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

COMMENTARY NUMBER 932

December Industrial Production and Housing Starts

January 18, 2018

Hurricane Distortions to Economic Reporting Start to Unwind

Two-Thirds of the 0.9% Monthly Jump in December 2017 Industrial Production Reflected Unseasonably-Bad Weather Boosting Utility Usage

Full-Year 2017 Production Rose by 1.95%, Following Full-Year Annual Declines of 1.22% (-1.22%) in 2016 and 0.71% (-0.71%) in 2015

Big Swings in Mining Activity (Oil Production) Drove Those Full-Year Changes, versus Annual Stagnation in Utilities and in the Much-Larger Manufacturing Sector, Despite a Late-2017 Manufacturing Surge for Hurricane-Damaged-Vehicle Replacement

Fourth Quarter Industrial Production Regained Its Pre-Recession Peak for a Second Time

Dominant Manufacturing Sector Held Shy of Its Pre-Recession Peak by 4.54% (-4.54%), Just Having Passed a Full 10 Years, 120 Months or 40 Quarters of Continuous Non-Expansion; Longest Period of Non-Expansion in the 100-Year History of the Production Series

In Ongoing Extreme, Monthly Volatility, December Housing Starts Plunged by 8.2% (-8.2%), Reflecting Some Negative Catch Up, as Hurricane-Distorted Boosts Began to Unwind

New Residential Construction Remained in Low-Level, Downtrending Stagnation, with Building Permits Shy by 42.5% (-42.5%), Housing Starts Shy by 47.6% (-47.6%) and Single-Unit Starts Shy by 54.1% (-54.1%) of Recovering Pre-Great Recession Peak Activity

Multiple-Unit Starts Recovered in 2015, but Have Fallen Back Since by 20.9% (-20.9%) from Their Pre-Recession High

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PLEASE NOTE: The next Regular Commentary on Friday, January 26, 2018, will cover the "advance" estimate of Fourth-Quarter 2017 GDP, December 2017 New Orders for Durable Goods and New- and Existing-Home Sales.

Best wishes — John Williams (707) 763-5786

Today's (January 18th) *Opening Comments and Executive Summary.* The ***Opening Comments*** discusses the impact of unfolding shifts in hurricane distortions on headline data. The ***Executive Summary*** (page 2) highlights December Industrial Production and New Residential Construction (Housing Starts and Building Permits).

The ***Reporting Detail*** (page 13) discusses the Industrial Production and Residential Construction numbers in greater depth.

The ***Consumer Liquidity Watch*** (page 34) has been updated to incorporate some the discussion on Real Average Weekly Earnings from prior *Commentary No. 931*.

The ***Week, Month and Year Ahead*** (page 48) provides background on recent *Commentaries*, and previews releases of December 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the "advance" estimate of Fourth-Quarter 2017 GDP.

OPENING COMMENTS

Hurricane Distortions to Economic Reporting Began to Unwind With the Headline Production and Housing Starts Reporting. Since August 2017 Industrial Production took a large hit in the Mining Sector from damages done by Hurricane Harvey to Gulf Coast oil production and exploration, the national, headline U.S. economic data have moved through gyrations, hits and boosts, ranging from the production, retail sales and housing-related and construction numbers to employment, unemployment and the GDP. The general effect was to hit initial activity, with ensuing sharp boosts to activity from recovery, repair and replacement of damaged goods and structures, amidst inadequately-defined Household Survey unemployment surveying.

The result has been happy hype in the financial-market and politically-sensitive media as to a new economic boom and expansion. Unfortunately, as discussed frequently here, much of that happy news will begin to falter and fade in the months ahead, as the economy largely returns to what been a relatively stagnant-to-downturning pattern of headline monthly growth, with a number of series still never having recovered their pre-2007-recession highs.

As the underlying reality surfaces, it should have disruptive impact on the Federal Reserve's monetary policies, on the stability of the U.S. dollar and financial markets, as well as significant impact on looming Congressional elections. Some of the latest data-shifting is discussed in the *Reporting Detail* coverage on Industrial Production and New Residential Construction.

With the "advance" estimate of Fourth-Quarter 2017 GDP due next Friday, January 26th, do not be surprised by a booming, above-consensus number (see the *Week, Month and Year Ahead* section). If a surprisingly-strong number is reported, that likely will set up a relative, outright quarterly contraction for First-Quarter 2018 GDP.

Full discussion of the impact of this circumstance will follow in the pending ShadowStats *Formal Review of 2017 and Preview of 2018* planned for January 30, 2018, updating *No. 859 Special Commentary* of January 8, 2017

EXECUTIVE SUMMARY: Industrial Production—December 2017—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—December 2017. December 2017 Industrial Production rose by a seasonally-adjusted 0.89% month-to-month, having declined by 0.12% (-0.12%) in November and having gained 1.79% in October. Unadjusted, year-to-year December 2017 industrial production gained 3.56%, versus 3.46% in November 2017 and 3.36% in October 2017. These data have been gyrating wildly in recent months, driven by hurricane distortions and revisions, which appear to be abating.

Growth by Major Sector. Detailed by major industry group (see *Graphs 17*, *19*, *24* and *26* in the *Reporting Detail*), the December 2017 monthly aggregate gain of 0.89% , again, was composed of monthly gains of 0.09% in the dominant Manufacturing Sector, 5.62% in Utilities and 1.63% in Mining (including Oil and Gas Production).

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 12* to *15*), along with the drill-down graphs of major subcomponents of the production series (*Graphs 16* to *29*).

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 1* and *2* address reporting-quality issues tied just to the overstatement of headline growth in the total series that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into real dollar terms, for inclusion in the Index of Industrial Production. Hedonic quality adjustments to the inflation estimates understate the inflation rates used in deflating those components; thus overstating the resulting inflation-adjusted growth in the headline industrial production series (see *Public Comment on Inflation* and *Chapter 9* of *2014 Hyperinflation Report—Great Economic Tumble*).

Graph 1 shows official, headline industrial production reporting, but indexed to January 2000 = 100, instead of the Fed's formal index that is set at 2012 = 100. The 2000 indexing simply provides for some consistency in the series of revamped "corrected" graphics including, real retail sales (see *Graphs 1* and *2*) on page 7 of prior *Commentary No. 931*), and the "corrected" new orders for durable goods and the "corrected" GDP graphs in *Commentary No. 928*. The indexing does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of *Graph 1* here to *Graph 14* in the *Reporting Detail* section).

Graph 2 is a recast version of *Graph 1*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official industrial-production deflators used for headline reporting.

This "corrected" *Graph 2* shows some growth in the period subsequent to the official June 2009 trough in production activity, but that upturn has been far shy of the short-lived full recovery and the renewed expansion reported in official GDP estimation (see *Commentary No. 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

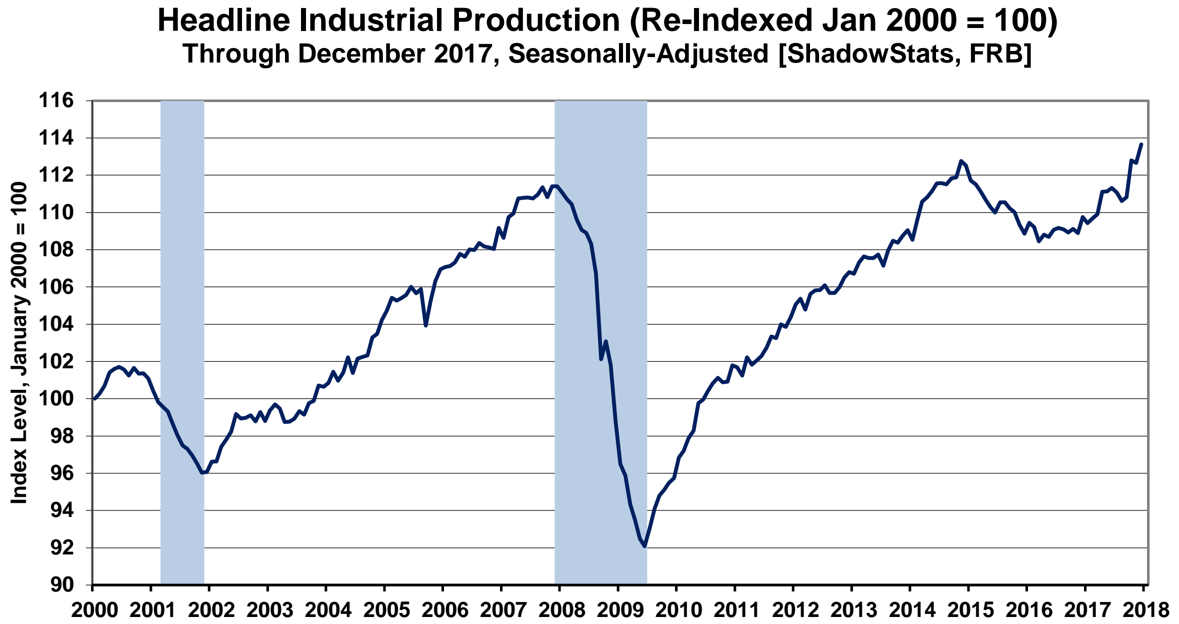
recent months, jumping in recent months with recovery activity in oil production and manufacturing activity to replace hurricane damaged automobiles.

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 short-lived disruptions from natural disasters, but up year-to-year, with fourth-quarter 2017 booming quarter-to-quarter, against the disaster-depressed third-quarter, also up year-to-year, as discussed in the *Reporting Detail*.

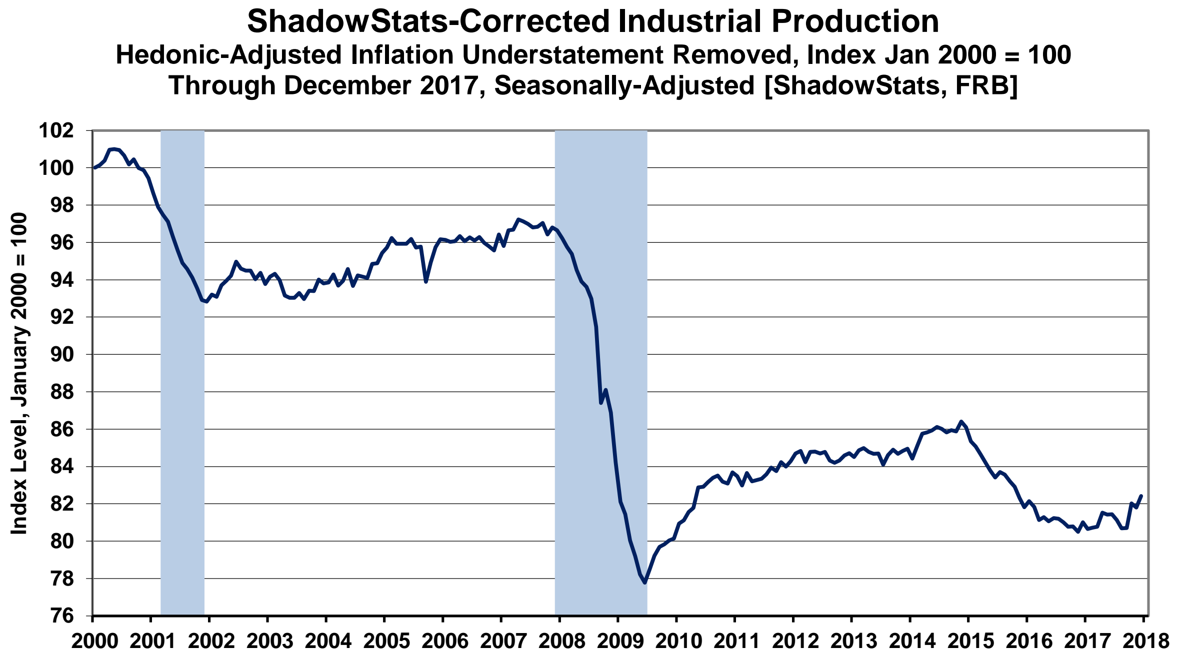
Note: More-extensive analysis of Industrial Production follows in the *Reporting Detail.*

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

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



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



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New Residential Construction (Housing Starts and Building Permits)—December 2017—Downside Catch Up, Amidst Some Possible Unwinding of Hurricane Distortions. Suggestive of a shift in the reporting nature of the hurricane-distorted construction activity of recent months, some unwinding of those hurricane effects may have begun. In the context of usual, highly-volatile and heavily-revised monthly reporting, December 2017 Housing Starts in the South (hit by the hurricanes) plunged month-to-month by 14.2% (-14.2%), along with downside revisions to November and October activity. Those numbers dominated the aggregate, negative December housing-starts details. Hurricane distortions should be close to running their course, with storm-generated impact likely to be out of the system in the reporting detail of the next month or two.

The headline 8.2% (-8.2%) monthly contraction in December 2017 housing starts, net of minimal aggregate revisions, was a contraction of 8.1% (-8.1%). The minimally-revised aggregate count, however, was in the context of an upside revision to November multiple-unit starts, which gained monthly by 2.6% in December, and a largely offsetting downside November revision to single-unit starts, which declined monthly by 11.8% (-11.8%) in December. Year-to-year annual change in December 2017 was a decline of 6.0% (-6.0%) for total starts, an annual gain of 3.5% for single-unit starts, and an annual decline of 22.6% (-22.6%) for total multiple-unit starts (2 or more units). Other than for the monthly decline in single-unit starts, none of the monthly or year-year changes in the national data was statistically-significant.

Reflecting the possible beginning of corrective reporting, against recent, highly-unstable monthly gains, the six-month smoothed, moving averages of those series, as seen in accompanying *Graphs 4*, *6, 8* and *10*, have notched lower into downtrends (flattened out for multiple-unit starts). Irrespective of near-term reporting instabilities, the six-month trends in those key series remained broadly stagnant, along with the headline level of December 2017 activity still holding well below pre-recession peaks for each series.

The broad pattern of collapsing residential construction activity from 2005/2006 pre-recession peaks, to a trough in 2009, was followed by a protracted period of up-trending but non-recovering, low-level activity, now low-level stagnation. Reflected in the various graphs here and in the *Reporting Detail*, monthly activity for the various measures remained shy of regaining pre-recession peaks by 42.5% (-42.5%) for Building Permits, 47.6% (-47.6%) for Housing Starts, and by 54.1% (-54.1%) for Single-Unit Starts. At present, Multi-Unit Starts has fallen back, now down by 20.9% (-20.9%), having recovered its 2005 pre-recession peak temporarily in early-2015.

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 1,192,000 in December 2017, versus a revised 1,299,000 [previously 1,297,000] in November 2017. The scaling used in the aggregate housing starts and building permits *Graphs 30* to *35* 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 99,333 units in December 2017, instead of the annualized headline level of 1,192,000 units, is used in the scaling (monthly units in thousands) of accompanying *Graphs 3* to *10*. 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 5* versus *Graph 31* 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 December 2017 headline monthly number was up by 140%, but it still was down by 48% (-48%) from the January 2006 pre-recession high. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in relative stagnation, still at low levels that otherwise have been seen at or near the historical troughs of other recession activity of the last 70 years, as reflected in *Graphs 34* and *35* at the end of the *Reporting Detail*. In fact, as can be seen there in *Graph 35*, 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.*

[Graphs 3 to 10 begin on the next page]

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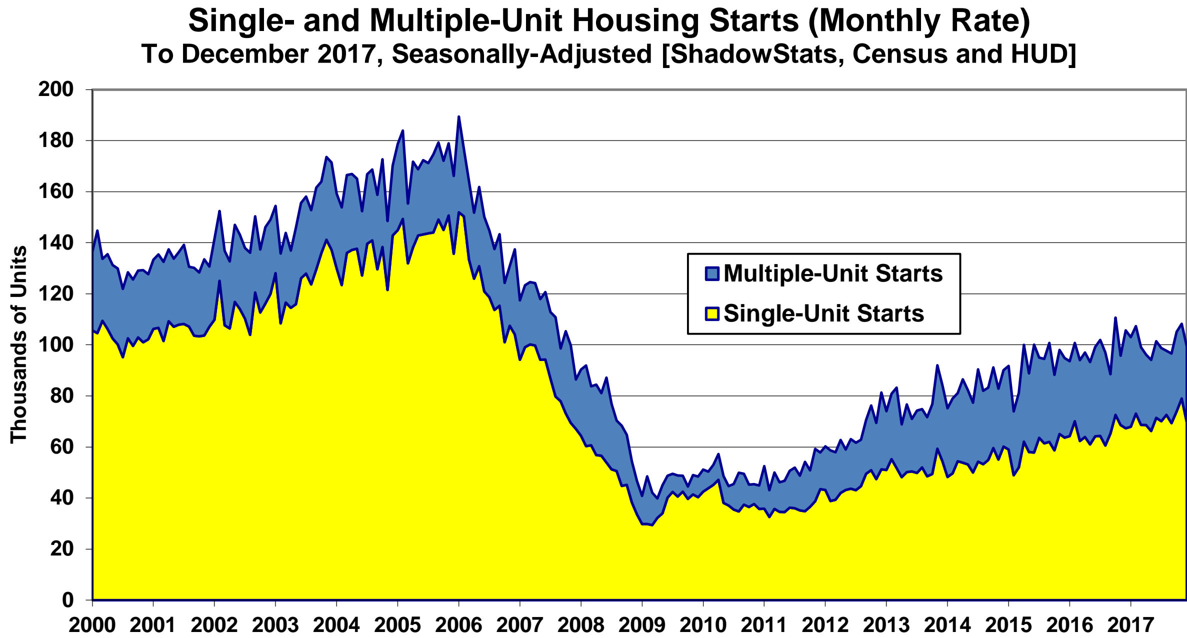
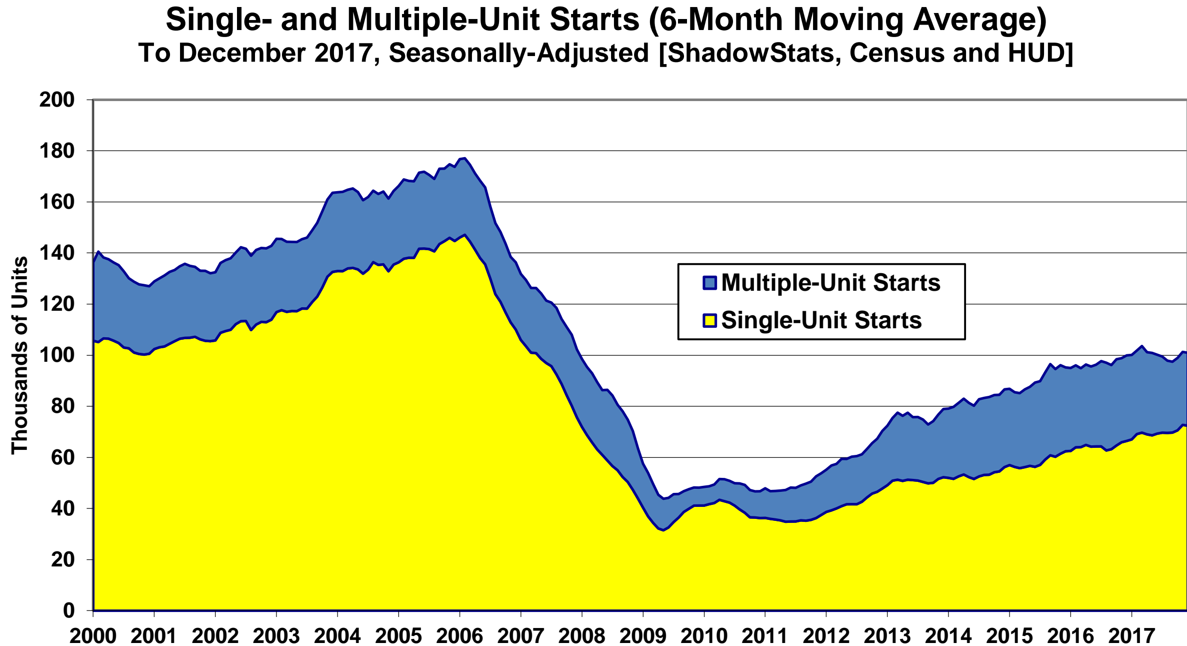
Graph 3: Single- and Multiple-Unit Housing Starts (Monthly Rate of Activity)



Graph 4: Single- and Multiple-Unit Starts (Six-Month Moving Average, Monthly Rate of Activity)



