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

COMMENTARY NUMBER 832
August Production, Retail Sales, PPI

September 15, 2016

August Sales and Production Showed an Intensifying, Renewed Downturn

Before Inflation Adjustment, August Retail Sales Declined in All Major Sectors, with Sharply Slowing Annual Growth

Nominal Sales Decline Would Have Been Twice as Deep but for Boosts from Seasonal-Adjustment Inconsistencies and Distortions

Although August Production Suffered Major Monthly and Annual Hits, Oil and Gas Exploration and Extraction May Have Stopped Hemorrhaging

With Industrial Production Representing 65% of GDP, Production and Manufacturing Were Down Respectively in August 2016 by 1.26% (-1.26%) and 6.41% (-6.41%) from Their Pre-2007 Recession Highs

Four Consecutive Quarters of Annual Contraction in Production Are Unprecedented Outside of Formal Recessions

Although Boosted by Collapsing Gasoline Prices and Survey Changes, Annual 2015 Real Median-Household Income Remained Shy of Its Level at the 2009 Trough of the Economic Collapse

August Final Demand PPI Was Unchanged at 0.00%; Services Margins Increased 0.09%; Goods Prices Fell 0.37% (-0.37%); Construction Inflation Was Unchanged at 0.00%

PLEASE NOTE: The next regular Commentary*, scheduled for tomorrow, Friday, September 16th will cover the August Consumer Price Index (CPI), real Retail Sales and Earnings, as well as fully updated Consumer Liquidity Conditions, encompassing the just-released* 2015 Poverty Survey *and related annual income detail from the Census Bureau, as well as tomorrow's second-quarter 2016 Flow-of-Funds accounting from the Federal Reserve, and the regular monthly graphs and discussion on gold and the U.S. dollar. Given the amount of new data,* Commentary No. 833 *likely run overnight, to September 17th.*

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

No Economic Boom or Recovery Here. Despite happy headlines of booming, real median household annual income in 2015, the headline real-income spike reflected severely negative inflation pressures from collapsing gasoline prices, spiking headline line "real" or inflation-adjusted growth. It also reflected upside biases to income reporting from new survey questions. Where the annual income detail broadly tracked the monthly detail published by www.SentierResearch.com (also spiked temporarily by collapsing gasoline prices), the headline monthly detail has turned lower and is stagnating again. Separately, as will be shown in the full update to consumer liquidity conditions in the pending *Commentary No. 833*, headline 2015 real median household income did not to rise to the level seen at the purported trough of the economic collapse in 2009, and it remained below levels seen in the early-1970s and late-1980s.

Nothing in Today's Headline Economic Detail to Push the FOMC into a Rate Hike. To the extent that the FOMC remains tied to any economic standards that would pre-condition a shift in monetary policy, the headline August nominal retail sales generally came in below expectations, signaling a weaker, not stronger economy ahead. In particular, the Fed's own industrial production series confirmed ongoing non-recovery from the 2007 recession and an intensified downturn in near-term economic activity. More will follow on the FOMC in the next *Commentary*. See *Commentary No. 829* and *Commentary No. 831* for the most recent discussions on FOMC considerations.

Today's *Commentary* (September 15th). The balance of these *Opening Comments* provides summary detail of the August nominal Retail Sales and Industrial Production.

The *Week and Month Ahead* section reviews the CPI-U and real Retail Sales reporting for tomorrow.

Industrial Production—August 2016—Four Consecutive Quarters of Annual Contraction Now Virtually Assured; Never Seen Outside of a Formal Recession. Despite some fluff in last month's headline July detail, the August production numbers confirmed ongoing non-recovery from the 2007 recession and an intensified downturn in near-term economic activity. Internally, aggregate monthly revisions largely reflected relatively-meaningless stronger utilities activity offsetting otherwise meaningful, weaker manufacturing.

One positive note for the production series came from the mining sector. The relative, near-term stability of oil prices—off near-term lows—apparently has stemmed the hemorrhaging of productive activity in oil and gas exploration and extraction (see the discussion and later *Graphs 18* to *20* in the *Reporting Detail*). Separately, where coal production had collapsed in recent months, under the weight of an antagonistic Administration, what appeared as a short-term respite may indeed prove to have been short-lived (see *Graph 17* in the *Reporting Detail*).

With the twelfth consecutive month of year-to-year decline in production activity—65% of Gross Domestic Product (GDP) as estimated by the surveying Federal Reserve—the economy remains in a recession that began somewhat before 2007. This is irrespective of the happy hype out of the Bureau of Economic Analysis (BEA), which guesstimates the headline GDP series. As of the July 29th GDP benchmarking (see *Commentary No. 823*), the BEA had taken to "smoothing" the business cycle, presumably to eliminate those occasional and politically-inconvenient dips in real (inflation-adjusted) broad economic activity.

Noted last month (*Commentary No. 826*), in its present incarnation, industrial production hit its pre-recession peak of 105.729 (2012=100) in November 2007, plummeting thereafter in the unfolding economic collapse into mid-2009. Coming into the 2015 benchmark revisions to the series, industrial production formally had recovered its pre-recession high as of October 2013. Coming out of the 2015 production benchmarking, the "recovery" had been revised to a later date, March 2014, but with subsequent production still holding above the recovery level.

The 2016 industrial-production benchmarking (see *No. 796-A*), moved the production recovery to an even later November 2014, with a still fortuitous monthly spike of 1.0% in that month. Yet, the level of November 2014 activity—the recovery level at present—also became the historical peak in production activity. That one-month "recovery" was followed by continual monthly declines (the onset of likely timing for the new recession), so that production had dropped back below its pre-recession high as of March 2015.

As of the headline August 2016 detail, Industrial Production at 104.402, stood below its formal pre-recession high by 1.26% (-1.26%) and was down by 2.14% (-2.14%) from its one-month "recovery" peak level of November 2014. The series did not have subsequent, positive monthly growth until it dropped again below the pre-recession high, and it never has had a subsequent rebound into "recovery" territory. The dominant manufacturing sector (78.5% of Industrial Production, 51.0% of GDP) never even recovered its pre-recession high, in the current series. As of August 2016 detail, manufacturing was down by 6.41% (-6.41%) from its pre-2007 recession peak.

An overriding issue that has continued to stymie policies of the Fed is that the U.S. economy never really recovered from the "2007 Recession." The unfolding "new" downturn remains no more than another down-leg in an economic collapse that began to show itself in 2005 and 2006. In the post-benchmark revision era for Industrial Production, the headline series, again, recovered its pre-recession high only in November 2014, and it has been in fairly-consistent decline ever since, falling month-to-month in 15 out of 20 subsequent months.

Headline Industrial Production—August 2016. In the context of upside revisions to the level of June 2016 production activity, but with the aggregate level of July 2016 activity effectively unchanged, August 2016 headline Industrial Production contracted month-to-month by 0.43% (-0.43%). That was against a downwardly-revised 0.56% gain in July, an upwardly-revised 0.52% gain in June and a minimally-revised monthly contraction in May of 0.17% (-0.17%). Net of prior-period revisions, August 2016 production declined by 0.49% (-0.49%), instead of the headline 0.43% (-0.43%).

The revisions to June reflected continued downside changes to manufacturing and upside revisions to utilities and mining, with mining and manufacturing both revising lower in July, in conjunction with an offsetting upside revision to utilities. The games with utility-usage revisions offsetting declines in other areas mask underlying weakness with short-term volatility. The utility details are subject to unusual swings from unseasonable weather patterns and tend to smooth out with later revisions to the seasonal adjustments.

Detailed by major industry group (see *Graphs 5*, *7*, *12* and *14* in the *Reporting Detail*), the headline August 2016 monthly aggregate production decline of 0.43% (-0.43%) [a July gain of 0.56%] was composed of a monthly August contraction of 0.44% (-0.44%) [a July gain of 0.38%] in manufacturing activity; an August gain of 1.04% [a July gain of 0.20%] in mining activity (including oil and gas production); and an August contraction of 1.42% (-1.42%) [a July gain of 2.12%] in utilities activity.

Year-to-year change in August 2016 industrial production was a decline of 1.11% (-1.11%), the twelfth consecutive monthly year-to-year decline, a circumstance that is unprecedented outside of formal recessions. That followed a revised, somewhat steeper decline of 0.59% (-0.59%) in July 2016, a narrowed annual decline of 0.56% (-0.56%) in June 2016 and a revised, minimally-deeper annual decline in May 2016 of 1.23% (-1.23%).

Quarterly and Annual Production Contractions. Annual growth in aggregate production held in negative territory for the twelfth straight month, again, down by 1.11% (-1.11%) in August 2016, with an solid trend now in place for a fourth consecutive quarter of annual contraction, in third-quarter 2016. In the 98-year history of the industrial production series, two such quarters never have been seen outside of a formal recession, let alone four or more.

Based on just July and August 2016 reporting, third-quarter 2016 industrial production is on track for a year-to-year contraction of 0.78% (-0.78%). In order for annual growth to turn positive for third-quarter 2016, the initial estimate for September 2016 production would have to show a highly unlikely, headline monthly gain in excess of 2.58%, against the current headline reporting for August 2016.

Year-to-year growth rates in quarterly production have continued to slow and then decline, ranging from a positive 2.43% in first-quarter 2015, to 0.36% in second-quarter 2015, to 0.12% in third-quarter 2015, to an annual decline of 1.62% (-1.62%) in fourth-quarter 2015, a minimally-revised annual decline of 1.57% (-1.57%) in first-quarter 2016 and a revised annual contraction of 1.03% (-1.03%) in second-quarter 2016.

Going back a year, first-quarter 2015 industrial production contracted at an annualized quarterly pace of 1.85% (-1.85%), followed by a second-quarter 2015 contraction of 2.75% (-2.75%), with a third-quarter 2015 production gain of 1.53%, followed by a fourth-quarter 2015 contraction of 3.33% (-3.33%). The first-quarter 2016 quarterly decline narrowed minimally in revision to 1.66% (-1.66%), with the second-quarter 2016 quarterly decline narrowing to a revised 0.62% (-0.62%). Based solely on the headline July and August 2016 reporting, third-quarter 2016 activity was on early track for an annualized quarterly gain of 2.57%.

Production Graphs—Corrected and Otherwise—August 2016. The regular graphs of headline production level and annual growth detail are found in the *Reporting Detail* (*Graphs 3* to *6*), along with the drill-down graphs of major subcomponents of the production series (*Graphs 7* to *10*). The level of headline production showed a topping-out process late in 2014, followed by a deepening downturn into first- and second-quarter 2015. Third-quarter 2015 showed some bounce, but activity in fourth-quarter 2015 and in first- and second-quarter 2016 turned down anew, dropping sharply into negative year-to-year growth and quarter-to-quarter growth, patterns never seen outside of what have become designated as formal recessions. Such faltering patterns of monthly, quarterly and annual decline last were seen in the depths of the economic collapse from 2007 into 2009. Headline reporting for July and August 2016 virtually have assured that third-quarter 2016 production also will continue in year-to-year decline, but with an indication still of a quarter-to-quarter gain.

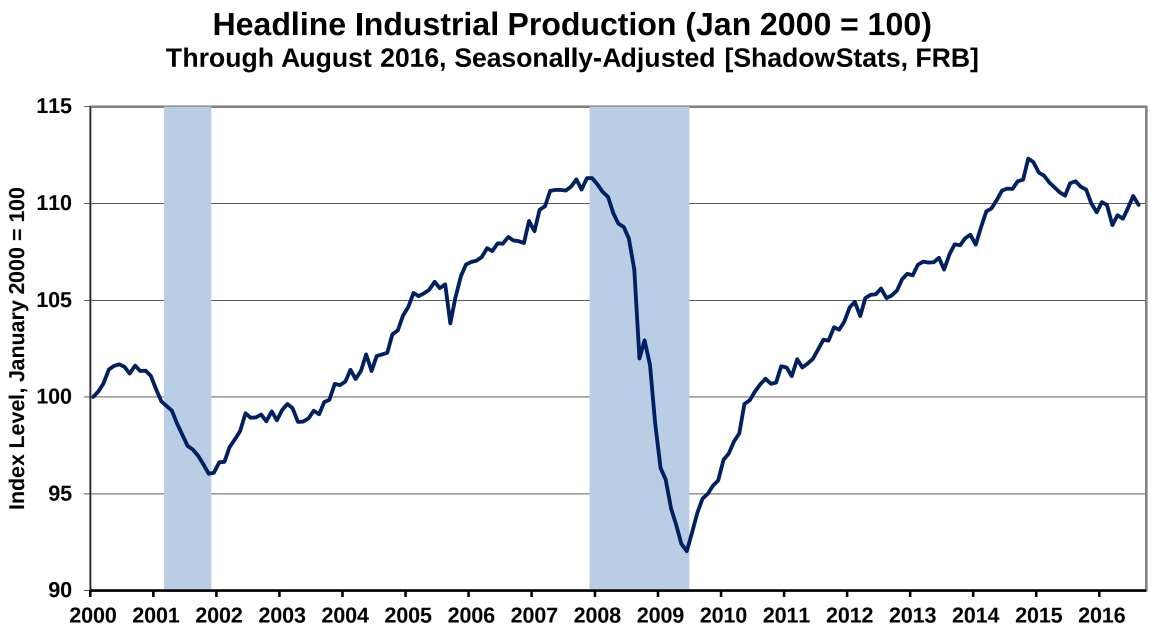
Graphs 1 and *2,* which follow in this section, address reporting quality issues tied just to the overstatement of headline growth in the total series that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into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

Graph 1 shows official, headline industrial production reporting, but indexed to January 2000 = 100, instead of the Fed's formal index that is set at 2012 = 100. The 2000 indexing simply provides for some consistency in the series of revamped "corrected" graphics including real retail sales (see *Commentary No. 826*), new orders for durable goods (see *Commentary No. 827*) and the GDP (see *Commentary No. 828*). It does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of *Graph 1* here to *Graph 5* in the *Reporting Detail* section).

