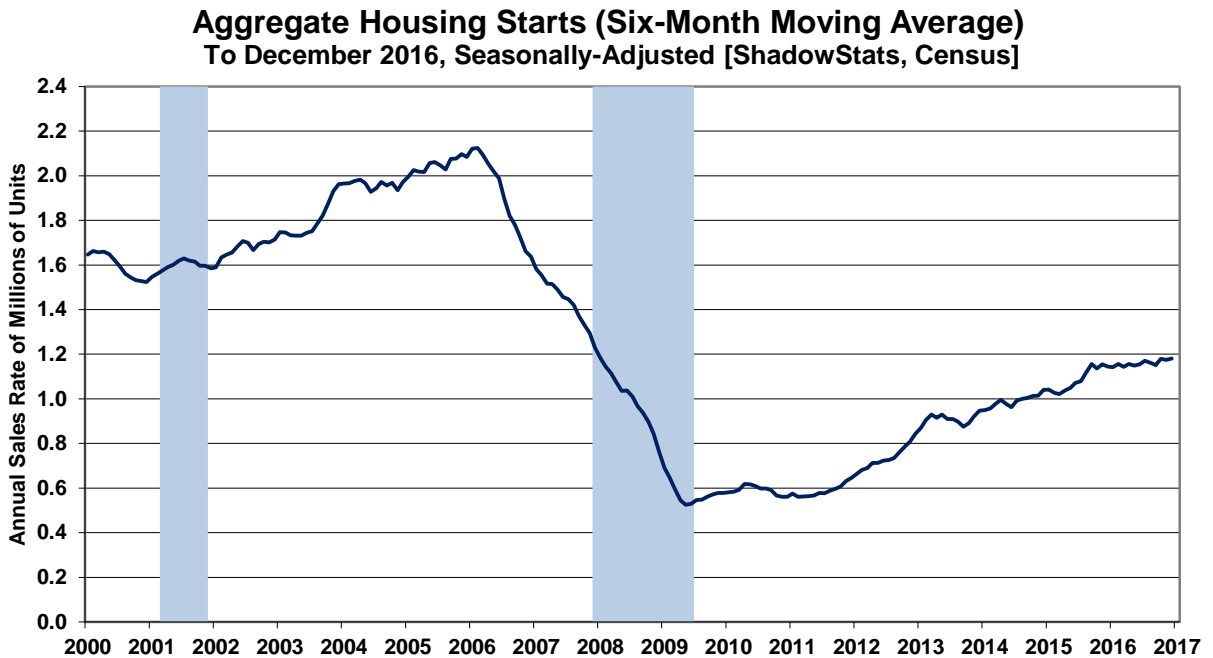
Graph 44: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date



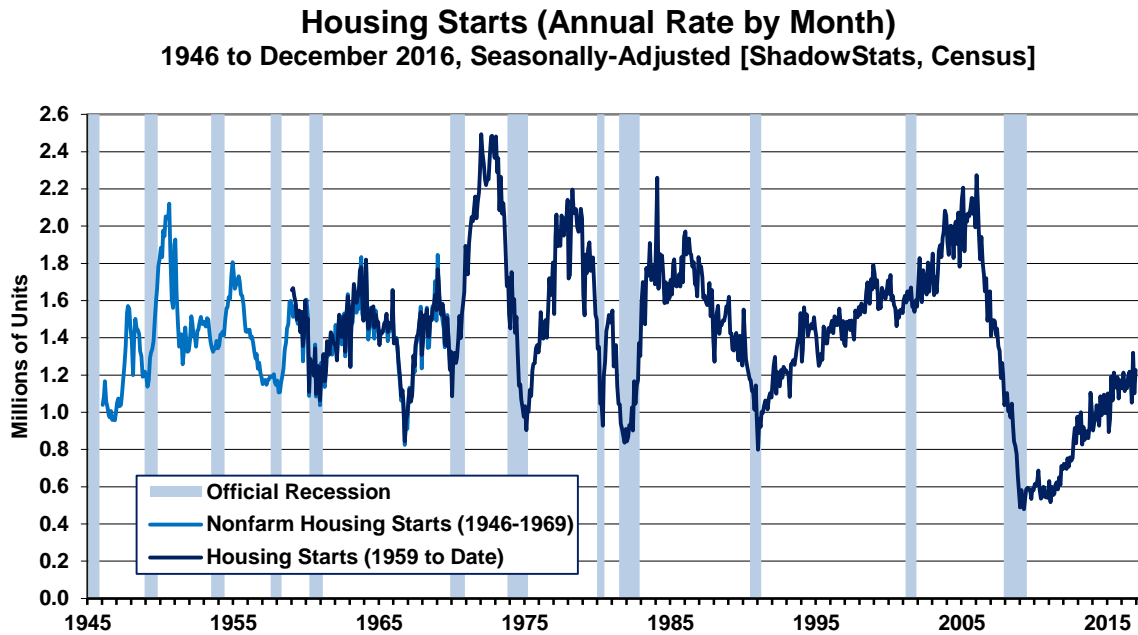
Graph 45: Building Permits (Six-Month Moving Average), 2000 to Date



Graph 46: Housing Starts (Six-Month Moving Average), 2000 to Date



Graph 47: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date



WEEK, MONTH AND YEAR AHEAD

Deepening Economic Downturn Promises a Frustrated Fed and Rapidly Deteriorating Support for the U.S. Dollar, as the New Administration Takes Over. The publication of [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, which have continued in play (see also the *Hyperinflation Watch*).

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 and never fully recovered. While the economy bounced off its 2009 trough, it began to turn down anew in December 2014, a month that should mark the beginning of a “new” formal recession.

