John Williams'

Shadow Government Statistics

Analysis Behind and Beyond Government Economic Reporting

COMMENTARY NUMBER 854
Industrial Production, Nominal Retail Sales, PPI, Consumer Liquidity, FOMC

December 14, 2016

Given Renewed Signals of a Faltering Economy, the
FOMC Rate Hike Does Not Preclude Subsequent Expansion of Quantitative Easing

Fourth-Quarter Production Appears Locked into Annual and Quarterly Contractions,
Protracted Patterns Never Seen Outside of a Recession in 98-Year History of the Series

Down by 0.44% (-0.44%) versus October, November Production Remained
Down by 1.77% (-1.77%) from Its Pre-2007 Recession High,
Down by 2.65% (-2.65%) from Its One-Month, November 2014 Recovery

Down for the Month, November Manufacturing Remained
Down by 6.21% (-6.21%) from Its Never-Recovered Pre-Recession Peak

Upturns in Oil and Gas Exploration Continued to Boost Mining Activity,
Despite a Monthly Downturn in Coal Mining

Nominal November Retail Sales Gain of 0.1% Was a Contraction of 0.2% (-0.2%)
Net of Seasonal-Factor Gimmicks and a Downside Revision to October

In an Unhappy Start to Holiday Season Sales, Headline
November Retail Activity Most Likely Was Negative After Inflation Adjustment

Monthly November PPI Inflation: Goods Up by 0.18%,
Construction Up by 0.09%, Services Up by 0.54%, Total Was Up by 0.39%

Consumer Liquidity Has Not Caught Up with Surging Post-Election Optimism

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PLEASE NOTE: The next regular Commentary, *scheduled for tomorrow, Thursday, December 15th, will cover the November Consumer Price Index (CPI) and related real retail sales and earnings, followed by a December 16th* Commentary, *covering November Housing Starts.*

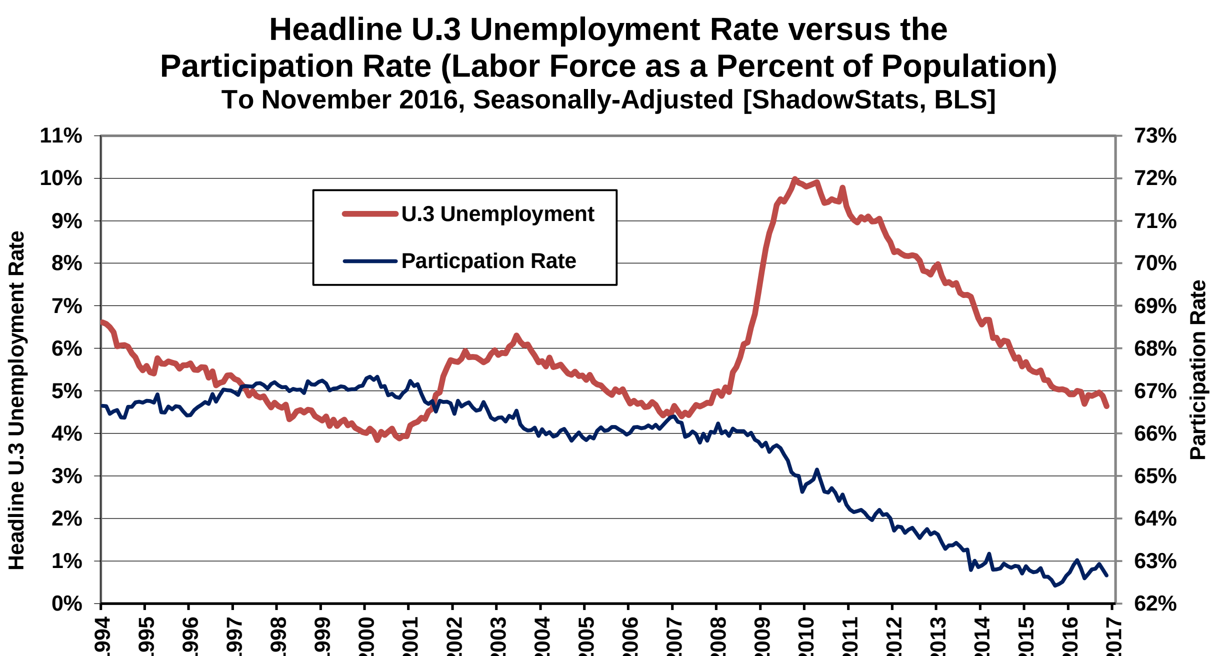
CHANGE IN COMMENTARY FORMAT: ShadowStats has revamped the Executive Summary *in the* Opening Comments, *providing key summary details in a manner that improves readability of the* Opening Comments, *while the* Reporting Detail *section continues the regular, full range of covered information that many subscribers use. Reader feedback is invited at (707) 763-5786 or* johnwilliams@shadowstats.com.

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

As we go to press the afternoon of December 14th, the Federal Reserve Board's Federal Open Market Committee (FOMC) has hiked the targeted federal funds rate by 0.25% or 25 basis points, largely as expected by the markets. Such, however, does not preclude renewed quantitative easing, which will be needed in early 2017, as the economy increasingly falters into "renewed" recession, with related, mounting systemic liquidity problems. A weak economy stresses the banking system, and that should force the FOMC again into expanded quantitative easing (see *Commentary No. 851*).

Opening Graph: Headline U.3 Unemployment versus the Labor Force Participation Rate



Renewed economic faltering was seen in today's headline reporting for November 2016 industrial production and nominal retail sales, and much greater stresses loom. An updated economic review will follow in Friday's (December 16th) *Commentary No. 856*, while updated market conditions will be reviewed in tomorrow's (December 15th) *Commentary No. 855.*

The lack of economic stimulus from the FOMC in recent years largely has reflected the Fed's impotence in the current economic circumstance. The Fed's functional concern for the economy centers on the stresses created and placed on systemic solvency and liquidity by an economic contraction (in this case an economic collapse into 2009 that never fully recovered and is deteriorating anew).

Federal Reserve Chair Janet Yellen's overt and legitimate concerns as to labor-market health apparently were overridden today by a desire to push interest rates to more-normal levels, but then, again, headline FOMC actions for "addressing" the weak economy generally have been no more than window dressing, providing political cover for quantitative easing.

Consider the *Opening Graph*. While the headline U.3 unemployment rate (red line) fell to a headline 4.6% for November 2016, from its recession peak of 10.0%, such was due heavily to a large number of unemployed being defined out of existence in the headline labor force, as opposed to finding new employment. As a result, the labor-force participation rate (blue line), which is calculated as headline employed plus unemployed as a percent of the working age population, has declined to its lowest level since 1994, the onset of consistent, current reporting. Despite the drop in headline unemployment in November 2016, the participation rate in November 2016 also declined month-to-month. Ms. Yellen regularly has expressed concern about non-recovery of the participation rate as a reason for holding back on raising interest rates. The interest rate "hawks," however, ignoring underlying economic reality, have argued that such a low level of unemployment is the sign of an economy that is near full employment, an economy that is at risk of overheating (see discussion in *Commentary No. 852*).

Legitimate economic data in the next several months increasingly should indicate an intensifying "new" recession, with sharply negative implications for further, near-term FOMC rate hikes. Again, in this circumstance, market sentiment and FOMC action should revert to expanded quantitative easing relatively early in the New Year.

Today's *Commentary* (December 14th). These *Opening Comments and Executive Summary* cover summary detail of today's reporting of nominal November 2016 Industrial Production, Retail Sales and the Producer Price Index (PPI), with the regular, expanded, full coverage in the *Reporting Detail* section. This section also provides an updated review of *Consumer Liquidity Conditions*, reflecting new reporting for consumer credit and household debt outstanding, and the advance-December estimate of consumer sentiment (University of Michigan).

The *Week, Month and Year Ahead* updates the previews of the November CPI, real Retail Sales and Earnings, and Housing Starts, which will be reported in the days ahead.

Executive Summary—Headline Economic Activity Has Taken a New Turn to the Downside. Subsequent to generally not-credible boosts and upside revisions or strengthening to recent-months' headline retail sales, housing starts and employment data, headline reporting of November industrial production and nominal retail sales generally came in on the downside of expectations. The production data confirmed an ongoing recession, with fourth-quarter 2016 industrial production effectively being locked into quarter-to-quarter and annual declines. Weak November retail sales and downside October revisions showed a bleak start to the holiday shopping season. Both series reflected weakening auto-sales-related activity, amidst downside revisions to same. As usual, the headline PPI bore little resemblance to real-world pricing pressures.

With the Fed having gotten its rate hike, and with the election now in the past, various extraneous pressures for upside gimmicking to headline economic data have eased, at least temporarily.

Industrial Production—November 2016—Fourth-Quarter Activity Appears Locked into a Fifth Consecutive Quarter of Year-to-Year Contraction and a Renewed Quarter-to-Quarter Decline. In the context of minimal prior-period revisions, the broad production picture deteriorated in November by somewhat more than was expected.

With annual change continuing in decline for the fifteenth straight month, implications effectively were locked in not only for the fifth consecutive quarter of annual decline, but also for the for the sixth quarter-to-quarter contraction in the last eight quarters. Such patterns of growth never have been seen outside of formal recessions in the 98-year history of the industrial production series.

As of November 2016 reporting, Industrial Production (65% of GDP) stood below its formal pre-2007 recession high by 1.77% (-1.77%) and was down by 2.65% (-2.65%) from its one-month "recovery" peak level of November 2014. The dominant manufacturing sector (78.5% of Industrial Production, 51.0% of GDP) never has recovered, with November 2016 manufacturing activity still down by 6.21% (-6.21%) from reclaiming its pre-2007 recession peak level of activity.

Reflected in series such as production, and irrespective of the booming headline GDP, which remains far removed from underlying reality, 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 *Commentary No. 851*). In the post-2016-benchmark revision era for Industrial Production, the headline series, again, recovered its pre-recession high only for only one month, in November 2014, and it has been in fairly-consistent monthly decline ever since, falling month-to-month in 17 out of 24 subsequent months.

Headline Industrial Production. Headline November 2016 production contracted month-to-month by 0.44% (-0.44%), versus a revised October gain of 0.07% and a revised contraction of 0.20% (-0.20%) in September. Net of prior-period revisions, November 2016 production declined by 0.39% (-0.39%) for the month, versus the headline decline of 0.44% (-0.44%).

Detailed by major industry group, the monthly headline November 2016 total production decline of 0.44% (-0.44%) was composed of a monthly decline of 0.06% (-0.06%) in manufacturing activity, a gain of 1.12% in mining activity (including oil and gas production), and a decline of 4.45% (-4.45%) in utilities activity. The decline in manufacturing reflected declines in both durable and nondurable consumer goods, including automobiles. The gain in mining reflected increases in oil and gas extraction, oil and gas drilling and gold and silver mining, despite a renewed monthly downturn in coal mining. The decline in utilities reflected unseasonable weather distortions, as usual.

Year-to-year change in November 2016 industrial production was a decline of 0.60% (-0.60%), the fifteenth consecutive monthly year-to-year decline, again, a circumstance unprecedented outside of formal recessions. That was against a revised annual decline of 0.80% (-0.80%) in October 2016, and of a revised annual decline of 1.01% (-1.01%) in September 2016.

