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

COMMENTARY NUMBER 936

January Retail Sales, Industrial Production, Housing Starts, CPI and PPI

February 19, 2018

**Natural-Disaster Boost to the Economy Topped Out in November 2017;
Now Backing Off with a Vengeance, as Predicted**

Watch the Dollar!

**January 2018 Industrial Production Declined 0.1% (-0.1%) Month-to-Month,
On Top of Downside Revisions to December Activity**

Production Peaked in November, Net of a Record, Winter-Driven Utility Surge

**January Real Retail Sales Plunged 0.8% (-0.8%), Dropping 1.2% (-1.2%)
Net of Sharp Downside Revisions to December and Holiday-Season Activity;
Annual Growth Fell Deep into Recession-Warning Territory**

**Real Average Weekly Earnings Head into Third-Consecutive Quarterly Decline, the
Fifth Headline Quarter-to-Quarter Decline in the Last Six Quarters**

**"Surging" Housing Starts Activity Was Statistically Insignificant, as Usual,
Still Shy of Recovering Its Pre-Recession High by 41.7% (-41.7%)**

**Someone Used Contrary Hype to Boost Interest Rates or to Spook Stocks:
Headline "Fears of Soaring Inflation" Greeted Annual "Core" CPI-U Inflation Holding
Predictably Range-Bound at 1.8%, for the Tenth Month, versus the Fed's 2.0% Target**

**Monthly Inflation Gains of 0.54% and 0.44% in the January CPI-U and PPI
Were Dominated by Irregular Volatility in Adjusted, Monthly Gasoline Prices**

Common Inflation Experience Is Much Worse than the Headline Numbers

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PLEASE NOTE: With no major economic releases scheduled in the week ahead, the next General Commentary is scheduled for Friday, February 23rd.

Best wishes — John Williams (707) 763-5786

Today's (February 19th) ***Opening Comments and Executive Summary*** provides an overview of the now-headline slowing of broad economic activity, post natural-disaster spikes and disruptions in the last five months of 2017. Where the Commentary covering monthly inflation usually would update the outlook for the U.S. dollar and financial markets, such is discussed here, with referral to prior *Special Commentary No. 935*. Building upon the *Opening Comments*, the ***Executive Summary*** (page 7) provides the usual highlights of January 2018 Retail Sales, Industrial Production, Housing Starts and CPI and PPI inflation.

The ***Reporting Detail*** (page 20) reviews in greater depth the reporting of January 2018 Retail Sales, Production, Residential Construction and the Consumer and Producer Price Indices.

The ***Consumer Liquidity Watch*** (page 64) has been updated for January 2018 Real Monthly Average Earnings and the early-February estimate of the University of Michigan's Consumer Sentiment Index.

The ***Week, Month and Year Ahead*** (page 77) provides background on recent *Commentaries*.

OPENING COMMENTS AND EXECUTIVE SUMMARY

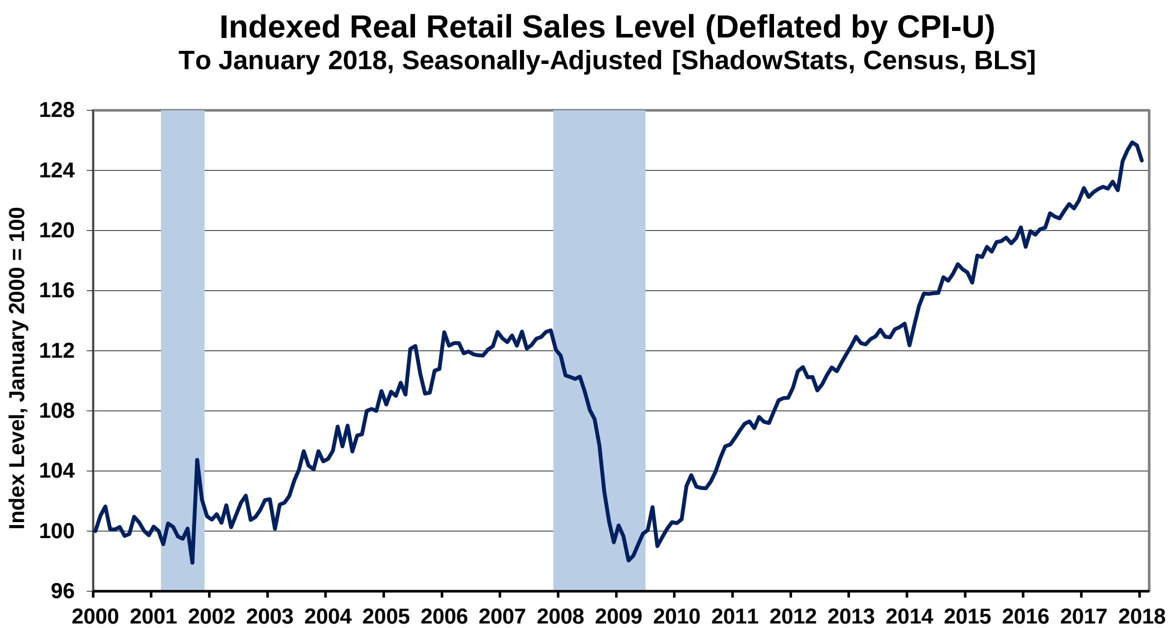
Market Sentiment Has Started to Shift, as Natural-Disaster Distortions and Boosts to the Economy Begin Exit the System; First-Quarter GDP Contraction Is Increasingly Likely. The financial-market outlook for U.S. economic activity appeared to soften in the last week, following an unusually-heavy concentration of non-consensus economic reporting for January 2018. At play is the early unwinding of a string of disaster-induced economic boosts and distortions that began with late-August 2017 Hurricane Harvey hitting the Texas Gulf Coast. The new headline numbers indicate the disaster-related economic boosts likely peaked in November 2017.

In response to weaker-than-expected headline economic growth and somewhat stronger-than-expected headline inflation, selling pressure intensified against the U.S. dollar, in line with the *ShadowStats* broad outlook (see prior *Special Commentary No. 935*). Gold and oil prices rallied in response, with mixed reactions in increasingly-unstable domestic equity and credit markets. The deteriorating, less-than-robust business activity portends a challenging circumstance for Federal Open Market Committee (FOMC) policy. That likely was not a surprise to Fed Chairman Jerome Powell, though, given the Fed's extraordinary, internal economics staff. For example, regular comments accompanying the monthly industrial production release tend to be forthright.

Headline Surprises: Retail Sales and the CPI. Expanded upon in the *Reporting Detail*, here is how expectations fared against last week's headline data. On Wednesday, February 14th, where nominal retail sales had been expected to show a month-to-month gain of 0.2% to 0.3%, they came in with a monthly contraction of 0.3% (-0.3%), on top of sharp downside revisions to December and November activity.

At the same time, where the headline CPI-U had been expected to show month-to-month inflation of 0.3% to 0.4%, it came in at 0.5%. This pushed real, inflation-adjusted January Retail Sales into a headline monthly decline of 0.8% (-0.8%), down by 1.2% (-1.2%) net of prior-period revisions and on track for a First-Quarter 2018 quarterly contraction. Consistent real retail sales actually contracted by 1.6% (-1.6%) in January 2018, net of irregular seasonal adjustment shifts masked in inconsistent headline reporting. In the context of the monthly revisions, the recent peak in real retail sales was set at November 2017, as reflected in *Graph OC-1*.

Graph OC-1: Indexed Real Retail Sales Level (2000 to January 2018)
(Same as Graph 1 in the Executive Summary)



The headline monthly CPI-U gain was 0.54% at the second decimal point, boosted by annual seasonal-adjustment revisions to the CPI series; the monthly gain would have been about 0.50% otherwise. The unadjusted CPI-U never is revised, shy of the extremely rare error in calculation, and January 2018 unadjusted annual CPI-U growth slowed minimally to 2.07%, from 2.11% in December 2017.

Someone was looking to spook the markets, which responded briefly to the stronger-than-expected headline monthly CPI-U gain, before reacting to the negative retail sales. This happened overnight and in the early-morning headlines—going into the CPI release—hyped fears of surging inflation began to push interest rates higher, along with expectations of intensified rate hiking by the FOMC. Anyone looking seriously at forecasting the numbers knew that a headline month-to-month CPI jump would come from rising gasoline prices, which was the case. The FOMC, however, targets 2.0% year-to-year inflation in its so-called "core" inflation rate, which excludes food and energy prices. As expected, headline year-to-year change in the "core" CPI-U remained range-bound at 1.8% +/- 0.1% for the tenth straight month.

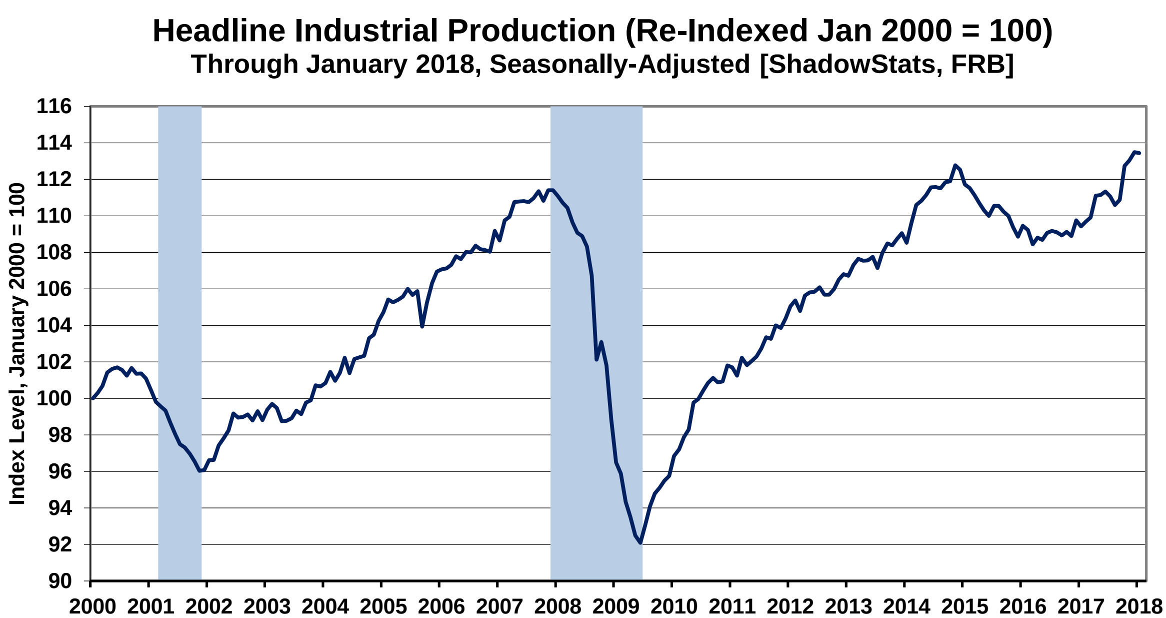
CPI-W and Real Earnings. The narrower CPI-W inflation (more heavily weighted for gasoline prices than the CPI-U) jumped 0.62% month-to-month in January 2018, with the effect of pulling real-average weekly earnings lower month-to-month by 0.78% (-0.78%), for production and nonsupervisory employees. Such set an early trend for a third-consecutive, deepening quarterly contraction in real earnings (see comments and *Graph 13* in the *Executive Summary*, page 19).

Industrial Production and the PPI. Consensus expectations for month-to-month change in January 2018 Industrial Production were for a monthly gain of 0.2% to 0.3%. Reported on Thursday, February 15th, headline January production fell by 0.1% (-0.1%) on top a downside revision to December 2017 activity. Net of revisions, January 2018 activity fell by 0.2% (-0.2%) for the month.

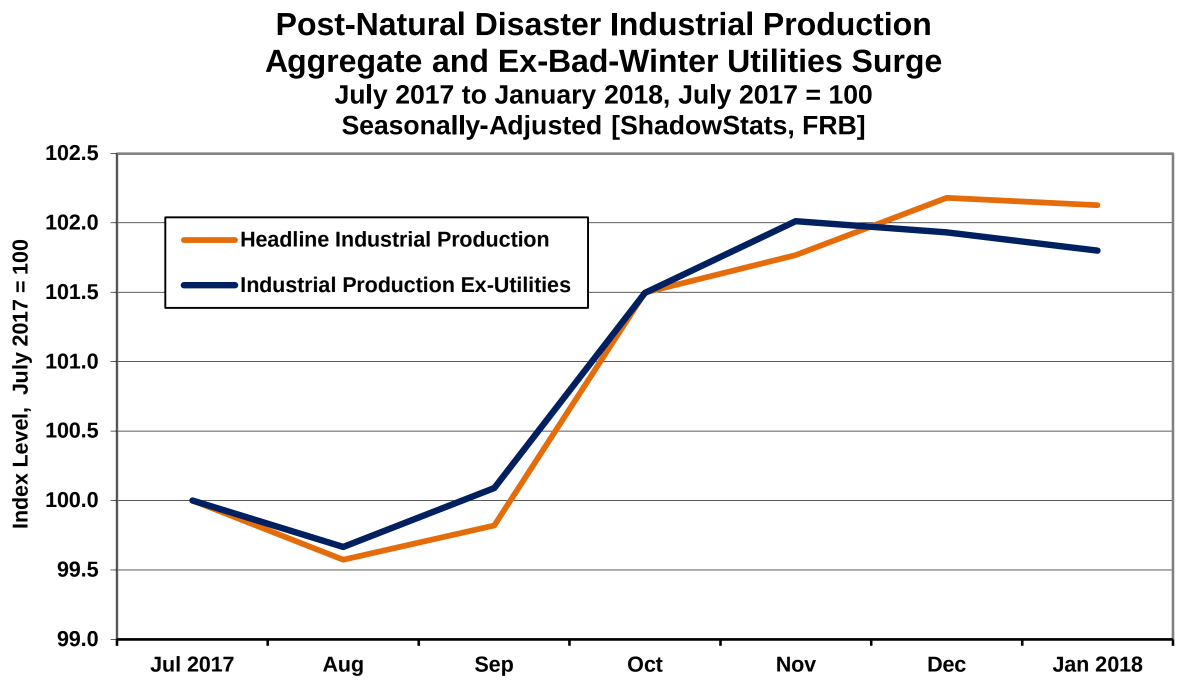
While the latest plot of headline Industrial Production shows December 2017 as the near-term peak in activity (*Graph OC-2*), recent headline production has been bloated by extraordinarily heavy utility usage, driven by unusually-severe winter weather. For example, reflected in *Graph 29* of the *Reporting Detail*, the upper end of the x-axis scale (year-to-year percent change) had to be raised to accommodate the new high in annual growth of 10.8% for January 2018. That was in context of subsequent record levels of utility usage in December and January, as shown in *Graph 28*. Headline production also peaked in November 2017 (*Graph OC-3*), along with Real Retail Sales (again, *Graph OC-1*), net of those irregular but usual winter-weather disruptions.

PPI and New Orders for Durable Goods. The January 2018 PPI (February 15th) also went through its annual seasonal-adjustment revisions, along with a five-year benchmark re-weighting of the series, which had minimal headline impact. The seasonality revisions muted variations in the headline month-to-month changes. Consensus expectations for a 0.4% monthly gain were met by a headline 0.44%. Of near-term significance, the durable goods PPI jumped 0.41% in January, having been unchanged at 0.00% in December. Such will hit inflation-adjusted growth in January Durable Goods Orders on February 27th.

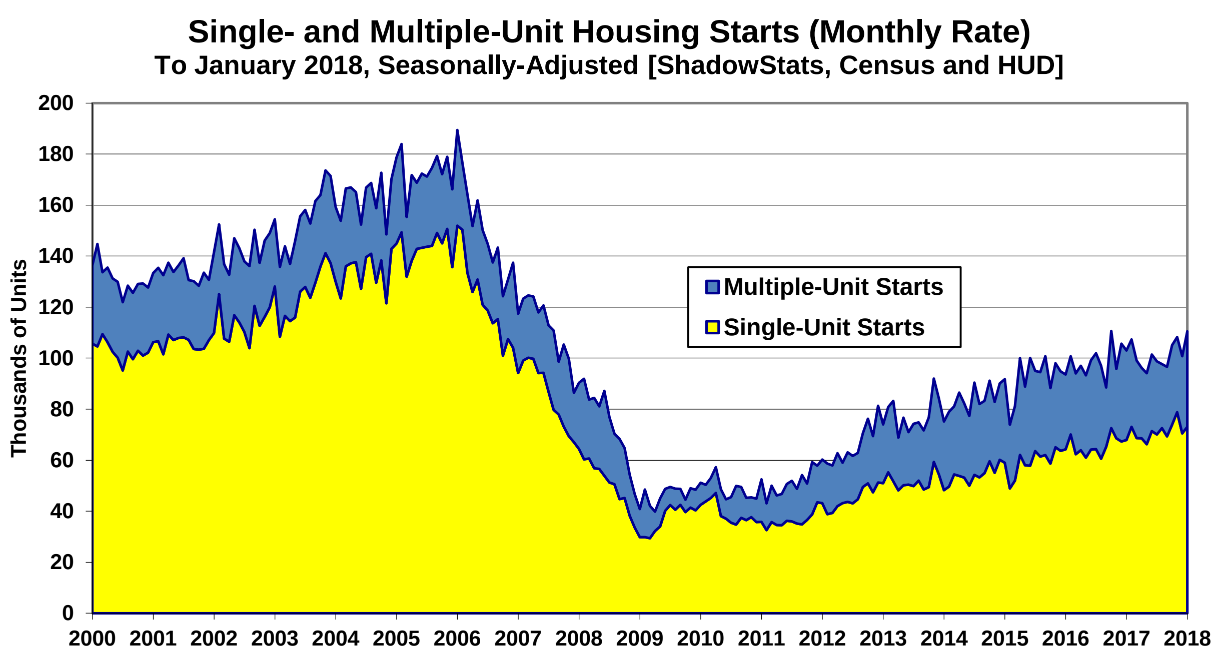
Graph OC-2: Indexed Headline Level of Industrial Production (2000 to January 2018)
(Same as Graph 3 in the Executive Summary)



Graph OC-3: Indexed Industrial Production and Ex-Bad-Winter-Weather Utility Surge (July 2017 = 100)



Graph OC-4: Single- and Multiple-Unit Housing Starts (2000 to January 2018)
(Same as Graph 5 in the Executive Summary)



Housing Starts—"Nonsense Volatility" Is Not Used Lightly in Describing this Series. Against expectations for a strong monthly rebound, following a sharp decline in initial December 2017 reporting, January 2018 Housing Starts (February 16th) boomed more than expected, against upwardly-revised

December activity. These headline results reflected the regular "nonsense" volatility seen in this series, as discussed below.

Ongoing impact from the natural disasters on Housing Starts likely still peaked in November 2017, as suggested last month (see *Commentary No. 932*), but it may take some time to see it in the headline detail. The November pattern remained intact for Single-Unit Housing Starts as reflected in *Graph OC-4*, despite the particularly wild, irregular gyrations in Multiple-Unit Starts.

Housing Starts reporting remains extraordinarily volatile month-to-month, often in the context of extreme, monthly revisions, referred to here as "nonsense volatility." That terminology is not used lightly. The issuing agencies might do well to delay headline reporting of the series for a month, so as to mute the magnitude of the unstable information (misinformation) regularly imparted to the markets.

The Census Bureau (Census) and the Department of Housing and Urban Development (HUD) report monthly on the number of Housing Starts (new construction), indicating a month-to-month change in the series with a 90% confidence interval (ShadowStats converts that to a 95% confidence interval, consistently using the same confidence level with all covered series). As just reported, January 2018 Housing Starts rose by 9.7% month-to-month +/- 16.8% (90% confidence interval) [+/- 19.7% (95% confidence interval)], as suggested by Census. That means that 9 times out of 10, due to reporting and sampling variability, the actual monthly change was somewhere between -7.1% and +26.5%.

That confidence interval includes 0.0%, or no change, and therein lies the issue.

Consider that in the last 25 months (back to January 2016), headline month-to-month changes in Housing Starts have been statistically-significant, different from zero (positive or negative), at the 95% confidence level in only 3 months. The "significant" movements in all three exceptional periods were unusually-large changes under unstable circumstances.

The most recent was a 13.7% jump in October 2017 aggregate starts. This was a post-hurricane resurgence in the wake of the prior-month's hurricane disruptions (see *Commentary No. 921*). Annual activity in the month actually was down year-to-year from the prior headline curiosity in October 2016 (suggestive of possible distortions to seasonal-factor adjustments).

The earlier two months largely were offsetting. A 25.5% jump in October 2016 aggregate housing starts was dominated by a 74.5% monthly explosion in multiple five-unit or more starts. That reversed in November 2016, with a decline of 18.7% (-18.7%) in aggregate activity, dominated by a 43.9% (-43.9%) monthly collapse in multiple five-unit or more starts. Such extreme, unstable activity had not been seen since the depths of the 1980 recession (see *Commentary No. 849* and *Commentary No. 856*).

A 95% confidence interval means that you could expect the reported headline gain in Housing Starts actually would fall within the indicated error range 95% of the time. The problem simply is that outside of extremely limited and extraordinary circumstances, the monthly 95% confidence range for the Housing Starts series almost always includes zero or "no change." That means, in a given month irrespective of the headline gain or loss, one cannot conclude with 95% confidence whether headline Housing Starts activity actually increased or decreased. Such is why I describe the headline monthly swings in Housing Starts activity (a monthly gain of 9.7% +/- 19.7% [95% confidence] in January 2018) as nonsense volatility.

Noted in the *Reporting Detail*, hurricane distortions should be close to having run their course on new residential construction, with impact from storm-generated new housing starts likely to be out of the system by next month's headline February 2018 detail, if that has not happened already. The series is so unstable, it is meaningless in headline reporting. Clarity as to what actually has happened, however, often awaits an annual benchmark revision or two.

Fourth-Quarter 2017 GDP Growth Likely Faces a Downside Revision, First-Quarter 2018 GDP Looks Increasingly Like a Contraction. The February 28th revision to fourth-quarter GDP growth likely will be to the downside, in the context of the just-published January economic detail and related prior-period revisions. That is despite the first-estimate of Fourth-Quarter 2017 GDP having slowed to a below-consensus 2.6% annualized quarterly real growth rate, from 3.2% in Third-Quarter 2017.

In particular, the pending GDP revision should reflect the downside revision to real fourth-quarter retail sales, as well as full impact of the deteriorating December 2017 Trade Deficit (see *Commentary No. 934-B*), published only after the "advance" GDP reporting. Assuming the monthly retail sales for February and March continue to stabilize at supportable levels (again, note the unfolding trend in accompanying *Graph OC-1*), still-to-be estimated headline First-Quarter 2018 GDP reporting runs an increasingly-high risk of showing the first quarter-to-quarter real GDP contraction since First-Quarter 2014.

EXECUTIVE SUMMARY: Retail Sales—January 2018—Real Sales Fell 0.8% (-0.8%) on Top of Downside Holiday Spending Revisions, Collapsed by 1.6% (-1.6%) Net of Revisions and Gimmicks. Headline retail sales fell back sharply in January 2018, both before and after adjustment for inflation, with the post-natural-disaster boost to activity appearing to have peaked in November 2017, as discussed in the *Opening Comments* and detailed in the *Reporting Detail*.

Nominal and Real Retail Sales. Headline nominal activity declined by 0.26% (-0.26%), on top of a downside revision to December's headline number. That followed downwardly-revised monthly gains, of an effectively "unchanged" 0.03% in December, and 0.76% in November. Net of the prior-month's revisions, January 2018 sales declined by 0.68% (-0.68%) for the month.

Reflecting strong, seasonally-adjusted January 2018 CPI-U, and in the context of CPI seasonal adjustment revisions, January 2018 Real Retail Sales declined 0.80% (-0.80%) month-to-month, on top of December sales turning negative by 0.17% (-0.17%) and November monthly growth slowing to 0.42%. That headline real monthly decline in January 2018 at 0.8% (-0.8%) was down by 1.2% (-1.2%) net of prior-period revisions, and that contraction was 1.6% (-1.6%), net of the shifting and inconsistent seasonal-factor adjustments.

Year-to-year real growth slowed to 1.48% in January 2018, which was deep into recession signal territory.

Real Retail Sales Graphs, Corrected and Otherwise. In the *Reporting Detail*, *Graphs 14* and *16* show the level of real retail sales activity (deflated by the CPI-U), while *Graphs 15* and *17* show year-to-year percent change. The apparent "recovery" and subsequent "expansion" of headline real retail sales shown in the following *Graph 1* (see *Graph 14* 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, then an uptick in fourth-quarter 2016 and ongoing upturn into 2017. A post-hurricane-induced or related surge of activity followed in September through November, where it peaked. Real sales declined in December 2017 and dropped at an accelerating pace in January 2018.

Nonetheless, headline real growth in retail sales continues 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 used here) results in the deflated series overstating inflation-adjusted economic growth.

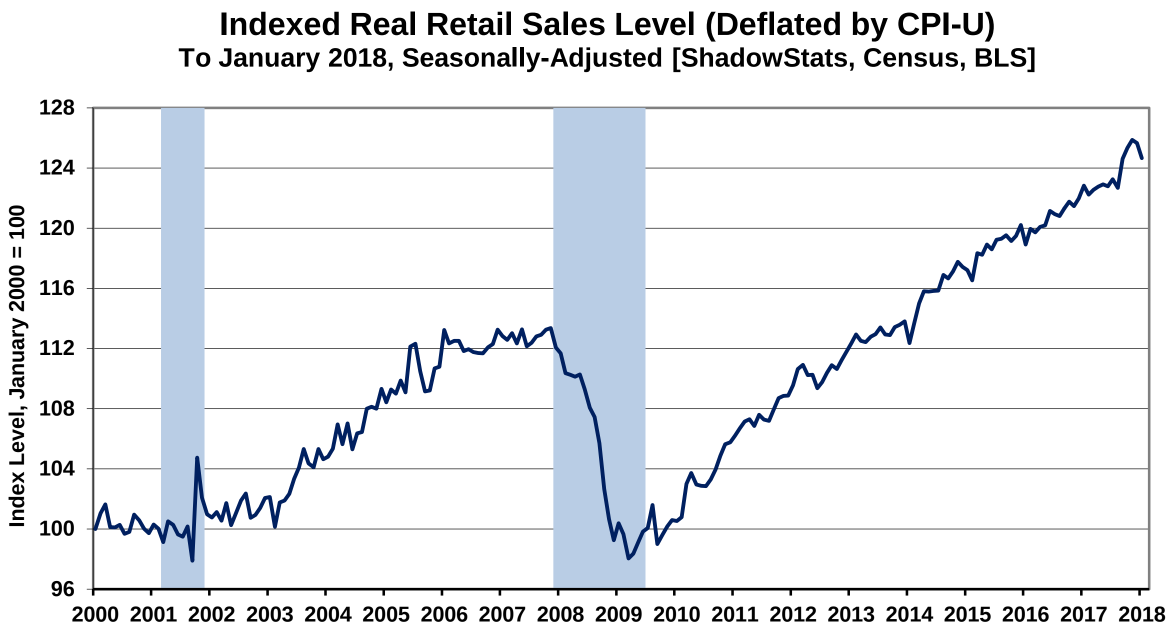
Both of the accompanying graphs are indexed to January 2000 = 100.0 to maintain consistency in the series of graphs related to corrected inflation-adjustment. Parallel, regular plots of the ShadowStats "corrected" industrial production index are found in the next section (see *Graphs 3* and *4*) and in *Commentary No. 933* for graphs of "corrected" new orders for durable goods and the "corrected" GDP.

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 the same for the official series, whether the series is indexed or expressed in dollars, again, as is evident in a comparison of *Graph 1* with *Graph 14* in the *Retail Sales—Nominal and Real* in the *Reporting Detail* section.

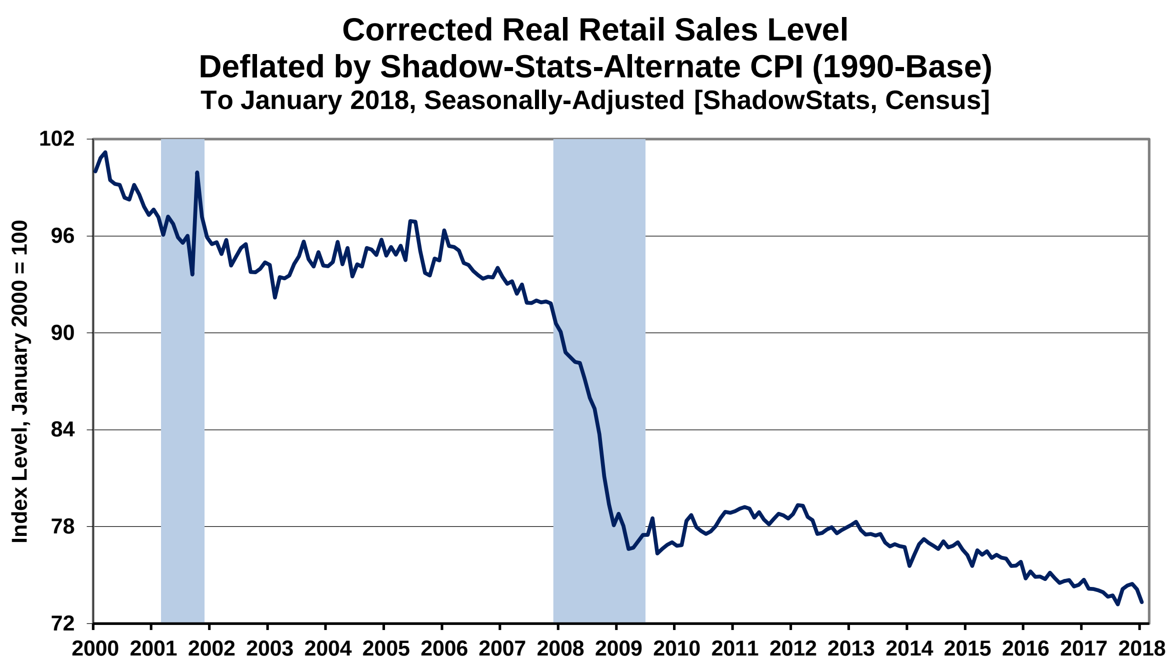
Instead of being deflated by the CPI-U, the "corrected" real retail sales numbers—in *Graph 2*—use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation. With the higher inflation of the ShadowStats measure, the revamped numbers show a pattern of plunge and stagnation and renewed downturn. That pattern generally is consistent with consumer indicators such as real average weekly earnings (see *Graph 13* later in the *Executive Summary* and *Graph CLW-7* in the *Consumer Liquidity Watch*) and faltering consumer liquidity conditions (again, see the *Consumer Liquidity Watch*). Extended coverage is found in the *Reporting Detail*.

[Graphs 1 and 2 follow on the next page.]

Graph 1: Headline Real Retail Sales Level, Indexed to January 2000 = 100



Graph 2: "Corrected" Real Retail Sales Level, Indexed to January 2000 = 100



Note: More-extensive analysis of Retail Sales follows in the *Reporting Detail.*

Industrial Production—January 2018—Full-Year Growth Came from Oil Production; December Gain Came from a Cold-Weather Utility Surge. Amidst unusually volatile, recent monthly reporting in and revisions to Manufacturing and Utilities, December 2017 Industrial Production rose by strong 0.9% in the month, having declined by a revised 0.1 % (-0.1%) in November. Two-thirds of the December monthly gain was attributable to a 5.6% surge in Utilities, thanks to unusually-severe weather. That was against monthly gains of 0.09% in Manufacturing and 1.63% in Mining. Continued manufacturing stagnation contributed little, as did the Mining gain, due to a low relative weighting. In terms of full-year changes, although both Manufacturing and Utilities have been stagnant, big swings in Mining activity, particularly Oil production, has dominated the annual change in Industrial Production, with the Mining gains in 2017 enough to push aggregate Production to recovering its pre-recession high, for the second time.

Headline Industrial Production—January 2018. January 2018 Industrial Production declined by a seasonally-adjusted 0.05% month-to-month [down by 0.21% (-0.21%) net of revisions], gained by a downwardly-revised 0.41% in December and an upwardly revised 0.27% in November. Unadjusted, year-to-year January 2018 production rose by 3.66%, following 3.40% in December 2017 and 3.80% in November 2017. These data have been gyrating wildly in recent months, driven by hurricane distortions and revisions, which finally appear to be abating.

Growth by Major Sector. Detailed by major industry group (see *Graphs 24*, *26*, *31* and *33* in the *Reporting Detail*), the January 2018 monthly aggregate decline of 0.05% (-0.05%) was composed of monthly gains of 0.04% in the dominant Manufacturing Sector, 0.59% in Utilities and a contraction of 0.96% (-0.96) in Mining (specifically in oil and gas production and exploration).

Production Activity and Graphs—Corrected and Otherwise. In the context of the downside 2017 benchmark revisions to production of March 31st (see *Commentary No. 877*), and the subsequent regular, albeit volatile, monthly reporting through December 2017, index-level and annual-growth production details are found in and plotted 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 in third- and fourth-quarter 2014, followed by deepening quarterly downturns into first- and second-quarter 2015, with the second-quarter 2015 also beginning a string of quarterly year-to-year contractions. Third-quarter 2015 showed some bounce, but activity in fourth-quarter 2015 and in first- and second-quarter 2016 turned down anew, dropping sharply into negative quarter-to-quarter growth and continuing year-to-year decline. Third-quarter 2016 growth was positive on a quarter-to-quarter basis, but continued in annual contraction. That pattern repeated in fourth-quarter 2016. That seventh straight quarter of annual contraction was a circumstance never seen in industrial production reporting outside of periods that eventually were recognized formally as recessions.

With the reporting of first-quarter, second-quarter and third-quarter 2017 details, production showed both annual and quarterly gains, except for a quarterly contraction in the third-quarter, although the headline activity had remained below pre-recession highs seen in 2007, except for a brief recovery in third-quarter 2014, and one-quarter's expansion in fourth-quarter 2014, before dropping back below the 2007 pre-recession peak. Fourth-quarter 2017 activity boomed against the third-quarter's weakness, and soared enough for the quarterly activity to regain the series' pre-recession peak for a second time. On a monthly basis, the pre-recession high of November 2007 was recovered briefly in June of 2014, with October and

November 2014 a short-lived peak. October 2017 recovered the monthly pre-recession high, for a second time, in advance of the quarterly recovery.

Following *Graphs 3* and *4* address reporting-quality issues tied just to the overstatement of headline growth in the total series that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into real dollar terms, for inclusion in the Index of Industrial Production. Hedonic quality adjustments to the inflation estimates understate the inflation rates used in deflating those components; thus overstating the resulting inflation-adjusted growth in the headline industrial production series (see *Public Comment on Inflation* and *Chapter 9* of *2014 Hyperinflation Report—Great Economic Tumble*).

Graph 3 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 *Graphs 1* and *2*) and for durable goods and the "corrected" GDP in *Commentary No. 933*. The indexing does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of *Graph 3* here to *Graph 21* in the *Reporting Detail* section).

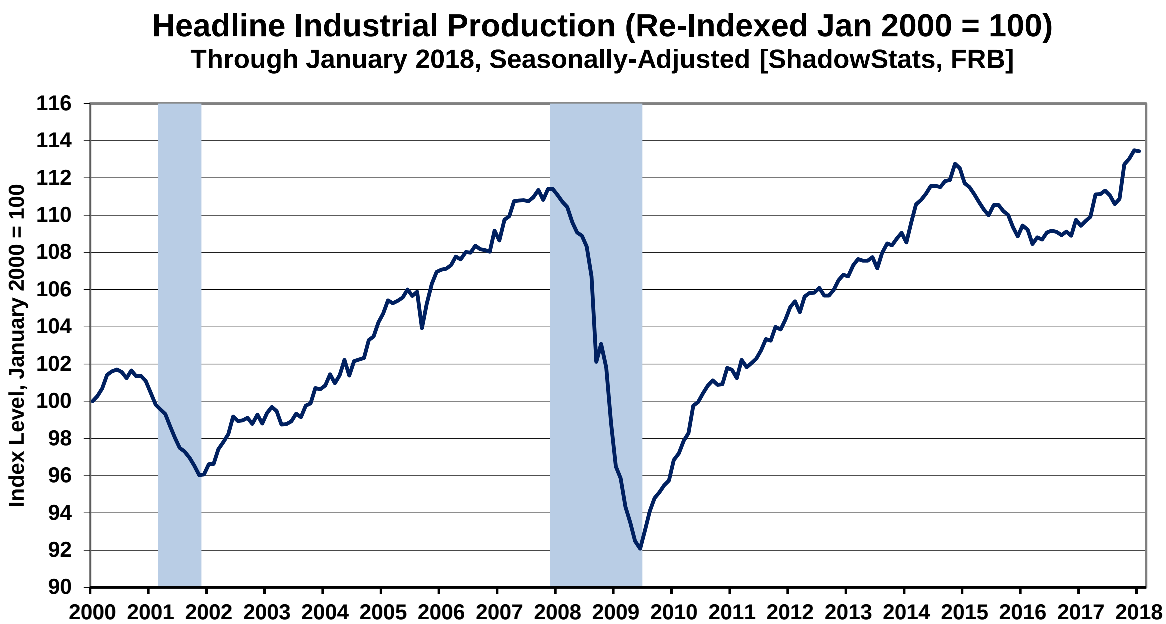
Graph 4 is a recast version of *Graph 3*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official industrial-production deflators used for headline reporting.

