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

COMMENTARY NUMBER 921

October 2017 Industrial Production, New Residential Construction

November 17, 2017

**Hurricane-Boosted October 2017 Industrial Production Recovered
Its 2007 Pre-Recession High for a Second Time, At Least Briefly**

**Nonrecurring Surge in Headline Production Growth
Ranged from a Return to Normal Operations to the
Manufacturing of Replacements for Storm-Damaged Automobiles**

**Showing a Record 118 Months of Continuous Non-Expansion, the
Dominant Manufacturing Sector of Production Remained
Shy of Recovering Its Pre-Recession Peak by 4.7% (-4.7%)**

**Regularly-Volatile Housing Starts and Building Permits Surged in October,
Including Some Temporary Hurricane-Driven Boost**

**Housing Starts Are Shy of Recovering Their Pre-Recession High by 43.2% (-43.2%),
Building Permits Still Are Shy by 42.7% (-42.7%)**

PLEASE NOTE: The next Regular Commentary, Wednesday, November 22nd, will cover October New Orders for Durable Goods and Existing Home Sales.

Best wishes — John Williams (707) 763-5786

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Today's (November 17th) *Opening Comments and Executive Summary* discusses hurricane-related economic distortions in the context of October Industrial Production and New Residential Construction highlights.

The ***Reporting Detail*** (page 13) reviews the Industrial Production and New Residential Construction (Housing Starts and Building Permits) numbers in greater detail.

The ***Consumer Liquidity Watch*** (page 32) has not been revised.

The ***Week, Month and Year Ahead*** (page 42) provides background on recent *Commentaries* and previews next week's releases of October New Orders for Durable Goods and Existing Home Sales.

OPENING COMMENTS

As Hurricane Distortions Continue Working Through the U.S. Economy, the Outlook Remains Bleak for Underlying Economic and Financial-Market Activity. Noted in the *Opening Comments* of prior *Commentary No. 920*, the impact of the hurricane destruction in August and September should have only fleeting impact on the broad, aggregate U.S. economy. "Other than for some hurricane-related rebuilding activity that still should work its way into various construction measures, the bulk of the disaster-related economic distortions to headline economic reporting likely will have worked its way through the economic system by January 2018. In particular, that applies to the household survey employment and unemployment details (see *Commentary No. 919-B*) and for activity in replacement automobiles that have affected retail sales and should still have some impact on new orders and production."

The happy, headline relative boosts just reported for October 2017 industrial production, housing starts and building permits likely all were related to hurricane distortions and/or relief from same, and they should not be recurring. Described by the Fed, "... industrial activity was boosted in October by a return to normal operations after Hurricanes Harvey and Irma suppressed production in August and September." Separately, the headline production gains and upside revisions reflected strong automobile production, which primarily was replacing vehicles destroyed in the storms. Again, none of those factors should be recurring regularly, going forward. The stronger-than-expected October production gains should prove ephemeral, with growth patterns returning to their pre-hurricane-season faltering downtrends.

The respective monthly jumps of 13.7% and 5.9% in October housing starts and building permits were unusually strong, but not outside the regular, extreme month-to-month volatility seen in these unstable series. Nonetheless, where relative September activity appeared to have been depressed by the hurricanes in the South, monthly rebounds in activity there likely reflected some rebuilding plans and/or delayed activity. The monthly gains in new-residential construction were enough to put small upside bumps in the six-month moving averages, but reporting in the months ahead should turn sharply lower, returning to the prior pattern of downtrending stagnation.

Again, repeating observations in *No. 920,* "By early 2018, broad economic activity should have settled down, once again, to a pattern of deteriorating non-recovery, a circumstance still seen commonly in the background of most major economic reporting. This situation does not have happy implications for either Federal Reserve policy or for the domestic financial markets and the U.S. dollar ..."

EXECUTIVE SUMMARY: Industrial Production—October 2017—Hurricane Boosts to Production Activity Likely Have Run Their Course. The Federal Reserve apparently just caught up with more-comprehensive measuring of hurricane impacts of recent months on industrial production. The new reporting reflected positive revisions to August and September activity, and boosted near-term headline growth, including increased automobile manufacturing to fill the auto-sales/supply pipeline with replacement vehicles for hurricane-damaged autos. What the Fed left in place in its October reporting were last month's downside revisions to pre-hurricane production activity. Where the hurricane boosts and distortions should prove fleeting, the underlying, broadly faltering U.S. economy should be dominating headline economic reporting, again, soon.

Headline Industrial Production—October 2017. Headline industrial production reporting reflected significant upside revisions to recent, storm-impacted activity, as well recovery in current production from storm-impaired conditions. October 2017 production increased by 0.94% month-to-month, versus an upwardly-revised gain of 0.40% in September, a narrowed, revised decline of 0.46% (-0.46%) in August, a revised decline of 0.01% (-0.01%) in July and a revised gain of 0.16% in June. Net of prior-period revisions, October 2017 production gained 1.44% in the month, again, largely reflecting recovery from prior, hurricane-impaired activity.

Year-to-year October 2017 industrial production gained 2.88%, up from an upwardly revised annual gain of 2.10% in September, versus revised annual gains of 1.54% in August 2017, 1.94% in July 2017 and 2.04% in June 2017.

Headline Monthly Growth by Major Sector. Detailed by major industry group (see *Graphs 13*, *15*, *20* and *22* in the *Reporting Detail*), the headline October 2017 monthly aggregate production gain of 0.94% was composed of monthly gains of 1.26% in manufacturing activity, 1.96% in utilities and a decline of 1.25% (-1.25%) in mining activity (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 October 2017, index-level and annual-growth production details are found in and plotted in the *Reporting Detail* (*Graphs 11* to *14*), along with the drill-down graphs of major subcomponents of the production series (*Graphs 15* to *28*).

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 and second-quarter 2017 details, production showed both annual and quarterly gains, 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. 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. Headline October 2017 activity just recovered the monthly pre-recession high, for a second time, but the quarterly numbers remain shy of a second "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, real new orders for durable goods and the GDP. Those "corrected" numbers are covered respectively in prior *Commentary No. 920* and in *Special Commentary No. 918-B*. 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 13* 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 the headline aggregate production index quickly backed off its official "recovery" in late-2014, only to recovery its pre-recession peak for a second time, on a monthly basis, with today's headline October 2017 detail. That said, the dominant manufacturing sector of industrial production still never has recovered its December 2007 pre-recession peak.

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 and the renewed downturn, aggravated by natural-disaster impact of recent months, which just reversed in the headline October details and accompanying revisions.

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, as discussed in the *Reporting Detail*.

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

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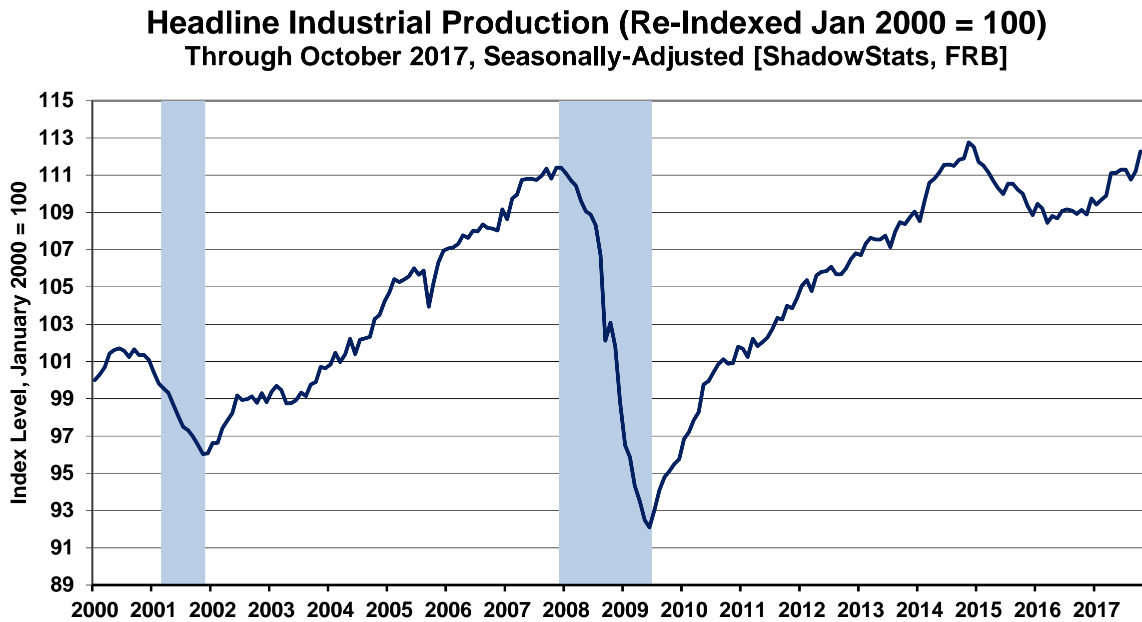
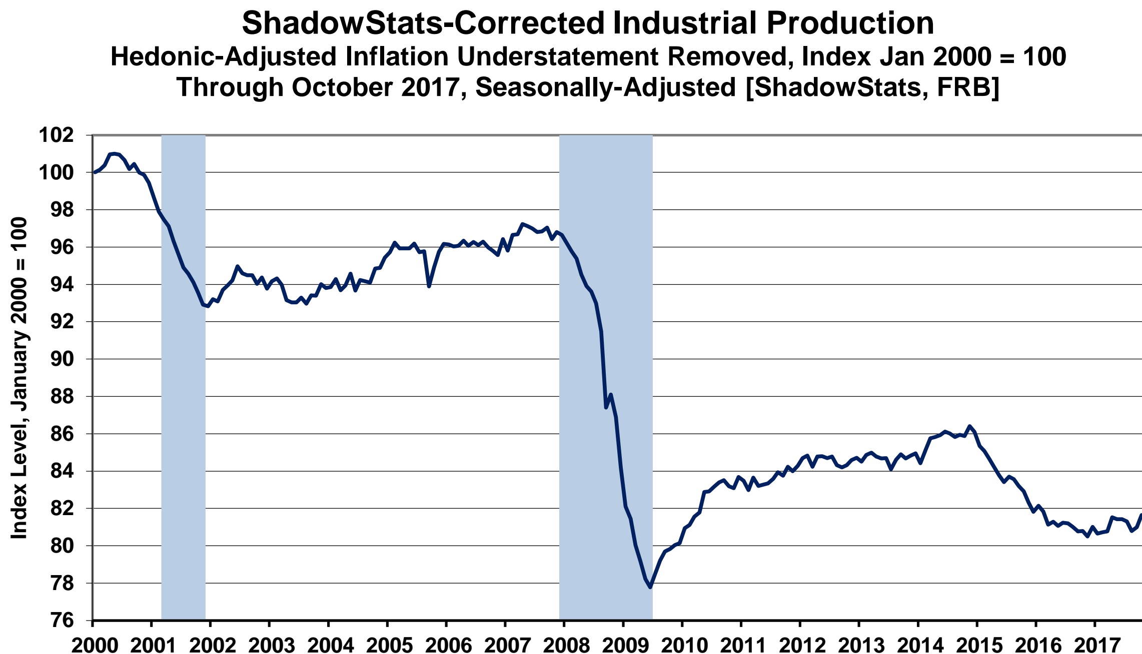
Graph 1: Indexed Headline Level of Industrial Production (Jan 2000 = 100)



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



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New Residential Construction (Housing Starts and Building Permits)—October 2017—Storm-Recovery Temporarily Helped to Boost Otherwise-Unstable Monthly Housing Starts. Reporting of Housing Starts activity remains extraordinarily volatile month-to-month, so the extreme jump in October starts was not outside the range of the regular unstable reporting for the series. Nonetheless, where both Housing Starts and Building Permits appeared to have taken some hurricane-related hits in September, rebounding activity in October likely reflected some hurricane-recovery effects, accounting for perhaps 60% of the extreme upside volatility in the month.

That said, the sharp monthly gain of 13.7% in October Housing Starts should prove fleeting in the months ahead, with today's detail likely adding a only a brief and minor upside bump or blip to the six-month smoothed moving averages of the housing starts series seen in accompanying *Graphs 4*, *6, 8* and *10*. Unusually, that headline monthly gain of 13.7% was statically-significant at the 95% confidence level. That aggregate detail encompassed a statistically-insignificant monthly gain of 5.3% in single-unit starts, and a statistically-meaningful 36.8% monthly in the multiple-unit structures categories (two-units-or-more, including the headline five-units-or-more category).

Irrespective of near-term reporting instabilities, the six-month trends in those key series remained stagnant, along with the headline levels of October 2017 activity holding well below their pre-recession peaks for each series.

Building Permits is considered a leading indicator—albeit not a high-quality one—to Housing Starts, and although it is a more-stable series than Housing Starts, it is not reported on an historically-consistent basis. Permits showed a statistically-significant, monthly gain of 5.9% in October 2017. Such also partially reflected a near-term boost to activity in the South, again, suggestive of new construction resulting from hurricane damage and destruction in the wake of Hurricanes Harvey and Irma. Given continued negative trends in home sales activity, however, the headline broad trend in Housing Starts activity should continue otherwise on the downside.

The six-month smoothed trends largely remained flat in low level stagnation, across-the-board for the housing starts series. Monthly activity for the various measures remained shy of regaining their 2005/2006 pre-recession peaks. Building Permits was down by 42.7% (-42.7%), for example as reflected in *Graphs 29* and *31* in of the *Reporting Detail*.

Reflected in accompanying *Graphs 3* to *6*, and *Graphs 30* and *32 to 44* in the *Reporting Detail*, September 2017 total housing starts was down 43.2% (-43.2%) from recovering its pre-recession high. Within the monthly detail, the dominant (67.9% of total starts) single-unit housing starts sector (*Graphs 7* and *8*) was down from its January 2006 pre-recession peak by 51.9% (-51.9%).

In contrast the smaller count in the multiple-unit category (five units or more, *Graphs 9* and *10*), 30.5% of the October total, hit its recent high in June 2015, topping its pre-recession January 2006 peak then by 12.7%. It had dropped back below that 2006 high by 33.8% (-33.8%) as of initial reporting in September 2017, but that narrowed to a decline of 8.2% (-8.2%) with the October 2017 detail.

Reflected in the smoothed graphs of this *Executive Summary*, the various housing-starts series generally have been flat, at a low level of stagnation (*Graph 6* for the aggregate). Such was a blend of the low-level stagnation in the six-month-smoothed single-unit activity (*Graph 8*), with the more-volatile, smoothed

multiple-unit starts (*Graph 10*), which had regained its pre-recession peak but now has turned lower in a fluttering downtrend.

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 1,290,000 in October 2017, versus a revised 1,135,000 [previously 1,127,000] in September 2017. The scaling used in the aggregate housing starts and building permits *Graphs 29* to *34* in the *Reporting Detail* reflects those annualized numbers in millions.

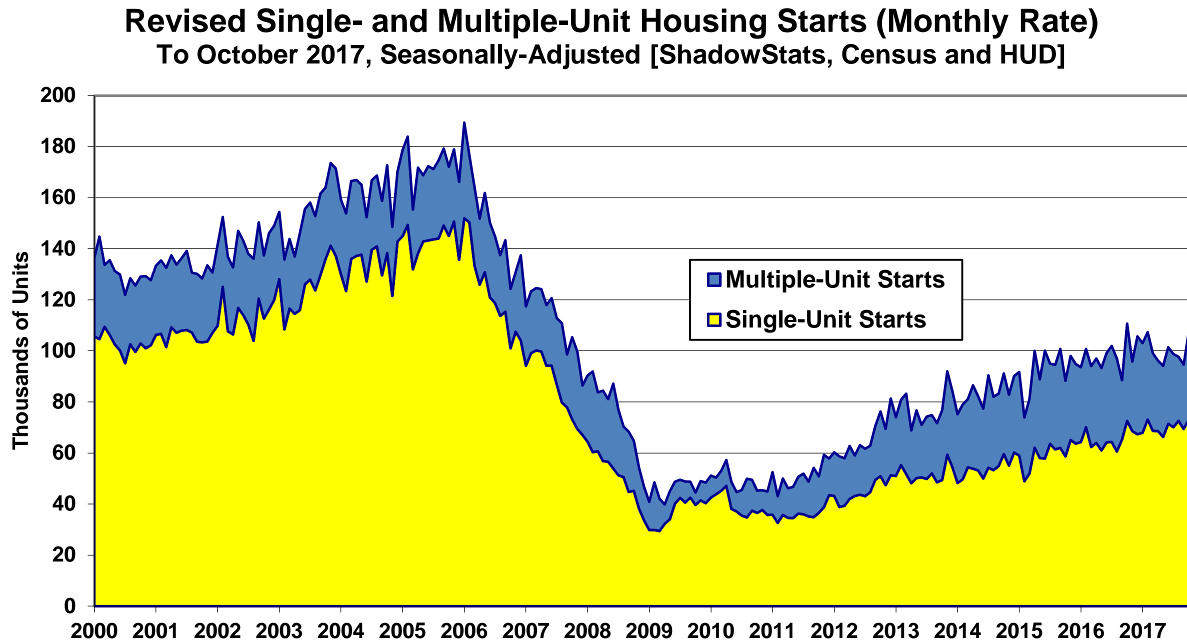
Nonetheless, given the often nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that 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 107,500 units in October 2017, instead of the annualized headline level of 1,290,000 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 30* in the *Reporting Detail*.