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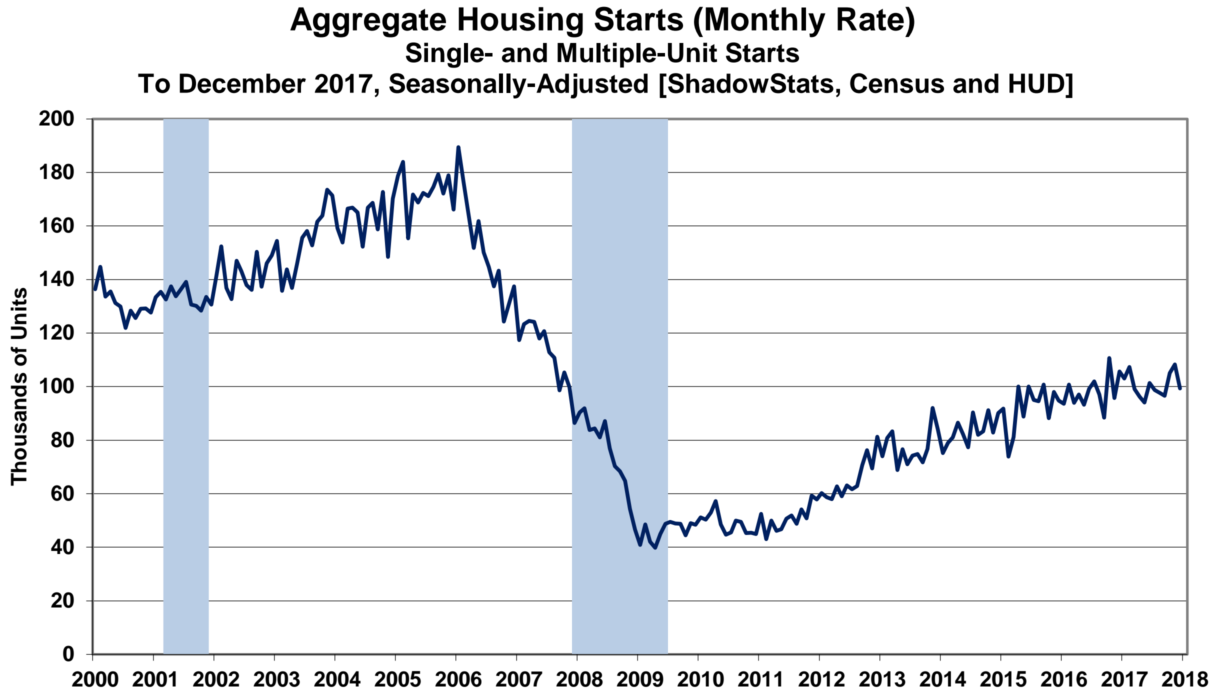
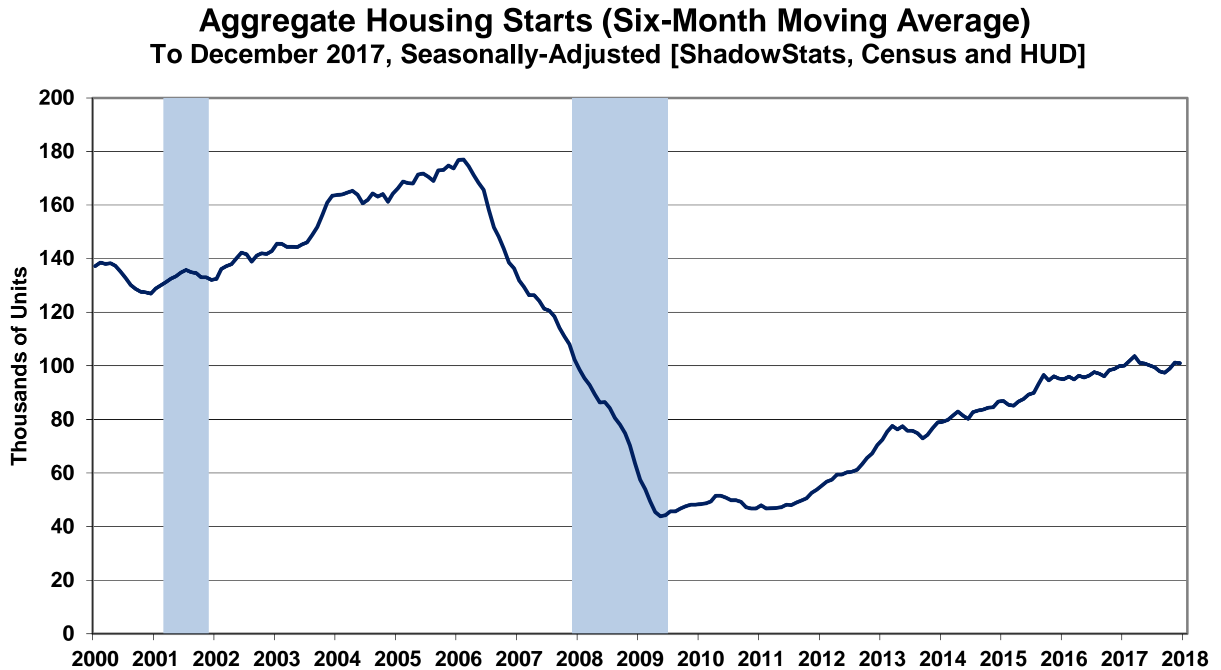
Graph 5: Aggregate Housing Starts (Monthly Rate of Activity)



Graph 6: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



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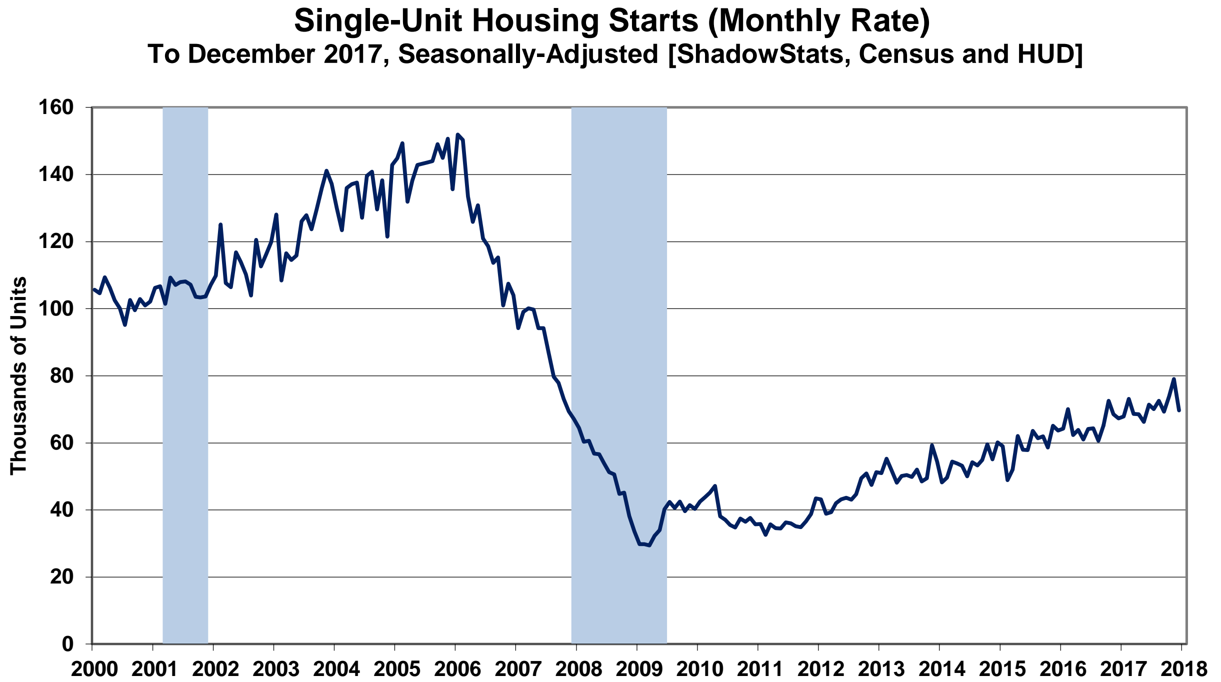
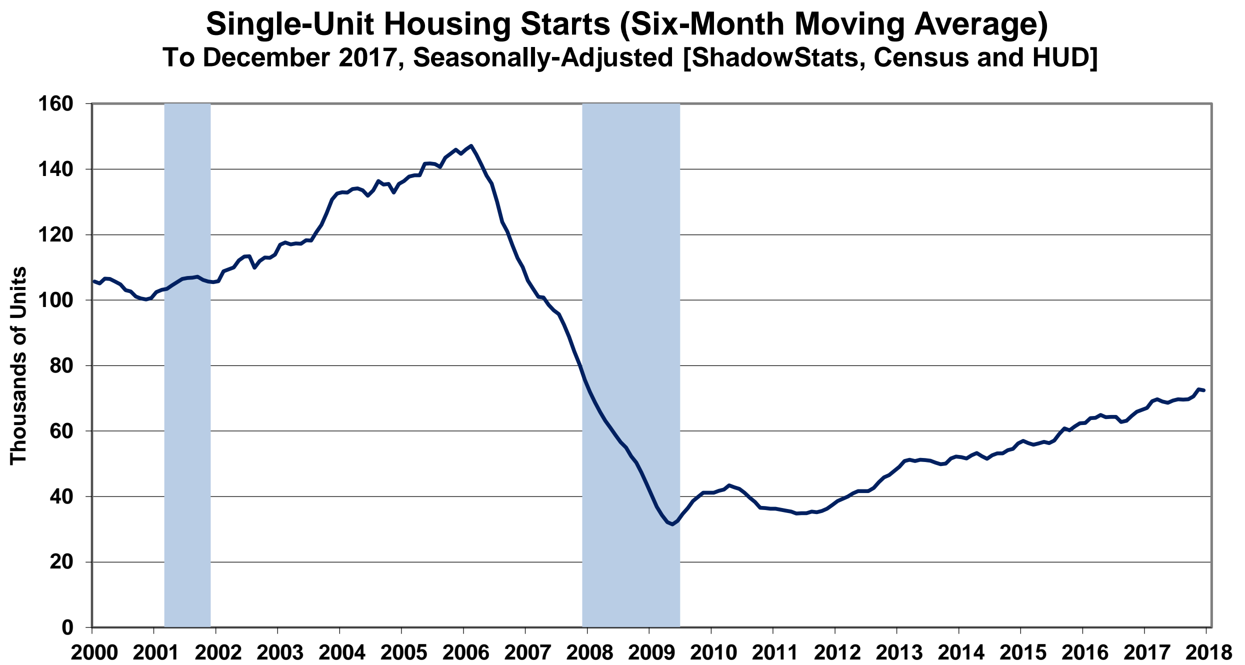
Graph 7: Single-Unit Housing Starts (Monthly Rate of Activity)



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



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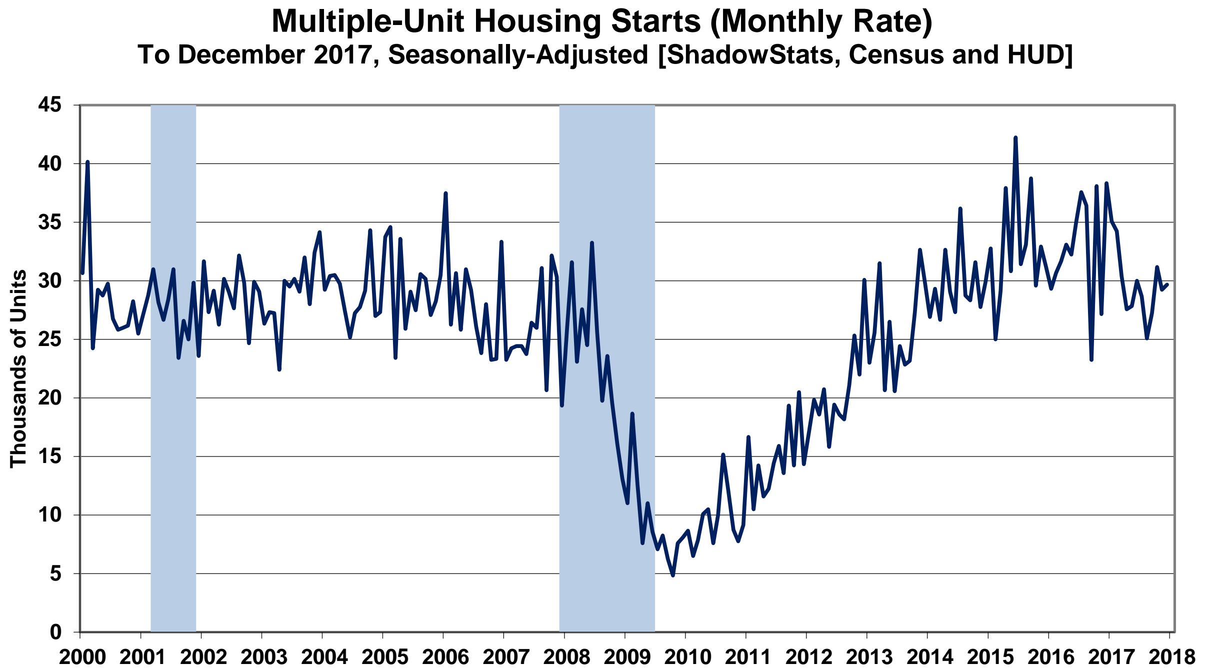
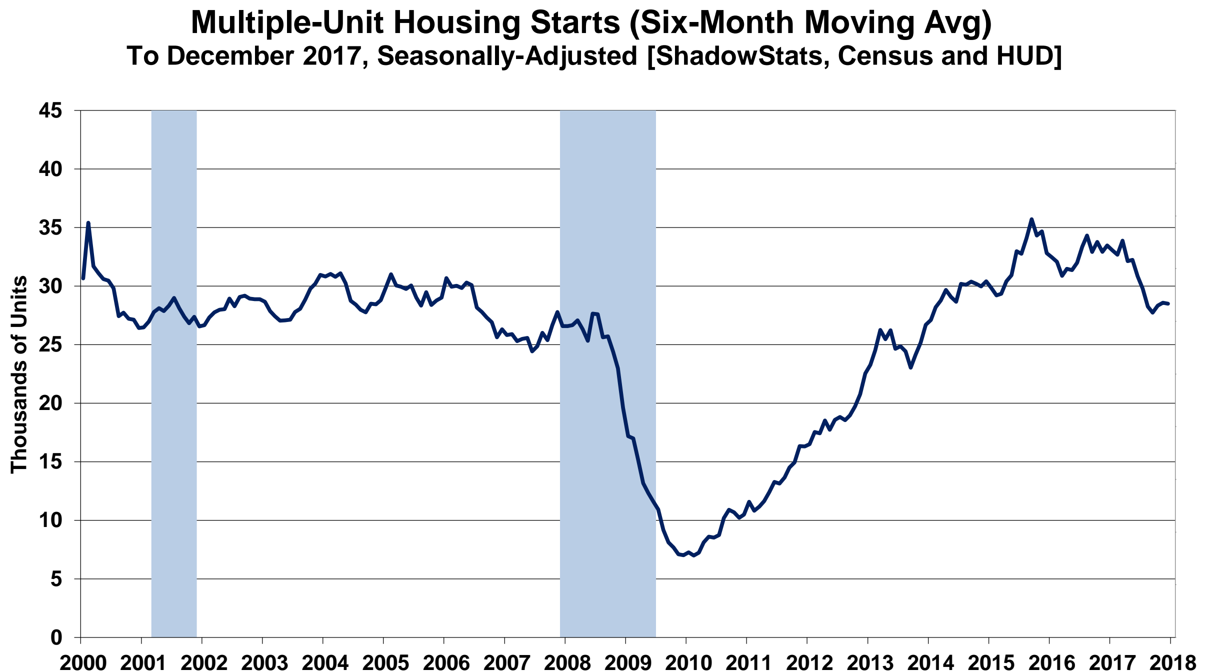
Graph 9: Multiple-Unit Housing Starts (Monthly Rate of Activity)



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



[Extended analysis and graphs of the Production and Housing Series follow in the* Reporting Detail.*]

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REPORTING DETAIL

INDUSTRIAL PRODUCTION (December 2017)

Annual Growth Came from Oil Production; December Gain Came from Weather-Disrupted Utility Surge; Quarterly Jump Took Production Above Its Pre-Recession High for the Second Time. Amidst unusually volatile, recent monthly revisions in Manufacturing and Utilities, December 2017 Industrial Production rose by strong 0.89% in the month, having declined by 0.12 % (-0.12%) [previously up by 0.24%] in November. Two-thirds of the December monthly gain was attributable to a 5.62% surge in Utilities, thanks to unusually-severe weather. That was against monthly gains of 0.09% in Manufacturing and 1.63% in Mining. Putting aside the near-term gyrations in revisions, as various hurricane distortions work in and out of the headline reporting detail, there is value in looking at the initial estimate of full-year 2017 annual detail.

The Mining Sector—Particularly Oil Production—Generates Industrial Production Changes. Despite near-term growth volatility in Utilities surrounding the usual irregular monthly distortions from weather extremes of heat and cold, the annual average contribution to Industrial Production from Utilities has been stagnant in the last three years, actually in small year-to-year decline.

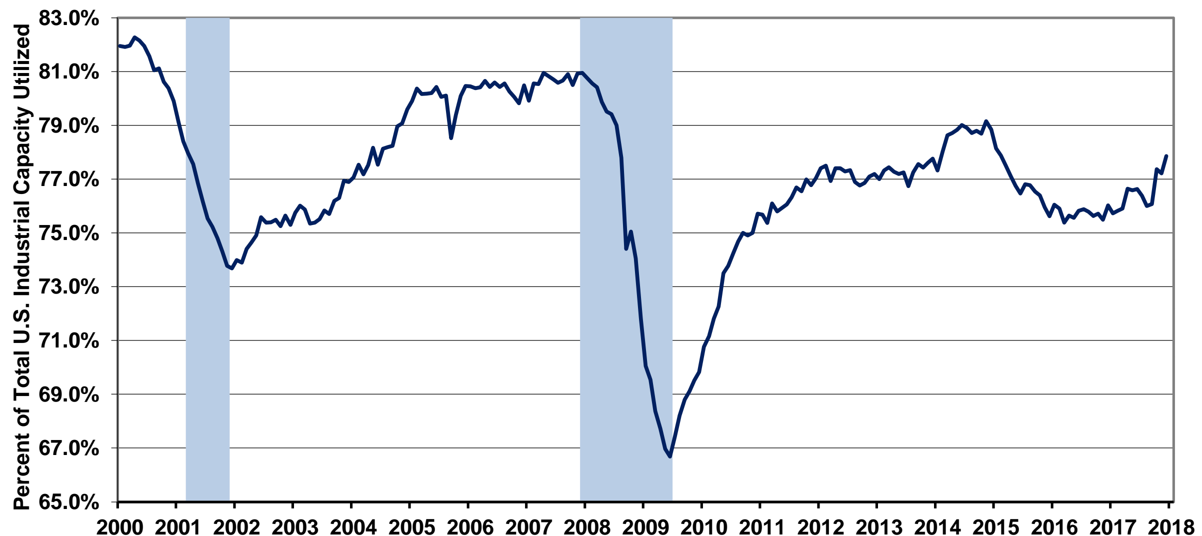
The Manufacturing Sector on a full-year annual basis also has been largely stagnant in the last three years, with some recent spike from the manufacturing of motor vehicles flowing into the system to replace vehicles destroyed in the hurricanes. That replacement element has started to disappear in the headline detail, with Manufacturing falling back into stagnation.

Yet, if one looks at full-year, aggregate Industrial Production growth, annual changes have moved from an annual contraction of 0.71% (-0.71%) in 2015, to a decline of 1.22% (-1.22%) in 2016, to an annual gain of 1.95% in the full-year 2017. Those annual growth patterns have been dominated by the fortunes of the Mining Sector, primarily in Oil and Gas Production. It was the Mining Sector that had drawn Industrial Production out of recession in late-2014, only to be put back into recession immediately thereafter as oil prices were driven lower after mid-2014, by what appears to have been a policy decision by the prior U.S. Administration.

The current rebound in the Mining Sector is the primary factor pushing Industrial Production back above its pre-Great Recession peak for the second time, as discussed in the next section. The Manufacturing Sector, which dominates Industrial Production, having accounted for 76.4% of total production activity in 2016, has been stagnant in recent years, never recovering its pre-recession high, and continuing to extend the longest period of non-economic expansion ever recorded, which now has been in place for a full ten years.

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 11*.

Graph 11: 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 suggest that a renewed economic downturn began at the end of 2014. That is the ShadowStats estimate for the timing of new or deepening 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 December reporting of Industrial Production on January 17th, "Capacity utilization for the industrial sector was 77.9 percent in December, a rate that is 2.0 percentage points below its long-run (1972–2016) average." The December 2017 reading of 77.86% was up from a revised 77.22% (previously 77.14%) in November.

Against its December 2007 precession peak of 80.96%, the December 2017 Capacity Utilization reading—still spiked in level by hurricane disruptions and by a monthly boost from weather-distorted utility usage—held shy of recovering the level of that peak by 3.79% (-3.79%), despite the Index of Industrial Production recovering 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, December 2017 Manufacturing remained 4.54% (-4.54%) shy of recovering its pre-recession peak of December 2007

Quarterly Industrial Production Has Just Recovered Its 2007 Pre-Recession High for a Second Time. The initial reporting of fourth-quarter 2017 Industrial Production showed the aggregate production series breaking above in pre-recession peak of fourth-quarter 2007 for the second time. The first "recovery"

was in third-quarter 2014, with one quarter of expansion in fourth-quarter 2014, before falling again into contraction in first quarter 2015. Fourth-quarter 2017 GDP stood at 1.65% above its pre-recession high of fourth-quarter 2017, forty quarters ago, and 0.56% above the peak of its interim one-quarter expansion in fourth-quarter 2014. This is despite the continuing happy hype out of the Bureau of Economic Analysis (BEA), which has guesstimated the third-estimate of third-quarter 2017 real GDP activity at 14.5% above its pre-recession peak (see *Commentary No. 928*). No other major economic series shows anything close to that purported level of activity (see also the discussions in *Commentary No. 877* and *No. 859 Special Commentary*).