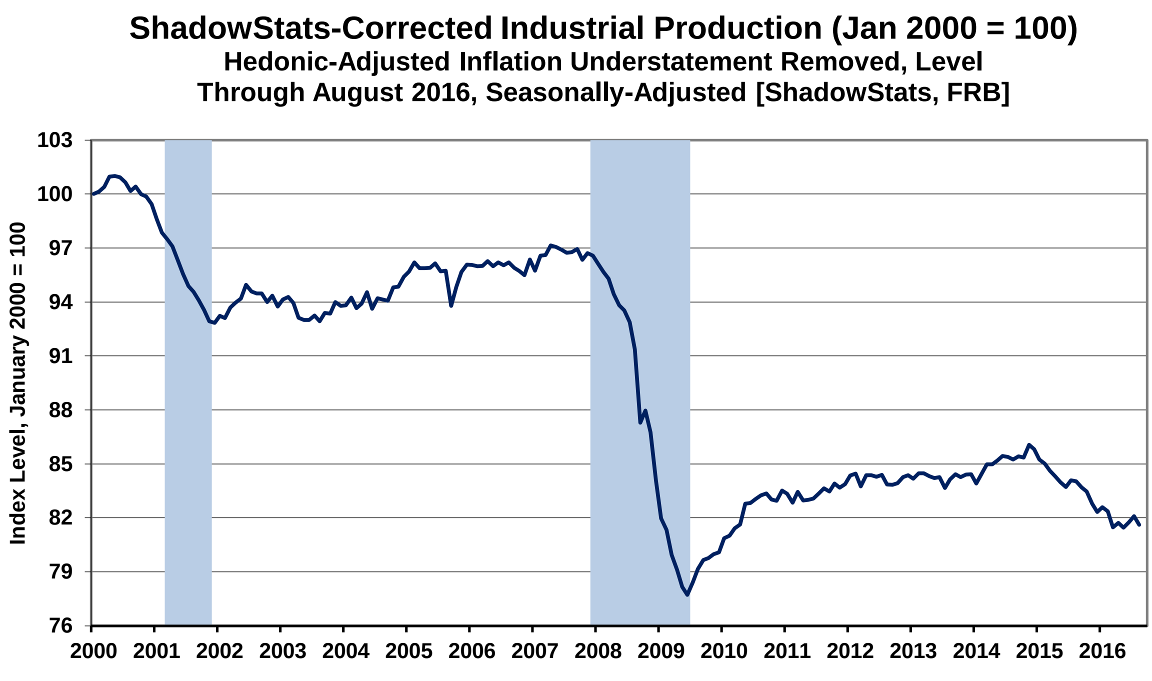
Graph 2 is a recast version of *Graph 1*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official industrial-production deflators used for headline reporting.

[Graphs 1 and 2 are found on the following page]

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



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



This "corrected" *Graph 2* shows some growth in the period subsequent to the official June 2009 trough in production activity, but that upturn has been far shy of the short-lived full recovery and the renewed expansion reported in official GDP estimation (see *Commentary No. 828* and *No. 777 Year-End Special*

Commentary). Unlike the headline industrial production data and the headline GDP numbers, corrected production levels never recovered pre-recession highs, although the aggregate production index now has backed off its one-month "recovery" in November 2014, and the manufacturing sector never recovered fully. Instead, the "corrected" series entered a period of protracted low-level, but up-trending, stagnation in 2010, with irregular quarterly contractions seen through 2014, and an irregular uptrend into 2014, a topping-out in late-2014 and generally turning lower through 2015 and into third-quarter 2016.

Where the corrected series has remained well shy of a formal recovery, both the official and corrected series suffered an outright contraction in both first- and second-quarter 2015; that is a pattern of severe economic weakness last seen during the economic collapse. Despite the brief third-quarter 2015 uptick, headline fourth-quarter 2015 and first- and second-quarter 2016 industrial production have continued in annual and quarter-to-quarter contractions, with third-quarter 2016 activity showing an annual contraction, again, patterns never seen outside of formal recessions.

Nominal Retail Sales—August 2016—Seasonal-Adjustment Inconsistencies Bloated August Sales by 0.3%; Consistent Reporting Would Have Shown a Decline of 0.6% (-0.6%), Not 0.3% (-0.3%). The shifting of concurrent seasonal adjustment factors in the latest headline detail upped the relative growth of August 2016 nominal retail sales, versus the published historical data that otherwise were not revised or reported on a consistent basis. While this issue had been a major, distorting factor in last year's headline month-to-month detail, it had provided minimal distortions since the April 2016 benchmarking of the retail series, until today's headline release of August 2016 sales (see *Seasonal-Factor Distortions Generated Artificially-Less-Negative Headline August Sales ...* in the *Reporting Detail*).

Nominal (Not-Adjusted-for-Inflation) Retail Sales—August 2016. In the context of minimal downside revisions to previously-reported levels of retail sales in June and July 2016, nominal Retail Sales for August 2016 declined by a statistically-insignificant 0.29% (-0.29%), against an upwardly revised, statistically-insignificant gain of 0.06% in July 2016. Net of prior-period revisions, August sales fell by 0.31% (-0.31%).

August 2016 nominal retail sales year-to-year change was a statistically-significant increase of 1.90%, versus an upwardly-revised gain of 2.61% in July 2016.

Real Retail Sales (August 2016). Coincident with the release of the August CPI-U on Friday, September 16th, headline nominal August Retail Sales will be adjusted for inflation and recast as real Retail Sales. That will be covered in tomorrow's *Commentary No. 833* (see discussion in the *Week Ahead* section).

Where headline August CPI-U likely will show a small monthly increase, there is a parallel chance for the monthly real change in August retail sales to deepen from today's headline nominal monthly decline of 0.29% (-0.29%). The pace of annual CPI-U inflation, however, most certainly should remain positive enough to generate a significantly deepened recession signal in historically low-level, annual Real Retail Sales growth.

Producer Price Index (PPI)—August 2016—Goods Inflation Declined by 0.37% (-0.37%); Construction Inflation Was "Unchanged" at 0.00%; Profit Margins in the Dominant Services

Sector Rose by 0.09%; with Aggregate PPI Inflation "Unchanged" at 0.00%. The headline month-to-month "unchanged" August 2016 PPI generally was reflected neither in real world activity, nor in common experience. The same can be said for many of its subcomponents. The full text on the August PPI reporting is found in the *Reporting Detail* section.

[The* Reporting Detail *Contains Significant Additional Graphs and Content on the Production Series, and Added Material on the Retail Sales, and Full PPI Reporting.]

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REPORTING DETAIL

INDEX OF INDUSTRIAL PRODUCTION (August 2016)

Industrial Production—Four Consecutive Quarters of Annual Contraction Now Virtually Assured, Never Seen Outside of Formal Recessions. Despite some fluff in last month's headline July detail, the August production numbers confirmed ongoing non-recovery from the 2007 recession and an intensified downturn in near-term economic activity. Internally, aggregate monthly revisions largely reflected relatively-meaningless stronger utilities offsetting meaningful, weaker manufacturing.

A positive note for the production series came from the mining sector. The relative, near-term stability of oil prices—off near-term lows—apparently has stemmed the hemorrhaging of productive activity in oil and gas exploration and extraction (see later *Graphs 18* to *20*). Separately, where coal production had collapsed in recent months, under the weight of an antagonistic Administration, what appeared as a short-term respite may indeed prove to have been short-lived (see *Graph 17*).

With the twelfth consecutive month of year-to-year decline in production activity—65% of Gross Domestic Product (GDP) as estimated by the surveying Federal Reserve—the economy remains in the recession that began somewhat before 2007. This is irrespective of the happy hype out of the Bureau of Economic Analysis (BEA), which guesstimates the headline GDP series. As of the July 29th GDP benchmarking (see *Commentary No. 823*), the BEA has taken to "smoothing" the business cycle, presumably to eliminate those occasional and politically-inconvenient dips in real (inflation-adjusted) broad economic activity.

Noted last month (*Commentary No. 826*), in its present incarnation, industrial production hit its pre-recession peak of 105.729 (2012=100) in November 2007, plummeting thereafter in the unfolding economic collapse into mid-2009. Coming into the 2015 benchmark revisions to the series, industrial production formally had recovered its pre-recession high as of October 2013. Coming out of the 2015 production benchmarking, the "recovery" had been revised to a later date, March 2014, but with subsequent production still holding above the recovery level.

The 2016 industrial-production benchmarking (see *No. 796-A*), moved the production recovery to an even later November 2014, with a still fortuitous monthly spike of 1.0% in that month. Yet, that level of November 2014 activity—the recovery level at present—also became the historical peak in production activity. That one-month "recovery" was followed by continual monthly declines (the onset of likely timing for the new recession), so that production had dropped back below its pre-recession high as of March 2015.

As of today's headline August 2016 reporting, Industrial Production at 104.402, stood below its formal pre-recession high by 1.26% (-1.26%) and was down by 2.14% (-2.14%) from its one-month "recovery" peak level of November 2014. The series did not have subsequent, positive monthly growth until it dropped again below the pre-recession high, and it never has had a subsequent rebound into "recovery" territory. The dominant manufacturing sector (78.5% of Industrial Production, 51.0% of GDP) never even recovered its pre-recession high, in the current series. As of August 2016, manufacturing was down by 6.41% (-6.41%) from its pre-2007 recession peak.

An overriding issue that has continued to stymie policies of the Fed is that the U.S. economy never really recovered from the "2007 Recession." The unfolding "new" downturn remains no more than another down-leg in an economic collapse that began to show itself in 2005 and 2006 (see *No. 777 Year-End Special Commentary*). In the post-benchmark revision era for Industrial Production, the headline (not the ShadowStats-corrected) series, again, recovered its pre-recession high only in November 2014, and it has been in fairly-consistent monthly decline ever since, falling month-to-month in 15 out of 20 subsequent months.

Headline Industrial Production—August 2016. The Federal Reserve Board released its first estimate of seasonally-adjusted, August 2016 industrial production this morning, September 15th. In the context of upside revisions to the level of June production activity, but with the aggregate level of July 2016 activity effectively unchanged, August 2016 production contracted by 0.43% (-0.43%). That was against a downwardly-revised 0.56% [previously 0.74%] gain in July, an upwardly-revised 0.52% [previously 0.42%, initially 0.60%] gain in June, a minimally-revised monthly contraction in May of 0.17% (-0.17%) [previously down by 0.16% (-0.16%), down by 0.30% (-0.30%) and initially down by 0.42% (-0.42%)].

Net of prior-period revisions, August 2016 production declined by 0.49% (-0.49%), instead of the headline 0.43% (-0.43%).

The revisions to June reflected continued downside changes to manufacturing and upside revisions to utilities and mining, with mining and manufacturing both revising lower in July in conjunction with an offsetting upside revision to utilities. The games with utility-usage revisions offsetting declines in other areas mask underlying weakness with short-term volatility. The utility details are subject to unusual swings from unseasonable weather patterns and tend to smooth out with later revisions to the seasonal adjustments.

Detailed by major industry group (see *Graphs 5*, *7*, *12* and *14*), the headline August 2016 monthly aggregate production decline of 0.43% (-0.43%) [a July gain of 0.56%] was composed of a monthly

August contraction of 0.44% (-0.44%) [a July gain of 0.38%] in manufacturing activity; an August gain of 1.04% [a July gain of 0.20%] in mining activity (including oil and gas production); and an August contraction of 1.42% (-1.42%) [a July gain of 2.12%] in utilities activity.

Year-to-year change in August 2016 industrial production was a decline of 1.11% (-1.11%), the twelfth consecutive monthly year-to-year decline, a circumstance that is unprecedented outside of formal recessions. That followed a revised, somewhat steeper decline of 0.59% (-0.59%) [previously down by 0.53% (-0.53%)] in July 2016, a narrowed annual decline of 0.56% (-0.56%) [previously down by 0.68% (-0.68%), initially down by 0.69% (-0.69%)] in June 2016, and a revised, minimally-deeper annual decline in May 2016 of 1.23% (-1.23%) [previously 1.25% (-1.25%), down by 1.44% (-1.44%), and initially down by 1.40% (-1.40%)].