Coincident with and tied to the economic collapse 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. As this ongoing crisis evolves towards its unhappy end, the U.S. dollar ultimately should face an unprecedented debasement with a resulting runaway domestic inflation.

The current general trend in weakening data, and what should be related, increasingly-negative expectations for near-term business activity, along with movement towards looming recession recognition, reflect an ongoing broad spectrum of market-disappointing headline data. That should pressure the FOMC back towards expanded quantitative easing. Such is despite the Fed's rate hike in December 2016 and continuing market hype as to multiple rate hikes looming in the year ahead.

In response to an intensifying “new” downturn, financial market expectations also should shift towards renewed Fed “easing,” with the effect of triggering a massive sell-off in the U.S. dollar, accompanied by a sharp upturn in oil prices, domestic inflation and heavy flight to the safe-haven qualities of physical gold and silver, with a commensurate rally in the prices of those precious metals. Again, see [No. 859](#) for extended discussion.

Broad economic and systemic details otherwise are reviewed regularly here, with the following special *Commentaries* of particular note: [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](#).

Links to Commentaries of the last month follow here:

[Commentary No. 861](#) covered December 2016 nominal Retail Sales, the PPI and a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations.

[Commentary No. 860](#) reviewed December 2016 labor conditions, and the November trade deficit and construction spending circumstances.

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

[Commentary No. 858](#) previewed the year-ahead *Special Commentary*.

[Commentary No. 857](#) covered the latest GDP revision, New Orders for Durable Goods and New- and Existing Home Sales.

[Commentary No. 856](#) covered the November Housing Starts.

[Commentary No. 855](#) covered the November CPI and related series, and reviewed the dollar and gold circumstances.

[Commentary No. 854](#) covered the prior Industrial Production, PPI and FOMC meeting.

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 common experience by 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 nine-to-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* continues his investigations in reporting irregularities: [Crudele Investigation](#), and as updated on October 24th: [Crudele](#). Mr. Crudele’s latest investigation focuses on retail sales reporting: [John Crudele on Retail Sales](#).

PENDING ECONOMIC RELEASES:

Existing- and New-Home Sales (December 2016). December 2016 Existing-Home Sales are due for release Tuesday, January 24th, from the National Association of Realtors (NAR), with the December 2016 New-Home Sales report due from the Census Bureau on Thursday, January 26th. Both Existing- and New-Home Sales will be covered in *Commentary No. 863* of January 27th.

The extreme liquidity bind besetting consumers continues to constrain personal-consumption expenditures, and residential real estate sales, as fully updated in [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 the income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic economic activity, including demand for residential real estate.

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 has not happened and does not appear to be in the offing.

Headline Existing-Home Sales should continue their current general pattern of low-level stagnation, with the current flat-to-plus trend likely to turn lower versus recent gains.

Smoothed for regular extreme and nonsensical monthly gyrations, a pattern of low-level stagnation in New-Home Sales also is likely to continue. Where the pattern of low-level stagnation in new sales has continued to fluctuate in recent months, that should also begin to turn lower. Monthly changes in activity here rarely are statistically-significant, amidst otherwise unstable headline reporting and revisions; nonetheless, the series is due for continued downside catch-up.

New Orders for Durable Goods (December 2016). The Census Bureau will report December 2016 New Orders for Durable Goods on Friday, January 27th, which will be covered in *Commentary No. 863* of that date. Net of irregular activity in commercial aircraft orders, aggregate orders likely continued a pattern of down-trending real stagnation.

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, order weakness will be exacerbated by rising inflation, with monthly inflation of 0.18% in December 2016, 0.00% in November 0.42% in October. Related year-to-year annual inflation has continued to rise, up to 0.97% in December 2016, versus 0.66% in November 2016 and 0.36% in October 2016 (see [Commentary No. 861](#)).

Gross Domestic Product (GDP)—Fourth-Quarter 2016, “Advance” or First-Estimate. The Bureau of Economic Analysis (BEA) will publish its first guesstimate of fourth-quarter 2016 Gross Domestic Product (GDP) on Friday, January 27th. Detail will be covered in *Commentary No. 863* of that date.

Discussed in the *Opening Comments*, despite underlying and fundamental broad weakness in the economy, consensus expectations for the initial headline estimate of fourth-quarter 2016 GDP growth appear to be around 2.5%, plus-or-minus. Where that is reasonably close to the post-1970 average real GDP growth of 2.8%, it still is down sharply from the headline 3.5% annualized real quarterly growth in third-quarter 2016. Frequently noted here, the BEA tends to target its first estimate of a given quarter’s GDP growth to match the consensus outlook. With continued trade-deficit deterioration likely in the still-pending initial estimate of the December trade shortfall, consensus expectations easily could soften further. Initial fourth-quarter GDP reporting is good bet to come in well below 2.5%, and it would be surprising if that GDP estimate ultimately did not turn negative by its third-estimate on March 30th.

PENDING *SPECIAL COMMENTARIES*.

Discussed in *Opening Comments* of [Commentary No. 861](#) and in the *FEDERAL DEBT AND DEFICIT* section of [No. 859 Special Commentary](#), the U.S. Treasury released the GAAP-based accounting (based on Generally Accepted Accounting Principles) financial statements of the United States government for fiscal-year 2016, on January 12th. Audited by the GAO, that detail will be combined with prior annual reporting and related analyses to prepare a *Special Commentary* updating and summarizing—including in graphic and tabular form—the U.S. government’s GAAP-based obligations and annual operations, as well as a discussion as to different approaches to looking at the concept of net present value.

Targeted timing for publication of that analysis, as well the long-planned and delayed consolidation of the major *ShadowStats* reporting into one volume, including the recommended reading list, will follow here, shortly.