On a monthly basis, the pre-recession high of November 2007 for industrial production was recovered briefly in June of 2014, with October and November 2014 a short-lived peak. Headline October 2017 activity recovered the monthly pre-recession high, for a second time. As of the initial December 2017 headline reporting, monthly Industrial Production stood above its pre-recession peak by 2.03%, and 0.89% above its temporary expansion peak of November 2014.

In contrast, the broadly stagnant, albeit temporarily uptrending due to hurricane distortions to recent monthly activity, dominant Manufacturing Sector in December 2017 remained 4.54% (-4.54%) shy of recovering its pre-recession peak of December 2007. 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 120-months and counting, a full 10 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. Despite the March 31, 2017 benchmark 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 (again, see *Graph 16*).

New Benchmark Revisions Loom at the End of March 2018. The Federal Reserve plans to publish its annual 2018 benchmark revisions late in March 2018, with revisions reflecting recent annual census reporting, redefined series and recast seasonal adjustments, back to 1972. See page 3 of the January 17th *Press Release*. Traditionally, most series going through these benchmarkings see net downside revisions to the history of recent years, where underlying reality begins to catch up with overly optimistic assumptions built into initial reporting.

Headline Industrial Production—December 2017. The Federal Reserve Board released its first estimate of seasonally-adjusted, December 2017 Industrial Production on January 17th. The new detail reflected downside revisions to pre-October 2017 detail (on top of earlier downside revisions to pre-October detail last month), with upside revisions to October and November 2017 activity. Headline December 2017 production increased by 0.89% month-to-month, heavily-spiked by weather-distorted utility usage, versus a revised monthly decline of 0.12% (-0.12%) [previously a gain of 0.24%] in November, a revised gain of

1.79% [previously 1.17%, 0.94%] in October, a revised gain of 0.18% [previously 0.26%, 0.40%] in September, a revised decline of 0.41% (-0.41%) [previously 0.45% (-0.45%), 0.46% (-0.46%)] in August, a revised decline of 0.23% (-0.23%) [previously 0.13% (-0.13%), 0.01% (-0.01%)] in July and an unrevised monthly gain of 0.18% in June. Net of prior-period revisions, December 2017 production gained 1.00%, instead of the headline 0.89%.

Headline December 2017 Monthly Growth by Major Sector. Detailed by major industry group (see *Graphs 17*, *19*, *24* and *26*), the headline December 2017 monthly aggregate gain of 0.89% was composed of monthly gains of 0.09% in the dominant Manufacturing Sector, 5.62% in Utilities and 1.63% in Mining (including oil and gas production).

Year-to-Year Change. Year-to-year December 2017 industrial production gained 3.56%, versus a downwardly-revised 3.46% [previous 3.55%] in November 2017, unrevised annual gains of 3.36% in October 2017 and 1.73% in September 2017, and downwardly revised annual gains of 1.39% [previously 1.46%, 1.54%] in August 2017 and 1.74% [previously 1.84%, 1.94%] July 2017 and an unrevised 2.06% in June 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 the fourth estimate of third-quarter 2017 at an annual gain of 1.62% [previously 1.72%, 1.86%]. The initial estimate of annual fourth-quarter 2017 growth was 3.64%.

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 a deepened, revised annual contraction of 1.27% (-1.27%) [previously 0.87% (-0.87%), 0.31% (-0.31%)].

The initial annualized quarterly gain for fourth-quarter of 8.20%, was heavily boosted on a relative basis versus the hurricane-slashed activity of third-quarter 2017.

Production Graphs. The regular two sets of long- and short-term plots of industrial production levels and annual growth rates (*Graphs 12* to *15*) set the background for the drill-down detail graphs of various components of the aggregate industrial series (*Graphs 16* to *29*).

Graphs 12 and *13,* and *Graphs 14* and *15* show headline industrial production activity to date. *Graph 12* 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 12 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 and December 2017 headline details. Such patterns of monthly and quarterly year-to-year declines post late-2014 to the onset of 2017 (see *Graph 13*) were seen last in the economic collapse into 2009, and historically never seen outside of what would be recognized as formal recessions. *Graphs 14* and *15* 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 hurricane-boosted in fourth-quarter 2017

Seen most clearly in *Graph 15*, 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 13*, 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 2*). That series has shown more of a pattern of stagnation with a slow upside trend, since 2009, with irregular quarterly contractions interspersed. The slow uptrend continued into a topping out pattern in late-2014. Headline growth—purportedly already neutered of any inflation impact—contracted in both first- and second-quarter 2015, moved minimally higher into 2016 through mid-2017, now in 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 12 to 15 begin on the next page.]

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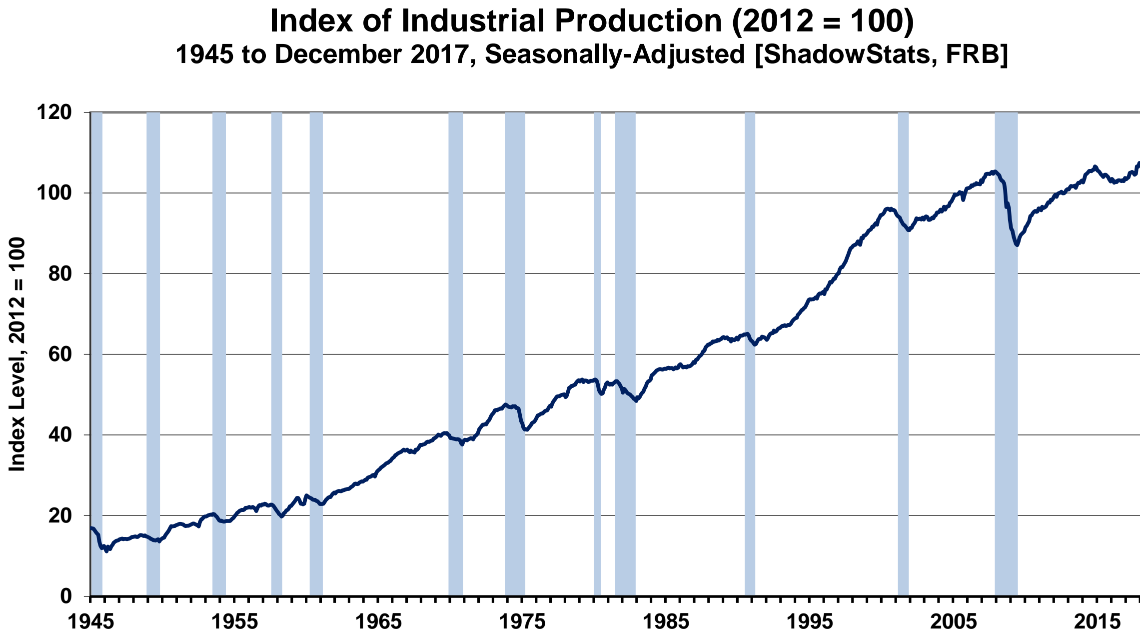
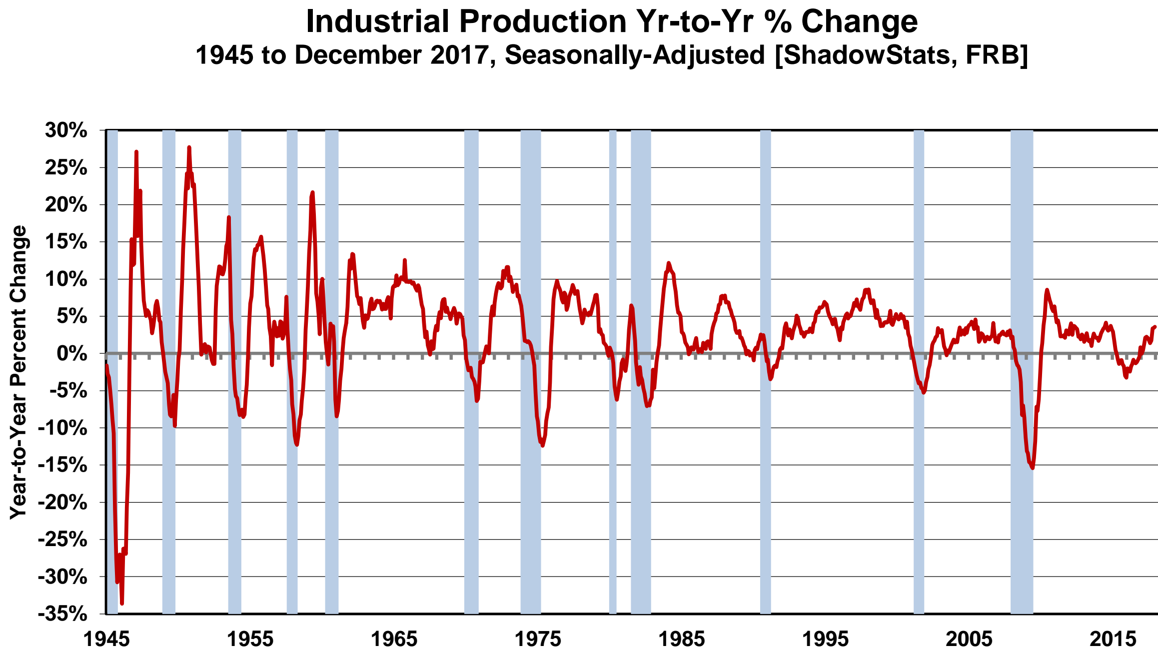
Graph 12: Index of Industrial Production (Aggregate), Since 1945

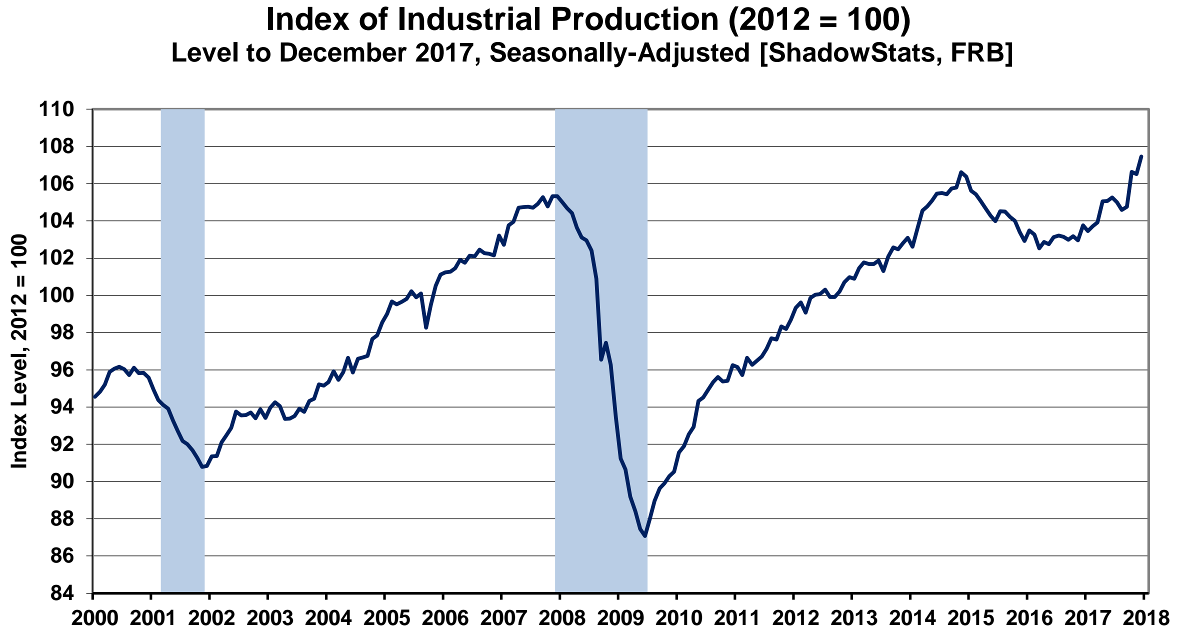


Graph 13: Industrial Production, Year-to-Year Percent Change, Since 1945

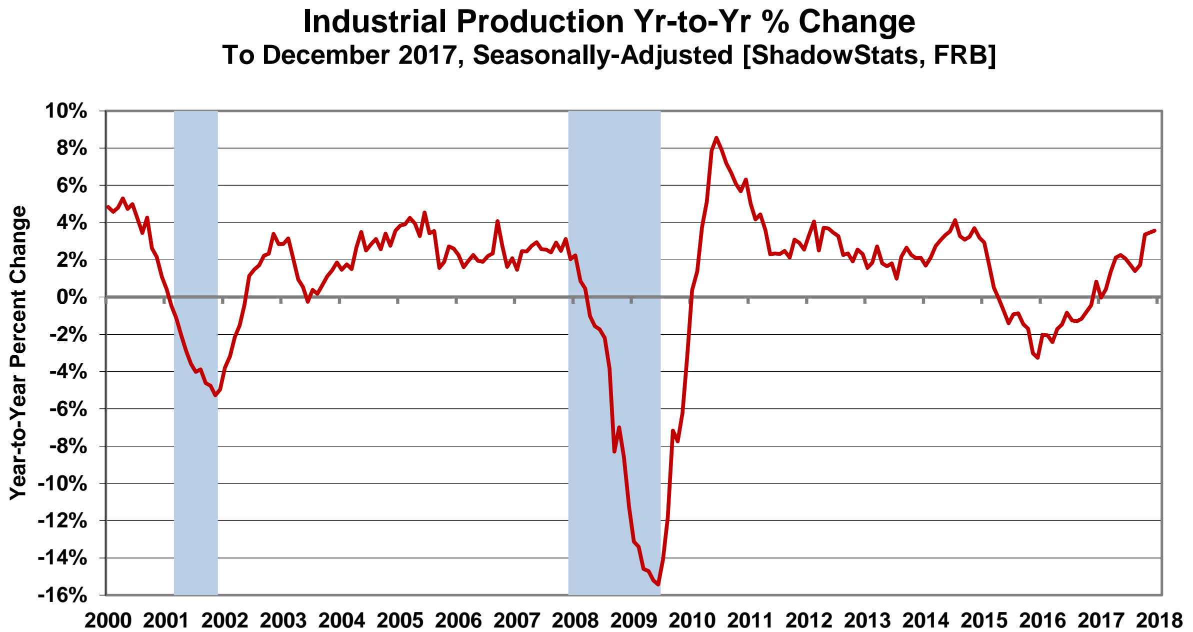


Drilling Down into the December 2017 U.S. Industrial Production Detail. *Graphs 14*, *16*, *21* and *23* show headline reporting of industrial production and its major components.

Graph 14: Index of Aggregate Industrial Production, Since 2000



Graph 15: Aggregate Industrial Production, Year-to-Year Percent Change, Since 2000



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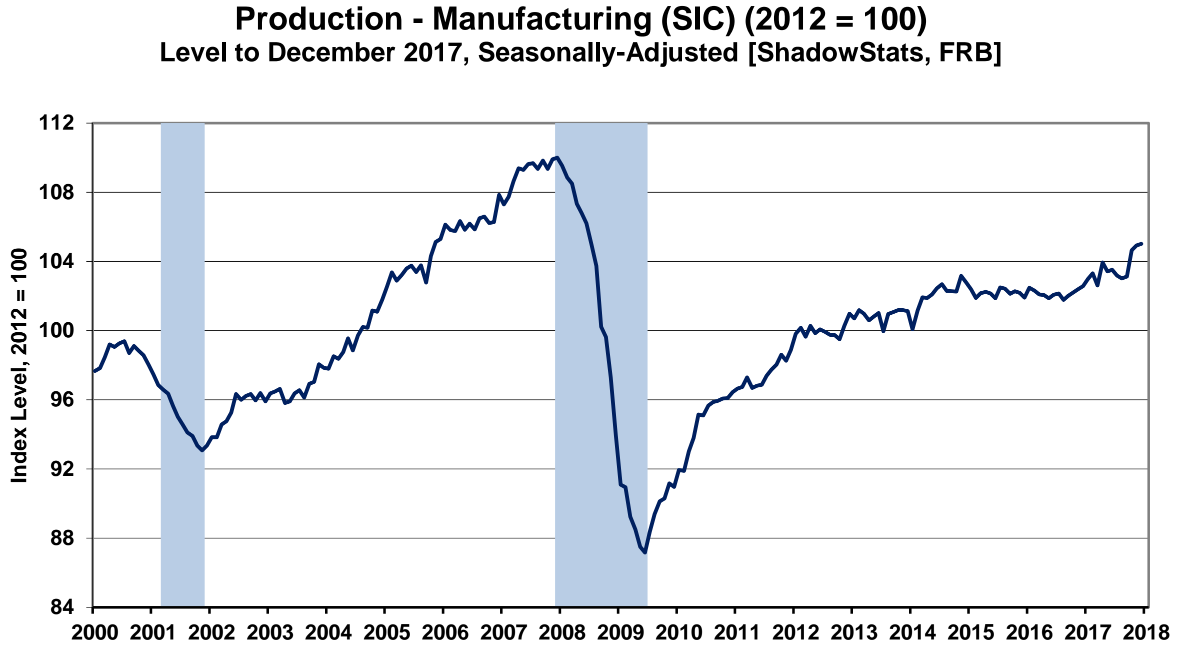
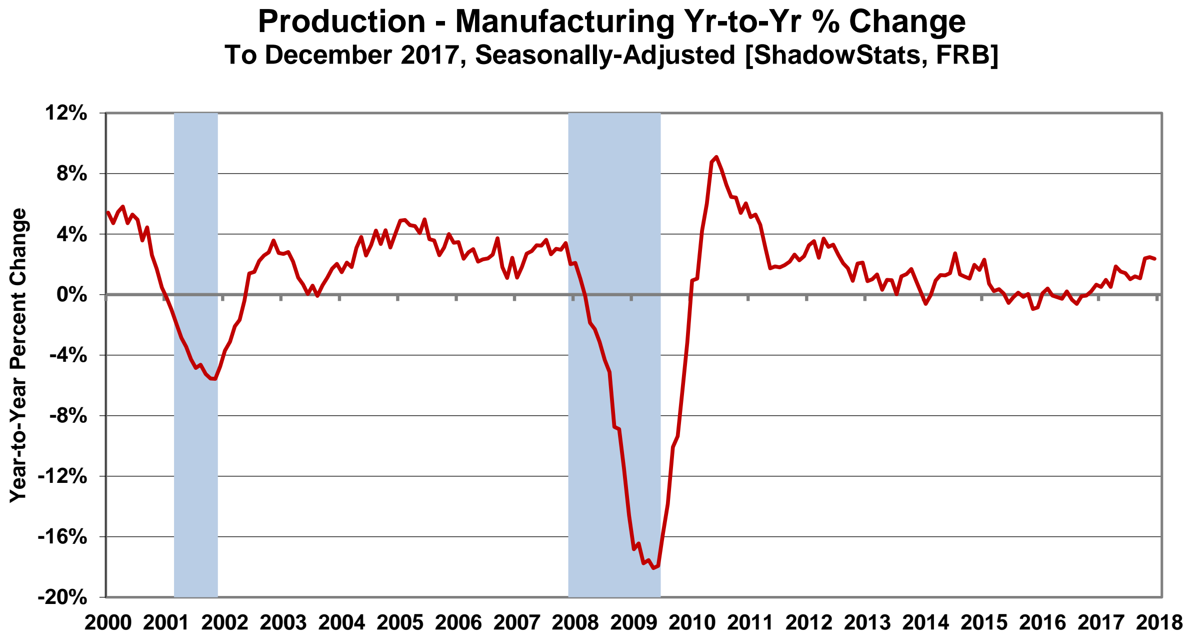
Graph 16: Industrial Production - Manufacturing (76.4% of the IIP in 2016), Since 2000



Graph 17: Industrial Production - Manufacturing, Year-to-Year Percent Change, Since 2000



