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

COMMENTARY NUMBER 866 January 2017 CPI, PPI, Industrial Production, Retail Sales and Housing Starts February 16, 2017

Inflation Surge Was Due to Gasoline Prices, Not to an Overheating Economy; Beware the Fed!

January 2017 Monthly CPI Inflation Rose by 0.55%, Pushing Annual CPI-U Inflation to a 58-Month High of 2.50%, with CPI-W at 2.51% and ShadowStats at 10.3%

January Monthly PPI Goods Inflation Up by 1.01%, Construction Up by 0.26%, Services Up by 0.27%, Total PPI Up by 0.63%; Total Final-Demand PPI Annual Inflation at a 29-Month High of 1.73%

Inflation-Adjusted Annual M3 Growth Is Signaling an Economic Downturn

January Nominal Retail Sales Gain of 0.36% Was Less than Inflation; Inflation-Adjusted Real Sales Declined by 0.19% (-0.19%) for the Month

Real Earnings Contracted Quarterly in Fourth-Quarter 2016, On Track for First-Quarter 2017 Annual and Quarterly Declines

January Production Was Down by 1.11% (-1.11%) from Its Pre-Recession High, Down by 2.00% (-2.00%) from Its One-Month, November 2014 Recovery; Manufacturing Was Down 5.69% (-5.69%) from a Never-Recovered Pre-Recession Peak

Despite Continuing Nonsense Volatility in Monthly Data and Revisions, Smoothed Housing Starts and Permits Held in Non-Recovering, Low-Level Stagnation, Down Respectively by 45% (-45%) and 43% (-43%) from Pre-Recession Peaks

Broad Outlook of Continuing Economic Stagnation/Renewed Downturn Is Unchanged

PLEASE NOTE: The next regular Commentary, scheduled for Friday, February 24th will encompass a General Commentary covering the government's GAAP-accounting financial statements, along with coverage of January 2017 New- and Existing-Home Sales reporting.

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Oil Prices, Not an Overheating Economy, Are Driving the Headline-Inflation Increase. Former Federal Reserve Chairman Paul Volcker was noted for using high interest rates to attack high inflation that resulted largely from the oil shock in 1979 and 1980. By pushing the effective federal funds rate to over 20% in the early-1980s, Chairman Volcker was able to collapse domestic U.S. economic activity into a double-dip recession/depression in 1980 to 1982. That was enough to generate an economically-driven relative collapse in prices, which contained the high inflation that had been driven by oil-price/supply disruptions, not by an overheating economy.

At least the economy actually had been growing before Volcker boosted the rates. Reporting of the past several days has shown a surge in headline inflation, although headline inflation should moderate some in February detail. As in 1979 and 1980, those rising prices again are due to oil-supply disruptions, not to an overheating economy. Today's underlying economic reality is not much if any healthier than during the collapse of 1980 to 1982. A meaningful boost in interest rates now, as has been suggested seriously by some on the befuddled Federal Reserve's FOMC to kill oil-price-driven inflation, easily could drive broad-based economic activity into Great Depression status.

Inflation-Adjusted Annual M3 Growth Signaled Economic Downturn. With slowing annual growth in January 2017 Money Supply M3, viewed in the context of rising annual CPI inflation, circumstances are in play that traditionally have led to major economic contractions (see the *CPI* in the *Reporting Detail* section, page 51 and related *Graph 47*).

Headline January Economic Detail Was Mixed Amidst Revisions. Headline reporting of January 2017 real Retail Sales, Industrial Production and Housing Starts all turned down month-to-month, although such generally was in the context of upside revisions to recent reporting. While there has not been any substantive shift in the detail, or a change in the broad outlook, the revisions likely were enough to offset what was pending as a downside revision to the second estimate of fourth-quarter 2016 GDP. That pending revision was based on recently released trade data (see prior Commentary No. 865).

On the plus-side, for example, headline nominal January 2017 retail sales jumped more than expected, but so too did headline CPI-U, which more than accounted for it. Net of 0.55% headline inflation, the nominal (before inflation) monthly gain of 0.36% translated to a real (net of inflation) monthly decline of 0.19% (-0.19%). Most economic measures such as the Gross Domestic Product (GDP) are viewed in real terms, net of inflation, so as to reflect physical economic activity, rather than changes in prices.

Upside revisions to fourth-quarter 2016 retail sales activity largely reflected year-end incentive-driven boosts to automobile sales. Those sales effectively were borrowed from the future, with some payback seen in January 2017, with more likely in February and perhaps some in March. Otherwise, the Holiday Shopping Season in November and December was dead, adjusted for inflation. As a result, ahead lies weak first-quarter 2017 real retail sales, probably a quarter-to-quarter contraction.

Irrespective of any near-term volatility in business activity, both the production and residential construction series continued to show non-recovered levels of economic activity, which remain inconsistent with a recovery from the economic collapse into 2009.

Today's *Commentary* (**February 16th**). These *Opening Comments* and *Executive Summary* cover summary detail of January 2017 Industrial Production, Retail Sales, Residential Construction (Housing Starts) and the CPI and PPI. While those series usually would be covered into two or three *Commentaries*, the major ones all were released on February 15th, this month, and covered in this *Commentary* of February 16th, due to the large amount of new information that had to be analyzed.

The *Hyperinflation Watch* updates the dollar and gold graphs that usually accompany the monthly CPI release.

The Week, Month and Year Ahead section previews next week's Existing- and New-Home Sales.

Executive Summary: Industrial Production—January 2017—Revisions Showed Some Fourth-Quarter Improvement, but Production Remained Deep in Non-Recovery. In the context of an unusual upside (less-negative) revision to November 2016 industrial production, fourth-quarter 2016 activity flipped from a quarterly contraction to a quarterly gain, but with year-to-year change still holding in negative territory for an unprecedented fifth straight quarter. What remains unprecedented is that the current downturn has yet to be recognized formally as a recession. Such patterns of year-to-year change in quarterly activity never have been seen outside of formal recessions in the 99-year history of the industrial production series.

Dominated by a weather-distorted utility surge and a small gain in manufacturing, aggregate year-to-year production change turned positive in December 2016, for the first time in sixteen months, but again, fourth-quarter activity contracted year-to-year for the fifth straight quarter. Year-to-year change went to flat (plus 0.01%) with the headline January 2017 detail.

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 12.1% above its pre-recession peak (see *Commentary No. 863*). 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 January 2017 reporting, Industrial Production stood below its formal pre-recession high by 1.11% (-1.11%), down by 2.00% (-2.00%) from its one-month "recovery" peak level of November 2014.

The dominant manufacturing sector (78.5% of Industrial Production, 48% of GDP) never recovered, with January 2017 activity still down 5.69% (-5.69%) from reclaiming its pre-recession peak.

Headline Industrial Production. Headline January 2017 production declined month-to-month by 0.25% (-0.25%), versus a downwardly revised 0.61% gain in December 2016, a narrowed contraction of 0.24% (-0.24%) in November, a revised October gain of 0.28% and a revised contraction of 0.27% (-0.27%) in September. Net of prior-period revisions, January 2017 production declined by 0.02% (-0.02%), instead of the headline 0.25% (-0.25%).

Detailed by major industry group (see *Graphs 21*, *23*, *26* and *30* in the *Reporting Detail*), the headline January 2017 monthly aggregate production decline of 0.25% (-0.25%) was composed of a monthly gain of 0.19% in manufacturing activity, a gain of 2.76% in mining activity (including oil and gas production), and a weather-distorted catch-up decline of 5.68% (-5.68%) in utilities activity.

Year-to-year change in January 2017 industrial production was a minimal 0.01%, versus a revised annual gain of 0.74% in December, which was the first upturn in sixteen months, a circumstance unprecedented outside of formal recessions. Those details were against revised annual declines of 0.24% (-0.24%) in November 2016, of 0.69% (-0.69%) in October 2016 and of 1.10% (-1.10%) in September 2016.

Production Graphs—Corrected and Otherwise—January 2017. 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).

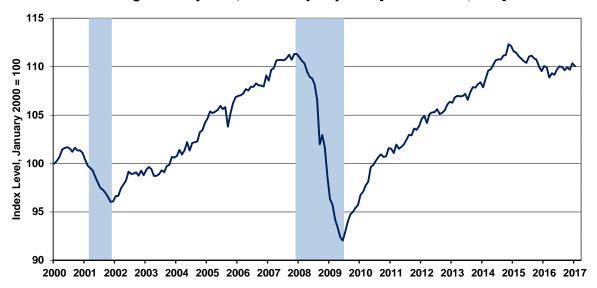
The level of headline production showed a topping-out process late in 2014, followed by a deepening downturn into first- and second-quarter 2015. Third-quarter 2015 showed some bounce, but activity in fourth-quarter 2015 and in first- and second-quarter 2016 turned down anew, dropping sharply into negative 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.

Headline fourth-quarter 2016 activity just revised from a small quarterly contraction to a gain, it but remained in annual contraction for the fifth straight quarter, a circumstance never seen in industrial production surveying outside of periods that eventually were recognized formally as recessions. January 2017 headline reporting was down month-to-month and flat year-to-year. 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 <u>Public Comment on Inflation</u> and <u>Chapter 9</u> of 2014 <u>Hyperinflation Report—Great Economic Tumble</u>).

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

Headline Industrial Production (Jan 2000 = 100) Through January 2017, Seasonally-Adjusted [ShadowStats, FRB]



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

ShadowStats-Corrected Industrial Production (Jan 2000 = 100) Hedonic-Adjusted Inflation Understatement Removed, Level Through January 2017, Seasonally-Adjusted [ShadowStats, FRB]



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 <u>Commentary No. 863</u>) and as broadly covered in the *ECONOMY* section of <u>No. 859 Special Commentary</u>. 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.

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. 863* 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 and into 2017.

Where the corrected series has remained well shy of a formal recovery, both the official and corrected series suffered an outright contraction in both first- and second-quarter 2015; that is a pattern of severe economic weakness last seen during the economic collapse. Despite the brief third-quarter 2015 quarter-to-quarter uptick, headline fourth-quarter 2015 and first- and second-quarter 2016 industrial production continued in annual and quarter-to-quarter contractions, third-quarter 2016 contracted year-to-year, but was up quarter-to-quarter. Again, fourth-quarter 2016 activity provided the fifth straight quarter of annual contraction.

Retail Sales—January 2017—Headline Monthly Gain of 0.36% Turned to an Inflation-Adjusted Contraction of 0.19% (-0.19%). Adjusted for inflation and net of surging auto sales in December—borrowed from first-quarter 2017 with special incentives—and upside revisions to same in the January 2017 detail, real Holiday Season sales in November and December 2016 were flat-to-minus versus activity in October. That activity encompassed the sales of the two most-significant months of the industry-dependent Holiday Season.

Although the headline seasonally-adjusted gain in January 2017 nominal retail sales was up by 0.36%, the parallel headline CPI-U gain was 0.55%, leaving the real headline aggregate sales activity down by 0.19% (-0.19%) for the month. Where December's strong and upwardly revised aggregate nominal gain of 0.95% (previously 0.63%) reflected revised surging automobile sales of 3.20% (previously 2.41%), boosted sharply by year-end buying incentives, those incentives borrowed sales activity from first-quarter 2017. Combined implications of the distortedly-strong auto sales and the unhappy real sales volume for the Holiday Season should mean that broad economic headline activity will suffer further in February.