Production Graphs—Corrected and Otherwise—November 2016. The regular graphs of the headline production level and annual growth detail are found in the *Reporting Detail* (*Graphs 12* to *15*), along with the drill-down graphs of major subcomponents of the production series (*Graphs 16* to *29*).

The level of headline production showed a topping-out process late in 2014, followed by a deepening downturn into first- and second-quarter 2015. Third-quarter 2015 showed some bounce, but activity in fourth-quarter 2015 and in first- and second-quarter 2016 turned down anew, dropping sharply into negative year-to-year growth and quarter-to-quarter growth. Third-quarter 2016 growth was positive on a quarter-to-quarter basis, but remained in annual contraction for the fourth consecutive quarter. With November 2016 detail in place, fourth-quarter 2016 activity appears to be locked into renewed quarter-to-quarter decline and a fifth straight quarter of year-to-year contraction, and the sixth quarter-to-quarter contraction in the last eight quarters.

Such patterns never have been seen outside of formal recessions. Such faltering patterns of monthly, quarterly and annual decline were seen last in the depths of the economic collapse from 2007 into 2009.

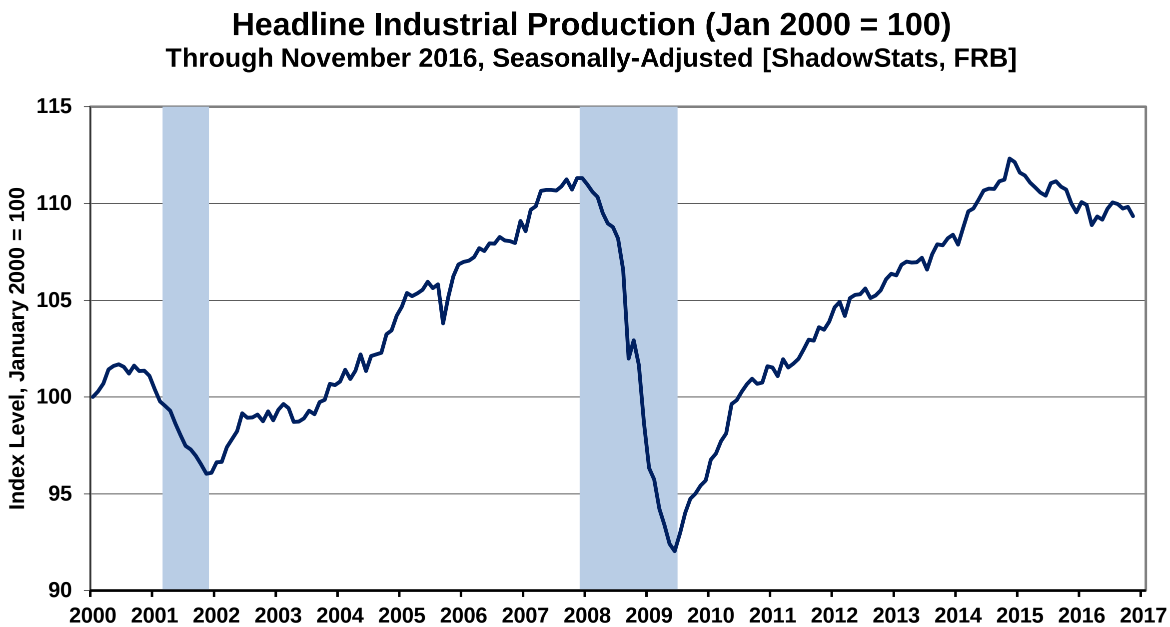
Graphs 1 and *2*, which follow in this section, address reporting quality issues tied just to the overstatement of headline growth in the total series that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into real dollar terms, for inclusion in the Index of Industrial Production. Hedonic quality adjustments to the inflation estimates understate the inflation rates used in deflating those components; thus overstating the resulting inflation-adjusted growth in the headline industrial production series (see *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. 849*), new orders for durable goods (see *Commentary No. 850*) and the GDP (see *Commentary No. 851*). 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 12* in the *Reporting Detail* section).

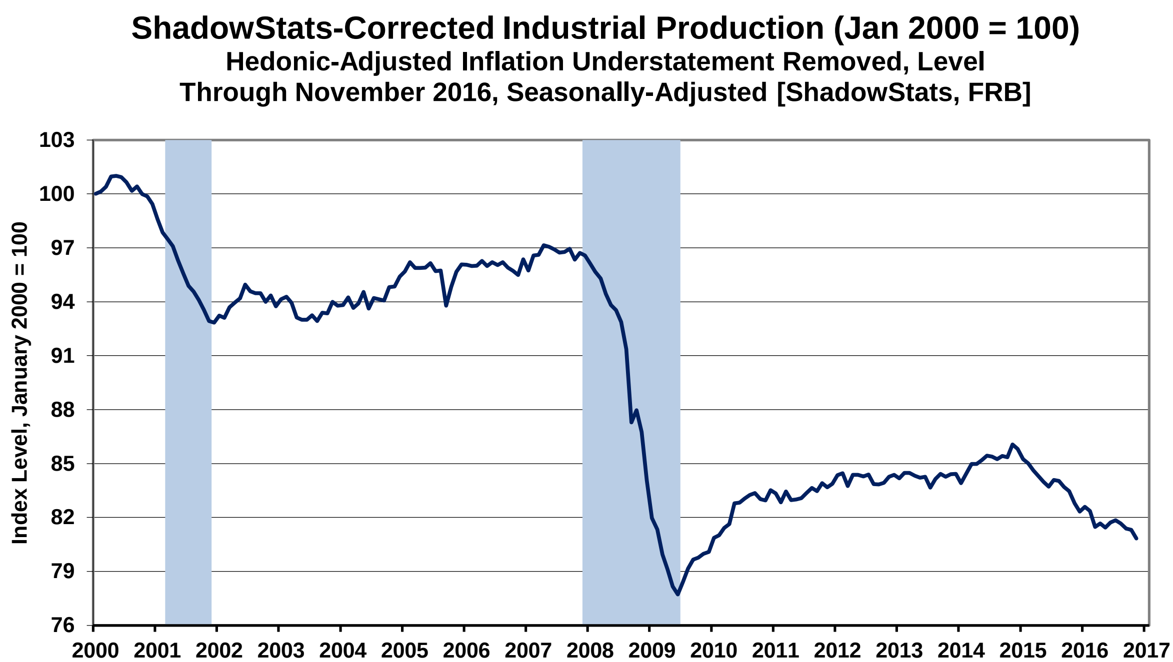
Graph 2 is a recast version of *Graph 1,* corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official industrial-production deflators used for headline reporting.

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

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



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



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. 851* 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 headline aggregate production index quickly backed off its official one-month "recovery" in November 2014, and the headline manufacturing sector never has recovered fully. Instead, the "corrected" series entered a period of protracted low-level, but up-trending, stagnation in 2010, with irregular quarterly contractions seen through 2013, an irregular uptrend into 2014, a topping-out in late-2014, generally turning lower through fourth-quarter 2016.

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

Nominal Retail Sales—November 2016—Holiday Season Got Off to a Rough Start. The headline monthly gain of 0.1% in November retail sales would have been a contraction of 0.1% (-0.1%), before the downside revisions to October activity. Further adjusted for a net 0.1% monthly growth boost from inconsistent usage of revised seasonal adjustments, the contraction would deepen to 0.2% (-0.2%). That would become a compounded, inflation-adjusted real monthly decline of 0.4% (-0.4%), if tomorrow's headline November CPI-U should gain 0.2%, as expected. Those qualifiers all are discussed in the *Reporting Detail* section.

With an extraordinarily weak, headline nominal (not adjusted for inflation) monthly gain for November retail sales of 0.08%, at the second decimal point, the inflation-adjusted real month-to-month change, most likely will be negative. Such indeed is an extraordinarily bleak start to the two-month Holiday Season that dominates annual retail sales activity.

That 0.08% headline November gain was in the context of a downside revision to the level of October activity, now reported with a 0.62% monthly, previously up by 0.82%. Net of the prior-period revision, November sales fell by 0.09% (-0.09%). November 2016 year-to-year gain was 3.75%, down from a downwardly-revised 4.18% in October. Again, these growth rates all are before inflation adjustment.

The combination of the a downside revision to prior retail sales activity and otherwise weaker-than-expected headline growth, and the weakening industrial production numbers should tend to reduce market expectations for reported fourth-quarter GDP activity.

Producer Price Index (PPI)—November 2016—Goods Inflation Rose by 0.18%; Construction Inflation Rose by 0.09%, Profit Margins in the Dominant Services Sector Rose by 0.54%; with Aggregate PPI Inflation Up by 0.36%. The headline monthly gain of 0.36% gain November 2016 PPI followed an unchanged reading of 0.00% in October, with annual inflation rising to 1.19% in November 2016 versus 0.91% in October 2016.

The headline PPI inflation generally reflected neither real-world activity, nor common experience. The same applies to many of its major subcomponents, which are discussed in the *Reporting Detail* section.

Consumer Liquidity Conditions—Updated for Latest Third-Quarter and October to Early-December 2016 Details. Underlying fundamentals to consumer economic activity, such as liquidity, have been impaired severely in the last decade or so, driving economic activity into collapse and preventing meaningful or sustainable economic rebound, recovery or ongoing growth. The limited level of and growth in sustainable real income, and the ability and willingness 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 presidential race. Where the post-election environment has reflected a near-term surge in consumer optimism, underlying liquidity conditions and reality have not caught up with consumer hopes.

This update review of consumer conditions and liquidity (previously updated *Commentary No. 851*, last fully reviewed in *Commentary No. 846*), reflects the early-December 2016 estimate of the University of Michigan's Consumer Sentiment Index, released December 9th (see *Graphs 4* and *5*). Also, on the consumer-debt front, updated detail is shown for third-quarter 2016 Household Sector, Real Credit Market Debt Outstanding (Federal Reserve's flow-of-funds analysis [Z.1]) of December 8th and for October 2016 Consumer Credit Outstanding of December 7th (see *Graphs 8* to *11*).

Generally, the higher and stronger these measures are, the healthier is consumer spending. Most measures of consumer liquidity and attitudes remain off their lows, and one—real monthly median household income—actually had spiked recently to pre-recession levels, reflecting the temporary collapse in gasoline prices and deflation by the otherwise underestimated headline CPI-U inflation. Real monthly median income, however, generally has begun to move lower, stagnating at the moment, along with a developing pickup in consumer inflation.

Still, the broad underlying consumer liquidity fundamentals simply have not supported, and still do not support a turnaround in broad economic activity. Never truly recovering in the post-Panic of 2008 era, limited growth in household income and credit, have eviscerated and continue to impair broad, domestic U.S. business activity, which feeds off the financial health and liquidity of consumers. This remains in play in the context of a post-election surge in consumer expectations that generally still is shy of pre-recession levels.

These combined factors have driven the housing-market collapse and ongoing stagnation in consumer-related real estate sales and construction activity, and constrained both nominal and real retail sales activity and the related, personal-consumption-expenditures and residential-construction categories of the Gross Domestic Product (GDP). Those sectors account for more than 70% of total U.S. GDP activity.

Now, with the economy never having recovered fully from the collapse into 2009, consumers again have been pulling back on consumption, as evidenced by a renewed slowdown in broad economic activity, where that reality is evident in more-meaningful series—not the GDP—irrespective of gimmicked boosts to third-quarter 2016 GDP activity.