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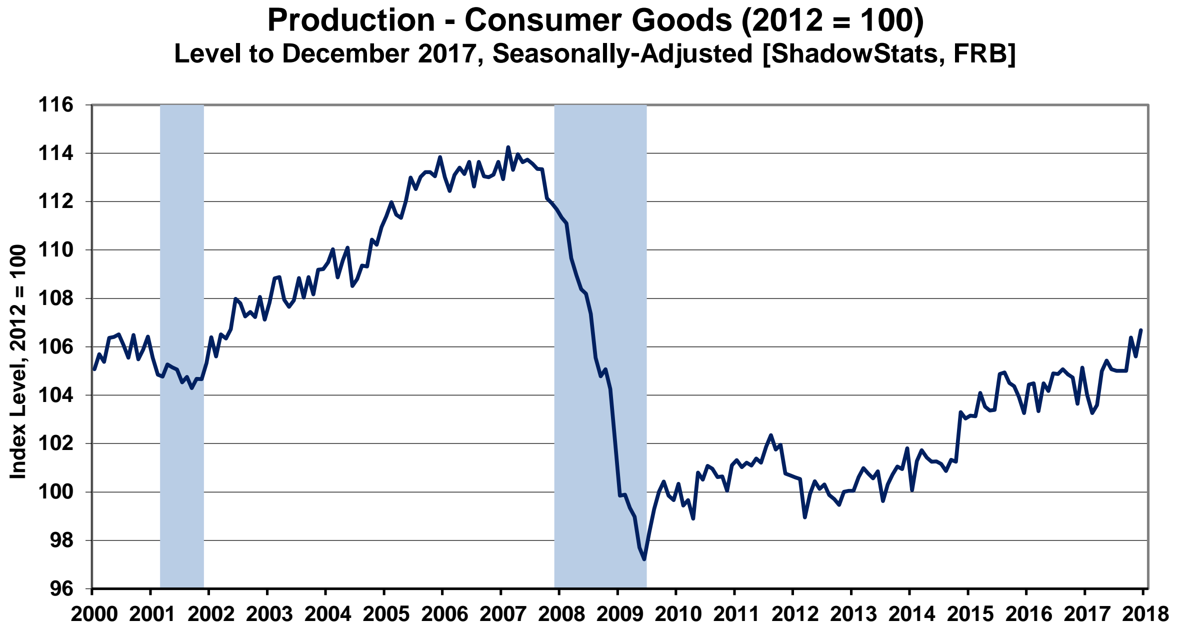
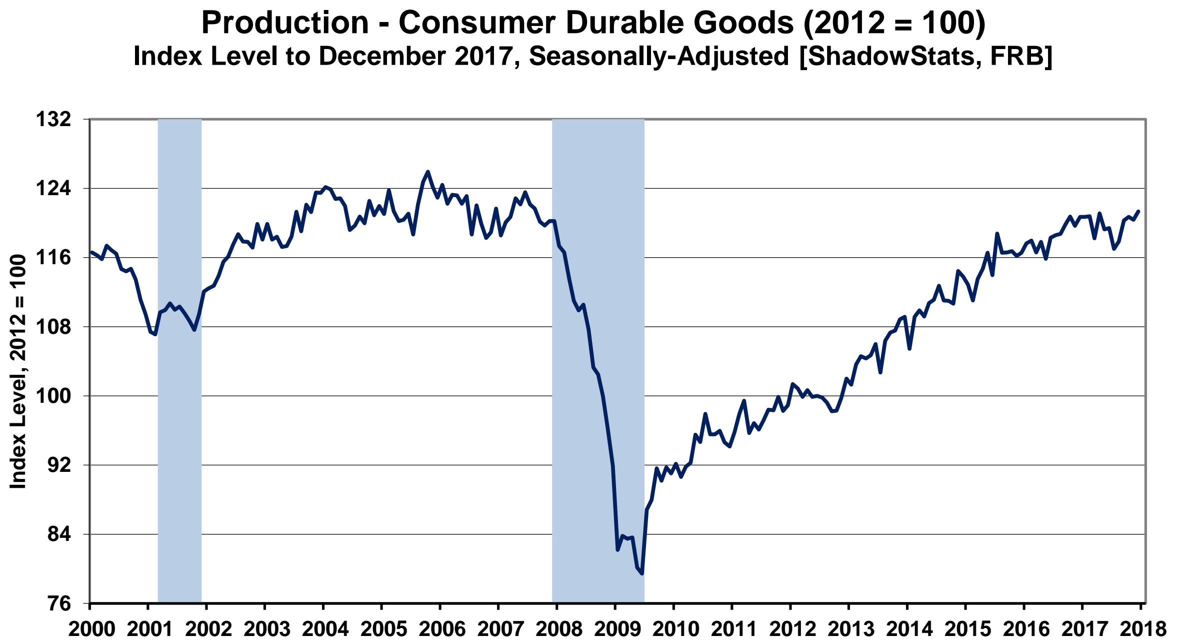
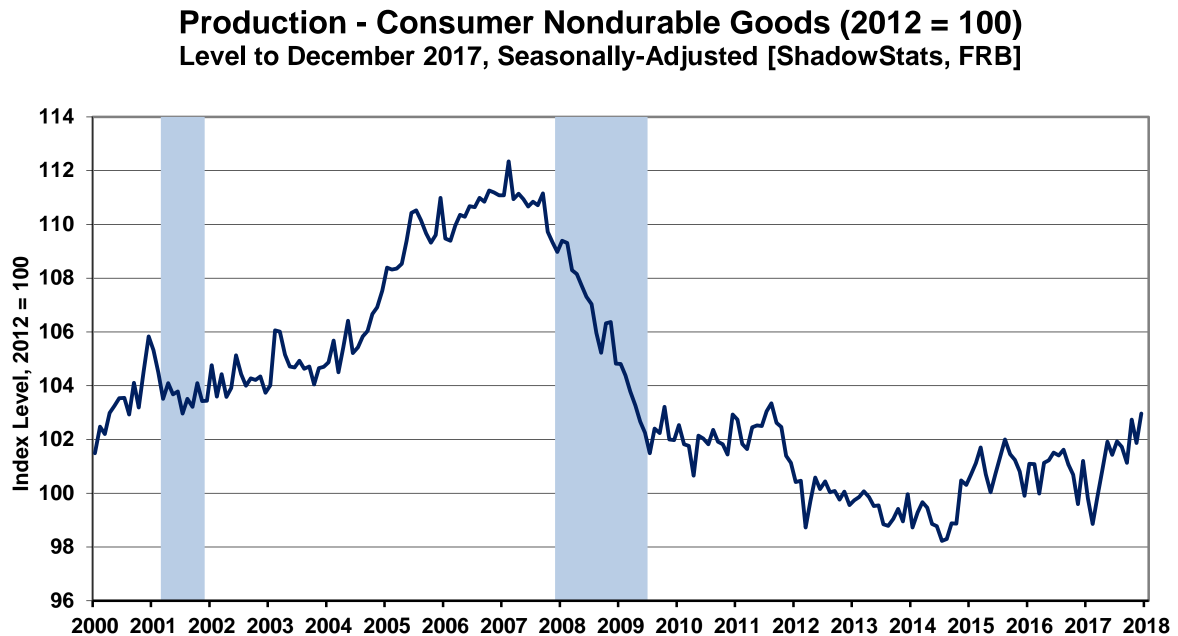
Graph 18: Consumer Goods (28.2% of the Aggregate in 2016), Since 2000



Graph 19: Durable Consumer Goods (6.3% of the Aggregate in 2016), Since 2000



Graph 20: Nondurable Consumer Goods (21.9% of the Aggregate in 2016), Since 2000



The aggregate production index (*Graph 14*) 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 16, 21* and *23* 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.

The Manufacturing graphs precede this, the other graphs follow, updated for the latest disrupted detail, subject to further revisions and added commentary in the next couple of months. *Graphs 17*, *22* and *24*, show the respective plots of year-to-year change for those series.

The preceding Manufacturing *Graphs 16* to *20* include reflect various levels of consumer goods production (*Graphs 18* to *20*), all impacted by weather 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 21* and *22* reflect Utilities activity massively distorted by unseasonably-cold weather in December 2017.

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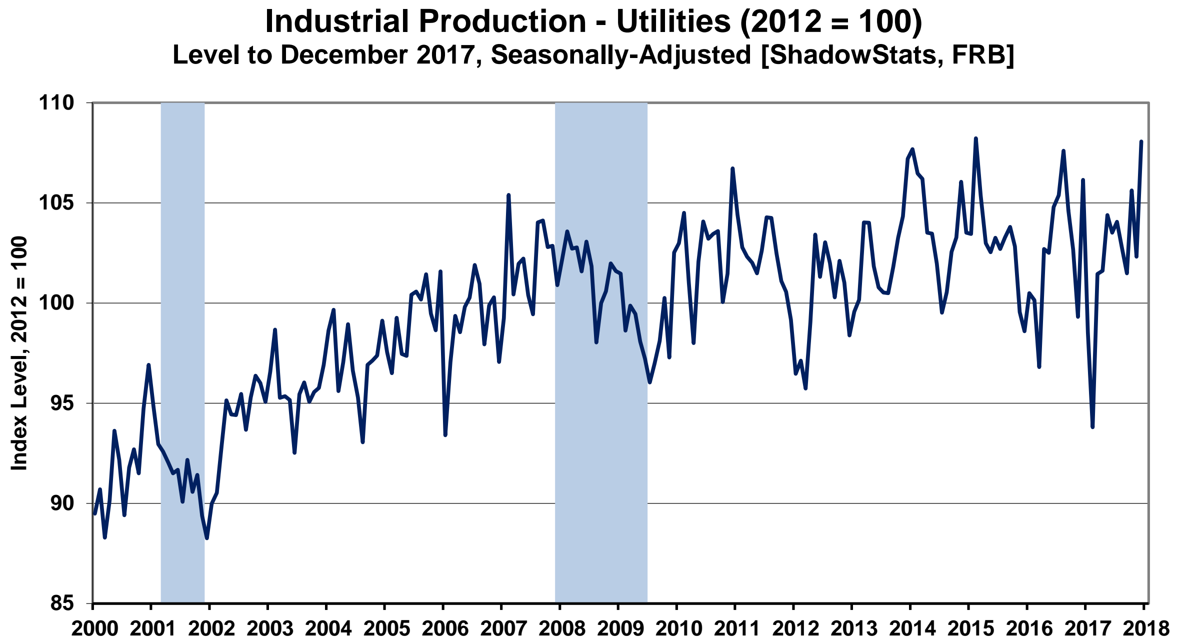
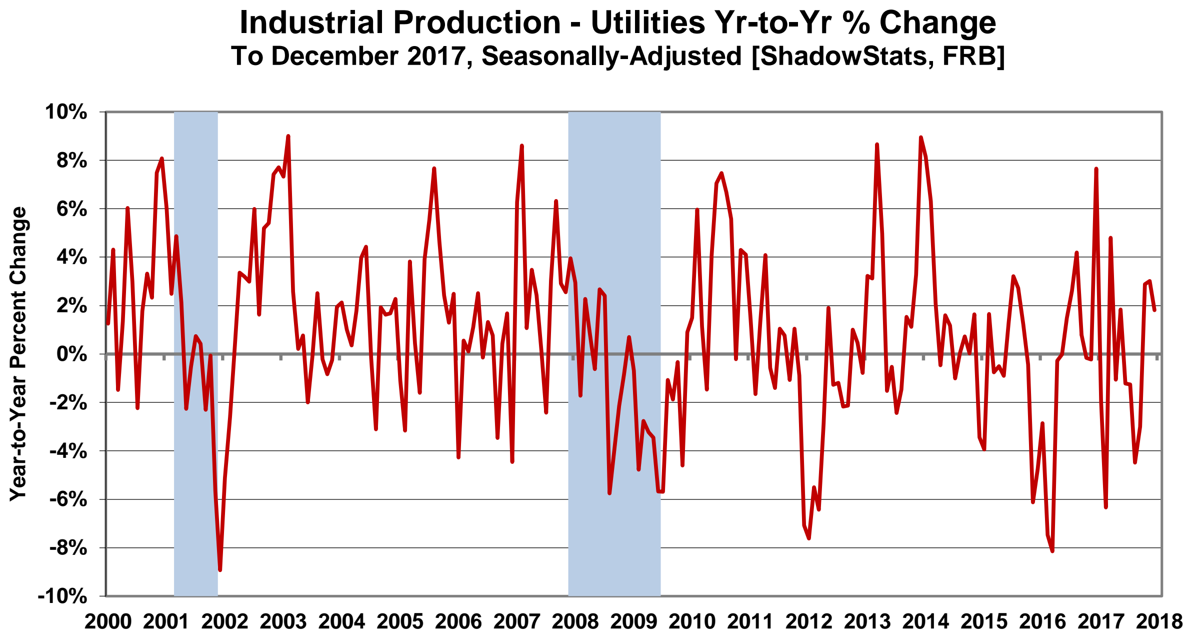
Graph 21: Industrial Production - Utilities (10.6% of the Aggregate in 2016), Since 2000

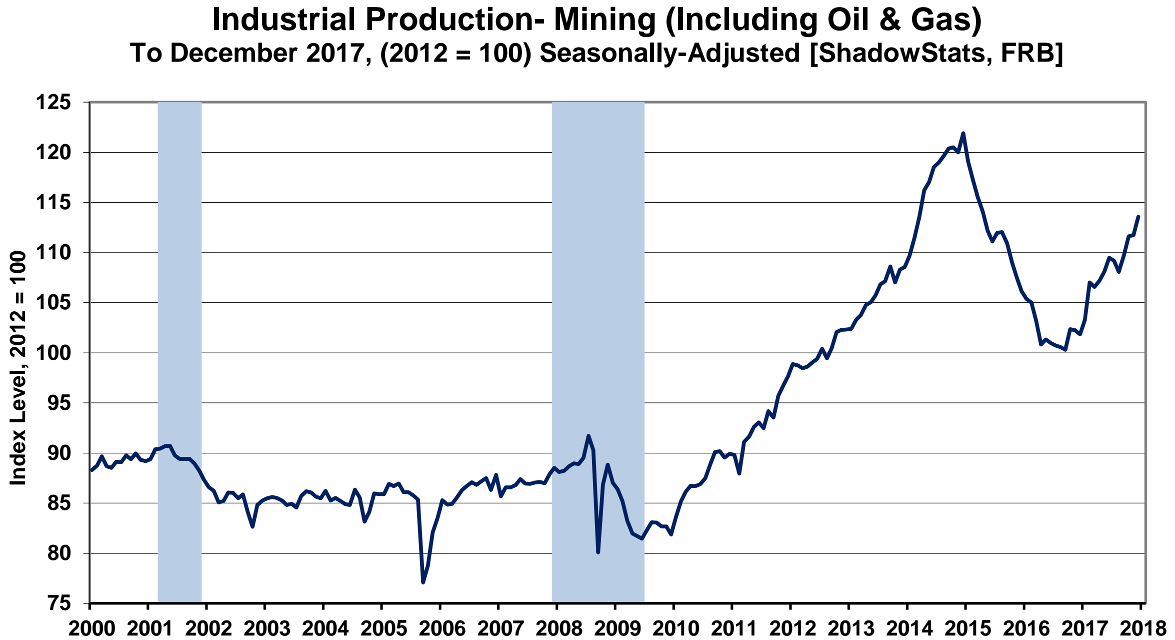


Graph 22: Industrial Production - Utilities, Year-to-Year Percent Change, Since 2000

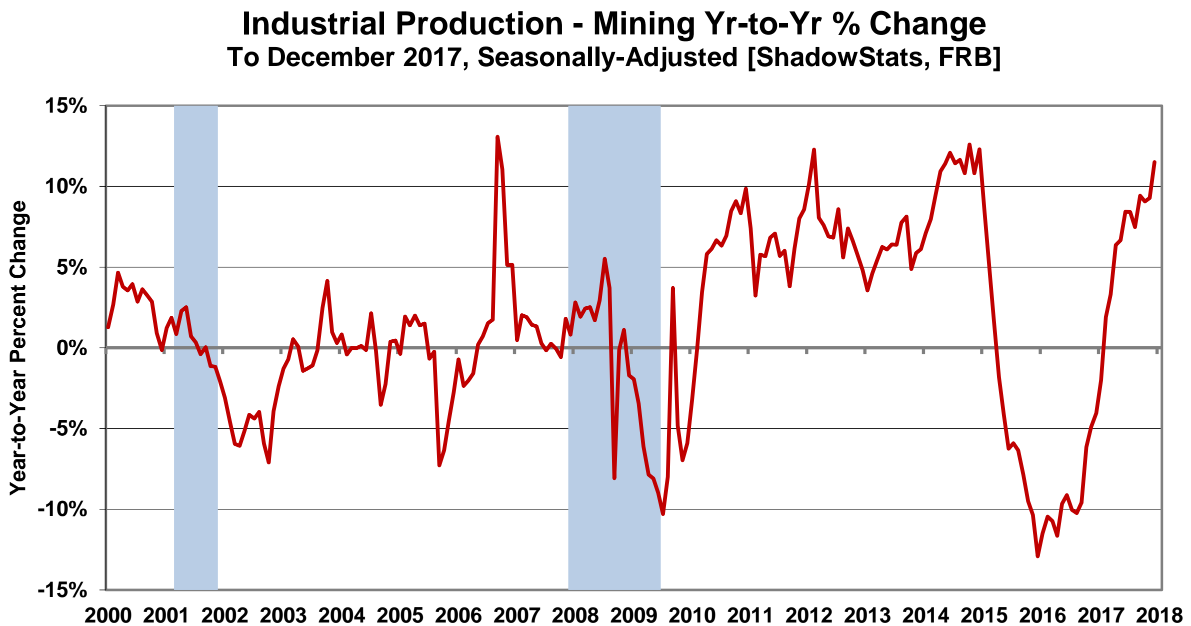


The final set of Mining *Graphs 23* to *29,* encompasses plots of related mining/oil production or exploration activity. Mining activity rallied across-the board in December activity, although oil and gas drilling has stabilized but not recovered. Gulf Coast activity was impacted directly by Hurricanes Harvey in August and September, and by Hurricane Nate hit in October 2017.

Graph 23: Industrial Production - Mining, Including Oil and Gas (12.9% of the Aggregate in 2016), Since 2000