This "corrected" *Graph 4* shows some growth in the period subsequent to the official June 2009 trough in production activity, but that upturn has been far shy of the short-lived full recovery and the renewed expansion reported in official GDP estimation (see *Commentary No. 869* and the *ECONOMY* section of *No. 859 Special Commentary*). Unlike the headline industrial production data and the headline GDP numbers, corrected production levels never recovered their 2007 pre-recession highs, although, again, the headline aggregate production index quickly backed off its official "recovery" in late-2014, only to recovery its pre-recession peak for only a second time, on a monthly basis, in the October 2017. That said, the dominant manufacturing sector of industrial production still never has recovered its December 2007 pre-recession peak. It continues to show a protracted, now decade-long period of economic non-expansion, unprecedented in its duration within the 100-year history of the Industrial Production series.

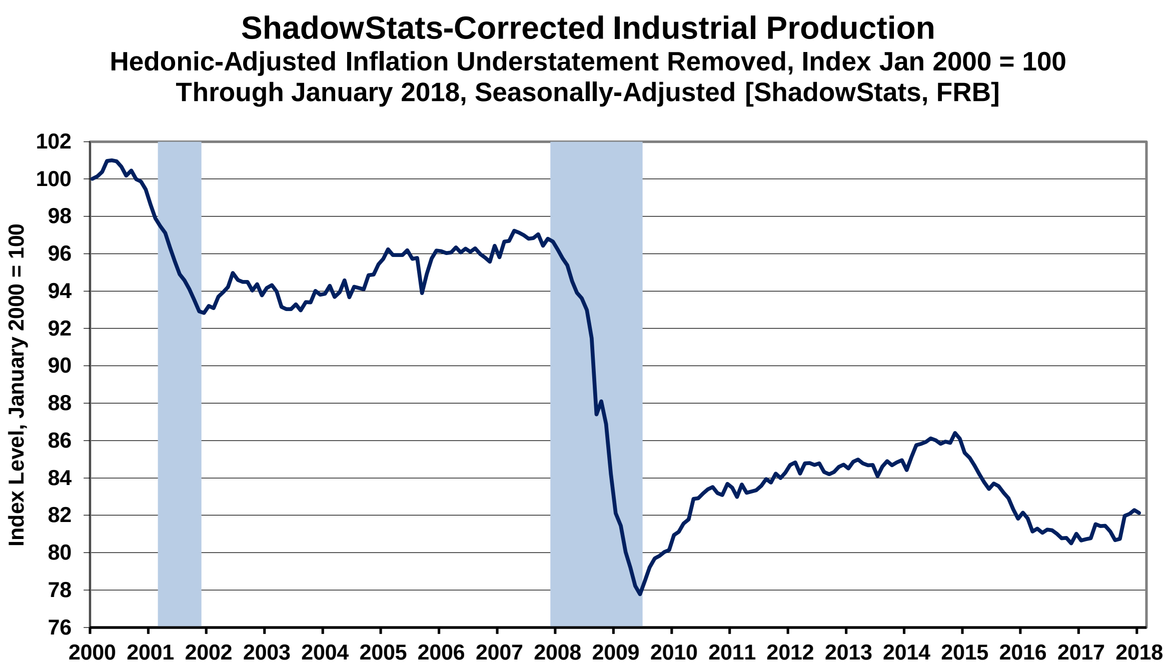
Instead, the "corrected" production series here entered a period of protracted low-level, but up-trending, stagnation in 2010, with irregular quarterly contractions seen through 2013, an irregular uptrend into 2014, a topping-out in late-2014, generally turning lower through fourth-quarter 2016 and into early-2017, with a small upturn, then downturn, with high volatility aggravated by natural-disaster impact of recent months, jumping in recent months with recovery activity in oil production and manufacturing activity to replace hurricane damaged automobiles.

Where the corrected series has remained well shy of a formal recovery, both the official and corrected series suffered an outright contraction in both first- and second-quarter 2015; that is a pattern of severe economic weakness last seen during the economic collapse. Despite the brief third-quarter 2015 quarter-to-quarter uptick, headline fourth-quarter 2015 and first- and second-quarter 2016 industrial production continued in quarter-to-quarter contractions, but rallied thereafter. A string of seven quarters of year-to-year contraction began in second-quarter 2015 and continued through fourth-quarter 2016. First-quarter 2017 production grew both quarter-to-quarter and year-to-year, as did second-quarter 2017, with third-quarter 2017 activity down quarter-to-quarter, partially due to the disruptions from natural disasters, but up year-to-year, with disaster-boosted fourth-quarter 2017, against the disaster-depressed third-quarter, all beginning to readjust to more-normal conditions, as discussed in the *Reporting Detail*.

Graph 3: Indexed Headline Level of Industrial Production (Jan 2000 = 100)



Graph 4: Headline ShadowStats-Corrected Level of Industrial Production (Jan 2000 = 100)



Note: More-extensive analysis of Industrial Production follows in the *Reporting Detail.*

New Residential Construction (Housing Starts and Building Permits)—January 2018—Continued Extreme, Statistically-Insignificant Nonsense Volatility and Revisions Boosted Housing Starts Activity to a Level Still Shy by 41.7% (-41.7%) of Recovering Its Pre-Recession Peak. In the context of the *Opening Comments* review as to the meaning of these numbers not being statistically significant, the headline reporting-quality of this series is as bad as it gets. The numbers are nonsense in the near-term, rarely coming close to statistical significance in monthly headline reporting or in subsequent revisions. In that context of those circumstances, statistically-insignificant monthly gains were headlined in January 2018 at 9.7% for aggregate Housing Starts, 3.7% for Single-Unit Housing Starts and 19.7% for the headline Multiple-Units Housing Starts (five or more), all on top of massive upside revisions to the December 2017 numbers.

The new reporting is reflected in accompanying *Graphs 5* to *12* and is reviewed in the *Reporting Detail.* Broadly, these series (including often statistically-significant Building Permits) are in stagnant, low-level non-recovery, except for the extreme month-to-month volatility within the Multiple-Units category.

A Note on the Housing Starts Graphs. Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,326,000 in January 2018, versus a revised 1,209,000 [previously 1,192,000] in December 2017. The scaling used in the aggregate housing starts and building permits *Graphs 37* to *42* in the *Reporting Detail* reflects those annualized numbers in millions.

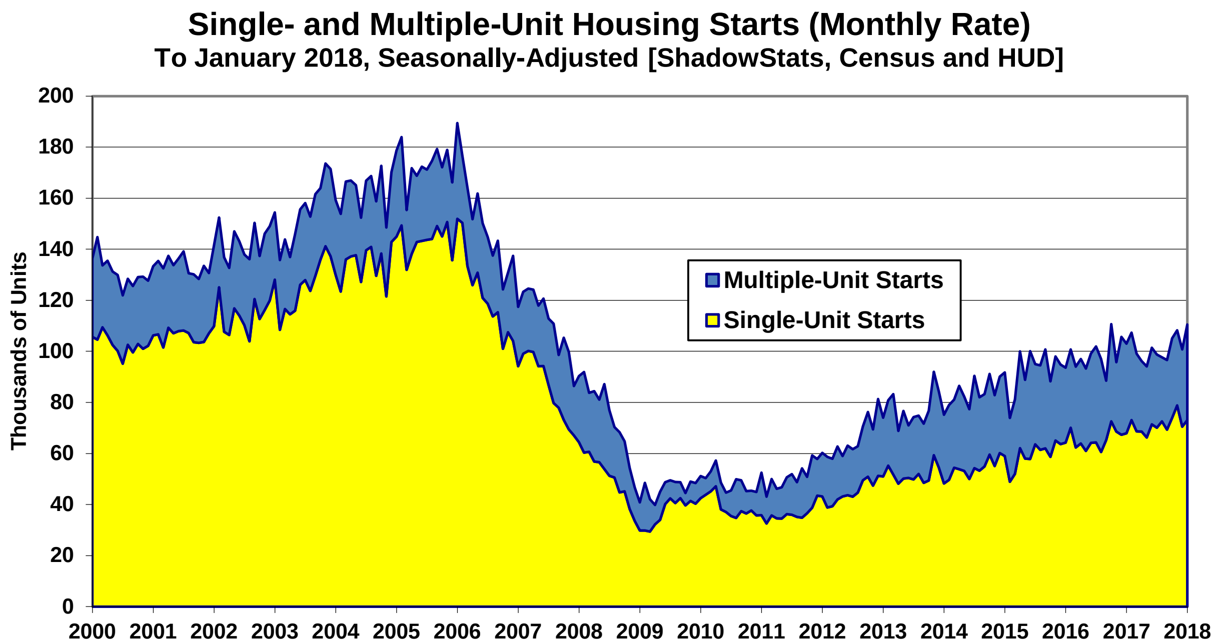
Nonetheless, given the often nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that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

Accordingly, the monthly rate of 110,500 units in January 2018, instead of the annualized headline level of 1,326,000 units, is used in the scaling (monthly units in thousands) of accompanying *Graphs 5* to *12*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as seen in a comparison of *Graph 7* versus *Graph 38* in the *Reporting Detail*.

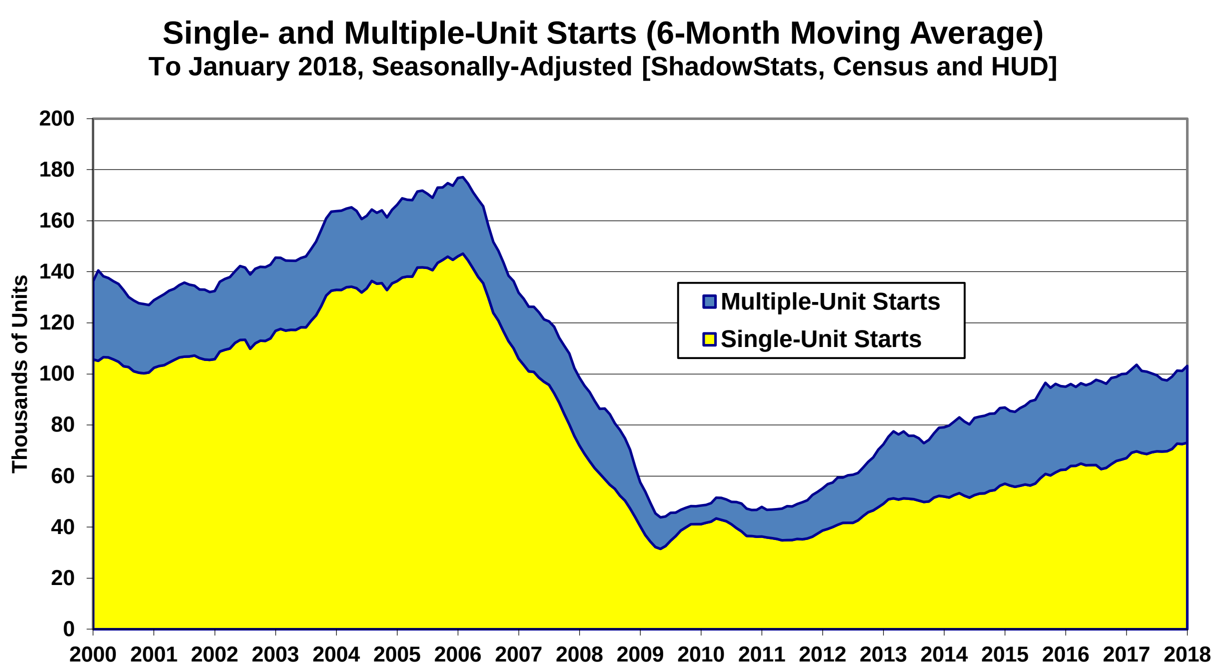
The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 pre-recession peak for the series. Against that downside-spiked low in April 2009, the January 2018 headline monthly number was up by 177%, but it still was down by 42% (-42%) from the January 2006 pre-recession high. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in relative stagnation, still at low levels that otherwise have been seen at or near the historical troughs of other recession activity of the last 70 years, as reflected in *Graphs 41* and *42* at the end of the *Reporting Detail*. In fact, as can be seen there in *Graph 42*, current housing starts activity not only has failed to recover the current pre-recession (pre-collapse into 2009) peak, but also has yet to recover to the level of any pre-recession peak activity seen in the entire post-World War II era

Note: More-extensive analysis of the New Residential Construction follows in the *Reporting Detail.*

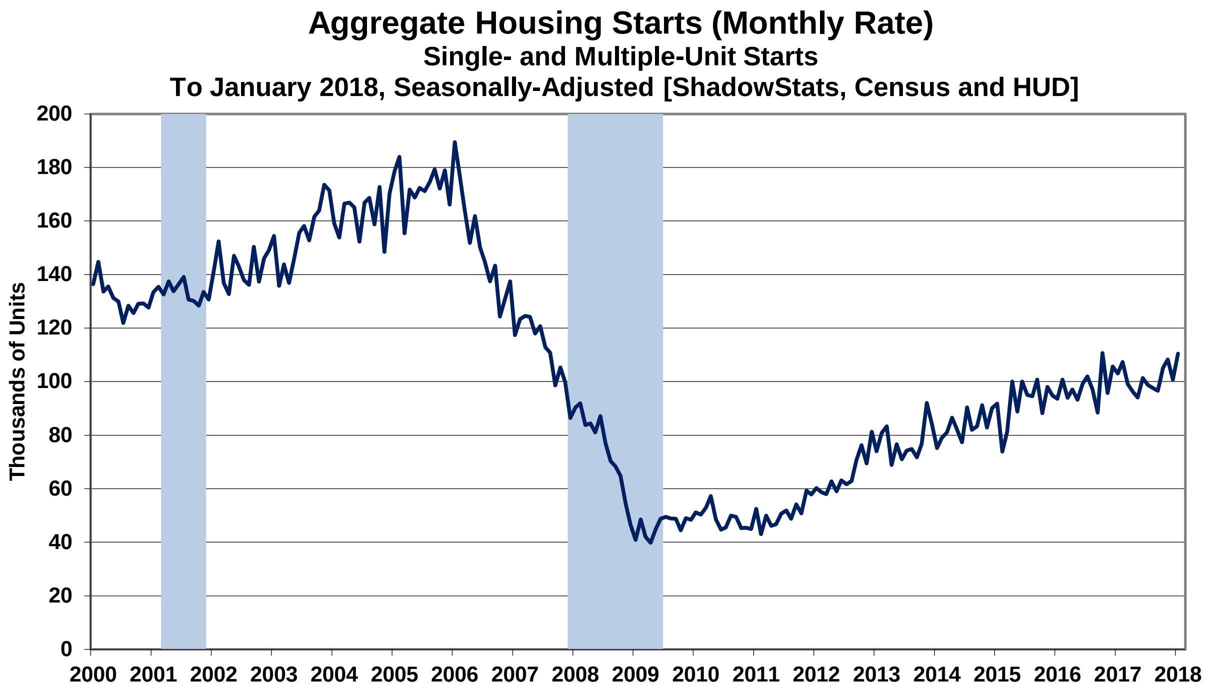
Graph 5: Single- and Multiple-Unit Housing Starts (Monthly Rate of Activity)



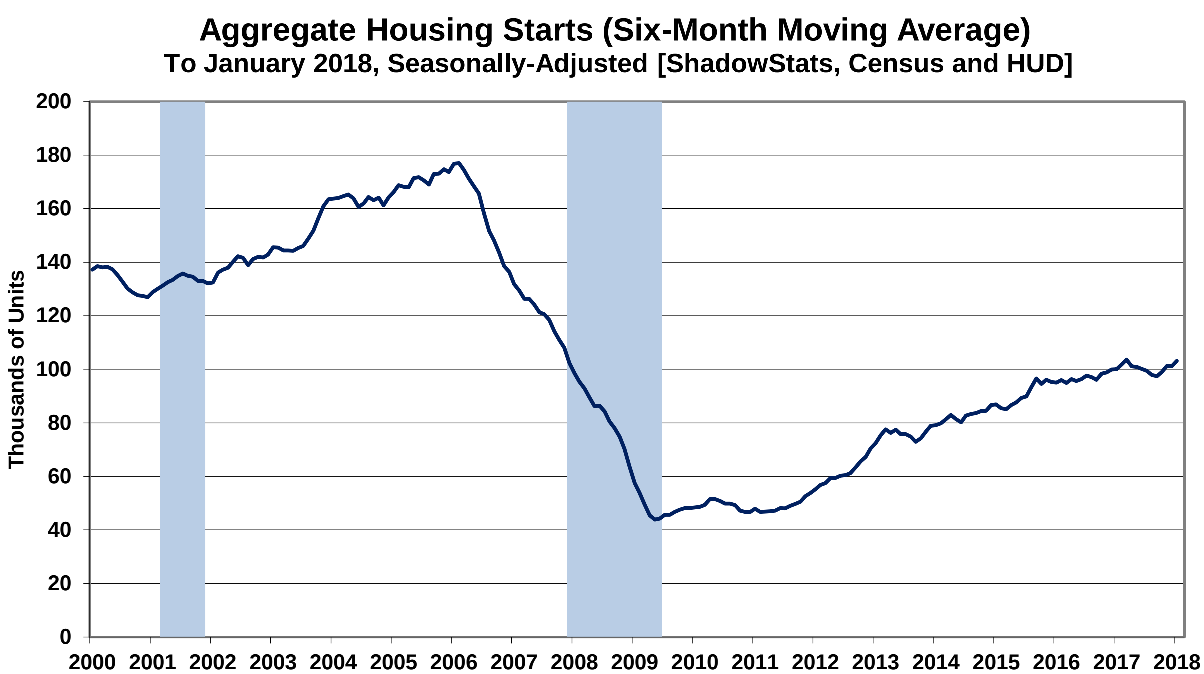
Graph 6: Single- and Multiple-Unit Starts (Six-Month Moving Average, Monthly Rate of Activity)



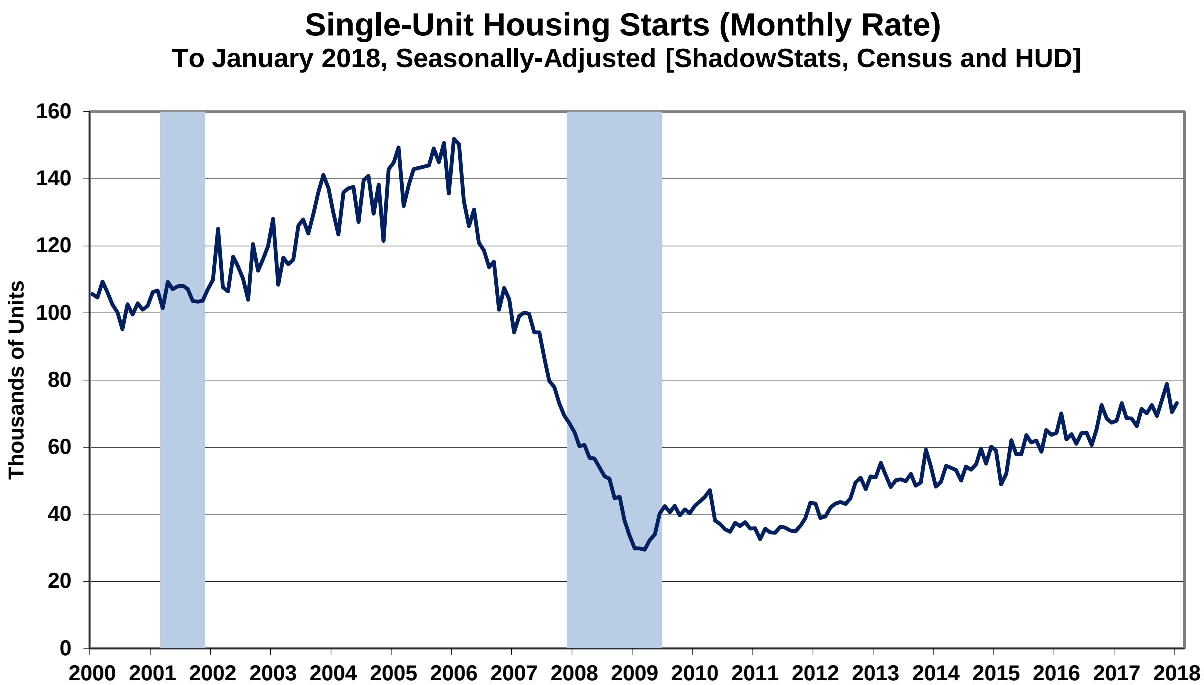
Graph 7: Aggregate Housing Starts (Monthly Rate of Activity)



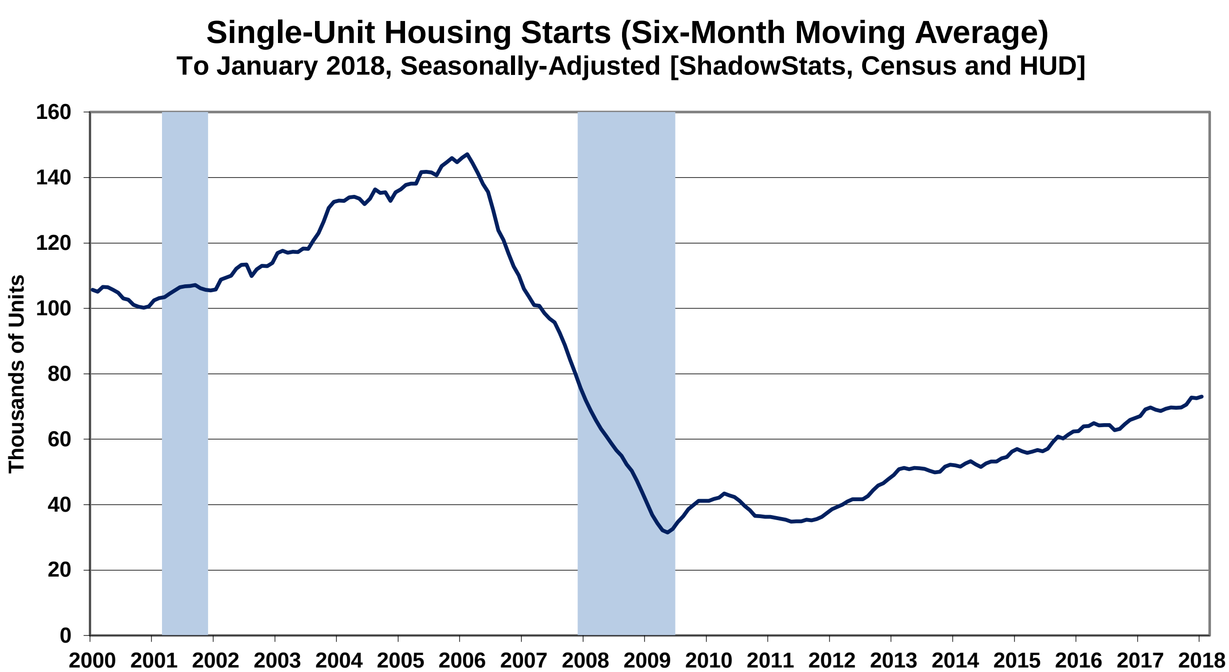
Graph 8: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



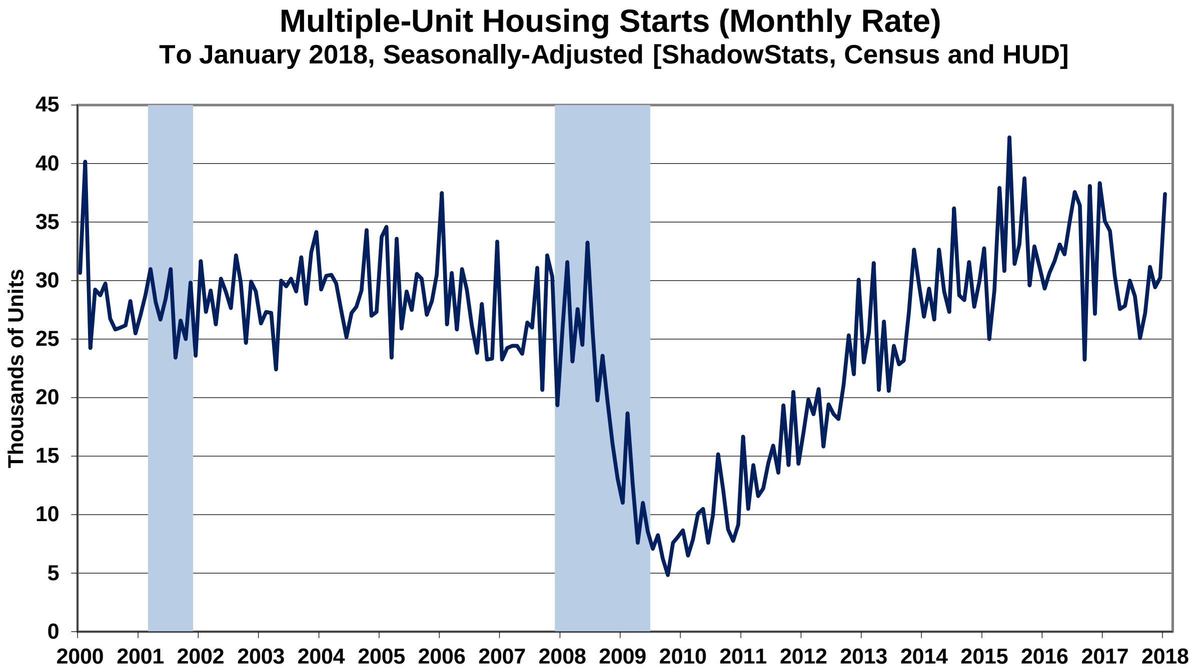
Graph 9: Single-Unit Housing Starts (Monthly Rate of Activity)



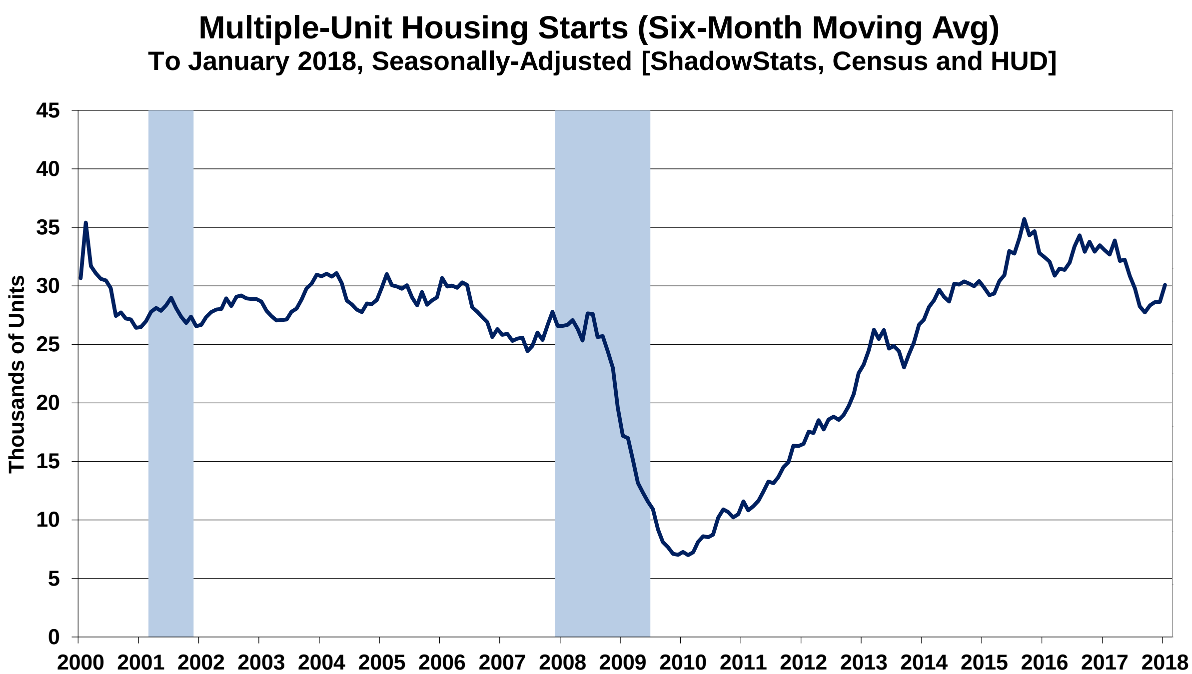
Graph 10: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



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



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



Consumer Price Index (CPI)—January 2018—Adjusted Monthly Gain of 0.54%, Unadjusted Annual Gain of 2.07%. Gasoline-price volatility continued to move CPI-U monthly inflation, with rising, seasonally-adjusted gasoline prices hardening the January CPI data, while weakening gasoline prices had muted the CPI-U gain in December. The headline January 2018 seasonally-adjusted CPI detail and related historical retail were in the context of annual seasonal-adjustment revisions; the unadjusted numbers never are revised. The seasonally-adjusted CPI-U rose by an above-consensus 0.54% in January 2018, versus 0.20% in December 2017 and 0.34% in November. On an unadjusted basis, year-to-year CPI-U rose by 2.07% in January 2018, 2.11% in December 2017 and 2.20% in November 2017.

As to financial market's concentration on the FOMC's favored CPI-U component inflation measure, the targeted "Core" rate (net of food and energy) held range-bound at an unadjusted, year-to-year 1.82% in January 2018. That was the tenth straight month at 1.8% +/- 0.1%.

With unadjusted, aggregate annual January 2018 CPI-U inflation up by 2.1%, 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. Moving on top of the unadjusted annual changes to the CPI-U, the ShadowStats-Alternate Inflation Measures showed year-to-year inflation in January 2018 at 5.6%, based on 1990 methodologies, and at 9.8%, based on 1980 methodologies (see the *Reporting Detail*).

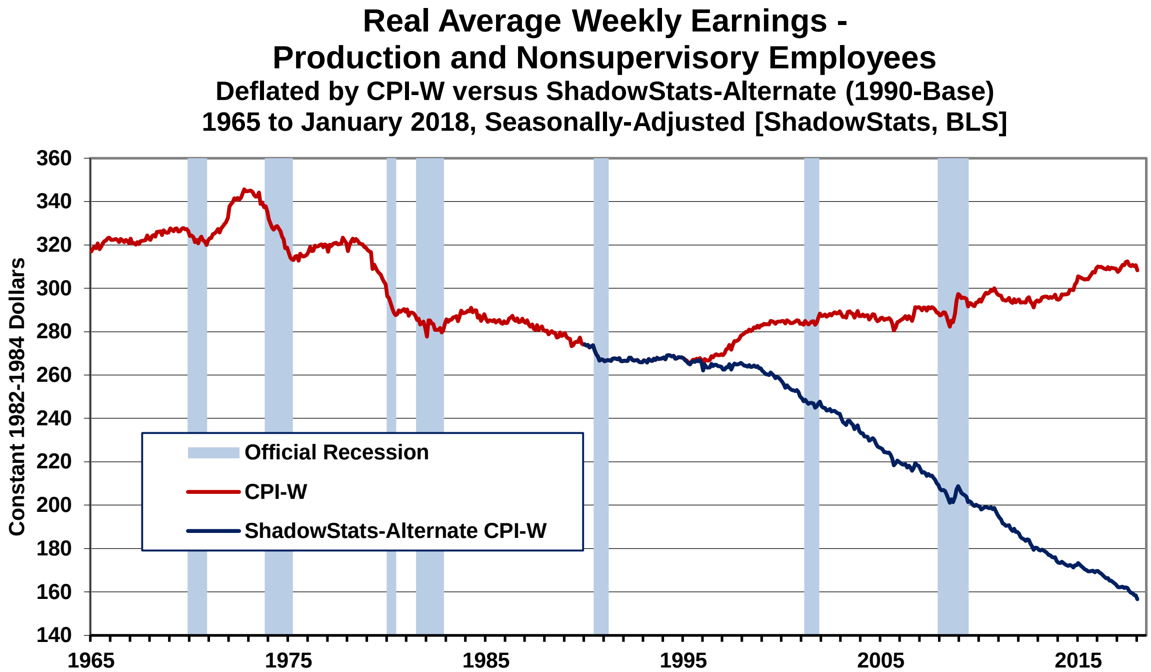
The Consumer Price Index for All Urban Consumers (CPI-U) is the broadest headline consumer-inflation number, used to adjust numerous economic measures such as Retail Sales for inflation effects. The narrower Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used for deflating measures such as earnings for production and nonsupervisory employees on private nonfarm payrolls (see *Graph 13*). More heavily weighted for the rising gasoline prices, the January 2018 seasonally-adjusted CPI-W rose month-to-month by 0.62%, versus gains of 0.19% in December 2017 and 0.43% in November 2017. Unadjusted, year-to-year change in the January 2018 CPI-W was 2.14%, versus 2.18% in December 2017 and 2.32% in November 2017.

Real Average Weekly Earnings—January 2018—Quarterly Real Earnings Head for Third Consecutive Quarterly Contraction, the Fifth Quarter-to-Quarter Drop in the Last Six Quarters. The headline estimate for January 2018 real average weekly earnings was published along with the January CPI-W on February 14th. Historical data reflected revisions both to the seasonally-adjusted CPI-W (again, see the *Reporting Detail*) and recent annual benchmarking to the labor numbers.

For the production and nonsupervisory employees category—the only series for which there is a meaningful history (back to 1964), the regularly-volatile, real average weekly earnings plunged month-to-month by 0.78% (-0.78%) in January 2018 (see accompanying *Graph 13*). That has set up first-quarter 2018 as a likely, third-consecutive quarter of contracting quarter-to-quarter real earnings. Based solely on the January details, the early first-quarter 2018 trend is for an annualized decline of 2.92% (-2.92%). Such also would be the fifth real quarterly contraction in the last six quarters.

Graph 13 shows 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 in 2015 by negative headline inflation), but most recently downtrending. 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
(Same as Graph CLW-7 in the Consumer Liquidity Watch)



Producer Price Index (PPI)—January 2018—Annual Inflation Notched Higher to 2.69%, from 2.61%, with a 0.44% Monthly Gain Boosted from 0.00% in December by Energy. As with the CPI, unstable gasoline costs continued to dominate energy costs and monthly wholesale inflation. Yet, the Final Demand Producer Price Index (FD-PPI) is dominated in its weighting by the services sector, where somewhat nebulous, shifting profit margins often counter price movements in the lower-weighted hard costs of the goods sector. That 2.69% annual gain for the aggregate PPI in January 2018 encompassed 2.32% in the Services sector, 3.28% in the Goods sector (Food, Energy and Core) and 3.39% in the Construction sector.

On a seasonally-adjusted basis, the 0.44% headline monthly gain in the aggregate series encompassed a 0.35% gain in the dominant Services sector, a 0.71% gain in the old-fashioned Goods sector [food down by 0.17% (-0.17%), energy up by 3.40%, core up by 0.17%] and a 0.76% gain in the Construction sector.

Annual revisions to monthly seasonal adjustments affected the headline monthly changes, but the unadjusted series was not revised except for a rare series reweighting, as was seen in the January 2018 detail. The impact of the reweighting had negligible impact on the aggregate numbers.

[Extended analysis and graphs of the various headline series follows in the* Reporting Detail*, beginning on the next page.]