Consumer Confidence and Sentiment. This detail incorporates the November 2016 reading for the Conference Board's Consumer-Confidence measure and the early-month December 2016 reading for the

University of Michigan Consumer-Sentiment measure. Reflected in *Graphs 3* to *5*, where both confidence and sentiment rose in September, they plunged in October, likely reflecting concerns as to the direction of the presidential race. The November measures rallied sharply, reflecting post-election consumer optimism, generally consistent with post-election stock-market reaction. As with the markets, though, the initial surge in early-November consumer sentiment was all pre-election (see *Commentary No. 849* for comments on the post-election market rallies). Expanded consumer euphoria was indicated by the continued surge early-December sentiment measure.

The Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph 3*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph 4*) both rose in September, only to collapse in October and then soar in November, again with a continued Sentiment surge in December. While the three-month moving average in sentiment in early-December still held below its February 2015 near-term peak, the three-month moving average in confidence as of November broke to a new post-recession high.

Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs 3* to *5* 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.

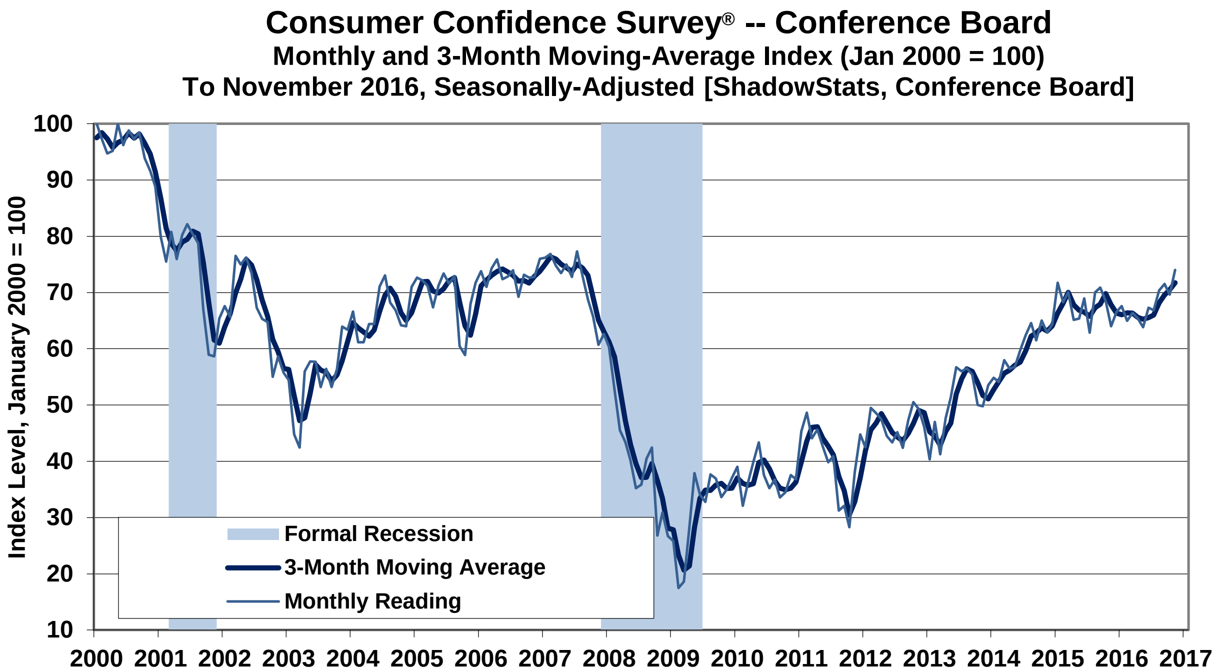
Consumer Sentiment continued to hold off its June 2015 near-term peak, smoothed for its six-month moving-average reading, but Confidence, again, broke to a new post-recession high (*Graph 5*).

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. With what should become increasingly-negative, unstable and uncertain headline financial and economic reporting in the next month or so—beyond the immediate post-election euphoria—having its impact, successive negative hits to both the confidence and sentiment readings remain increasingly likely in the early months of 2017.

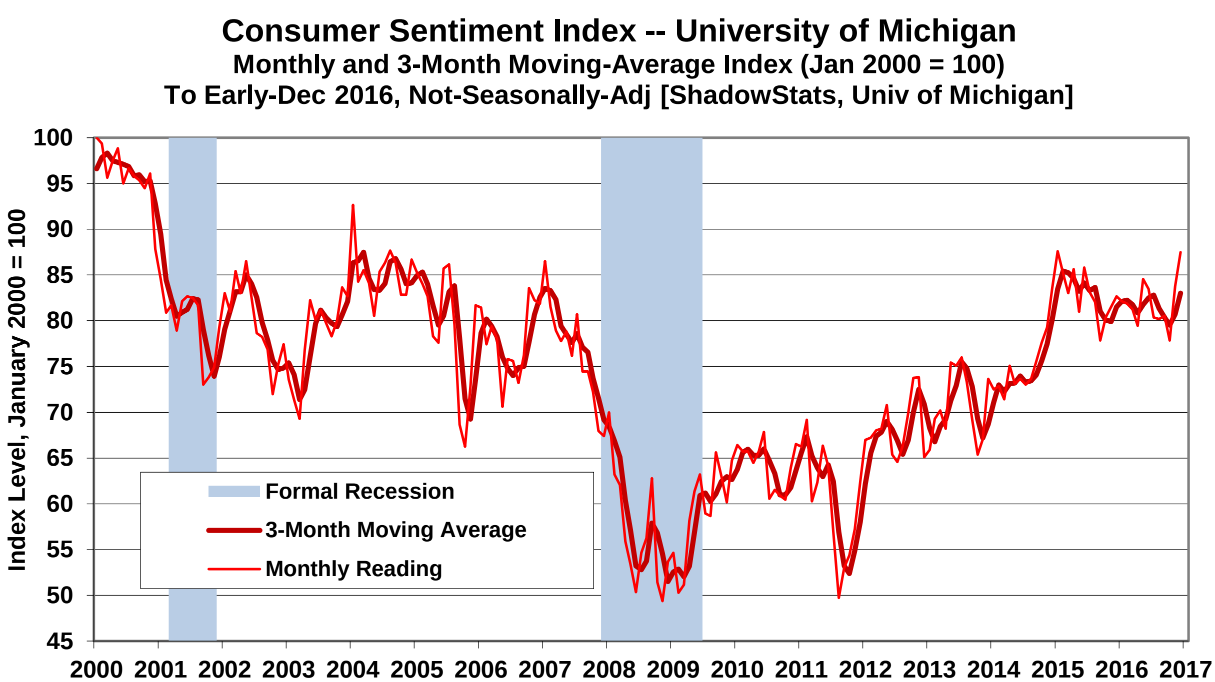
Smoothed for irregular, short-term volatility, the two series remain at levels seen typically in recessions. Suggested in *Graph 5*—plotted for the last 45 years—the latest readings of Confidence and Sentiment generally have not recovered levels preceding most formal recessions of the last four decades. Broadly, the 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 the current third-quarter 2016 estimate.

[Graphs 3 to 5 begin on the following page.]

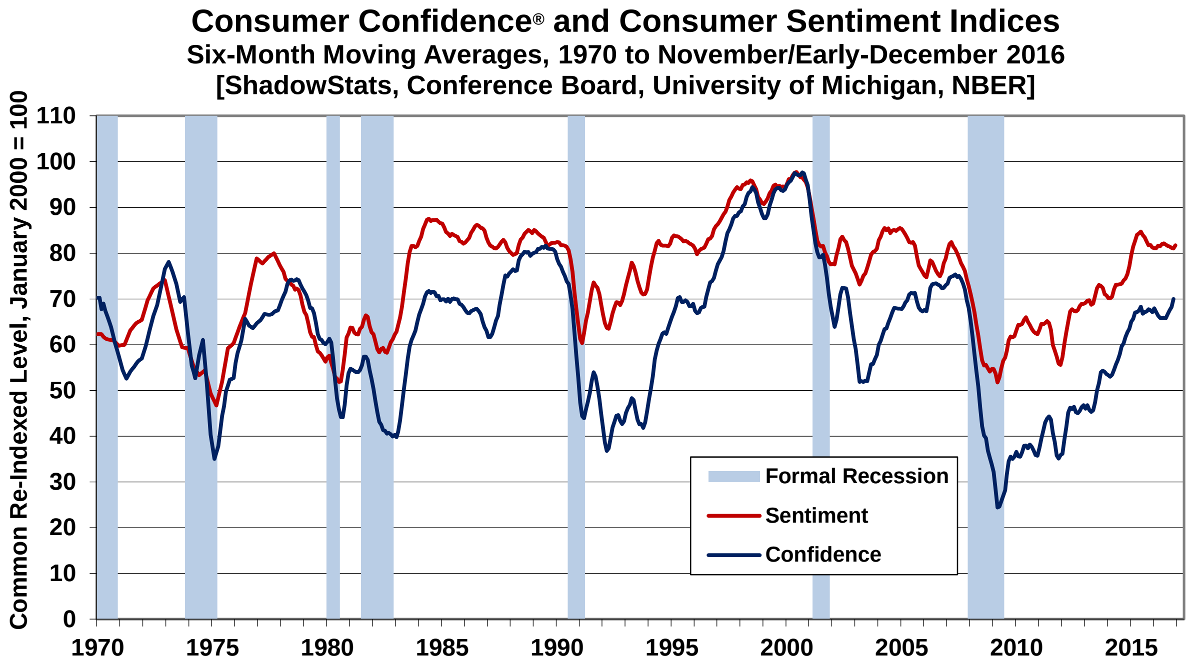
Graph 3: Consumer Confidence to November 2016



Graph 4: Consumer Sentiment to Early-December 2016



Graph 5: Comparative Confidence and Sentiment (6-Month Moving Averages) since 1970



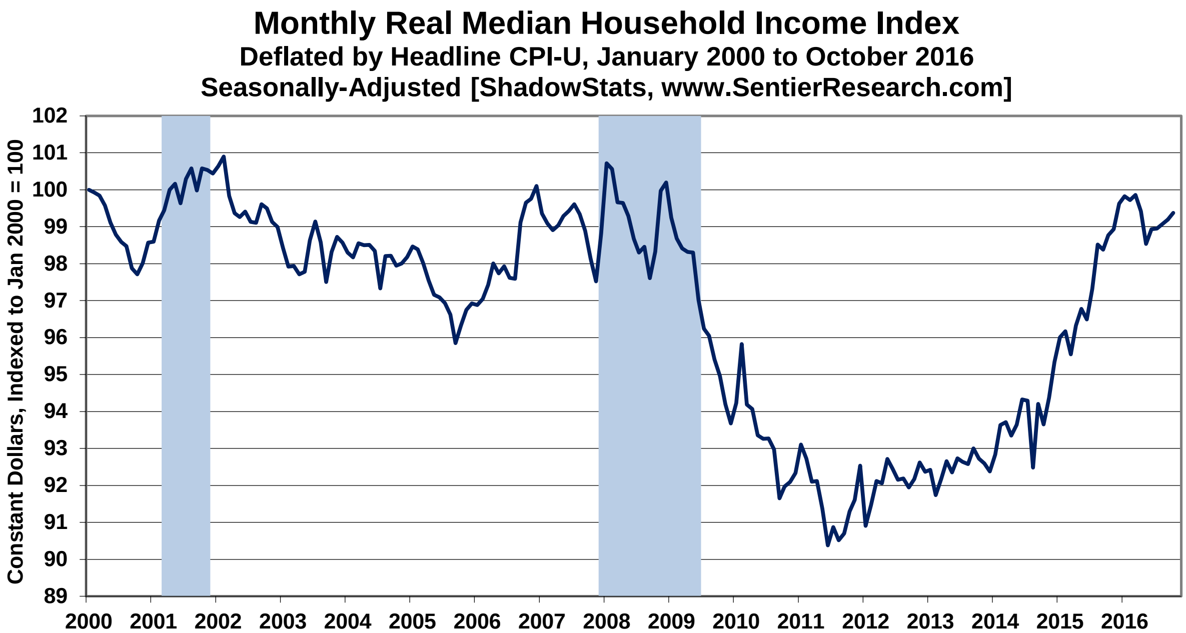
Despite Near-Term Optimism, Monthly Household Income Continue to Signal Broadly-Based Economic Difficulties. Beyond the happy expectations building up in anticipation of the Trump Administration, October 2016 real median U.S. household income still indicated liquidity problems. Shown in *Graph 6* headline October income detail, published by www.SentierResearch.com, had turned down anew, with a statistically-significant monthly decline in May 2016, after several months of statistically-insignificant flutterings around its near-term January 2016 peak. Still stagnating at present, statistically-insignificant flutterings have continued from June through the headline October 2016 detail.