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



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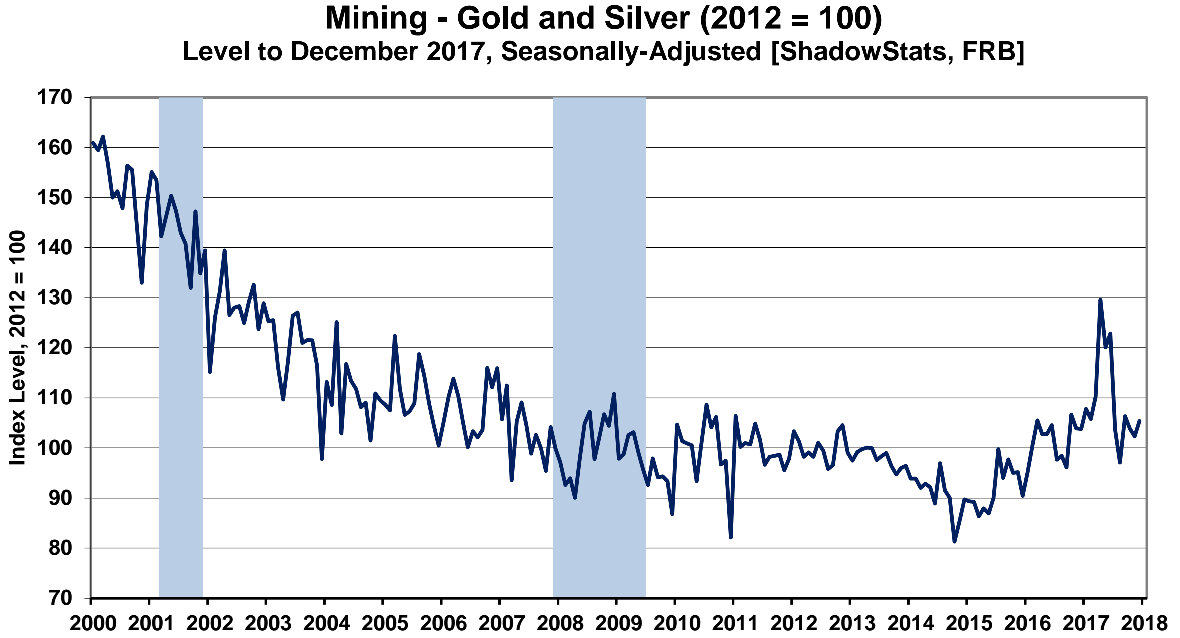
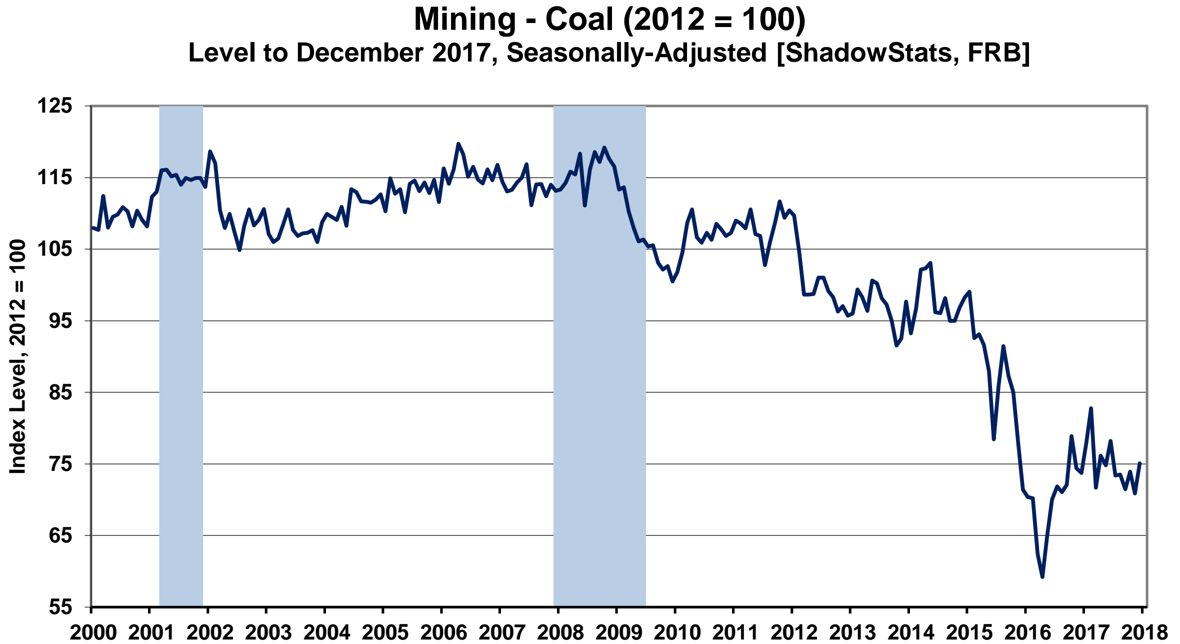
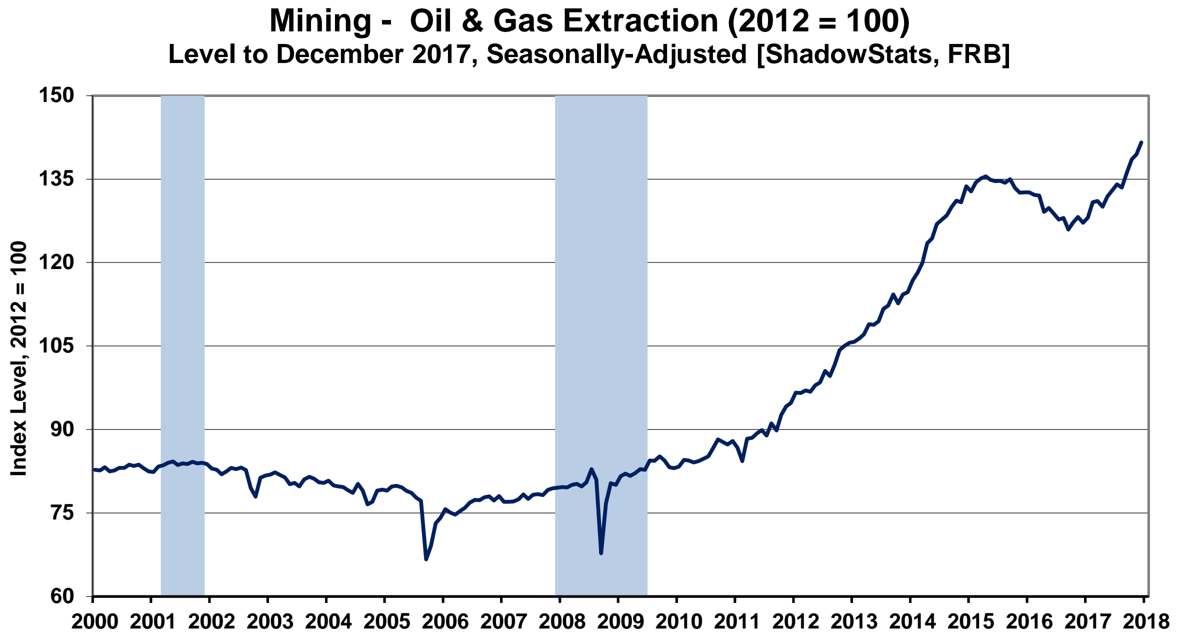
Graph 25: Mining – Gold and Silver Mining, Since 2000



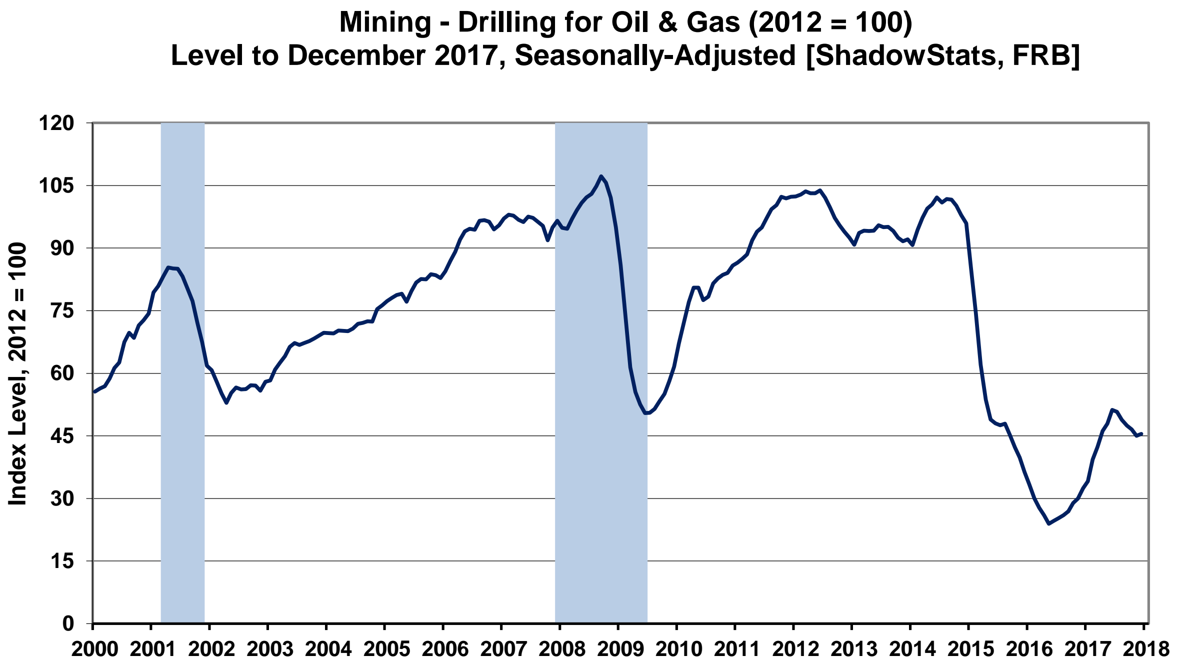
Graph 26: Mining - Coal Mining, Since 2000



Graph 27: Mining – U.S. Oil & Gas Extraction, Since 2000



Graph 28: U.S. Drilling for Oil & Gas (Exploration), Since 2000



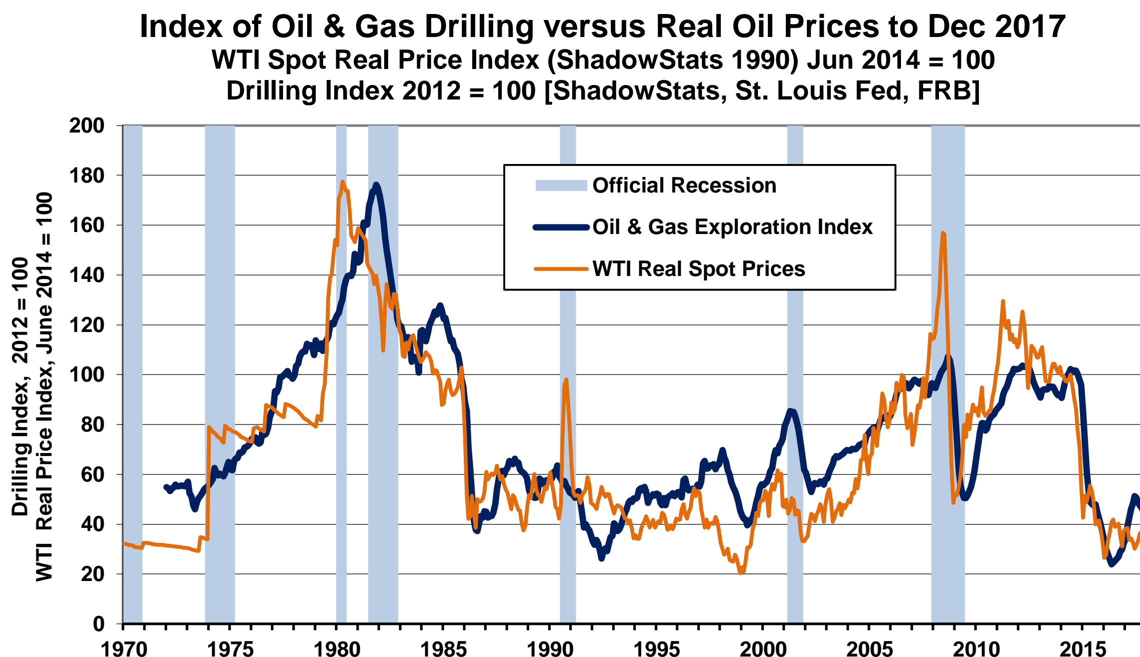
Shown in *Graph 29*, with some lag following sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing in exploration, indeed, appeared to have been in place with what was at least a short-term bottoming in oil prices in early 2016. Prices rallied into mid-2016, then 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 graphically with the movement in the drilling levels recently.

When the dollar weakens, dollar-denominated oil prices also begin to strengthen, even in a circumstance with excess supply conditions. With the U.S. dollar currently in a downtrend, oil prices have been firming, also impact 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, 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 has yet to pick. Again, beyond the dollar, movement in oil prices remain subject to, and are reflective of, political developments in the Middle East.

Graph 29: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base), Since 1970



NEW RESIDENTIAL CONSTRUCTION (December 2017)

Continued Extreme Volatility Generated Some Negative Catch Up, Amidst Possible Unwinding of Hurricane Distortions. Suggestive of an unwinding of the hurricane-distorted activity of recent months, and in the context of the usual, highly-volatile and heavily-revised reporting of monthly Housing Starts, December 2017 activity in the South plunged month-to-month by 14.2% (-14.2%), along with downside revisions to November and October starts. Those numbers dominated the aggregate detail published in the December 2017 Housing Starts report.

Hurricane distortions should be close to running their course, with impact from storm-generated new housing starts likely to be out of the system by next month's headline January or by the February 2018 detail. That circumstance, however, will do nothing in terms of improving the reporting quality of this series and its continued lack of monthly statistical significance (see *Commentary No. 927* for a discussion of distortions in the prior, headline reporting for November 2017 activity).

Today's headline 8.2% (-8.2%) monthly contraction in December 2017 housing starts, net of minimal aggregate revisions, was a contraction of 8.1% (-8.1%). The minimally-revised aggregate count, however, was in the context of an upside revision to November multiple-unit starts, which gained monthly by 2.6% in December, and a largely offsetting downside November revision to single-unit starts, which declined monthly by 11.8% (-11.8%) in December. Other than for the headline monthly decline in single-unit starts, none of the monthly or year-year changes in the national data was statistically-significant at the 95% level. Lack of statistical significance usually is a common denominator to nearly all the headline month-to-month and year-to-year changes in these series.

Nonetheless, with some likely corrective reporting in hand, versus the recent, highly-unstable monthly gains, the six-month smoothed, moving averages of those series, as seen in *Graphs 4*, *6, 8* and *10* in the *Executive Summary*, have notched lower into downtrends (flattened out for multiple-unit starts). Irrespective of near-term reporting instabilities, the six-month trends in those key series remained broadly stagnant, along with the headline level of December 2017 activity still holding well below pre-recession peaks for each series.

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 with the December drop (see accompanying *Graphs 30* to *35* of the Building Permits and Housing Starts series). Again, also see *Graphs 3* to *10* in the *Executive Summary*, covering all of the major Housing Starts series.

A pattern of non-recovery also broadly has been seen in Building Permits activity. The headline, statistically-insignificant monthly decline of 0.1% (-0.1%) +/- 1.6% at the 95% confidence interval (all confidence intervals here are at the 95% level) was against a revised month-to-month contraction of 1.0% (-1.0%) [previously 1.4% (-1.4%)] in November 2017. In combination, those numbers left the otherwise stagnant the six-month moving average of that series turning minimally lower (see *Graph 32*).

Plotted with just the seasonally-adjusted monthly data, the pattern of low-level, broadly downtrending stagnation in the various New Construction Activity series, showed headline December 2017 building

permits activity down by 42.5% (-42.5%) from recovering its pre-recession peak activity, versus aggregate housing starts activity down similarly by 47.6% (-47.6%).

Again, the six-month smoothed trends remained relatively flat to downtrending, across-the-board for the housing starts and building permits. Monthly activity for the various December 2017 measures remained shy of regaining their 2005 pre-recession peaks, again, by 42.5% (-42.5%) for Building Permits and 47.6% (-47.6%) for Housing Starts, and down by 54.1% (-54.1%) for Single-Unit Starts. At present, Multi-Unit Starts has fallen back, now down by 20.9% (-20.9%), previously having recovered its 2005 pre-recession peak in early-2015.

Annualized Fourth-Quarter 2017 Growth in Housing Starts Boomed by 29.7% 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 annualized 87.7% pace in second-quarter 2015, rose 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%.

Initial reporting for fourth-quarter 2017 activity was for an annualized gain of 29.7%, with a year-to-year gain, though, of just 1.9%. In this circumstance, that annual growth rate just highlights how the weak the activity in this series has been in the last year.

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 initial reporting for fourth-quarter 2017 showed an annualized gain of 22.5%, with an annual gain of 3.0%.

Housing Starts Full-Year Annual Growth Was 2.4%, with Single Units Up 8.5% and Multiple Units Down by 9.8% (-9.8%); Building Permits Annual Growth of 4.7%. In terms of unadjusted annual activity, 2017 Housing Starts rose by a statistically-insignificant 2.4% +/- 2.7% versus 2016, following an annual gain of 5.6% in 2016. Single-Unit starts in 2017 gained by a statistically-significant 8.5% +/- 2.1%, following an annual gain of 9.4% in 2016, while all multiple-unit starts (two units or more) declined by a statistically-significant 9.8% (-9.8%) +/- 7.4%, following an annual decline of 1.3% (-1.3%) in 2016.

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Annual Building Permits in 2017 gained a statistically-significant 4.7% +/- 0.7%, versus an annual gain of 2.0% in 2016

Consumer Liquidity Problems Continue to Impair Residential Construction Activity. Discussed regularly in the *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.

December 2017 Housing Starts, Headline Detail. The always-unstable and highly-volatile aggregate Housing Starts series, exacerbated in recent reporting by hurricane effects and likely reversing some of those distortions in the latest headline detail, declined month-to-month in December 2017, on top of minimal upside revisions to November and October 2017 details. The Census Bureau and Department of Housing and Urban Development (HUD) reported this morning, January 18th, a statistically-insignificant, seasonally-adjusted, headline monthly decline in December 2017 housing starts of 8.2% (-8.2%) +/- 9.0% (again, all confidence intervals are expressed at the 95% level). That followed revised gains of 3.0% [previously 3.3%] in November and 8.8% [previously 8.4%, 13.7%] in October. Net of the prior-period revisions, December Housing Starts declined by 8.1% (-8.1%), instead of the headline 8.2% (-8.2%). Level-of-activity aggregate detail is plotted in *Graphs 3* to *6* of the *Executive Summary*, and in *Graphs 31*, *33*, *34* and *35* at the end of this section.

Year-to-year change in the seasonally-adjusted, December 2017 aggregate housing-starts measure was a statistically-insignificant decline of 6.0% (-6.0%) +/- 13.7%, versus a revised annual gain of 13.1% [previously 12.9%] in November 2017, and a revised annual decline in October 2017 of 5.0% (-5.0%) [previously 5.4% (-5.4%), 2.9% (-2.9%)].

The December 2017 headline decline of 8.2% (-8.2%) in total Housing Starts encompassed a monthly drop of 11.8% (-11.8%) in Single-Unit starts and 2.6% gain in the Multiple-Unit "Five Units or More" category. There is a missing balance in the "Two to Four Units" category, which declined month-to-month by 50.0% (-50.0%) in December. 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 1.4%, instead of the headline 2.6% gain in the five-units-or-more category. That is discussed later in the broadest, aggregate "multiple unit" category. Contrary to common experience, one of the month-to-month headline changes actually was statistically significant: the decline in Single-Unit starts.

Housing Starts By Unit Category. *[See* Graphs *3 to 10 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 December 2017 declined month-to-month by a statistically-significant 11.8% (-11.8%) +/- 7.6%, following revised gains of 6.9% [previously 5.3%] in November and 6.6% [previously 6.1%, 5.3%] in October. December 2017 single-unit starts showed a statistically-

insignificant annual gain of 3.5% +/- 12.3%, versus revised gains of 15.2% [previously 13.0%] in November 2017 and 1.8% [previously 1.4%, 0.7%] in October 2017 (see *Graphs 3, 4, 7 and 8* in the *Executive Summary*).

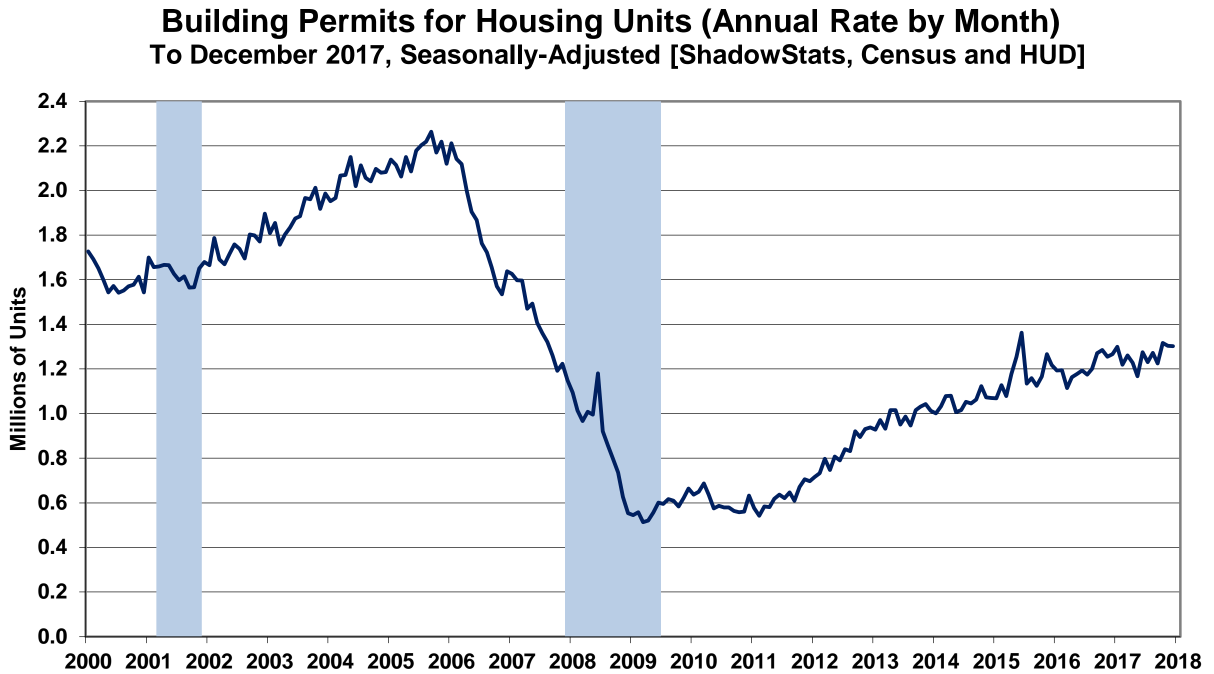
Housing starts for apartment buildings, condominiums, etc. (generally 5-units-or-more) in December 2017 gained month-to-month by a statistically-insignificant 2.6% +/- 26.2%, versus a revised decline of 3.7% (-3.7%) [previously a gain of 0.8%] in November and an unrevised 14.8% gain in October. A statistically-insignificant year-to-year decline of 21.6% (-21.6%) +/- 25.3% in December 2017, followed a revised gain of 6.2% [previously 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 3*, *4*, *9* and *10* in the *Executive Summary*).