Nominal Retail Sales (Not-Adjusted-for-Inflation). Headline nominal January 2017 Retail Sales rose by 0.36% month-to-month, versus an upwardly-revised 0.95% monthly gain in December 2016, and a

downwardly-revised gain of 0.15% in November 2016. Nominal year-to-year change increased by 5.56% in January 2017, versus 4.35% in December 2016 and 3.86% in November 2016.

Real Retail Sales (Adjusted for Inflation). The headline detail from the coincident release of the January 2017 CPI-U, which incorporated annual seasonal-adjustment revisions, showed month-to-month, seasonally-adjusted CPI-U inflation of 0.55% in January 2017, 0.26% in December 2016 and 0.21% in November 2016, with seasonally-adjusted annual CPI-U inflation of 2.54% in January 2017, 2.09% in December 2016 and 1.70% in November 2016. Accordingly, real monthly sales in January 2017 declined by 0.19% (-0.19%), rose by 0.69% in December 2016 and declined by 0.06% (-0.06%) in November 2016. Real annual Retail Sales growth was 2.95% in January 2017, 2.22% in December 2016 and 2.12% in November 2016.

<u>First-Quarter 2017 Annualized Real Growth on Track to Soften versus Fourth-Quarter 2016.</u> First-Quarter 2017 is set on an early trend for annualized quarter-to-quarter real growth of 1.00% in Retail sales, versus a revised annualized pace of 3.98% in fourth-quarter 2016, a revised third-quarter 2016 pace of 2.02%, revised 3.81% growth in second-quarter 2016 and a revised annualized real contraction of 0.58% (-0.58%) in first-quarter 2016.

Real Retail Sales Graphs, Corrected and Otherwise. In the Reporting Detail, Graphs 37 and 39 show the level of real retail sales activity (deflated by the CPI-U), while Graphs 38 and 40 show year-to-year percent change. The apparent "recovery" of headline real retail sales shown in the following Graph 3 (see also Graph 37 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 contracted in 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 and slowing trend coming in early 2017.

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. 863* 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 37* in the *Retail Sales—Nominal and Real* 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 <u>No. 859 Special Commentary</u>) and most housing statistics such as the later section on Residential Investment/Housing Starts detail.

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

Indexed Real Retail Sales Level (Deflated by CPI-U) To January 2017, Seasonally-Adjusted [ShadowStats, Census, BLS]



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

Corrected Real Retail Sales Level Deflated by Shadow-Stats-Alternate CPI (1990-Base) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



Residential Construction—January 2017—Housing Starts Continue in Low-Level, Non-Recovering Stagnation. Headline January 2017 housing starts declined by a minimal 2.6% (-2.6%). Yet, in an ongoing pattern of volatility not seen since the depths of the 1980 recession, the levels of activity in both November and December 2016 housing starts were revised higher by 4.3%, leaving intact the 11.3% month-to-month gain in December, but with the collapse in monthly November activity revising to 13.0% (-13.0%) from the previous 16.5% (-16.5%). That was against an unrevised surge of 25.5% in monthly October activity, which 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 in monthly changes and revisions is unusual, even for this notoriously-unstable and heavily-revised series, with the instabilities generated largely by 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 *Graph 8* and *Graph 44* in the *Executive Summary*). Plotted with the raw, seasonally-adjusted monthly data, the pattern of low-level stagnation broadly is the same, with the headline January 2017 level of starts still shy by 45% (-45%) of recovering its pre-recession peak (see *Graphs 7* and *Graph 42* in the *Reporting Detail*).

Smoothed with six-month moving averages, both the housing-starts and building-permits series remained in extremely-flat, low-level stagnation (see *Graph 8* and *Graphs 43* and *44* in the *Reporting Detail*). Neither headline permits nor starts has recovered from the collapse into 2009, with current activity down from pre-recession peaks by 43% (-43%) for permits.

Smoothed Numbers. Despite the extreme volatility and instabilities in the Housing Starts series, the general pattern of low-level stagnation continued. 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 8* and *44*), with the same pattern of stability also seen broadly in raw monthly data (*Graphs 7* and *42*). That general pattern also can be viewed in terms of the longer-range historical graph of aggregate activity (*Graph 45*) at the end of the *Reporting Detail* section. Parallel graphs of monthly and six-month moving average Building Permits detail can be compared with *Graphs 41* and *43*.

Returning fully to the January 2017 housing starts detail, the dominant (66.1% of total starts) single-unit housing starts sector of that series (*Graphs 9* and *10*) was down by 55% (-55%) from its January 2006 pre-recession peak. In contrast the much smaller count in the multiple-unit category (two units or more), 33.9% of the total, hit its recent high in June 2015, topping its pre-recession January 2006 peak by 11.9%. It dropped below that 2006 high by 6.0% (-6.0%) in January 2017 (see *Graphs 11* and *12*).

Housing Starts, Headline Reporting. The continued, broadly unstable and highly volatile aggregate Housing Starts series declined month-to-month by 2.6% (-2.6%) in January 2017, in the context of a large upside revision to the level of December 2016 activity, on top of a parallel upside shift to November activity. That followed an unrevised monthly gain of 11.3% gain in December 2016, and a narrowed contraction of 13.0% (-13.0%) in November. Net of prior-period revisions, January 2017 rose by 1.6% for the month, instead of the headline contraction. Level-of-activity aggregate detail is plotted in *Graphs* 6 to 9, and in *Graphs* 42, 44 and 45 in the *Reporting Detail*.

Year-to-year change in the seasonally-adjusted, January 2017 aggregate housing-starts measure was a statistically-insignificant gain of 10.5%, versus a revised annual gain of 10.3% in December 2016 and a narrowed, annual decline in November 2016 of 1.9% (-1.9%).

The January 2017 headline decline of 2.6% (-2.6%) in total housing starts encompassed a headline gain of 1.9% in the "one unit" category and a drop of 7.9% (-7.9%) in the "five units or more" category. There is a missing balance in the "two to four units" category, collapsed by 85.7% (-85.7%) month-to-month in January (discussed in the *Reporting Detail*).

A Note on the Regular Housing Starts Graphs. [This section largely is repeated from the Reporting Detail section.] Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,246,000 in January 2017, versus an upwardly revised 1,279,000 in December 2016. The scaling used in the aggregate housing starts and building permits Graphs 41 to 45 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 unrevised headline 268,000 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.

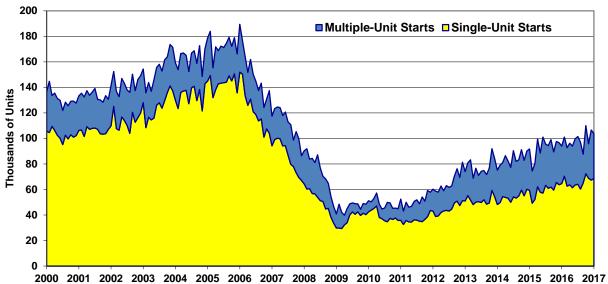
Accordingly, the monthly rate of 103,833 units in January 2017, instead of the annualized headline level of 1,246,000 units, is used in the scaling of the *Graphs 5* to 12 in the. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as seen in comparing of *Graph 7* with *Graph 42* 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 prerecession peak for the series. Against that downside-spiked low in April 2009, the January 2017 headline number was up by 161%, but it still was down by 45% (-45%) 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 45* in the *Reporting Detail*.

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

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

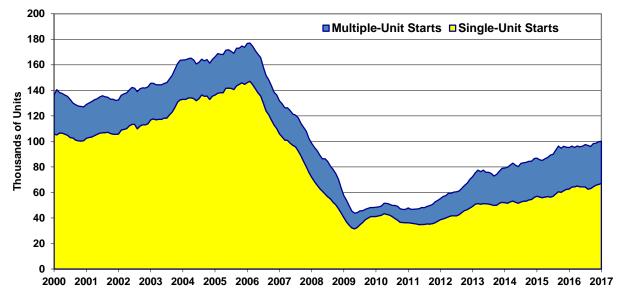
Single- and Multiple-Unit Housing Starts (Monthly Rate) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



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

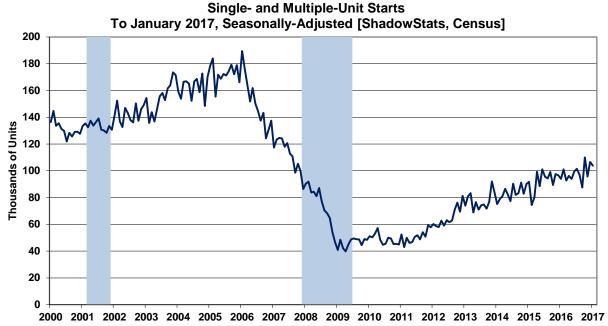
Single- and Multiple-Unit Starts (6-Mo Moving Avg)

To January 2017, Seasonally-Adjusted [ShadowStats, Census]



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

Aggregate Housing Starts (Monthly Rate)



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

Aggregate Housing Starts (Six-Month Moving Average) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



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

Single-Unit Housing Starts (Monthly Rate) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



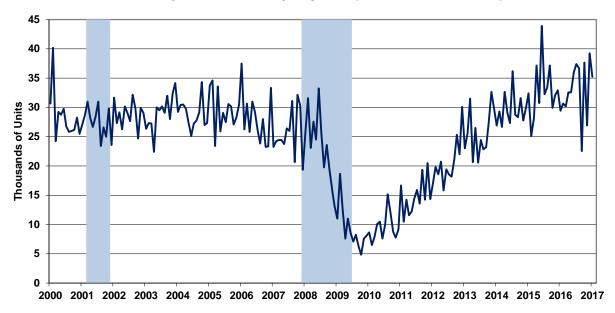
Graph 10: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)

Single-Unit Housing Starts (Six-Month Moving Average) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



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

Multiple-Unit Housing Starts (Monthly Rate) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



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

Multiple-Unit Housing Starts (Six-Mo Moving Avg)
To January 2017, Seasonally-Adjusted [ShadowStats, Census]



Consumer Price Index (CPI)—January 2017—Headline CPI-U Inflation Rose by 0.6% for the Month, 2.5% Year-to-Year. In the context of annual seasonal-adjustment revisions, the headline January 2017 CPI-U monthly inflation of 0.55%, versus a revised 0.26% [previously 0.28%] in December

2016, was well above consensus expectations of about 0.3%. Unadjusted year-to-year inflation (never revised) jumped to a 58-month high of 2.50% at the second decimal point, versus 2.07% in December. Where unadjusted year-to-year gasoline costs in December 2016 broke above zero for the first time since collapse of oil prices in July 2014, and strongly so, to 9.15%, the current inflation surge is not a coincidence. The annual gain in unadjusted January 2017 gasoline prices surged further to 20.27%. The current inflation surge is driven by surging gasoline prices, not by an overheating economy.

Separately, although headline annual CPI-U inflation rose sharply to 2.5% in January 2017, versus 2.1% in December 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 January 2017 of 6.1%, based on 1990 methodologies, and 10.3%, based on 1980 methodologies.

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 (see the *Retail Sales*, *Nominal and Real* section in the *Reporting Detail*), 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. January 2017 seasonally-adjusted CPI-W rose month-to-month by 0.61%, following a revised gain of 0.29% [previously 0.32%] in December 2016. Unadjusted, year-to-year change in the January 2017 CPI-W was a gain of 2.51%, up from 1.99% in December 2016.

However measured, the upturn in January 2017 consumer inflation was enough to knock a chunk out of bloated headline nominal retail sales, turning positive nominal sales to negative real 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.