On a monthly basis, when headline GDP purportedly started its solid economic recovery in mid-2009, the monthly household income number nonetheless plunged to new lows. Generally, the income series had been in low-level stagnation, with the recent uptrend in the monthly index boosted specifically by collapsing gasoline prices and the related, negative headline CPI-U consumer inflation. The index reached pre-recession levels in the December 2015 reporting, but it remains minimally below the pre-recession highs for both the formal 2007 and 2001 recessions. It should continue turning down anew, as headline monthly consumer inflation picks up at an accelerating pace.

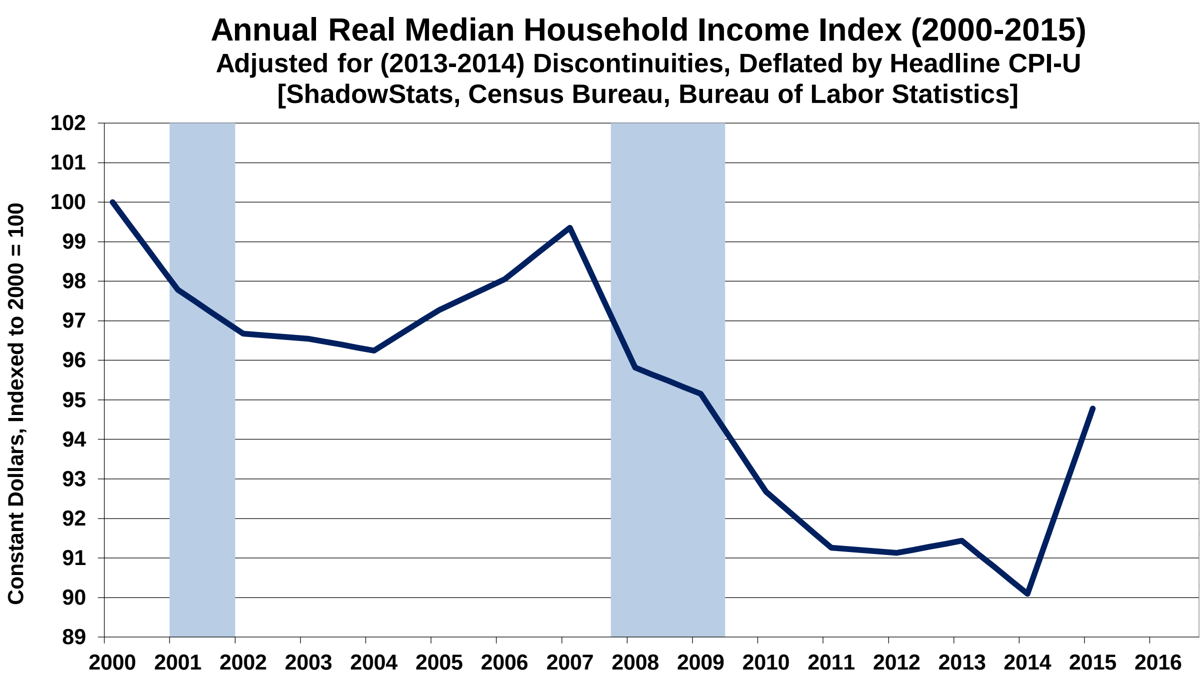
Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash generally was used to help pay down unsustainable debt or other obligations, not to fuel new consumption. Again, the effects of lower gasoline prices have bottomed out and begun to reverse, pushing headline consumer inflation higher.

This measure of real monthly median household income generally can be considered as a monthly version of the annual detail shown in *Graph 7*, which was updated recently for 2015 detail (see the full analysis of the 2015 annual household income reporting in *Commentary No. 833*).

Graph 6: Monthly Real Median Household Income through October 2016



Graph 7: Annual Real Median Household Income through 2015, Discontinuities Removed



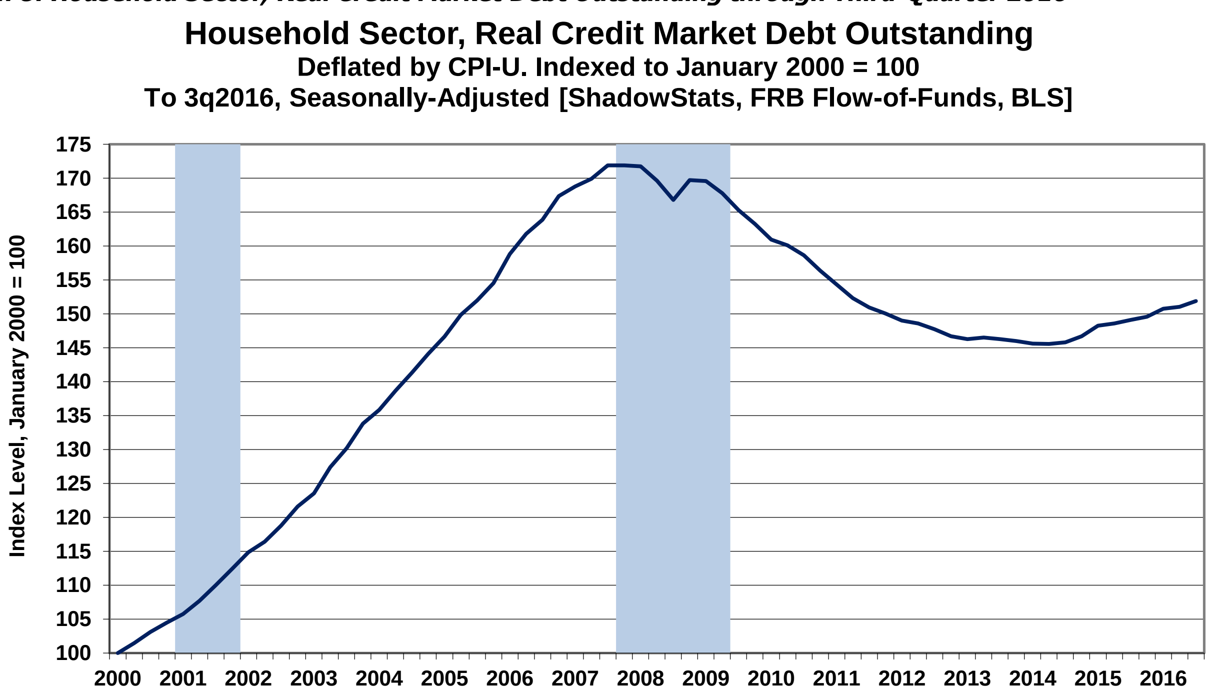
Differences in the Monthly versus Annual Median Household Income. The general pattern of relative historical weakness also has been seen in the headline reporting of the annual Census numbers, shown in *Graph 7*, with 2014 real annual median household income having hit a ten-year low, and with the new, historically consistent 2015 annual number still holding below that seen when the collapsing economy hit its purported trough in 2009. The Sentier numbers had suggested a small increase in 2014 versus 2013 levels. Still, the monthly and annual series remain broadly consistent, although based on separate questions within the monthly Consumer Population Series (CPS), as conducted by the Census Bureau. Where Sentier uses monthly questions surveying current annual household income, the headline annual Census detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income.

Consumer Credit Has Remained Constrained. The final four graphs here address consumer borrowing. Debt expansion can help make up for a shortfall in income growth. Shown in *Graph 8* of *Household Sector*, *Real Credit Market Debt Outstanding*, household debt declined in the period following the Panic of 2008, and it has not recovered, based on the Federal Reserve's flow-of-funds accounting through third-quarter 2016. In the context of Federal Reserve upside technical revisions to outstanding mortgages, back into 2008, Household Sector, Real Credit Market Debt Outstanding in third-quarter of 2016 had declined by 11.6% (-11.6%) from its pre-recession peak in third-quarter 2007.

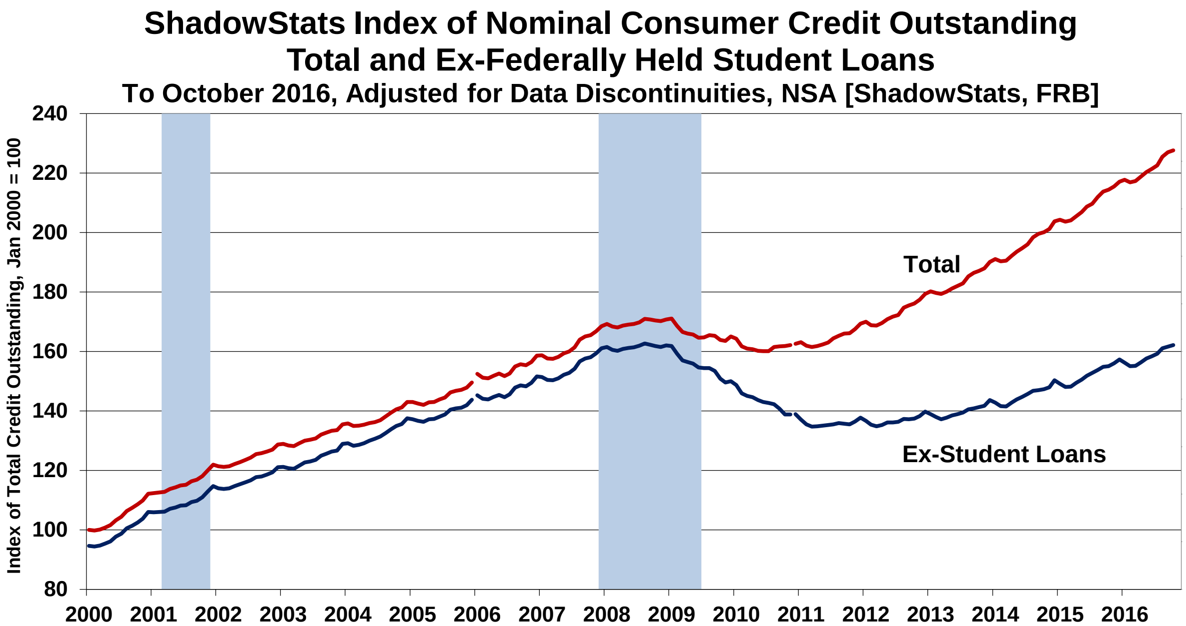
The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking 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 has also reflected surging student loans, as shown in the *Graphs 9* to *11*.