Quarterly and Annual Production Contractions. Annual growth in aggregate production held in negative territory for the twelfth straight month, again, down by 1.11% (-1.11%) in August 2016, with an solid trend now in place for a fourth, consecutive quarter of annual contraction, in third-quarter 2016. In the 98-year history of the industrial production series, two such quarters never have been seen outside of formal recessions, let alone four or more.

Based on just July and August 2016 reporting, third-quarter 2016 industrial production is on track for a year-to-year contraction of 0.78% (-0.78%). That previously had been estimated at an annual contraction rate of 0.51% (-0.51%), based solely on the initial July estimate. In order for annual growth to turn positive for third-quarter 2016, the initial estimate for September 2016 production would have to show a highly unlikely, headline monthly gain in excess of 2.58%, against the current headline reporting for August 2016.

Year-to-year growth rates in quarterly production have continued to slow and then decline, ranging from a positive 2.43% in first-quarter 2015, to 0.36% in second-quarter 2015, to 0.12% in third-quarter 2015, to an annual decline of 1.62% (-1.62%) in fourth-quarter 2015, a revised annual decline of 1.57% (-1.57%) [previously 1.58% (-1.58%), initially 1.60% (-1.60%)] in first-quarter 2016, and a revised annual contraction of 1.03% (-1.03%) [previously down by 1.09% (-1.09%), initially down by 1.17% (-1.17%)] in second-quarter 2016.

Going back a year, first-quarter 2015 industrial production contracted at an annualized quarterly pace of 1.85% (-1.85%), followed by a second-quarter 2015 contraction of 2.75% (-2.75%), with a third-quarter 2015 production gain of 1.53%, followed by a fourth-quarter 2015 contraction of 3.33% (-3.33%). The first-quarter 2016 quarterly decline narrowed to 1.66% (-1.66%) in revision, [previously down by 1.69% (-1.69%), initially down by 1.80% (-1.80%)], with the second-quarter 2016 quarterly decline narrowing to a revised 0.62% (-0.62%) [previously down by 0.81% (-0.81%), initially down by 1.03% (-1.03%)]. Based solely on the headline July and August 2016 reporting, third-quarter 2016 activity was on early track for an annualized quarterly gain of 2.57%, that was down from an initial estimate of 3.92%, based only on the first estimate of July 2016 activity.

Production Graphs. The regular two sets of plots for long- and short-term industrial production levels and annual growth rates (*Graphs 3* to *6*) set the background for the drill-down detail graphs of various components of the aggregate industrial series (*Graphs 7* to *10*).

Graphs 3 and *4,* and *Graphs 5* and *6* show headline industrial production activity to date. *Graph 4* shows the monthly year-to-year percent change in the aggregate series, in historical context since World War II. With the headline annual decline in monthly production currently at 1.11% (-1.11%) in August 2016, and with headline annual contractions in place for the last twelve months, again, the pattern is one that never has been seen outside of formal recessions.

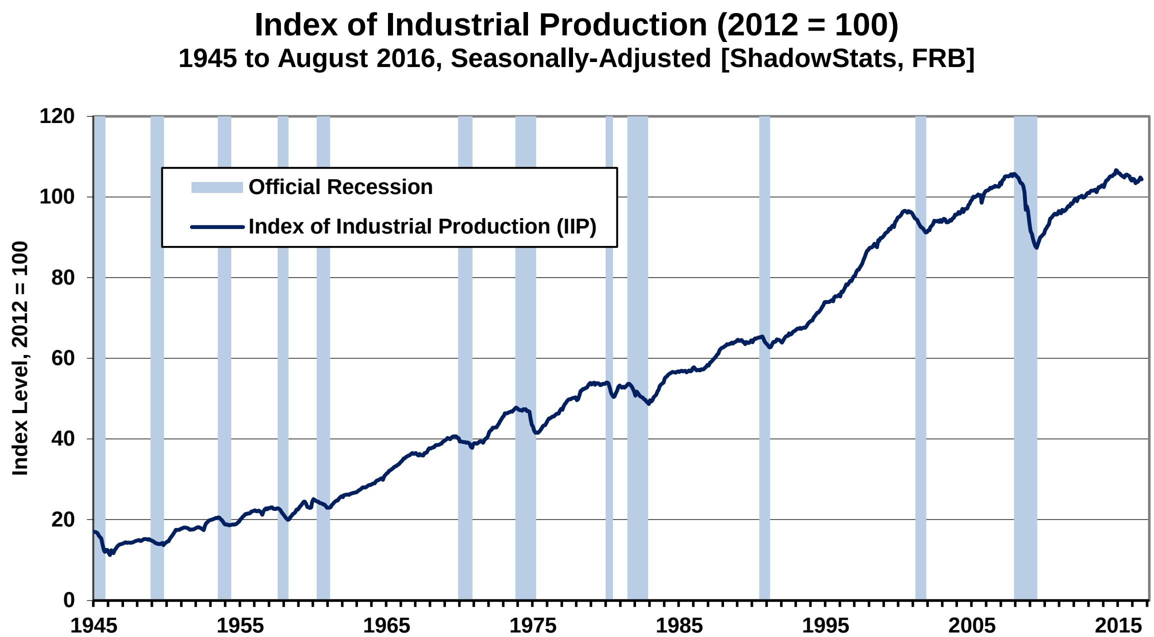
Graph 3 shows the monthly level of the production index post-World War II, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015, with a bounce in third-quarter 2015, followed by renewed and deeper contractions in fourth-quarter 2015 and first- and second-quarter 2016, and a gain in July with a drop in August 2016. Such patterns of monthly, quarterly and annual declines were seen last in the economic collapse into 2009. *Graphs 5* and *6* show the same series in near-term detail, beginning in January 2000.

Seen most clearly in *Graph 6*, the pattern of year-to-year activity dipped anew in 2013, again, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, now turning sharply negative, again, as seen only in formal recessions. Year-to-year growth remains well off the recent relative peak for the series, which was 8.48% in June 2010, going against the official June 2009 trough of the economic collapse. Indeed, as shown in *Graph 4*, the June 2009 (the end of second-quarter 2009) year-to-year contraction of 15.40% (-15.40%) was the steepest annual decline in production since the shutdown of wartime production following World War II.

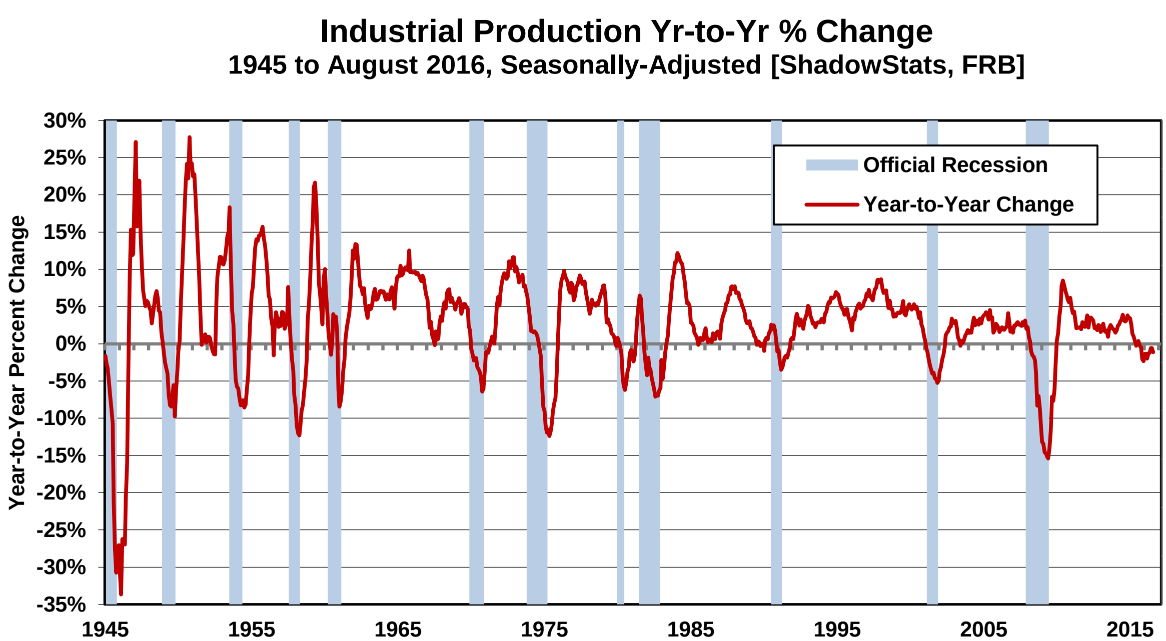
Although generally now-faltering, official production levels had moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Opening Comments* section, *Graph 2*) that series has shown more of a pattern of stagnation with a slow upside trend, since 2009, with irregular quarterly contractions interspersed. The slow uptrend continued into a topping out pattern in late-2014. Headline growth—purportedly already neutered of any inflation impact—contracted in both first- and second-quarter 2015, rallied into third-quarter 2015, then contracted into second-quarter 2016, with an irregular monthly jump in July and pullback in August 2016. The “corrected” series has done the same but remains well shy of ever approaching a recovery.

[Graphs 3 to 8 begin on the following page]

Graph 3: Index of Industrial Production (Aggregate) since 1945

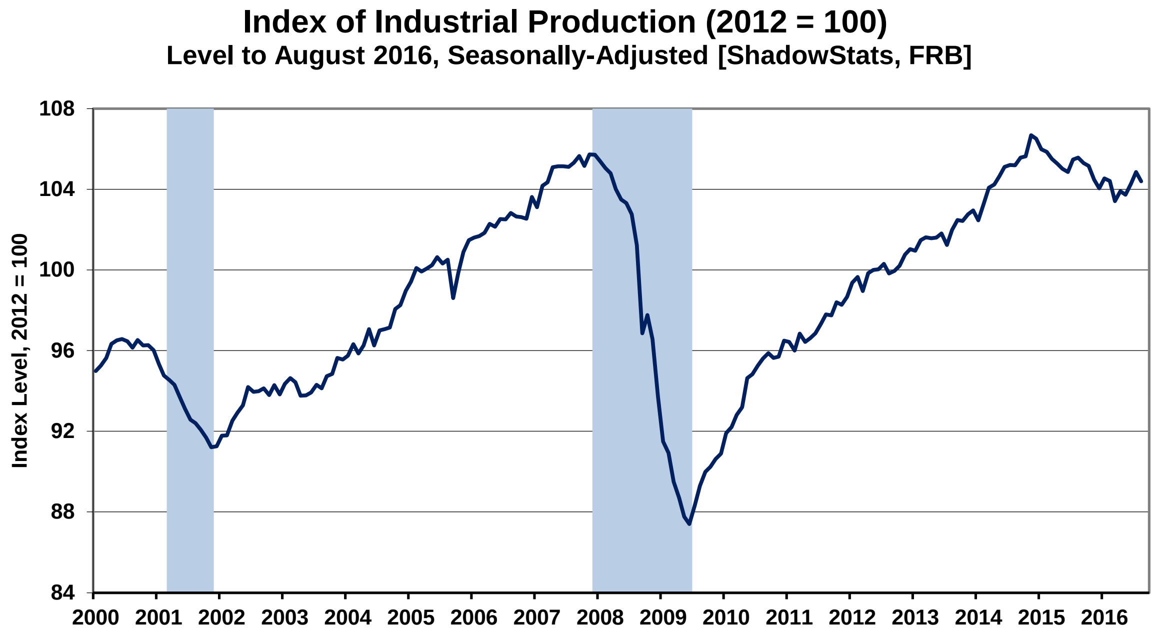


Graph 4: Industrial Production, Year-to-Year Percent Change since 1945

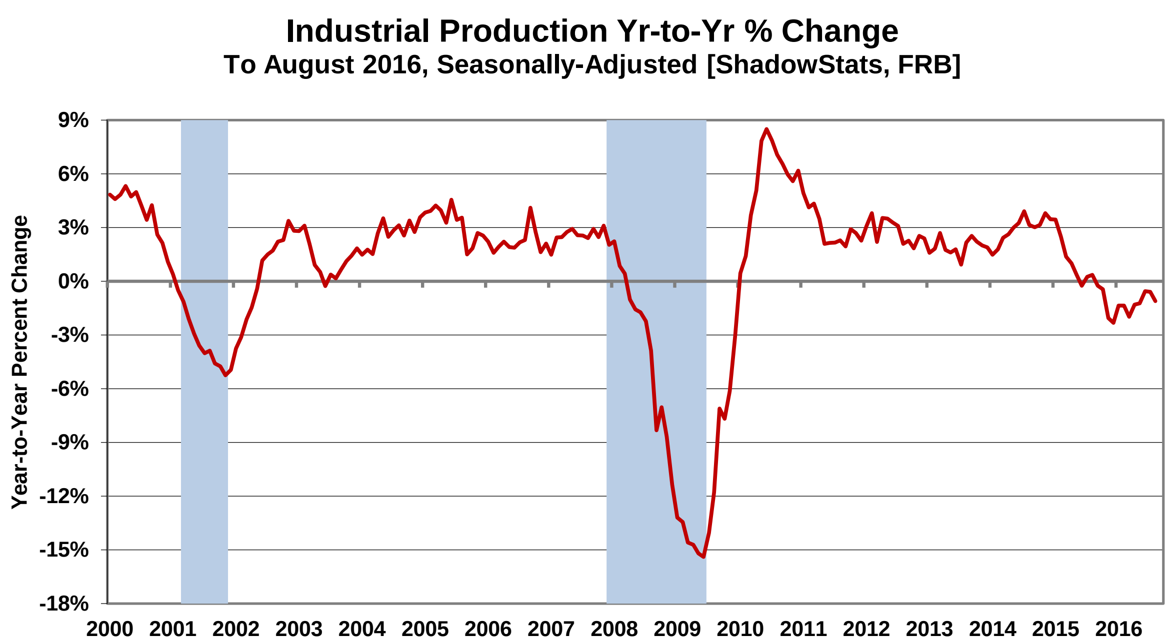


Drilling Down into the August 2016 U.S. Industrial Production Detail. *Graphs 5, 7, 12* and *16* show headline reporting of industrial production and its major components.