Real Average Weekly Earnings—January 2017—First-Quarter on Track for Quarterly and Annual Contractions, Following Fourth-Quarter Quarterly Decline. In the context of the annual payroll-survey benchmark revision (see Graph 24 on page 24 of Commentary No. 864) and annual revisions to seasonally-adjusted CPI-W inflation, the headline estimate for January 2017 real average weekly earnings was published coincident with release of the January CPI-W.

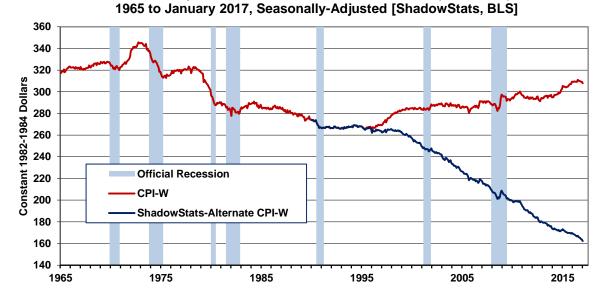
In the production and nonsupervisory employees category—the only series for which there is a meaningful history, January 2017 real average weekly earnings fell month-to-month by 0.42% (-0.42%), the six consecutive monthly decline for the series. Year-to-year, the adjusted January 2017 detail was down by 0.41% (-0.41%) from January 2016, the second consecutive monthly annual decline.

That left fourth-quarter 2016 in a revised annualized real decline of 1.36% (-1.36%), versus revised annualized third-quarter 2016 growth of 1.48%, and a revised second-quarter 2016 quarter-to-quarter 0.11% (-0.11%) contraction. With initial headline January 2017 in place, first-quarter 2017 is on track for an annualized contraction of 1.87% (-1.87%). The 2015 rally in real annual income and the subsequent slowdown in latter 2016 directly reflected the impact collapsing gasoline prices, and a subsequent rebound, on inflation-adjusted income.

Graph 13 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.

Graph 13: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date
Real Average Weekly Earnings (Benchmark Revised)
Production and Nonsupervisory Employees
Deflated by CPI-W versus ShadowStats-Alternate (1990-Base)



Producer Price Index (PPI)—January 2017—Headline PPI Goods Inflation Rose by 1.01%; Construction Inflation Rose by 0.26%; Dominant Margins in the Services Sector Rose by 0.27%; with Aggregate PPI Inflation Up by 0.63%. In the context of annual revisions, including revamped seasonal adjustments and a regular reweighting of the subcomponent series, the headline month-to-month January 2017 PPI inflation of 0.63% at the second decimal point generally reflected neither real-world activity, nor common experience. The aggregate headline monthly PPI in December 2016 revised lower to 0.18% from initial reporting of 0.27%. As structured, the monthly wholesale inflation rate remains dominated by softer inflation in the services sector, which muted the inflation gain on the product side, seen particularly in the energy sector.

Resurgent Energy Inflation Continued. Headline PPI goods inflation rose by 1.01% month-to-month in January 2016, up from a downwardly revised 0.55% in December 2016. Unadjusted annual inflation there rose by 3.10% in January 2017, versus an unrevised 1.87% in December 2016, dominated by surging energy costs. Such is the closest the Bureau of Labor (BLS) comes these days to reporting wholesale inflation as it did for the decades leading into a scrapping of the traditional system in January 2014.

Year-to-year change in annual energy inflation continued to soar in January 2017, up by 13.98%, following an unrevised gain of 5.89% in December 2016. The January and December numbers reflected the first meaningful annual pickup in energy inflation since the 2014 collapse in oil prices.

With profit-margin gains in the dominant services area up month-to-month by a 0.27% in January 2017, versus an unrevised decline of 0.09% (-0.09%) in December (due to rising gasoline prices), and the margin-distorted construction industry inflation gaining 0.26%, following an unrevised December decline of 0.9% (-0.9%), the headline monthly goods inflation gain of 1.0% was softened to a gain of 0.6%. In like manner the revised December detail showed headline goods inflation of 0.6% softening to a headline aggregate gain of 0.2%.

This Final Demand headline inflation number for the aggregate PPI series simply has no relationship to real-world activity or to common experience, as discussed in the *Reporting Detail* section.

[The Reporting Detail contains significant further analysis and graphs on Industrial Production, Retail Sales, Residential Construction, the CPI and related series and the PPI.]

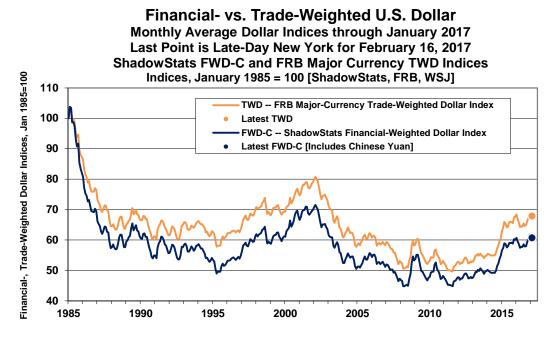
HYPERINFLATION WATCH

Still-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 reviewed in *No. 859 Special Commentary* of January 8th, which is included here by reference. That outlook has not changed since the *Special Commentary*. Noted in today's *Opening Comments*, despite some mixed reporting in headline January 2017 activity, most series continue to soften, at least in real, inflation-adjusted terms. Accordingly, meaningfully weaker detail should loom, along with series such as inflation-adjusted real M3 growth now slowing to a point of signaling an intensified economic downturn (see the *CPI* section in the *Reporting Detail*).

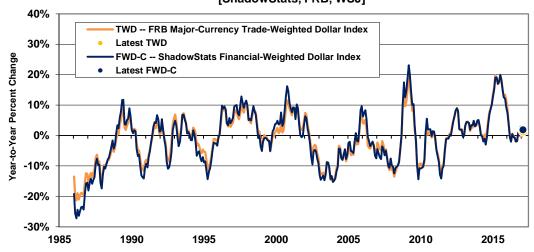
What has changed since the first of the year is some subsequent weakening in headline economic detail, with the value of the U.S. dollar moving off recent highs, and with gold and silver prices moving off recent bottoms. Those trends generally should continue, despite intensified Federal Reserve jawboning for more interest-rate hikes. The updated U.S. dollar and gold graphs that usually accompany the monthly CPI *Commentary* follow: showing monthly-average plots of January prices covering the U.S. Dollar

(*Graphs 14* and *15*), along with gold (*Graphs 16*, *17* and *18*), where the February points on the graphs reflect late-day New York prices for Thursday, February 16th.

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

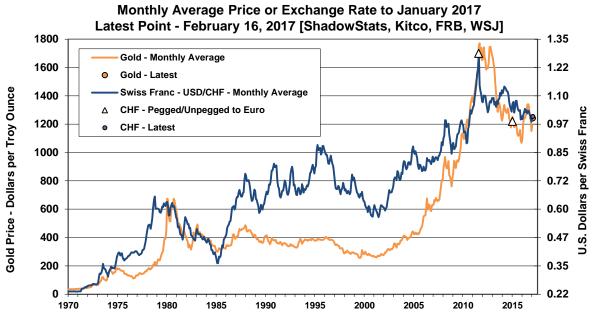


Graph 15: Year-to-Year Change, Financial- versus Trade-Weighted U.S. Dollar
Financial- vs. Trade-Weighted U.S. Dollar
Monthly Average Year-to-Year Percent Change, to January 2017
Last Point is Late-Day New York for February 16, 2017
ShadowStats FWD-C and FRB Major Currency TWD Indices
[ShadowStats, FRB, WSJ]



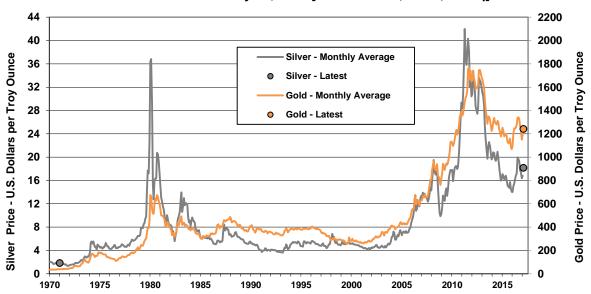
Graph 16: Gold versus the Swiss Franc



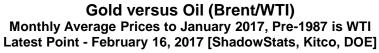


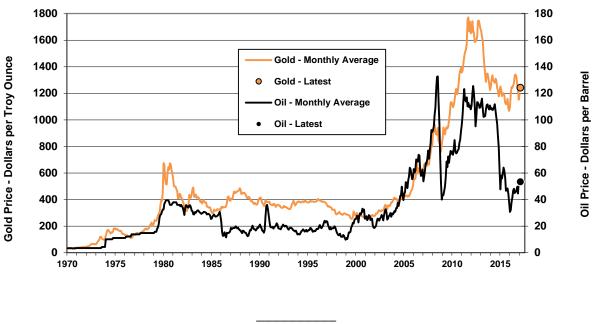
Graph 17: Gold versus Silver

Gold versus Silver Monthly Average Price Levels to January 2017 Latest Point - February 16, 2017 [ShadowStats, Kitco, Stooq]



Graph 18: Gold versus Oil





REPORTING DETAIL

INDUSTRIAL PRODUCTION (January 2017)

Revised Production Showed Some Improvement, but Activity Still Held Deep in Non-Recovered Recession Territory. In the context of an unusual upside (less-negative) revision to November 2016 industrial production, fourth-quarter 2016 activity flipped from a quarterly contraction to a quarter-to-quarter gain, but with year-to-year change still holding in negative territory for an unprecedented fifth straight quarter. What remains unprecedented is that the current downturn has yet to be recognized formally as a recession. Such patterns of year-to-year change in quarterly activity never have been seen outside of formal recessions in the 99-year history of the industrial production series.

Dominated by a weather-distorted utility surge and a small gain in manufacturing, aggregate year-to-year production change turned positive in December 2016, for the first time in sixteen months, but again, fourth-quarter activity contracted year-to-year for the fifth straight quarter. Year-to-year change went to flat (plus 0.01%) with the headline January 2017 detail.

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 12.1% above its pre-recession peak (see *Commentary No. 863*). 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 January 2017 reporting, the Industrial Production Index at 104.555 stood below its formal pre-recession high by 1.11% (-1.11%) and was down by 2.00% (-2.00%) 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 January 2017 manufacturing activity still down by 5.69% (-5.69%) 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 <u>Commentary No. 846</u>), 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 <u>No. 859 Special Commentary</u>). 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 18 out of 26 subsequent months.

Annual Industrial Benchmark Revision Set for March 31st. With its February 15th release of January 2017 Industrial Production, the Federal Reserve Board indicated that its annual benchmark revisions to the series—back to 2012—would be published on March 31, 2017, including new annual benchmark data as of 2015. Historically, these benchmark revisions tend to recast historical activity to the downside (see No. 796-A: Industrial Production Benchmark Revision). ShadowStats will publish an analysis of the revisions over the April Fool's Day weekend.

Headline Industrial Production—January 2017. The Federal Reserve Board released its first estimate of seasonally-adjusted, January 2017 industrial production on February 15th. Headline January 2017 production declined month-to-month by 0.25% (-0.25%), versus a downwardly revised 0.61% [previously 0.83%] gain in December 2016, a narrowed contraction of 0.24% (-0.24%) [previously 0.66% (-0.66%), initially down by 0.44% (-0.44%)] in November, a revised October gain of 0.28% [previously 0.19%, 0.07% and initially up by 0.04%] and a revised September contraction of 0.27% (-0.27%) [previously down by 0.23% (-0.23%), by 0.20% (-0.20%), by 0.23% (-0.23%), initially up by 0.06%]. Net of priorperiod revisions, January 2017 production declined by 0.02% (-0.02%), instead of by the headline 0.25% (-0.25%).