Shown through October 2016 reporting, *Graph 9* of monthly Consumer Credit Outstanding is a subcomponent of *Graph 8* on real Household Sector debt. Where *Graph 9* reflects the nominal reporting, not adjusted for inflation, inflation-adjusted real activity for Consumer Credit Outstanding is shown both in terms of level (Graph *10*) and in terms of year-to-year change (*Graph 11*).

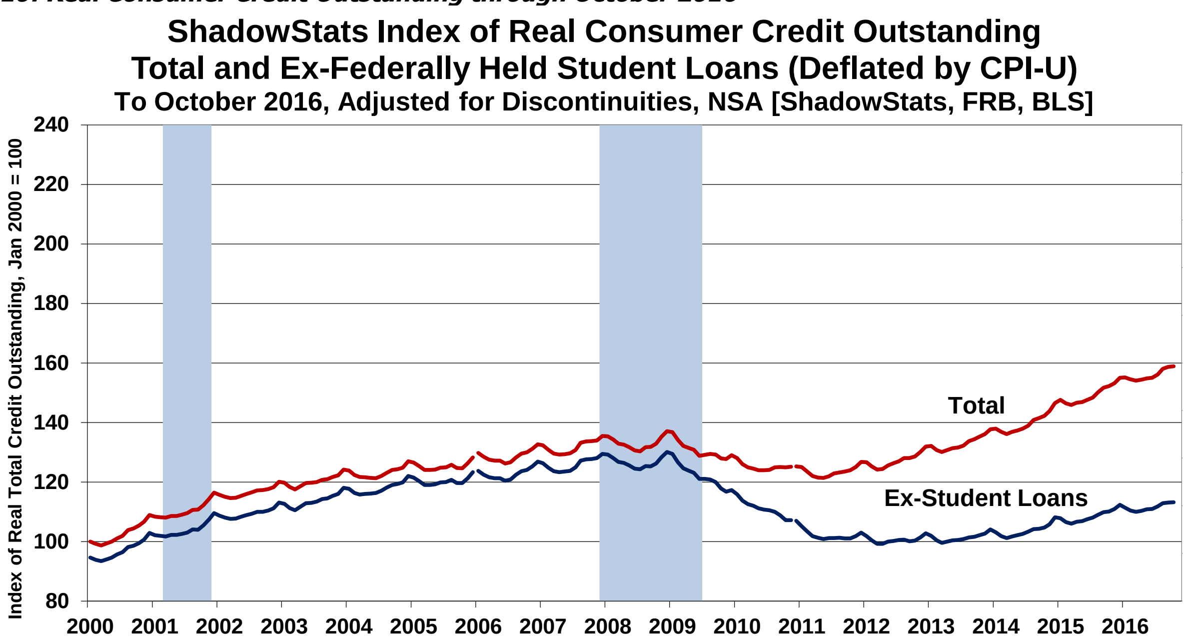
Graph 8: Household Sector, Real Credit Market Debt Outstanding through Third-Quarter 2016



Graph 9: Nominal Consumer Credit Outstanding through October 2016



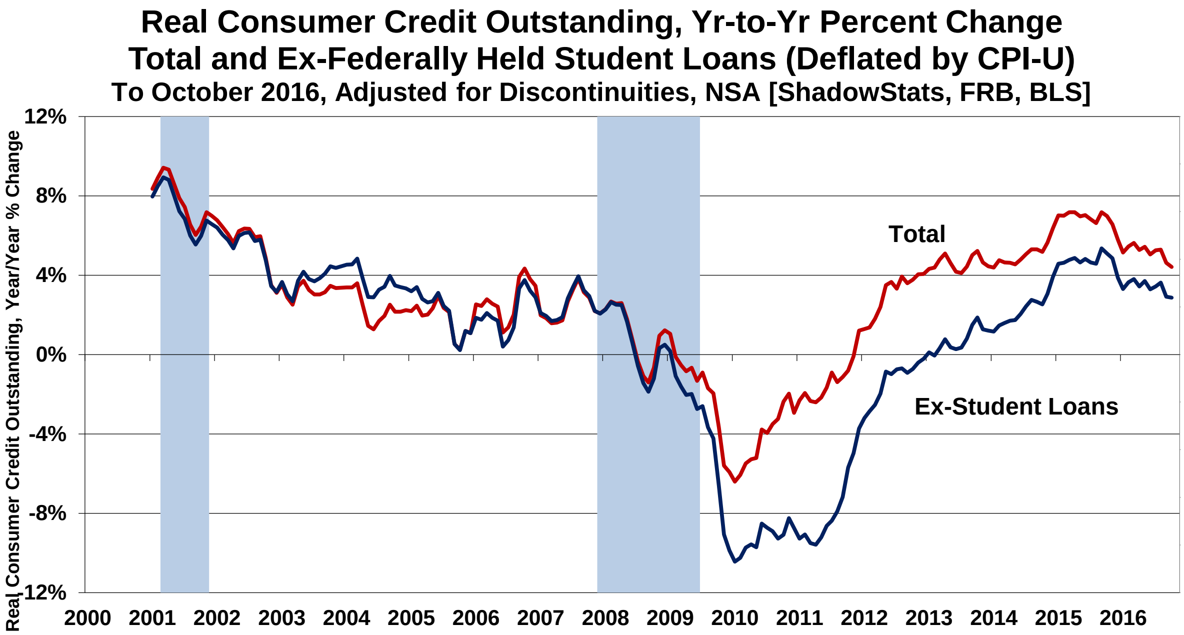
Graph 10: Real Consumer Credit Outstanding through October 2016



Post-2008 Panic, 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 over 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. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in October 2016 was down from its December 2007 pre-recession peak by 12.5% (-12.5%). Year-to-year growth in *Graph 11* tends to resolve most of the monthly distortions in not-seasonally-adjusted data.

Graph 11: Year-to-Year Percent Change, Real Consumer Credit Outstanding through October 2016



[The* Reporting Detail *section contains extended analysis and graphs of November 2016 Industrial Production, and expanded analysis of nominal Retail Sales and the PPI.]

REPORTING DETAIL

INDEX OF INDUSTRIAL PRODUCTION (November 2016)

Fourth-Quarter Production Appears Locked into a Fifth Consecutive Quarter of Year-to-Year Contraction and a Renewed Quarter-to-Quarter Decline. In the context of minimal prior-period revisions, the broad production picture deteriorated in November, contracting month-to-month in aggregate, with monthly declines in manufacturing and utilities, and a monthly gain in mining. With annual change continuing in decline for the fifteenth straight month, implications are solid not only for the fifth consecutive quarter of annual decline, but also for the for the sixth quarter-to-quarter contraction in the last eight quarters. Again, these are patterns of growth never have seen outside of periods of formal recession in the 98-year history of the industrial production series.

With industrial production representing 65% of the nominal value of Gross Domestic Product (GDP), as estimated by the Federal Reserve, the broad economy remains in the harsh reality of ongoing recession, one that has continued from somewhat before 2007. Although never recovering, a renewed downturn in activity has been underway since December 2014, following a period of low-level, non-recovered economic stagnation. That is irrespective of the happy hype out of the Bureau of Economic Analysis (BEA), which guesstimated that the second estimate of third-quarter 2016 real GDP reflected broad economic activity at 11.5% above its pre-recession peak (see *Commentary No. 851*). No other major economic series shows anything close to that purported level of recovery, while industrial production is showing a renewed and continuing downturn.

As of today's headline November 2016 reporting, Industrial Production Index at 103.859, stood below its formal pre-recession high by 1.77% (-1.77%) and was down by 2.65% (-2.65%) from its one-month "recovery" peak level of November 2014.

The dominant manufacturing sector (78.5% of Industrial Production, 51.0% of GDP) never has recovered, with November 2016 manufacturing activity still down by 6.21% (-6.21%) from reclaiming its pre-2007 recession peak level of activity.

An overriding issue continuing to hamper policies of the Federal Reserve, as well as the dominant contributing factor behind the major political shift seen in the 2016 presidential election (see *Commentary No. 846*), 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-2016-benchmark revision era for Industrial Production, the headline (not the ShadowStats-corrected) series, again, recovered its pre-recession high only for only one month, in November 2014, and it has been in fairly-consistent monthly decline ever since, falling month-to-month in 17 out of 24 subsequent months.

Headline Industrial Production—November 2016. The Federal Reserve Board released its first estimate of seasonally-adjusted, November 2016 industrial production this morning, December 14th. Headline November 2016 production contracted month-to-month by 0.44% (-0.44%), versus a revised October gain of 0.07% [previously up by 0.04%], a revised September contraction of 0.20% (-0.20%) [previously down by 0.23% (-0.23%), initially up by 0.06%], and a revised August contraction of 0.08% (-0.08%) [previously down by 0.12% (-0.12%), 0.53% (-0.53%) and initially down by 0.43% (-0.43%)].

Net of prior-period revisions, November 2016 production declined by 0.39% (-0.39%) for the month, versus the headline decline of 0.44% (-0.44%).

Detailed by major industry group (see *Graphs 14, 16, 21* and *23*), the headline November 2016 monthly aggregate production decline of 0.44% (-0.44%) was composed of a monthly decline of 0.06% (-0.06%) in manufacturing activity, a gain of 1.12% in mining activity (including oil and gas production), and a decline of 4.45% (-4.45%) in utilities activity. The decline in manufacturing reflected declines in both durable and nondurable consumer goods, including automobiles. The gain in mining reflected increases in oil and gas extraction, oil and gas drilling and gold and silver mining, despite a renewed monthly downturn in coal mining. The decline in utilities reflected unseasonable weather distortions, as usual.

Year-to-year change in November 2016 industrial production was a decline of 0.60% (-0.60%), the fifteenth consecutive monthly year-to-year decline, a circumstance unprecedented outside of formal recessions. That was against revised annual declines of 0.80% (-0.80%) [previously 0.85% (-0.85%)] in October 2016, 1.01% (-1.01%) [previously down by 1.03% (-1.03%), initially down by 1.05% (-1.05%)] in September 2016, and 1.07% (-1.07%) [previously down by 1.05% (-1.05%), by 1.34% (-1.34%), and initially down by 1.11% (-1.11%)] in August 2016.

Quarterly and Annual Production Contractions. Annual growth in aggregate production held in negative territory for the fifteenth straight month, again, down by 0.60% (-0.60%) in November 2016, effectively locking in a fifth consecutive quarter of annual contraction, implied as an annual contraction for fourth-quarter 2016 of 0.46% (-0.46%), based solely on October and November reporting. December monthly growth would have to top an unlikely 1.6% to turn annual growth positive. In the 98-year history of the industrial production series, two consecutive quarters of annual contraction never have been seen outside of formal recessions, let alone four or more.