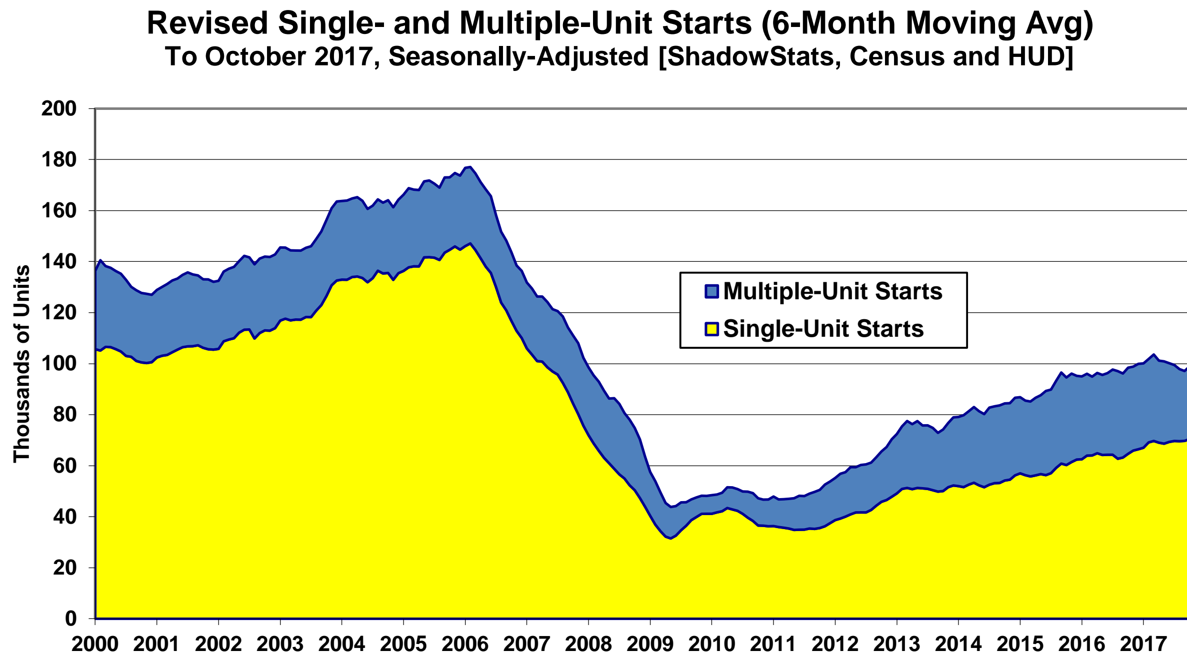
The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 pre-recession peak for the series. Against that downside-spiked low in April 2009, the October 2017 headline monthly number was up by 169%, but it still was down by 43% (-43%) 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 33* and *34* at the end of the *Reporting Detail*. In fact, as can be seen there in *Graph 34*, current housing starts activity not only has failed to recover the current pre-recession (pre-collapse into 2009) peak, but also has yet to recover to the level of any pre-recession peak activity seen in the entire post-World War II era.

[Graphs 3 to 10 begin on the next page.]

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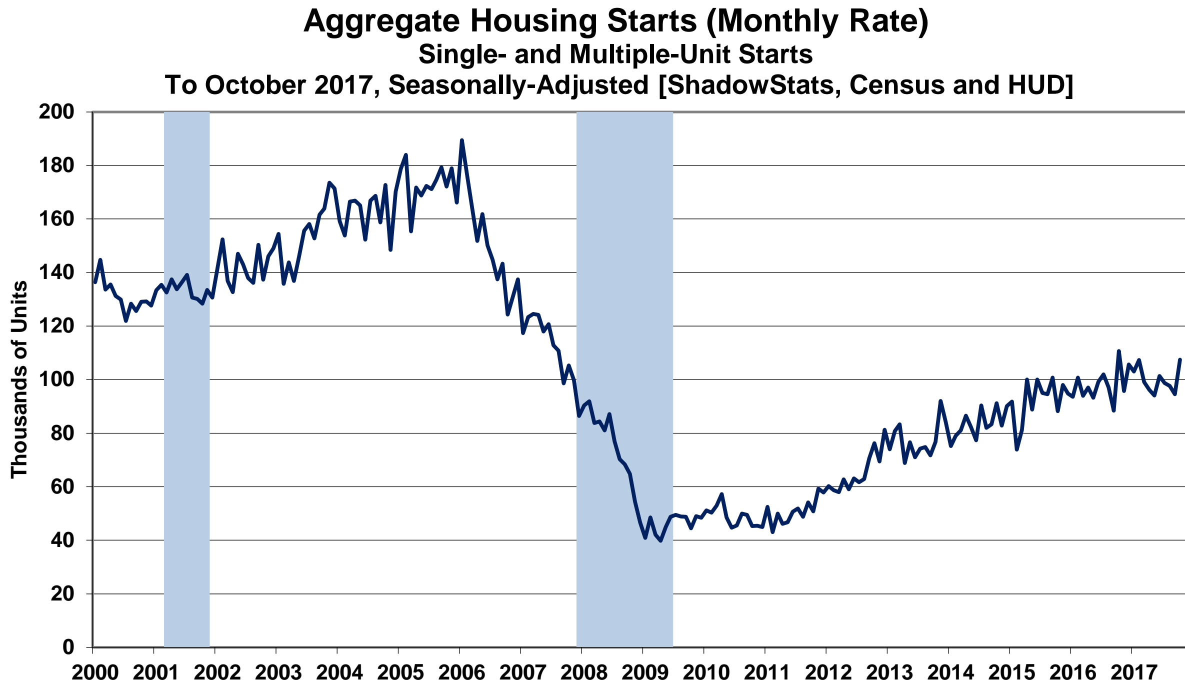
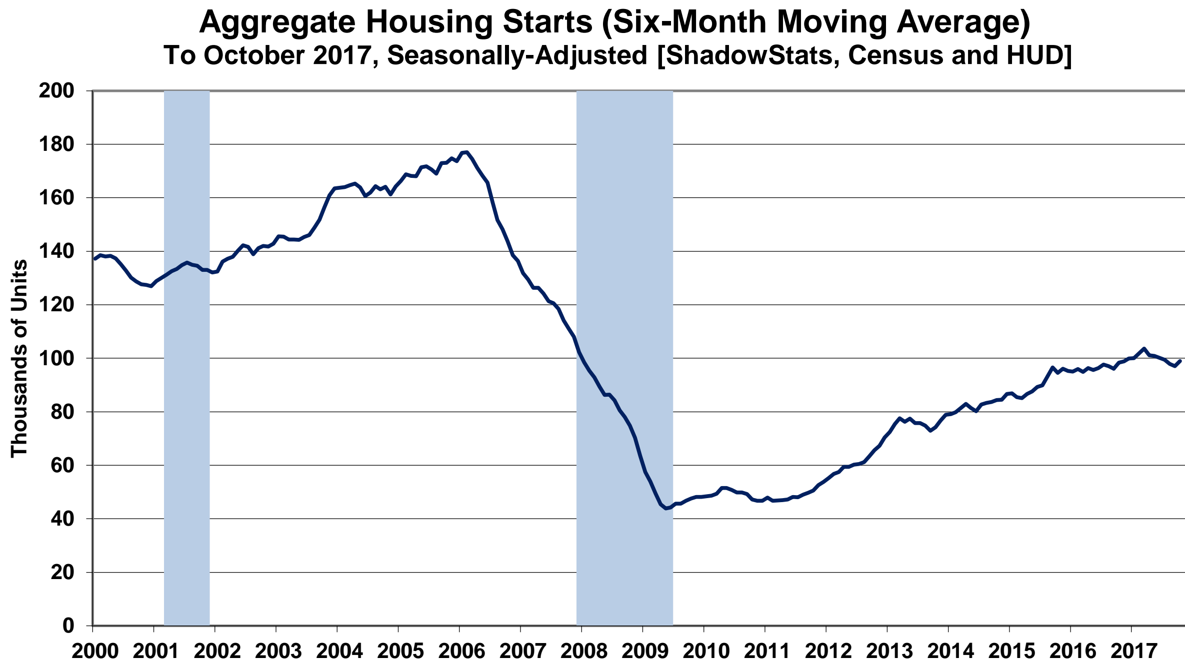
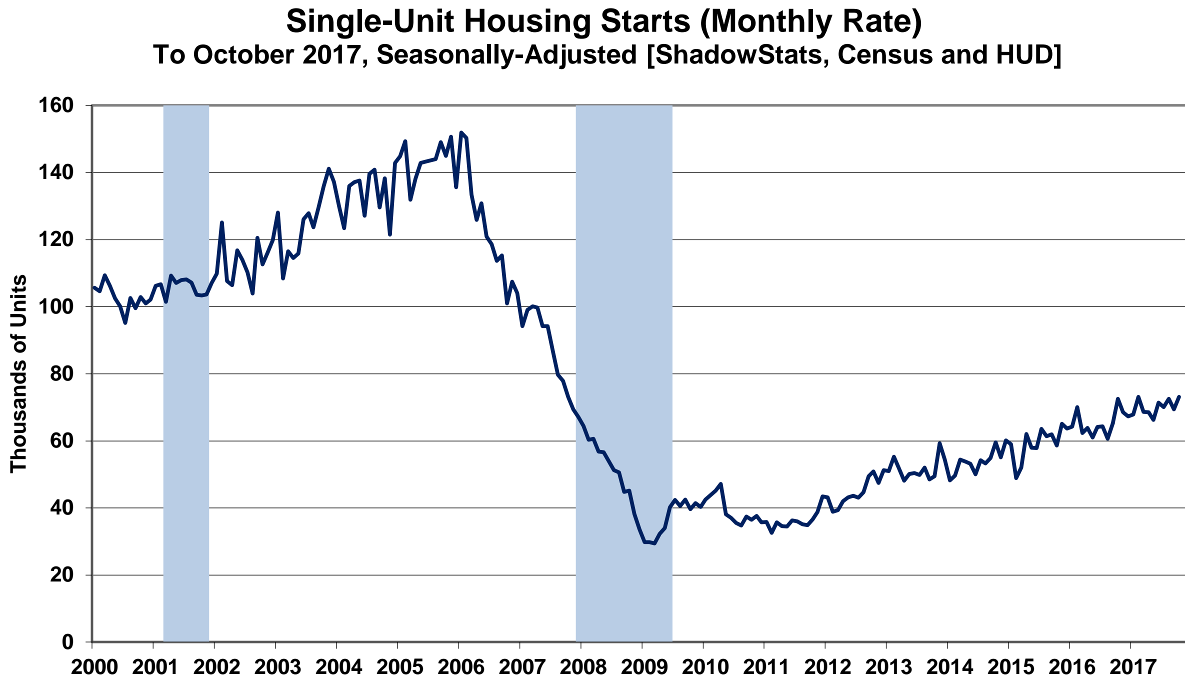
Graph 5: Aggregate Housing Starts (Monthly Rate of Activity)



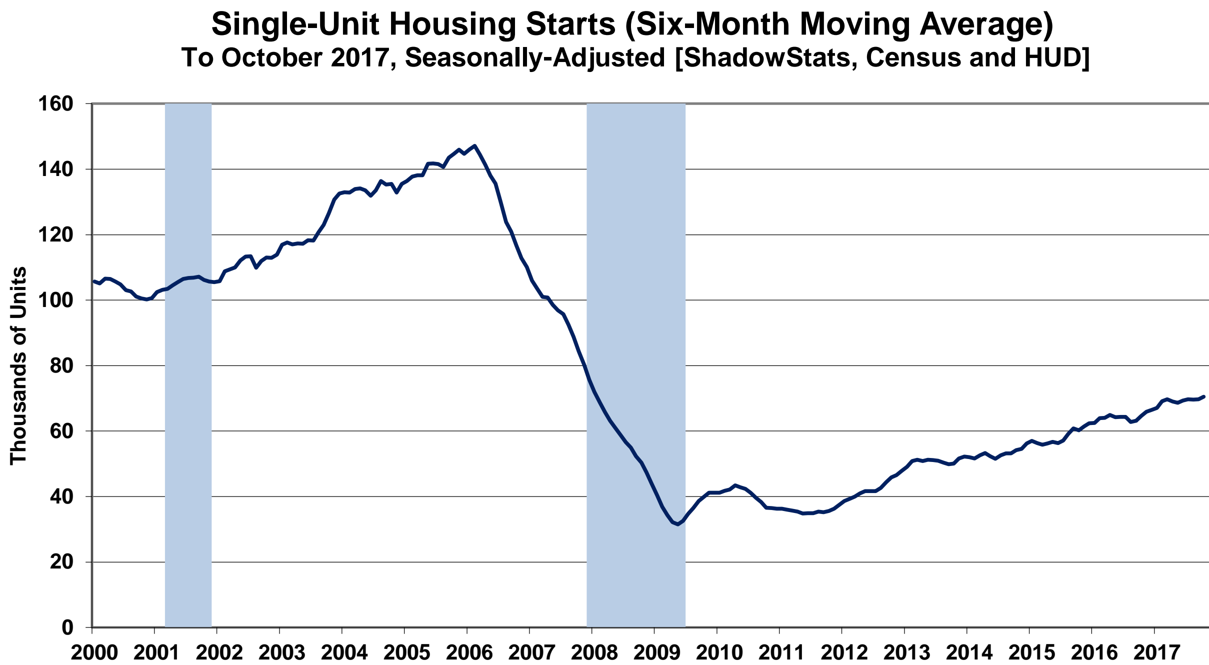
Graph 6: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



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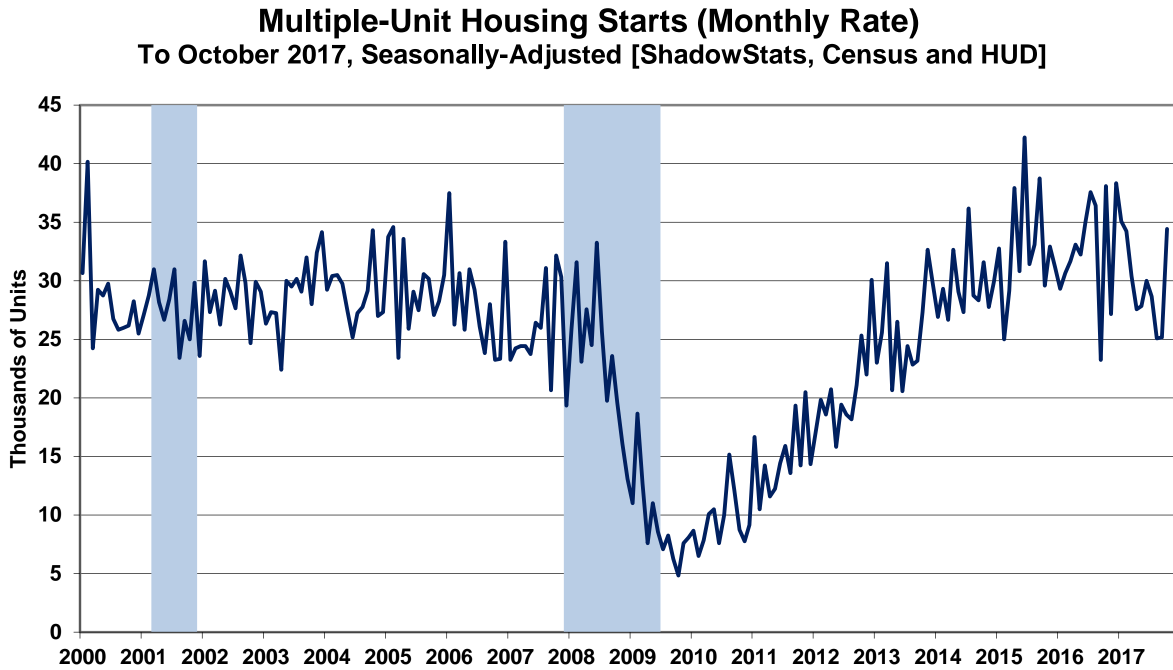
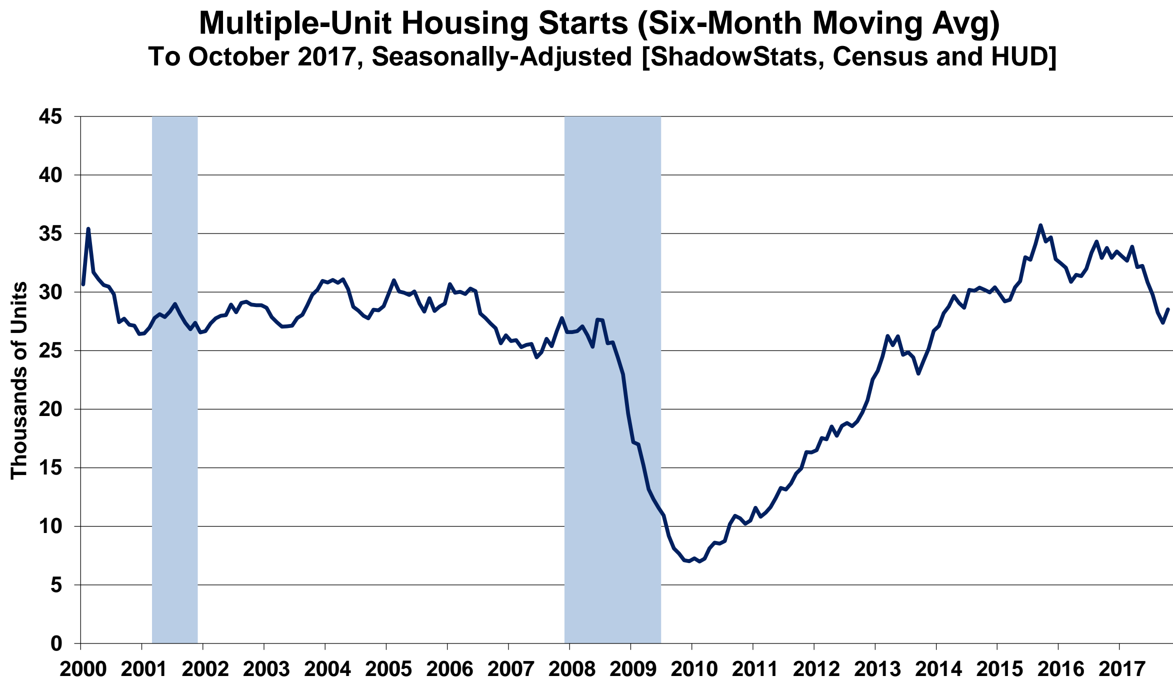
Graph 9: Multiple-Unit Housing Starts (Monthly Rate of Activity)



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



[Extended analysis and graphics follow in the **Reporting Detail.***]*

REPORTING DETAIL

INDUSTRIAL PRODUCTION (October 2017)

Hurricane Boosts to Production Likely Have Run Their Course. The Federal Reserve appears to have caught up with measuring the impact of hurricanes on industrial production in recent months, with resulting positive revisions to, and boosted, near-term headline growth. Such included increased automobile manufacturing, which helped to fill the auto-sales pipeline with replacement vehicles for those damaged in the hurricanes.

Nonetheless, the Fed left in place in last month's downside revisions to pre-hurricane production activity. In the context of all the new strength and recent upside revisions, with purportedly better measurements in hand of recent hurricane distortions, the Fed now estimates that third-quarter 2017 industrial production contracted at a revised, narrowed annualized pace of 0.31% (-0.31%), previously estimated at a quarterly contraction of 1.55% (-1.55%). Nonetheless, that third-quarter contraction still should have negative implications for the second round of third-quarter 2017 GDP guesstimation on November 29th (see *Special Commentary No. 918-B*).

Where the hurricane boosts to, and the distortions of, current economic activity should prove to be fleeting, the underlying, broadly-faltering U.S. economy should be dominating headline economic reporting, once again, and all too soon, most likely by early-2018, as discussed in the *Opening Comments*.