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REPORTING DETAIL

RETAIL SALES—Nominal and Real (January 2018)

Monthly Sales Collapsed on Top of Downside Revisions to Holiday Season Activity, as Real Annual Growth Tumbled Back into Recession-Signal Territory. After several months of post-hurricane-spiked sales boosts from replacement and repair activity, January 2018 nominal retail sales declined by 0.26% (-0.26%) month-to-month on top of sharply reduced monthly growth rates of 0.03% in December and 0.76% in November. Nominal annual growth slowed sharply to 3.65% in January 2018, versus downwardly-revised growth rates of 5.19% and 5.91% in December 2017 and November 2017.

Net of inflation, January 2018 real retail sales fell by 0.80% (-0.80%), with annual real growth falling back to a "recession-warning" level of 1.48%. The revised patterns of real growth suggested a November 2017 peak of activity boosted by the replacement and repair of hurricane destruction and disruption (see the *Opening Comments*).

Seasonal-Factor Inconsistencies. As to the regular concurrent seasonal-adjustment instabilities (see *Headline Distortions from Shifting Concurrent-Seasonal Factors* in prior *Commentary No. 934-B*, *Supplemental Labor-Detail Background*, only the headline retail sales data for November 2017 to January 2018, and December 2016 to January 2017 were published on a consistent basis, using the concurrent seasonal factors based on January 2018. The revisions to the December 2016 and January 2017 data showed an impact of the new seasonals lowering sales estimates for a downside revision to December 2016 and an upside revision to January 2017 which had the effect of boosting the headline, relative, seasonally-adjusted month-to-month growth for January 2018 by 0.4%.

Nominal Retail Sales—January 2018. The Census Bureau reported its "advance" estimate of January 2018 Retail Sales on Wednesday, February 14th. Headline nominal activity declined by 0.26% (-0.26%), on top of a downside revision to December's headline number. That was well below consensus estimates for a 0.3% month-to-month gain. The January decline of 0.26% (-0.26%) followed an effectively "unchanged" revised gain of 0.03% [previously up by 0.35%] in December, and a revised gain of 0.76% [previously 0.85%, initially 0.79%] in November. Net of the prior-month's revisions, January 2018 sales declined by 0.68% (-0.68%) for the month.

The headline, seasonally-adjusted January 2018 nominal monthly contraction of 0.26% (-0.26%) +/- 0.59% was not statistically-significant (all confidence intervals are expressed at the 95% level). The revised headline December 2017 monthly retail sales gain of 0.03% +/- 0.23% also was not statistically significant.

Year-to-Year Annual Change. The January 2018 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 3.65% +/- 0.82%, which included an inconsistent annual boost of 0.44% from the upside monthly relative seasonal-adjustment revisions to December 2016 and January 2017 activity. That was against downwardly-revised annual gains of 5.19% [previously 5.45%] in December 2017 and 5.91% [previously 6.01%, initially 5.50%] in November 2017.

January 2018 Core Retail Sales, Net of Food and Gasoline. Reflecting an environment that in theory should be on the plus-side for grocery stores, with seasonally-adjusted food prices up by 0.20%, and on the upside for gasoline stations, with seasonally-adjusted gasoline prices up by 5.67%, per the BLS, seasonally-adjusted retail sales grocery-store sales declined month-to-month by 0.09% (-0.09%), with gasoline-station sales up by 1.57%.

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 (at times when the Fed is looking to downplay inflation)—are estimated using two approaches:

<u>Version I:</u> Nominal January 2018 versus December 2017 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—declined by 0.47% (-0.47%), versus the official headline aggregate sales decline of 0.26% (-0.26%).

<u>Version II:</u> Nominal January 2018 versus December 2017 seasonally-adjusted retail sales series—net of the monthly *change* in grocery store and gasoline-station revenues—declined by 0.38% (-0.38%), versus the official headline aggregate sales decline of 0.26% (-0.26%).

Real Retail Sales—January 2018—In the Context of Higher CPI Inflation and Not Considering Prior-Period Revisions, Real Sales Declined 0.80% (-0.80%) with Annual Growth at 1.48%. Coincident with the release of the January 2018 Retail Sales and Consumer Price Index (CPI), CPI seasonally adjustments were revised going back a decade; unadjusted data were not affected. The adjusted CPI revisions had relatively small impact on the real retail sales numbers, most heavily in the last year or two, but only in shifting relative activity between months or quarters in the current year, not between years, and not in the aggregate, unadjusted annual level. In that environment, the seasonally-adjusted CPI-U rose by 0.54% in January, versus a revised gain of 0.20% [previously 0.15%] in December 2017 and a revised gain of 0.34% [previously 0.39% in November 2017] (see the later *Consumer Price Index* section for detail).

Reflecting the stronger seasonally-adjusted January 2018 CPI-U, and in the context of downwardly-revised nominal sales in November and December, and of the CPI seasonal adjustment revisions, January 2018 Real Retail Sales declined by 0.80% (-0.80%) month-to-month, on top of December sales turning negative by 0.17% (-0.17%) and November monthly growth slowing to 0.42%. That headline real monthly decline in January 2018 at 0.8% (-0.8%) was down by 1.2% (-1.2%) net of prior-period revisions. That contraction becomes 1.6% (-1.6%), net of the shifting and inconsistent seasonal-factor adjustments.

Year-to-year real growth slowed to 1.48% in January 2018, and revised lower to 3.03% in December 2017 and 3.62% in November 2017. Accordingly, as discussed in the *Opening Comments*, the upside boost to real retail sales activity from late-2017 natural disaster distortions appears to have peaked in

November 2017. The underlying ShadowStats outlook of non-recovering broad economic activity and renewed downturn has not changed.

Recession Signal Comes Back with a Vengeance. During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal broadly had been in play since February 2015 (a "new" recession likely still will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn. Headline detail and revisions since October 2017 had pushed that signal into abeyance, for a second time, but that abeyance just ended.

When that annual growth signal had moved higher, close to three-percent earlier in 2017, ShadowStats had viewed the signal as in temporary abeyance. Post-2017 benchmarking (*Commentary No. 882* of April 27th), however, annual growth rates shifted lower, towards two-percent, and then below, reviving that recession signal. In the context of volatile near-term revisions, 1.22% year-to-year real growth reported initially in August 2017 was the most-solid recession signal since the economy crashed anew into early-2015.

That August reading revised higher to 1.58% in October, along with headline annual real growth in September 2017 at a revised 2.55% and October at 2.46%, still broadly within the recession-signal range, particularly in the context of the near-term, short-lived spikes. More significantly, year-to-year real quarterly growth then stood at 2.02% in third-quarter 2017, versus 1.94% in second-quarter 2017, both close to 2.0%. Despite the initial strong headline November 2017 detail and revisions, third-quarter 2017 real year-to-year growth held 2.08%, still in recession territory.

With the initial December 2017 numbers, however, third-quarter 2017 real year-to-year growth held at 2.08%, but initial fourth-quarter 2017 real annual activity jumped to 3.30%. With the headline January 2018 detail, fourth-quarter 2017 real annual activity eased back to a still disaster-bloated 3.20%, while the initial indication for first-quarter real annual activity has fallen back to 1.78%.

Annualized Real Quarterly Growth/First-Quarter 2018 Growth on Track for a 3.06% (-3.06%) Contraction. Reflecting revisions, and inconsistent seasonal adjustments to retail sales, and revised, seasonally-adjusted CPI, fourth-quarter 2016 annualized quarterly growth revised to 2.39% [previously 2.33%, first-quarter 2017 annualized (year ago adjustment shifts) revised to 2.68% [previously 1.89%], second-quarter 2017 revised to 0.92% [previously 1.68%], third-quarter 2017 revised to 2.30% [previously 2.41%] and fourth-quarter 2017 revised to 6.99% [previously 7.31%]. Again, first-quarter 2018 activity is on early track for an annualized quarterly contraction of 3.06% (-3.06%).

***Structural Liquidity Issues Continue to Impair Retail Sales*.** An extreme consumer-liquidity bind increasingly constrains retail sales activity (discussed in the *Consumer Liquidity Watch*). 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 ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad, inflation-adjusted U.S. economic activity, 73% of which (third-quarter 2017 real GDP activity) is dependent on personal spending and residential real estate.

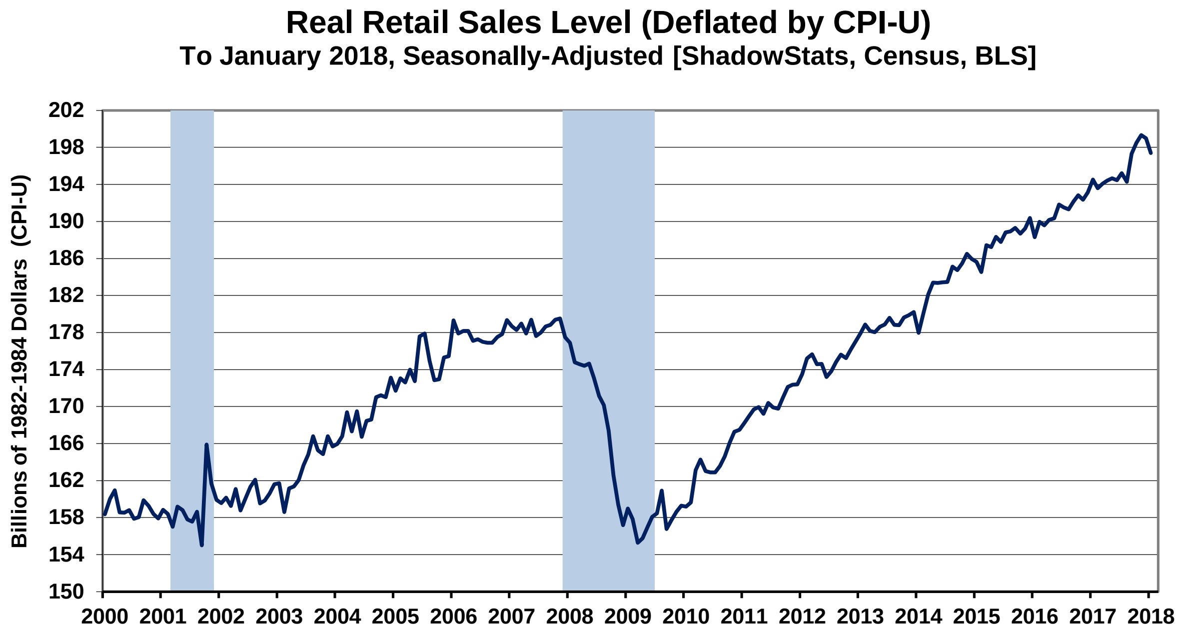
As headline consumer inflation generally continues its upside climb in the year ahead, and as overall Retail Sales—net of natural-disaster impacts—continue to suffer from the ongoing consumer liquidity squeeze, real Retail Sales growth should continue trending meaningfully lower. That likely still will gain recognition as a formal "new" recession, another down-leg in the economic collapse that began in 2006, known formally as the 2007 recession.

Real Retail Sales Graphs. The first of the four graphs following, *Graph 14* shows the level of real retail sales activity (deflated by the CPI-U) since 2000; *Graph 15* 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 recent volatility, including the headline jump in December and upside revisions to real annual real growth in November and October, that recession signal, had been put in temporary abeyance. Yet, the headline January 2018 overturned that prior reporting, with headline real annual growth dropping to 1.5%, a solid recession, which now has been restored. *Graphs 16* and 1*7* show the level of, and annual growth in, real retail sales (and its predecessor series) in full post-World War II detail.

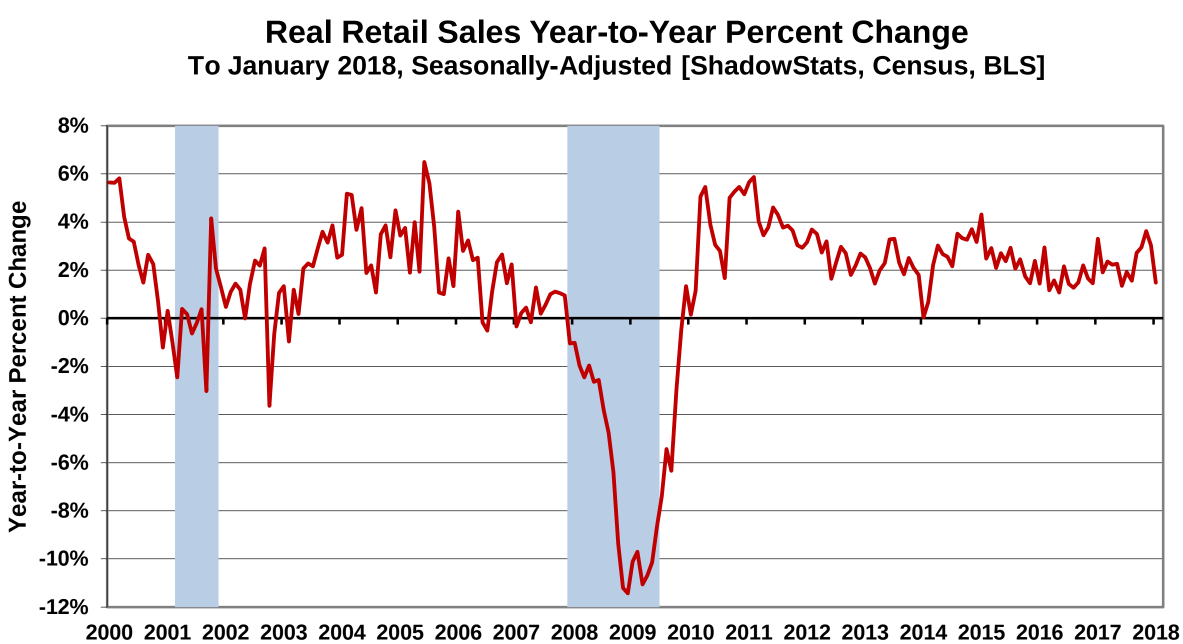
The relative strength seen in the real retail series since the economic trough in 2009 largely has reflected the understatement of the rate of inflation used in deflating the series. Discussed more fully in *Chapter 9* of *2014 Hyperinflation Report—Great Economic Tumble – Second Installment*, deflation 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 2* 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 had turned increasingly negative, before the hurricane-related spikes of recent months, and appears headed lower again as the disaster distortions wane. 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.

[Graphs 14 to 17 begin on the next page.]

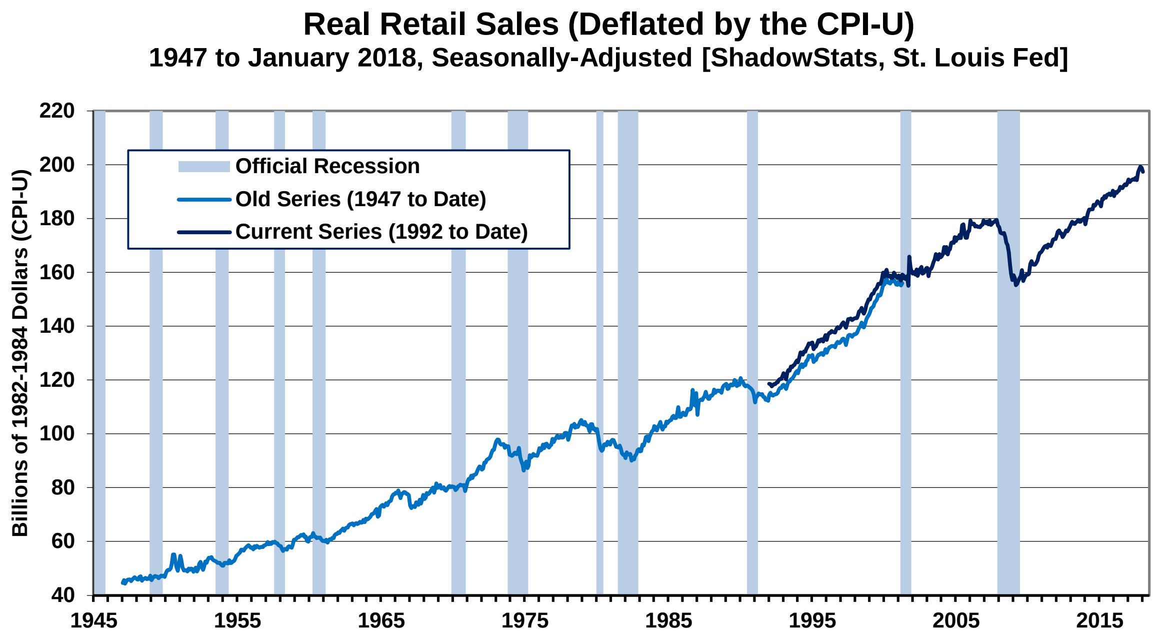
Graph 14: Level of Real Retail Sales (2000 to Date)



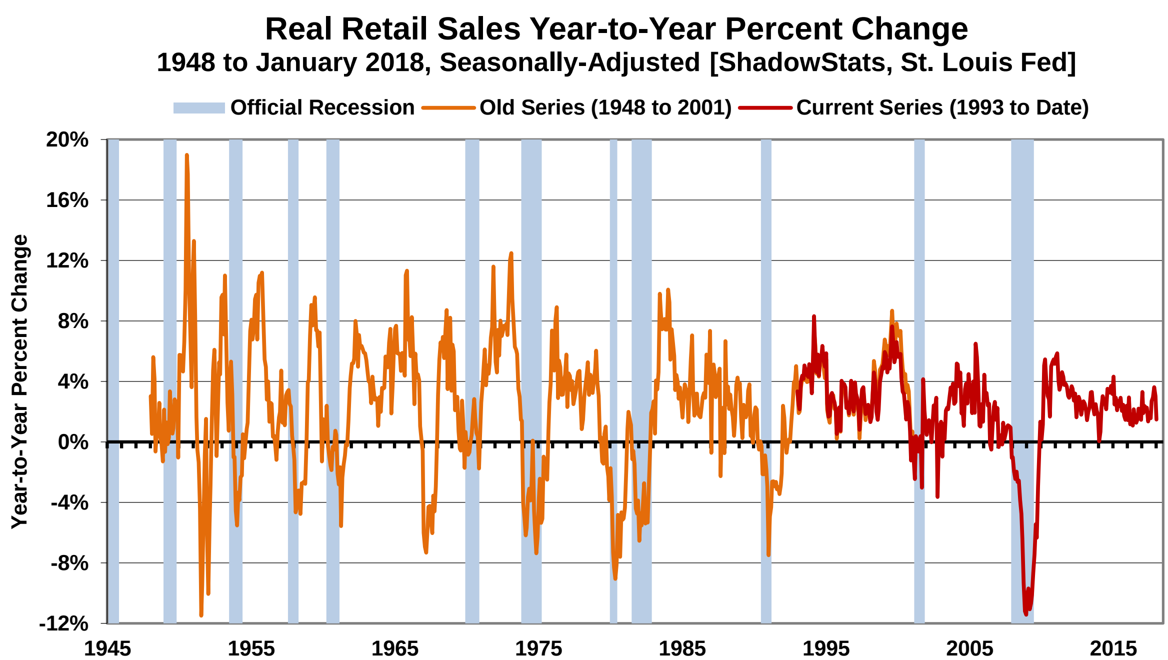
Graph 15: Real Retail Sales (2000 to Date), Year-to-Year Percent Change



Graph 16: Level of Real Retail Sales (1947 to Date)



Graph 17: Real Retail Sales (1948 to Date), Year-to-Year Percent Change



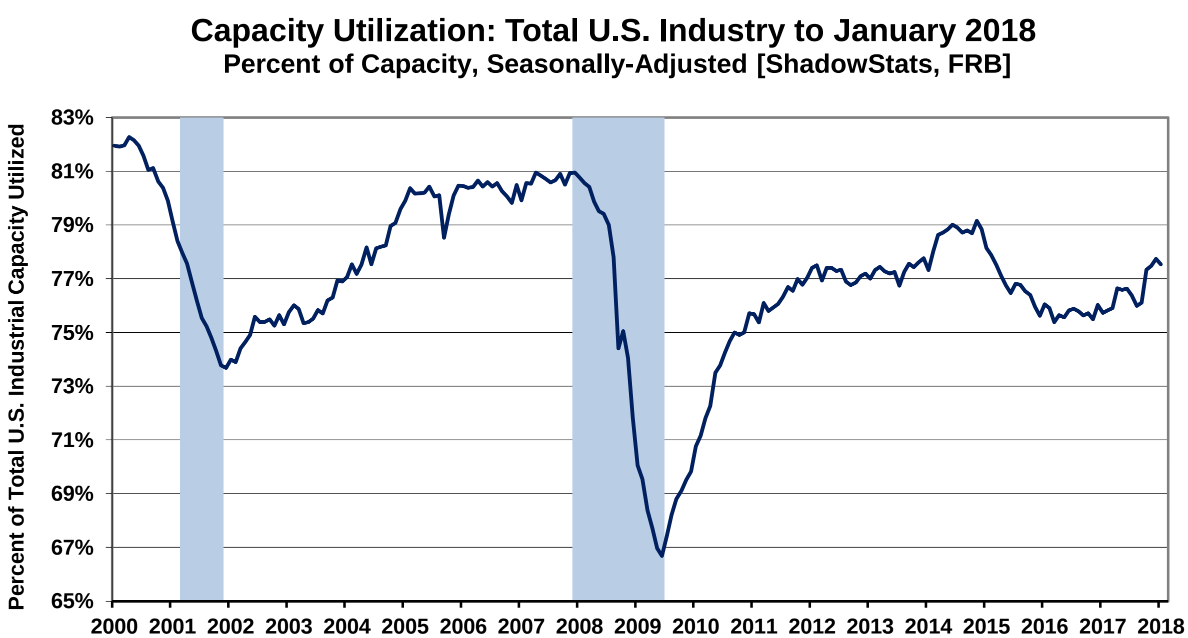
INDUSTRIAL PRODUCTION (January 2018)

January Production Declined on Top of Downside Revision to December; Post-Natural-Disaster Production Boost Peaked in November 2017, Net of Cold-Weather Driven Utility Surge. Headline January 2018 Industrial Production declined month-to-month by 0.05% (-0.05%) [down by a rounded 0.1% (-0.1%)], in the context of flat Manufacturing, declining Mining and a continued jump in Utility usage. Monthly production fell by 0.21% (-0.21%), however, net of prior-period revisions. January Capacity Utilization declined by 0.20% (-0.20%) in the month, down by 0.32% (-0.32%) net of prior-period revisions.

The change in January production was in the context of an upside revision to November 2017 activity and a downside revision to December 2017. Nonetheless, that still left 2017 December as the recent headline peak in activity. Discussed here and in the *Opening Comments*, the recent boost to industrial production activity generated by the replacing and repairing of natural-disaster destruction and recovering from related disruptions to productive activity, likely peaked in November 2017. The difference is in the aggregate headline detail is that extreme winter weather conditions have boosted recent utility usage to record levels, spiking the relative level of December production (see *Graph OC-3* and the related discussion in the *Opening Comments*).

Total U.S. Industrial Capacity Utilization Still Shows a Non-Recovering Broad Economy. Beginning with *Commentary No. 927*, ShadowStats started regular coverage of the Federal Reserve's measure of Capacity Utilization, an estimate of total Industrial Production versus total Productive Capacity of the United States. Despite reservations about the Fed's ability to measure productive capacity adequately, the series, in terms of Capacity Utilization is worth considering, as plotted in *Graph 18*.

Graph 18: Utilization of Total U.S. Industrial Production and Manufacturing Capacity (2000 to Date)



Sharp downturns in Capacity Utilization usually signal the onset of a recession, which would support the concept that a renewed economic downturn began at the end of 2014. Shadows is the ShadowStats estimate for the timing of new or deepening multiple-dip downturn, in the economic crisis that formally began at the end of December 2007. Contrary to the consensus hype, however, as seen with the Manufacturing Sector, the U.S. economy never has recovered fully from that downturn. Reported along with the headline January 2018 reporting of Industrial Production on February 15th, Capacity Utilization declined by 0.20% (-0.20%) in the month, down by 0.32% (-0.32%) net of prior-period revisions.

Against its December 2007 pre-recession peak level of 80.96%, the January 2018 Capacity Utilization reading—still spiked in level by hurricane disruptions and boosts from weather-distorted utility usage—held shy of recovering that peak by 4.22% (-4.22%). That is despite the Index of Industrial Production having recovered its pre-recession high in fourth quarter 2017, for a second time on a quarterly basis, and a second time on a monthly basis in October 2017. At the same time, January 2018 Manufacturing remained 4.74% (-4.74%) shy of recovering its pre-recession peak of December 2007.

Manufacturing Sector Has Continued in Non-Expansion for a Record 121 Months. Despite headline January 2018 Industrial Production holding above its pre-recession peak by 1.82%, largely due to recent expansion in the Mining sector, the dominant Manufacturing Sector remains 4.74% (-4.74%) shy of recovering its December 2007 pre-recession peak. In terms of quarterly detail, fourth-quarter 2017 remained 4.45% (-4.45%) shy of ever having recovered its fourth-quarter 2007 pre-recession peak. The Manufacturing Sector is in the longest stretch of economic non-expansion ever seen in the 100-year history of Industrial Production, now at 121-months and counting, a full 10-plus years. In contrast, the second-longest period of non-expansion in manufacturing was the 96-months to needed retool the post-war U.S. economy, to rebuild domestic manufacturing to its World War II peak. The third longest was the first down-leg of the Great Depression, it took 88-months to recover the pre-collapse high.

One of the Better-Quality Series, Industrial Production Still Overstates Headline Activity. Irrespective of annual benchmark revisions, despite last year's downside revisions, which hit historical production detail hard, current headline production reporting still overstates economic activity tied to understated inflation. With the benchmarked 2016 industrial production representing 59% of the real value of Gross Domestic Product (GDP), the broad economy remains in the harsh reality of ongoing recession, one that has continued from somewhat before 2007. Headline production remains troubled by its dominant Manufacturing Sector (76.4% of aggregate production), which, again, never has recovered its pre-recession peak, continuing in low-level, non-recovered economic stagnation (see *Graph 23*).

Benchmark Revisions Announced for March 23, 2018. The Federal Reserve plans to publish its annual 2017 benchmark revisions on Friday, March 23, 2018, with revisions reflecting recent annual census reporting, redefined series and recast seasonal adjustments, back to 1972. See page 3 of the February 15th *Press Release*. Traditionally, most series going through these benchmarkings suffer net downside revisions to the history of recent years, where underlying reality begins to catch up with usually overly-optimistic assumptions built into initial headline reporting (see the benchmarking discussion in *Commentary No. 877*).

Headline Industrial Production—January 2018. The Federal Reserve Board released its first estimate of seasonally-adjusted, January 2018 Industrial Production on February 15th. The new detail reflected downside revisions to December 2017 detail (on top of earlier downside revisions to post natural-disaster details), with an upside revision to November 2017 activity. Again, discussed in the *Opening Comments*, while the headline reporting reflects the recent peak of activity in industrial production, such was skewed heavily by a massive surge in utility usage in December 2017, tied to usual seasonal distortions from bad winter weather. Net of those regular distortions, post-natural disaster Industrial Production peaked in November 2017, driven partially by the replacement of storm-damaged motor vehicles. Such coincided with the just-revised November 2017 peak in real retail sales (again, see the *Opening Comments*).

Headline January 2018 production declined by 0.05% (-0.05%) month-to-month, dominated by a decline of 0.96% (-0.96%) in mining (oil and gas exploration and extraction, and coal production), versus a relatively-flat 0.04% gain in manufacturing and a 0.59% gain in utilities that already were at a record high level of activity. The January production decline was on top of a downwardly-revised monthly gain of 0.41% (previously 0.89%) in December activity, which was reduced in level, but also was against upwardly-revised November activity, which now reflects a monthly gain of 0.27%, previously a decline of 0.12% (-0.12%) [initially a gain of 0.24%]. That was against revised gains of 1.68% [previously 1.79%, 1.17%, 0.94%] in October and 0.25% [previously 0.18%, 0.26%, 0.40%] in September, a revised decline of 0.43% (-0.43%) [previously 0.41% (-0.41%), 0.45% (-0.45%), 0.46% (-0.46%)] in August and an unrevised decline of 0.23% (-0.23%) in July. Net of prior-period revisions, January 2018 industrial production declined by 0.21% (-0.21%), instead of the headline decline of 0.05% (-0.05%).

Headline January 2018 Monthly and Annual Growth by Major Sector. Detailed by major industry group (see *Graphs 23*, *25*, *31* and *32*), the January 2018 aggregate industrial production monthly decline of 0.05% (-0.05%) was composed of monthly gains of 0.04% in the dominant Manufacturing Sector, 0.59% in Utilities and a decline of 0.96% (-0.96%) in Mining (including oil and gas production).

In like manner (see *Graphs 24*, *26*, *32* and *34*), the January 2018 the annual aggregate industrial production gain of 3.66% was composed of monthly gains of 1.75% in the dominant Manufacturing Sector, a record 10.80% in Utilities and 8.81% in Mining (including oil and gas production).

***Year-to-Year Change*.** Year-to-year January 2018 industrial production gained 3.66%, versus revised annual gains of 3.40% [previously 3.56%] in December 2017, 3.80% [3.46%] in November 2017, 3.30% [3.36%] in October 2017, 1.78% [1.73%] in September 2017, 1.37% [1.39%] in August 2017 and an unrevised 1.74% in July 2017.

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

The annual declines continued, down by 2.17% (-2.17%) in first-quarter 2016, by 1.34% (-1.34%) in second-quarter 2016 and by 1.24% (-1.24%) in third-quarter 2016. Fourth-quarter 2016 production contracted year-to-year for the seventh-straight quarter by 0.14% (-0.14%).

First-quarter 2017 detail, annual change rose by 0.58%, the first annual gain since first-quarter 2015. Second-quarter 2017 production gained year-to-year by 2.14%, with third-quarter 2017 showing a hurricane impaired at annual gain of 1.63%. The second estimate of annual fourth-quarter 2017 growth was a hurricane-boosted 3.50% [previously 3.64%], with first-quarter 2018 on early track for 3.42% based just on initial January 2018 reporting.

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

The first-quarter 2016 annualized quarterly contraction was 1.34% (-1.34%), with second-quarter 2016 down at an annualized 0.68% (-0.68%). Third quarter 2016 gained at an annualized pace of 0.78%, followed by a gain of 0.70% in fourth-quarter 2016.

The first-quarter 2017 annualized quarterly gain was 1.54%. The second-quarter 2017 gain was 5.63%, with hurricane-disrupted third-quarter 2017 growth now showing an annualized quarterly contraction of 1.24% (-1.24%). The second estimate for fourth-quarter activity was a hurricane boosted 8.34% [previously 8.20%], with first-quarter 2018 on early track for a 1.23% gain, based just on initial January 2018 reporting.

Production Graphs. The regular two sets of long- and short-term plots of 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 19* shows the monthly year-to-year percent change in the aggregate series, in historical context since World War II. Post-2017 benchmarking, activity was somewhat stronger coming into 2014, but much weaker going into 2015, as detailed in *Commentary No. 877*.

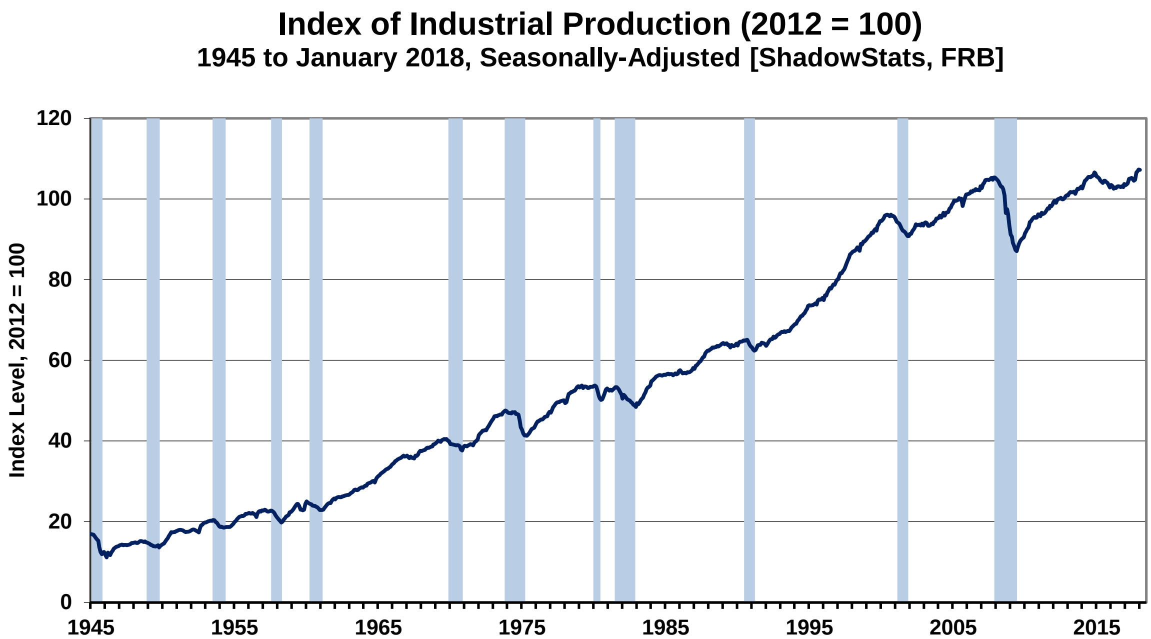
Graph 19 shows the monthly level of the production index post-World War II, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015, with a bounce in third-quarter 2015, followed by renewed and deeper contractions in fourth-quarter 2015 and first- and second-quarter 2016, turning to the plus-side in second-half 2016 into second-quarter 2017 and the recent third-quarter 2017 hurricane disruptions and accompanying near-term volatility, with a boosted activity into the fourth-quarter, peaking in in November/December 2017 and turning down in January 2018 details. Such patterns of monthly and quarterly year-to-year declines post late-2014 to the onset of 2017 (see *Graph 20*) were seen last in the economic collapse into 2009, and historically never seen outside of what would be recognized as formal recessions. *Graphs 21* and *22* show the same series in near-term detail, beginning in January 2000. Such remains in the context of a hurricane-impaired third-quarter reading and a hurricane-boosted fourth-quarter 2017, with activity pulling back from the distortions.

Seen most clearly in *Graph 22*, year-to-year activity dipped anew in 2013, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, turning negative, again, into 2015 and through 2016 as seen only in formal recessions. In the context of the 2017 benchmark revisions, year-to-year growth remains well off the recent relative peak for the series, which was 8.55% in June 2010, going against the official June 2009 trough of the economic collapse. Indeed, as shown in *Graph 20*, the June 2009 (the end of second-quarter 2009) year-to-year contraction of 15.43% (-15.43%) was the steepest annual decline in production since the shutdown of wartime production following World War II.

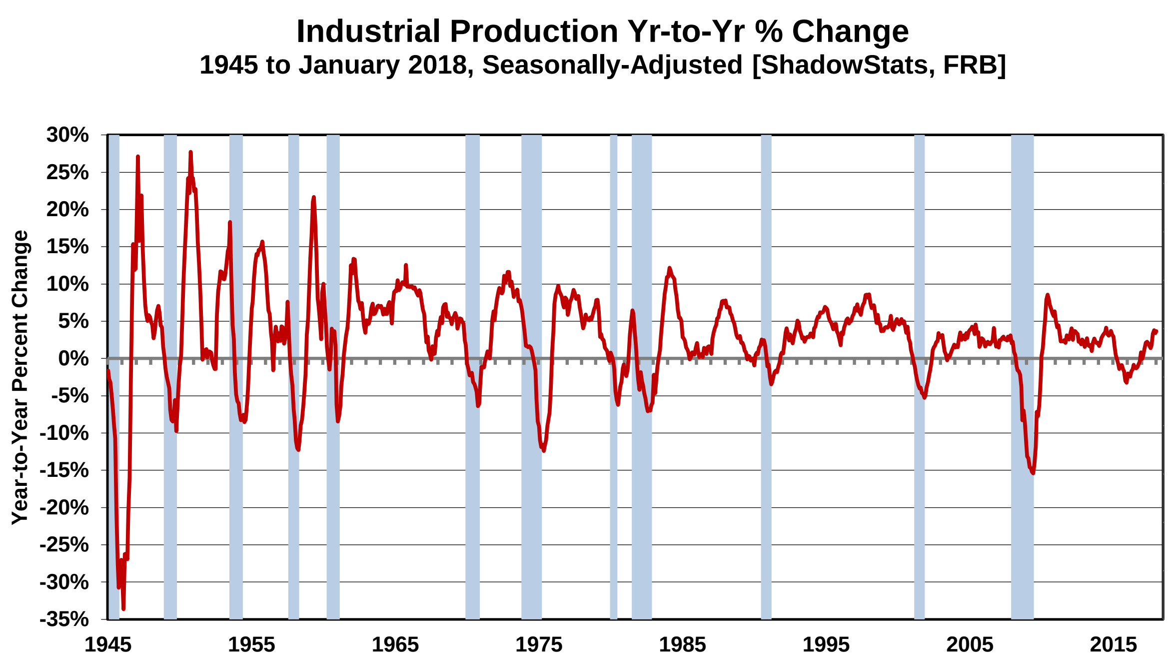
Although generally now in low-level stagnation, official production levels had moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Executive Summary* section, *Graph 4*). That series has shown more of a pattern of stagnation with a slow upside trend, since 2009, with irregular quarterly contractions interspersed. The slow uptrend continued into a topping out pattern in late-2014. Headline growth—purportedly already neutered of any inflation impact—contracted in both first- and second-quarter 2015, moved minimally higher into 2016 through mid-2017 and into late-year, hurricane boosted territory. The "corrected" series has contracted quarter-to-quarter throughout 2016 and with some leveling off and minimal uptick into early-2017, with a downturn thereafter, now with an uptick in the post-disaster recovery.