Year-to-year growth rates in quarterly production have continued to slow and then decline, ranging from a positive 2.43% in first-quarter 2015, to 0.36% in second-quarter 2015, to 0.12% in third-quarter 2015, to annual declines of 1.62% (-1.62%) in fourth-quarter 2015, 1.57% (-1.57%) in first-quarter 2016, down by 1.08% (-1.08%) in second-quarter 2016 and by a revised 0.99% (-0.99%) [previously 0.97% (-0.97%)] in third-quarter 2016.

<u>Annualized Quarter-to-Quarter.</u> Going back a year, first-quarter 2015 industrial production contracted at an annualized quarterly pace of 1.85% (-1.85%), followed by a second-quarter 2015 contraction of 2.75% (-2.75%), with a third-quarter 2015 production gain of 1.53%, followed by a fourth-quarter 2015 contraction of 3.33% (-3.33%).

The first-quarter 2016 quarterly decline was 1.66% (-1.66%), with the second-quarter 2016 quarterly decline of by 0.81% (-0.81%). Third-quarter 2016 industrial production expanded at a revised annualized pace of 1.92% [previously 1.97%], with a trend for fourth-quarter 2016 at a pace of annualized contraction of 1.24% (-1.24%), based on October and November detail. December monthly growth would have to top an unlikely 1.2% to turn the quarter-to-quarter change positive.

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

Graphs 12 and *13*, and *Graphs 14* and *15* show headline industrial production activity to date. *Graph 13* 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 0.60% (-0.60%) in November 2016, and with headline annual contractions in place for the last fifteen months, again, continuing annual declines are a pattern never seen outside of formal recessions.

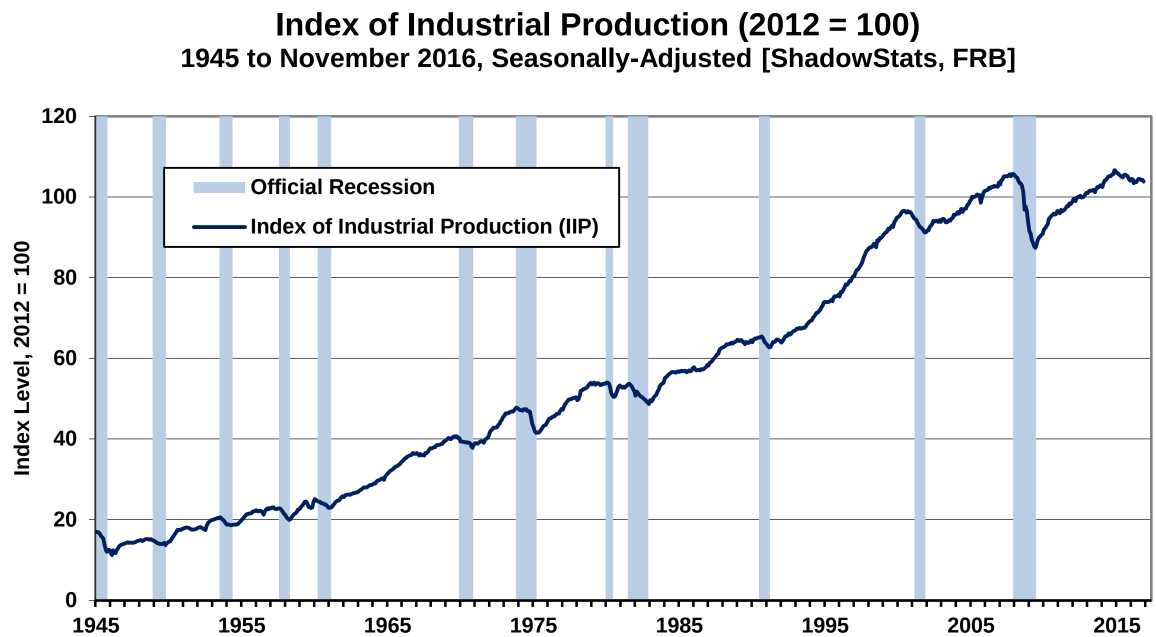
Graph 12 shows the monthly level of the production index post-World War II, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015, with a bounce in third-quarter 2015, followed by renewed and deeper contractions in fourth-quarter 2015 and first- and second-quarter 2016, a bounce back in third quarter, but with a quarterly trend unfolding for a fourth-quarter 2016 quarter-to-quarter contraction. Such patterns of monthly, quarterly and annual declines were seen last in the economic collapse into 2009. *Graphs 14* and *15* show the same series in near-term detail, beginning in January 2000.

Seen most clearly in *Graph 15*, the pattern of year-to-year activity dipped anew in 2013, again, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, now having turned negative, again, as seen only in formal recessions. Year-to-year growth remains well off the recent relative peak for the series, which was 8.48% in June 2010, going against the official June 2009 trough of the economic collapse. Indeed, as shown in *Graph 13*, 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.

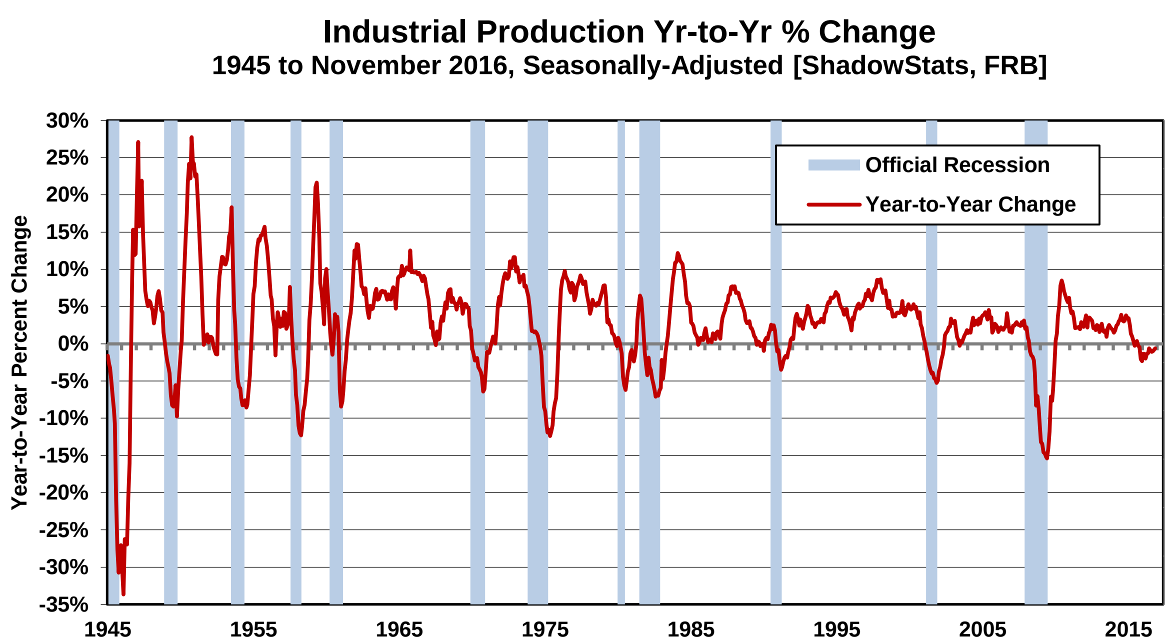
Although generally now-faltering, official production levels had moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Opening Comments* section, *Graph 2*) that series has shown more of a pattern 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, contracted into second-quarter 2016, bounced in third-quarter 2016 and is head lower again in fourth-quarter 2016. The "corrected" series has contracted quarter-to-quarter throughout 2016.

[Graphs 12 to 17 begin on the following page]

Graph 12: Index of Industrial Production (Aggregate) since 1945

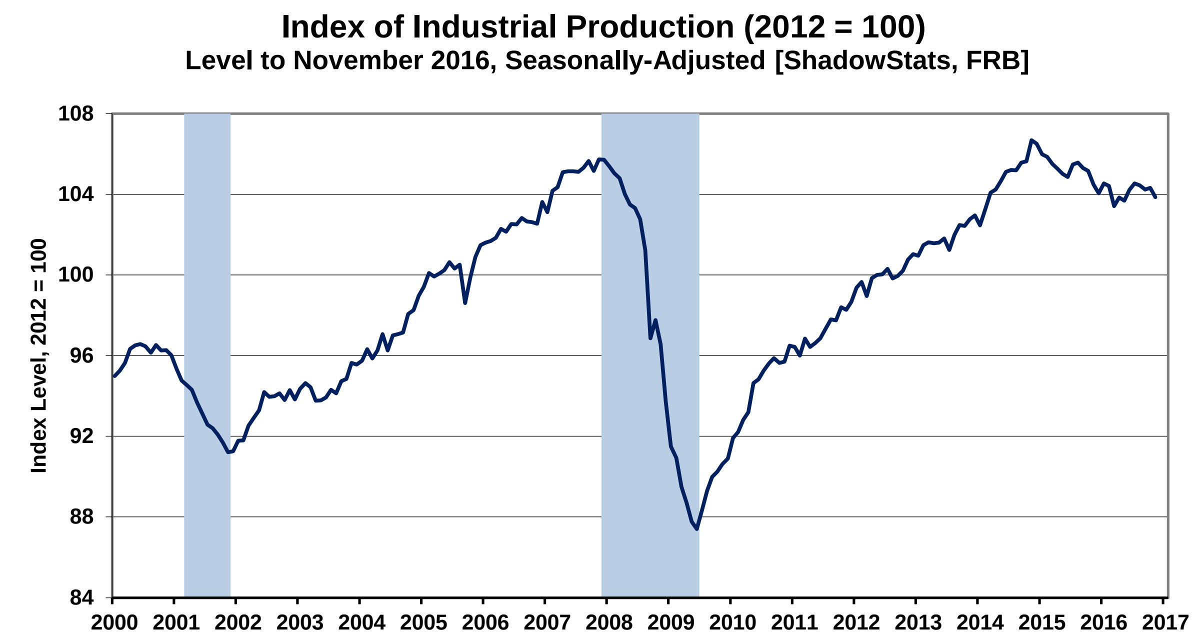


Graph 13: Industrial Production, Year-to-Year Percent Change since 1945

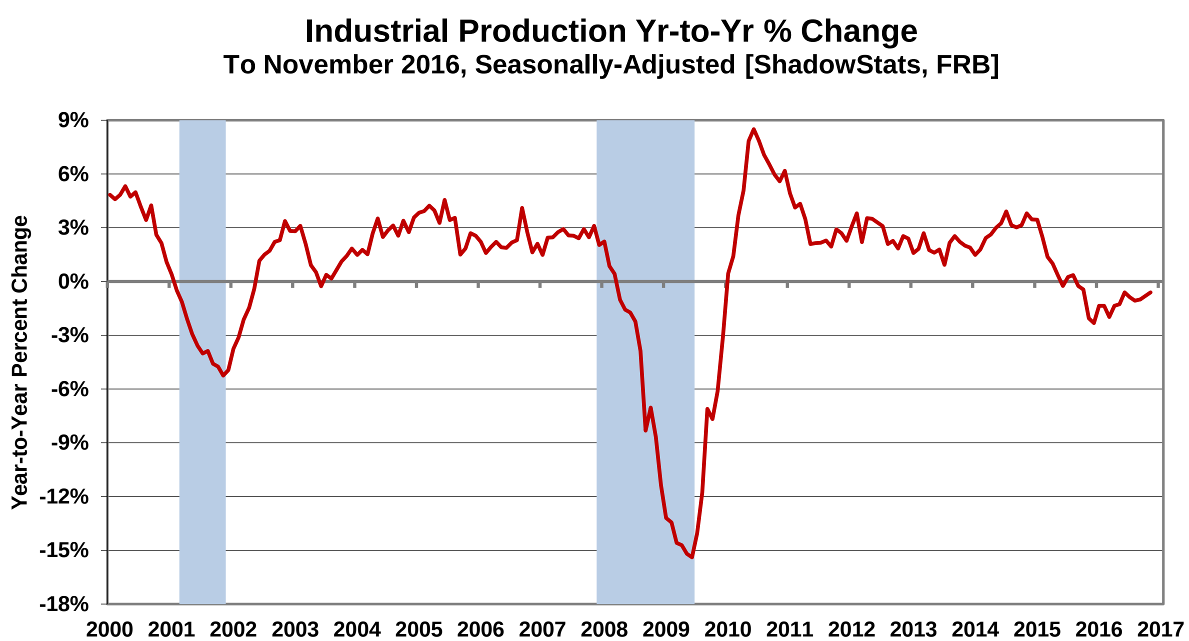


Drilling Down into the November 2016 U.S. Industrial Production Detail. *Graphs 14*, *16*, *21* and *25* show headline reporting of industrial production and its major components.