Monthly Production Just Recovered Its 2007 Pre-Recession High for a Second Time. With the reporting of first-quarter and second-quarter 2017 details, production showed both annual and quarterly gains, 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. 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 just recovered the monthly pre-recession high, for a second time, but the quarterly numbers, through the latest third-quarter 2017 reporting, still remain shy of a second "recovery." With monthly production likely to fall back in November, whether or not fourth-quarter 2017 activity will be a new recovery remains to be seen.

In contrast, the broadly stagnant, albeit, temporarily just-revised to uptrending, dominant Manufacturing Sector of October 2017 remained 4.73% (-4.73%) shy of recovering its pre-recession peak of December 2007, having now completed a record 118 consecutive months of non-expansion (see *Graph 15*).

One of the Better-Quality Series, Industrial Production Still Overstates Headline Activity. Despite the March 31st benchmark revisions (see *Commentary No. 877*), which hit historical production detail hard, current headline production reporting still overstates economic activity 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 never has recovered its pre-recession peak, continuing in low-level, non-recovered economic stagnation (again, see *Graph 15*).

All this is despite the continuing happy hype out of the Bureau of Economic Analysis (BEA), which has guesstimated third-quarter 2017 real GDP activity at 14.4% above its pre-recession peak (see *Special Commentary No. 918-B*). 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*).

Headline Industrial Production—October 2017. The Federal Reserve Board released its first estimate of seasonally-adjusted, October 2017 Industrial Production, yesterday, November 16th. The new detail reflected significant upside revisions to recent, storm-impacted activity, as well as recovery from same. Headline October 2017 production increased by 0.94% month-to-month, having gained a revised 0.40% [previously 0.28%] in September, having declined by a revised 0.46% (-0.46%) [previously down by 0.73% (-0.73%), initially down by 0.90% (-0.90%)] in August, a revised decline of 0.01% (-0.01%) [previously 0.14% (-0.14%), having gained 0.39%] in July, following a revised gain of 0.16% [previously 0.22%] in June, a revised gain of 0.02%) [previously 0.06%] in May and an unrevised gain of 1.09% in April. Net of prior-period revisions, October 2017 production gained by 1.44%, again largely reflecting recovery from prior, hurricane impaired-activity.

Headline Monthly October 2017 Growth by Major Sector. Detailed by major industry group (see *Graphs 13*, *15*, *20* and *22*), the headline October 2017 monthly aggregate gain of 0.94% was composed of monthly gains of 1.26% in manufacturing activity, 1.96% in utilities and a decline of 1.25% (-1.25%) in mining activity (including oil and gas production).

Year-to-Year Change. Year-to-year October 2017 industrial production gained 2.88%, up from an upwardly revised annual gain of 2.10% [previously 1.60%], versus a revised 1.54% [previously 1.16%, initially 1.54%] gain in August 2017, and revised monthly annual gains of 1.94% [previously 1.83%] in July 2017, 2.04% [previously 2.06%] in June 2017, 2.25% [previously 2.20%] in May 2017, and an unrevised 2.12% in April 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 a revised 0.58%, the first annual gain since first-quarter 2015. Second-quarter 2017 production gained year-to-year by a revised 2.14%, with the second estimate of third-quarter 2017 at an annual gain of 1.86% [previously 1.53%].

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

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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 a revised 5.54%, with hurricane-disrupted third-quarter 2017 growth now showing a revised annual contraction of 0.31% (-0.31%) [previously down by 1.55% (-1.55%)].

Production Graphs. The regular two sets of long- and short-term plots of industrial production levels and annual growth rates (*Graphs 11* to *14*) set the background for the drill-down detail graphs of various components of the aggregate industrial series (*Graphs 15* to *28*).

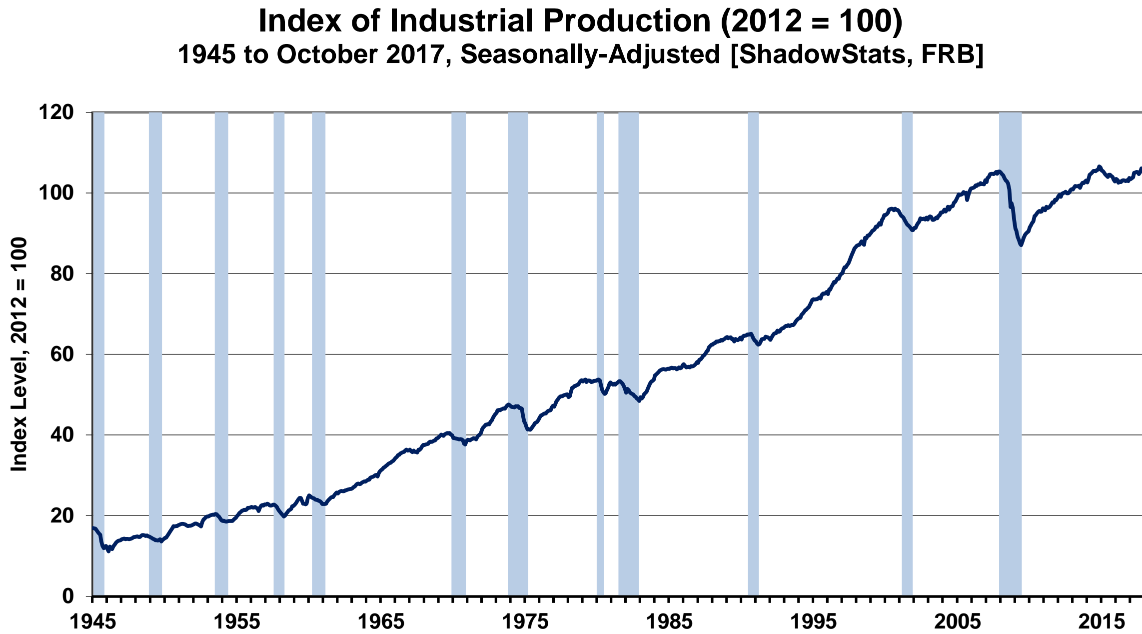
Graphs 11 and *12,* and *Graphs 13* and *14* show headline industrial production activity to date. *Graph 12* shows the monthly year-to-year percent change in the aggregate series, in historical context since World War II. Post-benchmarking, activity was somewhat stronger coming into 2014, but much weaker going into 2015, as detailed in *Commentary No. 877*.

Graph 11 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 hurricane disruptions and accompanying near-term volatility. Such patterns of monthly, quarterly and annual declines post late-2014 to the onset of 2017 (see *Graph 12*) were seen last in the economic collapse into 2009, and historically never seen outside of what would be recognized as formal recessions. *Graphs 13* and *14* show the same series in near-term detail, beginning in January 2000.

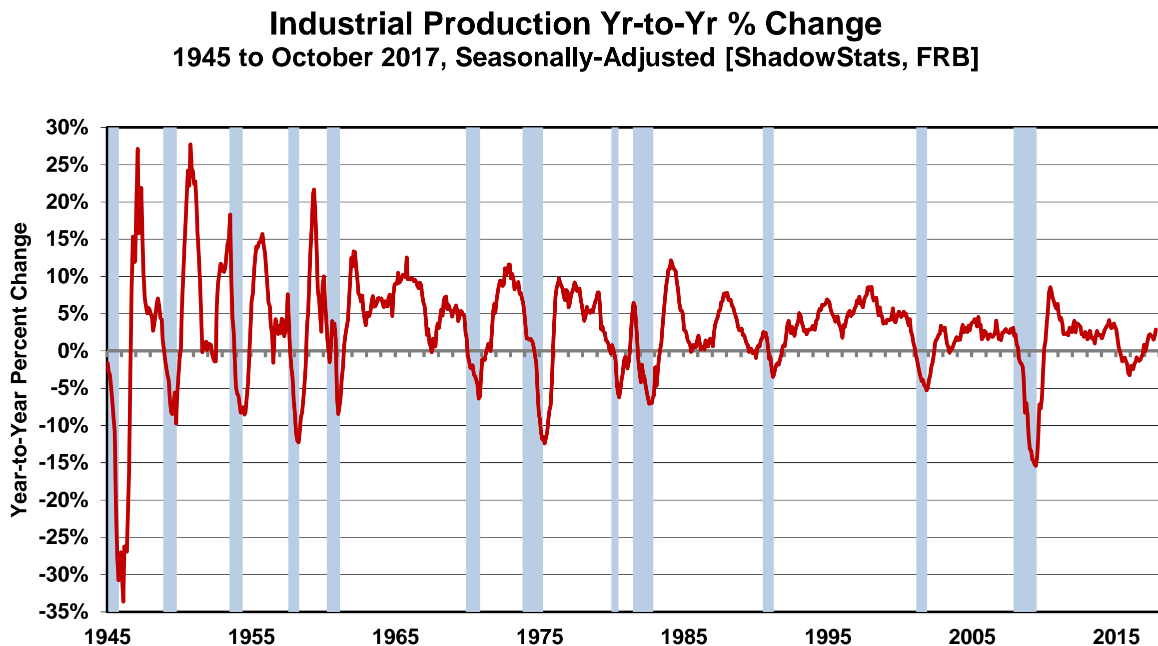
Seen most clearly in *Graph 14*, year-to-year activity dipped anew in 2013, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, turning negative, again, into 2015 and through 2016 as seen only in formal recessions. In the context of the 2017 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 12*, 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. 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.

Graph 11: Index of Industrial Production (Aggregate) since 1945



Graph 12: Industrial Production, Year-to-Year Percent Change since 1945



Drilling Down into the October 2017 U.S. Industrial Production Detail. *Graphs 13*, *15*, *20* and *22* show headline reporting of industrial production and its major components.

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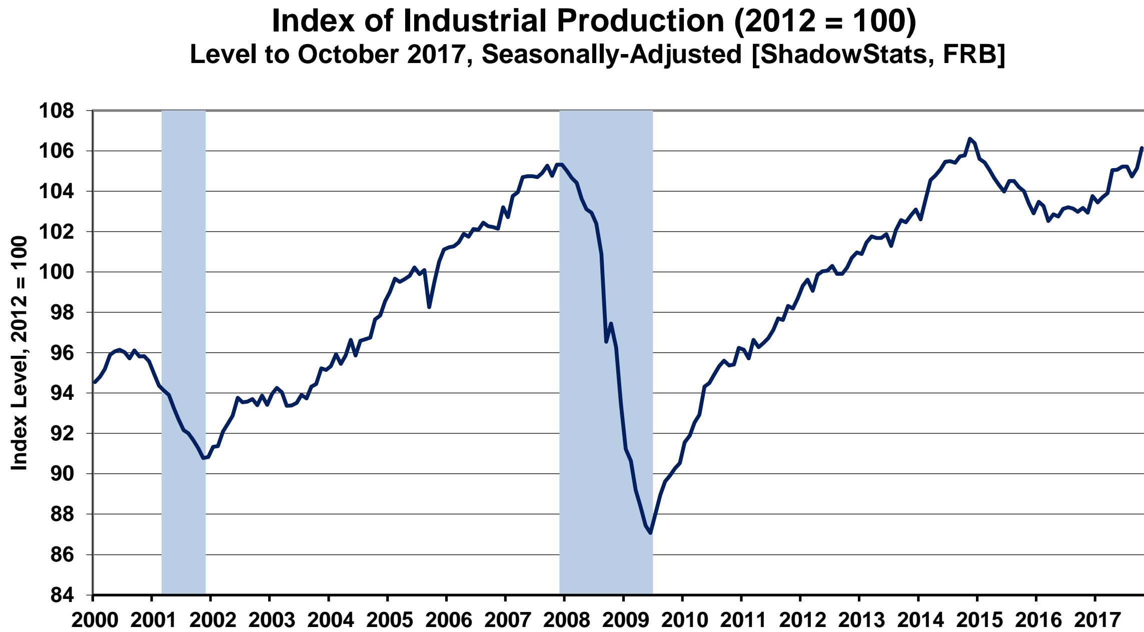
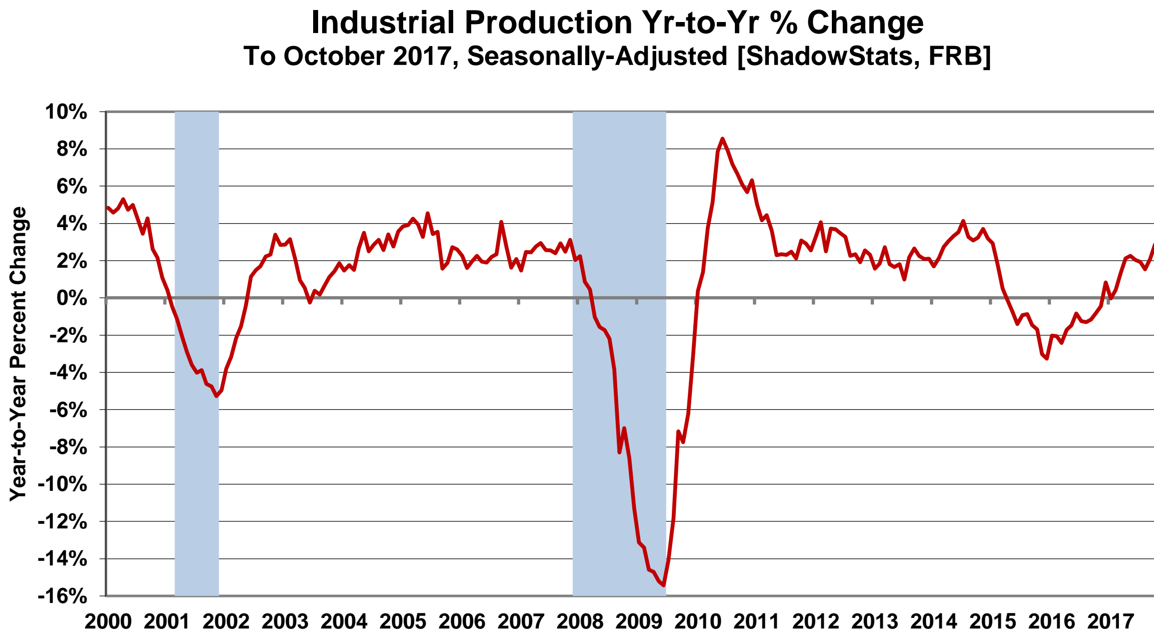
Graph 13: Index of Aggregate Industrial Production since 2000



Graph 14: Aggregate Industrial Production, Year-to-Year Percent Change since 2000



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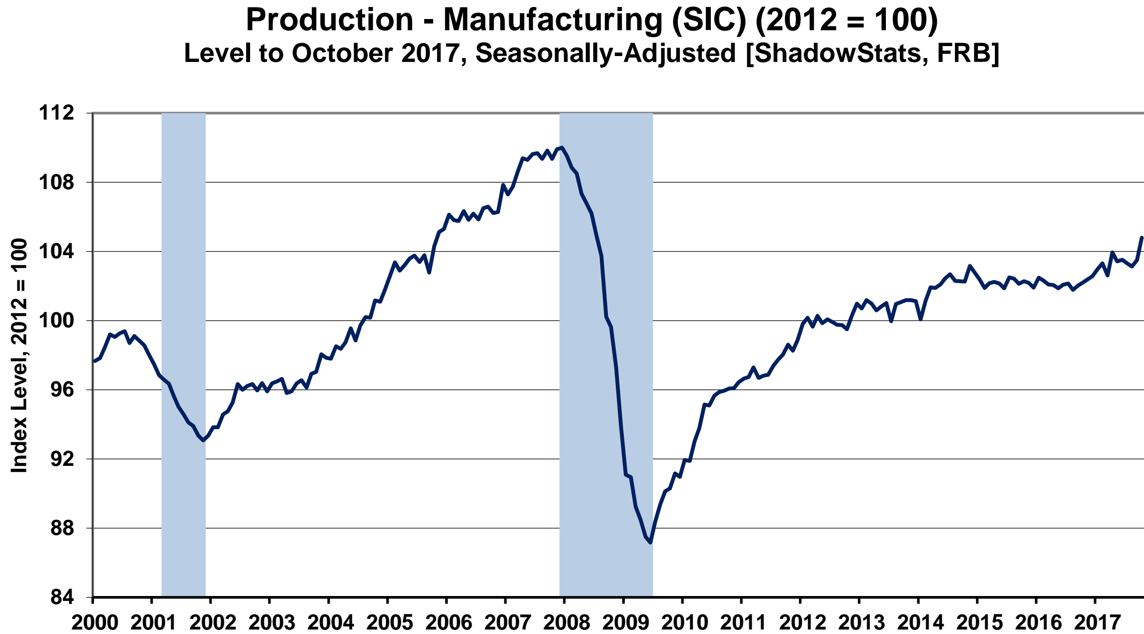
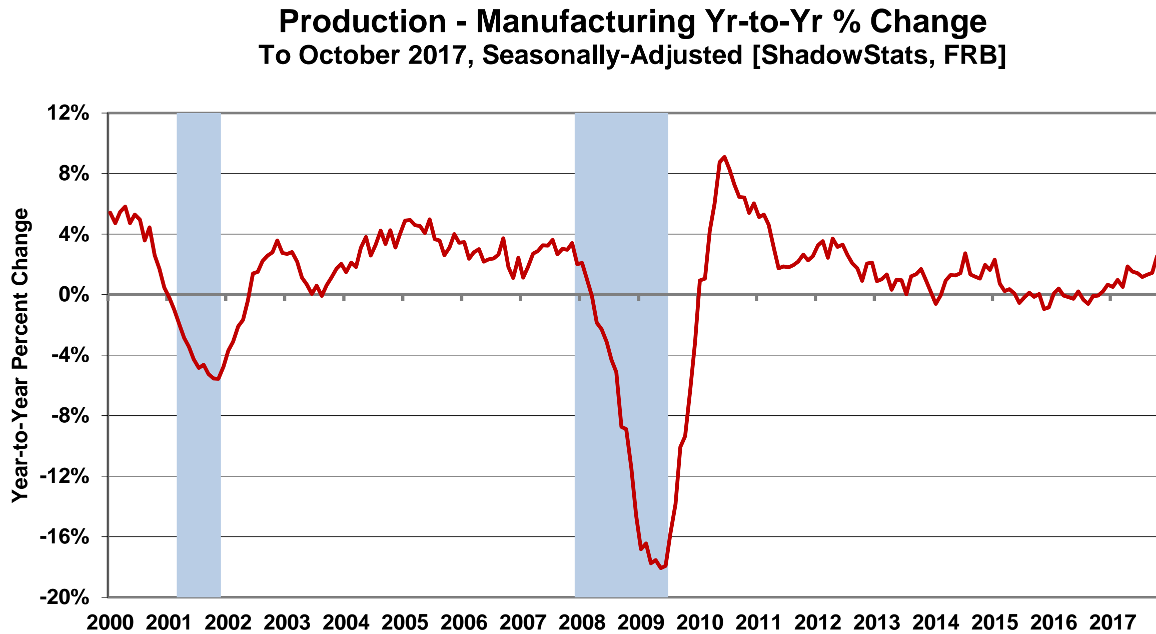
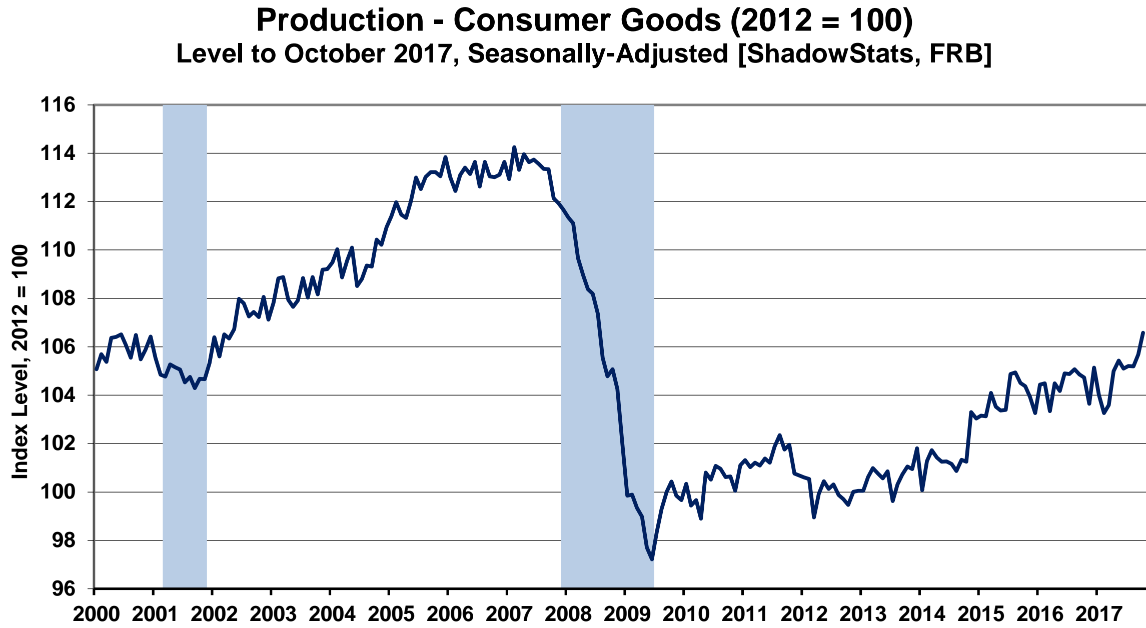
Graph 15: Industrial Production - Manufacturing (76.4% of the IIP in 2016)