[Graphs 19 to 22 begin on the next page.]

Graph 19: Index of Industrial Production (Aggregate), Since 1945

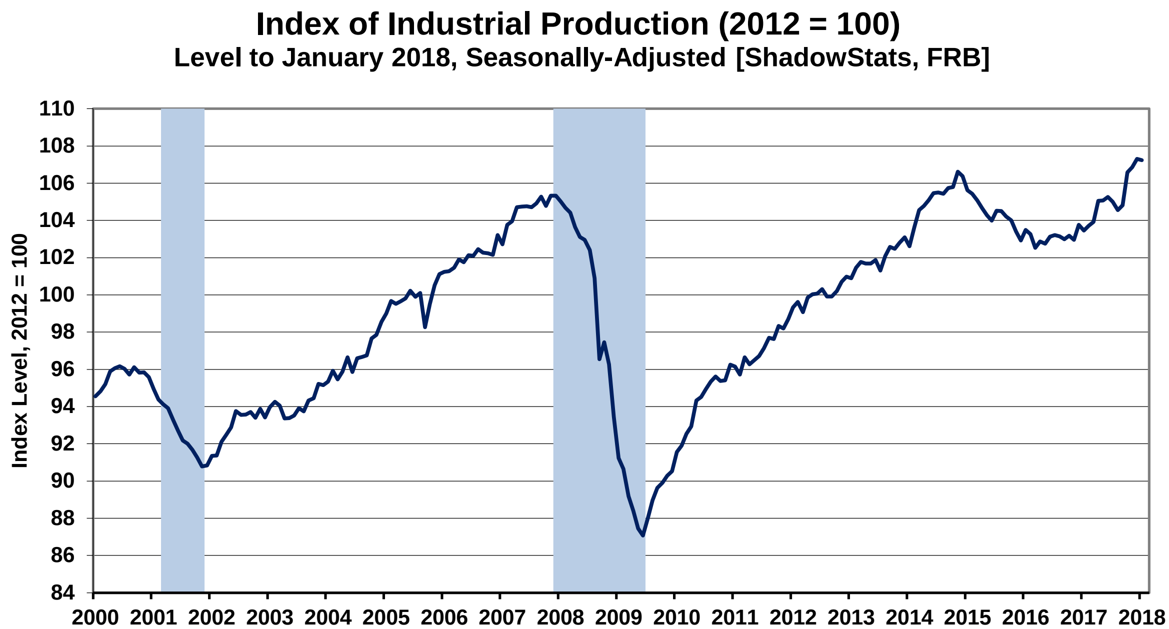


Graph 20: Industrial Production, Year-to-Year Percent Change, Since 1945

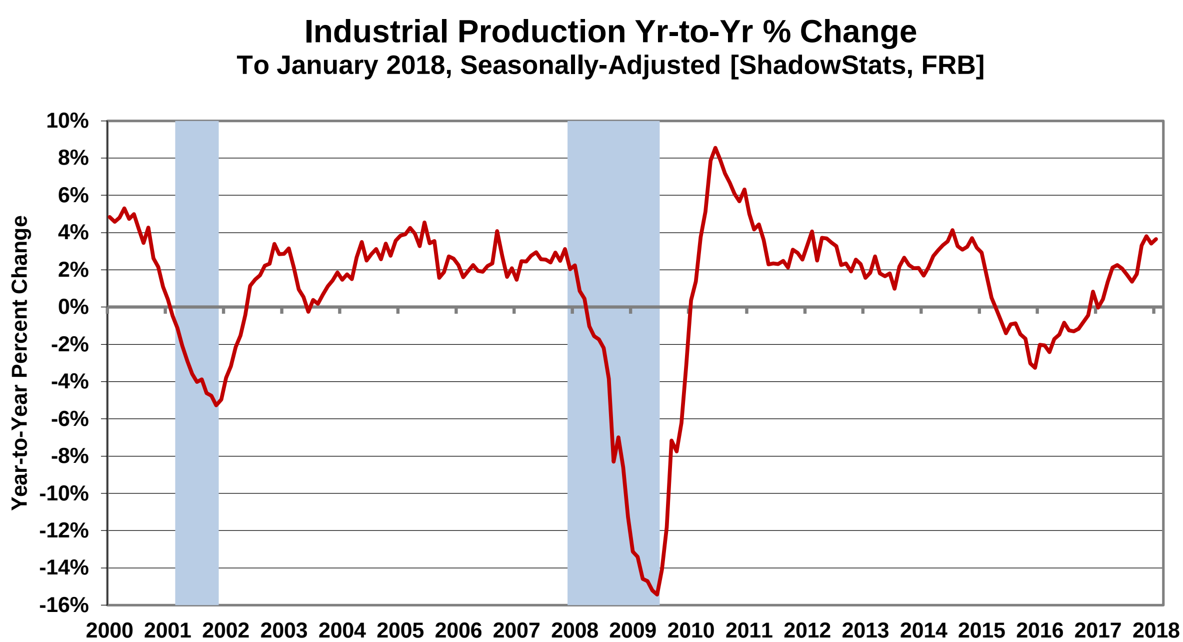


Drilling Down into the December 2017 U.S. Industrial Production Detail. *Graphs 21*, *23*, *28* and *30* show headline reporting of industrial production and its major components.

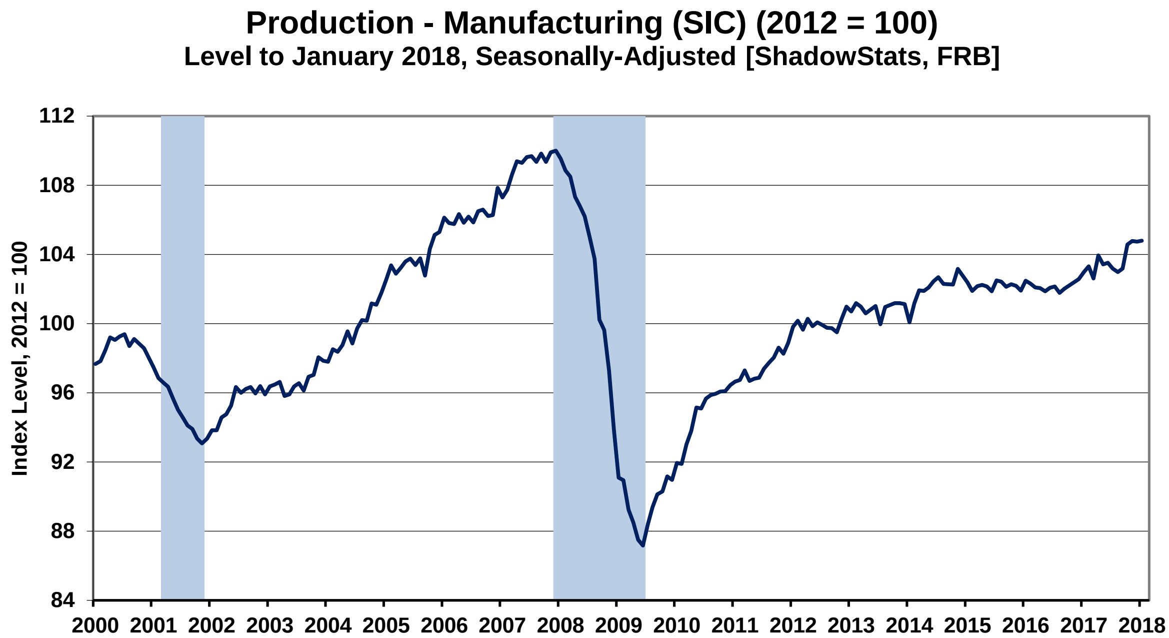
Graph 21: Index of Aggregate Industrial Production, Since 2000



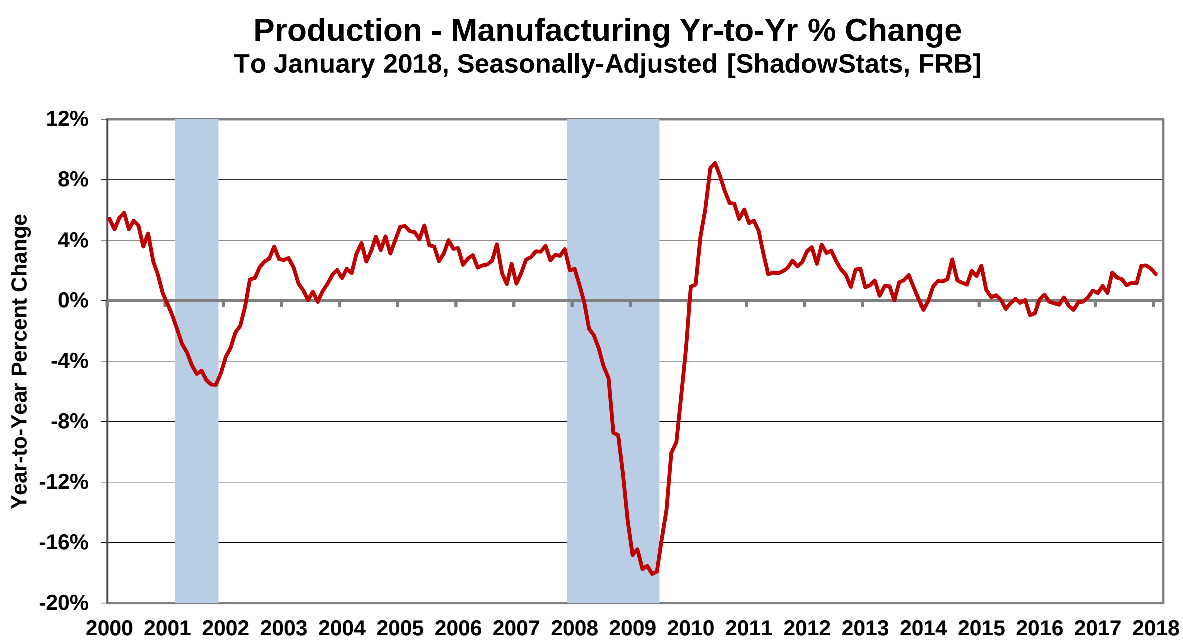
Graph 22: Aggregate Industrial Production, Year-to-Year Percent Change, Since 2000



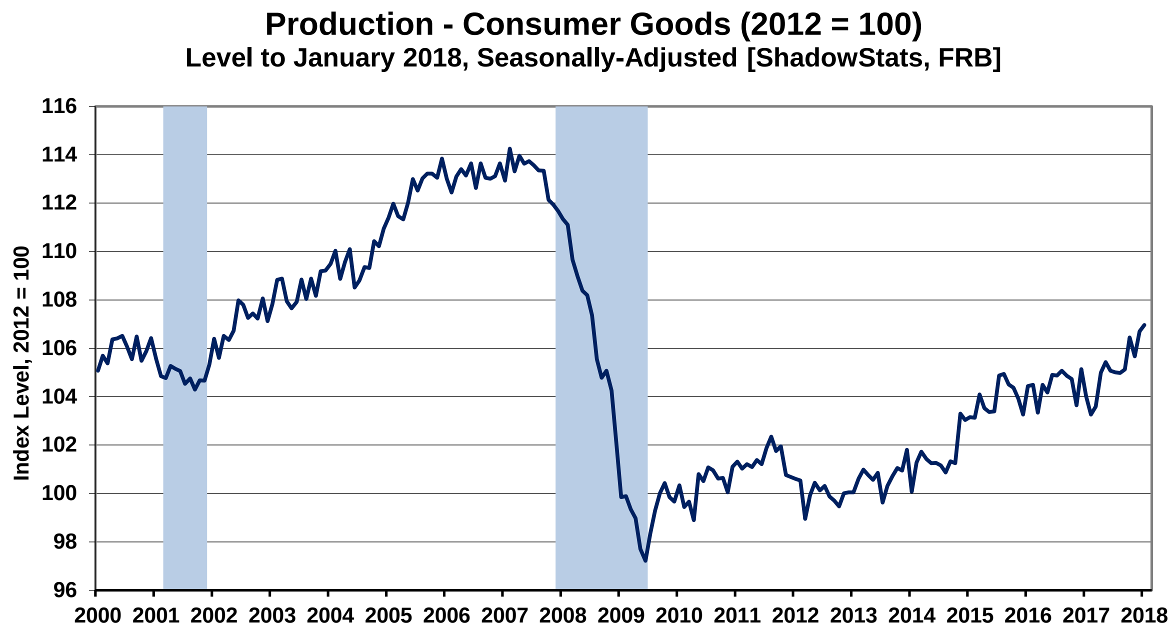
Graph 23: Industrial Production - Manufacturing (76.4% of the IIP in 2016), Since 2000



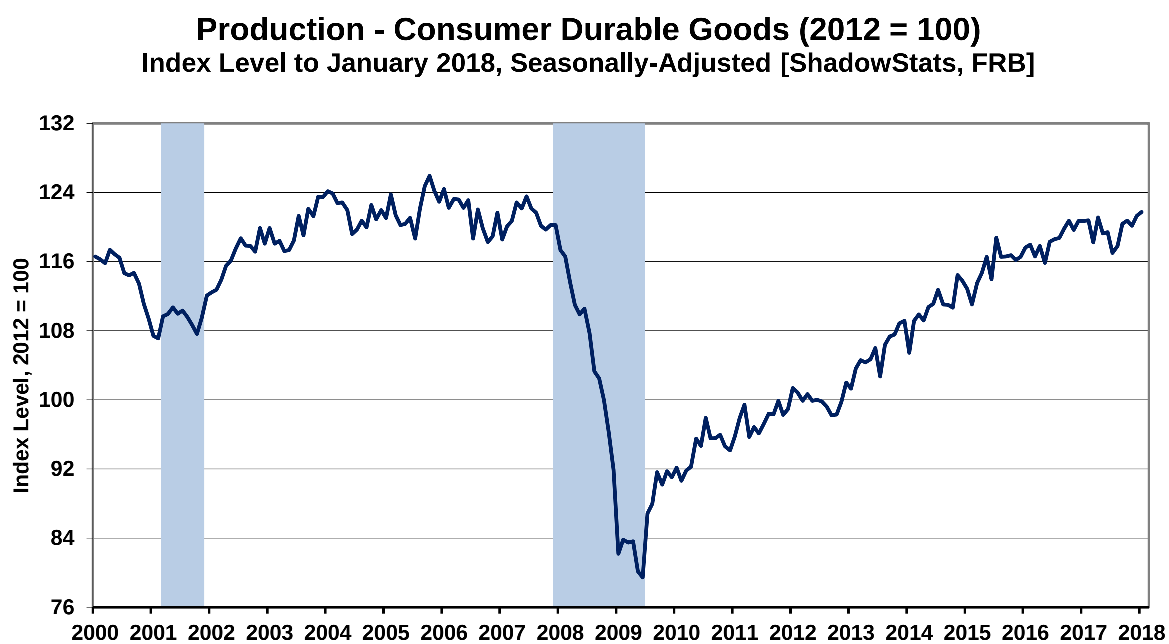
Graph 24: Industrial Production - Manufacturing, Year-to-Year Percent Change, Since 2000



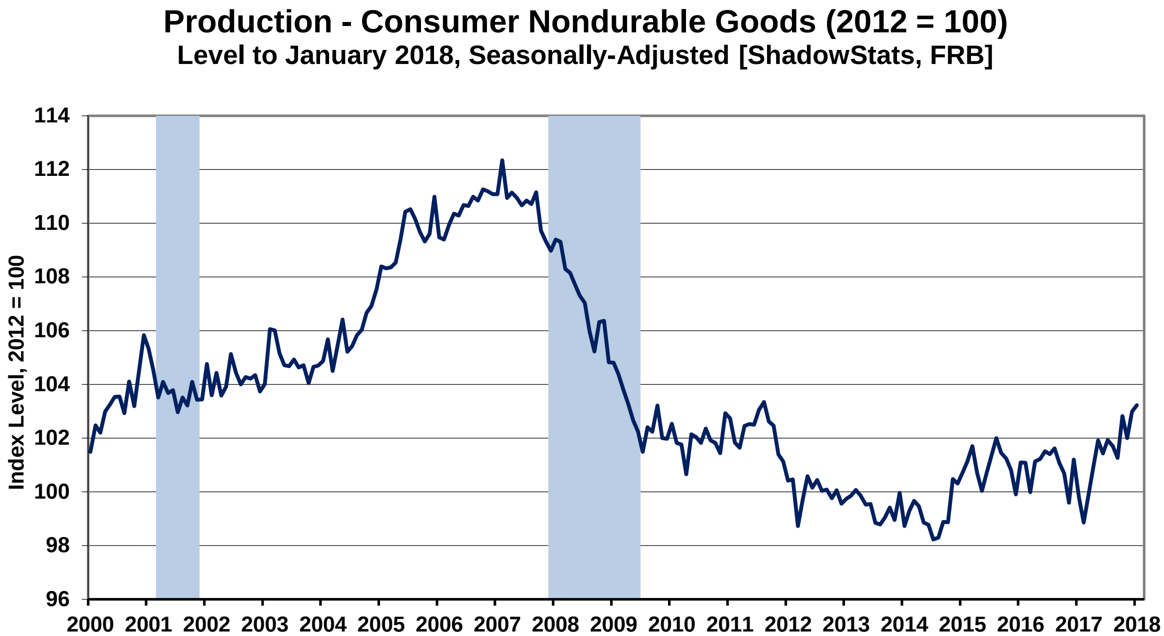
Graph 25: Consumer Goods (28.2% of the Aggregate in 2016), Since 2000



Graph 26: Durable Consumer Goods (6.3% of the Aggregate in 2016), Since 2000



Graph 27: Nondurable Consumer Goods (21.9% of the Aggregate in 2016), Since 2000



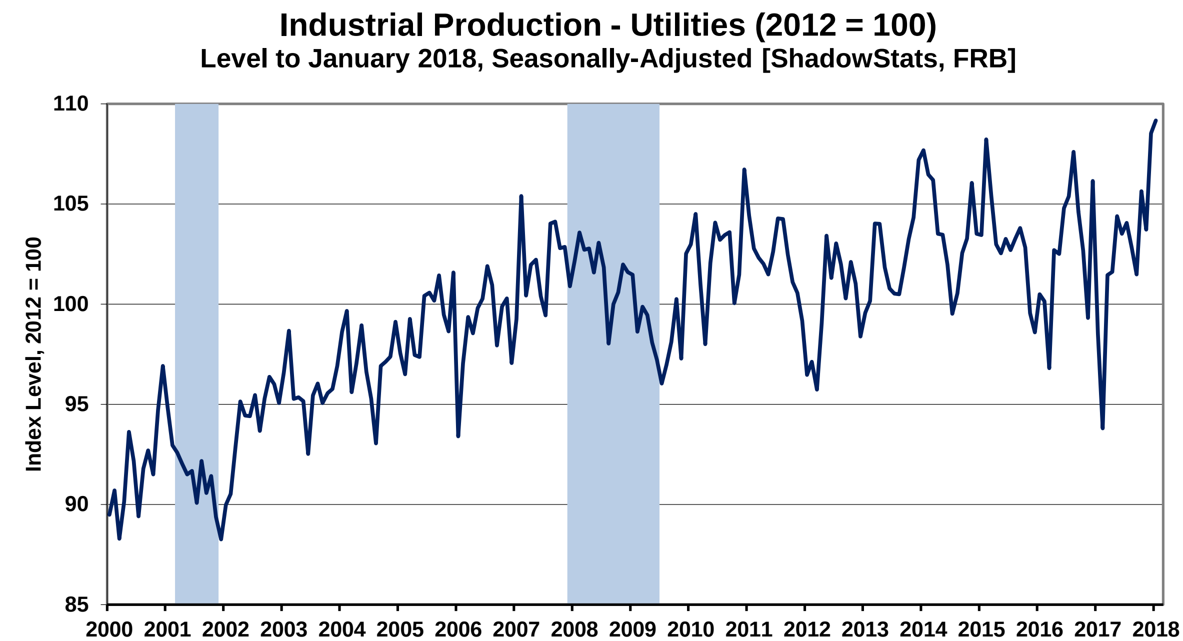
The aggregate production index (*Graph 21*) contracted quarter-to-quarter in both first- and second-quarter 2015, with a third-quarter 2015 bounce, followed by ongoing, consecutive quarterly contractions from fourth-quarter 2015 through second-quarter 2016. Year-to-year declines by quarter were seen for seven consecutive quarters, from second-quarter 2015 through fourth-quarter 2016, with first-quarter 2017 activity positive on both a quarterly and annual basis, flipped to fluctuating monthly and quarterly volatility and gains by lingering and varied hurricane disruptions and continuing recovery from same.

Shown in *Graphs 23, 28* and *30* are the three major industry sectors, Manufacturing, Utilities and Mining, all of which were distorted heavily to the downside by weather in the August 2017 detail, all sectors down month-to-month. In the context of downside prior-period revisions and declining impact from hurricane distortions, all three major industry sectors moved higher month-to-month with the September 2017 detail, and again, in October, except for Mining, which was hit by Hurricane Nate. Hurricane Nate spiked November Mining Activity, without which November Industrial Production was flat, per the Fed, but with renewed regular gains in December activity. That said, Manufacturing was flat in January, Mining activity declined in the oil and gas area, and severe winter weather continued to spike Utilities.

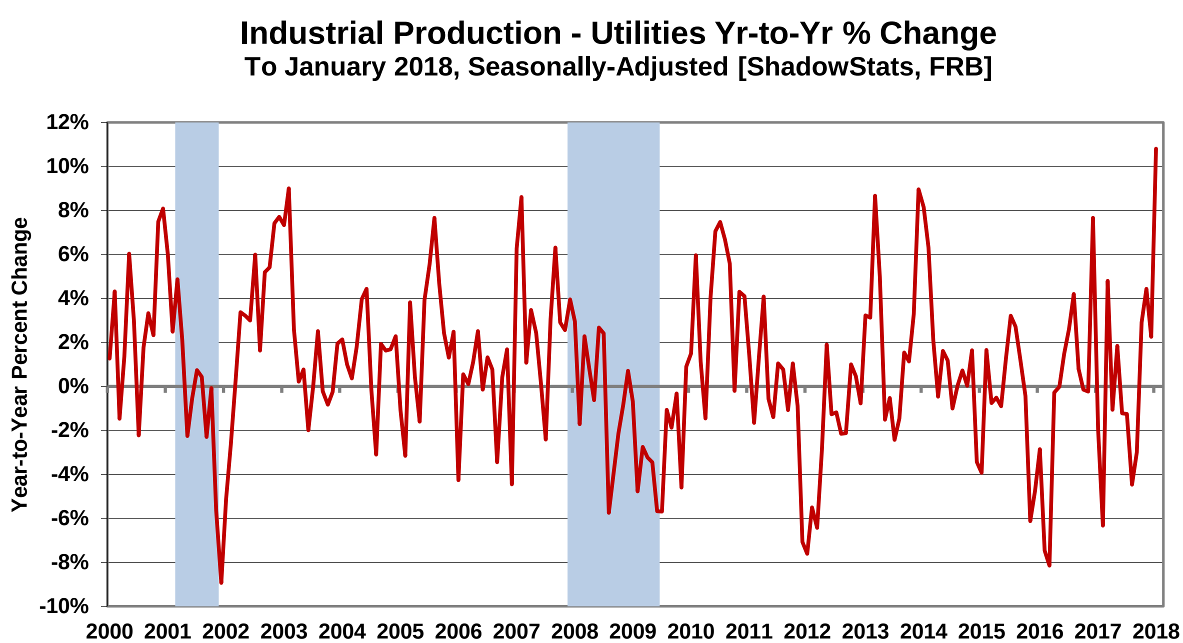
The Manufacturing graphs precede this, the other graphs follow, updated for the latest disrupted/recovery detail, subject to further revisions and added commentary in the next couple of months. *Graphs 24*, *29* and *31*, show the respective plots of year-to-year change for those series. The preceding Manufacturing *Graphs 23* to *27* include various levels of consumer goods production (*Graphs 25* to *27*), all impacted by disaster distortions and recovery from same. Faltering and waning replacement-auto manufacturing in November and December is reflected in the aggregate and durable consumer goods graphs.

The next two *Graphs 28* and *29* reflect Utilities activity massively distorted by unseasonably-cold weather in the winter, so far, reaching record levels in terms of monthly activity an annual change. See the *Opening Comments* and *Graph OC-3*. The scale in *Graph 29* had to be expanded to the upside in order to show the January 2018 detail.

Graph 28: Industrial Production - Utilities (10.6% of the Aggregate in 2016), Since 2000

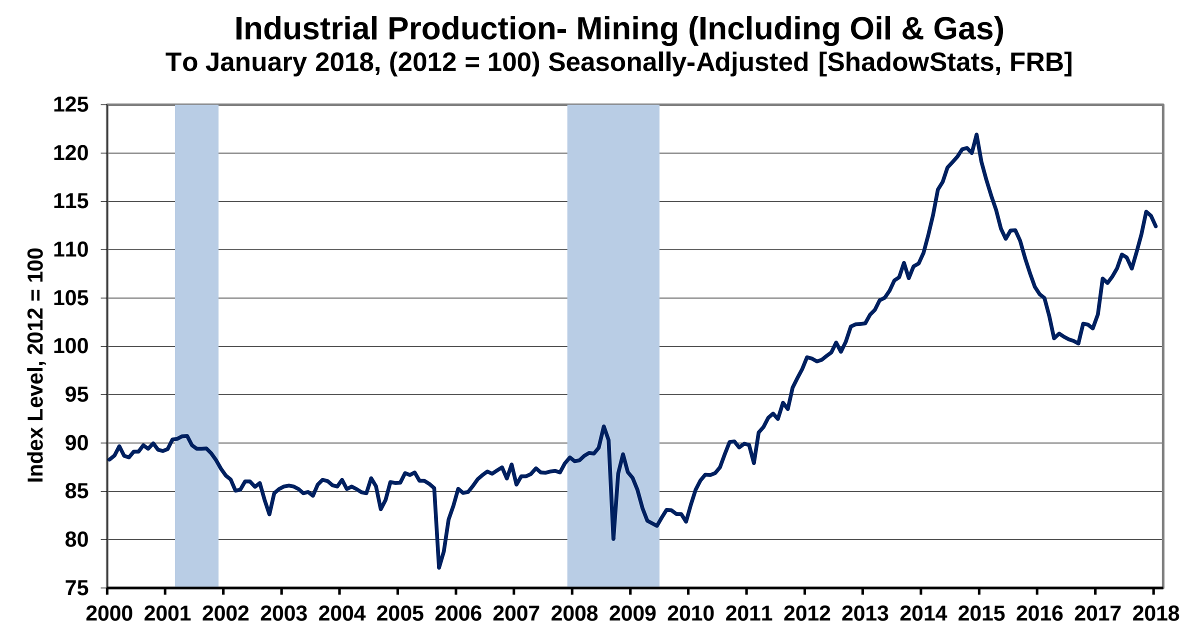


Graph 29: Industrial Production - Utilities, Year-to-Year Percent Change, Since 2000

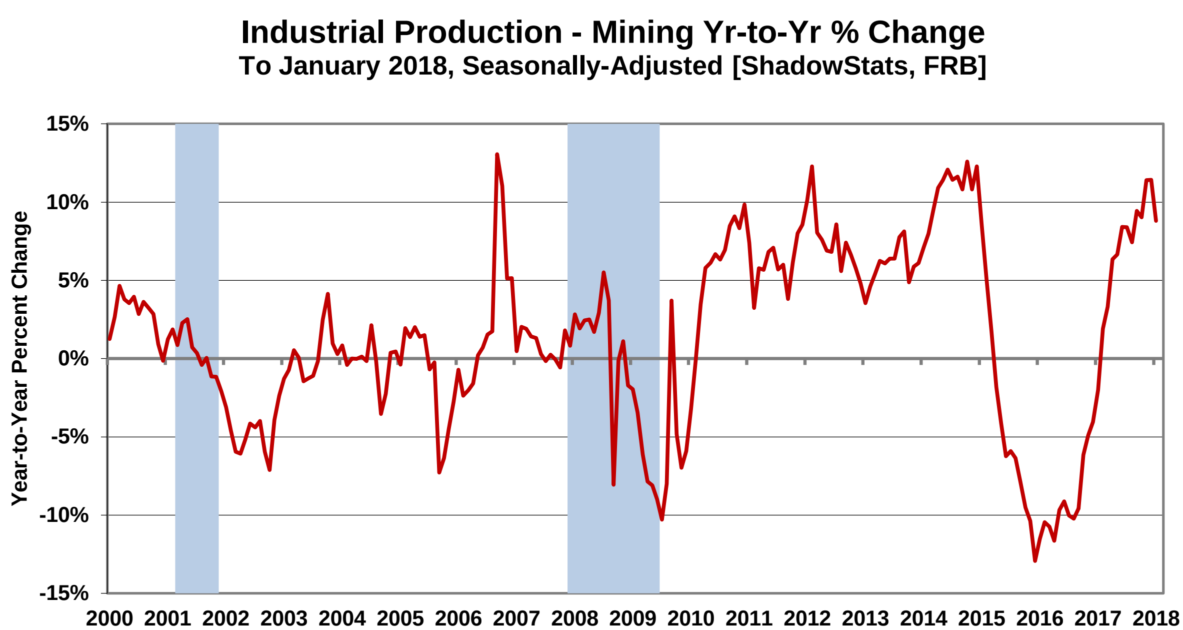


The final set of Mining *Graphs 30* to *36*, encompasses plots of related mining/oil production or exploration activity. Gold and silver mining moved higher in the month, as coal mining took a small, renewed hit. The dominant oil and gas mining activity eased across-the board in January activity, with oil and gas drilling stabilized but still not recovered.