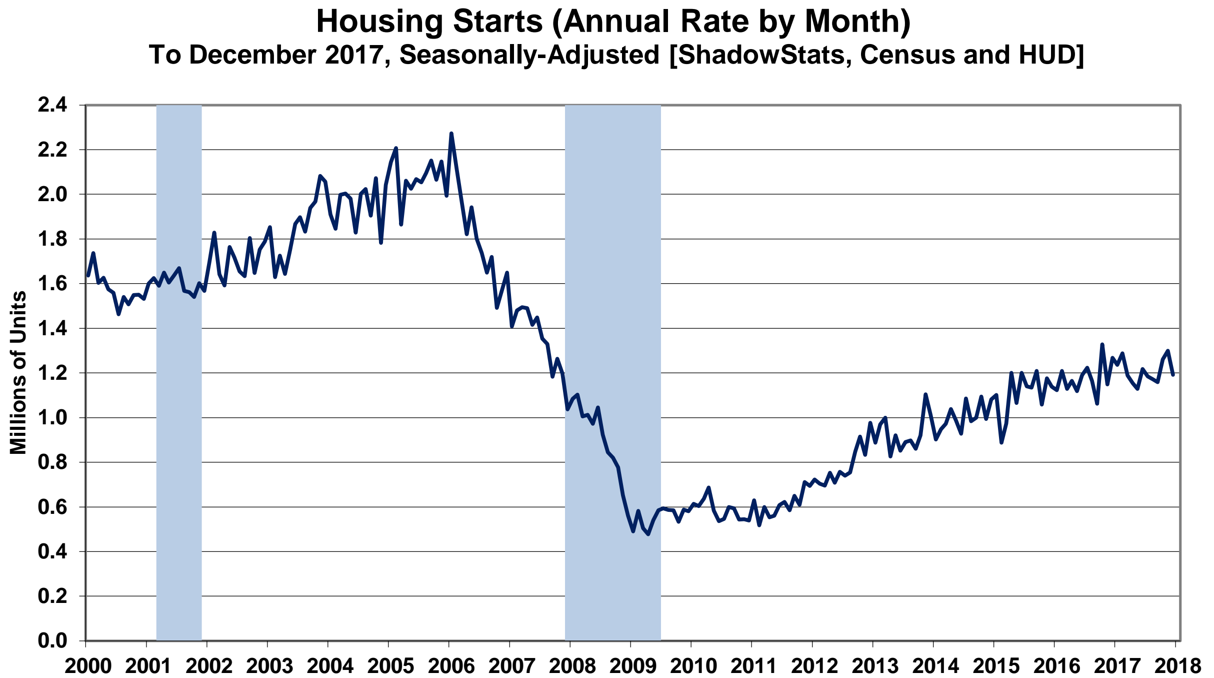
Accordingly, the statistically-insignificant December 2017 monthly decline of 8.2% (-8.2%) in aggregate starts was composed of a statistically-significant decline of 11.8% (-11.8%) in one-unit structures and a statistically-insignificant gain of 1.4% in the multiple-unit structures category (two-units-or-more, including the five-units-or-more category). In contrast, again, ex-two-units-or-more, the multiple-unit category gained by 2.6%. Again, these series are graphed in the *Executive Summary*.

[Graphs 30 to 35 begin on the next page.
Please see the *Note on the Housing Starts Graphs* on page 7.]

Graph 30: Building Permits (Annualized Monthly Rate of Activity), 2000 to Date



Graph 31: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date



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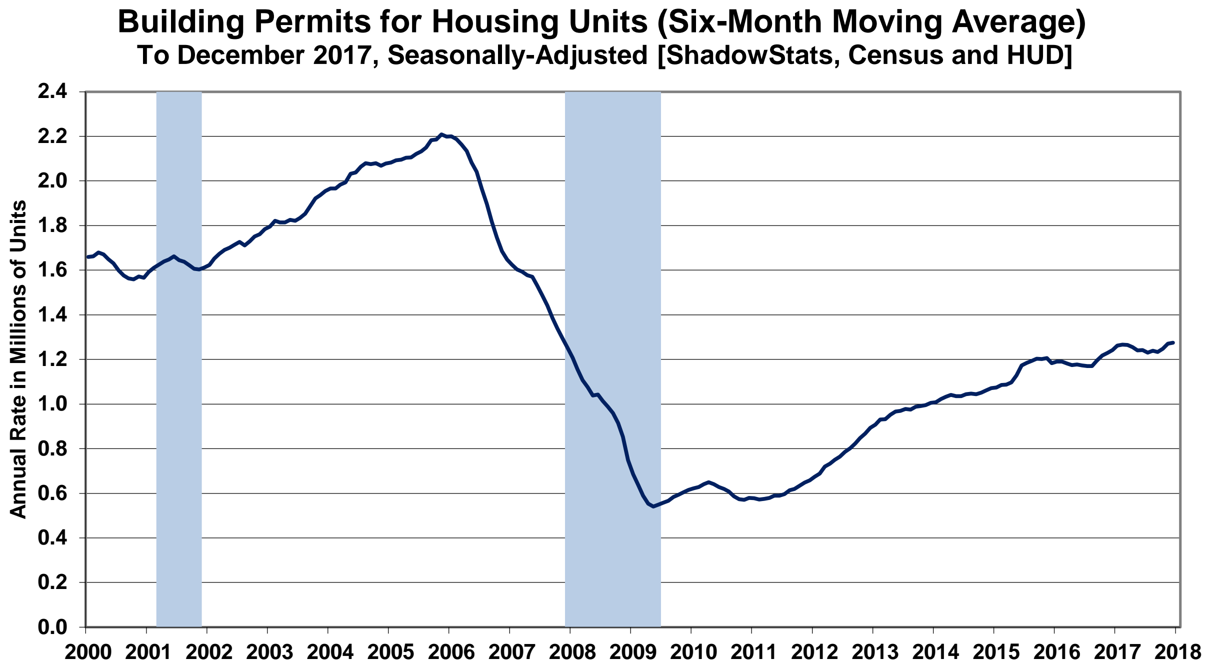
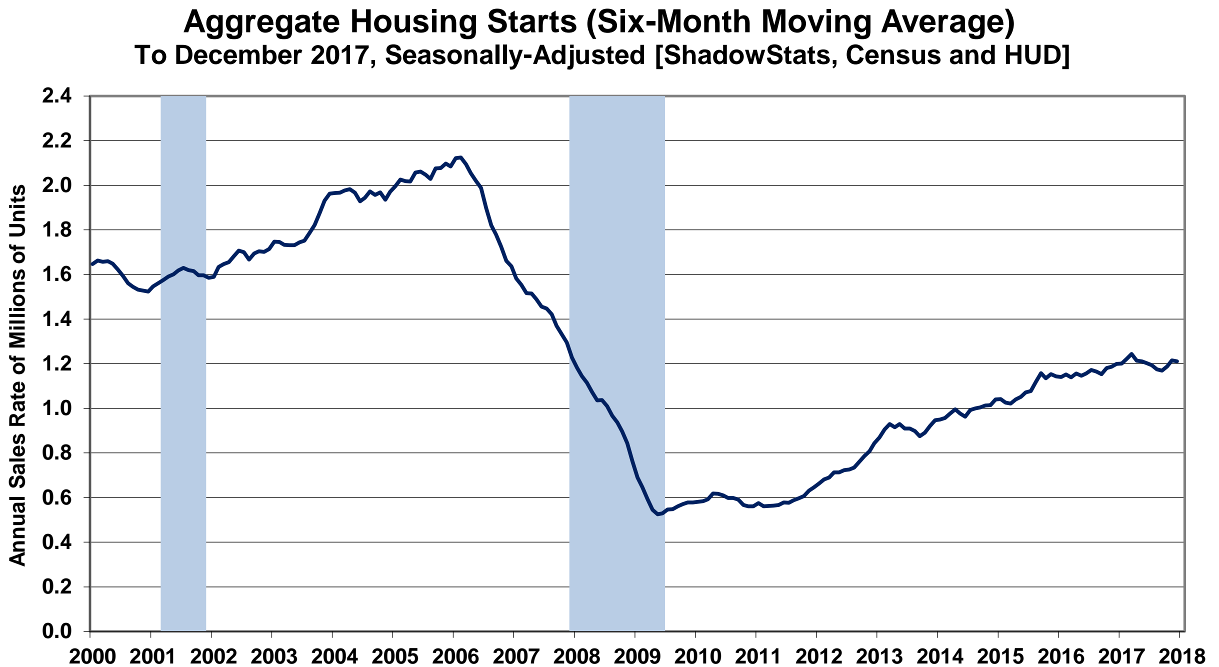
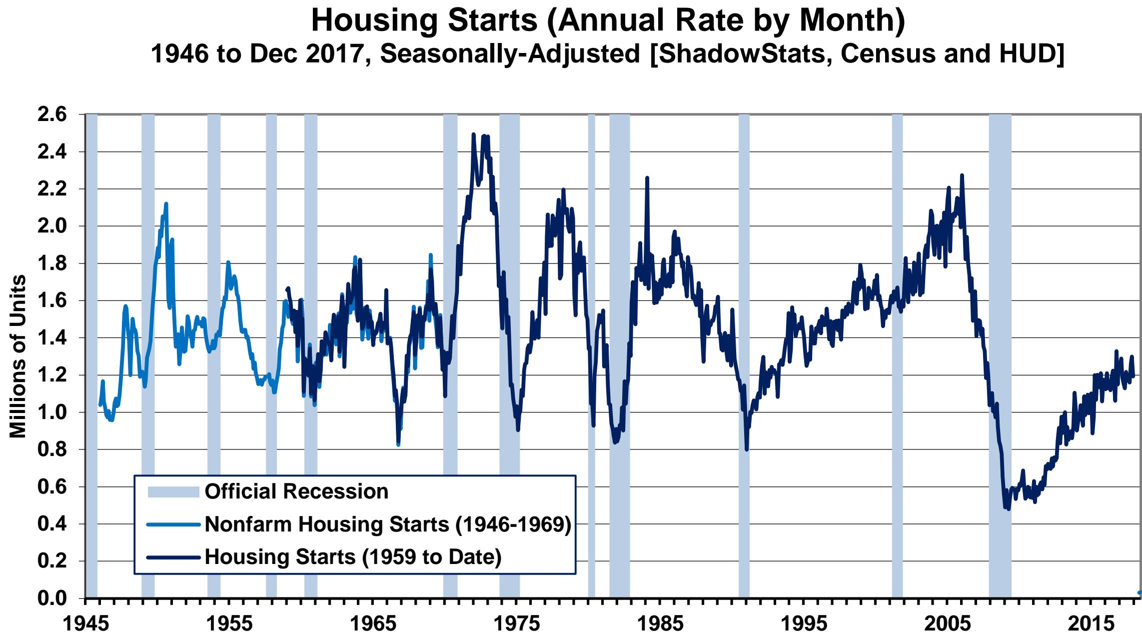
Graph 32: Building Permits (Six-Month Moving Average), 2000 to Date



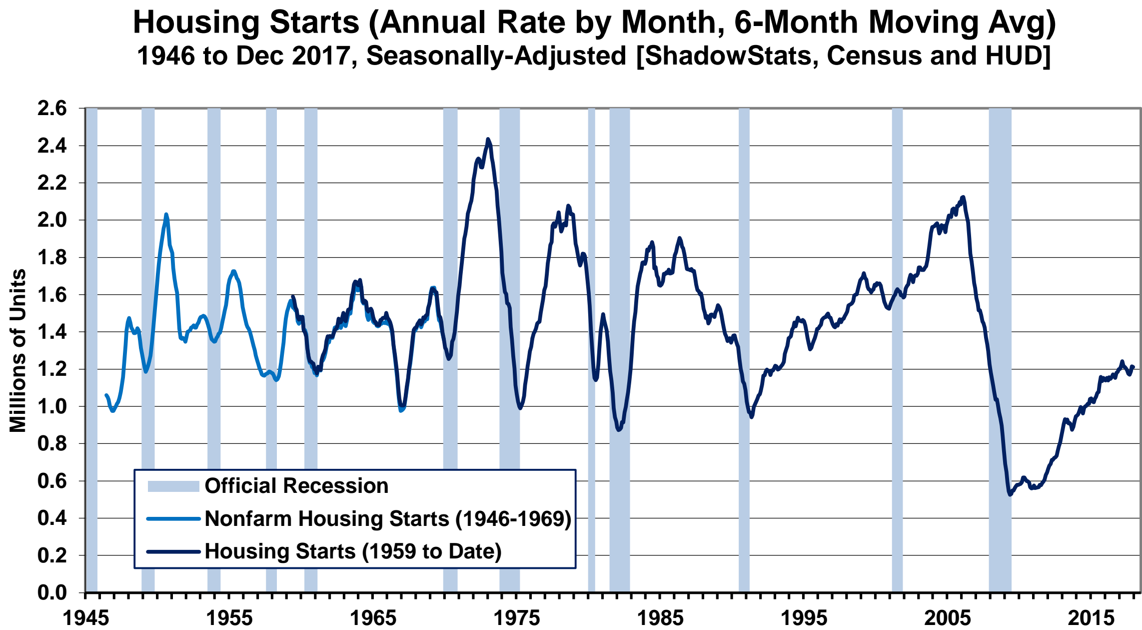
Graph 33: Housing Starts (Six-Month Moving Average), 2000 to Date



Graph 34: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date



Graph 35: Housing Starts (Annualized Monthly Rate of Activity, 6-Month Moving Avg), 1946 to Date



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

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CONSUMER LIQUIDITY WATCH

CONSUMER LIQUIDITY CONDITIONS: INCOME, CREDIT AND RELATIVE OPTIMISM.

[The CLW *has been updated for the comments on Average Weekly Earnings in prior* Commentary No. 931*, and for any related links.]*

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 have passed from headline data by the February/ March reporting of January/February 2018-headline detail. Such effects have been, and will continue to be, discussed in the separate analyses of relevant series in covering *ShadowStats Commentaries*.

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*) and Retail Sales (*Commentary No. 931*). December Industrial Production appeared to have stabilized in terms of surging activity, but it still needs to subside to levels stable with normal consumption activity and inventories (see today's *Reporting Detail*).

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.

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 in recent months, although it has begun to falter anew, 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% of the headline real, third-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 most 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 newly faltering.

Consumer Optimism: December 2017 Consumer Sentiment and Confidence Faltered. Full-month December 2017 readings pulled back sharply for both The Conference Board's Consumer-Confidence Index® (Confidence) as of December 27th, and the University of Michigan's Consumer Sentiment Index (Sentiment) as of December 22nd. 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 also pulled back sharply, largely offsetting the October surge there. Nonetheless, the latest headline readings remained above their pre-2007 recession peaks.

The sharp monthly downturns in both the headline Sentiment and Confidence numbers are not consistent with headline, resurgent economic/employment activity, or with the popular media's heavily-touted, 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—both notched higher despite December's downside activity—also had begun to falter in September 2017, before the unusual October and November surges.

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 December 2017 readings for both the Confidence and Sentiment measures were down respectively from their pre-2001 recession peaks of May and January 2000, by 15.6% (-15.6%) and 14.4% (-14.5%).

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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 47 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.

[Graphs CLW-1 to CLW-3 begin on the next page.]

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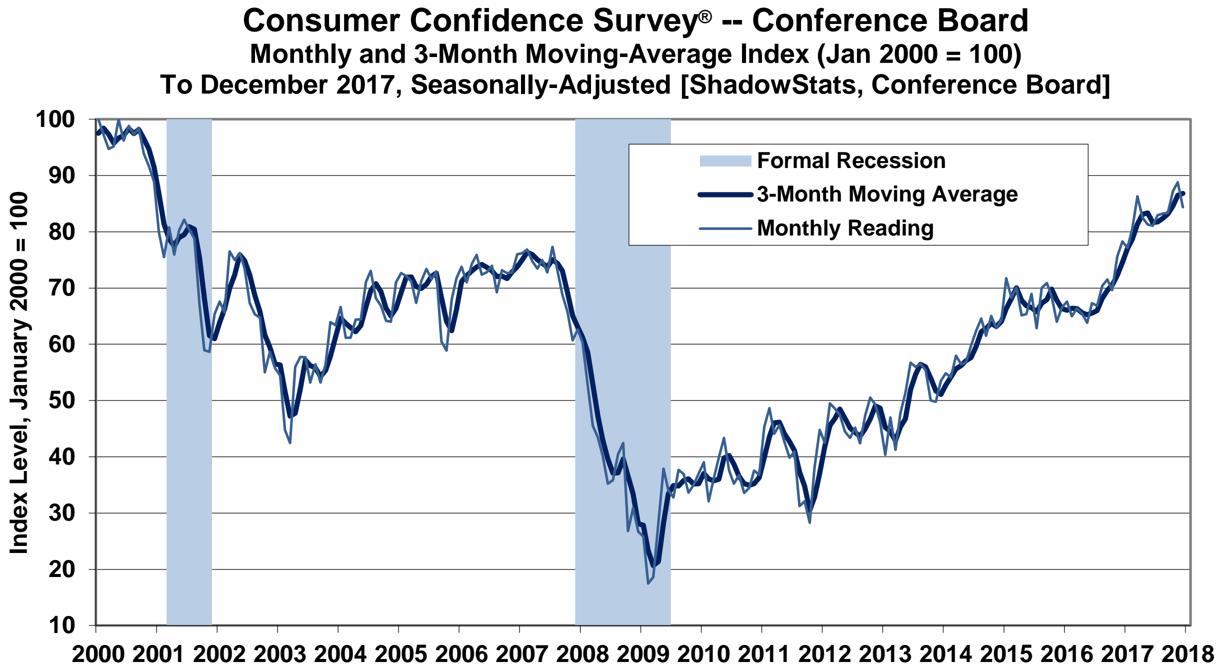
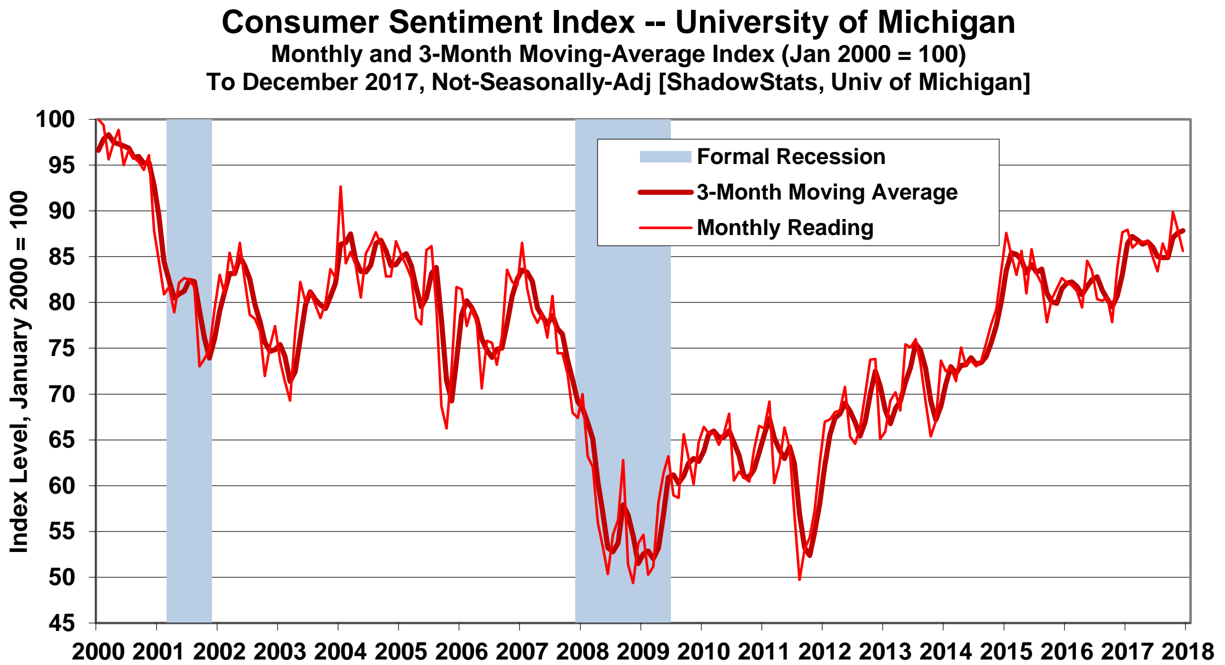
Graph CLW-1: Consumer Confidence (2000 to 2017)



Graph CLW-2: Consumer Sentiment (2000 to 2017)