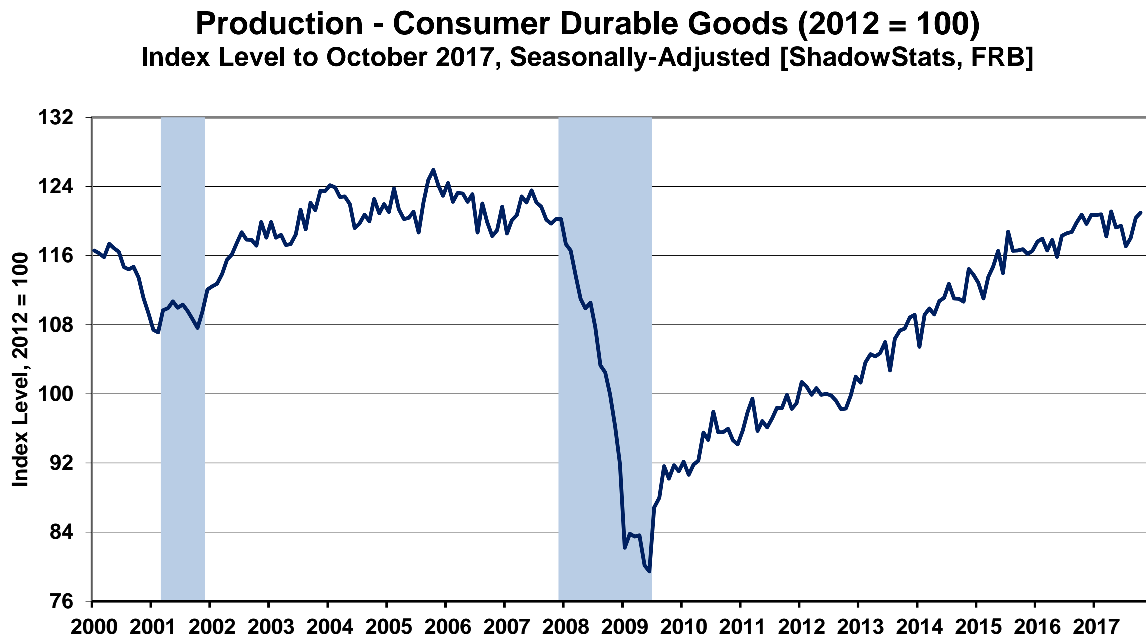
Graph 16: Industrial Production - Manufacturing, Year-to-Year Percent Change Since 2000



Graph 17: Consumer Goods (28.2% of the Aggregate in 2016)



Graph 18: Durable Consumer Goods (6.3% of the Aggregate in 2016)



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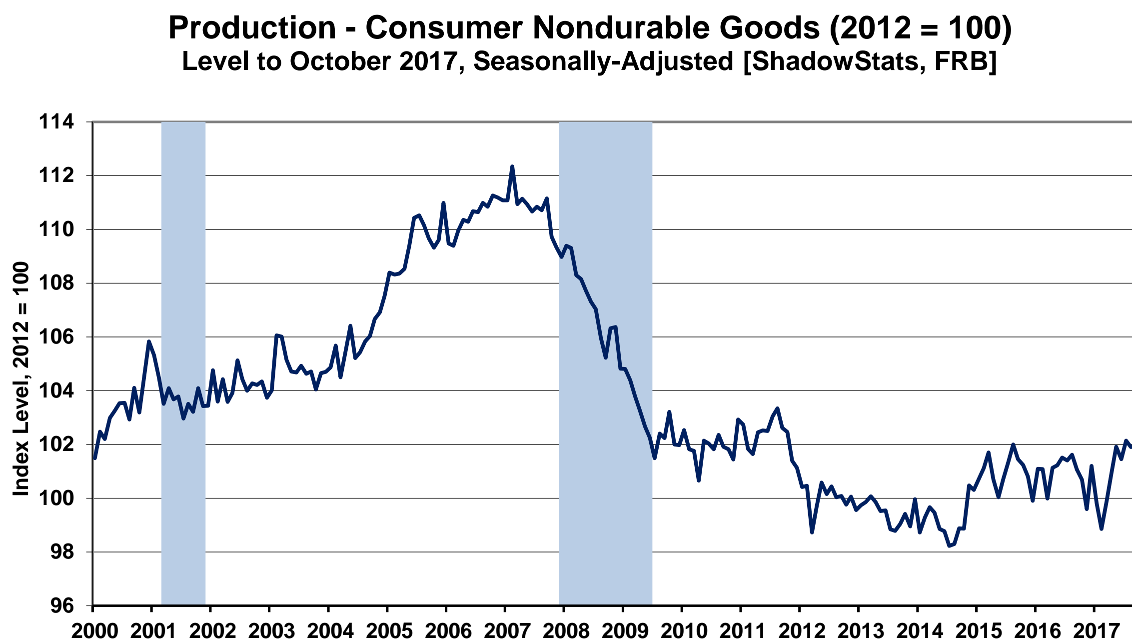
Graph 19: Nondurable Consumer Goods (21.9% of the Aggregate in 2016)



The aggregate production index (*Graph 13*) 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, but flipped to a quarterly contraction and sharp slowing in annual growth, due to hurricane disruptions, but now spiked higher by revised hurricane considerations.

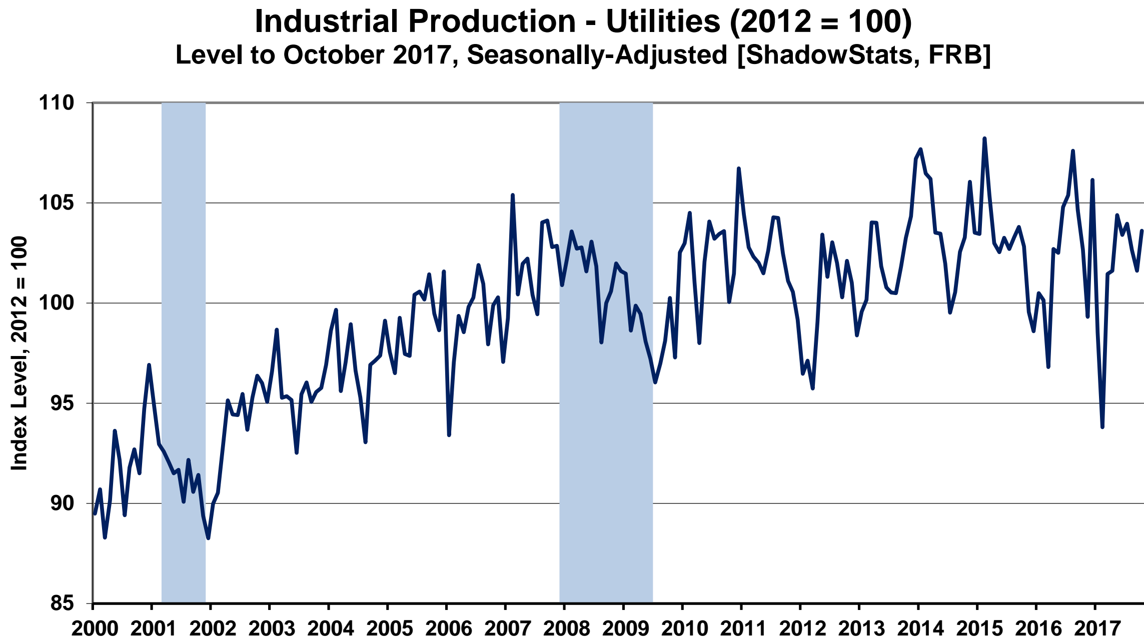
Shown in *Graphs 15, 20* and *22* are the three major industry sectors, Manufacturing, Utilities and Mining, all of which were distorted heavily to the downside by weather in the August 2017 detail, all sectors down month-to-month. In the context of downside prior-period revisions and declining impact 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.

The Manufacturing graph 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 16*, *21* and *23*, show the respective plots of year-to-year change for those series.

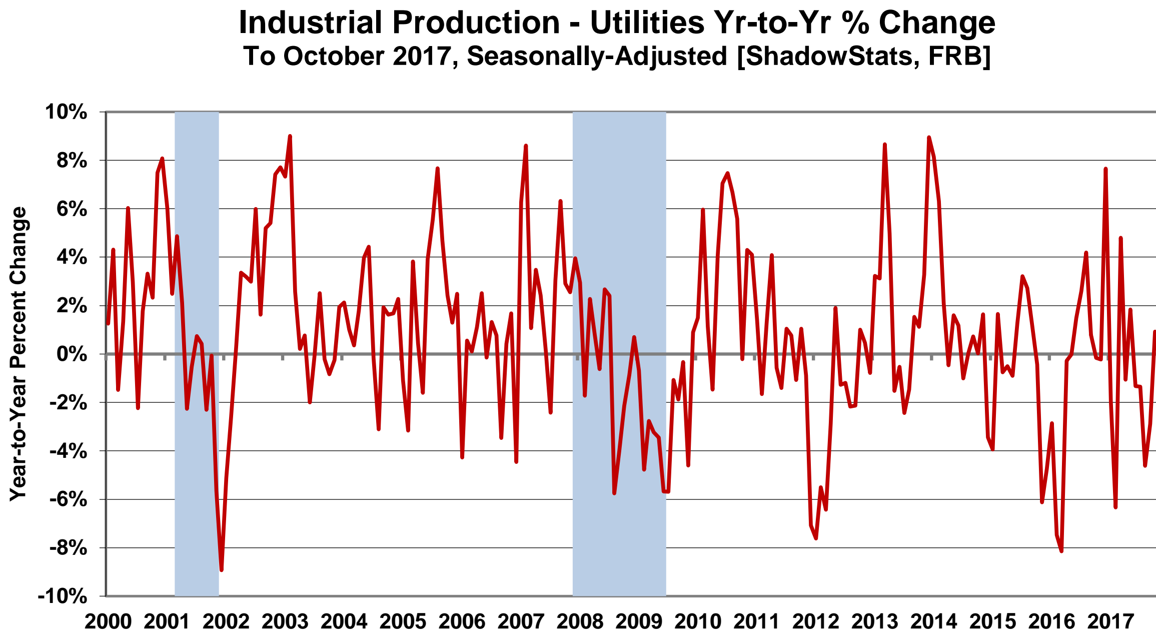
The preceding Manufacturing *Graphs 15* to *19* include plots of various levels of consumer goods production (*Graphs 17* to *19*), all impacted by weather distortions. Spiked replacement auto manufacturing is reflected in the aggregate and durable consumer goods graphs.

The next two *Graphs 20* and *21* reflect weather-impacted Utilities activity.

Graph 20: Industrial Production - Utilities (10.6% of the Aggregate in 2016)

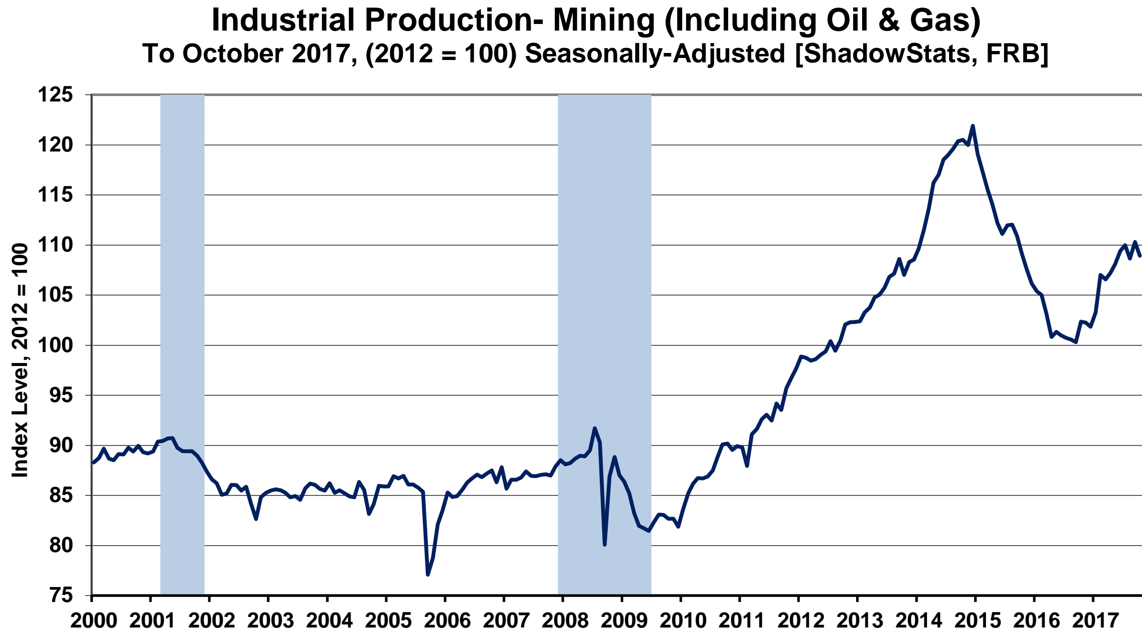


Graph 21: Industrial Production - Utilities, Year-to-Year Percent Change Since 2000

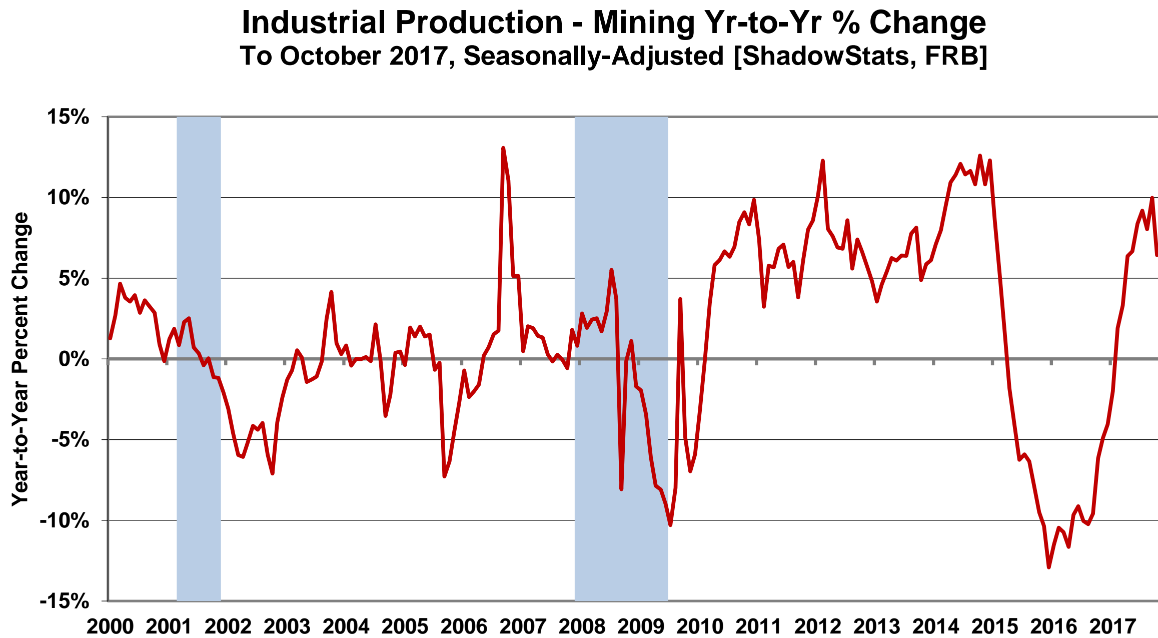


The final set of Mining *Graphs 22* to *28,* encompasses plots of related mining/oil production or exploration activity. While oil and gas extraction rebounded in September 2017, and oil and gas drilling continued in decline, directly impacted by Hurricane Harvey, Hurricane Nate hit oil and gas drilling and extraction in October 2017.