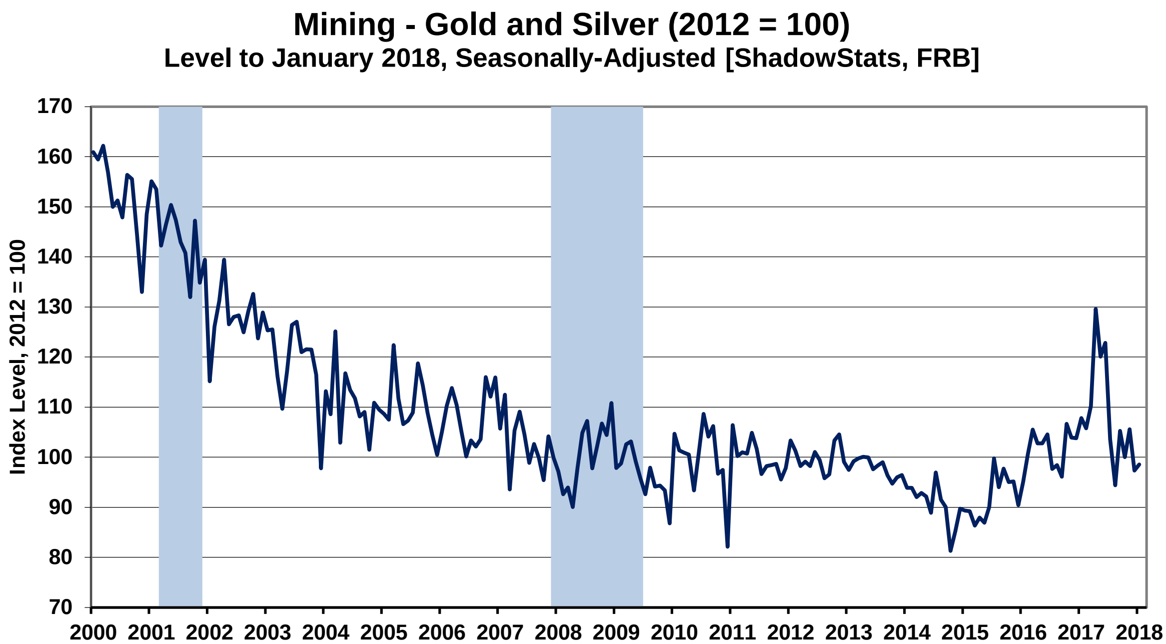
Graph 30: Industrial Production - Mining, Including Oil and Gas (12.9% of the Aggregate in 2016), Since 2000



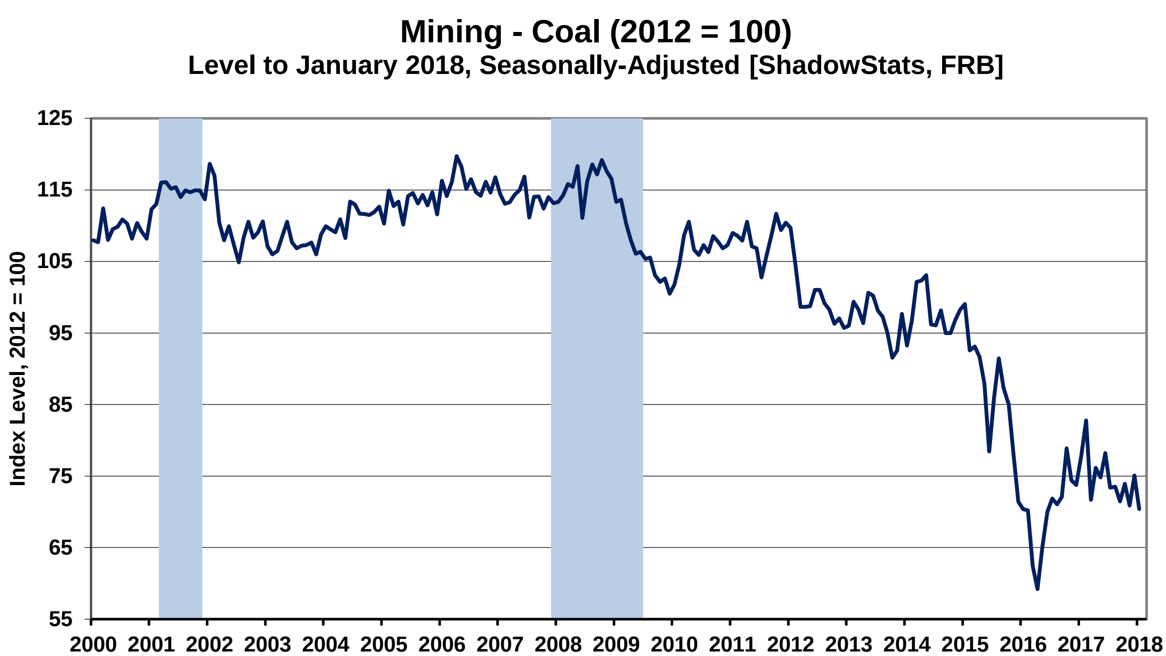
Graph 31: Industrial Production - Mining, Year-to-Year Percent Change, Since 2000



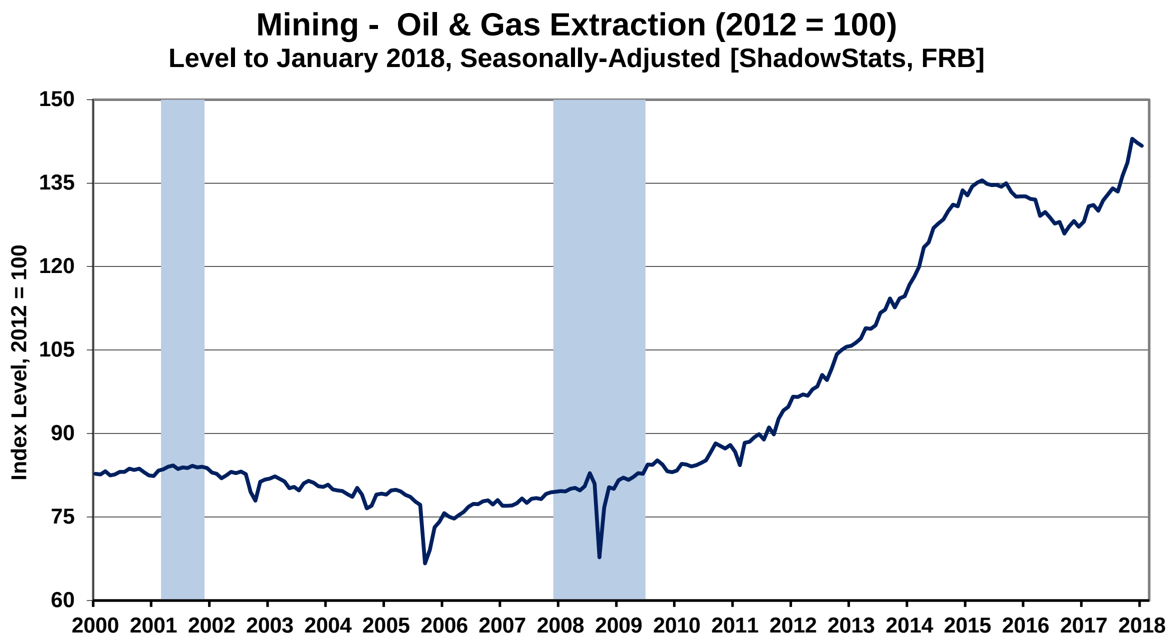
Graph 32: Mining – Gold and Silver Mining, Since 2000



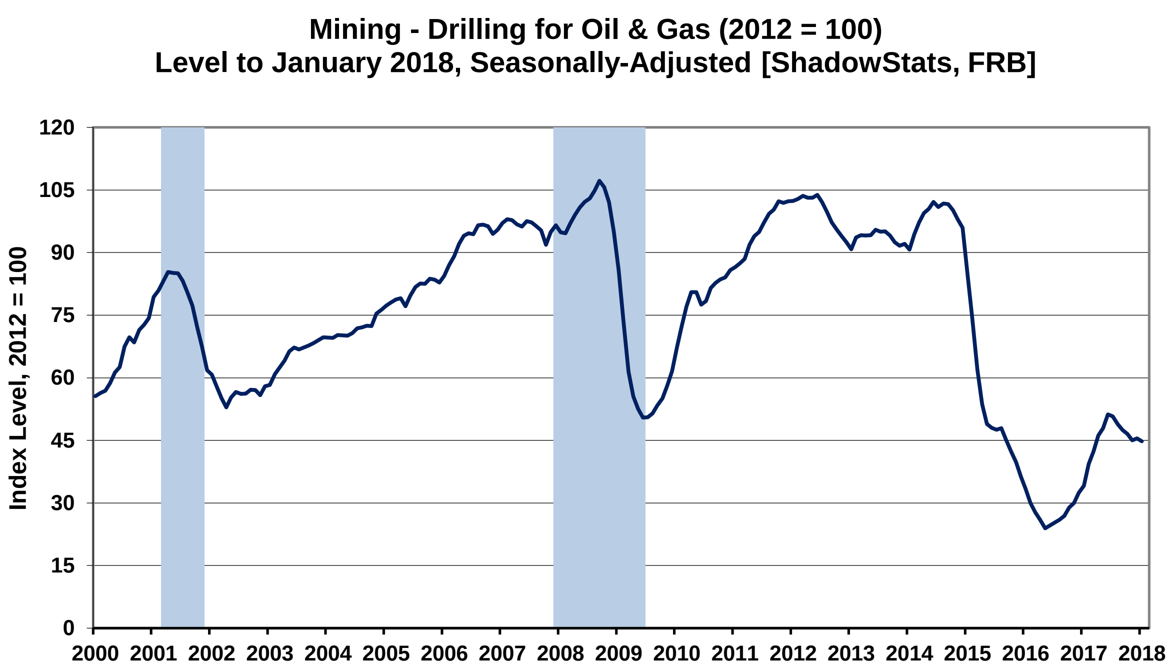
Graph 33: Mining - Coal Mining, Since 2000



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



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

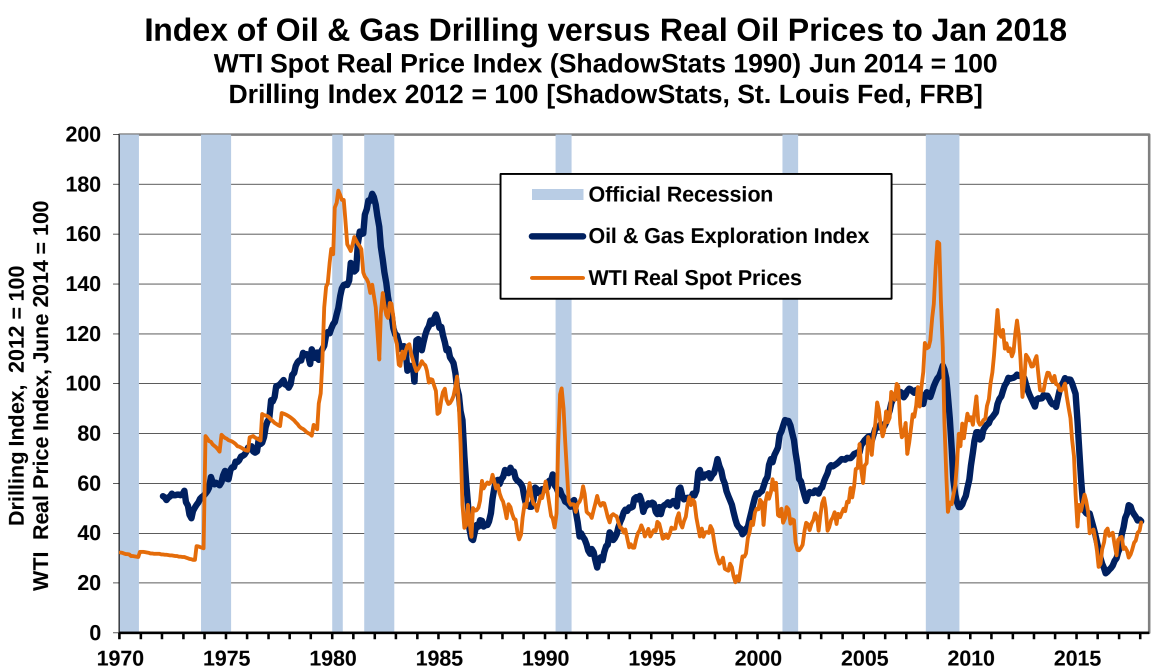


Shown in *Graph 36*, with some lag following sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing in exploration, indeed, appeared to have been in place with what was at least a short-term bottoming in oil prices in early 2016. Prices rallied into mid-2016, then plateaued, and had been moving lower into 2017, with oil and gas exploration easing in July 2017 versus June 2017, the first month without a sharp month-to-month gain, since the boost from the 2016 upturn in oil prices. Yet, oil prices have risen in recent months and are in an uptrend, but exploration has been marred somewhat by hurricane disruptions. The oil price index used here is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the ShadowStats Alternate CPI measure (1990 Base). The graph lines have been highlighted to show more clearly the price-level movement, which visually had coincided recently with the drilling levels.

When the dollar weakens, dollar-denominated oil prices also begin to strengthen, as seen recently, even in a circumstance with excess supply conditions. With the U.S. dollar currently in a downtrend, oil prices have been firming, also impacted by political tensions in the Middle East. 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 in response (see also *General Commentary No. 811*). That said, post-election, the U.S. dollar had rallied, but there had not been quite a commensurate decline in oil prices, and, again the dollar has begun to pull back recently. Where supply had been tightened artificially (see the discussion in *No. 859 Special Commentary*), oil prices showed some increase and oil and gas extraction and exploration continued to pick up accordingly, again with some lag. As the dollar substantially weakens anew, artificial supply constraints likely will ease in tandem.

That said, both oil prices and drilling activity had been meaningfully boosted and hit, respectively in August and September 2017, due particularly to the impact of Hurricane Harvey on the Gulf Coast. Prices and extraction activity have moved back to more-regular levels, but exploration still has yet to pick up. Again, beyond the dollar, movement in oil prices remain subject to, and are reflective of, political developments at home and abroad, including the Middle East. Prices have rallied enough and long enough to suggest the onset of some increased activity in the near future.

Graph 36: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base), Since 1970



NEW RESIDENTIAL CONSTRUCTION (January 2018)

Continued Extreme, Statistically-Insignificant Nonsense Volatility and Revisions Boosted Housing Starts to a Level Still Shy by 41.7% (-41.7%) of Recovering Its Pre-Recession Peak. In economic context suggestive of unwinding hurricane-recovery distortions, as seen in series such as retail sales and industrial production, and in the context of the regular, nonsense volatility seen in the reporting of and revisions to the Housing Starts series, January 2018 aggregate housing starts increased, on top of upside revisions. As usual, though, none of the movement in major industry components was statistically-meaningful at the 95% confidence interval (see the related discussion in the *Opening Comments*).

Hurricane distortions should be close to running their course on new residential construction, with impact from storm-generated new housing starts likely to be out of the system by next month's headline February 2018 detail, if that has not happened already. This series is so unstable and meaningless in its headline reporting, that clarity as to what has happened often awaits an annual benchmark revision or two.

There is nothing on the drawing board, however, that will improve the reporting quality of these numbers or the related, continued lack of monthly and annual statistical significance (see for example *Commentary No. 927* and *Commentary No. 932* for a discussion of distortions in the headline reporting for November and December 2017 activity).

In the context of the sharp headline monthly gain in January 2018, on top of a small upside revision to the December 2017 reporting, the six-month smoothed, moving averages of these series, as seen in *Graphs 5, 8, 10* and *12* in the *Executive Summary*, have tended to flatten out or notch higher. Irrespective of near-term reporting instabilities, the six-month trends in those key series remained broadly stagnant. Current levels of headline monthly activity still hold well below pre-recession peaks for the aggregate and single unit series. The exception is the extraordinarily-volatile, multiple-units category, which is near its pre-recession peak, again, having regained it previously in 2015.

Indeed, the broad pattern of collapsing residential construction activity from its 2006 pre-recession peak, to a trough in 2009, was followed by a protracted period of up-trending but non-recovering, low-level activity. That had flattened out in the last year or two, in ongoing, low-level stagnation and had turned lower still in recent detail, coming into the October and November gains. Such resumed temporarily with the initial December drop (see accompanying *Graphs 37* to *42* of the Building Permits and Housing Starts series). Again, also see *Graphs 5* to *12* in the *Executive Summary*, covering all of the major Housing Starts series.

Building Permits activity also has seen a broad pattern of non-recovery. The headline, monthly gain in January 2018 of 7.4% +/- 1.4% was statistically-significant at the 95% confidence interval (all confidence intervals here are at the 95% level), however, ***the problem with the Building Permits series remains that the data are not reported on a consistent basis over time.*** The headline gain, however, was enough to turn the otherwise minimally-downtrending, stagnant six-month moving average of that series to uptrending (see *Graph 39*).

Plotted with just the seasonally-adjusted monthly data in *Graphs 37* and *38*, the pattern of low-level, broadly downtrending stagnation in the various New Construction Activity series, showed headline January 2018 building permits activity down by 38.3% (-38.3%) from recovering its pre-recession peak, versus aggregate housing starts activity down similarly by 41.7% (-41.7%).

Again, the six-month smoothed trends are now relatively flat to uptrending, across-the-board for the housing starts and building permits. Monthly activity for the various January measures remained shy of regaining their 2005 pre-recession peaks, again, by 38.3% (-38.3%) for Building Permits, 41.7% (-41.7%) for Housing Starts and 51.9% (-51.9%) for Single-Unit Starts. Although Multiple-Unit Starts (the broadest two-or-more category) had fallen back sharply, after first having recovered its 2005 pre-recession peak in early-2015, the 23.7% monthly jump in the January 2018 was enough to wipe out virtually all of the most-recent deficit, leaving the series shy of its pre-recession peak by 0.2% (-0.2%).

Annualized Fourth-Quarter 2017 Growth in Housing Starts Boomed by a Revised 32.0% in a Hurricane-Boosted Quarter, Against a Hurricane-Depressed Quarter. In this highly volatile and unstable series of recent years, the total housing-starts count fell at an annualized quarter-to-quarter pace of 23.7% (-23.7%) in first-quarter 2015, rose at an 87.7% pace in second-quarter 2015, by 1.9% in third-quarter 2015 and then contracted at an annualized pace of 12.0% (-12.0%) in fourth-quarter 2015.

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

First-quarter 2017 annualized quarterly change was a contraction of 3.4% (-3.4%), with year-to-year change slowing to 7.3%. Second-quarter 2017 showed an annualized quarter-to-quarter contraction of 21.0% (-21.0%), with year-to-year change slowing to 0.8%. Third-quarter 2017 Housing Starts activity was unrevised at an annualized gain of 1.8%, with annual growth of 1.9%.

Second reporting for fourth-quarter 2017 activity was for an annualized gain of 32.0% [previously 29.7%], with a year-to-year gain, though, of just 0.6% [previously 0.2%]. In this circumstance, that annual growth rate just highlights how the weak the activity in this series had been in the last year.

Given the meaningless headline January 2018 detail, the early trend (just for January) is for annualized first-quarter 2018 growth of 24.1%, up year-to-year by 7.1%.

In comparison/contrast, Building Permits (the theoretically-leading series to Housing Starts) showed an annualized quarterly contraction of 2.8% (-2.8%) in first-quarter 2017, with year-to-year change of 7.9%. Second-quarter 2017 showed an annualized contraction of 11.0% (-11.0%), with year-to-year growth slowing to 3.9%. Third-quarter 2017 showed an annualized gain of 6.2%, with a year-to-year gain of 2.2%. The second reporting for fourth-quarter 2017 showed an annualized gain of 22.3% [previously 22.5%], with an unrevised annual gain of 3.0%.

Given the more-statistically-significant headline January 2018 detail for building permits, the early trend (just for January) is for annualized first-quarter 2018 growth of 30.4%, up year-to-year by 10.8%.

January 2018 Housing Starts, Headline Detail. The always-unstable and highly-volatile reporting in the aggregate Housing Starts series has been exacerbated in recent reporting by hurricane effects. Those distortions likely have begun to reverse, despite the latest data gyrations. Headline January 2018 headline detail increased month-to-month on top of upwardly-revised December details, reversing the direction of the December 2017 reporting and then-downside revisions to November 2017. That process easily could reverse again, next month, and likely will over the next several months.

The Census Bureau and Department of Housing and Urban Development (HUD) reported February 16th, a statistically-insignificant, seasonally-adjusted, headline monthly gain in January 2018 of 9.7% +/- 19.7% (again, all confidence intervals are expressed at the 95% level). That followed a revised decline of 6.9% (-6.9%) [previously 8.2% (-8.2%)] in December 2017 and an unrevised gain of 3.0% in November. Net of the prior-period revisions, January Housing Starts gained 11.1%, instead of the headline 9.7%. Level-of-activity aggregate detail is plotted in *Graphs 5* to *8* of the *Executive Summary*, and in *Graphs 38*, *40*, *41* and *42* at the end of this section.

Year-to-year change in the seasonally-adjusted, January 2018 aggregate housing-starts measure was a statistically-insignificant gain of 7.3% +/- 17.6%, versus a revised annual decline of 4.7% (-4.7%) [previously 6.0% (-6.0%)] in December 2017 and an unrevised annual gain of 13.1% in November 2017.

The January 2018 headline gain of 9.7% in total Housing Starts encompassed a monthly gain of 3.7% in Single-Unit starts and 19.7% surge in the Multiple-Unit "Five Units or More" category. There is a missing balance in the "Two to Four Units" category, which gained by 600.0% in January. Where that category is considered too small to be meaningful and is not reported directly, it did affect the aggregates to the extent that total multiple units actually gained by 23.7%, instead of the headline 19.7% gain in the five-units-or-more category. That is discussed later in the broadest, aggregate "multiple unit" category. As usual, none of the monthly or annual headline changes was statistically significant.

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 multiple-unit structure starts that generally reflect the building of condominiums, rental and apartment units.

Housing starts for single-unit structures in January 2018 gained month-to-month by a statistically-insignificant 3.7% +/- 11.3%, following revised decline of 10.6% (-10.6%) [previously 11.8% (-11.8%)] in December 2017, a revised gains of 6.7% [previously 6.9%, initially 5.3%] in November and an unrevised 6.6% in October. January 2018 single-unit starts showed a statistically-insignificant annual gain of 7.6% +/- 13.5%, versus revised gains of 4.7% [previously 3.5%] in December 2017, 14.9% [previously 15.2%, initially 13.0%] in November 2017 and an unrevised 1.8% in October 2017 (see *Graphs 5, 6, 9 and 10* in the *Executive Summary*).

Housing starts for apartment buildings, condominiums, etc. (generally 5-units-or-more) jumped sharply in January 2018, having gained month-to-month by a statistically-insignificant 19.7% +/- 50.2%, versus a revised gain of 4.3% [previously 2.6%] in December 2017, a revised decline of 3.1% (-3.1%) [previously 3.7% (-3.7%), initially a gain of 0.8%] in November and an unrevised gain of 14.8% in October. A statistically-insignificant year-to-year gain of 3.1% +/- 39.8%, followed a revised annual decline of 19.8% (-19.8%) [previously 21.6% (-21.6%)] in December 2017, followed a revised gain of 6.8% [previously 6.2%, initially 11.1%] in November 2017 and an unrevised decline of 20.4% (-20.4%) in October 2017.

Expanding the multiple-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 monthly 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*).

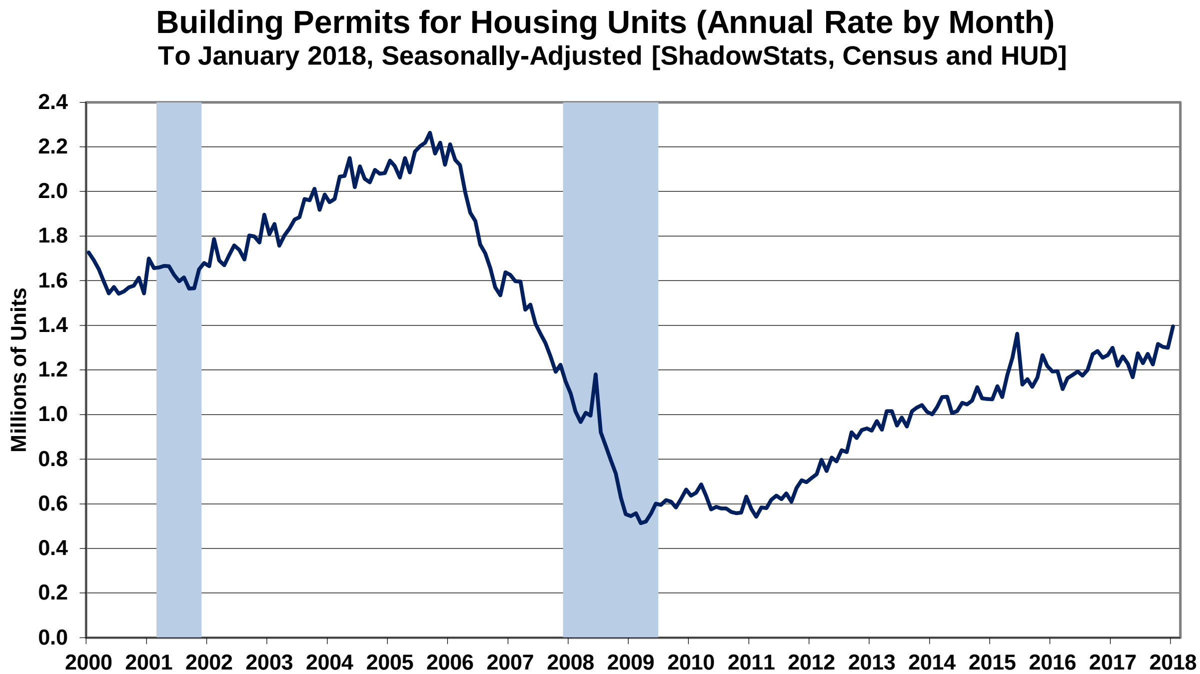
Accordingly, the statistically-insignificant January 2018 monthly gain of 9.7% in aggregate starts was composed of a statistically-insignificant gain of 3.7% in one-unit structures and a statistically-insignificant gain of 23.7% in the multiple-unit structures category (two-units-or-more, including the five-units-or-more category). In contrast, again, ex-two-units-or-more, the multiple-unit category gained by 19.7%. Again, these series are graphed in the *Executive Summary*.

Consumer Liquidity Problems Continue to Impair Residential Construction Activity. Discussed *Consumer Liquidity Watch*, the extreme liquidity bind besetting consumers continues to constrain residential real estate activity. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including aggregate real estate activity. That circumstance—in the last ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 73% of which is dependent on real personal spending, including residential construction.

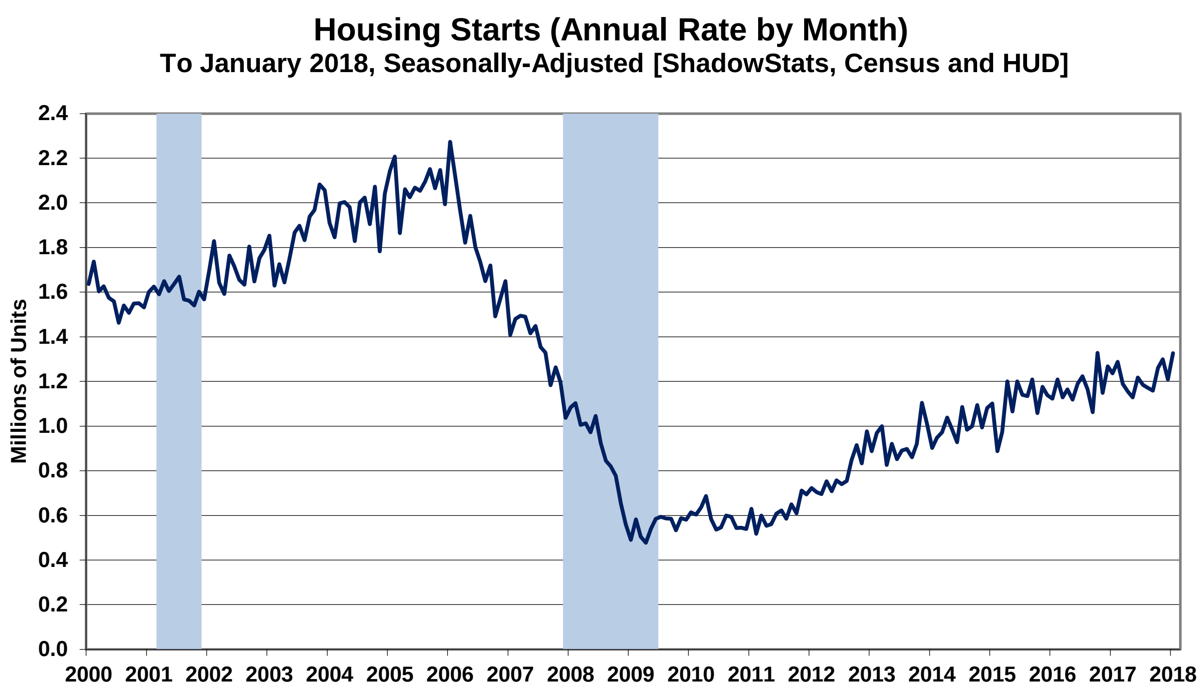
Please see the *Note on the Housing Starts Graphs* on page 13.

[Graphs 37 to 42 begin on the next page.]

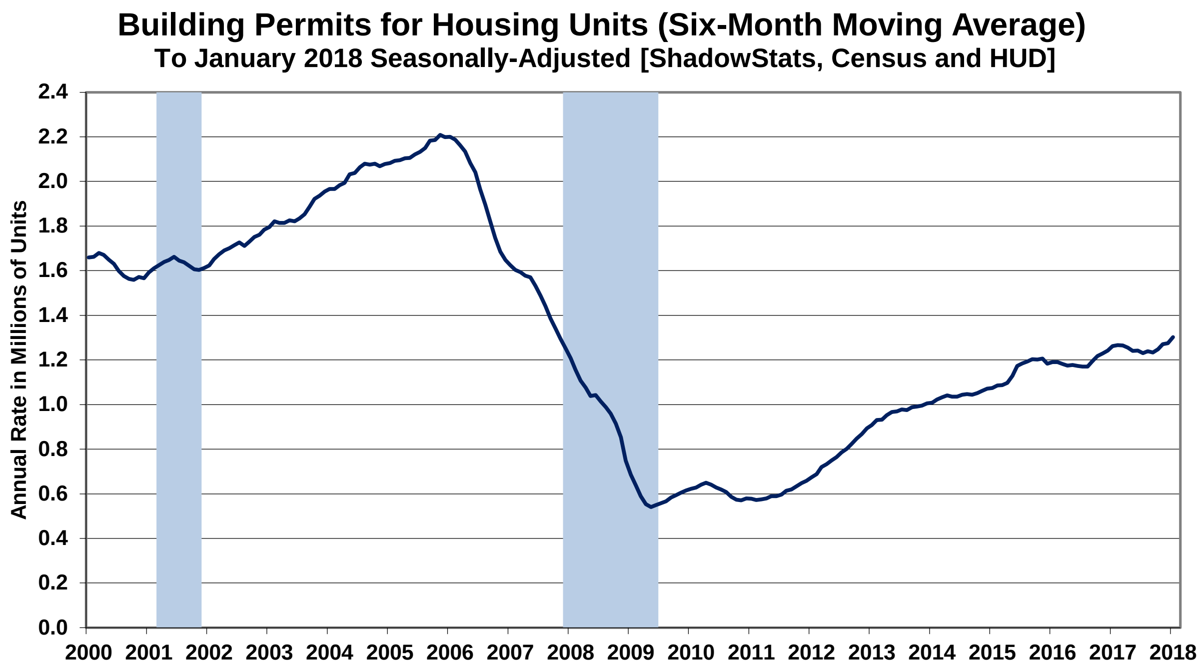
Graph 37: Building Permits (Annualized Monthly Rate of Activity), 2000 to Date



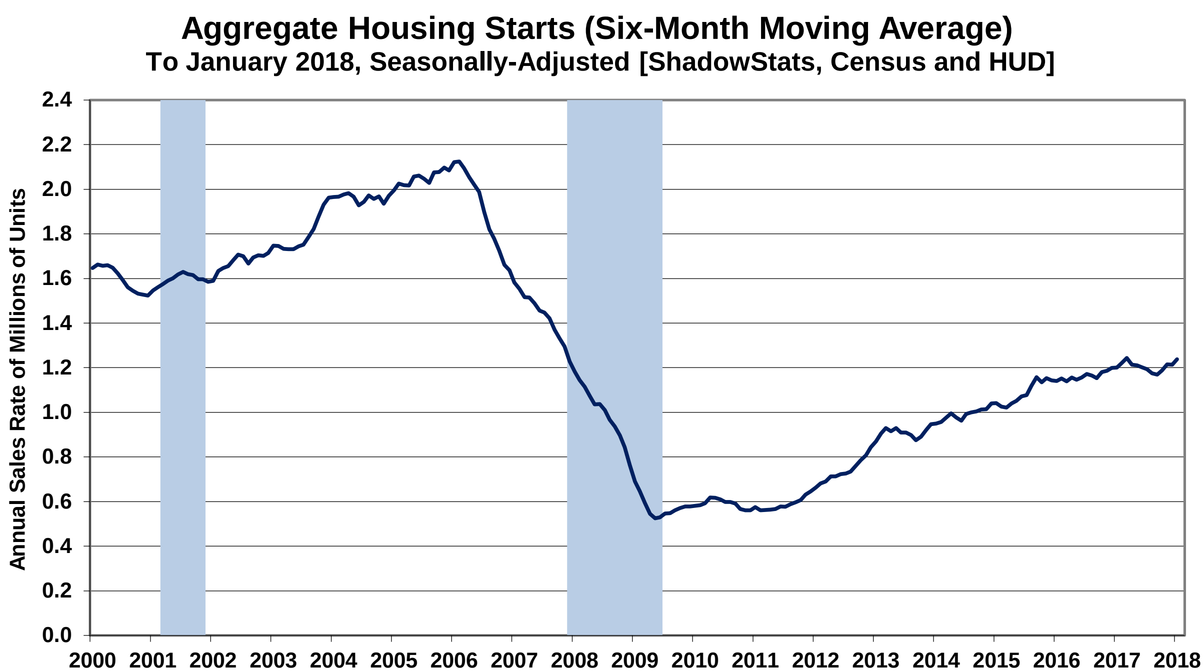
Graph 38: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date



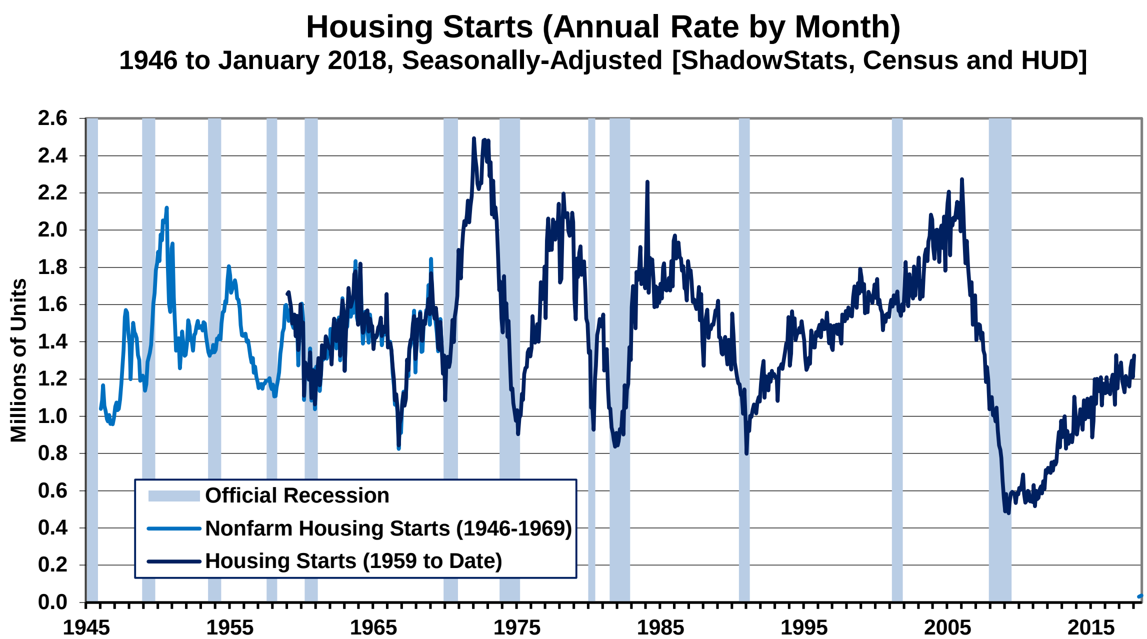
Graph 39: Building Permits (Six-Month Moving Average), 2000 to Date



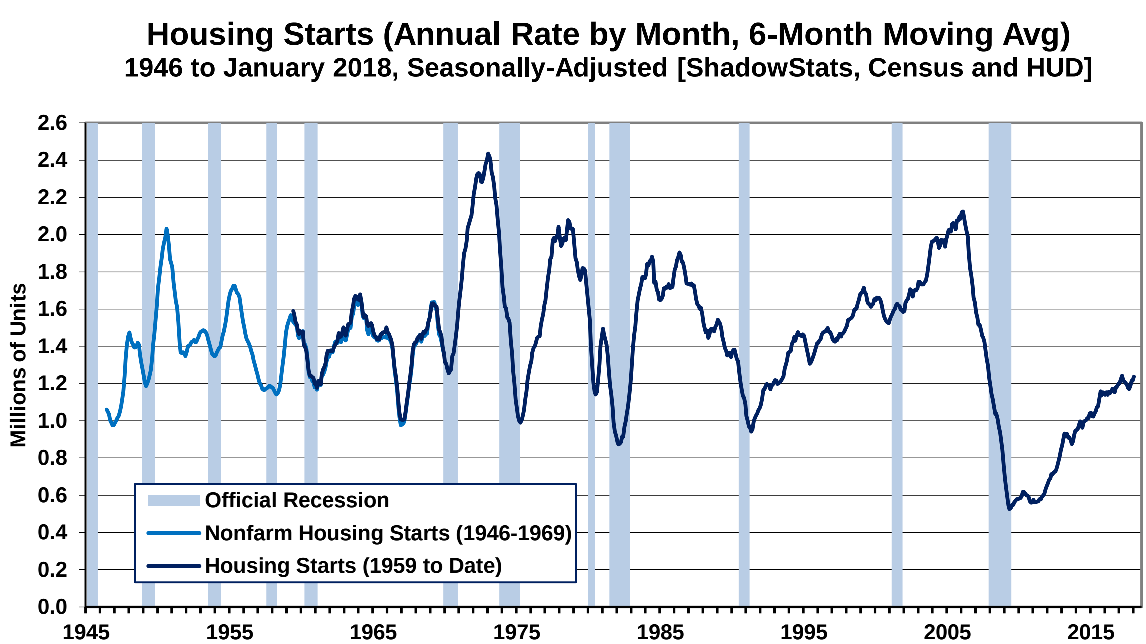
Graph 40: Housing Starts (Six-Month Moving Average), 2000 to Date



Graph 41: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date



Graph 42: Housing Starts (Annualized Monthly Rate of Activity, 6-Month Moving Avg), 1946 to Date



CONSUMER PRICE INDEX (January 2018)

With Seasonal Revisions and Unstable Gasoline, Monthly CPI-U Jumped 0.54%; Unadjusted Annual Held at 2.1%; Fed's Targeted 2.0% "Core" Held Range-Bound at 1.8% for 10th Month. Gasoline price volatility remained the driving force behind monthly inflation changes in both the aggregate consumer and producer price indices (see next *PPI Section*). Such likely will continue to dominate near-term, seasonally-adjusted monthly movement in the Consumer Price Index (CPI) and Producer Price Index (PPI), despite just-published annual revisions to both CPI and PPI seasonal adjustments. The problem remains that extreme, monthly gasoline price volatility of recent years increasingly has been moved by factors other than regular seasonal supply and demand issues.

Unadjusted (and unrevised) annual growth notched slightly lower to 2.07% in January 2018, from 2.11% in December 2017, still well shy of its 60-month high of 2.74% in February 2017, having hit a subsequent near-term trough of 1.63% in June 2017, and an interim near-term peak of 2.23% in September 2017.

What had led to the inflation surge into the February 2017 CPI annual gain were rising gasoline prices, largely independent of near-term economic activity. The same remains true in the current circumstance, heavily distorted by hurricane-disruptions (now backing off) and shifting political circumstances in the Middle East. Near-term inflation volatility usually reflects volatile gasoline prices, which also can reflect a number of other, more-controlled factors, such as the U.S. dollar and Federal Reserve policies.

Related inflation surges, past and present, rarely have been driven by an overheating economy, as claimed by some on the Fed's FOMC. Indeed, the FOMC's favored CPI-U inflation measure, the "Core" rate, net of food and energy, was at an unadjusted 1.82% in January 2018, where it has held for the last ten months at 1.8% +/- 0.1%, otherwise tied as the lowest annual core inflation rate since 1.6% in December 2015. Such is a contrived number, from which "Inflation Scare" headlines rarely are made.