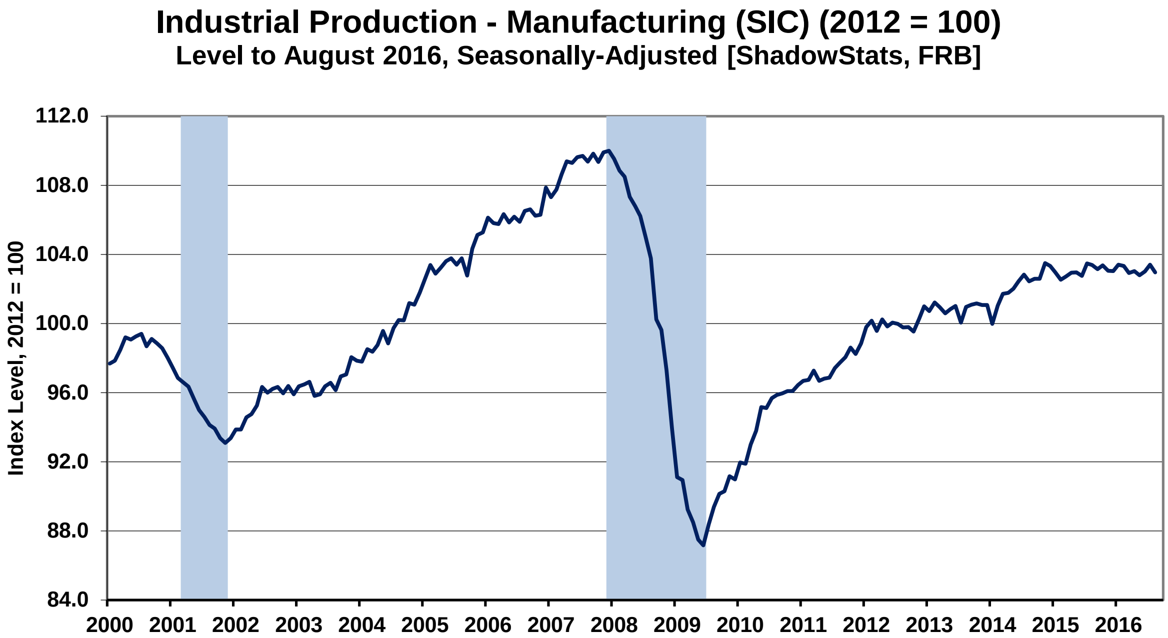
Graph 5: Index of Aggregate Industrial Production since 2000



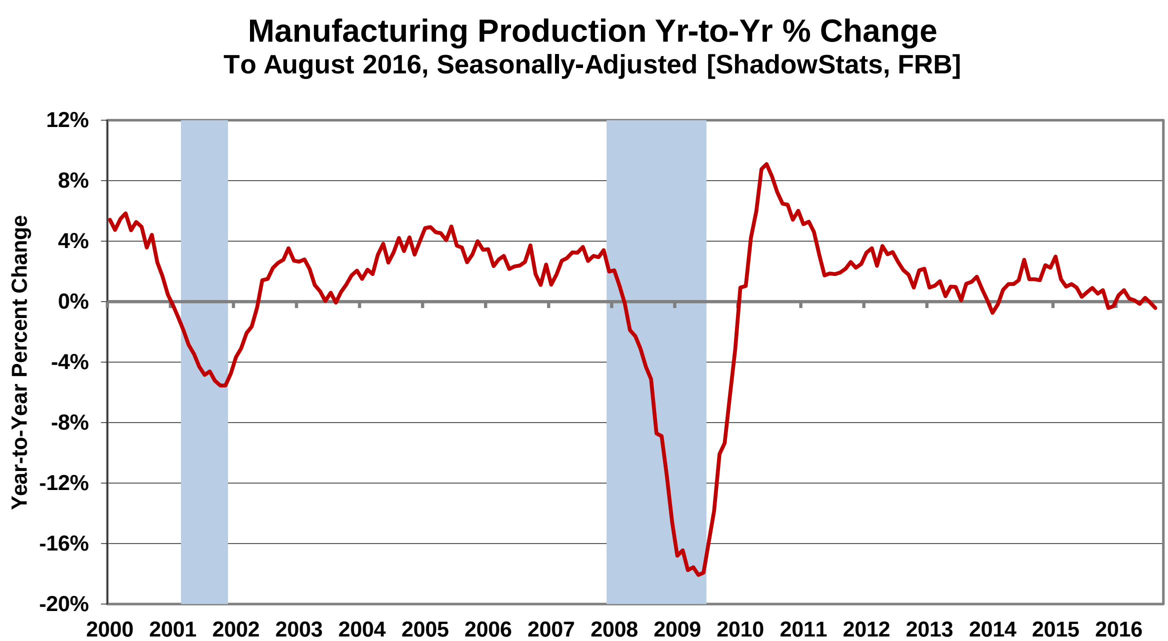
Graph 6: Aggregate Industrial Production, Year-to-Year Percent Change since 2000



Graph 7: Industrial Production - Manufacturing (78.48% of the Aggregate in 2015)



Graph 8: Industrial Production - Manufacturing, Year-to-Year Percent Change Since 2000



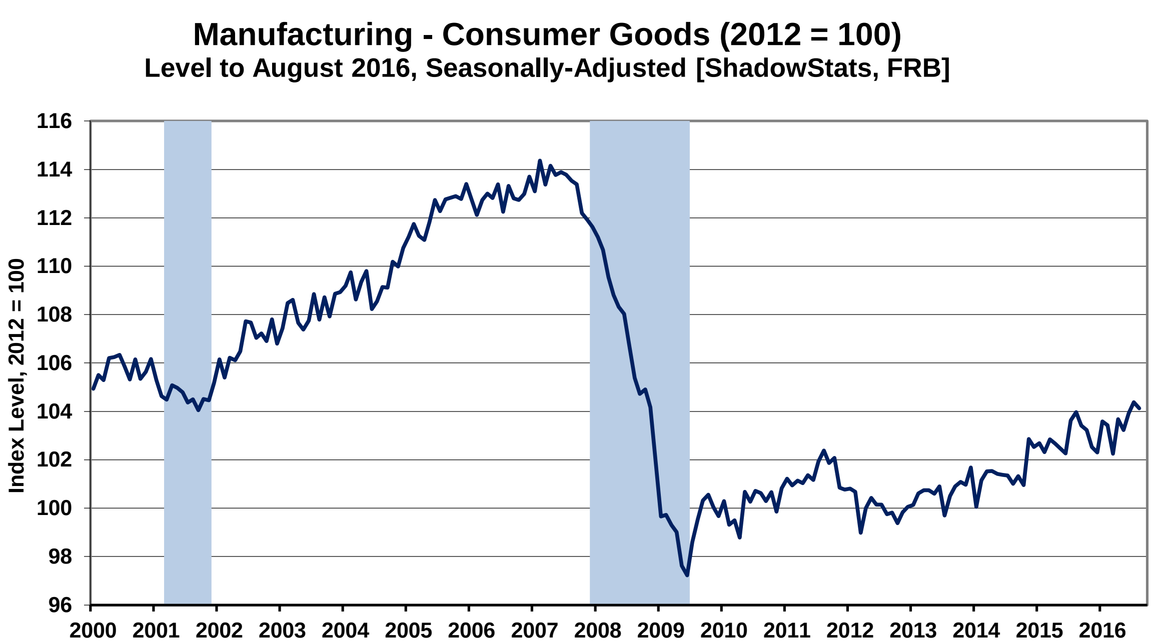
The broad, aggregate index (*Graph 5*) contracted in both first- and second-quarter 2015, with a third-quarter 2015 bounce, followed by ongoing, consecutive quarterly and annual contractions in fourth-quarter 2015, first-quarter 2016 and second-quarter 2016. With third-quarter 2016 set for a fourth consecutive annual contraction, such circumstances simply are not seen outside of recessions, as discussed earlier.

Shown in *Graphs 7*, *12* and *14*, of the three major industry groups, manufacturing, mining and utilities, only mining showed a monthly gain in August 2016 reporting. The manufacturing decline was across the board, although dominated by nondurable goods. Utilities reflected some recoil from recent stronger showings boosted by unseasonable weather (increased air-conditioning usage). The recent gain/stability in mining has reflected some recovery in coal mining, and some apparent stabilization of activity in oil and gas extraction and exploration, likely in response to somewhat-stabilized oil prices.

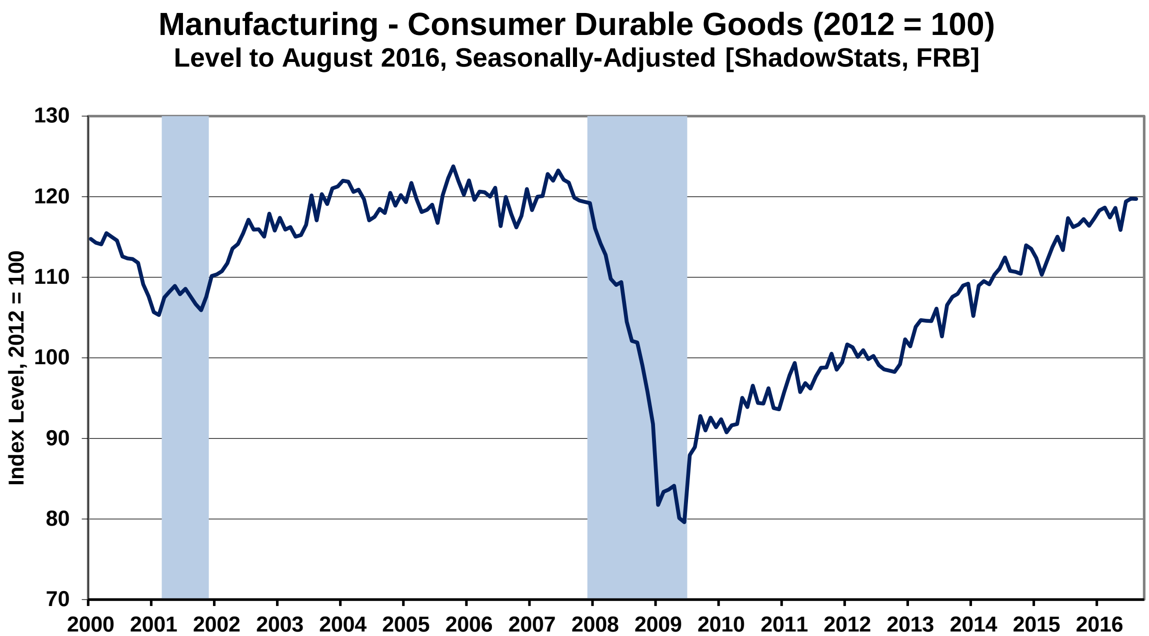
Graph 7 of the dominant manufacturing sector showed a month-to-month contraction of 0.44% (-0.44%) in August 2016, which was a contraction of 0.66% (-0.66%) net of prior-period revisions. The headline detail was against a narrowed monthly gain of 0.38% [previously up by 0.55%] in July. The series remained down by 6.41% (-6.41%) from reclaiming its pre-recession high of December 2007. *Graph 8* reflects annual growth patterns in manufacturing, which had been fluttering at low levels since an initial bounce off the 2009 trough, dropping by 0.42% (-0.42%) August 2016, versus a downwardly revised annual decline of 0.06% (-0.06%) [previously up by 0.15%] in July 2016.