Graph 22: Industrial Production - Mining, Including Oil and Gas (12.9% of the Aggregate in 2016)



Graph 23: Industrial Production - Mining, Year-to-Year Percent Change



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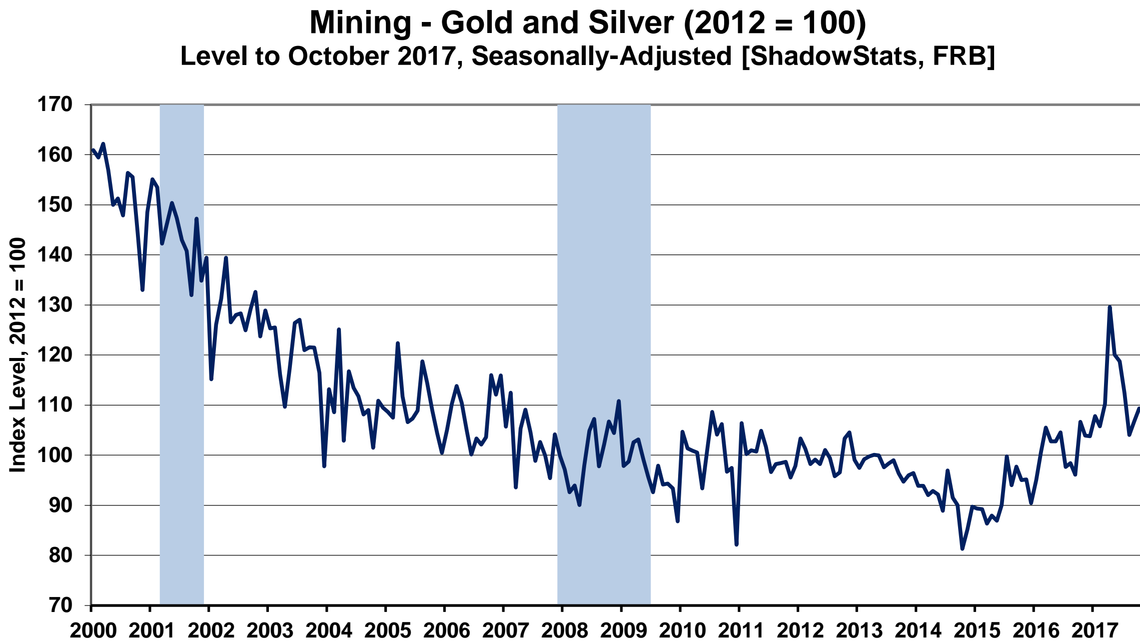
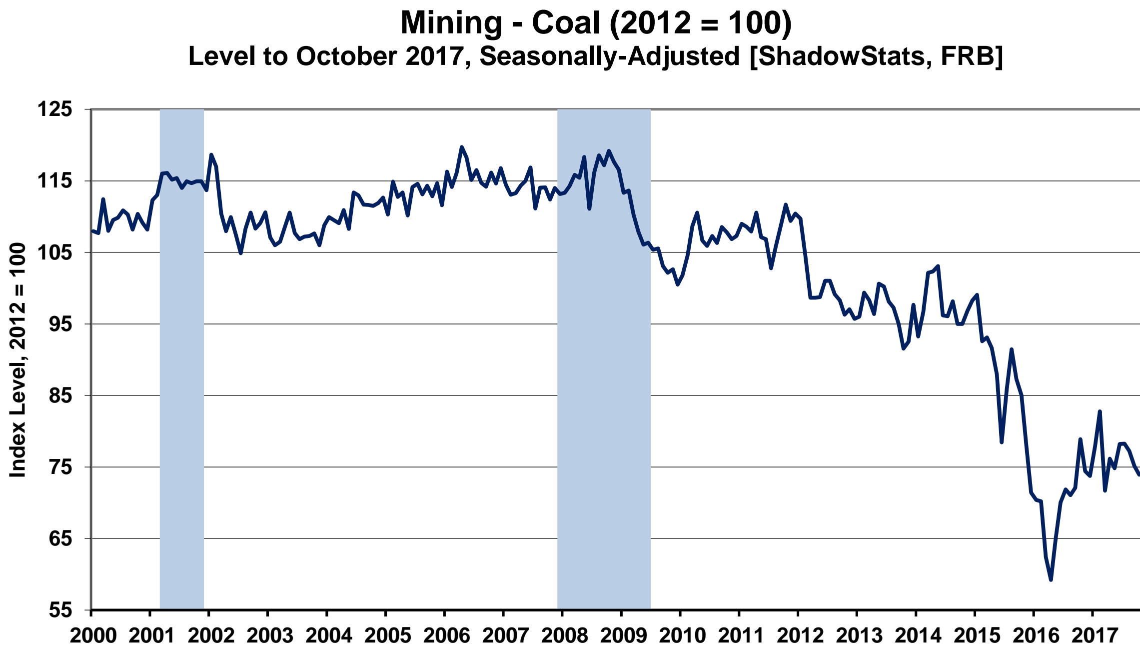
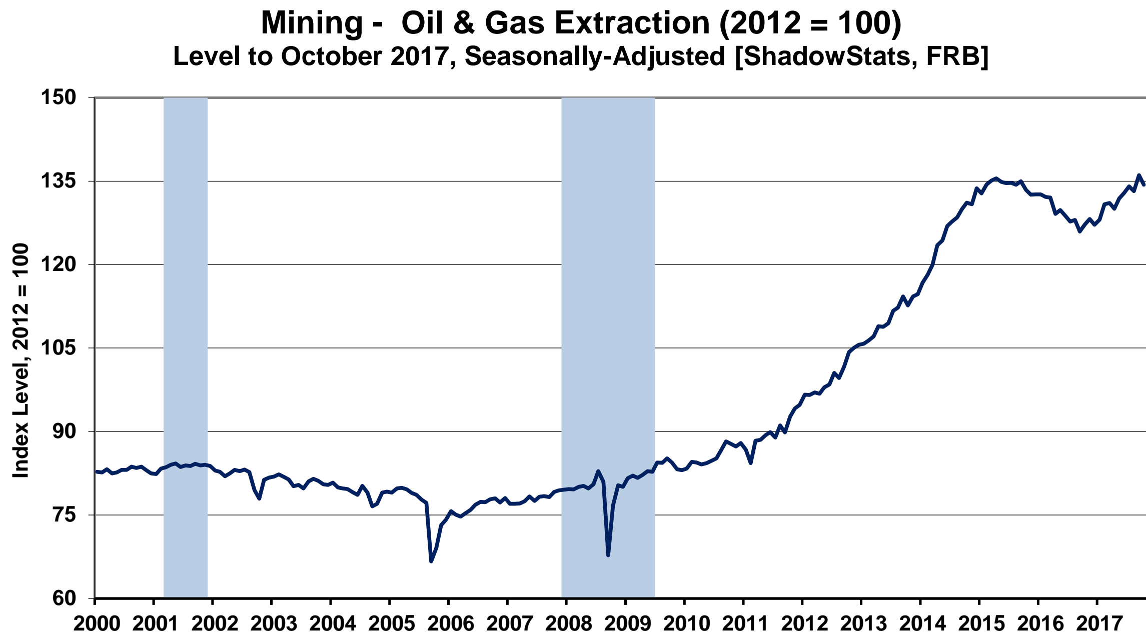
Graph 24: Mining – Gold and Silver Mining (Since 2000)



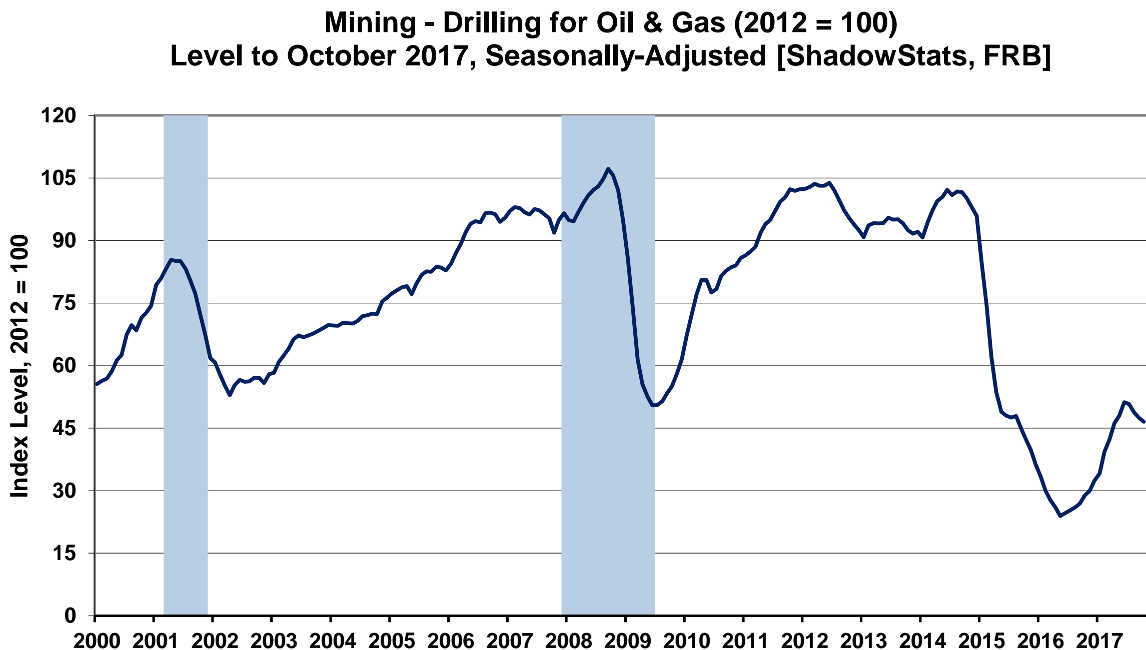
Graph 25: Mining - Coal Mining (Since 2000)



Graph 26: Mining – U.S. Oil & Gas Extraction (Since 2000)



Graph 27: U.S. Drilling for Oil & Gas (Since 2000)



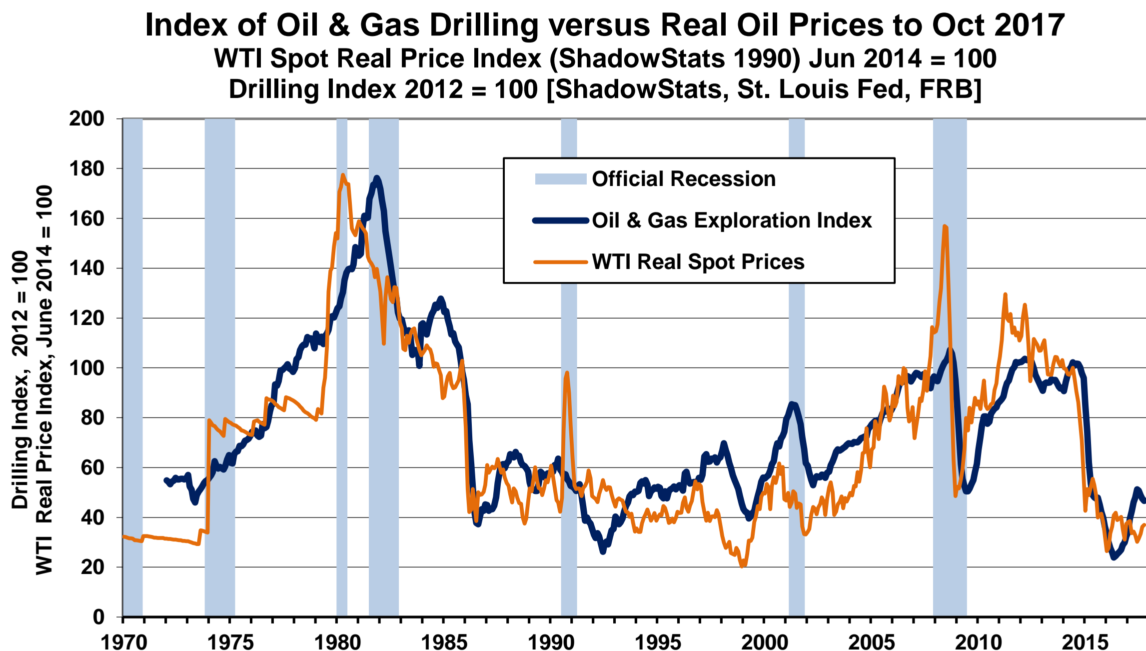
Shown in *Graph 28*, with some lag following sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing in exploration, indeed, appeared to have been in place with what was

at least a short-term bottoming in oil prices in early 2016. Prices rallied into mid-2016 then plateaued, and have been moving lower in the last five to six months, 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. 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 in some recent months.

When the dollar weakens, dollar-denominated oil prices also begin to strengthen, even in a circumstance with excess supply conditions. At such time as the U.S. dollar declines meaningfully—ShadowStats looks for a massive sell-off in the dollar in the year ahead (see prior *Commentary No. 920*)—U.S. dollar-denominated oil prices should rally sharply (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 now the dollar has begun to pull back. 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, although both the dollar and oil prices have backed off recent, relative peaks.

That said, both oil prices and drilling activity have been meaningfully boosted and hit, respectively in August and September, due particularly to impact of Hurricane Harvey on the Gulf Coast. Both prices and drilling should move back to more-regular movement in the next several months. Oil prices also have been reflective of political developments in the Middle East.

Graph 28: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)



NEW RESIDENTIAL CONSTRUCTION (October 2017)

Storm-Recovery Temporarily Helped to Boost Otherwise-Volatile October Housing Starts and Building Permits. As suggested here last month (*Commentary No. 917*), in the context of near-term housing starts then continuing in downturn, particularly in the South, where some "decline likely was from hurricane disruptions in August and September, post-disaster recovery should trigger some near-term increase in activity as destroyed structures are replaced in the months ahead." That boost to activity was an apparent factor in today's headline reporting of strong surges in October Housing Starts and Building Permits, although such extreme month-to month volatility is seen regularly in these series.

Nonetheless, the sharp monthly gains in October should prove fleeting in the months ahead, with today's detail likely adding a only a brief and minor upside blip to the six-month smoothed moving averages of these series, as seen in *Graphs 4*, *6, 8* and *10* in the *Executive Summary*. Irrespective of the near-term reporting instabilities, the six-month trends in those key series remained broadly stagnant, along with the headline level of October 2017 activity still holding well below the 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 flattened out in the last year or two in ongoing, low-level stagnation and had turned lower still in recent detail, coming into a likely one-shot October spike, as seen in accompanying *Graphs 29* to *34* (also in *Graphs 3* to *10* in the *Executive Summary*), covering all of the Housing Starts series.

That pattern of non-recovery also broadly has been seen with Building Permits activity. The headline, statistically-significant monthly gain of 5.9% +/- 1.6% seen in October 2017 having the effect of fluttering the six-month moving average of that series minimally higher (see *Graph 31*).

Plotted with just the seasonally-adjusted monthly data, the pattern of low-level, broadly downtrending stagnation, albeit temporarily fluttering, showed headline October 2017 building permits activity down by 42.7% (-42.7%) from recovering its pre-recession peak activity, with housing starts activity down similarly by 43.2% (-43.2%). Given the extreme and likely heavily-hurricane-impacted movement, the related headline month-to-month in boost in the aggregate housing-starts series was statistically significant, for once, although the still-negative year to year change was not. Lack of statistical significance usually is a common denominator to the headline month-to-month changes, and as well to most of the year-to-year changes.

The six-month smoothed trends remained relatively flat, across-the-board for the housing starts and building permits. Monthly activity for the various measures remained shy of regaining 2005 pre-recession peaks, again, by 42.7% (-42.7%) for Building Permits and 43.2% (-43.2%) for Housing Starts, and down by 51.9% (-51.9%) for Single-Unit Starts. At present, Multi-Unit Starts has fallen back, now down by 8.2% (-8.2%), having recovered its 2005 pre-recession peak temporarily in early-2015.

Third-Quarter 2017 Housing Starts Held in Third Consecutive Quarterly Decline, Early Fourth-Quarter Trend an Annualized Plus 50.9%. 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.

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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%. Second full reporting for third-quarter 2017 Housing Starts activity was an annualized pace of contraction of 0.9% (-0.9%), up by 1.2% year-to-year.

The early-trend for fourth-quarter activity, assuming the initial October starts rate held, would for an annualized gain of 50.9%, with annual growth up just 3.3%. That annual growth rate, in this circumstance 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%. Based on second full reporting for third-quarter 2017, the quarter showed an annualized gain of 6.2%, with an annual gain of 2.2%. The early-trend for fourth-quarter 2017 (based only on October reporting) is for annualized growth of 18.8%, with an annual gain of 2.2%.

Consumer Liquidity Problems Continue to Impair Residential Construction Activity. The extreme liquidity bind besetting consumers continues to constrain residential real estate activity, as discussed in the *Consumer Liquidity Watch*. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for 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, 73.1% of which is dependent on real personal spending, including residential construction.

October 2017 Housing Starts, Headline Detail. The always-unstable and highly-volatile aggregate Housing Starts series, exacerbated in the latest reporting by hurricane effects, soared month to month in October 2017, on top of an small upside revision to September, which largely offset a downside revision to August. The Census Bureau and Department of Housing and Urban Development (HUD) reported this morning, November 17th, a statistically, seasonally-adjusted, headline monthly gain in October 2017 housing starts of 13.7% +/- 12.3% (all confidence intervals are expressed at the 95% level). That followed revised declines of 3.2% (-3.2%) [previously 4.7% (-4.7%)] in September and 11.0% (-11.0%) [previously 0.2% (-0.2%), initially down by 0.8% (-0.8%)] in August. Net of the prior-period revisions, headline October Housing Starts gained by 14.5%, instead of the headline 13.7%. Level-of-activity aggregate detail is plotted in *Graphs 3* to *6* of the *Executive Summary*, and in *Graphs 30*, *32*, *33* and *34* at the end of this section.

Year-to-year change in the seasonally-adjusted, October 2017 aggregate housing-starts measure was a statistically-insignificant decline of 2.9% (-2.9%) +/- 11.8%, versus a revised 6.9% [previously 6.1%] in September and revised gain of 0.7% [previously 1.6%, initially 1.4%] in August 2017.

The October 2017 headline gain of 13.7% in total Housing Starts encompassed monthly gains of 5.3% in the 37.4% in the "five units or more" category. There is a missing balance in the "two to four units" category, which gained month-to-month in October by 25.0%. Where that category is considered too small to be meaningful, it did affect the aggregates minimally, as discussed later in the broader, aggregate "multiple unit" category. As most commonly is the circumstance, not one of the monthly headline changes was statistically significant.