Detailed by major industry group (see *Graphs 21*, *23*, *26* and *30*), the headline January 2017 monthly aggregate production decline of 0.25% (-0.25%) was composed of a monthly gain of 0.19% in manufacturing activity, a gain of 2.76% in mining activity (including oil and gas production), and a

weather-distorted catch-up decline of 5.68% (-5.68%) in utilities activity. The gain in manufacturing was despite declines in both durable and nondurable consumer goods. The minimal strong gain in mining reflected increases in oil and gas extraction, oil and gas drilling and coal and gold and silver mining.

Year-to-year change in January 2017 industrial production was a minimal gain of 0.01%, versus a revised annual gain of 0.74% [previously 0.51%] in December, which was the first upturn in sixteen months, a circumstance still unprecedented outside of formal recessions. Those details were against revised annual declines of 0.24% (-0.24%) [previously 0.74% (-0.74%)] in November 2016, of 0.69% (-0.69%) [previously 0.73% (-0.73%)] in October 2016 and of 1.10% (-1.10%) [previously 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 a revised 0.08% (-0.08%) [previously 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.

<u>Annualized Quarter-to-Quarter.</u> 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 downwardly-revised annualized pace of 1.74% [previously 1.81%], with fourth-quarter 2016 flipping to the plus-side in revision by 0.43%, having contracted previously at an annualized pace of 0.60% (-0.60%).

Based only on the headline January 2017 detail, first-quarter 2017 is on early track for an annualized quarterly gain of 0.28% and year-to-year growth of 0.41%.

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. Despite the headline annual gain in monthly production at 0.74% in December 2016, growth still was 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 and a revised quarterly gain in fourth-quarter 2016, turning down in January 2017. Such patterns of monthly, quarterly and annual declines still 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.

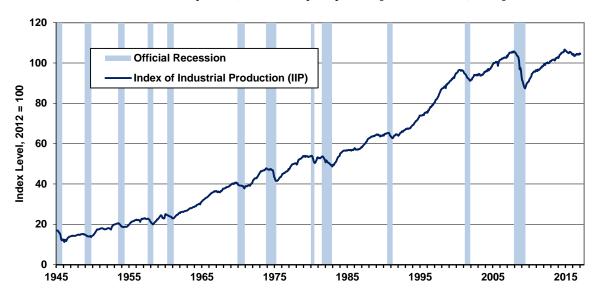
Seen most clearly in *Graph 22*, the pattern of year-to-year activity dipped anew in 2013, again, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, now having turned negative, again, as seen only in formal recessions. Year-to-year growth remains 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 again in fourth-quarter 2016. The "corrected" series has contracted quarter-to-quarter throughout 2016 and into 2017.

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

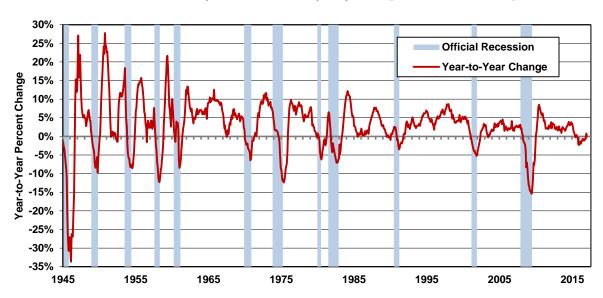
Graph 19: Index of Industrial Production (Aggregate) since 1945

Index of Industrial Production (2012 = 100) 1945 to January 2017, Seasonally-Adjusted [ShadowStats, FRB]



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

Industrial Production Yr-to-Yr % Change 1945 to January 2017, Seasonally-Adjusted [ShadowStats, FRB]



Drilling Down into the January 2017 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

Index of Industrial Production (2012 = 100) Level to January 2017, Seasonally-Adjusted [ShadowStats, FRB]



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

Industrial Production Yr-to-Yr % Change To January 2017, Seasonally-Adjusted [ShadowStats, FRB]



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

Industrial Production - Manufacturing (SIC) (2012 = 100) Level to January 2017, Seasonally-Adjusted [ShadowStats, FRB]



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

Manufacturing Production Yr-to-Yr % Change To January 2017, Seasonally-Adjusted [ShadowStats, FRB]



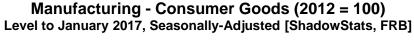
The broad, aggregate index (*Graph 21*) contracted in both first- and second-quarter 2015, with third-quarter 2015 bounce, followed by ongoing, consecutive quarterly and annual contractions in fourth-quarter 2015, first-quarter 2016 and second-quarter 2016, with bounces in third- and fourth-quarter 2016.

Fourth-quarter 2016 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 manufacturing and mining showed increases in January 2017 reporting.

Graph 23 of the dominant manufacturing sector showed a month-to-month gain of 0.19% in January 2017, following a revised gain of 0.23% [previously 0.16%] in December 2016. Consumer goods manufacturing declined in January 2017, largely offsetting monthly gains in December (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 October, turning to the plus-side by 0.25%, 0.50% and 0.34% year-to-year, respectively, November, December 2016 and January 2017.

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)

Manufacturing - Consumer Durable Goods (2012 = 100) Level to January 2017, Seasonally-Adjusted [ShadowStats, FRB]



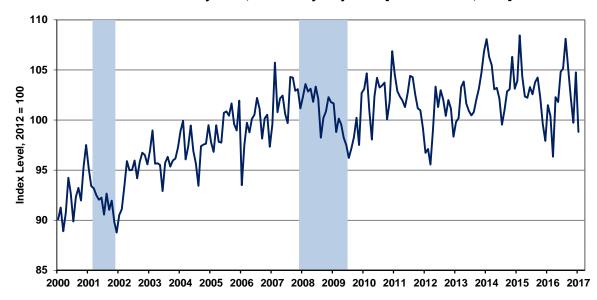
Graph 27: Nondurable Consumer Goods (20.73% of the Aggregate in 2015)

Manufacturing - Consumer Nondurable Goods (2012 = 100) Level to January 2017, Seasonally-Adjusted [ShadowStats, FRB]



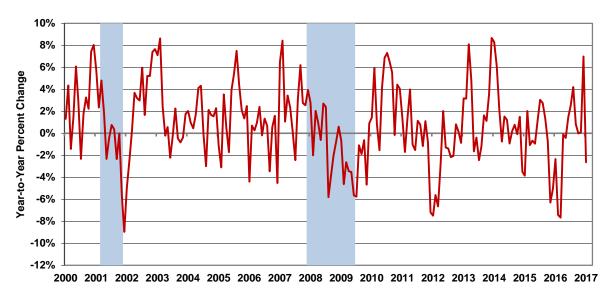
Graph 28: Industrial Production - Utilities (10.76% of the Aggregate in 2015)

Industrial Production - Utilities (2012 = 100) Level to January 2017, Seasonally-Adjusted [ShadowStats, FRB]



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

Industrial Production - Utilities Yr-to-Yr % Change To January 2017, Seasonally-Adjusted [ShadowStats, FRB]



Monthly volatility in the utilities sector (*Graph 28*) usually reflects unseasonable shifts in weather conditions and reversals of same. The 5.68% (-5.68%) monthly plunge in January 2017 activity, largely offsetting the downwardly-revised 5.05% monthly surge in December 2016, was of that nature. Those distortions tend to balance out over time.

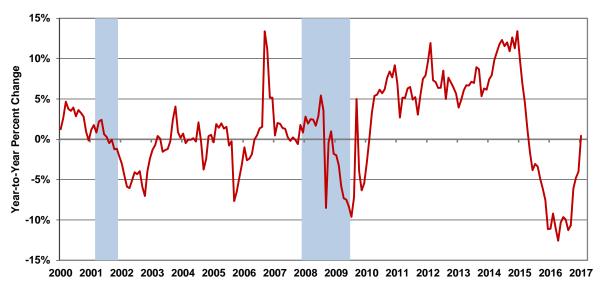
Graph 30: Industrial Production - Mining, Including Oil and Gas (10.76% of the Aggregate in 2015)

Industrial Production- Mining (Including Oil & Gas) Level to January 2017, (2012 = 100) Seasonally-Adjusted [ShadowStats, FRB]



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

Industrial Production - Mining Yr-to-Yr % Change To January 2017, Seasonally-Adjusted [ShadowStats, FRB]

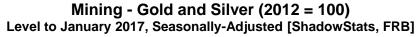


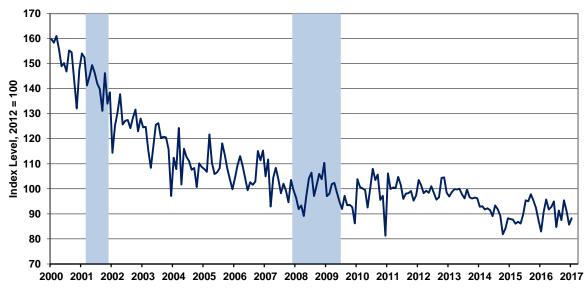
Activity in the mining sector (*Graph 30*), particularly in oil and gas exploration and production, and in coal production, still remains the near-term focus of this analysis. The sector easily recovered its pre-recession high and accounted for the full "recovery," albeit extremely short-lived, seen 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*) broke to the plus-side for the first time since April 2015, up by 0.44%, having been down by 4.02% (-4.02%) in December 2016 and by as much as 12.58% (-12.58%) in April 2016. Mining has moved off bottom, thanks to some rebound in coal production and a bottoming and increasing 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 32: Mining - Gold and Silver Mining (Since 2000)

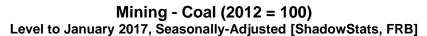


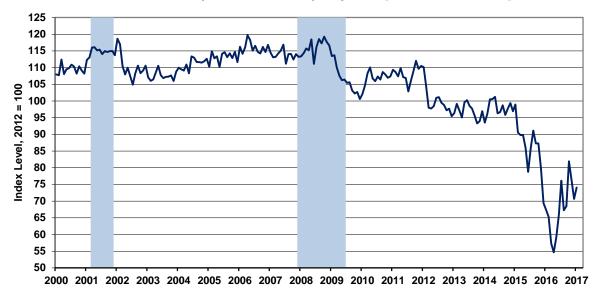


Graph 33 still shows an extraordinary rebound in the level of monthly coal production, which was down year-to-year by 26.23% (-26.23%) in August 2016, but now is up year-to-year by 9.86% as of January 2017. Although the latest month-to-month activity gained 4.82%, current activity still is down sharply, by 29.83% (-29.83%), from its near-term production peak in May 2014.

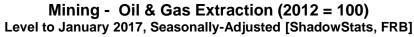
[Graphs 33 and 34 follow on the next page.]

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 1.27% for the month of January, still remaining 5.55% (-5.55%) off its all-time high of March 2015.

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 8.55% month-to-month in January 2017, having gained 9.35% month-to-month in December. The series remains collapsed, although year-to-year growth just broke to the plus-side by 2.97%.

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 is down by 63.7% (-63.7%).