The story with consumer goods generally remained bleak, in line with troubled retail sales, discussed later in this *Commentary*. Seen in *Graphs 9* to *11*, total consumer goods have remained in low-level stagnation since the economic collapse, with all the series showing relative monthly declines in August 2016, down by 0.24% (-0.24%), versus a revised 0.45% [previously 0.58%] gain in July 2016 for total consumer goods; with durables down by 0.04% (-0.04%), versus a downwardly revised gain of 0.32% [previously up by 0.69%]; and nondurables down by 0.31% (-0.31%), versus a downwardly-revised 0.49% [previously up by 0.55%].

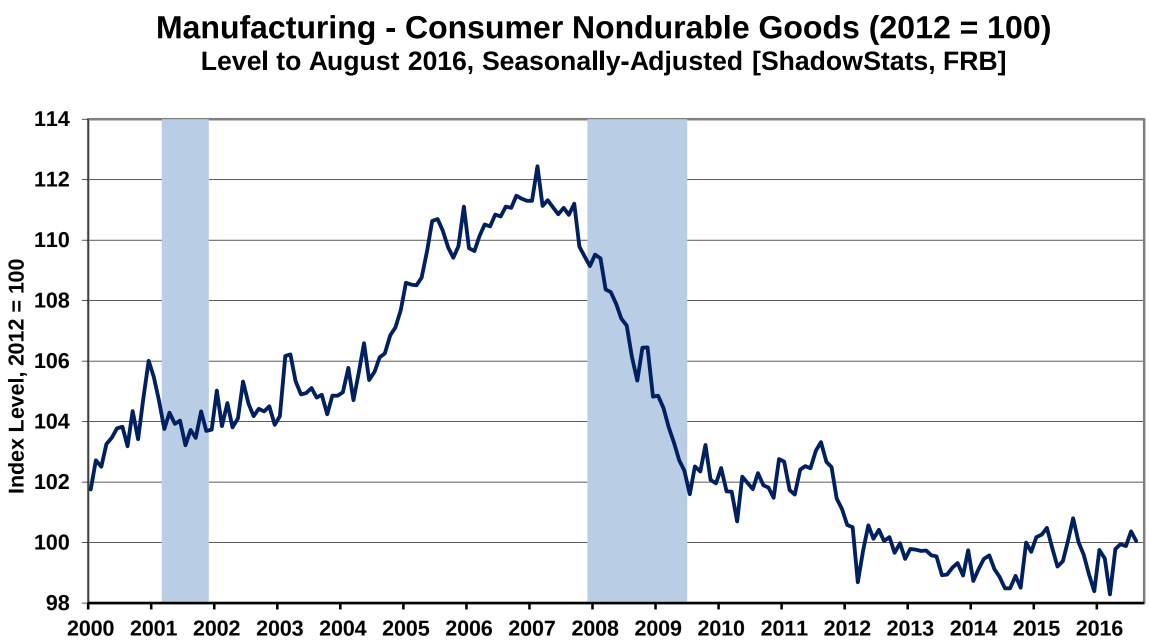
Graph 9: Consumer Goods (27.08% of the Aggregate in 2015)



Graph 10: Durable Consumer Goods (6.36% of the Aggregate in 2015)



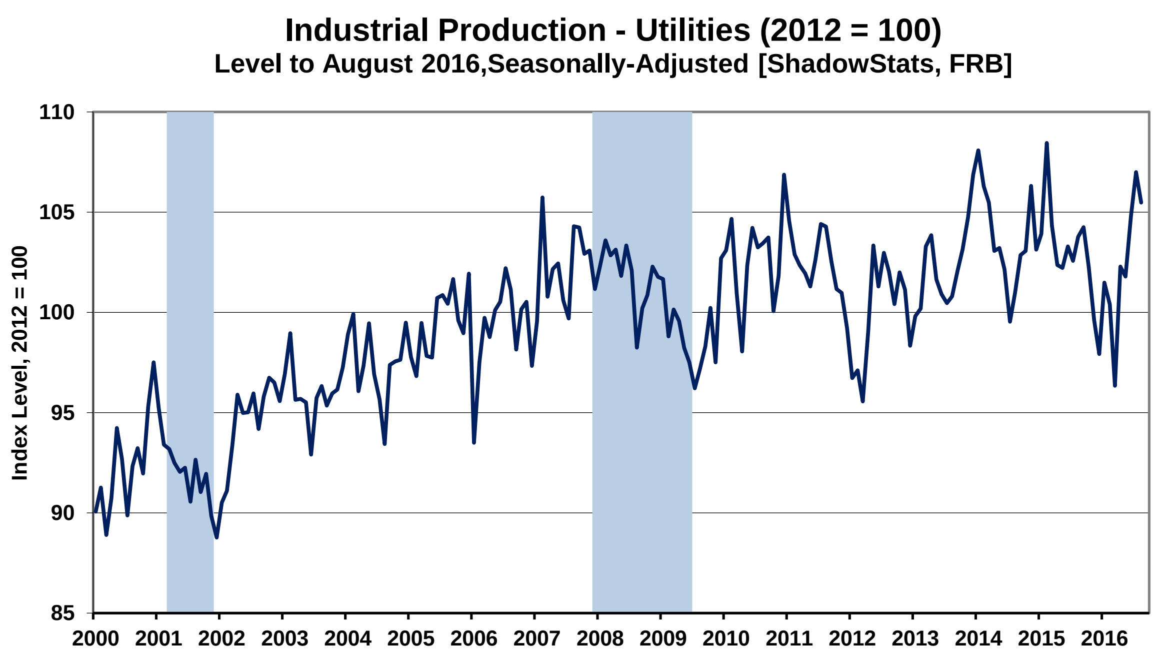
Graph 11: Nondurable Consumer Goods (20.73% of the Aggregate in 2015)



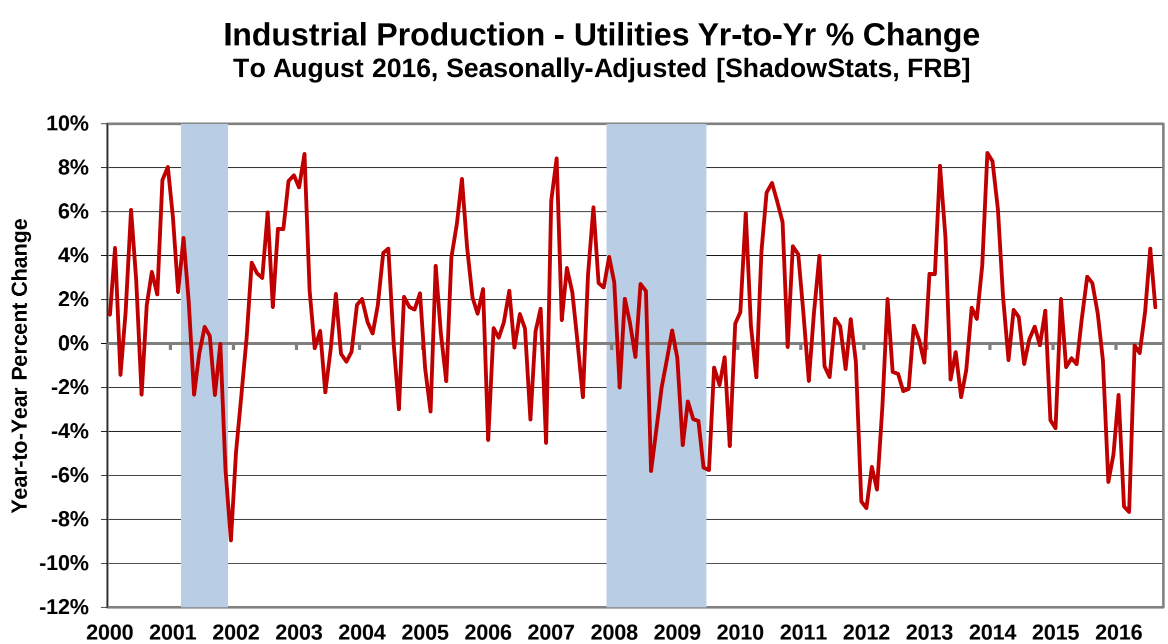
The annual gain in the aggregate consumer goods series generally has held well below 1.0% (0.14% in August 2016), with purported annual gains in durable goods of 3.01% in August, including auto production, well offset by an annual decline in nondurables of 0.74% (-0.74%), including bread.

Monthly volatility utilities sector (*Graph 12*) most often reflects unseasonable shifts in weather conditions and reversals of same, with a 1.42% (-1.42%) decline in August 2016, following a minimally-revised 2.12% gain in July 2016 and a revised 2.94% [previously 2.07%] gain in June 2016 activity.

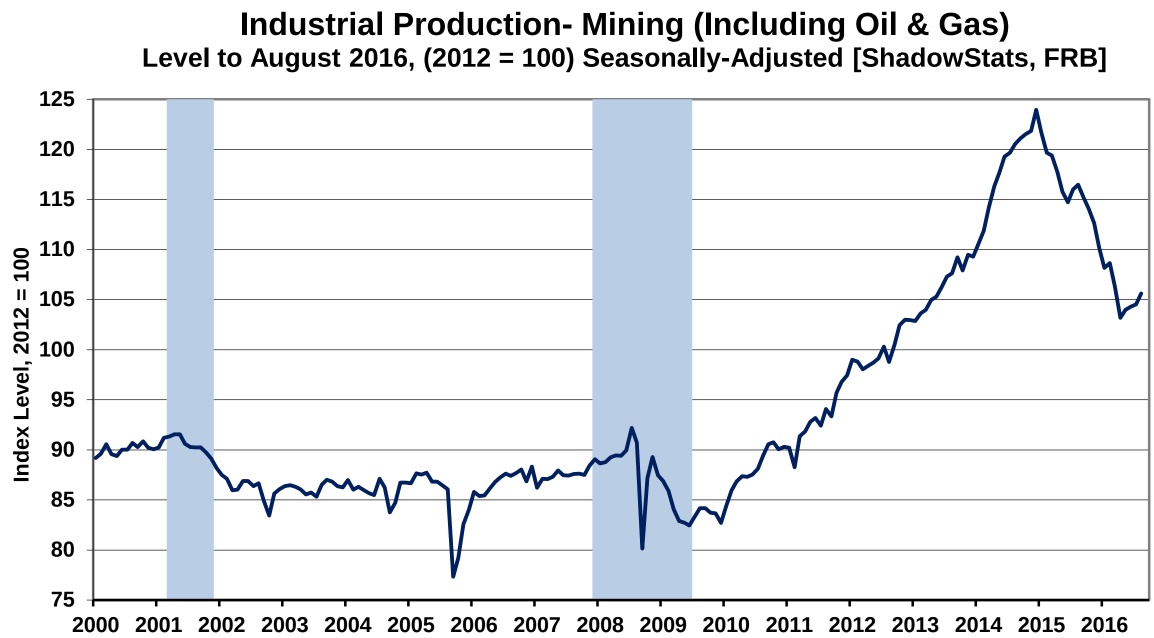
Graph 12: Industrial Production - Utilities (10.76% of the Aggregate in 2015)



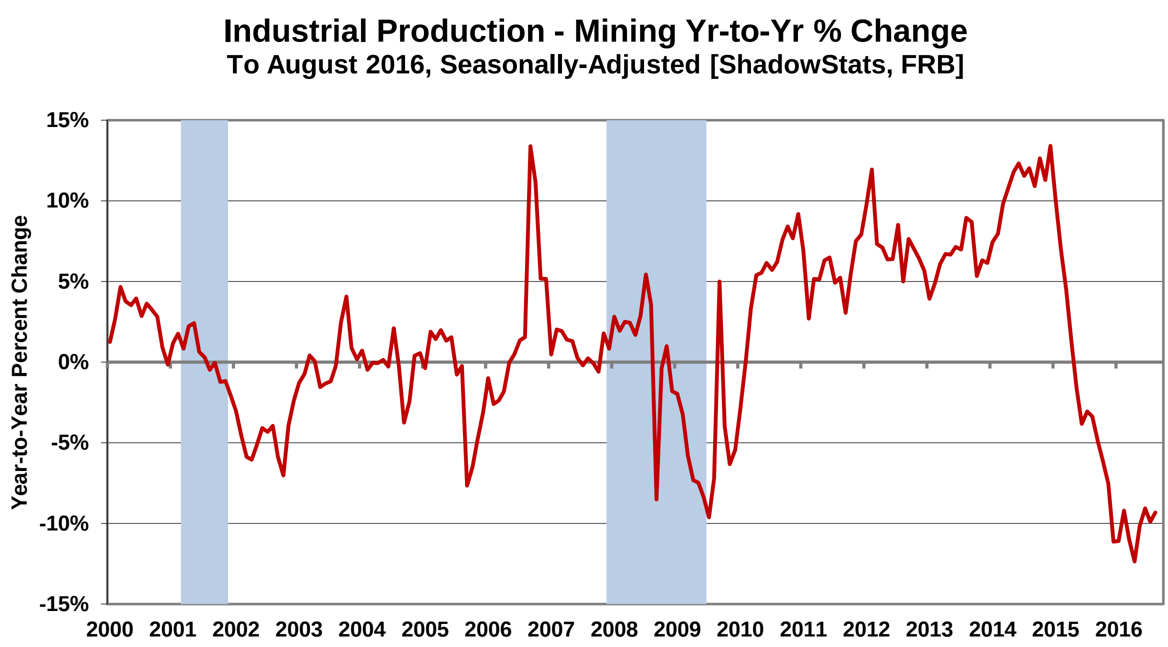
Graph 13: Industrial Production - Utilities, Year-to-Year Percent Change Since 2000