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 October 2017 gained month-to-month by a statistically-insignificant 5.3% +/- 14.2%, following a revised decline of 4.4% (-4.4%) [previously 4.6% (-4.6%)] in September and a revised gain of 3.6% [previously 3.3%, initially 1.6%] in August. October 2017 single-unit starts showed a statistically-insignificant annual gain of 0.7% +/- 13.7%, versus revised gains of 6.4% [previously 5.9%] in September 2017 and 19.8% [previously 19.5%, initially 17.1%] in August 2017 (see *Graphs 3, 4, 7 and 8* in the *Executive Summary*).

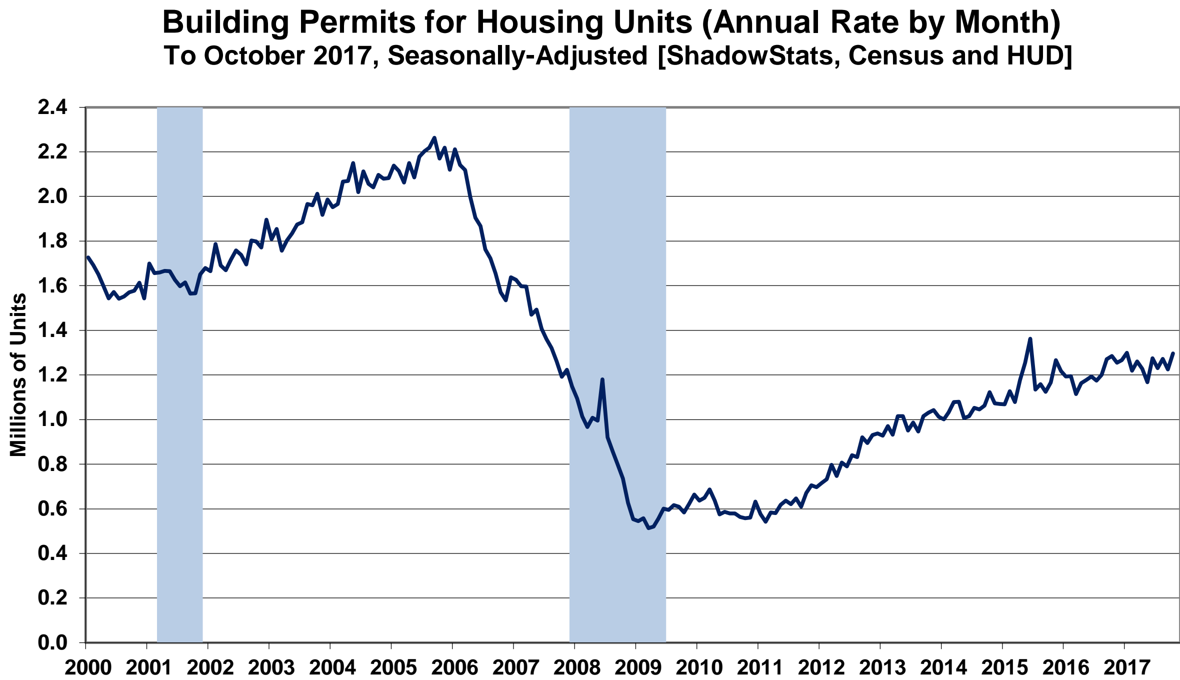
Housing starts for apartment buildings, condominiums, etc. (generally 5-units-or-more) in October 2017 gained month-to-month by a statistically-significant 37.4% +/- 31.0%, versus revised declines in September of 2.1% (-2.1%) [previously 6.2% (-6.2%)] and 12.3% (-12.3%) [previously 8.4% (-8.4%), initially 5.8% (-5.8%)] in August. A statistically-insignificant year-to-year October 2017 decline of 12.1% (-12.1%) +/- 20.2% in October 2017, followed an unrevised annual gain of 7.9% in September 2017 and a revised annual declines of 30.5% (-30.5%) [previously down by 27.4% (-27.4%), initially down by 23.1% (-23.1%)] in August 2017.

Expanding the multi-unit housing starts category to include 2-to-4-units plus 5-units-or-more usually reflects the bulk of rental- and apartment-unit activity. The Census Bureau does not publish estimates of the 2-to-4-units category, due to statistical significance problems (a general issue for the aggregate series). Nonetheless, the total multi-unit category can be estimated by subtracting the single-unit category from the total category (see *Graphs 3*, *4*, *9* and *10* in the *Executive Summary*).

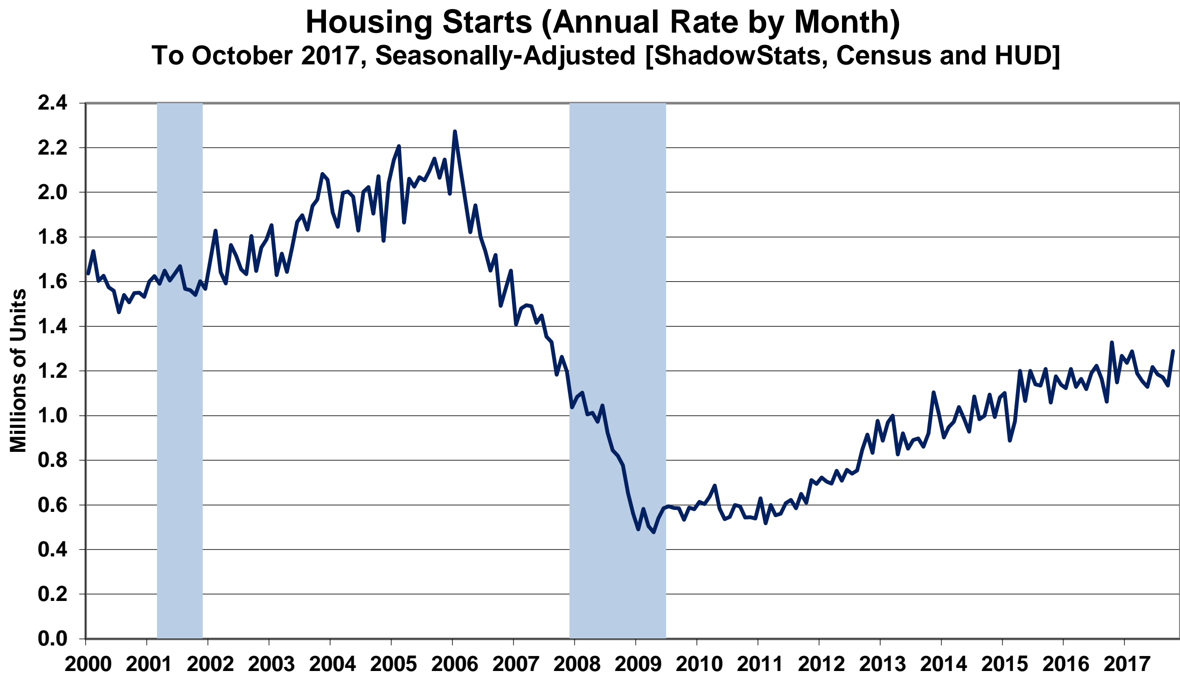
Accordingly, the statistically-significant October 2017 monthly decline of 13.7% in aggregate starts was composed of a statistically-insignificant decline gain of 5.3% in one-unit structures and a statistically-significant gain of 36.8% in the multiple-unit structures categories (two-units-or-more, including the five-units-or-more category). In contrast, again, ex-two-units-or-more, the multiple-unit category gained by 37.4%. Again, these series are graphed in the *Executive Summary*.

[Graphs 29 to 34 begin on the next page.
Please see the *Note on the Housing Starts Graphs* on page 8.]

Graph 29: Building Permits (Annualized Monthly Rate of Activity), 2000 to Date



Graph 30: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date



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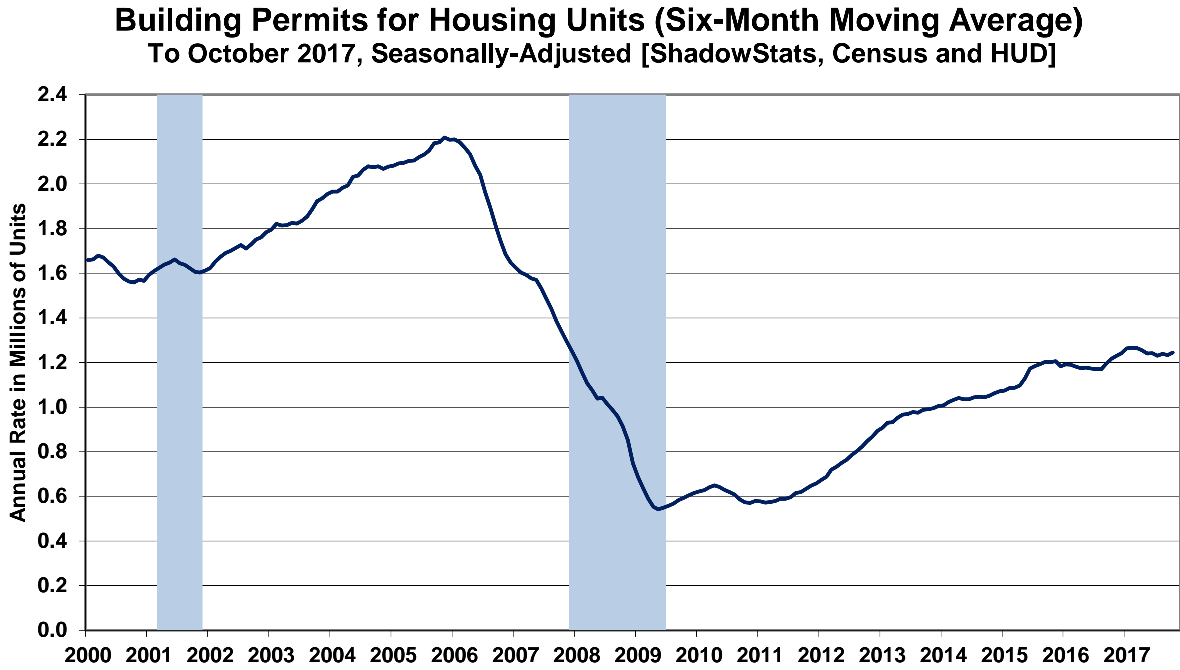
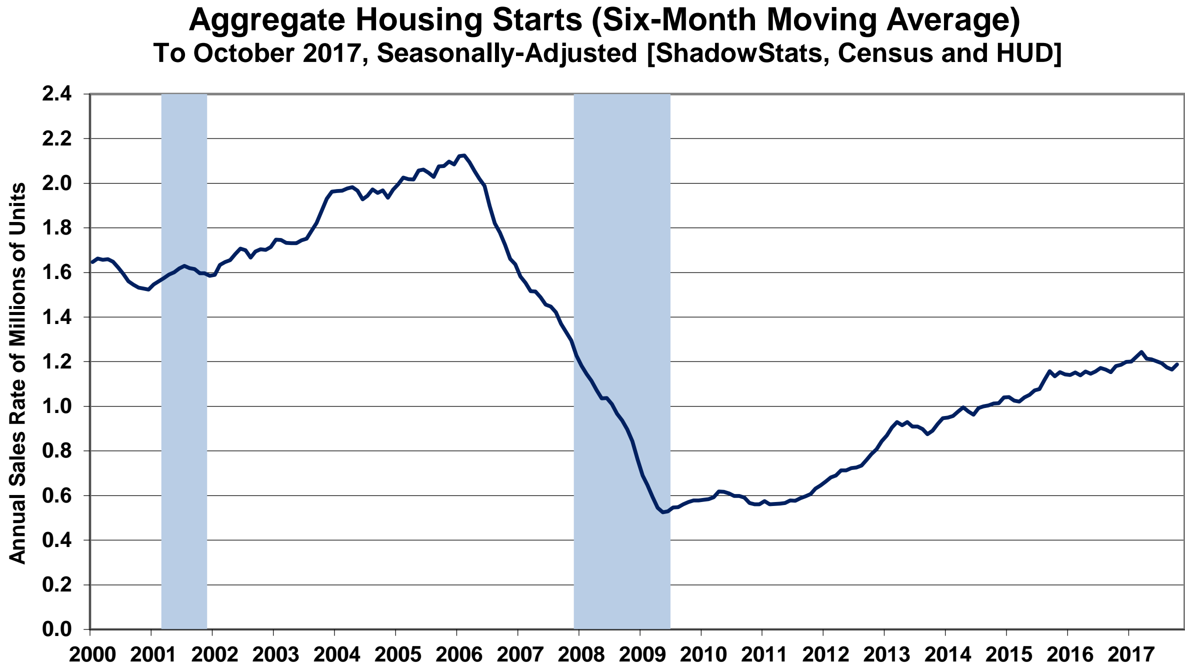
Graph 31: Building Permits (Six-Month Moving Average), 2000 to Date



Graph 32: Housing Starts (Six-Month Moving Average), 2000 to Date



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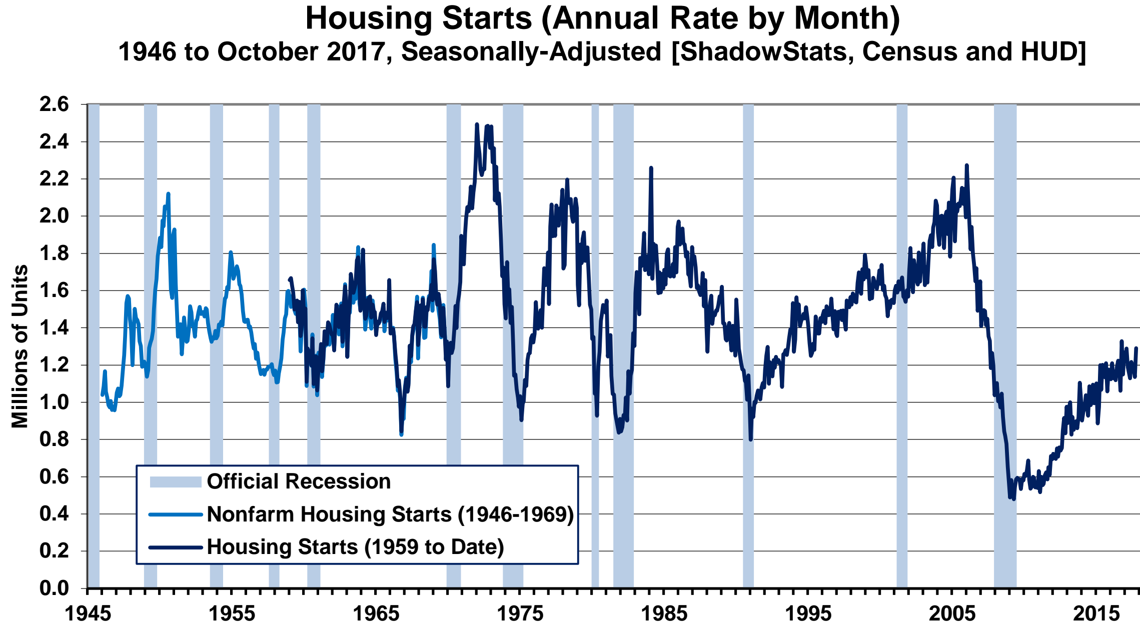
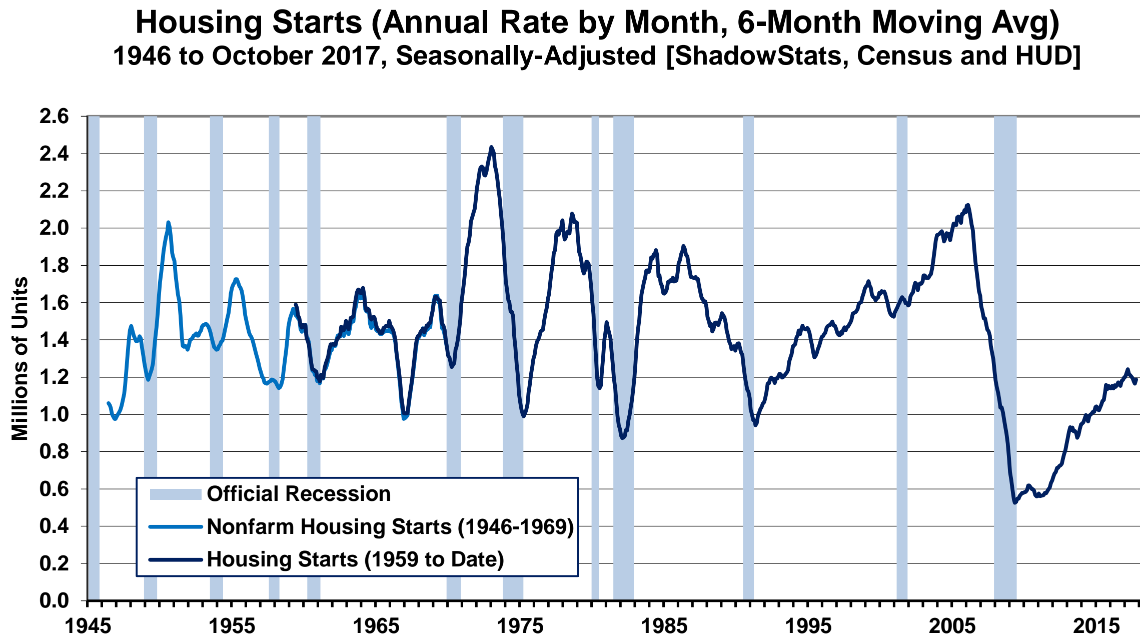
Graph 33: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date



Graph 34: Housing Starts (Annualized Monthly Rate of Activity, 6-Month Moving Avg), 1946 to Date



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

CONSUMER LIQUIDITY WATCH

CONSUMER LIQUIDITY CONDITIONS: INCOME, CREDIT AND RELATIVE OPTIMISM.

[The CLW *has not been revised since its prior publication in Commentary No. 920, other than for links.]*

Liquidity Stresses Continue to Mount, Amidst Rising Optimism, Aggravated Temporarily by Natural Disasters. The U.S. consumer faces continuing financial stress, increasingly reflected in renewed softening of fundamental headline economic activity, including Payroll-Employment, Real Retail Sales of recent months (the headline September sales gains were spiked heavily by hurricane damages), home sales and related construction indicators, and ultimately as reflected in broader-based economic series such as Industrial Production. Where all of those measures face near-term, disaster-triggered reporting disruptions, liquidity stresses nonetheless have been intensified, at least temporarily, in hurricane-hit regions of the United States, where, for example, related September 2017 employment/ unemployment details were heavily disrupted/distorted (see *Commentary No. 915*) of October 6th.