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

20



Mining - Drilling for Oil & Gas (2012 = 100)
Level to January 2017, Seasonally-Adjusted [ShadowStats, FRB]

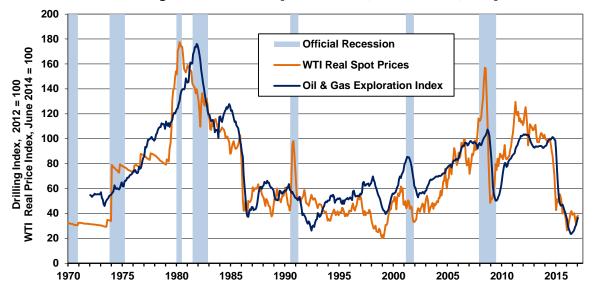
Shown in *Graph 36*, with some lag following the sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing, indeed, appears to be in its early stages. The oil price index used is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the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

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

When the dollar weakens, 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 sharply (see *General Commentary No. 811*). That said, post-election, the U.S. dollar has rallied, but there has not been a commensurate decline in oil prices. Instead, with supply being tightened artificially (see the discussion in *No. 859 Special Commentary*), oil prices generally have increased and oil and gas extraction and exploration have picked up accordingly with some lag.

Graph 36: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)

Index of Oil & Gas Drilling versus Real Oil Prices to Jan 2017 WTI Spot Real Price Index (ShadowStats 1990) Jun 2014 = 100 Drilling Index 2012 = 100 [ShadowStats, St. Louis Fed, FRB]



RETAIL SALES, NOMINAL AND REAL (January 2017)

Holiday-Season Shopping Still Flubbed in Real Terms. Adjusted for inflation and net of surging auto sales in December—borrowed from first-quarter 2017 with special incentives—and upside revisions to same in the January 2017 detail, real Holiday Season sales in November and December 2016 were flat-to-minus versus activity in October. That activity encompassed the sales of the two most-significant months of the industry-dependent Holiday Season.

Although the January 2017 aggregate headline monthly seasonally-adjusted gain in nominal retail sales was up by 0.36%, the parallel headline CPI-U gain was 0.55%, leaving the real headline aggregate sales activity down by 0.19% (-0.19%) for the month. Where December's strong and upwardly revised aggregate nominal gain of 0.95% (previously 0.63%) reflected revised surging automobile sales of 3.20% (previously 2.41%), boosted sharply by year-end buying incentives, those incentives borrowed sales activity from first-quarter 2017. Combined implications of the distortedly-strong auto sales and the unhappy real sales volume for the Holiday Season should mean that real, broad economic headline activity will suffer further in February 2017 reporting.

Annual Retail Sales Benchmark Revision Set for April 26th. The Census Bureau announced, along with its release of January 2017 detail on U.S. Retail Sales that it intends to publish its annual benchmark revision of the series on April 26, 2017, encompassing the 2015 Annual Retail Trade Survey. Where these benchmarkings can be squirrelly, they most often downgrade prior economic activity, although last year's revisions were relatively minor (see <u>Commentary No. 804</u>). ShadowStats will publish an analysis of the detail within a couple of days of the publication.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—January 2017. In the context of a large upside revision to the previously-reported level of December 2016, the Census Bureau reported February 15th that headline nominal January 2017 Retail Sales rose by 0.36% month-to-month, versus an upwardly-revised 0.95% [previously 0.63%] monthly gain in December 2016, and a downwardly-revised gain of 0.15% [previously 0.18%, initially 0.08%] in November 2016.

That seasonally-adjusted, headline January 2017 gain of 0.36% +/- 0.59% was not statistically-significant (all confidence intervals are expressed at the 95% level). Net of prior-period revisions, January 2017 sales gained by 0.65%. The revised headline December 2016 monthly retail sales gain of 0.95% +/- 0.23%, however, was statistically-insignificant. There was an unusually-large upside revision to December 2016 activity, in the context of the unusual seasonal-factor distortions detectable in today's limited availability of just five months of consistently-reported detail.

Year-to-Year Annual Change. The January 2017 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 5.56% +/- 0.82%, versus an upwardly revised 4.35% [previously 4.13%] annual gain in December 2016 and a downwardly-revised 3.86% [previously 3.89%, initially 3.75%] annual gain in November 2016.

January Core Retail Sales, Net of Food and Gasoline. Reflecting an environment that should be seeing rising, seasonally-adjusted food prices and gasoline prices [an unadjusted January gain of 3.9% per the Department of Energy], seasonally-adjusted grocery-store sales rose by 0.18% month-to-month, with gasoline-station sales up by 2.34% in January 2017.

Under normal conditions, the bulk of non-seasonal variability in food and gasoline sales is in pricing, instead of demand. "Core" retail sales—consistent with the Federal Reserve's historical preference for ignoring food and energy prices when "core" inflation is lower than full inflation (when the Fed is looking to downplay inflation)—are estimated using two approaches:

<u>Version I:</u> January 2017 versus December 2016 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—rose by 0.19%, versus the official headline aggregate sales gain of 0.36%.

<u>Version II:</u> January 2017 versus December 2016 seasonally-adjusted retail sales series—net of the monthly change in the level of revenues for grocery stores and gas stations—rose by 0.16%, versus the official headline aggregate sales gain of 0.36%.

Real Retail Sales (Adjusted for Inflation)—January 2017. The headline detail from the coincident (February 15th) release of the January 2017 CPI-U, which incorporated annual revisions to the seasonally-adjusted CPI-U, showed month-to-month, seasonally-adjusted CPI-U inflation of 0.55% in January 2017, 0.26% in December 2016 and 0.21% in November 2016, with year-to-year seasonally-adjusted CPI-U inflation of 2.54% in January 2017, 2.09% in December 2016 and 1.70% in November 2016. Accordingly, real monthly sales declined by 0.19% (-0.19%) in January 2017, rose by 0.69% in December 2016 and declined by 0.06% (-0.06%) in November 2016. Real annual Retail Sales growth was 2.95% (rounds to 2.9%) in January 2017, 2.22% [previously 1.99%] in December 2016 and 2.12% [previously 2.15%] in November 2016.

Intense Signal of Recession in Annual Real Growth in Temporary Abeyance. 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. Where December 2016 previously was at 1.99%, and where January 2017 came in at 2.95%, going against a very weak January 2016, and in the context of revised CPI-U adjusted growth patterns, that signal is in temporary abeyance.

Nonetheless, fourth-quarter 2016 annual real growth revised minimally higher to 2.29% [previously 2.12%], versus a revised 1.48% [previously 1.47%] in third-quarter 2016 reporting, 1.58% [previously 1.56%] in second-quarter 2016 and 1.55% [previously 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, as likely will the early annual "boom" in January 2017. *Graphs 38* and *40*, following, show the latest patterns of headline annual real retail sales growth.

<u>First-Quarter 2017 Annualized Real Growth on Track to Soften versus Fourth-Quarter 2016.</u> First-Quarter 2017 is set on an early trend for annualized quarter-to-quarter real growth of 1.00% in Retail sales, versus a revised annualized pace of 3.98% [previously 3.21%] in fourth-quarter 2016, versus a revised third-quarter 2016 pace of 2.02% [previously 2.17%], versus a revised 3.81% [previously 3.37%] annualized growth in second-quarter 2016. Such was against a revised estimate of annualized quarterly real contraction of 0.58% (-0.58%) [previously growth of 0.18%] in first-quarter 2016.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as updated in <u>Commentary No. 864</u> and as fully reviewed in the CONSUMER LIQUIDITY section of <u>No. 859 Special Commentary</u>. 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 nominal. 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 37, the first of the four graphs following, shows the level of real retail sales activity (deflated by the CPI-U) since 2000; Graph 38 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, with some recent upturn in annual real growth. Graphs 39 and 40 show the level of, and annual growth in, real retail sales (and its predecessor series) in full post-World War II detail.

[Graphs 37 to 40 begin on the next page.]

Graph 37: Level of Real Retail Sales (2000 to Date)

Real Retail Sales Level (Deflated by CPI-U) To January 2017, Seasonally-Adjusted [ShadowStats, Census, BLS]



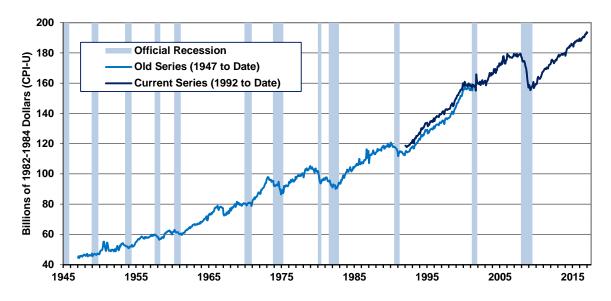
Graph 38: Real Retail Sales (2000 to Date), Year-to-Year Percent Change

Real Retail Sales Year-to-Year Percent Change To January 2017, Seasonally-Adjusted [ShadowStats, Census, BLS]



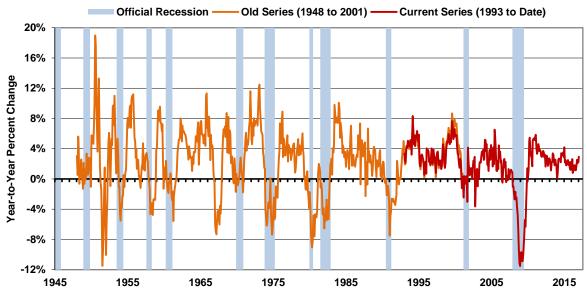
Graph 39: Level of Real Retail Sales (1947 to Date)

Real Retail Sales (Deflated by the CPI-U) 1947 to January 2017, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



Graph 40: Real Retail Sales (1948 to Date), Year-to-Year Percent Change

Real Retail Sales Year-to-Year Percent Change 1948 to January 2017, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



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.

RESIDENTIAL CONSTRUCTION (January 2017)

Nonsense Volatility Continued in Housing Starts Activity and Revisions. January 2017 housing starts declined by a tepid, headline 2.6% (-2.6%). Yet, in an ongoing pattern of volatility not seen since the depths of the 1980 recession, the levels of activity in both November and December 2016 housing starts were revised higher by 4.3%, leaving intact the 11.3% month-to-month gain in December, but with the collapse in monthly November activity revising to 13.0% (-13.0%) from the previous 16.5% (-16.5%). That was against an unrevised surge of 25.5% in monthly October activity 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 in monthly changes and revisions is unusual, even for this notoriously-unstable and heavily-revised series, with the instabilities generated largely by 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 44* and 8, 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 January 2017 level of starts still shy by 45% (-45%) of recovering its pre-recession peak (see *Graphs 42* and 7, respectively in this *Reporting Detail* and in the *Executive Summary*).

January 2017 Contraction Reflected Declining Multiple-Unit Starts with Some Offset from Increasing Single-Unit Starts. In the context of a parallel upside revisions to November and December activity, aggregate January housing starts declined by 2.6% (-2.6%) 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 8* in the *Executive Summary* section, and *Graphs 43* and *44* here). Neither headline permits nor starts has recovered from the collapse into 2009, with current activity down from pre-recession peaks by 43% (-43%) for permits, and, again, by 45% (-45%) for starts.

Fourth-Quarter 2016 Housing Starts Gained Quarter-to-Quarter and Year-to-Year, Following Third-Quarter Contractions, First-Quarter 2017 in Early Quarterly Downtrend. 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. With the revisions published with the January 2017 detail, fourth-quarter annualized quarterly growth pace revised higher to 41.9%, up by 10.1% year-to-year, confirming the lack of unstable numbers. With one month in place, annualized first-quarter 2017 housing starts are on track for an annualized quarterly contraction of 1.1%, and an annual gain of 8.2%.