Separately, with unadjusted annual January 2018 CPI-U inflation up by 2.1%, 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. Moving on top of the unadjusted annual changes to the CPI-U, the ShadowStats-Alternate Inflation Measures showed year-to-year inflation in January 2018 at 5.6%, based on 1990 methodologies, and at 9.8%, based on 1980 methodologies. Detailed in *Public Commentary on Inflation Measurement*, inflation based on common experience is much worse than the headlines, both as experienced by individual consumers, as well as within the business community.

Longer-Range Inflation Outlook. Despite U.S. dollar strength of recent years, what had been accelerating, then faltering dollar strength, subsequent to the post-2016 election euphoria, the dollar recently has continued under intensifying selling pressure. A tremendous threat to the dollar and systemic U.S. liquidity and market stability continues. That is tied to the U.S. Federal Reserve's fundamental inability to resolve the 2008 financial collapse, other than having bought limited time with emergency, stopgap measures. Also nearing extreme crisis are burgeoning, long-term U.S. sovereign-solvency issues.

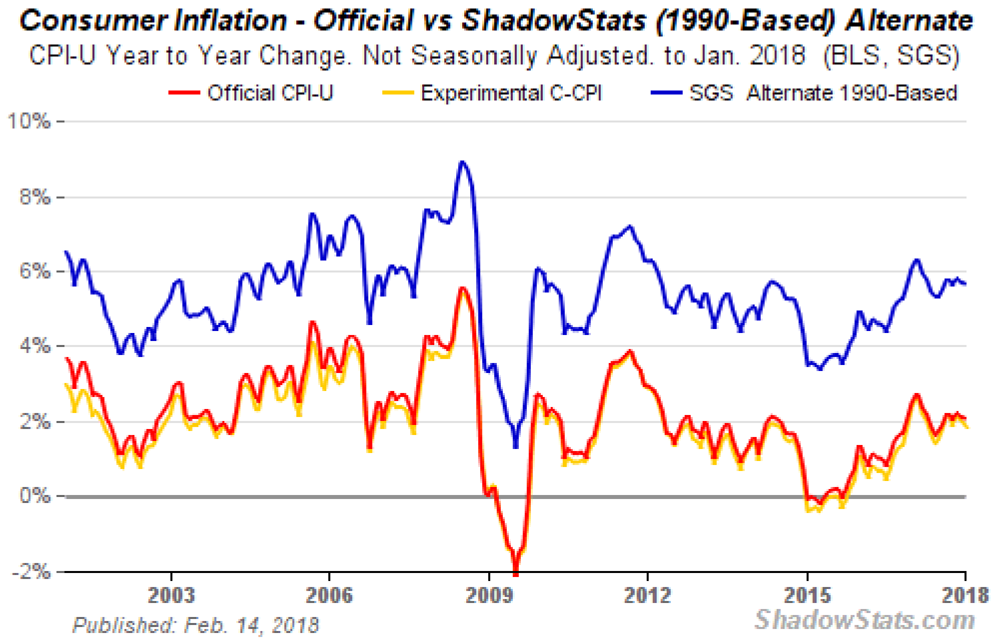
Recent FOMC tightenings have been despite continued, intensifying "adverse" economic circumstances feared by recent Fed Chair Janet Yellen. Circumstances had been masked, temporarily, by near-term disaster-recovery boosts to economic activity, a now rapidly-crumbling façade (see the *Opening Comments*). Those same "adverse circumstances" have acted as a drain on insurance-industry reserves and personal saving used to pay for disaster damages. With first-quarter 2018 GDP likely in quarterly contraction (albeit not yet recognized), the financial markets, particularly the global currency markets versus the U.S. dollar will begin to pick up on U.S. Treasury solvency concerns. Fed Chairman Powell's initial response to that unfolding circumstance should come within the next 30 to 60 days.

The U.S. central bank has been forced to, and continues to prop banking-system liquidity against an ongoing gale of renewed, economically-driven, banking-system solvency and liquidity issues, with those pressures, masked and then intensified by recent natural disasters, increasing political discord in Washington and mounting global political instabilities. Again, despite strong speculation and protestations to the contrary, the FOMC should end up renewing/expanding quantitative easing.

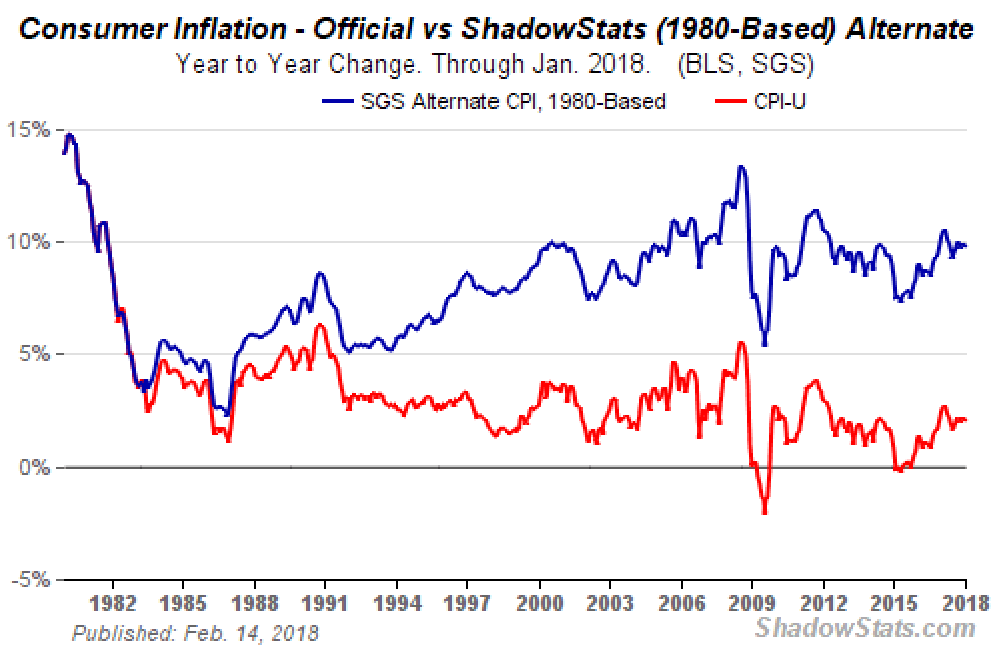
Compounding the high-risk of an increasing near-term run on the U.S. dollar remains mounting recognition in global markets of the Fed's conundrum, particular amidst mounting concerns as to U.S. fiscal stability. The Federal Reserve and other central banks still have no effective idea as to how to boost current economic activity, how to stabilize global banking-system solvency, or otherwise how to slog their way out of a self-generated quagmire. That circumstance only can be exacerbated by intensifying economic and political uncertainties (see the *Opening Comments* and *Special Commentary No. 935*).

[Graphs 43, 44, and "Notes on Different Measures of the Consumer Price Index" follow.]

Graph 43: Comparative Headline Year-to-Year Change, CPI-U vs. ShadowStats 1990-Based Alternate



Graph 44: Comparative Headline Year-to-Year Change, CPI-U vs. ShadowStats 1980-Based Alternate



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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)*** *was an experimental measure—now set to go active, formally, with pending 2017 Tax Reform (see the Opening Comments)—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.*

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CPI-U. In the context of annual, seasonal-adjustment benchmark revisions to the last five years, the Bureau of Labor Statistics (BLS) reported February 14th, that the headline, seasonally-adjusted January 2018 CPI-U inflation increased month-to-month by 0.5% [up by 0.54% at the second decimal point].

The followed revised monthly changes of 0.2% [0.20%] (previously 0.1% [0.15%]) in December 2017, 0.3% [0.34%] (previously 0.4% [0.39%]) in November, 0.1% [0.08%, previously 0.11%]) in October, 0.5% [0.46%, previously [0.55%]) in September, 0.4% [0.40%, previously 0.42%] in August and 0.1% [0.11%, previously 0.08%] in July, "unchanged" at 0.0% [an actual gain of 0.05%, previously a decline of 0.02% (-0.02%)] in June, a monthly decline of 0.1% (-0.1%) [0.07%, previously 0.13% (-0.13%)] in May, an increase in April of 0.2% [0.15%, previously 0.17%], a March drop of 0.2% [-0.16%] (previously down by 0.3% (-0.3%) [0.29% (-0.29%)]), an "unchanged" 0.0% [0.03%] (previously 0.1% [0.12%]) in February and 0.5% [0.51%] (previously 0.6% [0.55%]) in January 2017.

Unadjusted and unrevised, monthly January 2018 CPI-U rose by 0.54%, having declined 0.06% (-0.06%) in December 2017, having been unchanged at 0.00% in November, having declined in October by 0.06% (-0.06%), having gained by 0.53% in September and 0.30% in August, having declined in July by 0.07% (-0.07%), and having gained by 0.09% in June, 0.09% in May, 0.30% in April, 0.08% in March, 0.31% in February and 0.58% in January 2017.

Major CPI-U Groups. On a monthly basis, in the context of continuing, irregular gasoline price swings, post-hurricane impact in combination with other recent short-term gasoline price volatility, and despite continuing positive seasonal adjustments (which turn negative in February), the gain in adjusted January 2018 CPI-U monthly inflation was dominated by positive impact from rising Energy costs, with the muting effects of weaker monthly gains from Food and "Core" inflation (everything but food and energy). On an unadjusted basis, the total January CPI-U still showed a 0.54% monthly gain, still dominated by energy, muted by softer, positive inflation in the other major sectors.

Encompassed by the January 2018 CPI-U seasonally-adjusted monthly inflation gain of 0.54% [also up by 0.54% on an unadjusted basis], Food inflation gained by 0.20% [up by 0.40% unadjusted], where Energy inflation gained by 5.95% [up by 1.97% unadjusted], while the adjusted "Core" (ex-food and energy) inflation rate rose by 0.35% [up by 0.43% unadjusted].

Still running contrary to FOMC hopes and expectations, "Core" CPI-U inflation has yet to regain or hold 2.0% in the current cycle, holding now at 1.8% +/- 0.1% since April 2017. It showed an unadjusted year-to-year inflation rate of 1.82% in January 2018, versus 1.78% in December 2017, 1.71% in November 2017, 1.77% in October 2017, 1.69% in September 2017, 1.68% in August 2017, 1.69% in July 2017, 1.70% in June 2017, 1.73% in May 2017, 1.88% in April 2017, 2.00% in March 2017, 2.22% in February 2017, 2.27% in January 2017 and versus 2.20% in December 2016.

January 2018 seasonal adjustments for monthly gasoline inflation—usually reflective of the dominant pressure in energy prices—continued as the last lingering pattern of turning positive in the second-half of the year, for July, August, September, October, November, December and with January, having been heavily negative in first-half 2017, from February on. Such took a January 2018 CPI-U unadjusted monthly gain of 3.24% in gasoline prices to an adjusted month-to-month gain of 5.67%. The Department of Energy (DOE) had estimated an unadjusted monthly gain for January 2018 of 2.97%.

With early-February 2018 retail gasoline prices (DOE) running higher month-to-month versus January 2018, by an order of magnitude of 0.3%, and given likely negative seasonal adjustments to February 2018 gasoline prices, there should be little, if any, net-positive monthly impact of gasoline prices on the headline January CPI after the negative adjustments.

Year-to-Year CPI-U. Not seasonally adjusted, January 2018, year-to-year inflation for the CPI-U increased by 2.1% [2.07% at the second decimal point], versus gains of 2.1% [2.11%] in December 2017, 2.2% [2.20%] in November 2017, 2.0% [2.04%] in October 2017, 2.2% [2.23%] in September 2017, 1.9% [1.94%] in August 2017, 1.7% [1.73%] in July 2017, 1.6% [1.63%] in June 2017, 1.9% [1.87%] in May 2017, 2.2% [2.20%] in April 2016, 2.4% [2.38%] in March 2017, a 60-month high of 2.7% [2.74%] in February 2017, 2.5% [2.50%] in January 2017 and 2.1% [2.07%] in December 2016.

Year-to-year, CPI-U inflation would increase or decrease in next month's February 2018 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, headline gain of

0.03% in the February 2017 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 2018, 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 unadjusted January 2018 annual inflation rate of 2.07%. Given an early guess of a 0.2% seasonally-adjusted monthly gain in February 2018 CPI-U, that would leave the annual CPI-U inflation rate for February 2018 at about 2.3%, plus-or-minus.

Quarterly CPI-U . On a revised, seasonally-adjusted annualized quarter-to-quarter basis, seasonally-adjusted CPI-U rose by 3.31% [previously 3.72%] in fourth-quarter 2017, having gained 2.13% [previously 2.01%] in third-quarter 2017, 0.10% [previously declined by 0.31% (-0.31%)] in second-quarter 2017 and 2.96% [previously 3.15%] in first-quarter 2017.

On an unadjusted, year-to-year basis, annual inflation by quarter was unrevised up by 2.12% % in fourth-quarter 2017, versus 1.97% in third-quarter 2017, 1.90% in second-quarter 2017 and 2.54% in first-quarter 2017.

Annual Average CPI-U. The unadjusted annual average CPI-U inflation rate was 2.13% in 2017, versus 1.26% in 2016 and 0.12% in 2015.

CPI-W. The January 2018 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 0.62%, following monthly gains of 0.19% [previously 0.14%] in December 2017, 0.43% [0.50%] in November, 0.05% [0.08%] in October, 0.55% [0.66%] in September, 0.49% [0.46%] in August, 0.06% [0.10%] in July, 0.04% [previously down by 0.05% (-0.05%)] in June and a revised decline of 0.10% (-0.10%) [previously 0.20% (-0.20%)] in May, a monthly gain of 0.15% [0.18%] in April, declines in March of 0.22% (-0.22%) [0.37% (-0.37%)] and 0.05% (-0.05%) [previously a gain of 0.06%] in February and a gain of 0.59% [0.61%] in January 2017.

On an unadjusted basis, year-to-year CPI-W eased to 2.14% in January 2018, versus 2.18% in December 2017 and 2.32% in November 2017, versus 2.05% in October 2017, 2.31% in September 2017, 1.93% in August 2017, 1.64% in July 2017, 1.50% in June 2017, 1.78% in May 2017, 2.14% in April 2017, 2.35% in March 2017, 2.82% in February 2017 and 2.51% in January 2017.

Quarterly CPI-W. On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-W rose by a revised 3.75% [previously 4.29%] in fourth-quarter 2017, having gained a revised 2.26% [2.14%] in third-quarter 2017, having declined by a revised 0.26% (-0.26%) [0.77% (-0.77%)] in second-quarter 2017 and having gained by a revised 3.04% [3.22%] in first-quarter 2017.

On an unadjusted year-to-year basis, annual inflation by quarter was 2.18% in fourth-quarter 2017, versus 1.96% in third-quarter 2017, 1.80% in second-quarter 2017, 2.56% in first-quarter 2017.

Annual CPI-W. The unadjusted annual average CPI-W inflation rate was 2.13% in 2017, versus an average gain of 0.98% in 2016 and an average contraction of 0.41% (-0.41%) in 2015.

Chained-CPI-U. The headline C-CPI-U is not seasonally adjusted, but it is revised quarterly for the prior year, as was seen with the January 2018 reporting, in which year-to-year inflation rates revised lower by

0.09% (-0.09%) for each month back through March 2017, and with transitional downside revisions of 0.04% (-0.04%) and 0.06% (-0.06%) in January and February 2017.

Accordingly, the headline annual inflation rate for the C-CPI-U in January 2018 was 1.86%, versus downwardly revised annual gains of 1.93% in December 2017, 2.02% in November 2017, 1.80% in October 2017, 2.08% in September 2017, 1.68% in August 2017, 1.37% in July 2017, 1.26% in June 2017, 1.53% in May 2017, 1.89% in April 2017, 2.07% in March 2017, 2.56% in February 2017, and 2.27% in January 2017.

Quarterly C-CPI-U, Year-to-Year. On an unadjusted, year-to-year basis, annual inflation by quarter was up by 1.92% in fourth-quarter 2017, versus 1.71% in third-quarter 2017, versus 1.56% in second-quarter 2017, 2.30% in first-quarter 2017.

Annual Average C-CPI-U. The annual average C-CPI-U inflation rate was 1.87% in 2017, versus an annual gain of 0.93% in 2016 and an annual contraction of 0.12% (-0.12%) in 2015.

See the *Opening Comments* of *Commentary No. 920* as to the impact of the adoption of this measure and its costs to the tax-paying public in the recent overhaul of federal income taxes, also see discussions in the earlier *Commentary No. 721* and in the opening notes in the *CPI Section* of *Commentary No. 699* as to the most-recent changes in the series. More-frequent revisions and earlier finalization of monthly detail broadly have been designed to groom the C-CPI-U series as the new Cost of Living Adjustment (COLA) index of choice for the increasingly budget-deficit-strapped federal government, as discussed in the *Public Commentary on Inflation Measurement*.

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

Alternate Consumer Inflation Measures. The ShadowStats-Alternate Consumer Inflation Measures are constructed on top of the unadjusted CPI-U series. Adjusted to 1990 methodologies—the ShadowStats-Alternate Consumer Inflation Measure (1990-Base)—year-to-year annual inflation was roughly 5.6% in January 2018, versus 5.7% in December 2017, 5.8% in November 2017, 5.6% in October 2017, 5.8% in September 2017, 5.5% in August 2017, 5.3% in July 2017, 5.2% in June 2017, 5.5% in May 2017, 5.8% in April 2017, 6.0% in March 2017, 6.3% in February 2017, 6.1% in January 2017 and 5.7% in December 2016.

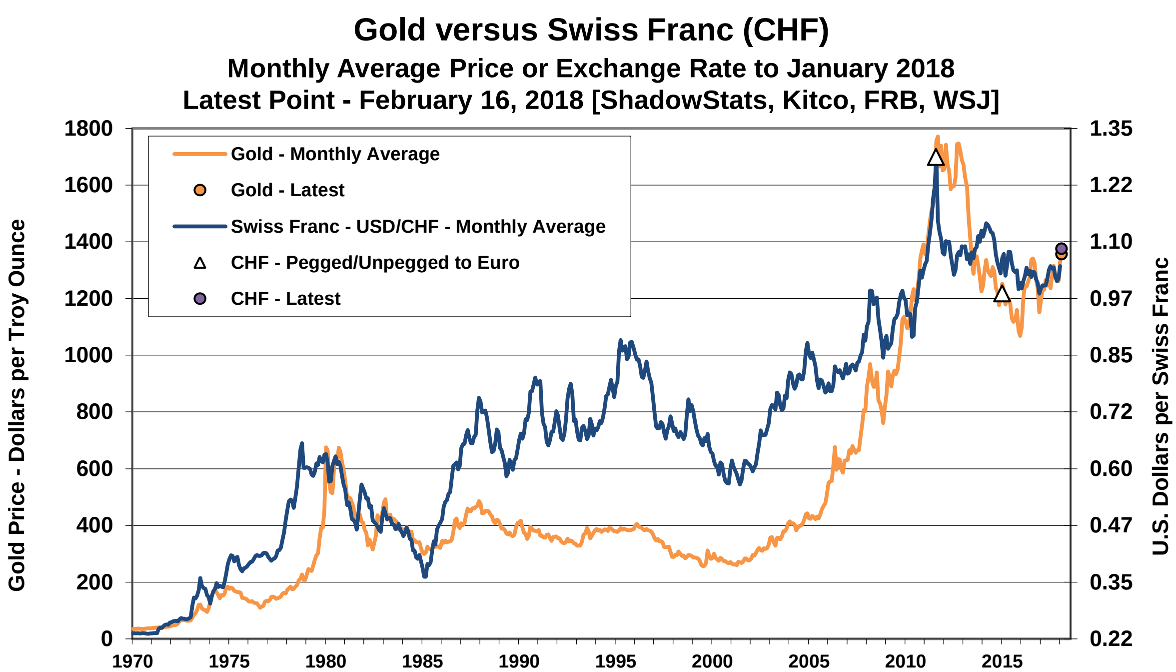
The January 2018 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, was at about 9.8% (9.81% at the second decimal point) in January 2018, versus 9.8% (9.85%) in December 2017, versus 9.9% (9.95%) in November 2017, 9.8% (9.78%) in October 2017, 10.0% (9.98%) in September 2017, 9.7% (9.67%) in August 2017, 9.4% (9.44%) in July 2017, 9.3% (9.34%) in June 2017, 9.6% (9.60%) in May 2017, 10.0% (9.95%) in April 2017, 10.1% (10.14%) in March 2017, 10.5% (10.53%) in February 2017, 10.3% (10.27%) in January 2017 and 9.8% (9.81%) in December 2016. Historic monthly detail, along with an inflation calculator will be found in the CPI section of the Alternate Data tab of the ShadowStats home page: www.ShadowStats.com.

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

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

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

Graph 45: Monthly Average Gold Price in Dollars (Federal Reserve Notes) vs. Swiss Franc



Gold and Silver Historic High Prices Adjusted for January 2018 CPI-U/ShadowStats Inflation

CPI-U: GOLD at $2,708 per Troy Ounce, SILVER at $158 per Troy Ounce
ShadowStats: GOLD at $15,044 per Troy Ounce, SILVER at $875 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 $2,708 per troy ounce, based on January 2018 CPI-U-adjusted dollars, and $15,044 per troy ounce, based on January 2018 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 2018 CPI-U inflation, the 1980 silver-price peak would be $158 per troy ounce and would be $875 per troy ounce in terms of the January 2018 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (again, all series not seasonally adjusted).

Accompanying *Graph 45* shows not just the regular gold plot published with monthly CPI detail, but also a comparative plot of the value of the Swiss franc (CHF) in U.S. dollars, usually published in the *Hyperinflation Watch*. As economic expectations have taken something of a hit in recent days, the U.S. dollar has lost ground against both gold and the CHF. Implications are highly inflationary for those living in a U.S. dollar-denominated world.

Shown in *Table 1* on page 47 of *No. 859 Special Commentary*, and in *Table INFLATION-1* on page 46 of *Special Commentary No. 935*, 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. The precious metals also (particularly gold in the last year) 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 Retail Sales—January 2018—Seasonally-Adjusted Monthly Sales Plunged 0.08% (-0.08%) [Down 1.6% (-1.6%) Net of Revisions and Seasonality Gimmicks], with Annual Growth Slowing to 1.48% from 3.02% [Previously 3.26%]. Details are found in the previous *Retail Sales* section.

Real Average Weekly Earnings—January 2018— Quarterly Real Average Weekly Earnings on Track for Third Consecutive Quarter Contraction. *[Note: Details are plotted in the* Executive Summary, Graph 13 on page 19, *and in the* Consumer Liquidity Watch, Graph CLW-7.*]* For the production and nonsupervisory employees category (deflated by the CPI-W)—the only series for which there is a meaningful history, back to 1964, the regularly-volatile, real average weekly earnings declined month-to-month in January 2017 by 0.78% (-0.78%). That was a decline at an initial annualized quarterly pace of 2.92% (-2.92%) for first-quarter 2018, which would be the third, consecutive annualized quarterly real contraction in average weekly earnings, the fifth quarter-to-quarter decline of the last six quarters. The numbers here have been affected by annual seasonal-adjustment revisions to the CPI-W inflation series (see the earlier CPI-W section).

<u>Production and Nonsupervisory Employee Details.</u> The headline estimate for January 2018 real average weekly earnings was published along with the release of the headline January 2018 CPI-W on February 14th, included revised seasonally-adjusted changes to the CPI-W series, and annual benchmark revisions to the nominal income details. In the production and nonsupervisory employees category, again, the only series for which there is a meaningful history, the regularly-volatile real average weekly earnings declined month-to-month by 0.78% (-0.78%) in January 2018, having gained month-to-month by a revised 0.17% [previously 0.18%] in December, by a revised decline of 0.20% (-0.20%) [previously 0.06% (-0.06%)] in November, by a revised gain of 0.16% [previously 0.13%] in October, and by revised monthly declines of 0.14% (-0.14%) [previously 0.30% (-0.30%)] in September and by 0.55% (-0.55%) [previously 0.53% (-0.53%)] in August.

Year-to-year, the adjusted January 2018 real change softened to 0.20%, versus a revised 0.54% [previously 0.69%] in December 2017, 0.33% [previously 0.50%] in November 2017, 0.46% [previously 0.40%] in October 2017, 0.27% [previously 0.18%] in September 2017, 0.65% [previously 0.47%] in August 2017.

With first-quarter 2018 earnings now on track for an annualized quarterly contraction of 2.92% (-2.92%), such would follow an annualized fourth-quarter 2017 contraction of 0.78% (-0.78%) [previously down by 0.94% (-0.94%)], versus a minimal annualized decline of 0.03% (-0.03%) [previously 0.7% (-0.7%)] in third-quarter 2017, an annualized gain of 3.48% [previously 4.43%] in second-quarter 2017, an annualized contraction of 0.84% (-0.84%) [previously 0.01% (-0.01%)] in first-quarter 2017 and an annualized contraction of 0.18% (-0.18%) [previously down by 1.36% (-1.36%)] in fourth-quarter 2016.

On an annual-average basis, real-average weekly earnings through December 2017 were up by 0.38%, versus 1.27% in December 2016.

Discussed in the *Consumer Liquidity Watch*, the government's headline data remained suggestive of intensifying income and liquidity issues for the consumer.

Separately, the CPI-W-deflated reporting here biased 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 seen in January 2017 detail, where strong, seasonally-adjusted gasoline prices helped to generate a headline, seasonally-adjusted CPI-W gain of 0.63% month-to-month, versus the parallel CPI-U gain of 0.54%.

Graph 13 in the *Executive Summary* and *Graph CLW-7* in the *Consumer Liquidity Watch*, plot this series, showing the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened headline CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much closer to common experience than the pattern suggested by the CPI-W. See the *Public Commentary on Inflation Measurement* for further detail.

Real (Inflation-Adjusted) Money Supply M3—January 2018—Annual Change Notched Minimally Higher, Reflecting a Minimal CPI-U Pullback versus an Unchanged Level in Nominal M3 Growth. 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), had been re-triggered/intensified, recently, but that signal then has softened or flattened out with contrary bounce since May 2017. The previous signal had been, and has remained in place, despite real annual M3 growth having rallied into positive territory post-2010, and the real growth pattern having turned down anew, with annual nominal M3 growth slowing faster than CPI-U annual inflation into June 2017, followed with a reversal of trend into October 2017 with monthly fluttering in November and December 2017, and January 2018 detail.

Shown in *Graph 46*—based on the January 2018 CPI-U reporting and the latest ShadowStats-Ongoing M3 Estimate—annual inflation-adjusted growth in January 2018 M3 inched higher to 2.49% versus 2.45% [previously 2.66%] in December 2016, reflecting downside benchmark revisions to the Federal Reserve's money measures. Those levels of activity remained unchanged versus peak growth of 5.71% in February 2015].

The increase in the January versus December number, reflected a minimal decrease in annual, unadjusted CPI-U (see the first parts of this *CPI* section), versus an unchanged annual growth level in nominal M3 (see *Commentary No. 934-A*).

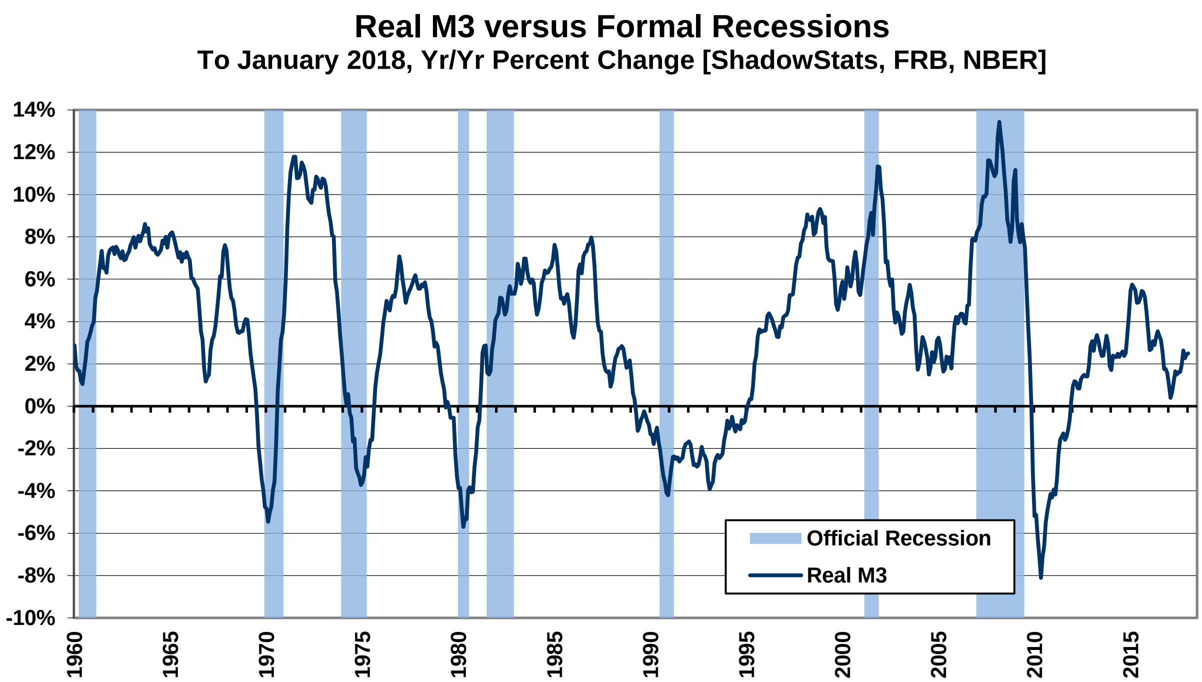
The recent stagnation in annual growth still likely reflected a temporary reversal in the pattern of plunging annual growth, which has held at levels last seen in plunging growth into the 2009 economic collapse, a level always seen going into, or already in a recession.

The signal for a downturn or an intensified downturn is generated when annual growth in real M3 first slows sharply, approaches zero 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 previous "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 (see *Commentary No. 877* and *Commentary No. 902-B*). The initial economic downturn never evolved into a meaningful or sustainable recovery. The current level and pattern of real annual M3 growth generally has been followed by annual contraction and recession signal.

Again, when real M3 growth breaks above zero, there is no signal; the signal is generated only when annual growth moves to zero and into negative territory, from which it has backed off 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, separate from what likely was short-lived activity generated by the destruction and resulting recovery from a particularly-severe hurricane and California wildfire seasons. Actual post-2009 economic activity has remained at relatively low levels—in protracted stagnation—with no actual recovery (see *Commentary No. 923*, 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 (see the *Opening Comments*) that likely still will gain official recognition as a "new" recession, in the months ahead. Underlying reality remains that the collapse into 2009 was followed by a plateau of low-level economic activity—no meaningful upturn, no full recovery from or end to the official 2007 recession, no new economic expansion—where the unfolding “new” downturn remains nothing more than a continuation and re-intensification of a downturn that began unofficially in 2006.

Graph 46: Real M3 Annual Growth versus Formal Recessions



PRODUCER PRICE INDEX—PPI (January 2018)

January 2018 Final Demand Annual PPI Inflation: Notched Higher to 2.69%, from 2.61%, with a 0.44% Monthly Gain Boosted from 0.00% in December by Energy and Outpatient Costs Gyrating gasoline costs continued to dominate energy costs and monthly wholesale inflation, as well as monthly consumer inflation. That said, the Final Demand Producer Price Index (FD-PPI) is dominated in its weighting by the services sector, where somewhat nebulous, shifting profit margins often counter price movements in the lower-weighted hard costs of the goods sector. That 2.69% annual gain for January 2018 encompassed 2.32% in the Services sector, 3.28% in the Goods sector (Energy and Food) and 3.39% in the Construction sector.

Irrespective of inflation reporting out of the Bureau of Labor Statistics (BLS), which remains well shy of common experience for consumers (see the CPI coverage), as well as businesses, the Federal Reserve tends to ignore energy and food inflation in its headline polices, concentrating instead on “core” inflation, net of those “problem” energy and food areas.

Negligible Revisions Except for Seasonally-Adjusted Energy Prices in the Hurricane Season. Headline January 2018 PPI inflation detail incorporated annual revisions and series redefinition changes (updating current weightings, based on 2007, to weightings based on 2012 detail), in addition to the regular annual seasonal-adjustment and relative-importance changes. The effects largely were nil for unadjusted data and otherwise were small, with new adjusted month-to-month percent changes not varying more than 0.1%, plus-or-minus, from prior reporting for the aggregate series, plus-or-minus 0.2% for the major subsidiary series. The big exception was in the extremely volatile energy prices, particularly during and after the 2017 hurricane season. Headline revisions to recent numbers and to category weightings are shown in the *January 2018 Headline Detail* section. There were no definitional changes altering the problematic structural nature of the dominant services-side of the FD-PPI.

Goods Detail. Separate from the conundrums of service-sector definitional issues, the old-fashioned, headline seasonally-adjusted monthly PPI-FD Goods inflation in January 2018 rose by 0.71%, which reflected a monthly drop of 0.17% (-0.17%) in foods, a 3.40% monthly increase in energy and a 0.17% monthly gain in "core" goods. For the PPI-FD Goods sector, unadjusted annual inflation of 3.28% in January 2018 had eased from 3.50% in December 2017.

Construction Detail. Generally not headlined, the construction sector reflects elements of both cost and margins. The headline seasonally-adjusted monthly PPI-FD Construction inflation in January 2018 rose by 0.76%, having declined for the month of December by 0.08% (-0.08%). For the PPI-FD Construction sector, unadjusted annual inflation of 3.39% in January 2018 had jumped from 2.97% in December 2017.

Services-Side Detail. The headline monthly PPI Final-Demand aggregate inflation generally reflects neither real-world activity, nor common experience, except by possible coincidence. As structured, the aggregate, wholesale inflation rate remains dominated by the services sector, which is of negligible common-experience or theoretical value, as discussed in the following *Bulk of Headline PPI Reporting Is of Little Practical Use* section.

That said, headline, seasonally-adjusted monthly PPI-FD Services inflation in January 2018 rose by 0.35%, which reflected a monthly gain of 0.44% in the category "less trade, transportation and warehousing" (including hospital outpatient healthcare), a gain of 0.43% in "transportation and warehousing" and a gain of 0.35% in trade. For the PPI-FD Services sector, unadjusted annual inflation of 2.32% in January 2018 notched higher from 2.24% in December 2017.

Bulk of Headline PPI 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 *Public Commentary on Inflation Measurement*), 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, rather than as the hybrid measure of the headline Producer Price Index Final Demand, the aggregate headline series here (ShadowStats separates the analyses of those sectors by sub-category) 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 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. When 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 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 eight years of post-2008-panic data) to establish any meaningful relationship to general inflation or other economic or financial series.

January 2018 Headline PPI Detail. In the context of series and annual seasonal-adjustment and weightings revisions, the Bureau of Labor Statistics (BLS) reported February 15th, that the seasonally-adjusted, month-to-month, headline Producer Price Index Final-Demand (PPI-FD) inflation for January 2018 rose by 0.44%, versus "unchanged" at 0.00% [previously down by 0.09% (-0.09%)] in December 2017 and a monthly gains of 0.35% [previously 0.44%] in both November.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI-FD inflation in January 2018 was 2.69%, versus an unrevised 2.61% in December 2017 and down from a 70-month high (since January 2012) of 3.07% in November 2017.

For the three major subcategories of the December 2017 PPI-FD, which, again, showed a monthly gain of 0.44% and 2.69% annual inflation, headline monthly Goods inflation was rose by 0.71% month-to-month, up by 3.28% year-to-year, Services "inflation" (profit margins) rose month-to-month by 0.35%, up by 2.32% year-to-year, and Construction inflation rose in the month by 0.76%, up by 3.39% year-to-year.

<u>Final Demand Goods (weighted at 33.01% [previously 33.81%] 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 2018 rose by 0.71%, having gained 0.09% [previously "unchanged" at 0.00%] in December 2017, following a gain of 0.89% [previously 0.98%] in November. There was neutral impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, January inflation also was 0.71%.

Unadjusted, year-to-year goods inflation in January 2018 showed an annual gain of 3.28%, following unrevised annual gains of 3.50% in December 2017 and 4.17% in November 2017.