***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 same pocket-book 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 2002, let alone 2007. Yet, underlying liquidity conditions, economic reality and lack of positive actions out of the government to turn the economy meaningfully, all have continued to remain shy of consumer hopes. Not surprisingly, consumer optimism has begun to falter anew.

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 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 consumer hopes and needs.

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

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retail sales. Related, personal-consumption-expenditure and residential-construction categories accounted for 73.1% of the headline real (73.0% of nominal), second-quarter 2017 U.S. GDP.

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, gimmicked boosts to, and current headline slowing in, that most worthless of economic series, discussed most recently in *Commentary No. 907*.

Consumer Optimism: October Consumer Confidence and Sentiment Boomed, Early November Has Signaled a Pull-Back. This detail reflects the October 2017 readings of The Conference Board's Consumer-Confidence Index® (Confidence) and the October and Early-November readings of the University of Michigan's Consumer Sentiment Index (Sentiment) of November 10th. Reflected in *Graphs CLW-1* and *CLW-2*, both Confidence and Sentiment jumped sharply to multi-year highs in October, but the early-November Sentiment reading pulled back sharply, largely retrenching from its downwardly-revised October jump. A year ago 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 in August and September 2017, but with the October 2017 Sentiment measure showing an large jump, purportedly because consumers were willing to accept diminished prospects for their living standards (see *Commentary No. 916*)? The Conference Board blamed hurricane impact in Texas and Florida for the downturn in September 2017 Confidence, but those numbers also exploded into October 2017.

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 in both series also had broken to pre-recession highs, with the Confidence hitting levels not seen since before the 2001 recession, yet the still-high moving averages also had begun to falter in September, before the unusual October 2017 surges.

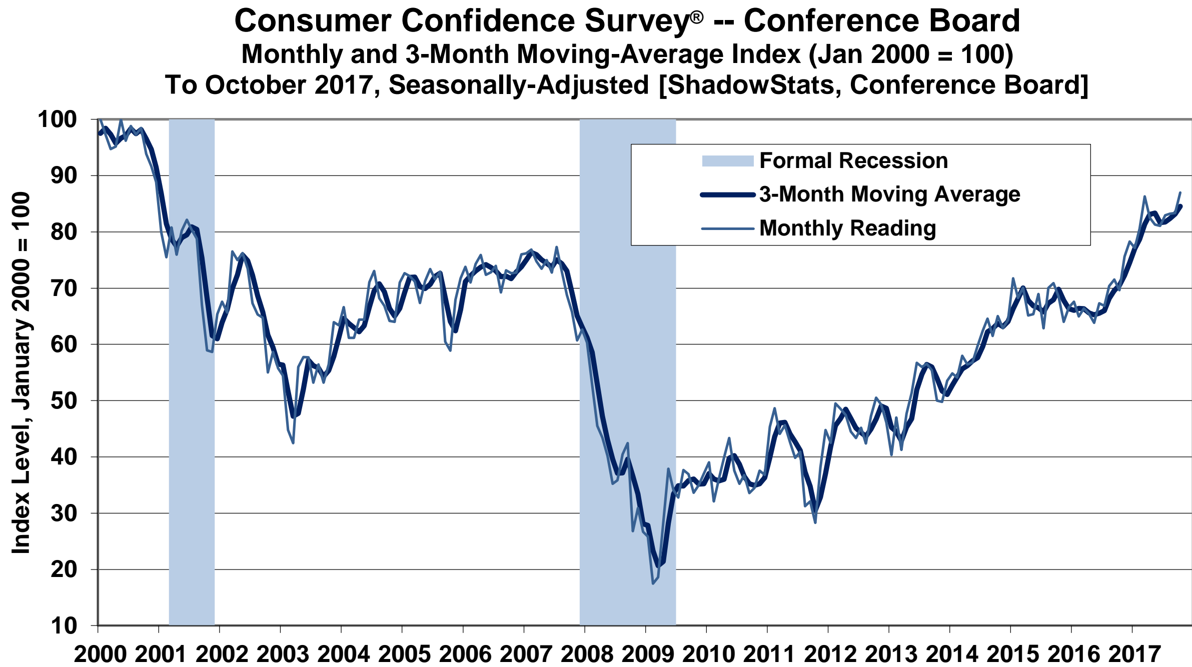
Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs CLW-1* to *CLW-3* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, 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. Headline financial and economic reporting in the months ahead should continue as increasingly-negative and unstable. With near-term headline financial and economic reporting suggestive of a renewed and intensifying downturn, successive negative hits to both the confidence and sentiment readings are increasingly likely in the near future, despite the artificial, headline-spiked October 2017 readings. Again, they likely were built upon some temporary or faux, hurricane-boosted employment gains from the household survey, which already have begun to unwind (see *Commentary No. 919-B*).

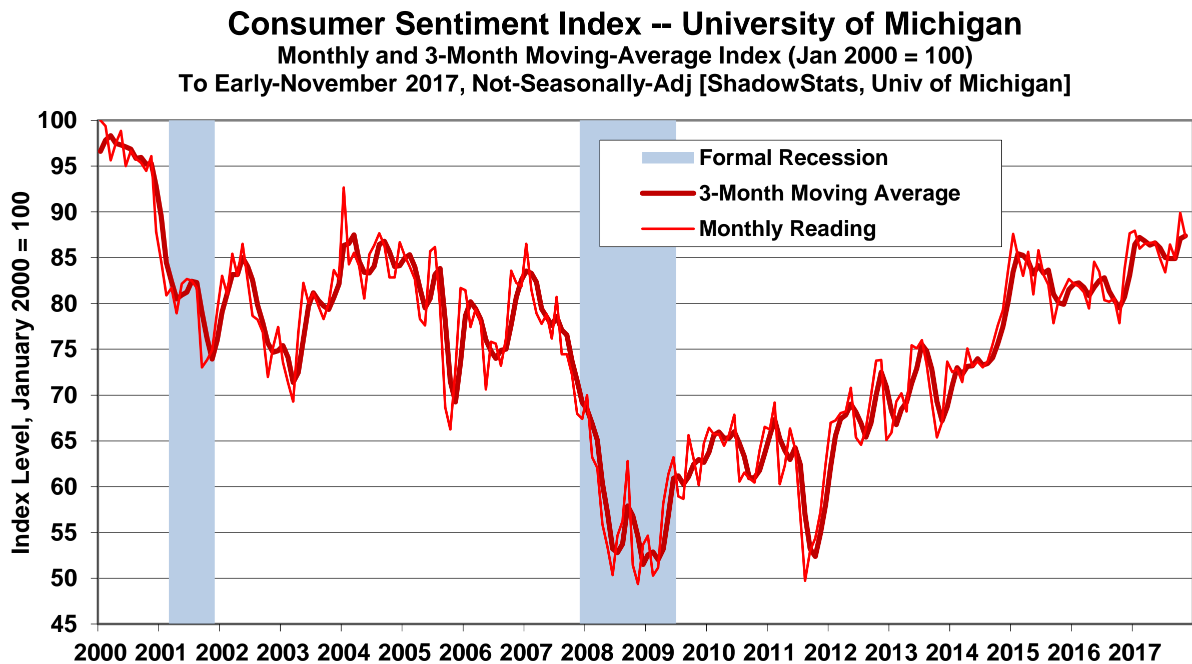
Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and for third-quarter 2016 and into third-quarter 2017. Beyond having

happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

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



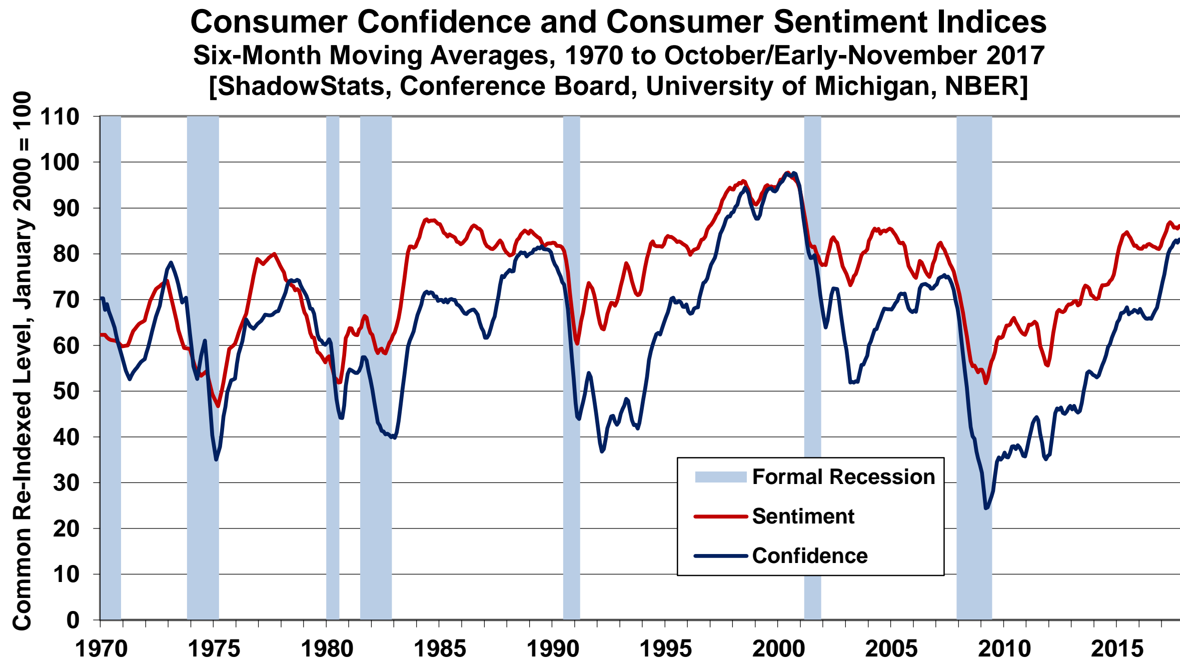
Graph CLW-2: Consumer Sentiment (2000 to 2017)



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 they appear to be topping out.

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

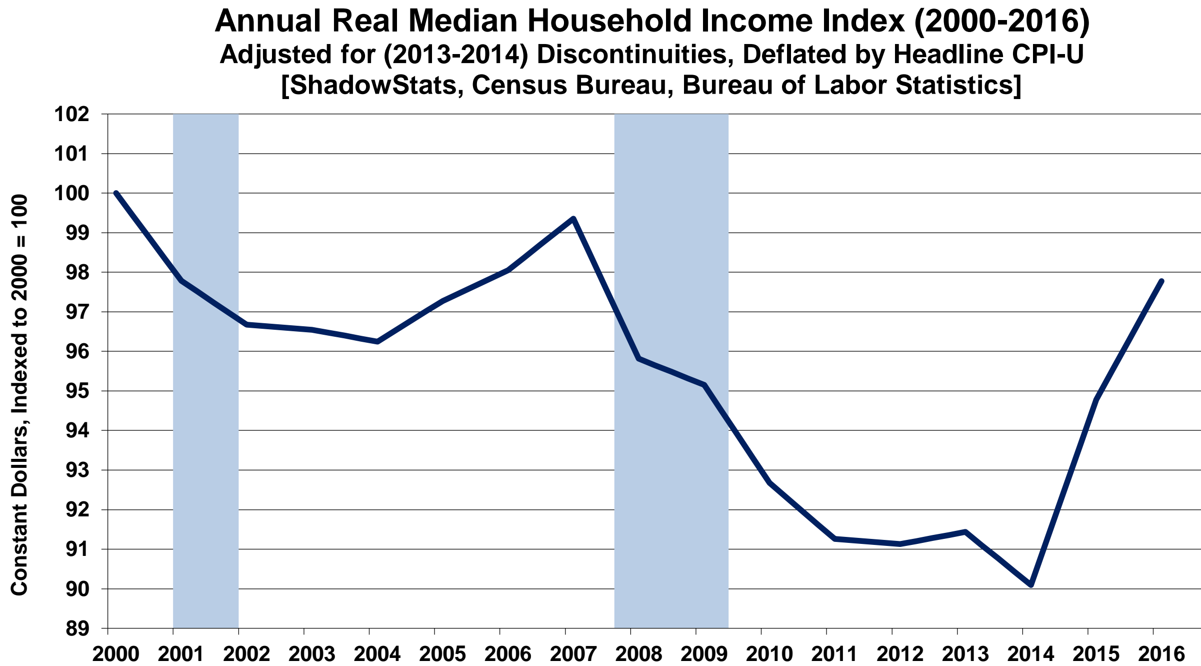


2016 Annual Real Median Household Income Still Was Below Its 2007 Pre-Recession High, Below Activity in the Late-1990s, About Even with the Mid-1970s. The measure of real monthly median household income, which has been provided by www.SentierResearch.com, generally can be considered as a monthly version of the annual detail shown in *Graph CLW-4*, based on the annual detail recently released by the Census Bureau and as discussed the *Opening Comments* of *Commentary No. 909*. The 3.16% headline gain in 2016 real annual median household income for 2016 left the level of income not only below that seen at the purported pre-recession peak of 2007, but also below levels seen in the late-1990s, and minimally above activity see in the mid-1970s (see *Graph OC-1* in *No. 909*). The Sentier details, as far as they go, from January 2000 to May 2017, suggested annual real median income was on track for further increase in 2017, having also indicated the 2015 and 2016 annual increases.

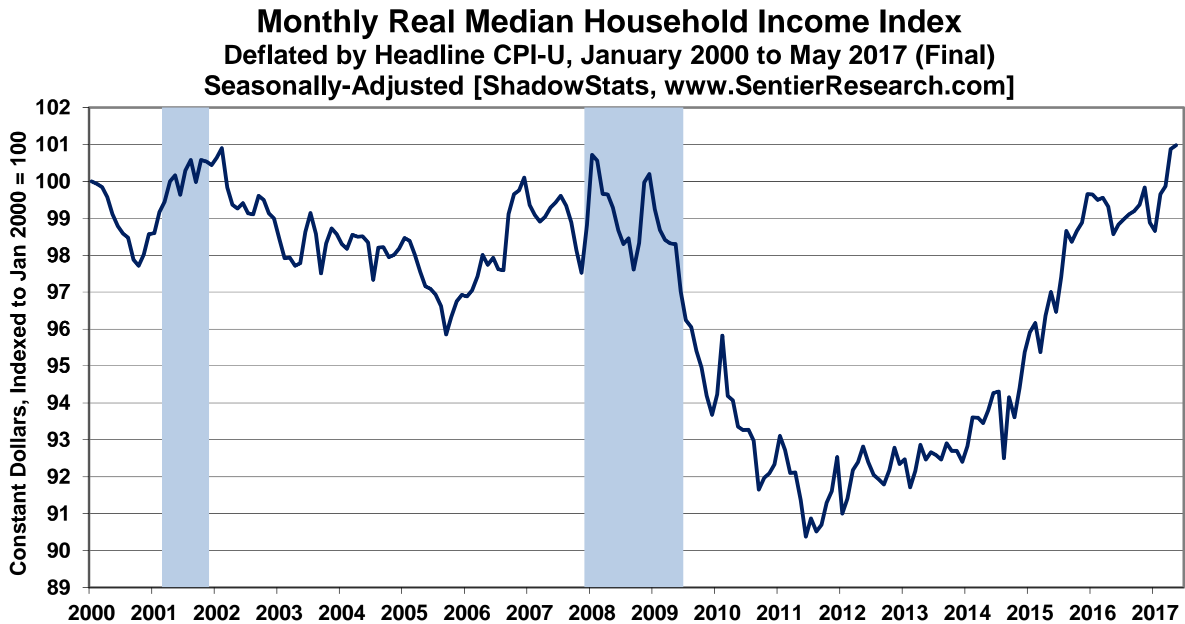
Last Monthly Estimate Showed Stagnating Monthly Real Growth. As last reported by Sentier Research, May 2017 Real Median Household Income was statistically unchanged, despite a boost from falling gasoline prices. Discussed in *General Commentary No. 894*, and in the contexts of then-faltering gains in 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*). The May detail, however, may have been the final reporting of the monthly series (see the *Special Note* that follows).

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

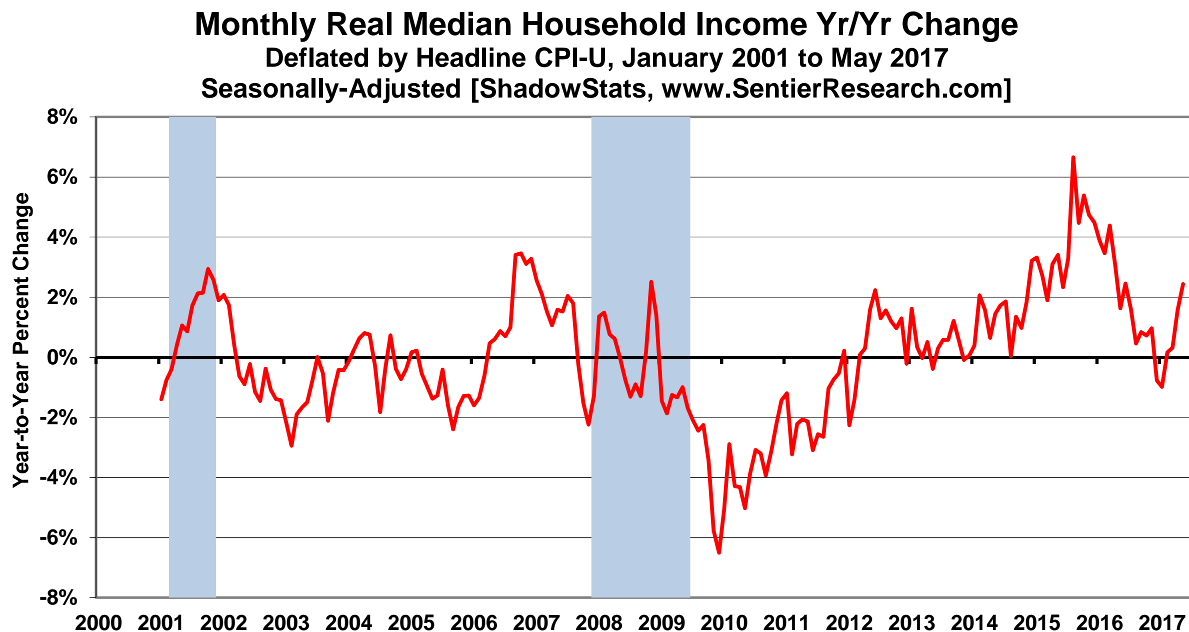


Graph CLW-5: Monthly Real Median Household Income (2000 to 2017) Index, January 2000 = 100



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.

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



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.