Smoothed Numbers. Despite the extreme volatility and instabilities in the Housing Starts series, the general pattern of low-level stagnation continued. Again, the six-month moving-average pattern for the aggregate series remained about as flat as one ever sees, in low-level stagnation, reflecting the most-recent headline detail (*Graphs 8* and *44*), with the same pattern of stability also seen broadly in raw monthly data (*Graphs 7* and *42*). That general pattern also can be viewed in terms of the longer-range historical graph of aggregate activity (*Graph 45*) at the end of this section. Parallel graphs of monthly and six-month moving average Building Permits detail can be compared with *Graphs 41* and *43*. Given the broad pattern of stagnation in both the aggregate starts and permits series, headline total January 2017 activity, again, remained well below any recovery level, with starts down from their January 2006 pre-recession high by 45% (-45%), and with permits down by 43% (-43%) from their September 2005 pre-recession peak activity.

Returning fully to the January 2017 housing starts detail, the dominant (66.1% of total starts) single-unit housing starts sector of that series (*Graphs 9* and *10* in the *Opening Comments*) was down by 55% (-55%) from its January 2006 pre-recession peak.

In contrast the much smaller count in the multiple-unit category (two units or more), 33.9% of the total, hit its recent high in June 2015, topping its pre-recession January 2006 peak by 11.9%. It dropped below that 2006 high by 6.0% (-6.0%) in January 2017.

Reflected in the smoothed graphs in the *Opening Comments*, the various housing-starts series generally were flat, at a low level of stagnation (*Graph 8* for the aggregate). That reflected a blend of the low-level stagnation (albeit up-trending) in the six-month-smoothed single-unit activity (*Graph 10*), with the morevolatile, smoothed multiple-unit starts (*Graph 12*), which had rebounded and held at pre-recession levels (albeit currently down-trending).

Consumer Liquidity Problems Continue to Impair Residential Construction Activity. As with retail sales, an extreme consumer-liquidity bind continues to constrain retail sales activity, as updated in Commentary No. 864 and as fully reviewed in the CONSUMER LIQUIDITY section of No. 859 Special Commentary. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for 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.

January 2017 Housing Starts, Headline Reporting. The continued, broadly unstable and highly volatile aggregate Housing Starts series declined month-to-month in January 2017, in the context of a large upside revision to the level of December 2016 activity, on top of a parallel upside shift to November activity. The Census Bureau reported this morning, February 16th, a statistically-insignificant, seasonally-adjusted, headline monthly decline of 2.6% (-2.6%) +/- 12.9% (all confidence intervals are expressed at the 95% level) in January 2017 housing starts.

That followed an unrevised monthly gain of 11.3% gain in December 2016, a narrowed contraction of 13.0% (-13.0%) [previously down by 16.5% (-16.5%), initially down by 18.7% (-18.7%)] in November and an unrevised monthly gain in October of 25.5%, still the highest-percent monthly growth rate in 36 years. Net of prior-period revisions, January 2017 rose by 1.6% for the month, instead of the headline contraction of 2.6% (-2.6%). Level-of-activity aggregate detail is plotted in *Graphs 6* to 9 of the *Executive Summary*, and in *Graphs 42*, 44 and 45 at the end of this section.

Year-to-year change in the seasonally-adjusted, January 2017 aggregate housing-starts measure was a statistically-insignificant gain of 10.5% +/- 17.9%, versus a revised annual gain of 10.3% [previously up by 5.7%] in December 2016, a narrowed, annual decline in November 2016 of 1.9% (-1.9%) [previously 5.9% (-5.9%), initially 6.9% (-6.9%)] and against an unrevised annual gain of 23.0% in October 2016.

The January 2017 headline decline of 2.6% (-2.6%) in total housing starts encompassed a headline gain of 1.9% in the "one unit" category and a drop of 7.9% (-7.9%) in the "five units or more" category. There is a missing balance in the "two to four units" category, collapsed by 85.7% (-85.7%) month-to-month in January. 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. Most commonly, not one of the monthly or annual headline changes by category is statistically meaningful, which was the case in January 2017.

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

Housing starts for single-unit structures in January 2017 rose month-to-month by a statistically-insignificant 1.9% +/- 12.6%, following a revised monthly decline of 2.2% (-2.2%) [previously down by 4.0% (-4.0%)] in December, a deeper monthly decline of 4.8% (-4.8%) [previously 4.6% (-4.6%), initially down by 4.1% (-4.1%)] in November, and an unrevised monthly gain of 11.1% in October. Net of priorperiod revisions, January 2017 single-unit starts gained 3.5% month-to-month, instead of the headline 1.9%. January 2017 single-unit starts showed a statistically-insignificant annual gain of 6.2% +/- 16.4%, versus a revised 5.6% [previously 3.9%] annual gain in December 2016, a revised 5.1% [previously and initially 5.3%] in November 2016, and an unrevised annual gain of 21.6% in October 2016 (see *Graphs 7*, 8, 11 and 12 in the *Executive Summary*).

Housing starts for apartment buildings, condominiums, etc. (generally 5-units-or-more) in January 2017 declined month-to-month by a statistically-significant 7.9% (-7.9%) +/- 30.3%, versus a revised 42.8% [previous 53.9%] gain in December 2016, a narrowed monthly decline of 27.6% (-27.6%) [previously 38.7% (-38.7%), initially 43.9% (-43.9%)] in November and an unrevised gain of 72.0% in October. Net of prior-period revisions, January 2017 gained 1.0% in the month, instead of the headline 7.9% (-7.9%) decline. A statistically-insignificant year-to-year gain of 25.7% +/- 41.4% in January 2017, followed a revised annual gain of 20.9% [previously 10.3%] in December 2016, narrowed annual contraction of 15.6% (-15.6%) [previously down by 28.5% (-28.5%), initially down by 31.7% (-31.7%)] in November 2016 and an unrevised gain of 27.3% 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 5*, *6*, *11* and *12* in the *Executive Summary*).

Accordingly, the statistically-insignificant January monthly decline of 2.6% in aggregate starts was composed of a statistically-insignificant gain of 1.9% in one-unit structures and a statistically-insignificant decline of 10.2% (-10.2%) in the multiple-unit structures categories (2-units-or-more, including the 5-units-or-more category). In contrast, again, ex-2-units-or-more, the multiple-unit category declined by gained 7.9% (-7.9%). These series all are graphed in the *Executive Summary*.

A Note on the Regular Housing Starts Graphs. [This section largely is repeated in the Executive Summary.] Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,246,000 in January 2017, versus an upwardly revised 1,279,000 [previously 1,226,000] in December 2016. The scaling used in the aggregate housing starts and building permits *Graphs 41* to 45 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 unrevised headline 268,000 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 103,833 units in January 2017, instead of the annualized headline level of 1,246,000 units, is used in the scaling of the *Graphs 5* to 12 in the *Executive Summary*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as seen in a comparison of *Graph 42* versus *Graph 7*.

The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 prerecession peak for the series. Against that downside-spiked low in April 2009, the January 2017 headline number was up by 161%, but it still was down by 45% (-45%) 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 45*.

Graph 41: Building Permits (Annualized Monthly Rate of Activity), 2000 to Date

Building Permits for Housing Units (Annual Rate by Month) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



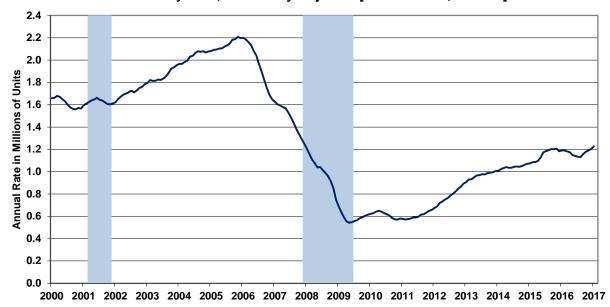
Graph 42: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date

Housing Starts (Annual Rate by Month) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



Graph 43: Building Permits (Six-Month Moving Average), 2000 to Date

Building Permits for Housing Units (Six-Month Moving Average) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



Graph 44: Housing Starts (Six-Month Moving Average), 2000 to Date

Aggregate Housing Starts (Six-Month Moving Average) To January 2017, Seasonally-Adjusted [ShadowStats, Census]



Graph 45: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date

Housing Starts (Annual Rate by Month) 1946 to January 2017, Seasonally-Adjusted [ShadowStats, Census]



CONSUMER PRICE INDEX—CPI (January 2017)

Headline CPI-U Inflation Rose by 0.6% for the Month, 2.5% Year-to-Year. In the context of annual seasonal-adjustment revisions, the headline January 2017 CPI-U monthly inflation of 0.6% [up by 0.55% at the second decimal point] generally was well above consensus expectations of about 0.3%. Unadjusted year-to-year inflation (never revised) jumped to a 58-month high of 2.5% [up by 2.50% at the second decimal point]. The current inflation surge is driven by surging gasoline prices, not by an overheating economy. Unadjusted year-to-year gasoline costs in December 2016 broke above zero for the first time since the oil-price collapse of July 2014, and strongly so, to 9.15%; the annual gain in January 2017 gasoline prices surged further to 20.27%.

Where the energy sector dominated the headline monthly gain, the food and "core" (ex-food and energy) sectors contributed as well, both on adjusted and unadjusted bases. Where the adjusted headline, CPI-U monthly gain was 0.55%, unadjusted it was 0.58%.

Separately, although headline annual CPI-U inflation rose sharply to 2.5% in January 2017, versus 2.1% in December, 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 January 2017 of 6.1%, based on 1990 methodologies, and 10.3%, based on 1980 methodologies.

Longer-Range Inflation Outlook. Despite the U.S. dollar strength subsequent to the election and the Fed's rate hike—and some tempering of same (see the *Hyperinflation Watch*)—as discussed in <u>No. 859</u>

<u>Special Commentary</u>, 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 2017 economic-stimulus package 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.

Irrespective of mixed economic data releases this week, 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. In the context of annual seasonal-adjustment revisions, the Bureau of Labor Statistics (BLS) reported February 15th that the headline, seasonally-adjusted January 2017 2016 CPI-U rose month-to-month by 0.6% (up by 0.55% at the second decimal point). That followed a revised 0.3% (0.26%) [previously 0.3% (0.28%)] in December 2016, versus a revised 0.2% (0.21%) previously [0.2% (0.20%)] in November and a revised 0.3% (0.29%) [previously 0.4% (0.36%)] in October. The revisions affected seasonally-adjusted CPI back to 2012. The not-seasonally-adjusted data were not, and never are, revised, except for the extremely rare reporting error.

The adjusted headline January 2017 inflation increase was softened minimally by mixed seasonal adjustments, boosted by positive seasonal adjustments to the energy and food sectors and softened by negative seasonal-adjustment to the "core" (ex-food and energy) sector. On an unadjusted basis, monthly January 2017 CPI-U gained 0.58%, having gained 0.03% in December 2016, declined by 0.15% (-0.15%) in November, and having increased by 0.12% in October.

January 2017 seasonal adjustments for monthly gasoline inflation were positive, "boosting" an unadjusted headline monthly gain of 5.33% in gasoline prices into an adjusted gain of 7.82%. The Department of Energy (DOE) had estimated an unadjusted monthly gain in gasoline prices of 3.89%.