Headline seasonally-adjusted monthly changes by major components of January 2018 Final Demand Goods:

- "Foods" inflation (weighted at 5.72% [previously 5.40%] of the total index) declined month-to-month by 0.17% (-0.17%) in January 2018 and by 0.43% (-0.43%) [previously 0.68% (-0.68%)] in December 2017, having gained 0.53% in November. Seasonal adjustments were positive for the January headline change, which was an unadjusted monthly contraction of 0.26% (-0.26%). Unadjusted and year-to-year, annual January 2018 foods inflation rose by 1.84%, having gained 2.11% in December 2017 and 3.54% in November 2017.
- "Energy" inflation (weighted at 5.58% [previously 5.50%] of the total index) rose by 3.40% month-to-month in January 2018, having gained 0.47% [previous "unchanged" at 0.00%] in December 2017 and 3.64% [previously 4.63%] month-to-month in November. Seasonal adjustments were positive in January, with unadjusted energy at 2.22%. Unadjusted and year-to-year, January 2018 energy prices gained 9.18%, versus an unrevised 10.12% in December 2017 and 12.15% in November 2017.
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 21.71% [previously 22.91%] of the total index) gained month-to-month by 0.17% in January 2018, having unrevised gains of 0.18% in December 2017 and 0.26% in November. Seasonal adjustments were negative for monthly core inflation, with the unadjusted monthly January inflation up by 0.44%. Unadjusted and year-to-year, January 2018 "core" inflation eased to 2.14%, versus 2.33% in December 2017 and 2.42% in November 2017.

<u>Final Demand Services (weighted at 65.35% [previously 64.12%] of the Aggregate Index).</u> Headline Final Demand Services inflation rose by 0.35% in January 2018, having declined in December 2017 by a revised 0.09% (-0.09%) [previously 0.17% (-0.17%)] and having gained an unrevised 0.17% in November. The overall seasonal-adjustment impact on headline services inflation was negative, with an unadjusted monthly gain of 0.52%. Year-to-year, unadjusted January 2018 services inflation was 2.32%, versus 2.24% in December 2017 and 2.41% in November 2017.

The headline monthly changes by major component for January 2018 Final Demand Services inflation:

- "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 40.53% [previously 38.87%] of the total index) monthly inflation rose by 0.44% in January 2018, having gained 0.18% [previously 0.09%] in December 2017 and 0.26% [previously 0.44%] in November. Seasonal-adjustment impact on the January detail was negative, where the unadjusted monthly reading was a gain of 0.62%. Unadjusted and year-to-year, January 2018 "other" services inflation was up by 2.51%, versus 2.34% in December 2017 and 2.25% in November 2017.
- "Transportation and warehousing" inflation (weighted at 4.47% [previously 4.99%] of the total index) rose month-to-month by 0.43% in January 2018, having declined by 0.59% (-0.59%) [previously by 0.42% (-0.42%)] in December 2017, and having gained 0.51% [previously 0.60%] in November. Seasonal adjustments were negative for the headline January reading, versus an unadjusted monthly gain of 1.11%. Unadjusted and year-to-year, January 2018 transportation inflation rose by 2.52%, versus 1.83% in December 2017 and 3.52% in November 2017.
- "Trade" inflation (weighted at 20.35% [previously 20.26%] of the total index) gained by 0.35% month-to-month in January 2018, having declined by a revised 0.43% (-0.43%) [previously 0.42% (-0.42%)] in December 2017 and by an unrevised 0.34% (-0.34%) in November. Seasonal adjustments had a positive impact, where the unadjusted monthly change was up by 0.09%.

Unadjusted and year-to-year, January 2018 trade inflation continued softening to an annual gain of 1.67%, versus 2.12% in December 2017 and 2.46% in November 2017.

Final Demand Construction (weighted at 1.64% [previously 2.07%] of the Aggregate Index). 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 increased by 0.76% in January 2018, having declined by 0.08% (-0.08%) in December 2017 and by 0.17% (-0.17%) in November. The impact of seasonal factors on the January reading was neutral, as usual, where the unadjusted monthly gain also was 0.76%. 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*.

On an unadjusted basis, year-to-year construction inflation rose to 3.39% in January 2018, having been at 2.97% in both December 2017 and November 2017. The PPI annual change here recently had moved closer to the estimates of private surveying and other government estimates (GDP deflators), which usually show much higher construction-related inflation than the PPI. The headline annual PPI inflation, however, still generally is shy by an order of magnitude of at least a hundred basis points from private and other surveying. Annual inflation in those measures generally appears to be on the rise. 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 (see *Commentary No. 934-A*).

PPI-Inflation Impact on Pending Reporting of January 2018 New Orders for Durable Goods. As to the upcoming reporting of January 2018 New Orders for Durable Goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods in January 2018 increased by 0.41%, having been "unchanged" at 0.00% in December 2017 and having gained 0.12% in November. Year-to-year annual inflation rose to 1.79% in January 2018, versus 1.67% in December 2017 and against 1.92% in November 2017. January 2018 durable goods orders (both nominal and real) will be reported and calculable on February 27th, with coverage in the *Commentary* of February 28th.

[The* Consumer Liquidity Watch *begins on the next page.]

CONSUMER LIQUIDITY WATCH

CONSUMER LIQUIDITY, INCOME, CREDIT AND RELATIVE OPTIMISM. *[Updated for January 2018 Real Average Weekly Earnings and the "advance" estimate of the University of Michigan's Consumer Sentiment for February 2018 and the opening paragraphs.]*

Continuing Consumer Liquidity Stresses Constrain Broad Economic Activity. The U.S. consumer faces ongoing financial stress, which recently had been mirrored in renewed softening of fundamental headline economic activity, including Payroll-Employment, Real Retail Sales, Housing and Construction, and the Manufacturing/Production sector, all pre-hurricane activity. Net of what have been mixed, but significant, near-term hurricane distortions, initial hits to activity were followed by related and transient economic boosts from recovery, replacement and restoration activity. Funded by insurance payments and savings liquidation, those distortions broadly should pass from headline data by the February/ March reporting of January/February 2018-headline detail. Discussed in today's *Opening Comments*, hurricane-boosted activity already appears to have peaked in November 2017. Such effects have been, and will continue to be, discussed in the separate analyses of relevant series in covered in the regular *ShadowStats Commentaries*. Separately, as discussed ahead, there have been recent signals of faltering consumer liquidity, with mixed optimism, despite recent, albeit heavily distorted, positive economic reporting.

Monthly series that have faced the most severe, disaster-triggered reporting disruptions, where headline details have yet to stabilize or correct, include in particular Household Survey Employment and Unemployment (see the *Opening Comments* of *Commentary No. 930-B*). Retail Sales and Industrial Production appear to have stabilized, and are beginning to turn down anew, as discussed in earlier sections, but they still need to subside to levels stable with normal consumption activity and inventories. Despite the initial slowing in headline Fourth-Quarter 2017 GDP growth, the series remains heavily bloated from the disaster-distortions (see *Commentary No. 933*), potential downside revisions loom, as well as increasing odds for an outright quarterly contraction in real First-Quarter 2018 GDP .

Liquidity Issues Limit Economic Activity. Severe and persistent constraints on consumer liquidity of the last decade or so drove economic activity into collapse through 2009, and those conditions have prevented meaningful or sustainable economic rebound, recovery or ongoing growth since. The limited level of, and growth in, sustainable real income, and the inability and/or unwillingness of the consumer to take on new debt have remained at the root of the liquidity crisis and ongoing economic woes.

These underlying pocketbook issues contributed to the anti-incumbent electoral pressures in the 2016 presidential race. The post-election environment showed a near-term surge in both the consumer confidence and sentiment measures to levels generally not seen since before the formal onset of the recession in 2001, let alone 2007. Yet, underlying liquidity conditions, economic reality and lack of positive actions out of the government to turn the economy meaningfully, so far, all have continued to remain shy of consumer hopes, and those numbers have begun to stumble in recent detail.

A temporary liquidity boost fueled by recent disaster effects, such as insurance payments or savings drawdowns to fund replacement of storm-damaged assets, are of a one-time nature and short-lived in terms of ongoing economic impact. The underlying, fundamental longer-term liquidity issues remain in place. Nonetheless, mirroring the disaster-fueled economic hype in the popular press, consumer optimism had rallied strongly, albeit, again, now faltering or mixed, as discussed shortly.

Including the various consumer-income stresses discussed in *Special Commentary No. 888*, broad, underlying consumer-liquidity fundamentals simply have not supported, and still do not support a fundamental turnaround in general economic activity—a post "Great Recession" expansion—and broadly are consistent with a "renewed" downturn in that non-recovered economic activity. Indeed, never truly recovering post-Panic of 2008, limited growth in household income and credit have eviscerated and continue to impair broad, domestic U.S. business activity, which is driven by the relative financial health and liquidity of consumers. These underlying liquidity conditions and reality—particularly income and credit—remain well shy of average consumer hopes and needs, irrespective of the new tax laws.

The combined issues here have driven the housing-market collapse and ongoing, long-term stagnation in consumer-related real estate sales and construction activity, and have constrained both nominal and real retail sales. Related, personal-consumption-expenditure and residential-construction categories accounted for 73.1% of the headline real, fourth-quarter 2017 U.S. GDP.

Net of short-lived disaster distortions (insurance payments, savings liquidations), with the better-quality economic indicators and underlying economic reality never having recovered fully from the collapse into 2009, consumers increasingly should pull back on consumption in the months ahead. Underlying reality is evident in more-meaningful economic indicators—not the GDP—irrespective of the transient boosts from disasters or political gimmicks, discussed recently in *General Commentary No. 929* and the *Executive Summary* of *Commentary No. 928*.

Anecdotal Evidence of Business and Consumer Uncertainty Continue to Indicate a Seriously-Troubled Economy and Very Dangerous Financial Markets. Against what appears to be a headline economic consensus that all is right again, with the U.S. economy and financial markets, underlying real-world common experience suggests a much different outlook. Regularly discussed here, ongoing non-recovery, low-level stagnation and signs of renewed downturn remain patterns common to key elements of headline U.S. economic activity. Consider factors ranging from housing sales and broad construction activity, to headline reporting of domestic manufacturing, as well as those series that are heavily gimmicked, such as the Gross Domestic Product (GDP), also regularly discussed and dissected here.

Similar signals of such economic stress are seen in patterns of activity that move along with the real-world broad economy. They range from indicators such as freight volume and domestic consumption of petroleum to factors such as levels of real consumer debt outstanding, real average weekly earnings and measures of employment stress in the broad economy. Those stresses are reflected in historically-low levels of the employment-population ratio and the labor-force participation rate. With the liquidity-starved U.S. consumer driving three-quarters of the GDP, there is no way for the broad economy to boom—happy Retail Sales headlines aside—without some meaningful shift in underlying consumer circumstances. Links to background discussions in these various areas are found in the *Recent*

Commentaries section of the *Week, Month and Year Ahead*, along with links to background discussions on the quality of the more-politicized GDP (*Commentary No. 928*) and employment/unemployment details discussed in the *Supplemental Labor-Detail Background* of *Commentary No. 930-B*.

Beyond assessing headline economic numbers, ShadowStats also looks at anecdotal evidence, including comments by subscribers and clients, who live in the real world. Two broad observations have come from a number of recent conversations. First, real estate activity appears to be slowing in recently strong areas. Second, a number of major companies are "sitting on their hands," holding back on issuing new contracts to third-party vendors in areas such as upgrading computer systems and other consulting. The companies cite the slowdown in contracts as "due to uncertainty," an issue, as well with the U.S. consumer, where that uncertainty encompasses:

- Unfolding circumstances in the Washington, D.C. political arena.
- Where the manic financial markets are headed.
- Ultimately, what is, or will be, happening to near-term business activity?

Economic reporting, and business and financial-market stories sometimes receive happy year-end spikes in the press. That circumstance was supplemented in late-2017 by near-term hurricane boosts to, and distortions of, some current economic activity, such as the November Retail Sales reporting. The latter circumstance should prove fleeting. The underlying, broadly-faltering U.S. economy should be dominating headline economic reporting, once again, and all too soon, most likely early in 2018. That said, albeit reflecting some of the headline economic hype in the popular press, headline consumer optimism remains strong, albeit faltering most recently.

Consumer Optimism: Consumer Sentiment and Confidence Are Mixed. On top of the full-month December 2017 readings pulling back sharply for both The Conference Board's Consumer-Confidence Index® (Confidence), and the University of Michigan's Consumer Sentiment Index (Sentiment), full-January 2018 Confidence and Sentiment (February 2nd) readings were minimally-positive and down. While January Confidence (January 30th) rose slightly, it did little to offset the December decline and was in the context of indications of mounting foreclosure activity in the homeowner real estate market (see *Existing Home Sales* in the *Reporting Detail* of *Commentary No. 933*). Those numbers were just updated (February 16th), for the early estimate of February 2018 Sentiment, which turned higher in the month, despite mounting economic and financial-market uncertainties.

Reflected in *Graphs CLW-1* and *CLW-2*, Confidence and Sentiment monthly readings had jumped sharply, respectively to multi-year highs in November and October. Yet, the December Confidence reading plunged, more than offsetting the November gain and most of the October gain, in context of a downside revision to the November reading. Similarly, November and December Sentiment readings, and now January also pulled back sharply or only minimally recovered, largely offsetting the October surge there. Nonetheless, the latest headline readings remained above their pre-2007 recession peaks.

The deepening monthly downturns in both the headline Sentiment and Confidence numbers had not been consistent with headline, resurgent economic/employment activity, or with the popular media's heavily-touted, just-passed strong Holiday-Shopping Season.

For both the Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph CLW-1*), and the University of Michigan's not-seasonally-adjusted Consumer-

Sentiment Index (*Graph CLW-2*), the three-month moving averages also were above pre-2007 recession highs, yet the still-high moving averages—either flattened out or notched lower in January—having begun to falter in September 2017, before the storm-distorted, unusual headline surges in October and November activity.

Smoothed for six-month moving averages (see *Graph CLW-3*), both series continued above their pre-2007 recession peaks, with the Confidence measure at its highest level since March 2001, as it had been plummeting into the onset 2001 recession. That said, on a monthly basis, the current January 2018 readings for both the Confidence and Sentiment measures were down respectively from their pre-2001 recession peaks of May and January 2000, by 15.7% (-15.7%) and 10.8% (-10.8%).

Pre-election, September 2016 Confidence and Sentiment jumped and then plunged in October 2016, likely reflecting concerns as to the direction of the presidential race. Post-election, both measures rallied sharply, reflecting surges in consumer optimism into early-2017. Both series then topped and pulled back, with mixed numbers into August and September 2017, but with the October 2017 Sentiment measure showing a large jump, purportedly because consumers were willing to accept diminished prospects for their living standards (see *Commentary No. 916*)? Nonetheless, the Sentiment measure retrenched in November and December. The Conference Board blamed hurricane impact in Texas and Florida for its downturn in September 2017 Confidence, but those numbers exploded into October and November 2017, again reversing largely with December's headline downturn.

Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs CLW-1* to *CLW-3* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while the University of Michigan's Consumer Sentiment Index is set with January 1966 = 100.

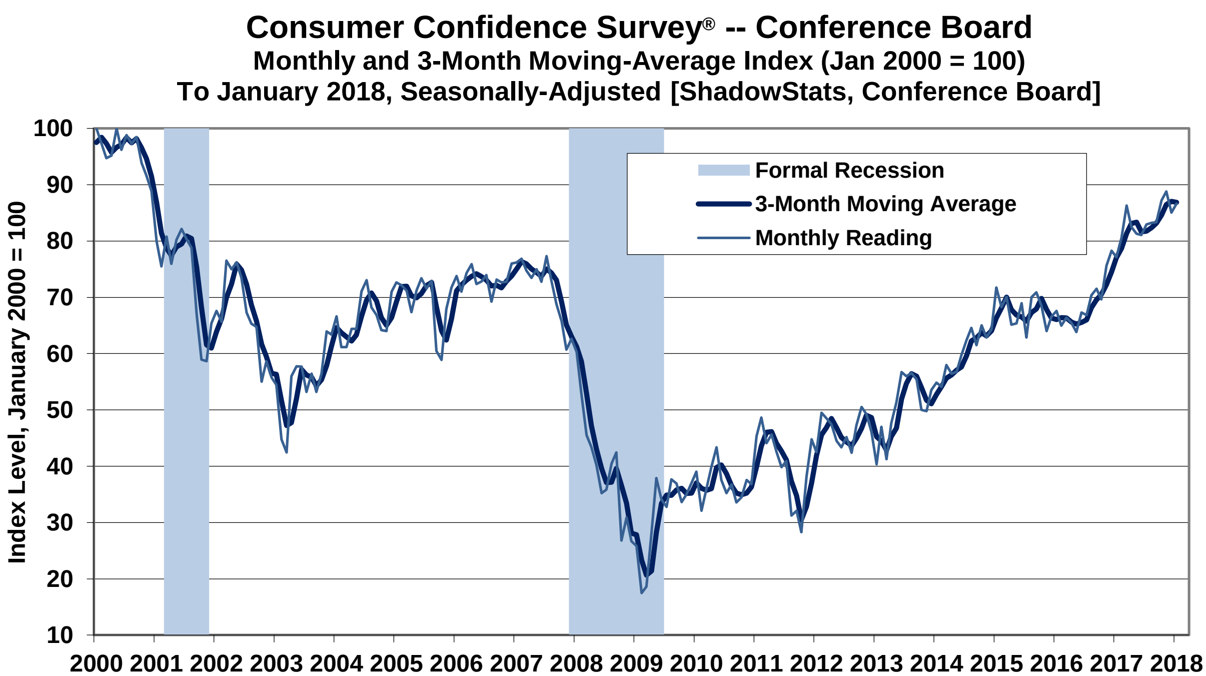
The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in *Commentary No. 764*), and often are highly volatile month-to-month, as a result. Recent press has been highly positive on the headline economic and employment news, reflecting short-lived hurricane boosts to activity particularly on unemployment (not payroll employment), retail sales and industrial production. Headline financial and economic reporting in the next month or two should turn increasingly-negative and unstable. The current downturn in consumer outlook, despite euphoric headlines is unusual and likely reflects some deep-seated consumer liquidity concerns.

With near-term headline financial and economic reporting likely to turn increasingly negative in the next couple of months, successive negative hits to both the confidence and sentiment readings are likely to continue in the near future.

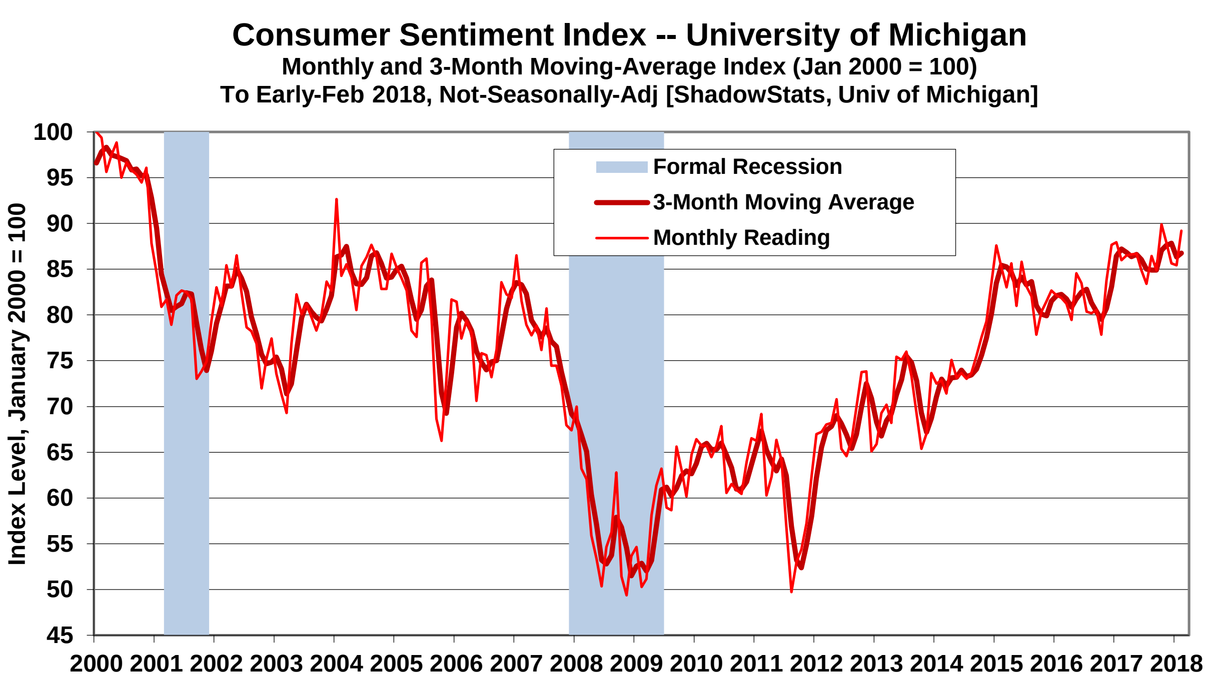
Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and for third-quarter 2016 and into third-quarter 2017. Beyond having happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CLW-3*—plotted for the last 48 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods of normal, positive economic activity of the last four decades, with their six-month moving averages at levels last seen going into the 2001 recession, although increasingly, they appear to be topping out.

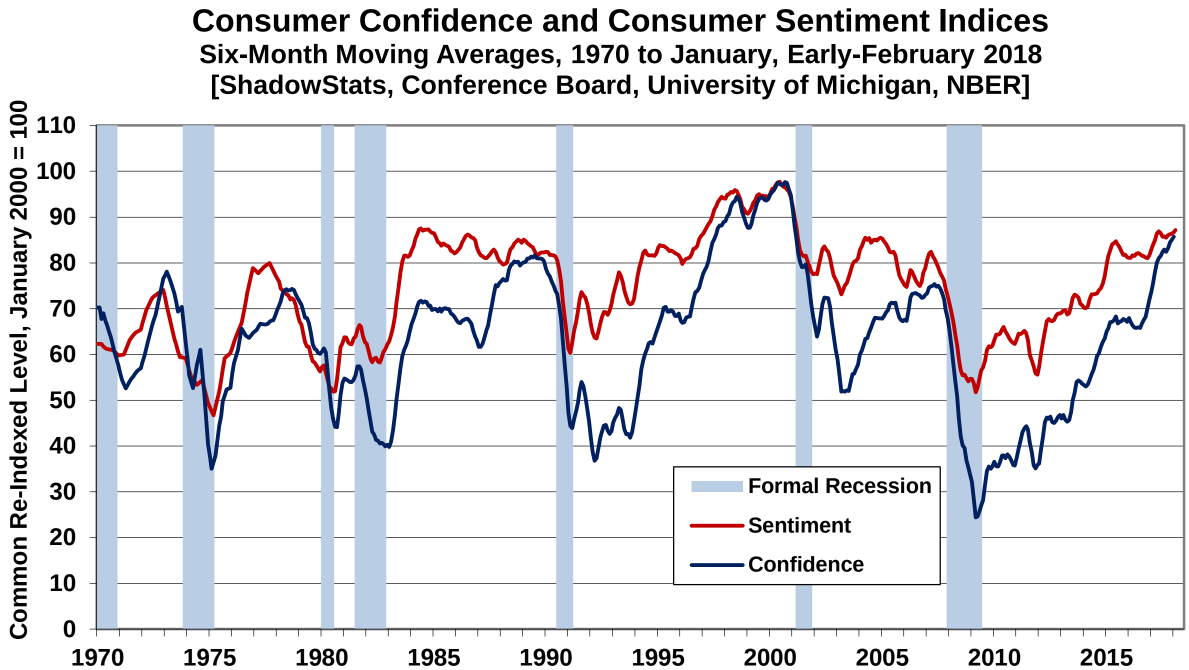
Graph CLW-1: Consumer Confidence (2000 to 2018)



Graph CLW-2: Consumer Sentiment (2000 to 2018)

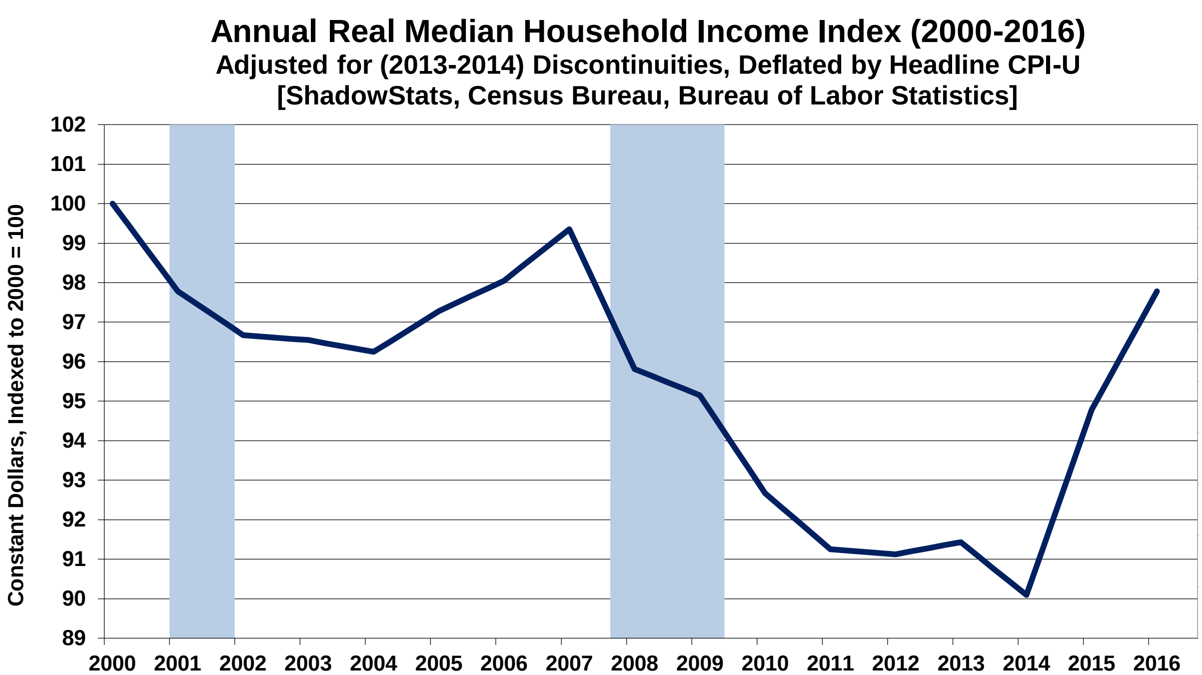


Graph CLW-3: Comparative Confidence and Sentiment (6-Month Moving Averages, 1970 to 2018)



2016 Annual Real Median Household Income Still Was Below Its 2007 Pre-Recession High, Below Activity in the Late-1990s, About Even with the Mid-1970s. The measure of real monthly median household income, which was provided by www.SentierResearch.com, generally can be considered as a monthly version of the annual detail shown in *Graph CLW-4*, based on the most-recent annual detail released by the Census Bureau and as discussed the *Opening Comments* of *Commentary No. 909*.

Graph CLW-4: Annual Real Median U.S. Household Income (1967 to 2016)



Last Monthly Estimate Showed Stagnating Monthly Real Growth. Last reported by Sentier Research, in what appears to have been the final estimate for the series, May 2017 Real Median Household Income was statistically unchanged, despite a boost from falling gasoline prices. Discussed in *General Commentary No. 894*, and in the contexts of then-faltering gains in post-election consumer optimism, and inflation-adjusted activity boosted by declining headline Consumer Price Index (CPI-U) inflation (weakened by seasonally-adjusted gasoline price declines), May 2017 Real Median Monthly Household Income was "statistically unchanged" (a statistically-insignificant monthly gain of 0.10%). That followed a statistically-significant monthly gain of 1.00% in April 2017. Shown in *Graph CLW-4,* such enabled May 2017 real monthly median household income to hold a level regained in April and otherwise last seen in February 2002. Year-to-year real median household income rose to 2.44% in May 2017, the highest level since June 2016, following an annual gain of 1.57% in April 2017 (see *Graph CLW-5*).

Where real monthly median income plunged into the headline trough of the economic collapse in 2009, it did not then rebound in tandem with the headline GDP activity. When the GDP purportedly started its solid economic recovery in mid-2009, the monthly household income numbers nonetheless plunged to new lows, hitting bottom in 2011. The income series then held in low-level stagnation, until collapsing gasoline prices and the resulting negative CPI-U inflation drove a post-2014 uptrend in the inflation-adjusted monthly income index. The index approached pre-recession levels in the December 2015 reporting, but it remained minimally below the pre-recession highs for both the formal 2007 and 2001 recessions until recent months. Real median household income had the potential to resume turning down anew, as the headline pace of monthly consumer inflation picked up anew, with the August 2017 CPI.

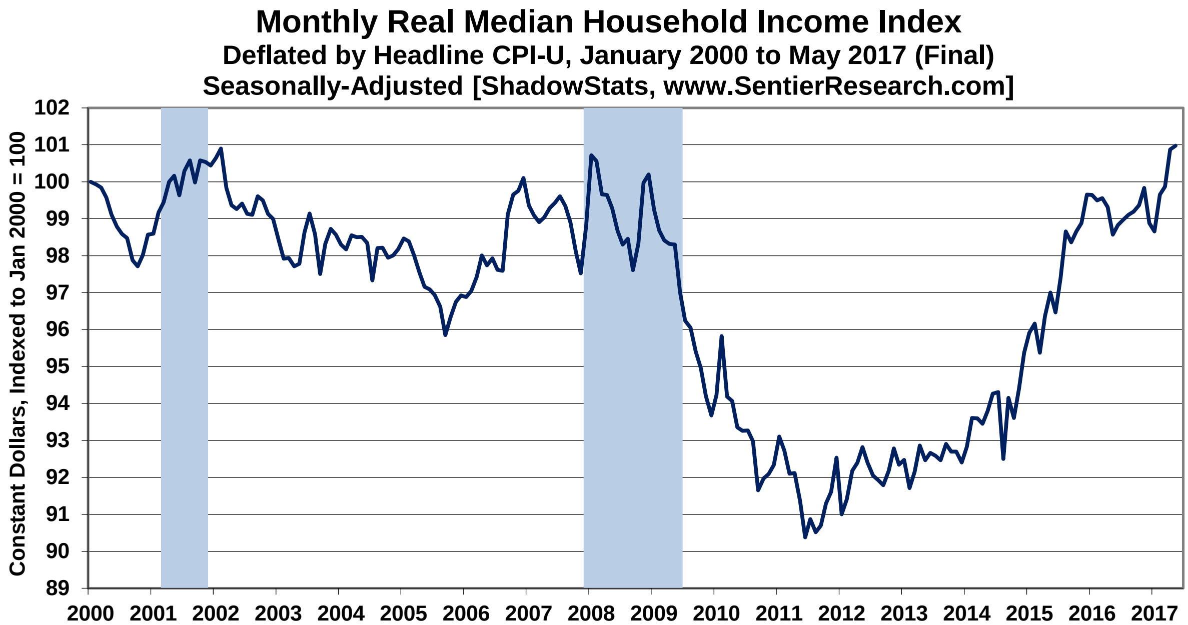
Nonetheless, the most-recent recent "rebound" reported in the series still left consumers financially strapped. Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash largely was used to help pay down unsustainable debt or other obligations, not to fuel new consumption. Except for mixed gyrations in first-half 2017, the effects of changing gasoline prices in the headline CPI-U generally had reversed, pushing headline consumer inflation higher and beginning to push real income lower.

Differences in the Monthly versus Annual Median Household Income. The general pattern of relative monthly historical weakness has been seen in the headline reporting of the annual Census Bureau numbers, again, shown in *Graph CLW-4,* with 2014 real annual median household income having hit a ten-year low, and, again, with the historically-consistent 2015 and 2016 annual number still holding below the 2007 pre-recession high.

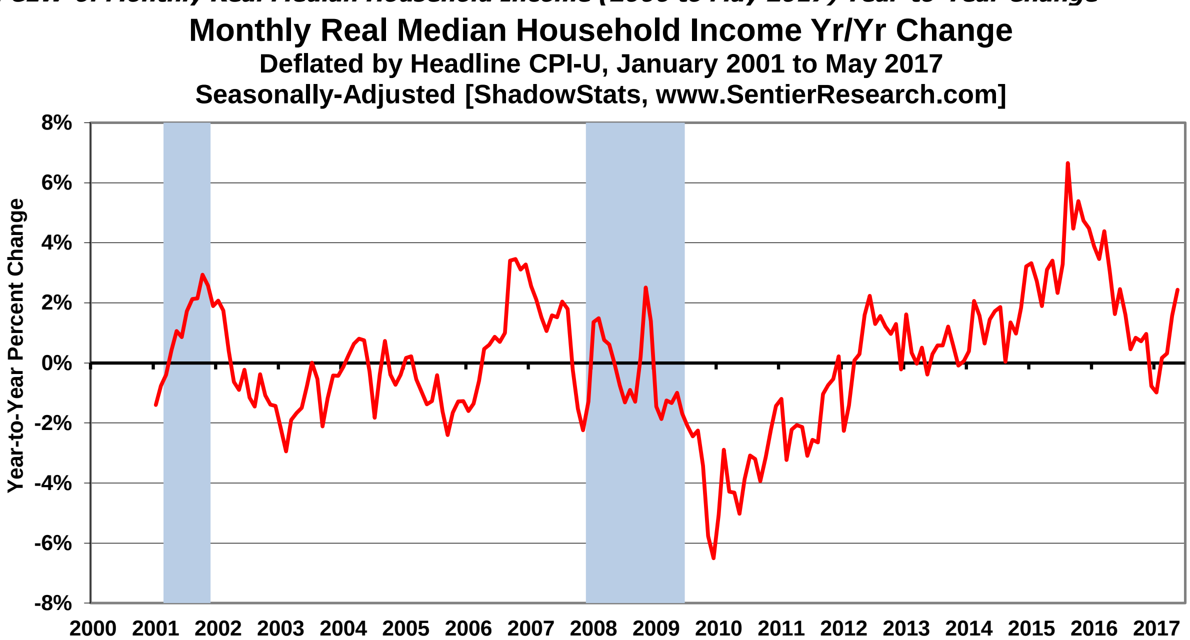
The Sentier numbers had suggested a small increase in 2014 versus 2013 levels, low-inflation induced real increases in 2015 and 2016. Allowing for the direction difference in 2014, and continual redefinitions and gimmicks in the annual series (again, see the *Opening Comments* of *Commentary No. 909*) the monthly and annual series had remained broadly consistent, although based on separate questions within the Consumer Population Series (CPS), as conducted by the Census Bureau.

Where Sentier used monthly questions surveying current annual household income, the headline annual Census Bureau detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent with Real Average Weekly Earnings.