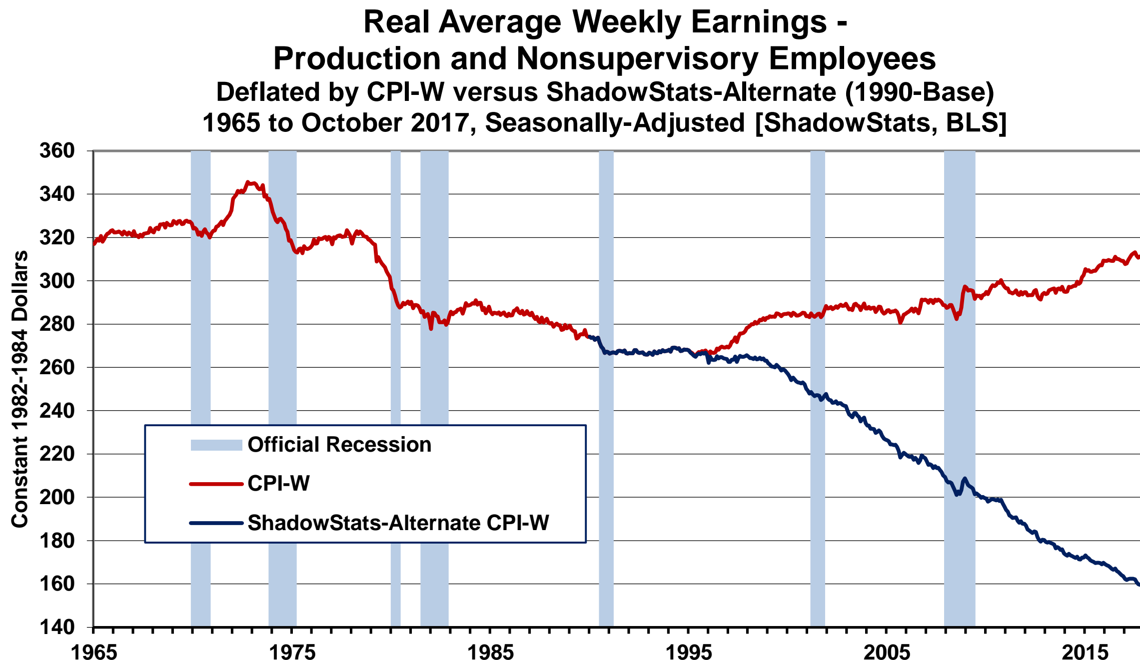
Where Sentier used monthly questions surveying current annual household income, the headline annual Census Bureau detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent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

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

ShadowStats hopes a circumstance will unfold that enables continued 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 and have a unique understanding of the underlying monthly data. The Census Bureau publishes a broadly-similar series on an annual basis, but with an extraordinary time lag. The 2016 Census annual detail is due for release and publication in September 2017. Again, see *Commentary No. 833* for the 2015 detail published in 2016.

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



Real Average Weekly Earnings—October 2007—Month-to-Month Real Earnings Notched Higher, Third-Quarter Still Showing Flat/Minimal Contraction, Early Fourth-Quarter Trend Negative. For the production and nonsupervisory employees category—the only series for which there is a meaningful history (see the full discussion on in the *Reporting Detail* of *Commentary No. 920*), the regularly-volatile,

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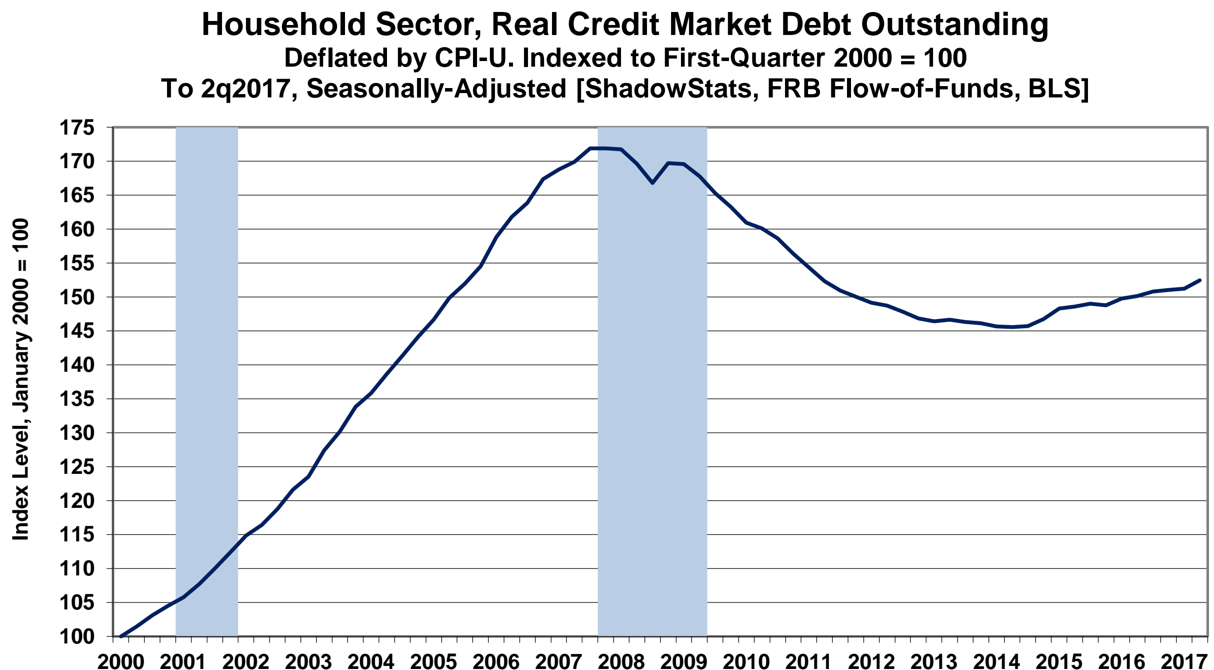
real average weekly earnings rose month-to-month in October 2017 with a small quarterly contraction already in place for in third-quarter 2017 activity, and a deepening quarterly contraction unfolding in the early-trend for fourth-quarter 2017.

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.

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.

Graph CLW-8: Household Sector, Real Credit Market Debt Outstanding (2000 through Second-Quarter 2017)



Consider *Graph CLW-8* 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 second-quarter 2017, released on September 21st. Household Sector, Real Credit Market Debt Outstanding in second-quarter 2017 still was down by 11.3% (-11.3%) from its pre-recession peak of third-quarter 2007. That was against an initial first-quarter 2017 decline of 11.5% (-11.5%), recently revised to 11.3% (-11.3%). The visual uptick in the latest point in *Graph CLW-8* resulted from a lowered

estimate of first-quarter activity (consumer credit revised lower by more than the upside revision mortgages), with the headline second-quarter inflation-adjusted level of activity boosted by a relatively-rare, annualized quarterly contraction in the seasonally-adjusted second-quarter CPI-U.

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. Current activity also has reflected continued relative strength from student loans, as shown in the *Graphs CLW-9* to *CLW-11*.

The ShadowStats analysis usually focuses on the particular current 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 graphs are so plotted.

Shown through the September 2017 reporting, *Graph CLW-9* of monthly Consumer Credit Outstanding is a subcomponent of *Graph CLW-8* on real Household Sector debt. Where *Graph CLW-9* reflects the nominal reporting, not adjusted for inflation, inflation-adjusted real activity for monthly Consumer Credit Outstanding is shown in terms of both level (Graph CLW-10) and year-to-year change (*Graph CLW-11*).

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 September 2017 was down from its December 2007 pre-recession peak by 15.2% (-15.2%) [that previously had been down by 12.3% (-12.3%) in June 2017, before a recent downside revision to the last five years of activity]. Year-to-year real growth shown in *Graph CLW-11* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

[Graphs CLW-9 to CLW-11 begin on the next page.]

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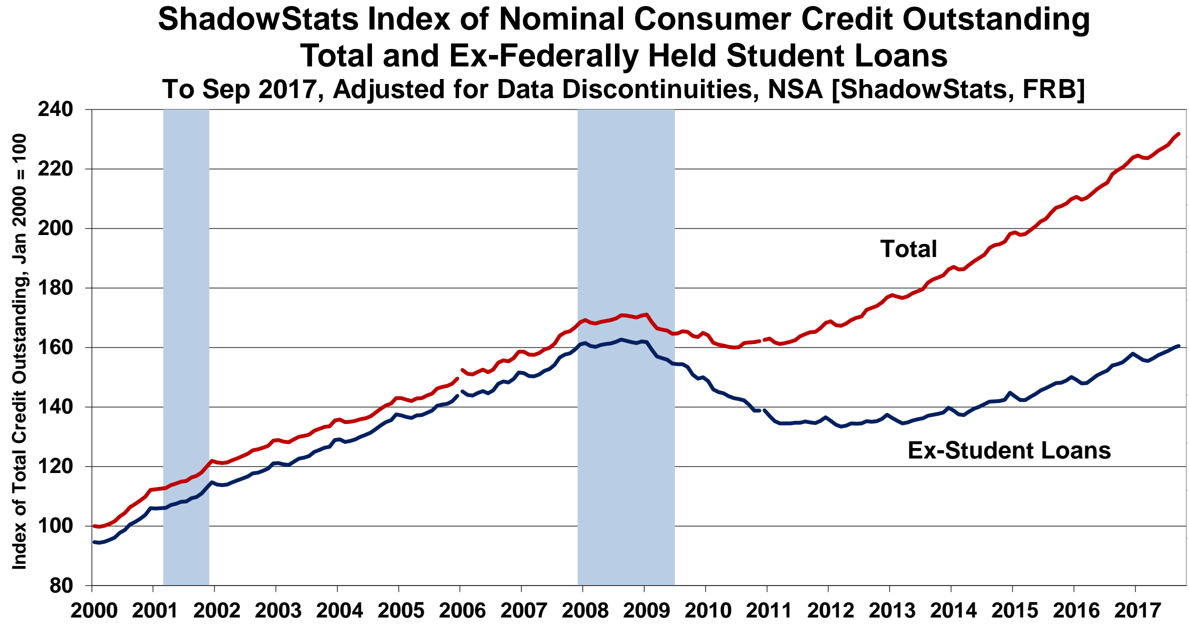
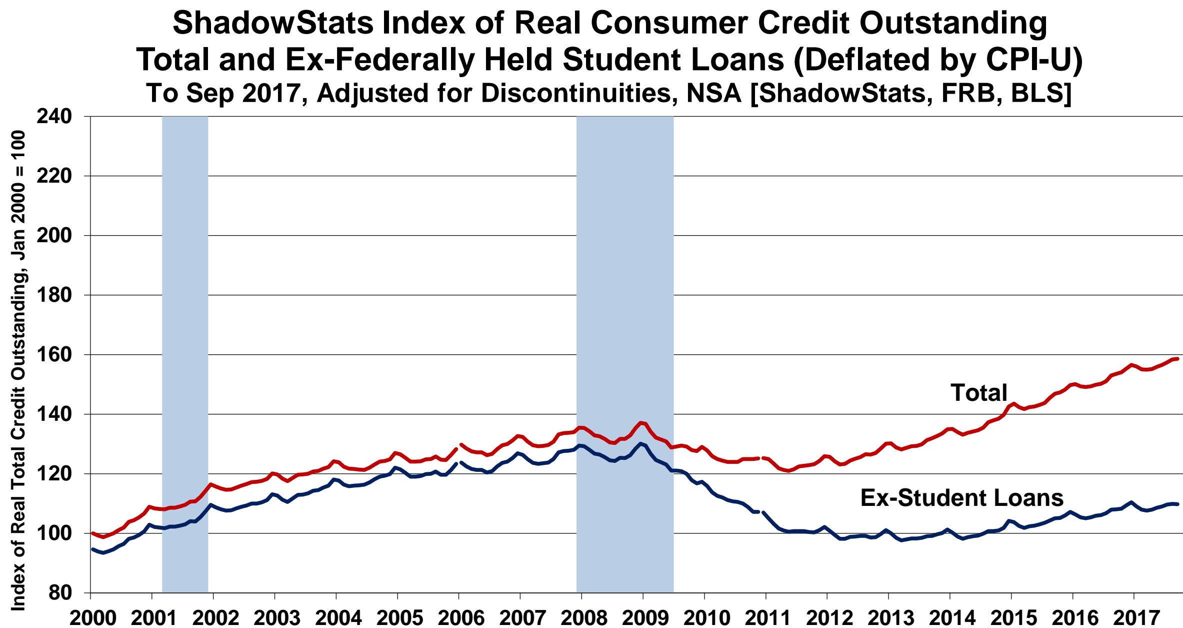
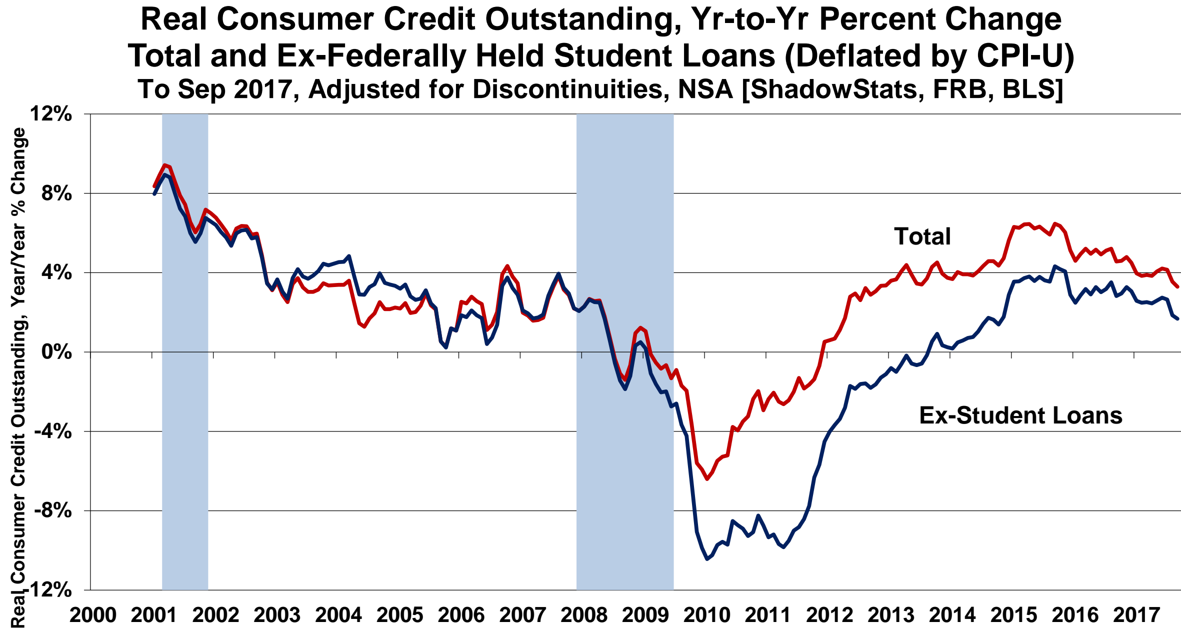
Graph CLW-9: Nominal Consumer Credit Outstanding (2000 to 2017)



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



Graph CLW-11: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2017)



WEEK, MONTH AND YEAR AHEAD

Economic and Financial-Market Outlooks Continue to Darken; Deteriorating Domestic and Global Political Circumstances Continue. Irrespective of continued nonsense reporting of the GDP and extreme hurricane-related distortions to recent household-survey employment and unemployment detail, more-substantive economic reporting continues to show the broad U.S. economy in near-term, deteriorating non-expansion. The financial markets remain at extraordinarily-high risk of panicked declines. Holding physical gold and silver remain the ultimate hedges—stores of wealth—for preserving purchasing power of one's assets, in the context of liquidity and portability, as discussed in the November 15th *Hyperinflation Watch* of Commentary No. 920, which speaks for itself. Brief references to other recent *Hyperinflation Watch* and *Special Comments* follow.

Other than for the *Pending Releases* paragraphs and updated links, language changes here from the prior *Commentary* are minimal. Please call (707) 763-5786, if you would like to discuss current circumstances, or otherwise. *Best wishes – John Williams*

***Recent* Hyperinflation Watch *and* Special Comments.** Previous background to the markets and potential near-term FOMC activity have been reviewed recently in the *Hyperinflation Watch* of *Special Commentary No. 918-B* of October 30th, with the nomination for the new Fed Chairman, touched upon in the *Hyperinflation Watch* *Commentary No. 919-A* of November 3rd.

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 unresolved problem for the Fed, and it continues as one of the ongoing primary issues preventing the

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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.

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. 920 (November 15th) reviewed October 2017 Retail Sales along with the monthly Consumer and Producer Price Indices (CPI and PPI) and update *Hyperinflation Watch*.

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*.

Advance Commentary No. 918-A (October 27th) provided a brief summary of the headline detail of the first or "advance" estimate of third-quarter 2017 GDP.

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. 914 (October 5th) reviewed the August 2017 Trade Deficit and Construction Spending, along with September 2017 detail on the The Conference Board Help Wanted OnLine® Advertising for August 2017, in the context of disruptions from hurricanes.

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. 912 (September 27th) reviewed likely impact on economic reporting from the so-far, highly destructive hurricane season. Headline details of August New- and Existing-Home Sales and New Orders for Durable Goods were covered.

Commentary No. 911 (September 19th) covered detail on August New Residential Construction, including monthly Building Permits and Housing starts, and the August Cass Freight Index™.

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.

Advance Commentary No. 908-A (September 1st) provided summary coverage of the headline reporting on August 2017 Labor and Monetary conditions and July 2017 Construction Spending.

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).

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.

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

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

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

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

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

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

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

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

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

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

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

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

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*.

PENDING ECONOMIC RELEASES: Existing-Home Sales (October 2017). Reporting of **October** 2017 Existing-Home Sales is due for release on Tuesday, November 21st, from the National Association of Realtors (NAR), and it will be covered in *Commentary No. 922* of November 22nd. *[The release of October 2017 New-Home Sales from the Census Bureau is scheduled for Monday, November 27th, and will be covered in* Commentary No. 923 *of November 29th.]*

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.

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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 remain in play for the Existing-Home Sales series.

New Orders for Durable Goods (October 2017). The Census Bureau will report October New Orders for Durable Goods on Wednesday, November 22nd, to be covered in *Commentary No. 922* of that date. Net of irregular activity in commercial aircraft orders, aggregate orders likely continued a pattern of down-trending real stagnation, albeit with some likely, 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 should be some related boost to orders activity in October.

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.

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 in October. Monthly inflation for October 2017 was 0.41%, following 0.06% monthly inflation gains in both September and August, while year-to-year annual inflation rose to 1.86% in October 2017, versus 1.74% in September 2017 and 1.56% in August 2017 (see *Commentary No. 920*).

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