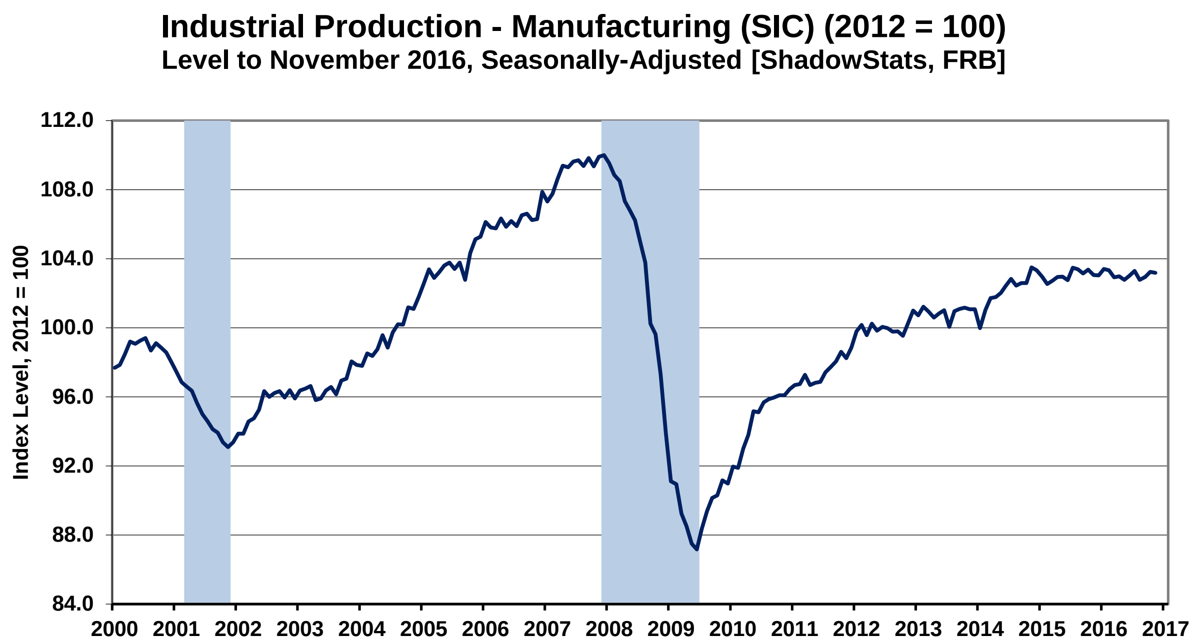
Graph 14: Index of Aggregate Industrial Production since 2000



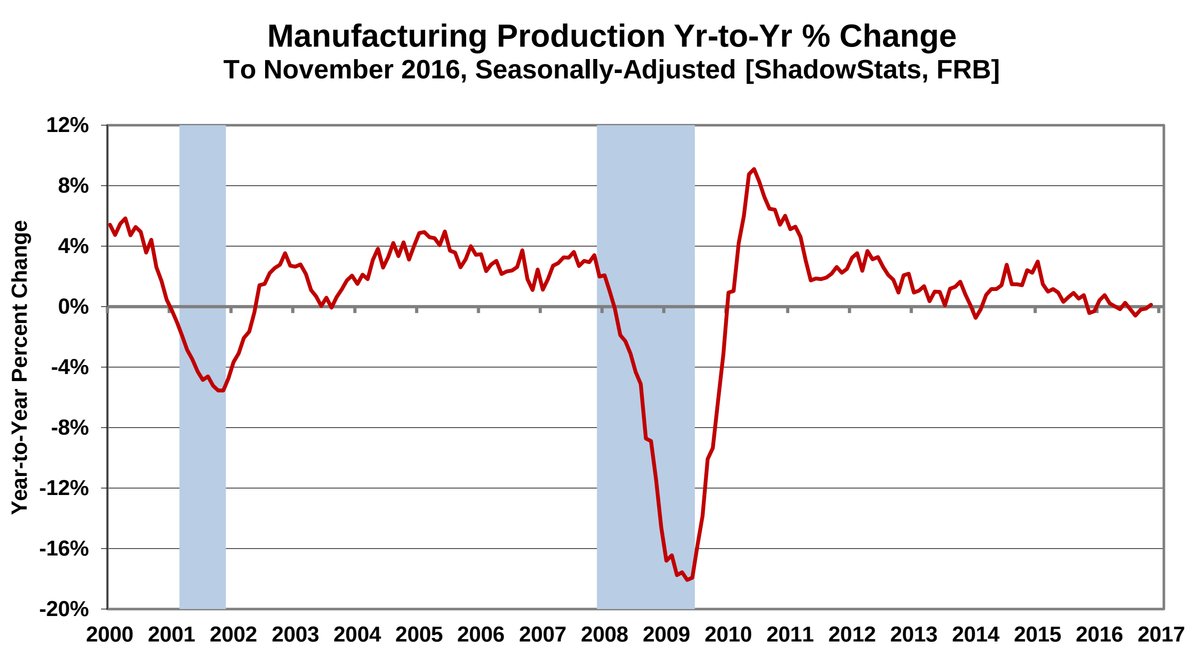
Graph 15: Aggregate Industrial Production, Year-to-Year Percent Change since 2000



Graph 16: Industrial Production - Manufacturing (78.48% of the Aggregate in 2015)



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

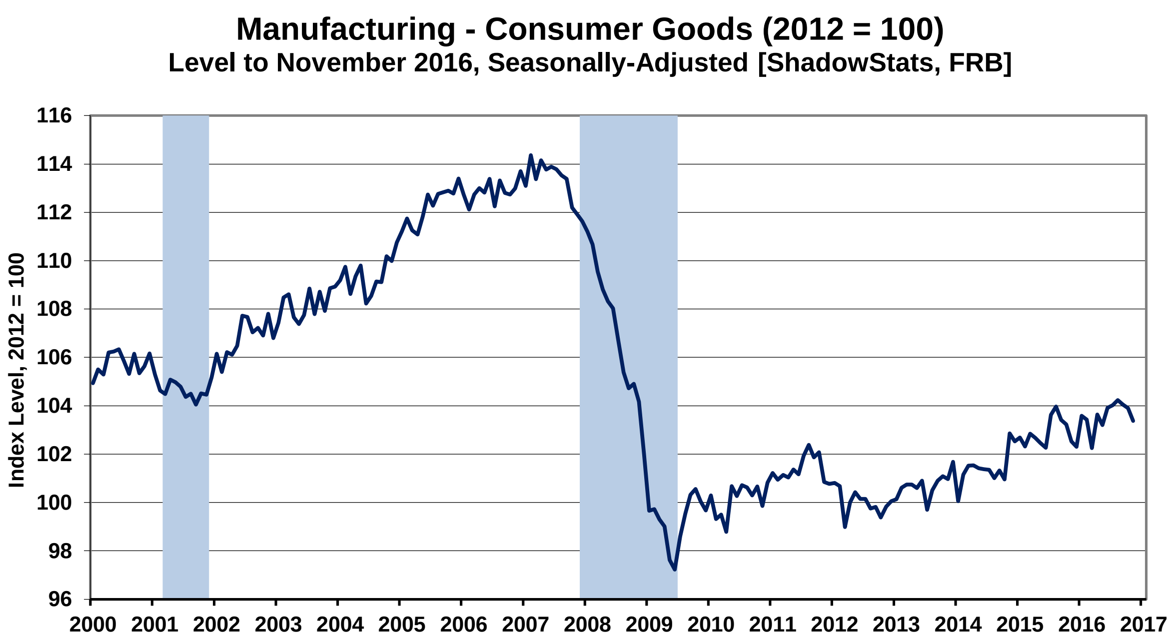


The broad, aggregate index (*Graph 14*) contracted in both first- and second-quarter 2015, with a third-quarter 2015 bounce, followed by ongoing, consecutive quarterly and annual contractions in fourth-quarter 2015, first-quarter 2016 and second-quarter 2016, with another bounce in third-quarter 2016, but an unfolding fourth-quarter 2016 contraction. Fourth-quarter 2016, also should be the fifth consecutive annual contraction, a circumstance simply not seen outside of recessions, as discussed earlier.

Shown in *Graphs 16*, *21* and *23*, of the three major industry groups, manufacturing, mining and utilities, only mining showed a monthly gain in November 2016 reporting.

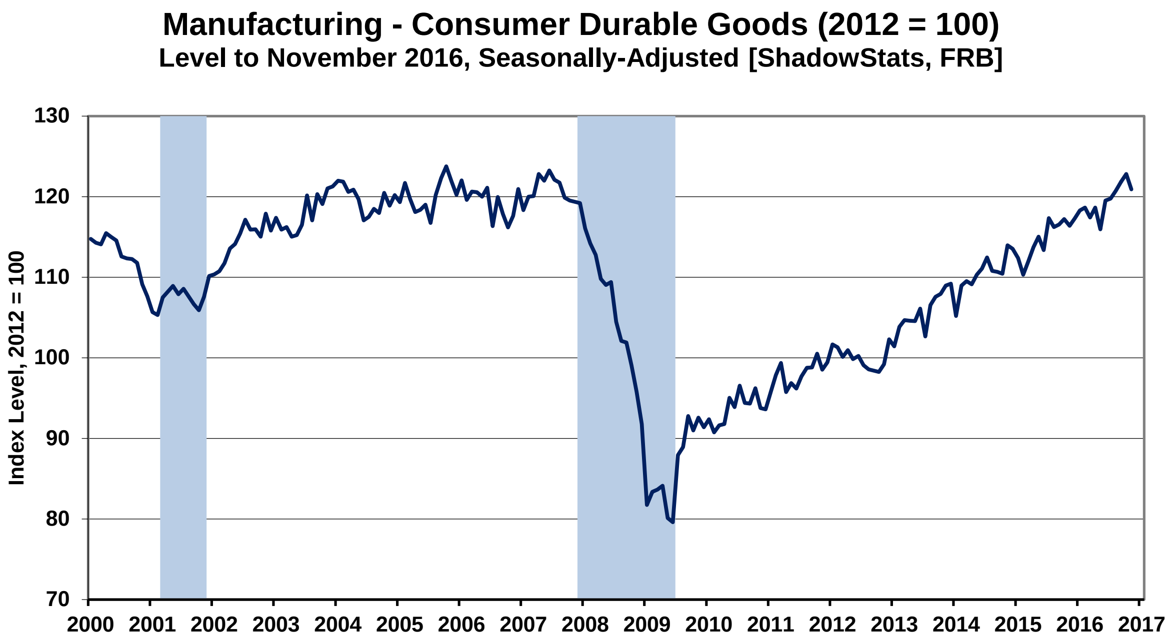
Graph 16 of the dominant manufacturing sector showed a month-to-month contraction of 0.06% (-0.06%) in November, following a downwardly revised monthly gain of 0.28% [previously up by 0.46%] in October. Consumer goods manufacturing reflected declining auto production, but the dominant nondurable consumer goods sector pulled consumer production lower as well (see *Graphs 18* to *20*). *Graph 17* reflects annual growth patterns in manufacturing, which had been fluttering at low levels since an initial bounce off the 2009 trough, down year-to-year in the four months through October, turning to the plus-side by 0.11% in November.