Graph CLW-5: Monthly Real Median Household Income (2000 to May 2017) Index, January 2000 = 100



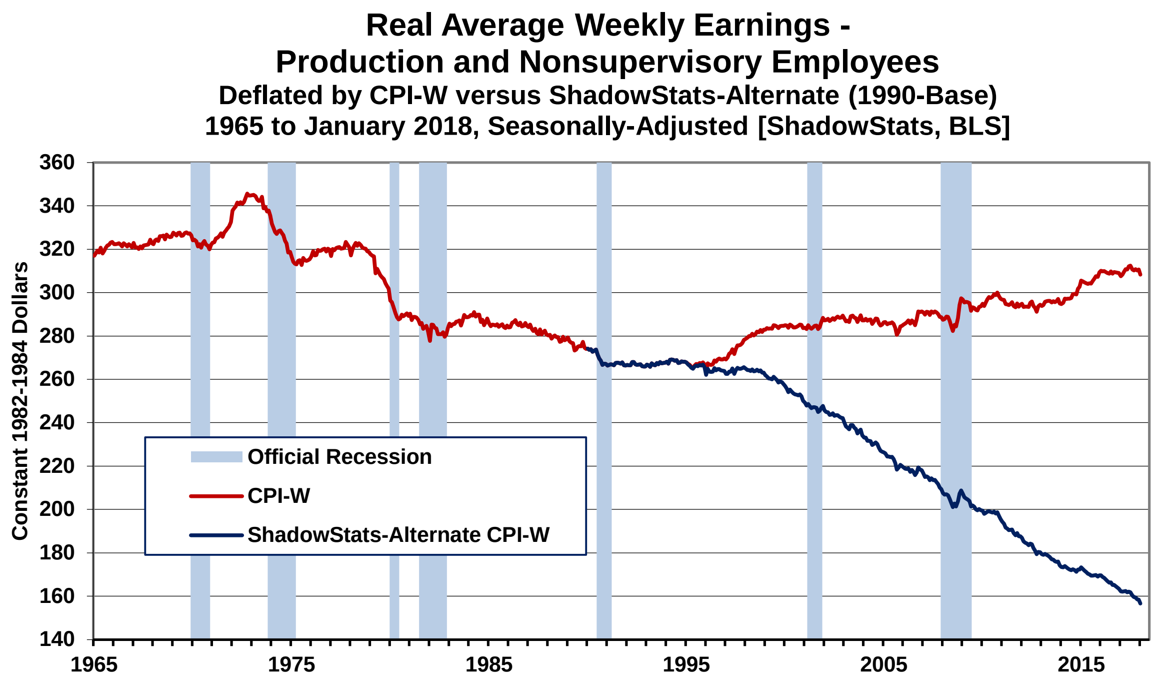
Graph CLW-6: Monthly Real Median Household Income (2000 to May 2017) Year-to-Year Change



Real Average Weekly Earnings—January 2018—Heading into a Third-Consecutive, Quarterly Contraction. For the production and nonsupervisory employees category—the only series for which there is a meaningful history (see the discussion in today's *Reporting Detail, Executive Comments* and *Graph 13* there), real average weekly earnings contracted monthly by 0.78% (-0.78%) in January 2018, setting up first-quarter 2018 as a likely, third-consecutive quarter of contraction in real earnings. Based on the January detail, the early trend for first-quarter 2018 is for an annualized contraction pace of 2.92%

(-2.92%). That also would be the fifth real quarterly contraction of the last six quarters. See the *Reporting Detail* for further information.

Graph CLW-7: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date

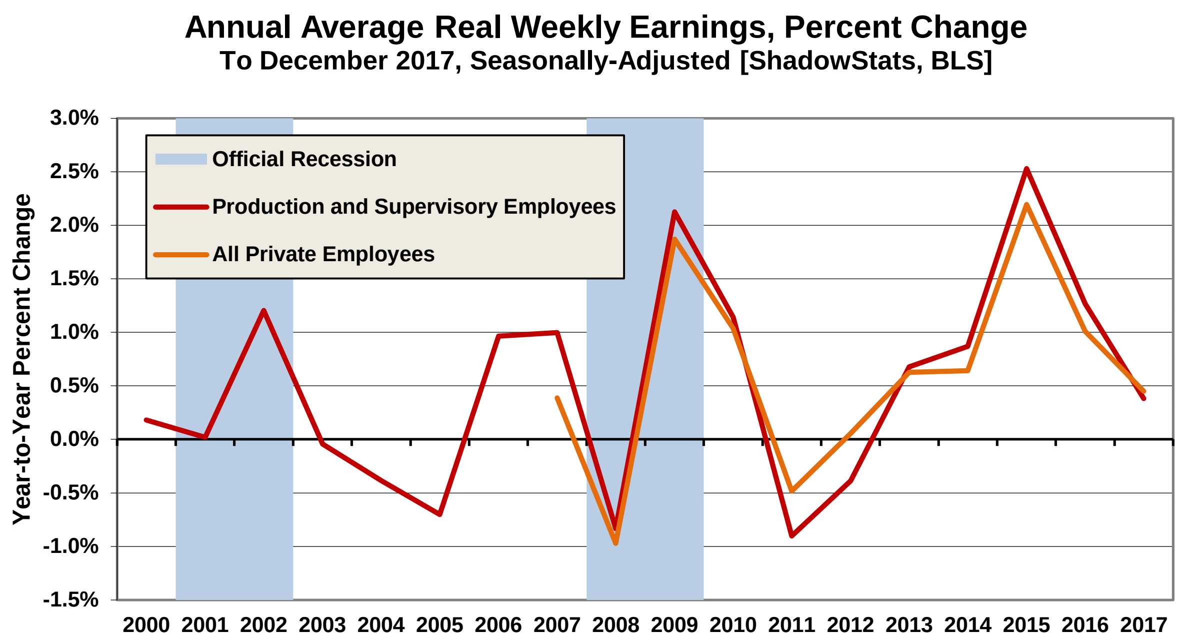


Graph CLW-7 plots the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating 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.

Shown in *Graph CLW-8*, and as discussed in *Commentary No. 931*, both the "all-employees" and "production and nonsupervisory employees" categories showed a sharply slowing pace in annual growth in 2017. Presumably coming off more-positive economic circumstances, the patterns there are consistent with a renewed economic downturn, not with a new economic boom, and the current pace of decline is greater than the average tax reduction to be seen by consumers in the year ahead.

Not all economic downturns are reflected in the headline economic data. For example, industrial production indicated the U.S. economic downturn intensified in fourth-quarter 2014, enough to qualify as a new recession, which is consistent with the plot in *Graph CLW-8*. See the related discussions in *Commentary No. 928* and today's Industrial Production detail.

Graph CLW-8: Annual Average of Weekly Earnings, Annual Percent Change (2000 to 2017)



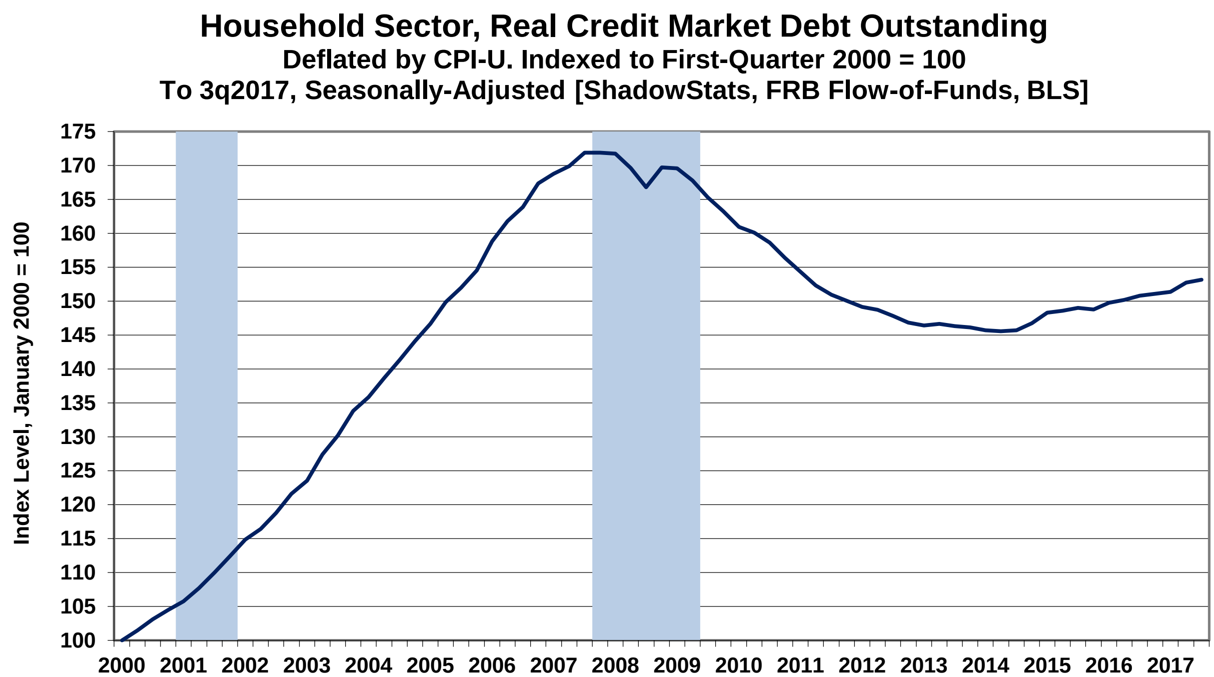
When income growth is inadequate to support consumption growth, consumers often make up the difference in debt expansion. Yet, real Consumer Credit Outstanding has shown a patterns of declining annual real growth for the last several quarters, irrespective of the specific series, as reflected in the plots of real monthly year-to-year change in *Graph CLW-13*.

Consumer Credit: Lack of Expansion in Real Consumer Credit Constrains Economic Growth. The final five graphs on consumer conditions address consumer borrowing. Where debt expansion can help make up for a shortfall in income growth, expansion of consumer debt, which would help fuel expansion in personal consumption, has been nonexistent.

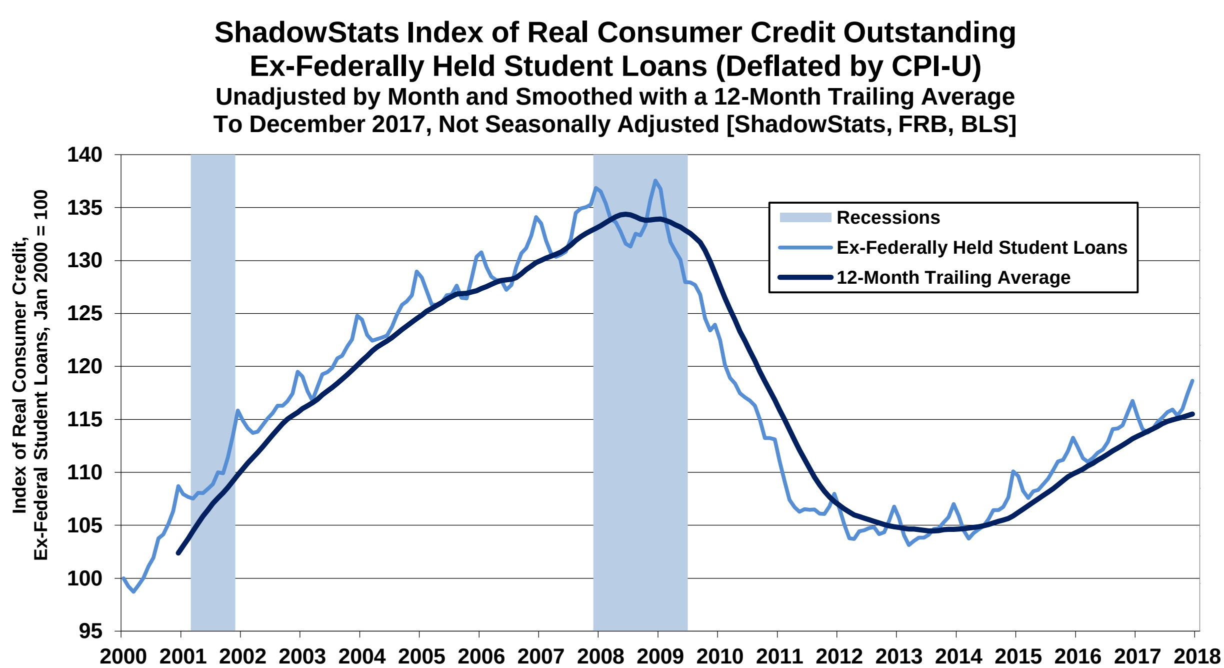
Quarterly Series. Consider *Graph CLW-9* of *Household Sector, Real Credit Market Debt Outstanding*. The level of real household debt declined in the period following the Panic of 2008, reflecting loan defaults and reduced banking lending, and it has not recovered fully, based on the Federal Reserve's flow-of-funds accounting through third-quarter 2017, released on December 7th. Household Sector, Real Credit Market Debt Outstanding in third-quarter 2017 still was down by 10.9% (-10.9%) from its pre-recession peak of third-quarter 2007. That was against a second-quarter 2017 decline of 11.2% (-11.2%). The flattened visual uptick at the latest point in *Graph CLW-9* reflected a slowing in real year-to-year change from 1.70% in second-quarter 2017, to 1.55% in third-quarter 2017. Such reflects 40 straight quarters—a full decade—of credit non-expansion, versus its pre-recession peak.

The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce. The slight upturn seen in the series through 2015 and into 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016 and intermittently into third-quarter 2017. Current activity also has reflected continuing relative strength from student loans, as shown in the *Graphs CLW-10* to *CLW-13*.

Graph CLW-9: Household Sector, Real Credit Market Debt Outstanding (2000 through Third-Quarter 2017)



Graph CLW-10: Real Consumer Credit Outstanding, Ex-Federal Student Loans (2000 to 2017)



Shown for comparative purposes in *Graph CLW-10*, real, not-seasonally-adjusted Consumer Credit Outstanding, Ex-Federally Held Student Loans, has not recovered on a monthly, let alone the 12-month trailing-average basis used as a surrogate for seasonal adjustment. Discussed in the next section, this measure of consumer credit now has been through 120 months of non-expansion. That is reflected on a parallel basis through the latest third-quarter reporting shown in *CLW-9*. Please note that the scale in *Graph 10* is indexed to Consumer Credit Outstanding Ex-Federal Student Loans equal to 100 in January 2000. In *Graphs 11* to *13*, that indexing is applied to the total Consumer Credit Outstanding number, which is greater in amount than its dominant Ex-Federal Student Loans subcomponent.

Monthly Series. Indeed, the ShadowStats analysis usually focuses on the particular current and continuing weakness in monthly levels of consumer credit, net of what has been rapidly expanding government-sponsored student loans. Where detail on that series only is available not-seasonally-adjusted, the following three related graphs and the preceding *Graph CLW-10* are so plotted.

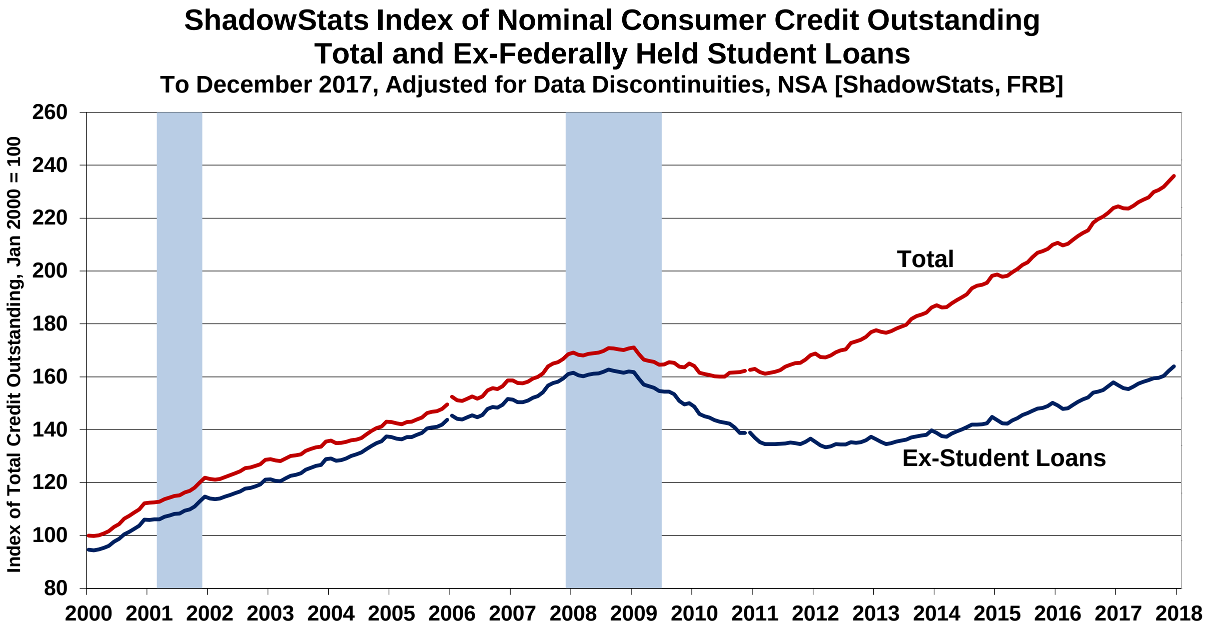
Shown through the December 2017 reading (released February 7th), the headline nominal monthly Consumer Credit Outstanding (*CLW-11*) is a subcomponent of the nominal Household Sector debt. Where *Graph CLW-12* reflects the real or inflation-adjusted activity for monthly Consumer Credit Outstanding terms of both level (*Graph CLW-12*) and year-to-year change (*Graph CLW-13*). *Graphs CLW-12* and *CLW-10* are comparable to the inflation-adjusted Household Sector plot in *Graph CLW-9*.

Post-2008 Panic, growth in outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel broad consumption or housing growth. Although in slow uptrend, the nominal level of Consumer Credit Outstanding (ex-student loans) has not recovered since the onset of the recession. These disaggregated data are available and plotted only on a not-seasonally-adjusted basis, with the pattern of monthly levels during one year reflecting some regular, unadjusted seasonal dips or jumps.

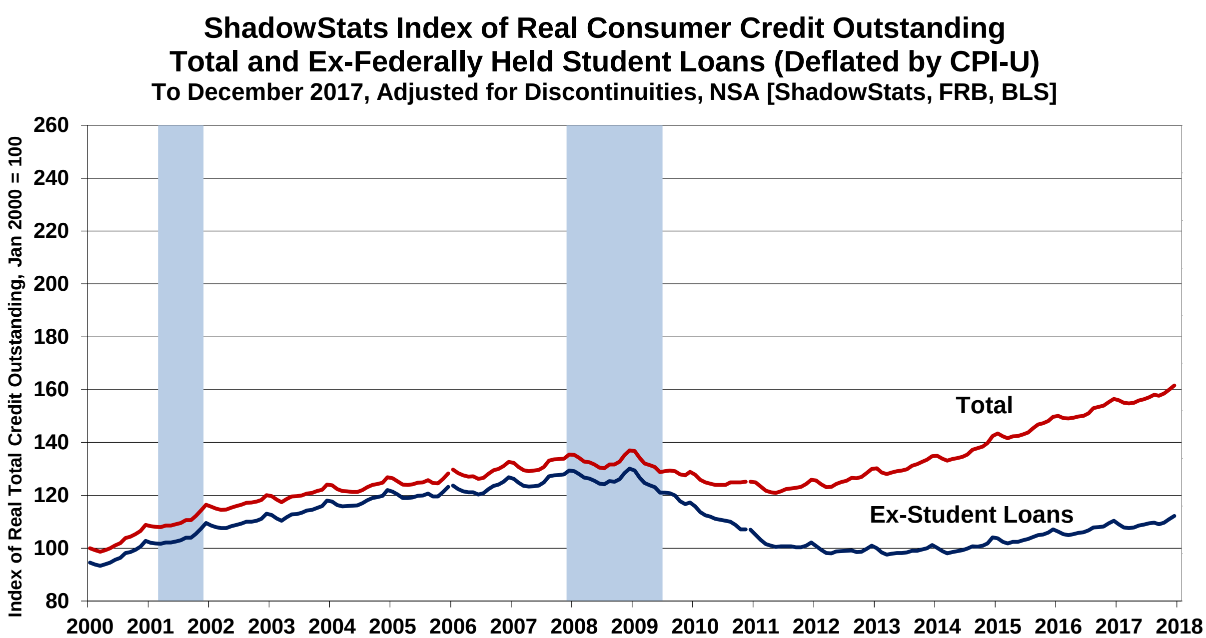
Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Although the recent monthly upside move in the not-seasonally-adjusted consumer credit reflected a seasonal pattern, the pace of year-to-year growth has continued to slow sharply, suggesting some tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in December 2017 was down from recovering its December 2007 pre-recession peak by 13.3% (-13.3%). That is 120 months or a full ten years of non-expansion of credit. Year-to-year real growth shown in *Graph CLW-13* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

[Graphs CLW-11 to CLW-13 begin on the next page.]

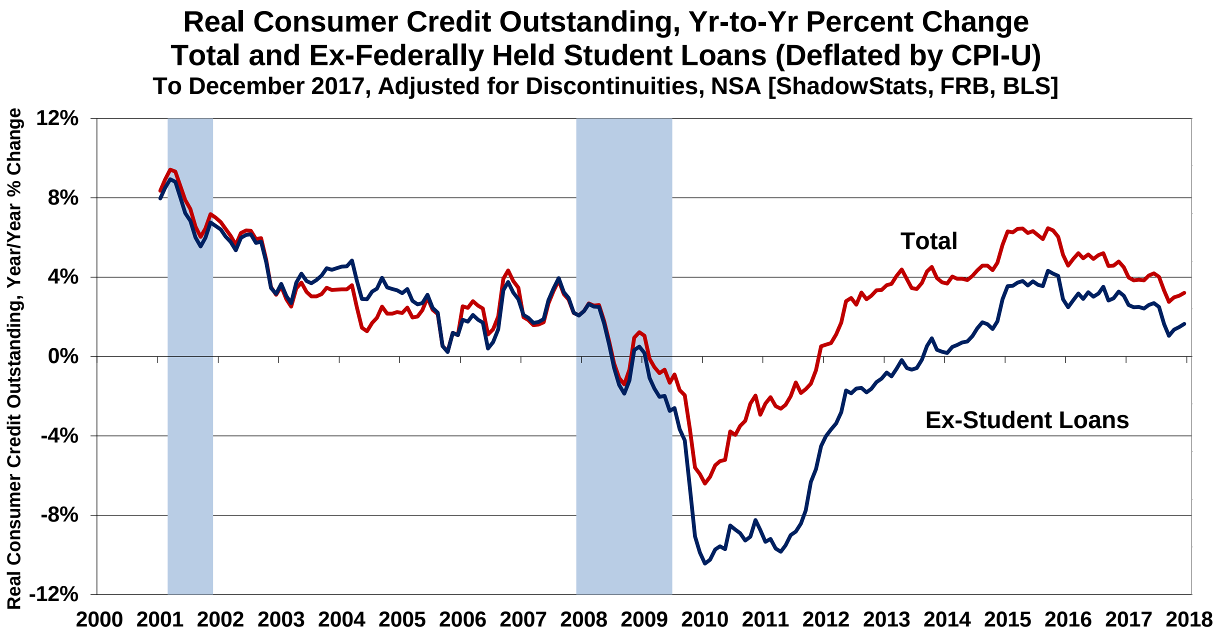
Graph CLW-11: Nominal Consumer Credit Outstanding (2000 to 2017)



Graph CLW-12: Real Consumer Credit Outstanding (2000 to 2017)



Graph CLW-13: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2017)



[The **Week, Month and Year Ahead** *begins on the next page.]*

WEEK, MONTH AND YEAR AHEAD

Instabilities and Turmoil in the U.S. Dollar and Financial-Markets Continue at High Risk, in the Context of a Faltering and Non-Expanding Real-World Broad Economy. Updated outlooks for the U.S. economy, the U.S. dollar, gold, silver and the financial markets just were reviewed in *Special Commentary No. 935*, covered there in the opening *Executive Summary* beginning on page 2 of that report, with *Contents* and links to *Major Sections* and *Graphs* beginning on page 6.

Conditions Take a Turn for the Worse. Natural-disaster-impact from late 2017 continued to unwind in this week's releases of the January 2018 Consumer Price Index (CPI), Producer Price Index (PPI), Retail Sales, Industrial Production and New Residential Construction (Housing Starts). These elements suggested not only some downside revision for the second estimate of Fourth-Quarter 2017 GDP, but also meaningful risk for an outright quarterly contraction in the initial estimate of First-Quarter 2018 GDP on April 27th. Increasingly, headline economic details are likely to disappoint consensus expectations.

Today's *Opening Comments* specifically review early headline indications that the replacement/ restoration boost given to domestic economic activity from recent hurricanes and wildfires likely peaked in November 2017, although some elements will continue in play for a while.

The real-world economy is not recovering or booming as advertised, despite heavy hype in the press of a booming, full-employment economy, and in the context recent FOMC tightening actions and the former Federal Reserve Chair Yellen's recent perceptions of a "highly uncertain" economic outlook.

If not already there, reporting in most series should be back to normal (allowing for hurricane disruptions and recovery) by the headline reporting of February 2018 economic activity, as discussed in *General Commentary No. 929*. Most series increasingly should reflect "unexpected" downtrending economic activity. Where misleading, recent headline details have contributed to a manic stock market, the mania like it could be starting to unwind. The process should accelerate as market perceptions increasing shift towards renewed economic downturn.

An unhappy period of market readjustment to underlying real-world circumstances looms, where Wall Street's proponents of a never-ending stock-market rally have parlayed temporary, nonrecurring economic boosts from natural disasters into a year-end 2017 economic boom. Negative economic "surprises" increasingly should shock the markets and the U.S. dollar on the downside, as was seen in last week's activity. As the reported economic downturn intensifies in the months ahead, the FOMC—under its new Chairman Jerome H. Powell—eventually should face an "unexpected" policy retrenchment, moving back towards quantitative easing.

In these circumstances, the U.S. dollar and financial markets remain at extraordinarily-high risk of intensified panicked declines, likely in the very near term. Holding physical gold and silver remain the ultimate hedges—stores of wealth—for preserving the purchasing power of one's U.S. dollar assets, during times of high inflation and currency debasement, and/or political- and financial-system upheaval, as discussed in the opening *Executive Summary*. Please call (707) 763-5786, if you would like to discuss current circumstances, or otherwise. *Best wishes – John Williams*

PENDING ECONOMIC RELEASES

There are no major economic releases scheduled in the week ahead.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. In the context of historical background provided in *Special Commentary No. 885*: *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, significant reporting-quality problems remain with most major economic series. Beyond pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended both to understate inflation and to overstate economic activity meaningfully—as generally viewed in the common experience of Main Street, U.S.A.—ongoing, near-term headline reporting issues often reflect systemic distortions of monthly seasonal adjustments.

Data instabilities—induced partially by the still-evolving economic turmoil of the last eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn have provided particularly unstable headline economic results, with the use of concurrent seasonal adjustments (as seen with retail sales, durable goods orders, employment and unemployment data). While historical seasonal-factor adjustments are revised every month, based on the latest, headline monthly data, the consistent, revamped historical data are not released or reported at the same time. That issue is discussed and explored in the labor-numbers related *Supplemental Commentary No. 784-A* and *Commentary No. 695*.

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

Combined with ongoing allegations in the last several years of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular -economic series (see *Commentary No. 669*). Investigative-financial/business reporter John Crudele of the *New York Post* has written extensively on such reporting irregularities: *Crudele Investigation*, *Crudele on Census Bureau Fraud* and *John Crudele on Retail Sales*.

LINKS TO PRIOR COMMENTARIES AND SPECIAL REPORTS

Prior Writings Underlying the Current *Special Commentaries* and a Sampling of Recent *Regular Commentaries*. Underlying the recent *Special Commentary No. 935* *(Part One)* and the pending *Special*

Commentaries(Part Two) on Inflation, and *(Part III)* on the Federal Reserve and U.S. banking system, are *Commentary No. 899* and *General Commentary No. 894*, along with general background from regular *Commentaries* throughout 2017.

These missive also are built upon writings of prior years, including *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). In turn, they updated the long-standing hyperinflation and economic outlooks published in *2014 Hyperinflation Report—The End Game Begins – First Installment Revised* (April 2014) and *2014 Hyperinflation Report—Great Economic Tumble – Second Installment* (April 2014).

The two *Hyperinflation* installments remain the primary background material for the hyperinflation circumstance. Other references on underlying economic reality are the *Public Commentary on Inflation Measurement* and the *Public Commentary on Unemployment Measurement*.

Recent Commentaries. *[Listed here are* Commentaries *of the last month or so, plus recent* Special Commentaries *and others covering a variety of non-monthly issues, including annual benchmark revisions, dating back through the beginning of 2017. Please Note: Complete ShadowStats archives back to 2004 are found at www.ShadowStats.com (left-hand column of home page).]* These regular weekly *Commentaries* are published at least weekly and update the general outlook, as circumstances develop.

Special Commentary No. 935 (February 12th) was the first part of a three part-series reviewing economic and financial conditions of 2017 and the year-ahead, inflation and the U.S. government's balance sheet and conditions in the U.S. banking system and Federal Reserve options.

Commentary No. 934-B (February 6, 2018) provided extended coverage on the January 2018 Employment and Unemployment details, the 2017 benchmark revisions to Payroll Employment and the January annual recasting of population, along with coverage of the December 2017 Trade Deficit.

Commentary No. 934-A (February 2, 2018) provided initial detail on the January 2018 Employment and Unemployment details and the 2017 benchmark revisions to Payroll Employment, along with coverage of January Conference Board Help Wanted OnLine® Advertising, January Monetary Conditions and December 2017 Construction Spending.

Commentary No. 933 (January 26, 2018) covered December New Orders for Durable Goods, the Cass Freight Index™ and the first estimate of Fourth-Quarter 2017 GDP.

Commentary No. 932 (January 18, 2018) covered December Industrial Production and New Residential Construction (Housing Starts and Building Permits).

Commentary No. 931 (January 15, 2018) reviewed December 2017 Retail Sales and the CPI and PPI, along with an update on the U.S. dollar, the financial markets and gold graphs.

Commentary No. 930-B (January 8th) expanded upon the December 2017 Employment and Unemployment numbers and Household Survey benchmarking, Conference Board Help Wanted OnLine® Advertising, December Monetary Conditions and the November 2017 Trade Deficit and Construction Spending, otherwise headlined in *No. 930-A*.

Advance Commentary No. 930-A (January 5, 2018) provided a brief summary and/or comments (all expanded in *Commentary No. 930-B*) on December 2017 Employment and Unemployment numbers, Household Survey benchmarking, Conference Board Help Wanted OnLine® Advertising, December Monetary Conditions and the November 2017 Trade Deficit and Construction Spending.

General Commentary No. 929 (December 28, 2017) reviewed current economic and market conditions at year-end 2017.

Commentary No. 928 (December 22, 2017) covered November 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the third estimate of Third-Quarter 2017 GDP.

Commentary No. 927 (December 19, 2017) reviewed November 2017 New Residential Construction (Housing Starts and Building Permits) and Cass Freight Index™, along with an expanded discussion on underlying economic reality and the financial markets.

Commentary No. 926 (December 15, 2017) reviewed the headline November 2017 numbers for Retail Sales (both real and nominal), and Industrial Production, along a discussion on the dampening economic impact of business and consumer "uncertainty."

Commentary No. 925 (December 13th) reviewed November 2017 headline detail on the CPI and PPI, along with an update on the FOMC actions and the regular U.S. dollar, gold graphs.

Commentary No. 924 (December 8, 2017) discussed the November 2017 Employment and Unemployment details and Conference Board Help Wanted OnLine® Advertising, the October Trade Deficit and Construction Spending and updated Monetary Conditions in November.

Commentary No. 923 (November 29, 2017) covered the second estimate of Third-Quarter 2017 GDP, including initial estimates for Third-Quarter GNP, GDI and Per Capita Real Disposable Income, the October Trade Deficit, Cass Freight Index and New-Home Sales.

Commentary No. 919-B (November 6, 2017) provided more in-depth detail on the October 2017 labor detail.

Commentary No. 919-A (November 3, 2017) provided initial detail and background on October labor data, and reviewed the October 2017 Conference Board Help Wanted OnLine® Advertising, the September Cass Freight Index™, Trade Deficit and Construction Spending, and updated Monetary Conditions.

Special Commentary No. 918-B (October 30, 2017) provided a more comprehensive review of the initial third-quarter 2017 GDP detail, along with update versions of the *Hyperinflation Watch* and *Consumer Liquidity Watch*.

Commentary No. 917 (October 26/27, 2017) reviewed September Industrial Production, New Orders for Durable Goods, New Residential Construction (Housing Starts and Building Permits) and New- and Existing-Home Sales.

Commentary No. 916 (October 20th) reviewed the September 2017 Retail Sales details along with the headline Consumer and Producer Price Indices for September.

Commentary No. 915 (October 6, 3017) reviewed the September 2017 Employment and Unemployment details, along with September 2017 monetary conditions.

Commentary No. 913 (September 28, 2017) reviewed the third-estimate of second-quarter 2017 GDP, with a further consideration of some unusual economic reporting in the near future.

Commentary No. 910 (September 15, 2017) reviewed the August 2017 releases of Industrial Production and nominal and real Retail Sales.

Commentary No. 909 (September 14, 2017) assessed the annual release of 2016 Real Median Household Income, along with a review of August Consumer Price Index (CPI) and the Producer Price Index (PPI) and an updated *Alert* on the financial markets

Commentary No. 908-B (September 6, 2017) provided extended detail of the August 2017 Labor and Monetary conditions and July 2017 Construction Spending, along with coverage of the July 2017 Trade Deficit and the initial estimate of the 2017 Payroll Employment benchmarking.

Special Commentary No. 904 (August 14, 2017) issued an "Alert" on the financial markets (including U.S. equities, the U.S. dollar gold and silver, as well as FOMC policy), in the context of historical activity and unfolding circumstances of deteriorating economic and political conditions. Separately, headline details were reviewed for the July Consumer Price Index (CPI) and the Producer Price Index (PPI).

Commentary No. 903 (August 7, 2017) discussed new signals of economic deterioration in terms of political and FOMC considerations, along with headline coverage of the July labor data, M3 and The Conference Board Help Wanted OnLine®, and June trade deficit and construction spending.

Commentary No. 902-B (July 31, 2017) reviewed the 2017 annual benchmark revisions of GDP and related series, along with the "advance" estimate of second-quarter 2017 GDP.

Commentary No. 900 (July 19, 2017) reviewed June 2017 New Residential Investment (Housing Starts and Building Permits), and previewed the upcoming annual GDP benchmark revisions and the coincident "advance" estimate of second-quarter 2017 GDP.

Commentary No. 897 (July 6, 2017) reviewed the headline May 2017 Construction Spending and the annual revisions to same, along the May Trade Deficit, and June The Conference Board Help Wanted OnLine® Advertising and the May Cass Freight Index™.

General Commentary No. 894 (June 23, 2017) reviewed unfolding economic, financial and political circumstances in the context of market expectations shifting towards an "unexpected" headline downturn in broad economic activity, along with headline details on May 2017 Real Median Household Income (Sentier Research) and New- and Existing-Home Sales.

Commentary No. 890 (June 5, 2017) covered the negative-downside annual benchmark revisions to the trade deficit, the May 2017 estimates of labor conditions, ShadowStats Ongoing Money Supply M3, The Conference Board Help Wanted OnLine® Advertising and April 2017 estimates of the Cass Freight Index™, and the monthly trade deficit and construction spending.

Special Commentary No. 888 (May 22, 2017) discussed evolving political circumstances that could impact the markets and the economy, reviewed the annual benchmark revisions to Manufacturers' Shipments and New Orders for Durable Goods and updated Consumer Liquidity Conditions.

Commentary No. 887 (May 18, 2017) reported on the April 2017 detail for Industrial Production and Residential Construction (Housing Starts), with some particular attention to historic, protracted periods of economic non-expansion, of which the current non-recovery is the most severe.

Special Commentary No. 885, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, (May 8, 2017) reviewed the unusual nature of the headline reporting of the April 2017 employment and unemployment details.

Commentary No. 882 (April 27, 2017) summarized the annual benchmark revisions to Retail Sales and reviewed the March 2017 releases of New Orders for Durable Goods and New- and Existing-Home Sales.

Commentary No. 877 (April 2, 2017) outlined the nature of the downside annual benchmark revisions to industrial production, along with implications for pending annual revisions to Retail Sales, Durable Goods Orders and the GDP.

Commentary No. 876 (March 30, 2017) current headline economic activity in the context of formal definitions of the business cycle (no other major series come close to the booming GDP, which is covered in its third revision to fourth-quarter activity). Also the February 2017 SentierResearch reading on real median household income was highlighted.

Commentary No. 875 (March 24, 2017) assessed and clarified formal definitions of the U.S. business cycle, which were expanded upon significantly, subsequently, in *No. 876*. It also provided the standard review of the headline February 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the Cass Freight Index™.

General Commentary No. 867 (February 24, 2017) assessed mixed signals for a second bottoming of the economic collapse into 2009, which otherwise never recovered its level of pre-recession activity. Such was in the context of contracting and faltering industrial production that now rivals the economic collapse in the Great Depression as to duration. Also covered were the prior January 2017 New- and Existing Home Sales.

Commentary No. 864 (February 8, 2017) analyzed January 2017 Employment and Unemployment detail, including benchmark and population revisions, and estimates of December Construction Spending, Household Income, along with the prior update to Consumer Liquidity.

Commentary No. 861 (January 13, 2017) covered the December 2016 nominal Retail Sales, the PPI, with a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations.

No. 859 Special Commentary (January 8, 2017) reviewed and previewed economic, financial and systemic developments of the year passed and the post-election year ahead.