Graph 14: Industrial Production - Mining, Including Oil and Gas (10.76% of the Aggregate in 2015)



Graph 15: Industrial Production - Mining, Year-to-Year Percent Change



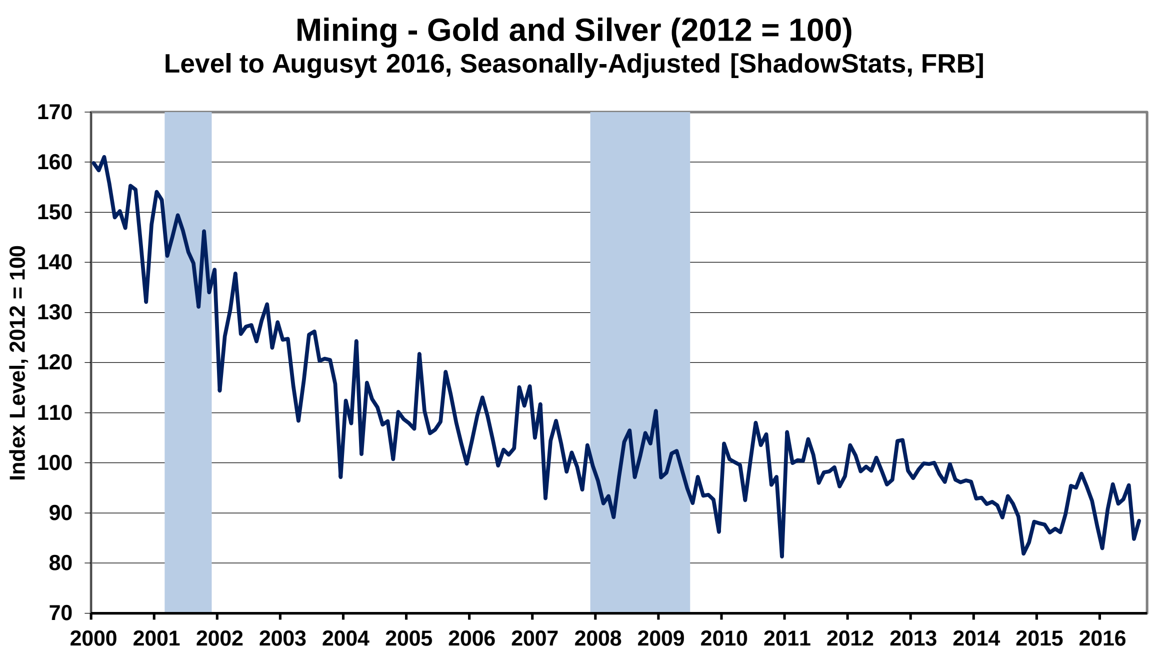
Activity in the mining (*Graph 14*), particularly in oil and gas exploration and production, and in coal production, remains the near-term focus of this analysis. This sector easily recovered its pre-recession high and accounted for the full "recovery," albeit extremely short-lived, seen in the aggregate production detail since the economic collapse. Since then, however, mining production has turned down sharply, reflecting a number of factors, including the impact of largely orchestrated lower oil prices (and related recent, now-faltering U.S. dollar strength), as well as U.S. government actions to limit coal consumption and production. Year-to-year August 2016 mining activity (*Graph 15*) still was down by 9.33% (-9.33%), versus a revised decline of 9.90% (-9.90%) [previously down by 10.20% (-10.20%)] in July 2016.

That said, mining-sector activity showed its first monthly uptick in ten months in May 2016, with continual, recent up revisions to monthly activity now showing monthly gains of 1.04% in August 2016, 0.20% in July, 0.31% in June and 0.78% in May.

The recent 2016 relief in mining activity largely reflected respective monthly gains (May to July) of 8.42%, 11.37% and 15.39% in monthly coal production, but with a pullback of 2.27% (-2.27%) in August 2016 (*Graph 17*), and reasonably stable gold and silver mining, oil and gas extraction, along with a monthly uptick in drilling and exploration (*Graphs 16*, *18* and *19*) in the month. The non-declining oil and gas activity likely reflected somewhat more-stable petroleum prices.

Graph 16 reflects monthly production continuing off the near-term-trough in activity for gold and silver, irrespective of the pummeling given the prices of precious metals in recent years by central-bank orchestrated market as well as recent pricing gains in the markets. Discussed in the *Week Ahead* section, pricing circumstances indeed may be shifting to the upside for gold and silver, as well as for oil.

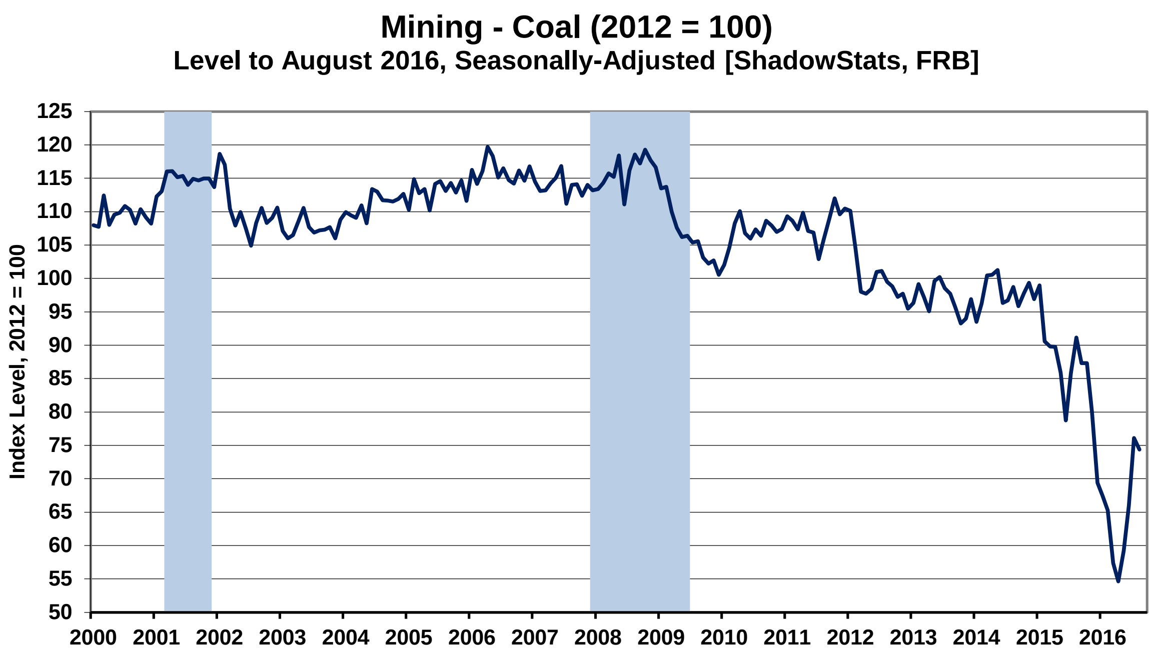
Graph 16: Mining – Gold and Silver Mining (Since 2000)



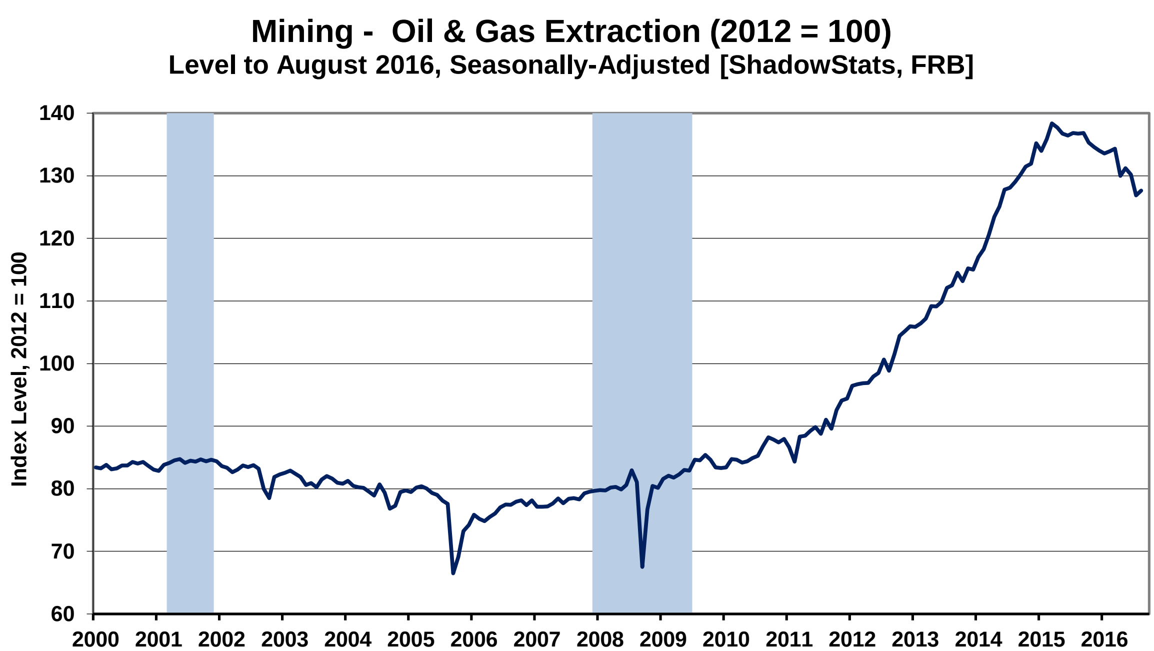
Graph 17 still shows an extraordinarily sharp drop in monthly coal production, despite the May to July 2016 rebound and the August downtick. August 2016 activity was down by 18.39% (-18.39%) year-to-year versus annual declines of 11.32% (-11.32%) in July, 16.23% (-16.23%) in June 2016 and against an

annual drop of 31.04% (-31.04%) in May 2016. Versus the near-term May 2014 peak in coal production, August 2016 activity was down by 26.54% (-26.54%).

Graph 17: Mining - Coal Mining (Since 2000)



Graph 18: Mining – U.S. Oil & Gas Extraction (Since 2000)

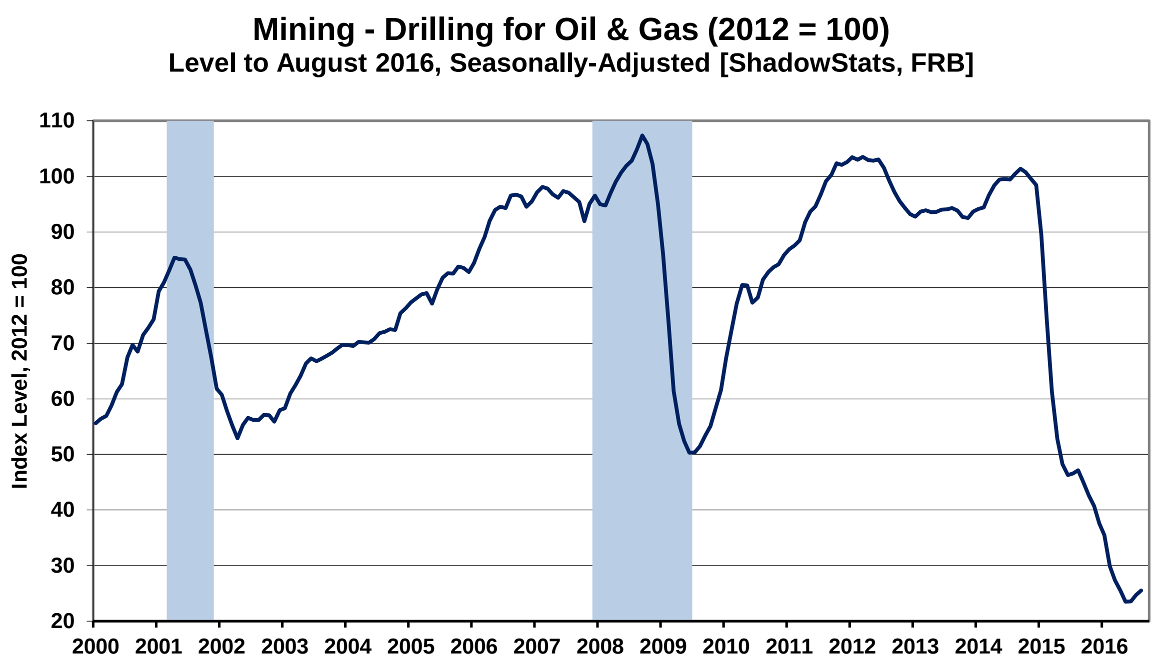


With oil prices continuing to move off recent lows, oil and gas extraction still has remained well off its all-time high, yet it notched higher in August 2016, up by 0.64% for the month, having declined by a revised 2.56% (-2.56%) [previously down by 1.67% (-1.67%)] month-to-month in July 2016, as seen in *Graph 18*. Year-to-year change was an annual decline of 6.64% (-6.64%) in August 2016, versus a revised annual drop of 7.30% (-7.30%) [previously down year-to-year by 7.44% (-7.44%)] in July 2016.