Major CPI-U Groups. Encompassed by the seasonally-adjusted monthly CPI-U gain of 0.55% in January 2017 [up by an unadjusted 0.58%], January food inflation fell by a seasonally-adjusted 0.14% (-0.14%) [down by 0.16% (-0.16%) unadjusted], January energy inflation rose by a seasonally-adjusted 3.97% [up by an unadjusted 3.26%], while the adjusted January "core" (ex-food and energy) inflation rate was up by 0.31% [up by 0.38% unadjusted]. Separately, core CPI-U inflation showed unadjusted year-to-year inflation of 2.27% in January 2017, versus 2.20% in December 2016, 2.11% in November 2016, 2.14% in October 2016 and 2.21% in September 2016.

Quarterly CPI-U On an revised annualized quarter-to-quarter basis, seasonally-adjusted CPI-U rose by 3.04% [previously 3.44%] in fourth-quarter 2016, having gained 1.78% [previously 1.63%] in third-quarter 2016, 2.33% [previously 2.53%] in second-quarter 2016 and up by 0.11% [previously down by 0.31% (-0.31%)] in first-quarter 2016. On an unadjusted, year-to-year basis, annual inflation by quarter was unrevised, 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.

<u>Year-to-Year CPI-U</u>. Not seasonally adjusted, January 2017 year-to-year inflation for the CPI-U rose to 2.5% (2.50% at the second decimal point, versus 2.1% (2.07%) in December 2016, 1.7% (1.69%) in November 2016, 1.6% (1.64%) in October 2016 and 1.5% (1.46%) in September 2016.

Year-to-year, CPI-U inflation would increase or decrease in next month's February 2017 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, minimal headline gain of 0.08% in February 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 February 2017, the difference in February's headline monthly change (or forecast of same), versus the year-ago monthly

change, should be added to or subtracted directly from the January 2017 annual inflation rate of 2.50%. Given an early guess of a seasonally-adjusted gain of 0.1%, in the monthly February 2017 CPI-U, that would leave the annual CPI-U inflation rate for February 2017 at about 2.5%, plus-or-minus, depending on rounding.

CPI-W. The January 2017 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 0.61%, following revised gains of 0.29% [previously 0.32%] in December 2016, 0.22% [previously 0.21%] in November, 0.32% [previously 0.40%] in October and 0.29% [previously 0.34%] in September.

On an unadjusted basis, year-to-year CPI-W rose by 2.51% in January 2017, versus 1.99% in December 2016, 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, but it is revised regularly, as happened with the January 2017 reporting. Headline January 2017 C-CPI-U annual inflation came in at 2.58%, versus an upwardly revised 2.07% [previously 2.03%] in December 2016. Back through January 2016, annual inflation by month revised higher on average by 0.048%.

See discussions in the earlier CPI <u>Commentary No. 721</u> and in the opening notes in the <u>CPI Section</u> of <u>Commentary No. 699</u> 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 <u>Public Commentary on Inflation Measurement</u>.

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 <u>Commentary No. 841</u>) 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 6.1% in January 2017, versus 5.7% in December 2016, 5.3% in November 2016, 5.2% in October 2016 and 5.0% in September 2016.

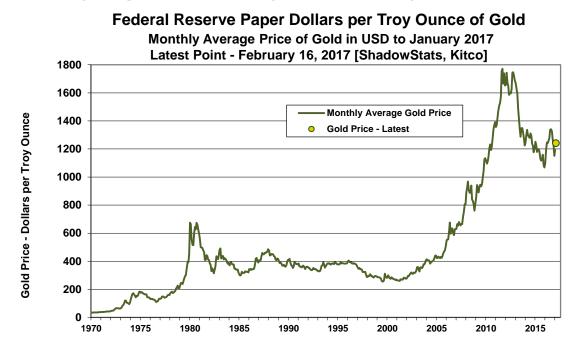
The January 2017 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, was at about 10.3% (10.27% at the second decimal point), versus 9.8% (9.81%)in December 2016, 9.4% (9.40%) in November 2016, 9.3% (9.34%) 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.)





Gold and Silver Historic High Prices Adjusted for January 2017 CPI-U/ShadowStats Inflation—

CPI-U: GOLD at \$2,653 per Troy Ounce, SILVER at \$154 per Troy Ounce ShadowStats: GOLD at \$13,700 per Troy Ounce, SILVER at \$797 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 \$2,653 per troy ounce, based on January 2017 CPI-U-adjusted dollars, and \$13,700 per troy

ounce, based on January 2017 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 January 2017 CPI-U inflation, the 1980 silver-price peak would be \$154 per troy ounce and would be \$797 per troy ounce in terms of the January 2017 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—January 2017—Down Month-to-Month by 0.2% (-0.2%), Up Year-to-Year by 2.9%. January 2017 real Retail Sales are covered in the earlier Retail Sales—Nominal and Real section.

Real Average Weekly Earnings—January 2017—First-Quarter on Early Track for Quarterly and Annual Contractions, Following Fourth-Quarter Quarterly Decline. In the context of the February 3rd annual payroll-survey benchmark revision (see *Graph 24* on page 24 of <u>Commentary No. 864</u>) and annual revisions to seasonally-adjusted CPI-W inflation the headline estimate for January 2017 real average weekly earnings was published coincident with release of the January CPI-W.

In the production and nonsupervisory employees category—the only series for which there is a meaningful history, the regularly-volatile real average weekly earnings, in January 2017, were down month-to-month by 0.42% (-0.42%), the six consecutive monthly decline for the series. Year-to-year, the adjusted January 2017 detail was down by 0.41% (-0.41%) from January 2016, the second consecutive annual decline.

Such left fourth-quarter 2016 in a revised annualized real contraction of 1.36% (-1.36%) [previously down by 1.83% (-1.83%)], versus annualized third-quarter 2016 growth of 1.48% [previously 1.62%] and a second-quarter 2016 annualized quarter-to-quarter contraction of 0.11% (-0.11%) [previously down by 0.31% (-0.31%)]. With initial headline January 2017 in place, first-quarter 2017 is on early track for an annualized contraction of 1.87% (-1.87%). The 2015 rally in real annual income and the subsequent slowdown in latter 2016 were tied directly to the impact of collapsing gasoline prices, and a subsequent rebound 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 monthly 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. 864*).

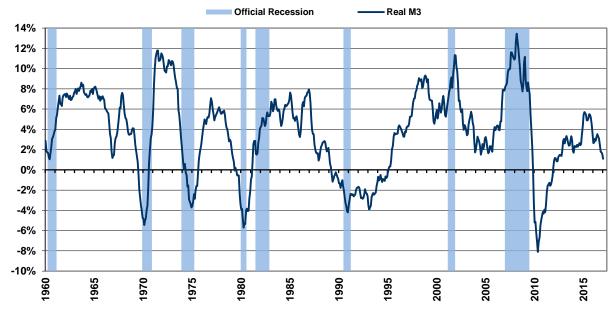
Separately, the CPI-W deflated reporting here also is distorted versus the CPI-U-deflated series, where the CPI-W—more heavily weighted with gasoline prices—tends to have much deeper, negative headline

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, in the January 2017 detail, where higher, seasonally-adjusted gasoline prices generated a headline monthly CPI-W gain of 0.61%, versus a CPI-U gain of 0.55%.

Found in the *Opening Comments* section, *Graph 13* 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.

Graph 47: Real M3 Annual Growth versus Formal Recessions





Real (Inflation-Adjusted) Money Supply M3—January 2017—Annual Growth Signaling Economic Downturn. 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 47—based on January 2017 CPI-U reporting and the latest ShadowStats-Ongoing M3 Estimate (including regular Federal Reserve Board money supply revisions)—annual inflation-adjusted growth in January 2017 M3 plunged to 1.09%, from 1.54% in December 2016 and 1.72% in November 2016, reflecting rapidly slowing nominal annual M3 growth (see Commentary No. 864), and rapidly rising annual CPI-U inflation.

The current growth pattern has fallen to the level last seen in plunging growth into the 2009 economic collapse, and at a level always seen going into or in a recession.

The signal for a downturn or an intensified downturn is generated when annual growth in real M3 first slows sharply and 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 prior "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, and the current level and pattern of real annual M3 growth always has been followed by annual contraction and the recession signal.

Again, when real M3 growth breaks above zero, there is no signal; the signal is generated only when annual growth moves to and 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 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.

PRODUCER PRICE INDEX (January 2017)

Headline January PPI Goods Inflation Rose by 1.01%; Construction Inflation Rose by 0.26%; Dominant Margins in the Services Sector Rose by 0.27%; with Aggregate PPI Inflation Up by 0.63%. In the context of annual revisions, including revamped seasonal adjustments and a reweighting of the subcomponent series, the headline month-to-month January 2017 PPI inflation of 0.6% (0.63% at the second decimal point) generally reflected neither real-world activity, nor common experience. As structured, the monthly wholesale inflation rate was dominated by softer inflation in the services sector, which muted the gain on the product side, from the rapidly-rising energy sector.

Year-to-Year Energy Inflation Continued Meaningfully to the Plus-Side, for the Second Month. The jump in the old-fashioned goods inflation was dominated again by higher energy prices. Not-seasonally-adjusted annual change in energy inflation continued to soar, up by 13.98% in January 2017, having jumped meaningfully—for the first time since the 2014 collapse in oil prices—into positive territory in December 2016. The annual energy inflation surge in the January 2017 was preceded by an unrevised a 5.89% year-to-year gain in December 2016, which followed minor flutterings of an annual decline of 0.11% (-0.11%) in November 2016, a gain of 0.32% in October 2016, subsequent to a revised annual decline of 2.89% (-2.89%) [previously down by 2.47% (-2.47%)] in September 2016, an unrevised annual decline of 9.98% (-9.98%) in August 2016, and so on, back to fourth-quarter 2014.

Bulk of Reporting Is of Little Practical Use. [The background text here and in the next subsection is as published previously.] Beyond the broad issues with general inflation measurement (see <u>Public</u> <u>Commentary on Inflation Measurement</u>), indeed the bulk of the PPI is covered by the "services" sector, where inflation is determined largely by shifting profit margins. Discussed in the next subsection, profit-margin inflation estimates generally are handled in a manner counter-intuitive to the more-traditional measurement of inflation in goods and services, otherwise calculated as a measurement of change in prices. Accordingly, the headline detail here increasingly has a limited relationship to real-world activity.

The conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily or meaningfully in the current version of the PPI. While, the dual measures are more meaningfully viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand—ShadowStats separates the analyses of those sectors by sub-category—the aggregate headline series here also is reviewed and covered within the headline reporting conventions of the Bureau of Labor Statistics (BLS).

Inflation That Is More Theoretical than Real World. Effective with January 2014 reporting, a new Producer Price Index (PPI) replaced what had been the traditional headline monthly measure of wholesale inflation in Finished Goods (see *Commentary No. 591*). In the new headline monthly measure of wholesale Final Demand, Final Demand Goods basically is the old Finished Goods series, albeit expanded.

The new otherwise dominant Final Demand Services sector largely reflects problematic and questionable surveying of intermediate or quasi-wholesale profit margins in the services area. To the extent that profit margins shrink in the services sector, one could argue that the resulting lowered estimation of inflation actually is a precursor to higher inflation, as firms subsequently would move to raise prices, in an effort to regain more-normal margins. In like manner, in the circumstance of "increased" margins—due to the lower cost of petroleum-related products not being passed along immediately to customers—competitive pressures to lower margins would tend to be reflected eventually in reduced retail prices (CPI). The oil-price versus margin gimmick works both way. In times of rapidly rising oil prices, it mutes the increase in Final Demand inflation, in times of rapidly declining oil prices; it tends to mute the decline in Final Demand inflation.