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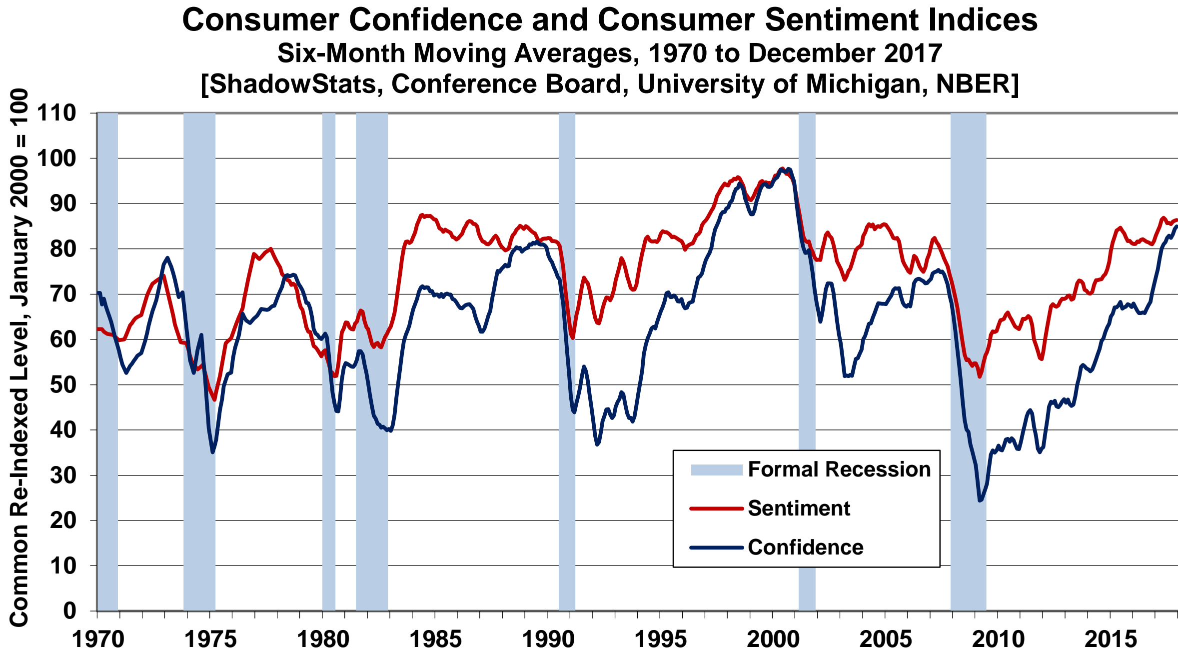
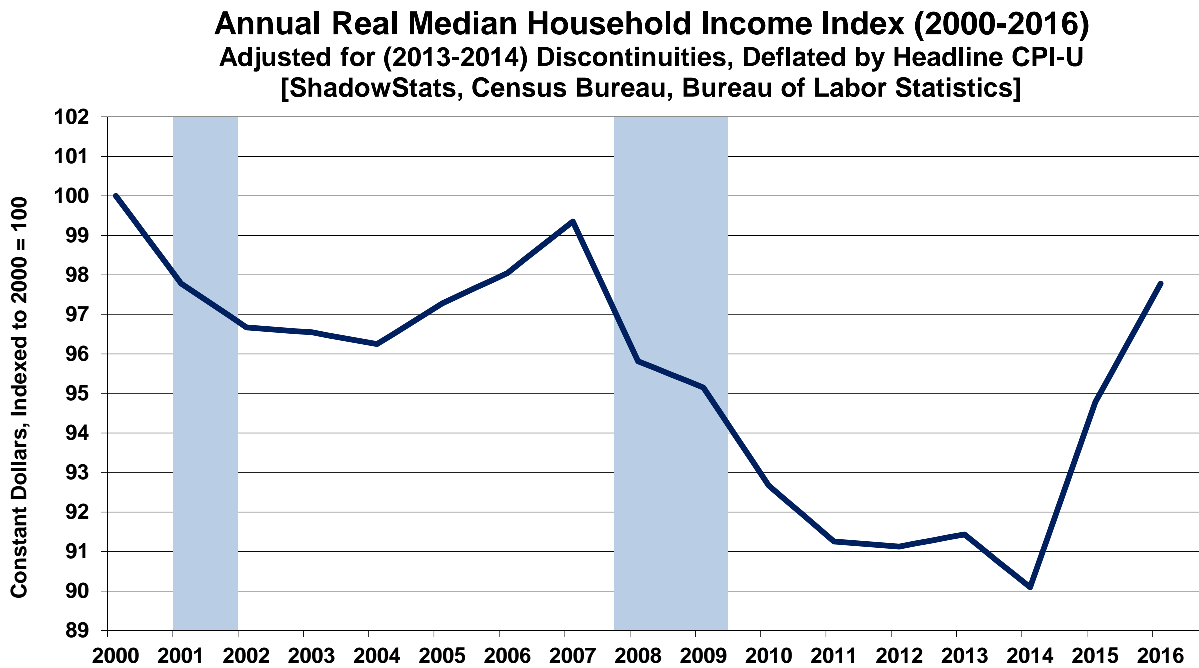
Graph CLW-3: Comparative Confidence and Sentiment (6-Month Moving Averages, 1970 to 2017)



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)



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Last Monthly Estimate Showed Stagnating Monthly Real Growth. As last reported by Sentier Research in its likely 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*). Again, the May detail, appears to have been the final reporting of the monthly series (see the *Special Note* that follows).

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.

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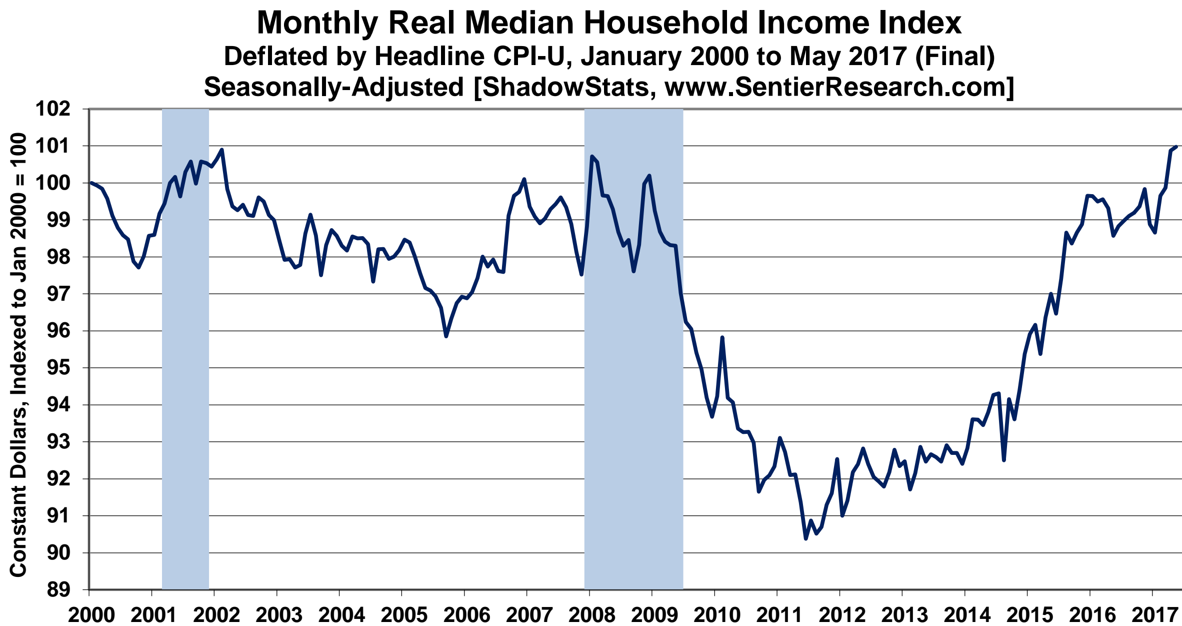
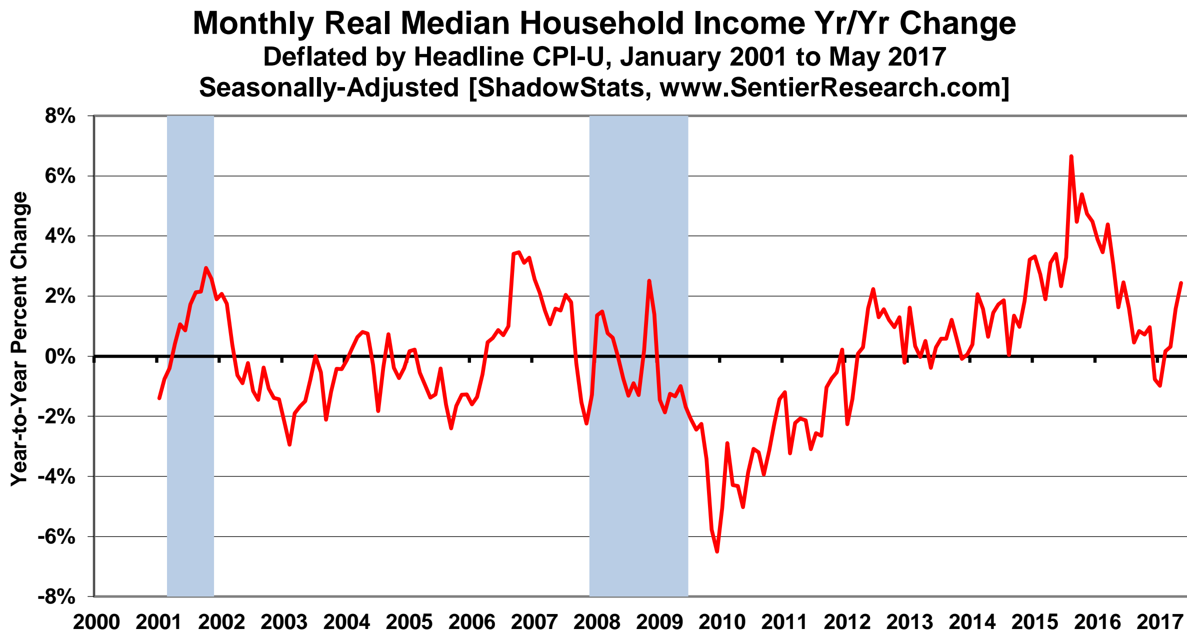
Graph CLW-5: Monthly Real Median Household Income (2000 to May 2017) Index, January 2000 = 100



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



***Special Note*:** Accompanying the release of the May 2017 data by Sentier Research was this Notice of Final Report:

> Dear Friends, This will be our final report in the monthly series of median household income. We can no longer afford to provide these estimates given our current level of resources. We believe, as we hope you do, that these estimates provided an important new dimension regarding the economic situation of American households as we slowly climbed out of the Great Recession. The story continues but we must move on. Our hope is that someone will be able to continue this work. Should you or someone you know be interested please contact us. Thanks to all of you for your kind support.. John and Gordon

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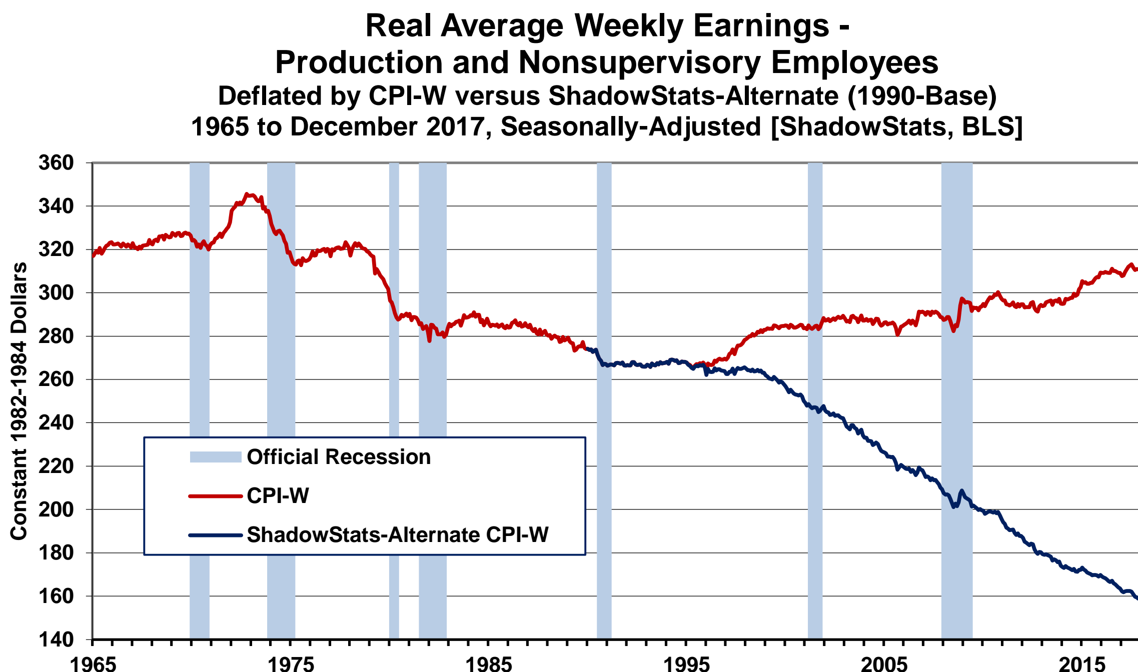
ShadowStats still hopes a circumstance might unfold that would enable continued/renewed reporting of this extraordinarily valuable and timely indicator of consumer liquidity. Gordon Green and John Coder, the authors of the monthly report, both are former senior officials at the U.S. Census Bureau, with unique understandings of the underlying monthly data. The Census Bureau publishes a broadly-similar series on an annual basis, but with an extraordinary time lag. The 2017 Census annual detail will not be released until September 2018. Again, the 2016 Census annual detail was covered in *Commentary No. 909*.

Real Average Weekly Earnings—December 2017—Contracted for the Second Consecutive Quarter. For the production and nonsupervisory employees category—the only series for which there is a meaningful history (see the discussion in today's, January 15th, *Reporting Detail* and *Opening Comments*), the regularly-volatile, real average weekly earnings gained month-to-month in December 2017, but fourth-quarter 2017 earnings contracted quarter-to-quarter, for the second consecutive quarter, down at an annualized pace of 0.94% (-0.94%), having declined by 0.07% (-0.07%) in third-quarter 2017. In the broader all-employees category, fourth-quarter real average weekly earnings also contracted, down at an annualized pace of 1.16% (-1.16%), having gained 0.63% in third-quarter 2017 activity.

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

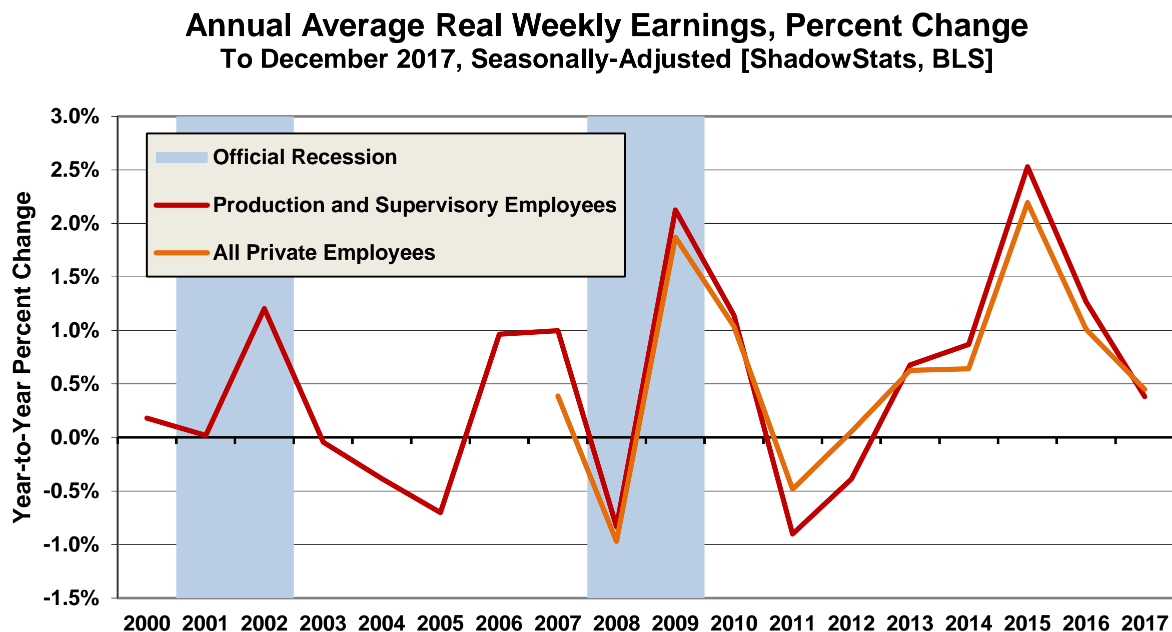


Graph CLW-7 plots the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating 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 the latest GDP missive [*Commentary No. 928*]() and Industrial Production in today's *Reporting 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-12*.

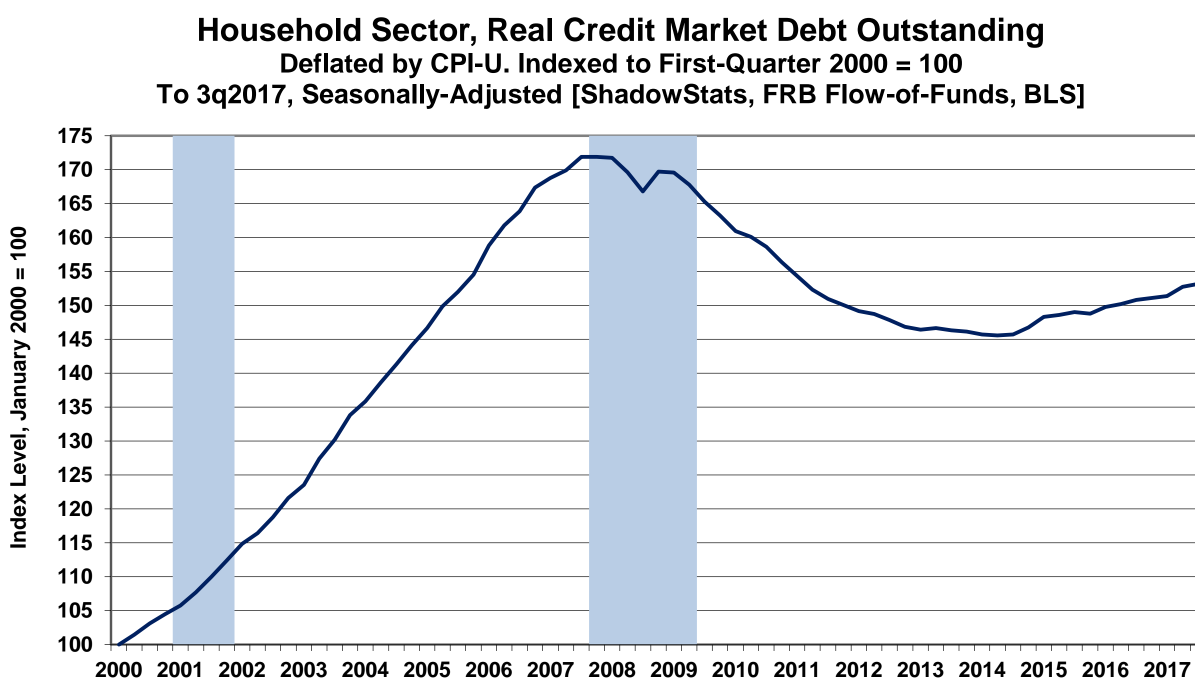
Consumer Credit: Lack of Meaningful Real Consumer Credit Growth Remains an Economic Constraint. The final four graphs on consumer conditions address consumer borrowing. Where debt expansion can help make up for a shortfall in income growth, adequate expansion of consumer debt, which would help fuel growth in personal consumption, has been lacking.

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.

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 second-quarter 2017. Current activity also has reflected continuing relative strength from student loans, as shown in the *Graphs CLW-10* to *CLW-12*.