Exploration in terms of oil and gas drilling (*Graph 19*) rose by 3.31% month-to-month in August 2016, following a gain of 4.93% in July, but it still was down year-to-year by 45.86 (-45.86%) in August 2016.

Regularly discussed here, the collapse in drilling largely was an artefact of the massive U.S. dollar rally and oil-price plunge that began in July 2014. Those shifts appeared, at least initially, to be U.S.-orchestrated covert actions designed to stress Russia, financially, in response the circumstance in Ukraine. Since the related September 2014 peak in oil drilling, activity there has collapsed by 74.81% (-74.81%).

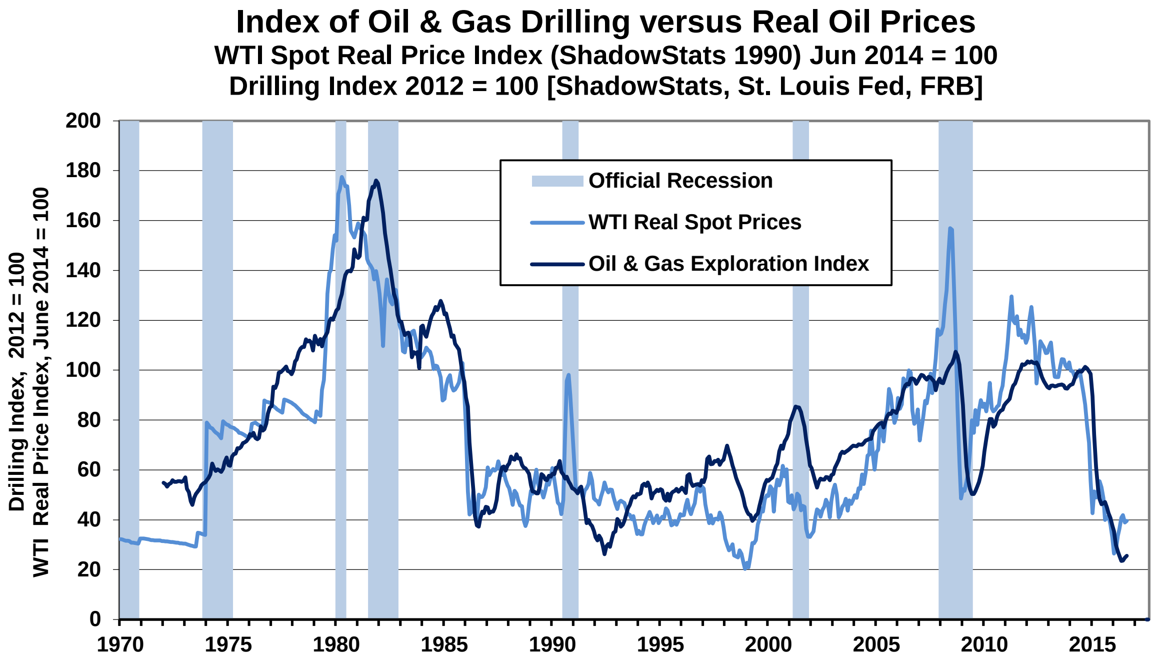
Graph 19: U.S. Drilling for Oil & Gas (Since 2000)



Shown in *Graph 20*, with some lag following the sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing, indeed, may be in the early stages. The oil price index used is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the ShadowStats Alternate CPI measure (1990 Base).

With the dollar having started to weaken anew, dollar-denominated oil prices also have begun to strengthen, even in a circumstance with excess supply conditions. At such time as the U.S. dollar declines meaningfully—ShadowStats looks for a massive sell-off in the dollar in the year ahead—U.S. dollar-denominated oil prices should rally (see *General Commentary No. 811*).

Graph 20: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)



NOMINAL RETAIL SALES (August 2016)

Seasonal-Adjustment Inconsistencies Bloated Headline August Sales by 0.3%; Consistent Reporting Would Have Seen a Headline Decline of 0.6% (-0.6%), Instead of 0.3% (-0.3%). The shifting of concurrent seasonal adjustment factors in the latest headline detail upped the relative growth of August 2016 nominal retail sales, versus the published historical data that were not revised on a consistent basis. While this had been a major, distorting factor in headline month-to-month detail of the last several years, it had provided minimal distortions since the April 2016 benchmarking of the retail series, until today's headline release of August 2016 sales (see *Seasonal-Factor Distortions Generated Artificially-Less-Negative Headline August Sales* ...).

Nominal (Not-Adjusted-for-Inflation) Retail Sales—August 2016. In the context of minimal downside revisions to previously-reported levels of retail sales in June and July 2016, the Census Bureau reported today (September 15th) that headline nominal Retail Sales for August 2016 declined by 0.3% (-0.3%) month-to-month. At the second decimal point, headline August activity fell by 0.29% (-0.29%), against an upwardly revised 0.1% gain (0.06% at the second decimal point) in July 2016. Previously, July activity had been reported as "unchanged" at 0.0% [down by 0.04% (-0.04%)] at the second decimal point.

That seasonally-adjusted, headline August contraction of 0.29% (-0.29%) +/- 0.59% was not statistically significant (this and all other confidence intervals are expressed at the 95% level). Net of prior-period revisions, August sales fell by 0.31% (-0.31%).

The revised headline July 2016 retail sales gain of 0.06% +/- 0.23%, also was statistically-insignificant.

Year-to-Year Annual Change. August 2016 nominal year-to-year change was a statistically-significant increase of 1.90% +/- 0.82%, versus an upwardly-revised annual gain of 2.61% [previously up by 2.26%] in July 2016.

August 2016 Core Retail Sales, Net of Food and Gasoline. Reflecting an environment that should be seeing rising, seasonally-adjusted food prices and near-flat, adjusted gasoline prices [an unadjusted August monthly drop of 2.60 (-2.60%) per the Department of Energy in gasoline prices], seasonally-adjusted monthly grocery-store sales gained 0.45% in August 2016, with gasoline-station sales down by 0.77% (-0.77%) for the month.

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

Version I: August 2016 versus July 2016 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—reflected a monthly decline of 0.36% (-0.36%), versus the official headline aggregate sales decline of 0.29% (-0.29%).

Version II: August 2016 versus July 2016 seasonally-adjusted retail sales series—net of the monthly change in the level of revenues for grocery stores and gas stations—reflected a month-to-month decline of 0.29% (-0.29%), the same as the official headline aggregate sales decline of 0.29% (-0.29%).

Real Retail Sales (August 2016). Coincident with the release of the August CPI on Friday, September 16th, headline nominal August Retail Sales will be adjusted for inflation and recast as real Retail Sales. Such will be covered in tomorrow's *Commentary No. 833* (see discussion in the *Week Ahead* section).

Where headline August CPI-U likely will show a small monthly increase, there is a parallel chance for the monthly real change in August retail sales to deepen from today's headline nominal monthly decline of 0.29% (-0.29%). The pace of annual CPI-U inflation, however, most certainly should remain positive enough to generate a significantly deepened recession signal in historically low-level, annual Real Retail Sales growth.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as will be fully updated, also in tomorrow's *Commentary No. 833*. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending.

As official consumer inflation resumes its upside climb in the year ahead, and as overall retail sales continue to suffer from the ongoing consumer liquidity squeeze, these data should continue trending meaningfully lower, in what should gain recognition in the very near future as a formal "new" recession.

Seasonal-Factor Distortions Generated Artificially-Less-Negative Headline August Sales, and Other Reporting Instabilities. Without inconsistent shifting in seasonal-adjustment factors, the August 2016 headline change in nominal retail sales would have been a contraction of about 0.6% (-0.6%), instead of the headline 0.3% (-0.3%). Headline detail in this series is subject to a pattern of distorted revisions, unique to the inconsistent reporting of the government's concurrent-seasonal-factor-adjustment process, as seen regularly in reporting of retail sales in recent years. The usual seasonal-factor games had been reasonably inactive in the reporting period since the April 2016 benchmarking of this series, but they came back into play with the headline August 2016 reporting.

Where the headline data reflect new seasonal-factor adjustments, the presumed comparable historical series do not. The only "comparable" headline historical detail published with today's headline August 2016 sales data were the sales levels for the prior two months of July 2016 and June 2016, and the year-ago months of August and July 2015.

Revisions to the year-ago periods are tip-offs as to how the current, headline month's seasonal factors have been altered. The headline month-to-month contraction of 0.29% (-0.29%) in August 2016, actually reflected a positive boost of 0.30% [a revised reduction of 0.11% (-0.11%) in July 2015 sales, and an upside revision to August 2015 sales of 0.19%]. Those changes reflect the implied seasonal factor changes the same months in 2016. Net of those distortions, the headline contraction in August 2016 sales would have about 0.59% (-0.59%).

In today's headline detail, the year-ago revisions simply were junk reporting, due solely to shifts in their seasonal adjustments that resulted from the unique calculations of the seasonal factors generated with the headline January 2016 detail. These revisions were not due to the availability of any new historical data back in January or February 2015, but rather due to just the inconsistent shifts in the published versus unpublished seasonal adjustments. Accordingly, shifting patterns of relative quarterly growth in just the third- and fourth-quarter 2015 (as will be seen in tomorrow's real retail sales reporting) also are due solely to the "inconsistent" revision to those numbers.

Given Census Bureau reporting procedures, the headline detail is not comparable with nearly all earlier reporting. As a result, current data can reflect growth shifts from earlier periods, without those specifics being published. The adjustment issues here are the same as with the employment and unemployment series. The principles and issues with the way the government reports economic series adjusted by concurrent seasonal factors were explored, in-depth, in *Commentary No. 695* and discussed in prior *Supplemental Commentary No. 784-A*. The reporting fraud is not in the use of concurrent seasonal-factor adjustments *per se*, but rather in the Census Bureau's not publishing related, fully-consistent historical data each month.

Beyond inconsistencies in the published, adjusted historical data, the stability of the seasonal-adjustment process (particularly the concurrent-seasonal-adjustment process) and sampling methods have been disrupted severely by the unprecedented depth and length of the current economic downturn in the post-World War II era, the period of modern economic reporting.

PRODUCER PRICE INDEX—PPI (August 2016)

Headline August PPI Goods Inflation Declined by 0.37% (-0.37%); Construction Inflation Was "Unchanged" at 0.00%; Profit Margins in the Dominant Services Sector Rose by 0.09%; with Aggregate PPI Inflation "Unchanged" at 0.00%. The headline month-to-month "unchanged" August 2016 PPI generally is reflected neither in real world activity, nor in common experience. The same can be said for many of its subcomponents.

Beyond the broad issues with general inflation measurement (see *Public Commentary on Inflation Measurement*), the bulk of the PPI is covered by the "services" sector, where inflation is determined by shifting profit margins. Discussed in the *Inflation that Is More Theoretical than Real World* section, profit-margin inflation estimates generally are handled in a manner counter-intuitive to the more-traditional measurement of inflation in goods and services, otherwise calculated as a measurement of change in prices. Accordingly, the headline detail here increasingly has a limited relationship to real-world activity.

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

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

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

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

August 2016 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported this morning, September 15th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final

Demand inflation for August 2016 was "unchanged" at 0.00%, versus a contraction of 0.36% (-0.36%) in July. The impact of seasonal adjustments on the headline PPI reporting was positive, where the unadjusted monthly August measure was a decline of 0.09% (-0.09%).

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in August 2016 also was "unchanged" at 0.00%, following an annual contraction of 0.18% (-0.18%) in July 2016.

Not an extraordinarily stable series, the PPI index is revised each month, for one month, four months back in time, where the headline monthly April 2016 inflation just was upped to 0.27%, from the previously-reported 0.18%.

For the three major subcategories of August 2016 Final Demand PPI, headline monthly Goods inflation fell by 0.37% (-0.37%), Services inflation gained by 0.09% and Construction inflation was unchanged at "0.00%."

<u>Final Demand Goods (Weighted at 33.63% of the Aggregate Index).</u> Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in August 2016 declined by 0.37% (-0.37%) for a second month. There was positive impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, August Final Demand Goods inflation fell by 0.46% (-0.46%).

Unadjusted, year-to-year goods inflation in August 2016 declined by 2.09% (-2.09%), having declined by 2.34% (-2.34%) in July 2016.