The current PPI series remains an interesting concept, but it appears limited as to its aggregate predictive ability versus general consumer inflation. Further, there is not enough history available on the new series (just seven years of post-2008-panic data) to establish any meaningful relationship to general inflation or other economic or financial series.

January 2017 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported February 14th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for January 2017 was 0.63%, against revised gains of 0.18% (previously 0.27%) in December 2016 and 0.45% (previously 0.36%) in November 2016. On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in January 2017 was 1.64%, versus unrevised readings of 1.65% in December 2016 and 1.28% in November 2016.

For the three major subcategories of January 2017 Final Demand PPI, headline monthly Goods inflation rose by 1.01%, Services "inflation" (profit margins) gained 0.27% and Construction inflation increased by 0.26%, with respective unadjusted annual growth rates of 3.10%, 0.81% and 1.32%.

<u>Final Demand Goods (Weighted at 33.84% [previously] 33.63% of the Aggregate Index).</u> Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in January 2017 rose by 1.01%, having gained a revised 0.55% (previously 0.74%) in December 2016 and an unrevised 0.18% in November 2016. There was positive impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, January Final Demand Goods inflation was 0.92%.

Unadjusted, year-to-year goods inflation in January 2017 showed an annual gain of 3.10%, following a revised 1.87% (previously 1.97%) in December 2016 and an unrevised 0.56% in November 2016.

Headline seasonally-adjusted monthly changes by major components of the January 2017 Final Demand Goods:

- "Foods" inflation (weighted at 5.43% [previously 5.56%] of the total index) was unchanged at 0.00% month-to-month in January 2017, having gained a revised 0.53% (previously 0.70%) in December 2016 and a revised 0.53% (previously 0.62%) in November. Seasonal adjustments were positive for the January headline change, which was down by 0.61% (-0.61%) unadjusted. Unadjusted and year-to-year, annual January 2017 foods inflation declined by 2.23% (-2.23%), having declined by an unrevised 1.12% (-1.12%) in December 2016 and in November 2016 by an unrevised 2.74% (-2.74%).
- "Energy" inflation (weighted at 5.49% [previously 5.24%] of the total index) rose by 4.69% in January 2017, having gained by a revised 1.80% (previously 2.64%) month-to-month in December 2016 and having gained by a revised 0.11% [previously a decline of 0.32% (-0.32%)] in November. Seasonal adjustments here remained positive, with unadjusted monthly energy inflation up by 3.74% in the month. Unadjusted and year-to-year, January 2017 energy prices continued to soar, up by 13.98%, versus an unrevised gain of 5.89% in December 2016 and an unrevised decline in November 2016 was a of 0.11% (-0.11%).
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 22.92% [previously 22.83%] of the total index) rose by 0.36% in January 2017, having gained an unrevised 0.27% in December 2016 and an unrevised 0.18% in November 2016. Seasonal adjustments were negative for monthly core inflation, with an unadjusted monthly gain of 0.72%. Unadjusted and year-to-year, January 2017 was up by 2.09%, against unrevised annual gains of 1.73% in December 2016 and 1.55% in November 2016.

<u>Final Demand Services (Weighted at 64.09% [previously 64.28%] of the Aggregate Index).</u> Headline monthly Final Demand Services inflation increased by 0.27% in January 2017, having gained by an unrevised 0.09% in December 2016 and an unrevised 0.54% in November. The overall seasonal-adjustment impact on headline January services inflation was neutral, with an unadjusted monthly gain also at 0.27%. Year-to-year, unadjusted January 2017 services rose by 0.81%, versus unrevised annual gains of 1.55% in December 2016 and 1.54% in November 2016.

The headline monthly changes by major component for January 2017 Final Demand Services inflation:

• "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 38.87% [previously 38.96%] of the total index), declined by 0.09% (-0.09%) month-to month, having gained a revised 0.09% [previously 0.18%] month-to-month in December 2016 and a revised 0.18% [previously 0.09%] in November. Seasonal-adjustment impact on the adjusted

January detail was negative, where the unadjusted monthly reading was a gain of 0.18%. Unadjusted and year-to-year, January 2017 "other" services inflation was up by 1.28%, versus unrevised annual gains of 2.02% in December 2016 and 2.12% in November 2016.

- "Transportation and warehousing" inflation (weighted at 4.94% [previously 4.99%] of the total index) rose month-to-month in January 2017 by 1.14%, having declined in December 2016 by a revised 0.26% (-0.26%) [previously 0.44% (-0.44%)] and having gained an unrevised 0.09% in November. Seasonal adjustments were negative for the headline January reading, where the unadjusted monthly number showed a gain of 1.68%. Unadjusted and year-to-year, January 2017 transportation inflation was up by 1.05%, having been an unrevised "unchanged" at 0.00% in December 2016 and an unrevised decline of 0.18% (-0.18%) in November 2016.
- "Trade" inflation (weighted at 20.28% [previously 20.34%] of the total index) increased month-tomonth in January 2017 by 0.88%, having been a revised "unchanged" at 0.00% [previously a gain of 0.18%] in December 2016, and having gained an upwardly revised 1.34% [previously 1.25%] in November. Seasonal adjustments had a positive impact here, where the unadjusted monthly change was a gain of 0.18%. Unadjusted and year-to-year, January 2017 trade inflation slowed to 0.09%, versus unrevised gains of 0.98% in December 2016 and 1.07% in November 2016.

<u>Final Demand Construction (Weighted at 2.08% [previously 2.09%] of the Aggregate Index).</u> Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Month-to-month construction inflation gained 0.26% in January 2017, having declined by an unrevised 0.09% (-0.09%) in December 2016 and gained by an unrevised 0.09% in November. The impact of seasonal factors on the January reading was neutral, where the unadjusted monthly change also was a gain of 0.26%. The issues here are a combination of monthly headline cost changes along with a quarterly estimate of contractor profit-margin changes that have little connection to real-world activity. The latter circumstance was addressed in *Commentary No.* 829 of September 2, 2016.

On an unadjusted basis, year-to-year construction inflation rose by 1.32% in January 2017, versus unrevised annual gains of 0.61%, December 2016 and 0.79% in November 2016. At present, private surveys are showing much higher construction-related inflation than is reported in the PPI, by an order of magnitude of several hundred basis points, such as reflected in the privately-published Building Cost and Construction Cost Indices [Dodge Data and Analytics (McGraw Hill) *Engineering News-Record*] and in construction-related price deflators in the National Income Accounts, such as the Gross Domestic Product (GDP). Discussed in *Commentary No.* 829, ShadowStats has constructed a Composite Construction Deflator (CCD) now used by ShadowStats in deflating the Census Bureau's monthly estimates of Construction Spending Put in Place in the United States.

PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods. As to the upcoming reporting of January 2017 new orders for durable goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods was 0.30%, having gained 0.18% in December 2016 and having been "unchanged" at 0.00% in November 2016. Year-to-year annual inflation continued to rise, hitting 1.33% in January 2017, versus 0.97% in December 2016 and 0.66% in November 2016. Those headline data were not revised versus prior reporting. January 2017 durable goods orders (both nominal and real) will be reported on February 27th and covered in ShadowStats Commentary No. 868 of that date.

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WEEK, MONTH AND YEAR AHEAD

Deepening Economic Downturn Promises a Frustrated Fed and Rapidly Deteriorating Support for the U.S. Dollar, Despite Market Optimism for the New Administration. Discussed in the *Opening Comments* section, despite mixed headline economic reporting in the current week, the broad outlook for a stagnant to down-trending economic activity has not changed. Discussed in the *Hyperinflation Watch*, the problems with the Fed and the long-term sovereign solvency issues of the United States government also continue. Accordingly, the following opening section here has not been revised:

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

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 unprecedented debasement with a resulting runaway domestic inflation.

The current general trend in weakening data and what should be 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, despite the Fed's December 2016 and rate hike and continuing market hype as to multiple rate hikes looming in the year ahead.

In response to an intensifying downturn, financial market expectations should shift towards renewed Fed "easing," with the effect of triggering a massive U.S. dollar sell-off, 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 <u>No. 859</u> for extended discussion.

Broad economic and systemic conditions are reviewed regularly, with the following *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 <u>2014 Hyperinflation Report—Great Economic Tumble</u> – 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 <u>Public Commentary on Inflation Measurement</u> and the <u>Public Commentary on Unemployment Measurement</u>.

Commentaries of the last month:

<u>Commentary No. 865</u> updated the outlook on the trade deficit for December 2016, Fourth-Quarter 2016 and for the initial 2016 annual detail.

<u>Commentary No. 864</u> analyzed the January 2017 Employment and Unemployment detail, including benchmark and population revisions, December Construction Spending, Household Income, along with an update to Consumer Liquidity.

<u>Commentary No. 863</u> assessed the "advance" estimate of fourth-quarter 2016 GDP and reviewed December 2016 New Orders for Durable Goods and New- and Existing-Home Sales.

<u>Commentary No. 862</u> discussed the prior December 2016 Industrial Production, Housing Starts, Consumer Prices (including real Retail Sales and earnings), along with December detail of the CASS Freight IndexTM.

<u>Commentary No. 861</u> covered the prior December 2016 nominal Retail Sales, the PPI, with a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations.

No. 859 *Special Commentary* reviewed and previewed economic, financial and systemic developments of the year passed and the year or so ahead.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. Significant reporting-quality problems remain with most major economic series. Beyond the pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended to understate inflation and to overstate economic activity—as generally viewed in 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 <u>Supplemental Commentary No. 784-A</u> and <u>Commentary No. 695</u>.

Further, discussed in <u>Commentary No. 778</u>, 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 <u>Commentary No. 823</u>.

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 <u>Commentary No. 669</u>). John Crudele of the <u>New York Post</u> continues his investigations in reporting irregularities: <u>Crudele Investigation</u>, and as updated on October 24th: <u>Crudele</u>. Mr. Crudele's latest investigation focuses on retail sales reporting: <u>John Crudele on Retail Sales</u>.

PENDING RELEASES:

Existing- and New-Home Sales (January 2017). January 2017 Existing-Home Sales are due for release on Wednesday, February 22nd, from the National Association of Realtors (NAR), with the January 2017 New-Home Sales report due from the Census Bureau on Friday, February 24th. Both Existing- and New-Home Sales will be covered in the *General Commentary No. 867* of February 24th.

The extreme liquidity bind besetting consumers continues to constrain personal-consumption expenditures, and residential real estate sales, as updated in <u>Commentary No. 864</u> and as fully reviewed in the <u>CONSUMER LIQUIDITY</u> section of <u>No. 859 Special Commentary</u>. 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 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-minus trend likely to continue. Smoothed for regular extreme and nonsensical monthly gyrations, a pattern of low-level stagnation in New-Home Sales also should remain play. While the pattern of low-level stagnation in new sales has continued to fluctuate in recent months, it recently has begun to show somewhat of weakening trend, which likely will intensify. Monthly changes in activity here rarely are statistically-significant, amidst otherwise unstable headline reporting and revisions; nonetheless, the series is due for continued downside catch-up.

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. Publication of that analysis should follow in next week's General Commentary No. 867.

The long-planned and delayed consolidation of the major *ShadowStats* reporting into one volume, including the recommended reading list, should follow early in March.

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