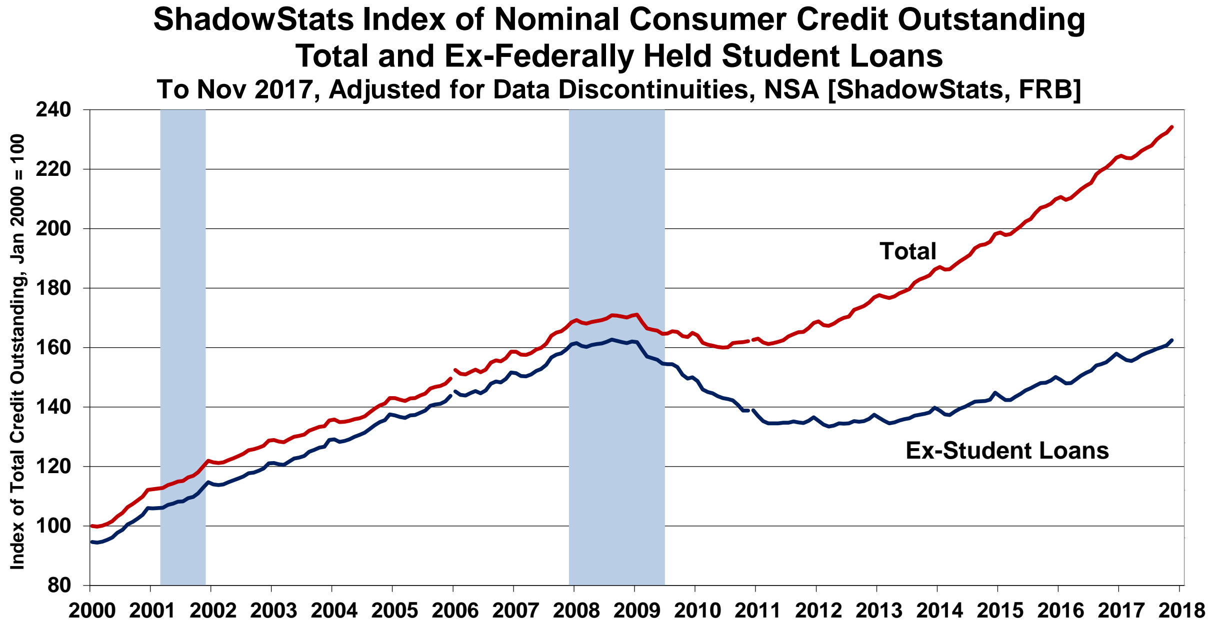
Graph CLW-9: Household Sector, Real Credit Market Debt Outstanding (2000 through Third-Quarter 2017)



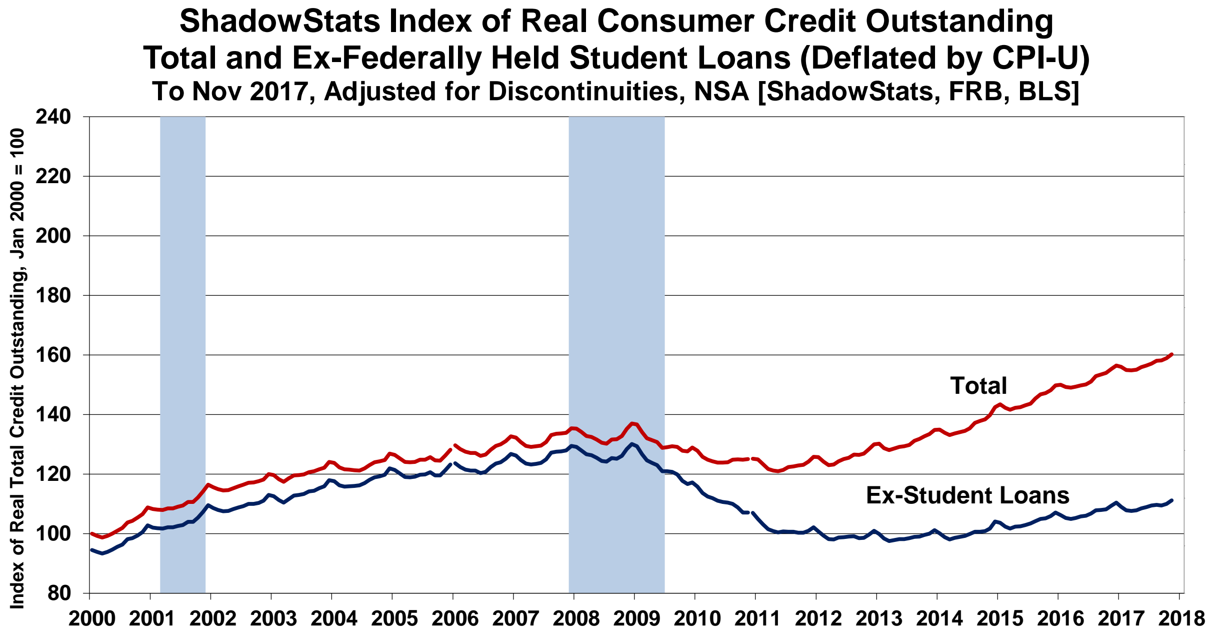
Monthly Series. The ShadowStats analysis usually focuses on the particular current and continuing weakness in monthly levels of consumer credit, net of what has been rapidly expanding government-sponsored student loans. Where detail on that series is only available not-seasonally-adjusted, the following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

Shown through the November 2017 reading (released January 8th), *Graph CLW-10* of monthly Consumer Credit Outstanding is a subcomponent of the preceding *Graph CLW-8* on real Household Sector debt. Where *Graph CLW-11* reflects the nominal reporting, real or inflation-adjusted activity for monthly Consumer Credit Outstanding is shown in terms of both level (*Graph CLW-11*) and year-to-year change (*Graph CLW-12*).

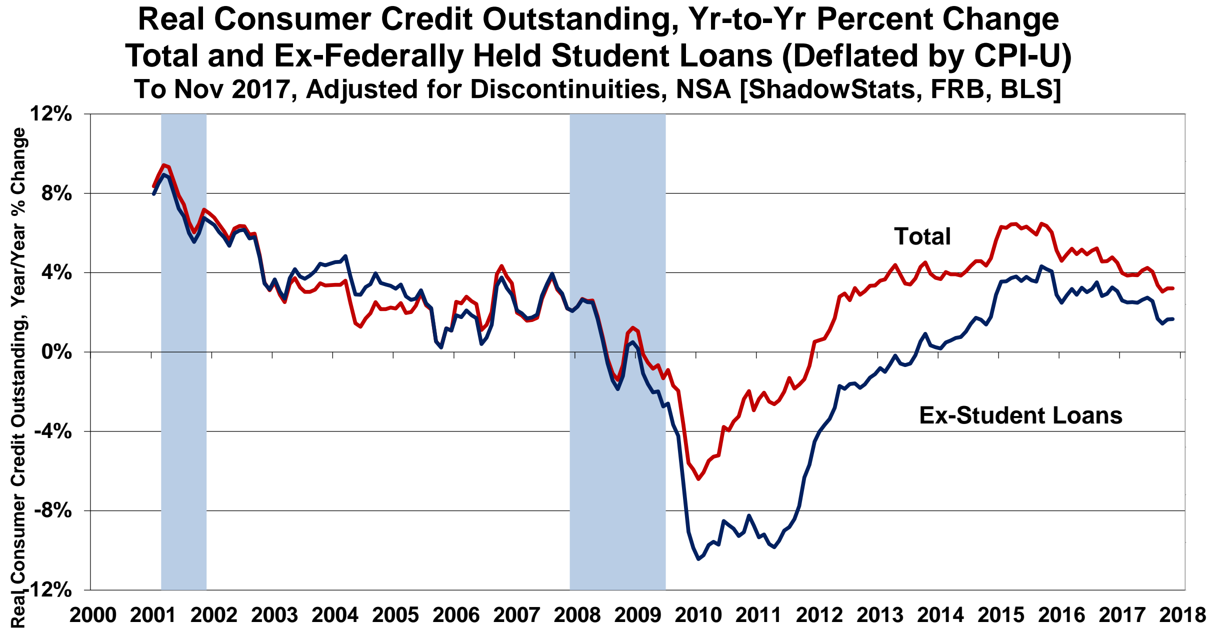
Graph CLW-10: Nominal Consumer Credit Outstanding (2000 to 2017)



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



Graph CLW-12: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2017)



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 November 2017 was down from its December 2007 pre-recession peak by 14.1% (-14.1%). Year-to-year real growth shown in *Graph CLW-12* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

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

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WEEK, MONTH AND YEAR AHEAD

U.S. Dollar and Financial-Market Instabilities, and Turmoil Continue at High Risk, Along with Deterioration of Domestic and Global Economic and Political Circumstances. Irrespective of some distortedly strong, recent economic numbers statistics, and heavy press hype of a booming, full-employment economy, and in the context recent FOMC tightening actions and Federal Reserve Chair Yellen's perception of a "highly uncertain" economic outlook, the real-world economy is not recovering or booming as advertised. Allowing for hurricane disruptions and recovery from same, most series should be back to normal, reflecting "unexpected" downtrending economic activity, by the time of headline reporting for headline January and February 2018 economic activity, as discussed in *General Commentary No. 929*. Nonetheless, misleading, current headline details have been contributing factors to the manic stock market, discussed in the *Opening Comments* and *Hyperinflation Watch* (pages 2 and 33) in prior *Commentary No. 931*.

Where the Wall Street proponents of a never-ending stock-market rally have hyped temporary, nonrecurring economic boosts from natural disasters into a year-end 2017 economic boom, an unhappy period of the markets adjusting to underlying real-world circumstances likely looms early this New Year. Negative economic "surprises" increasingly should shock the markets and the U.S. dollar on the downside. As the reported the economic downturn intensifies in the months ahead, the FOMC should be forced into an "unexpected" policy retrenchment, moving back towards quantitative easing as discussed in the *Commentary No. 931 Hyperinflation Watch*.

In such circumstances, the U.S. dollar and financial markets remain at extraordinarily-high risk of panicked declines, again, increasingly likely in the very near term. The *Opening Comments* of *Commentary No. 930-B*, *General Commentary No. 929* and the *Opening Comments* and expanded *Hyperinflation Watch* of *Commentary No. 927* also reviewed some background to real-world economic conditions, continuing from the *Opening Comments* and brief *Hyperinflation Watch* of *Commentary No. 925*. Those comments speak for themselves.

Holding physical gold and silver remain the ultimate hedges—stores of wealth—for preserving the purchasing power of one's U.S. dollar assets, in the context of liquidity and portability during times of high inflation and currency debasement, and/or political-system upheaval, as likely lie ahead and discussed here regularly. See the comments linked to other recent *Hyperinflation Watches*, provided in the next section.

Following this note, other than for the *Pending Releases* and updated links, language changes in this section from the prior posting in *Commentary No. 931* are minimal. Please call (707) 763-5786, if you would like to discuss current circumstances, or otherwise. *Best wishes – John Williams*

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***Recent* Hyperinflation Watch *and* Special Comments.** Previous background to the markets and potential near-term FOMC activity have been reviewed recently in the *Hyperinflation Watches* of *Commentary No. 920* and *Special Commentary No. 918-B* of October 30th, with the nomination for the new Fed Chairman, as touched upon in the *Hyperinflation Watch* *Commentary No. 919-A* of November 3rd, not likely to have immediate, near-term market impact.

Discussed in *Hyperinflation Watch* of *Commentary No. 909*, given the continuing and broadening weakness in the U.S. economy and shifting political instabilities/circumstances in Washington, mixed pronouncements of sharp, near-term rate hikes and aggressive balance-sheet liquidation remain unlikely to solidify as promised. Accordingly, selling pressure against the U.S. dollar still should re-intensify, shortly, pressuring inflation and the prices of precious metals on the upside. Increasingly, foreign capital should flee the U.S. equity and credit markets at an accelerating pace.

In the context of the *Opening Comments* and *Hyperinflation Watch* of the August 14th *Special Commentary No. 904* and the *Opening Comments* of *Commentary No. 905*, underlying reality remains a weakening and vulnerable, seriously-impaired U.S. economy, as seen, for example with the latest employment and construction detail, and in likely weak data in the week ahead, all amidst continuing domestic and global political instabilities and unfolding natural disasters.

Unfolding circumstances still threaten the promised shift in FOMC policy, combined with the mounting political discord discussed in *Special Commentary No. 904* (see also the *Opening Comments* of *Commentary No. 901* and *Special Commentary No. 888*), odds continue to mount for intensifying financial-market turmoil in the near future, particularly as would be triggered by a market-related, intensifying heavy sell-off in the U.S. Dollar.

Broad economic activity never recovered fully from its crash into 2009, and it has started to turn down anew. As explored previously in the *Hyperinflation Watches* of *Commentary No. 899* and *General Commentary No. 894*, and further to the *Opening Comments* and *Hyperinflation Watch* of *Commentary No. 892*, headline economic reporting during June, July and early August of 2017, had shown a marked downturn versus consensus forecasts. While these circumstances usually signal an unfolding, major downshift in underlying economic reality, at present, they also forewarn of a potential shift in FOMC activity. Where such an event remains well removed from consensus expectations, at this time, in terms of Fed policy, that would mean a cessation of incremental rate hikes and a shift back towards expanded quantitative easing.

Immediate effects of such a policy change likely would include a massive sell-off in the U.S. dollar, which otherwise has been propped by recent FOMC rate hikes and continual jawboning for same. In parallel, heavy selling in the U.S. equity and credit markets would follow. As consensus economic forecasts have begun to soften, so too has the U.S. dollar exchange rate, while gold prices generally have firmed.

The circumstances here and the outlook still remain as broadly outlined in *No. 859 Special Commentary*; currently shifting headlines only reflect the continued movement and evolution forward in time of the Fed's difficulties discussed in that missive.

The problem for the Federal Reserve remains that faltering domestic economic activity stresses banking-system solvency. Aside from formal obligations of the Fed to maintain healthy domestic economic and inflation conditions, the central bank's primary function (in practice) always has been to keep the banking system afloat. The near-absolute failure of that function in 2008 remains the primary ongoing and

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unresolved problem for the Fed, and it continues as one of the ongoing primary issues preventing the return of U.S. economic activity to normal functioning. Contrary to the recent purported headline comments of "not in our lifetime" by Federal Reserve Chair Janet Yellen, the continued unfolding of "unexpected" economic deterioration suggests that the next major systemic financial crisis is likely to break in the next several months.

Generally, 2017 benchmark revisions to Construction Spending (see *Commentary No 897*), the Trade Deficit (*Commentary No. 890*), Industrial Production (*Commentary No. 877*), Manufacturers' Shipments (*Special Commentary No. 888*), Housing Starts (*Commentary No. 887*) and Retail Sales (*Commentary No. 882*), and reporting subsequent to the benchmarks, confirmed that historical activity in recent years has been overstated and/or that it was turning down anew, particularly in 2015, with the availability of better-quality historical detail. Again, that is despite some recent near-term improvement in details, such as the headline unemployment rate, which increasingly suffers from dysfunctional definitional and sampling issues, and the latest headline GDP detail.

The reporting patterns of the better-quality, less-gimmicked series likely will continue to weaken with increasing intensity in the weeks and months ahead. Adding a negative uncertainty to unfolding financial-market risks remains potential political surprise, discussed in *Special Commentary No. 888*. Otherwise, the broad outlook has not changed. Reflected in common experience, actual U.S. economic activity generally continues in stagnation or downturn, never having recovered its level of pre-economic-collapse (its pre-2007-recession peak), while the latest GDP reporting shows an otherwise unconfirmed economic expansion of 14.4%.

Discussed in *No. 859 Special Commentary*, the Trump Administration continues to face extraordinarily difficult times, but still has a chance to turn the tide on factors savaging the U.S. economy and on highly negative prospects for long-range U.S. Treasury solvency and stability. Any forthcoming economic stimulus faces a nine-month to one-year lead-time, once in play, before it meaningfully affects the broad economy. Increasing and continuing delays from political discord continue to push targeted programs back in time. Needed at the same time are a credible plan for bringing the U.S. long-term budget deficit (sovereign solvency issues) under control and action to bring the Federal Reserve under control and/or to reorganize the banking system. These actions broadly are necessary to restore domestic-economic and financial-system tranquility (see *No. 859*), but they cannot happen without the meaningful participation and cooperation of Congress. The financial crisis at hand likely will intensify well before the 2018 Congressional Election will have any chance to stabilize the political outlook for economic policy.

No. 859 Special Commentary updated the post-election, near-term economic and inflation conditions, including general economic, inflation and systemic distortions, which had evolved out of the Panic of 2008, have continued in play and, again, need to be addressed by the Trump Administration and Congress (see also the *Hyperinflation Watch* of *Commentary No. 862* and *Commentary No. 869*).

Contrary to the official reporting of an economy that collapsed from 2007 into 2009 and then recovered strongly into ongoing expansion, underlying domestic reality remained and remains that the U.S. economy started to turn down somewhat before 2007, collapsed into 2009 but never recovered fully. While the economy bounced off its 2009 trough, it entered a period of low-level stagnation and then began to turn down anew in December 2014, a month that eventually should mark the beginning of a "new" formal recession (see *General Commentary No. 867*). Formal economic expansion does not begin until economic recovery breaks above its pre-recession high.

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Coincident with and tied to the economic crash and the Panic of 2008, the U.S. banking system moved to the brink of collapse, a circumstance from which U.S. and global central-bank policies never have recovered. Unwilling to admit its loss of systemic control, the Federal Reserve has made loud noises in the last year or so of needing to raise interest rates, in order to contain an "overheating" economy, but that "overheating" activity—never recognized by Main Street, U.S.A.—has been fading quickly. As this ongoing crisis evolves towards its unhappy end, the U.S. dollar ultimately should face unprecedented debasement with a resulting runaway domestic inflation.

Broad economic and systemic conditions are reviewed regularly, with the following *Commentaries* of particular note: *Commentary No. 902-B*, *General Commentary No. 894*, *Special Commentary No. 885*, *Commentary No. 869*, *No. 859 Special Commentary*, *No. 777 Year-End Special Commentary* (December 2015*)*, *No. 742 Special Commentary: A World Increasingly Out of Balance* (August 2015) and *No. 692 Special Commentary: 2015 - A World Out of Balance* (February 2015). Those publications updated 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).]*

Commentary No. 931 (January 15th) 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 5th) 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 28th) reviewed current economic and market conditions at year-end 2017.

Commentary No. 928 (December 22nd) 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 19th) reviewed November 2017 New Residential Construction (Housing Starts and Building Permits), along with an expanded discussion on underlying economic reality and the financial markets.

Commentary No. 926 (December 15th) 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 8th) 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 29th) 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 6th) provided more in-depth detail on the October 2017 labor detail.

Commentary No. 919-A (November 3rd) 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 30th) 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 26th/27th) 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 6th) reviewed the September 2017 Employment and Unemployment details, along with September 2017 monetary conditions.

Commentary No. 913 (September 28th) 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 15th) reviewed the August 2017 releases of Industrial Production and nominal and real Retail Sales.

Commentary No. 909 (September 14th) 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 6th) 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 14th) 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).

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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™.

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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.

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 the 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 provide particularly unstable headline economic results, with the use of concurrent seasonal adjustments (as seen with retail sales, durable goods orders, employment and unemployment data). 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*.

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PENDING ECONOMIC RELEASES: Existing- and New-Home Sales (December 2017). Reporting of December 2017 Existing-Home Sales is due for release on Wednesday, January 24th, from the National Association of Realtors (NAR), while December 2017 New-Home Sales from the Census Bureau is scheduled for Thursday, January 25th. Both series will be covered in *Commentary No. 933* of January 26th.

Given the headline extreme gains and nonsense volatility seen last month in both these series, tied to unusually-unstable, seasonal-factor distortions and massive prior-period revisions (see *Commentary No. 928*), one might expect some return to more stable and conservative headline reporting detail with the headline December 2017 sales figures.

Nonetheless, the extreme liquidity bind besetting consumers continues to constrain residential real estate activity, as discussed the *Consumer Liquidity Watch* and as reviewed in the *Consumer Liquidity* section of *No. 859 Special Commentary*. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including residential real estate activity and related demand for residential construction. That circumstance—in the last ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity.

Where the private housing sector never recovered from the business collapse of 2006 into 2009, there remains no chance of a near-term, sustainable turnaround in home-sales activity, without a fundamental upturn in consumer and banking-liquidity conditions. That does not appear to be in the offing. Smoothed for month-to-month variability, patterns of low-level downtrending stagnation should continue in play for the Existing-Home Sales series. Reporting risks remain to the downside of consensus for both series.

New Orders for Durable Goods (December 2017). The Census Bureau will report December 2017 New Orders for Durable Goods on Friday, January 26th, to be covered in *Commentary No. 933* of that date. Net of irregular activity in commercial aircraft orders, aggregate orders likely resumed/continued in a pattern of downtrending real stagnation, albeit still with some possible, residual positive impact on order activity from hurricane disruptions. To the extent that durable goods, ranging from automobiles and furniture to business equipment, were damaged or destroyed in Hurricanes Harvey and Irma, there still could be some residual boost to December orders activity, but December 2017 industrial production reflected a relatively stagnant manufacturing sector.

Separately, where commercial aircraft orders are booked for the long-term—years in advance—they have only limited impact on near-term production. Further, by their nature, these types of orders do not lend themselves to seasonal adjustment. As a result, the durable goods measure that best serves as a leading indicator to broad production—a near-term leading indicator of broad economic activity and the GDP—is the activity in new orders, ex-commercial aircraft, adjusted for inflation. Expectations likely will be to the plus-side for the aggregate detail, but the headline change in month-to-month activity is a fair bet to be in contraction, net of the regularly-unstable commercial aircraft orders and net of inflation.

In inflation-adjusted real terms, reflecting PPI-related inflation for "manufactured durable goods," relative month-to-month and year-to-year order activity will be dampened on an annual basis, where month-to-month inflation for December 2017 was unchanged at 0.00%, having gained 0.12% in November and

0.41% in October. Year-to-year annual inflation eased to 1.67% in December 2017, versus 1.92% in November 2017 and 1.86% in October 2017 (see prior *Commentary No. 931*).

Gross Domestic Product—GDP (Fourth-Quarter 2017, First or "Advance" Estimate). The Bureau of Economic Analysis (BEA) will release its "advance" or first estimate of Fourth-Quarter 2017 GDP on Friday, January 26th, which will be covered in *Commentary No. 933* of that date. Initial estimates of Fourth-Quarter 2017 Gross Domestic Income (GDI) and Gross National Product (GNP) will not be published until the second estimate of Fourth-Quarter GDP on February 28th.

Early consensus estimates appear to be around 2.7% annualized, real-quarterly growth for the fourth-quarter 2017 GDP, down from 3.2% in the last reporting of third-quarter 2017 activity. Given the relative, distorted headline spikes to fourth-quarter retail sales, production and construction from the hurricanes and wildfires, however, initial fourth-quarter GDP reporting more likely will jump relative to the third quarter, perhaps topping 3.5%, and consensus expectations likely will increase in the week ahead. A much stronger fourth-quarter GDP easily could set up first-quarter 2018 for a catch-up quarterly contraction, along with underlying headline economic reporting likely returning to more-stable and normal levels of pre-disaster activity.

Pending Formal Review of 2017 and Preview of 2018. The ShadowStats formal annual review of 2017 and preview of 2018, updating *No. 859 Special Commentary* of January 8, 2017, is planned for *No. 934 Special Commentary* of January 30, 2018.

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