Headline seasonally-adjusted monthly changes by major components of the August 2016 Final Demand Goods:

- "Foods" inflation (weighted at 5.56% of the total index) declined month-to-month in August 2016 by 1.56% (-1.56%), having declined in July by 1.11% (-1.11%). Seasonal adjustments were a negative factor for the August headline change, which was down by 1.55% (-1.55%) unadjusted. Unadjusted and year-to-year, annual August 2016 foods inflation dropped by 4.36% (-4.36%). having declined in July 2016 by 2.61% (-2.61%).
- "Energy" inflation (weighted at 5.24% of the total index) fell by 0.77% (-0.77%) month-to-month in August 2016, having declined by 0.98% (-0.98%) in July. Seasonal adjustments here were positive, with unadjusted monthly energy inflation having declined by 1.28% (-1.28%). Unadjusted and year-to-year, the August 2016 annual contraction in energy prices narrowed to 9.98% (-9.98%), from 11.73% (-11.73%) in July 2016.
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 22.83% of the total index) gained 0.09% in August 2016, versus "unchanged" at 0.00% in July 2016. Seasonal adjustments were positive for monthly core inflation, with an unadjusted monthly "unchanged" at 0.00%. Unadjusted and year-to-year, August 2016 was up by 0.64%, versus 0.36% in July 2016.

<u>Final Demand Services (Weighted at 64.28% of the Aggregate Index).</u> Headline monthly Final Demand Services inflation gained 0.09% in August 2016, having declined by 0.27% (-0.27%) in July. The overall seasonal-adjustment impact on headline August services inflation was neutral, with an unadjusted

monthly gain of 0.09%. Year-to-year, unadjusted August 2016 services rose by 1.18%, following a 1.00% annual gain in July 2016.

The headline monthly changes by major component for August 2016 Final Demand Services inflation:

- "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 38.96% of the total index), rose by 0.45% in August 2016, versus a 0.18% gain in July. Seasonal-adjustment impact on the adjusted August detail was negative, where the unadjusted monthly reading also was a gain of 0.54%. Unadjusted and year-to-year, August 2016 "other" services inflation was 1.83%, up from 1.47% in July 2016.
- "Transportation and warehousing" inflation (weighted at 4.99% of the total index) declined month-to-month in August 2015 by 0.35% (-0.35%), having gained 0.09% in July. Seasonal adjustments were positive on the headline July gain, where the unadjusted monthly reading had been a decline of 0.44% (-0.44%). Unadjusted and year-to-year, August 2016 transportation inflation fell by 1.82% (-1.82%), having declined by 2.32% (-2.32%) in July 2016.
- "Trade" inflation (weighted at 20.34% of the total index) sank month-to-month in August 2016 by 0.62% (-0.62%), having declined by 1.31% (-1.31%) in July. Seasonal adjustments had a negative impact here, where the unadjusted monthly change was a decline of 0.44% (-0.44%). Unadjusted and year-to-year, August 2016 trade inflation slowed to an annual gain of 0.63%, from 0.71% in July 2016.

Final Demand Construction (Weighted at 2.09% of the Aggregate Index). Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Month-to-month construction inflation was "unchanged" at 0.00% in August 2016, having declined in July by 0.61% (-0.61%). The impact of seasonal factors on the August reading was neutral, where the unadjusted monthly change also was unchanged. The issues here are a combination of monthly headline cost changes along with a quarterly estimate of contractor profit-margin changes. The latter circumstance was addressed in *Commentary No. 829* of September 2nd.

On an unadjusted basis, year-to-year construction inflation rose by 0.71% in August 2016, versus 0.80% in July 2016. At present, private surveys are showing much higher construction-related inflation than is reported by the government, by an order of magnitude of a couple of hundred basis points. For example, year-to-year inflation reflected in the privately-published Building Cost and Construction Cost Indices [Dodge Data and Analytics (McGraw Hill) *Engineering News-Record*] currently are running well above the headline pace of annual inflation in the PPI's Final Demand Construction Index, as are construction-related price deflators in the National Income Accounts, such as the Gross Domestic Product (GDP).

Again, as discussed in *Commentary No. 829*, ShadowStats has constructed a Composite Construction Deflator (CCD) that now is used by ShadowStats in deflating the Census Bureau's monthly estimates of Construction Spending Put in Place in the United States.

PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods. As to the upcoming reporting of August 2016 new orders for durable goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods was "unchanged" at 0.00%, versus a monthly gain of 0.18% in July 2016 and an "unchanged" at 0.00% in June 2016. The change in annual inflation continued to move in a more-positive direction, to a positive 0.06% in August 2016, versus annual declines of 0.18% (-0.18%) in July 2016 and 0.42% (-0.42%) in June 2016. August 2016 durable goods orders will be reported on September 28th and covered in ShadowStats *Commentary No. 835* of that date.

WEEK AND MONTH AHEAD

Near-Term Headline Economic Deterioration Should Intensify, Increasingly Frustrating Fed Provocateurs, Pummeling the U.S. Dollar and Boosting Gold, Silver and Eventually Oil Prices. Market expectations for business activity should continue to deteriorate, amidst intensifying, negative headline economic reporting. Irrespective of any near-term rate hike or talk of same by the FOMC, Fed-policy retrenchment likely should remain very much alive, shifting towards renewed quantitative easing in the months ahead.

The general trend in weakening expectations for business activity and movement towards looming recession recognition, reflect an ongoing broad spectrum of market-disappointing headline data, such as seen today (September 15th). FOMC considerations were covered in *Commentary No. 831*; the initial payroll benchmark revision for 2016 was discussed in *Commentary No. 830*, following the latest headline detail on payrolls, trade and construction spending in *Commentary No. 829*.

Headline Gross Domestic Product (GDP) and related series were discussed in *Commentary No. 828*, with broad detail otherwise reviewed in *Commentary No. 827*, *Commentary No. 826*, *Commentary No. 825*, *Commentary No. 824*, *Commentary No. 823*, *Commentary No. 822*, *Commentary No. 821*, *Commentary No. 820*, *Commentary No. 818*, *Commentary No. 817*, *General Commentary No. 811*, *Supplemental Commentary No. 807-A*, *Commentary No. 800*, *Commentary No. 799*, *Commentary No. 796-A*, *Commentary No. 796* and *No. 777 Year-End Special Commentary*.

Negative market reactions had surfaced in trading of the U.S. dollar and in related financial markets, with some upside pressure on gold, silver and oil prices, subsequent to recent, weaker-than-expected headline economic data or suggestions of a less-aggressive tightening stance by the Fed. Fed rate-hike jawboning, however, has put a temporary flutter into those market movements, placing some Fed-desired support under the U.S. currency. The fundamental liquidity issues facing the Fed, however, remain dominated by the impact of perpetual U.S. economic non-recovery and a renewed, intensifying downturn.

Temporary jawboning aside, market reactions increasingly should reflect a renewed sense of Federal Reserve impotence, with bleak longer-term implications for the U.S. dollar. While anything is possible, Fed tightening prior to the election still remains unlikely, with renewed quantitative easing becoming the likely target of post-election speculation, as the deepening recession unfolds. This should become increasingly obvious in the next several months (see *Commentary No. 831*).

Rapidly weakening, regular monthly economic reporting should result in much worse-than-expected—increasingly negative—reporting for at least the next several quarters of GDP (and GDI and GNP).

CPI-U consumer inflation—intermittently driven lower in 2015 and early-2016 by collapsing prices for gasoline and other oil-price related commodities—likely has seen its near-term, year-to-year low. Headline monthly March to June 2016 detail moved into positive headline territory, in tandem with rising gasoline prices. CPI inflation was "unchanged"—minimally negative—with a switch to positive seasonal adjustments for gasoline prices only partially offsetting the unadjusted monthly drop in gasoline prices in July. Those shifting energy seasonals should boost the August detail more strongly, resulting in at least a minimal headline monthly gain (see *Pending Releases*). Going forward, a weakening U.S. dollar increasingly should boost inflation, with a related upturn in oil prices, gasoline and other commodities. The *Public Commentary on Inflation Measurement* reviews fundamental reporting issues with the headline CPI.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. Significant reporting-quality problems remain with most major economic series. Beyond the pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended to understate actual inflation and to overstate actual economic activity, ongoing headline reporting issues are tied largely to systemic distortions of monthly seasonal adjustments.

Data instabilities—induced partially by the still-evolving economic turmoil of the last nine-to-eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn provide particularly unstable headline economic results, with the use of concurrent seasonal adjustments (as seen with retail sales, durable goods orders, employment and unemployment data). That issue is discussed and explored in the labor-numbers related *Supplemental Commentary No. 784-A* and *Commentary No. 695*.

Further, discussed in *Commentary No. 778*, a heretofore unheard of spate of "processing errors" surfaced in recent 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 recently-published 2016 GDP benchmark revisions, aimed at smoothing the headline reporting of the GDP business cycle, instead of detailing the business cycle and reflecting broad economic trends accurately, as discussed in *Commentary No. 823*.

Combined with ongoing allegations in the last year or two of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series (see *Commentary No. 669*). John Crudele of the *New York Post* continues his investigations in reporting irregularities: *Crudele Investigation*. In the 1990s, the Census Bureau and BLS played political-reporting games with the nature of statistical sampling size in "inner cities" in the Census Bureau surveying tied to the monthly Household Surveys and the annual piggy-backed Poverty Survey. Such had major distorting impact on the headline data, and it may be in the works, again.

PENDING RELEASES:

Updated **- Consumer Price Index—CPI (August 2016).** The Bureau of Labor Statistics (BLS) will release the August 2016 CPI tomorrow, Friday, September 16th, which will be covered in *Commentary No. 833* of that date. The headline August CPI-U should show a small gain, perhaps plus 0.1%, with declining gasoline prices effectively neutralized by offsetting, positive seasonal-factor adjustments. Headline year-to-year annual inflation for August 2016 likely will hold around an unadjusted 0.9%, plus or minus.

Neutral Inflation Impact from Gasoline Prices. Average gasoline prices declined in August 2016, down by 2.60% (-2.60%) for the month on a not-seasonally-adjusted basis, per the Department of Energy (DOE). Where BLS seasonal adjustments to gasoline prices in August increasingly are on the plus-side, they should offset most of the unadjusted price decline in gasoline, leaving it minimally negative. Adjusted gasoline prices should contribute roughly a negative 0.02% (-0.02%) to the headline monthly change in the CPI-U. Boosted by higher food and "core" (net of food and energy) inflation, a headline monthly CPI-U reading of 0.1%, plus or minus, is a reasonable expectation.

Annual Inflation Rate**.** Noted in *Commentary No. 826*, year-to-year, CPI-U inflation would increase or decrease in August 2016 reporting, dependent on the seasonally-adjusted monthly change, versus the adjusted, headline decline of 0.01% in August 2015 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for August 2016, the difference in August's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the July 2016 annual inflation rate of 0.84%. For example, a seasonally-adjusted 0.1% monthly gain in August 2016 CPI-U, would hold the annual CPI-U inflation rate for August 2016 at around 0.9%, plus-or-minus, depending on rounding.

Real Retail Sales (August 2016). The Census Bureau released August 2016 nominal (not-adjusted-for-inflation) Retail Sales today (September 15th), showing a headline monthly decline of 0.29% (-0.29%), with an annual gain of 1.90%. That detail will be adjusted for the headline August 2016 CPI-U inflation in tomorrow's *Commentary No. 833.*

PLANNED UPDATES: Comprehensive *Special Report* and ShadowStats Website. The plan is to update fully, into one, massive background piece—a *Special Report (Commentary)*—the latest broad outlook for the U.S. and global economies, financial markets and systems, and inflation (U.S. hyperinflation). All of that will be in the context of incorporating and fully revising, wherever necessary, the materials in the *2014 Hyperinflation Report—The End Game Begins*, *2014 Hyperinflation Report—Great Economic Tumble*, *No. 777 Year-End Special Commentary* and other intervening missives, including the most-recent *Hyperinflation Outlook Summary* as found in *Commentary No. 783*.

The various background articles available at the www.ShadowStats.com site also will be updated in the process, including those first published in 2004 as introductory articles to the site. As usual, all original material will remain available to subscribers (all original public material also will remain available to anyone visiting the site).

As to timing, the *Special Report* already is in the works and should be published in early-October. It will incorporate fully up-to-date economic detail, including the mid-September 2016 release by the Census Bureau of its 2015 income survey, the Bureau of Labor Statistics' just-released preliminary benchmark revisions to 2016 payroll employment (see *Commentary No. 830*). It also will include updated, consistent GAAP-based financial detail on the U.S. government's financial condition through September 30, 2015 and initial prospects for the fiscal year ended September 30, 2016.

Updates to the various public materials on the Web site will be staggered through year-end. The introduction of the *2004 Primer Series* will be first (the link is to the initial background article that addressed among other issues political manipulation of data).

We also will introduce, in conjunction with the *Special Report*, a section with links to books and articles that we have found of particular interest and substance. Anyone with materials they would like to have considered for inclusion should send details in an e-mail to johnwilliams@shadowstats.com or call John Williams directly at (707) 763-5786.