Graph 16: Consumer Goods (27.08% of the Aggregate in 2015)

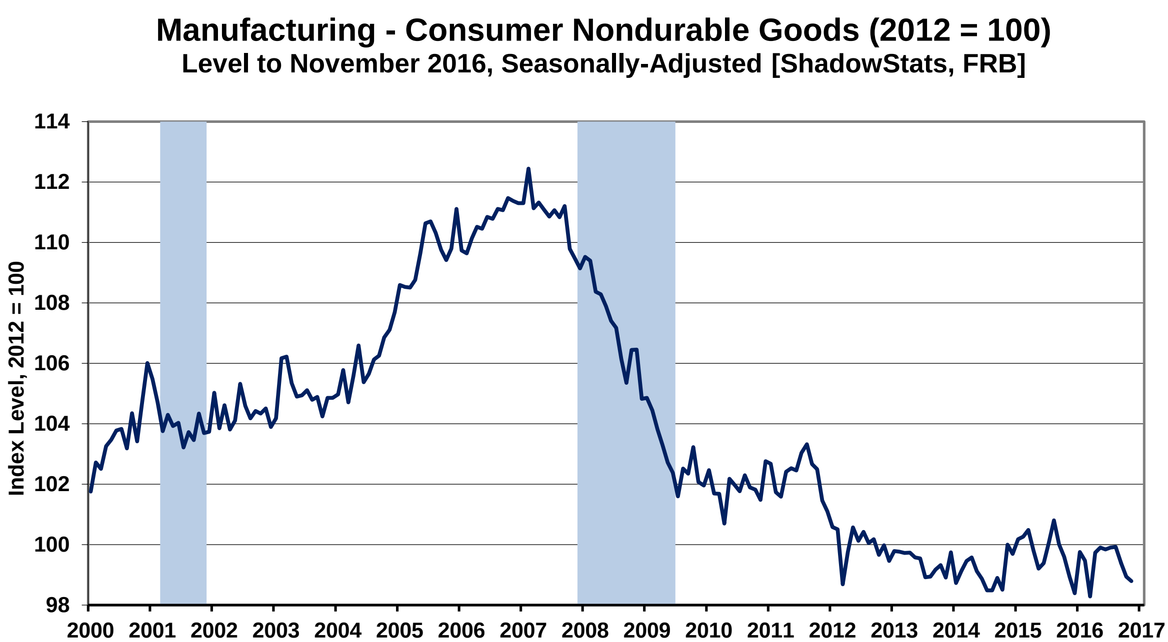


[Graphs 19 and 20 follow on the next page.]

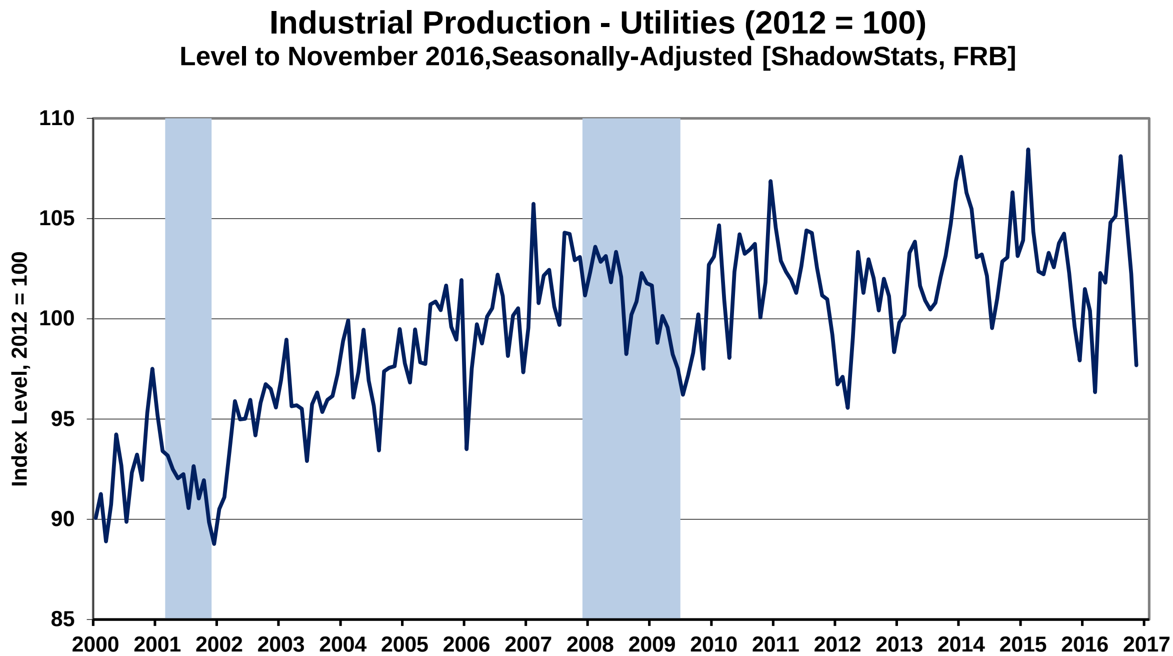
Graph 19: Durable Consumer Goods (6.36% of the Aggregate in 2015)



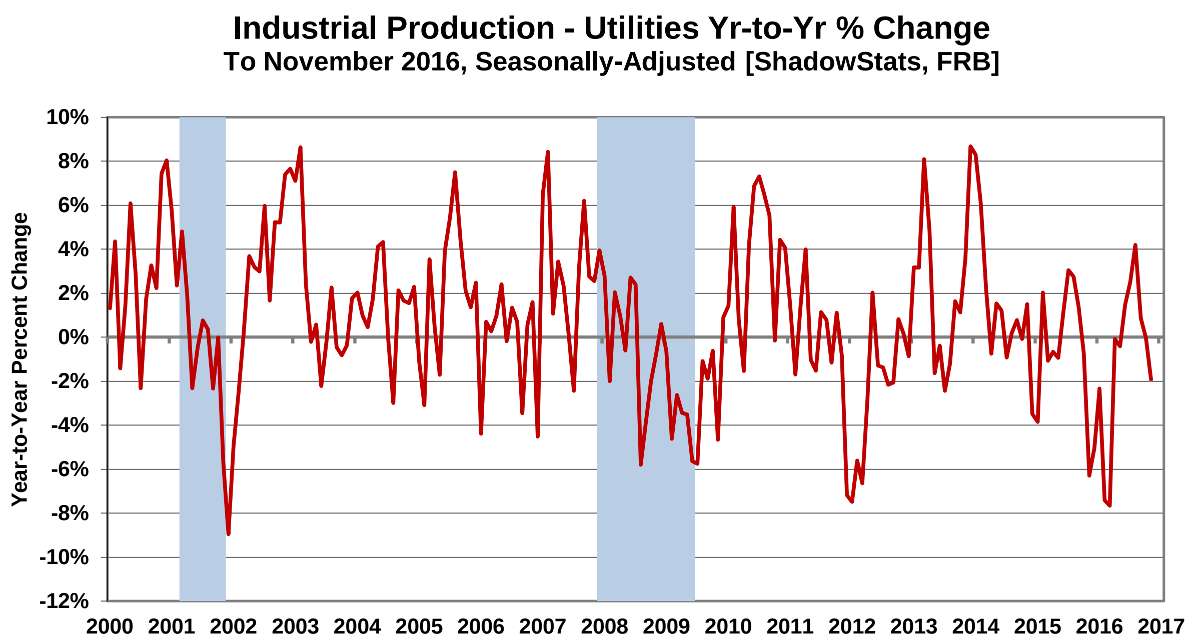
Graph 20: Nondurable Consumer Goods (20.73% of the Aggregate in 2015)



Graph 21: Industrial Production - Utilities (10.76% of the Aggregate in 2015)

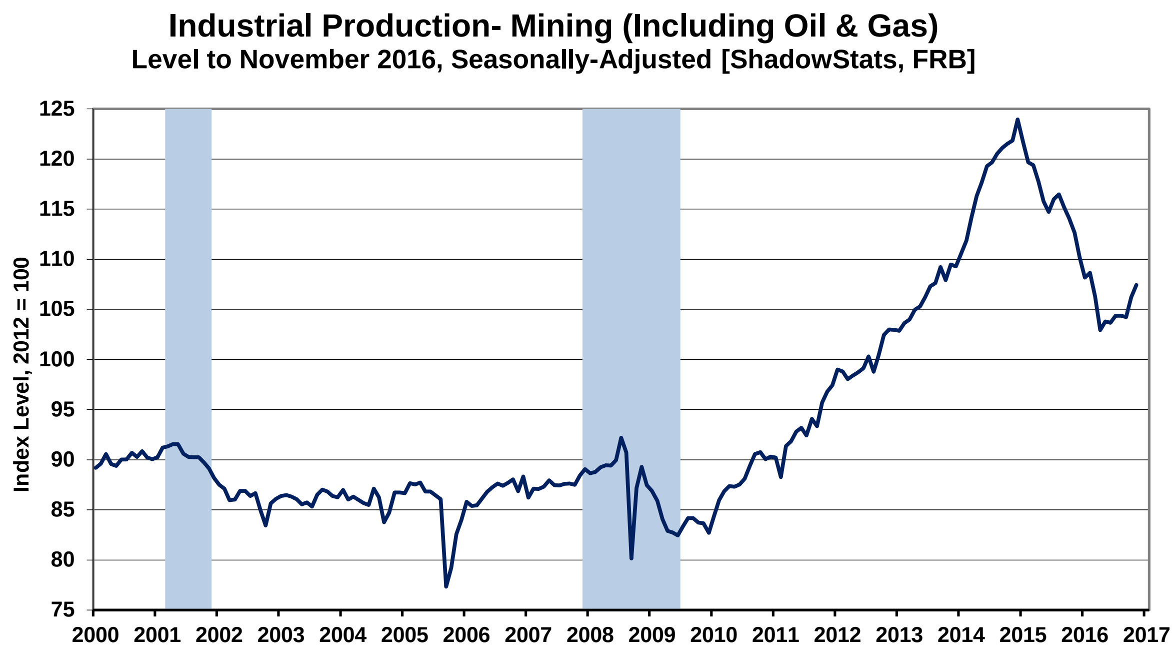


Graph 22: Industrial Production - Utilities, Year-to-Year Percent Change Since 2000

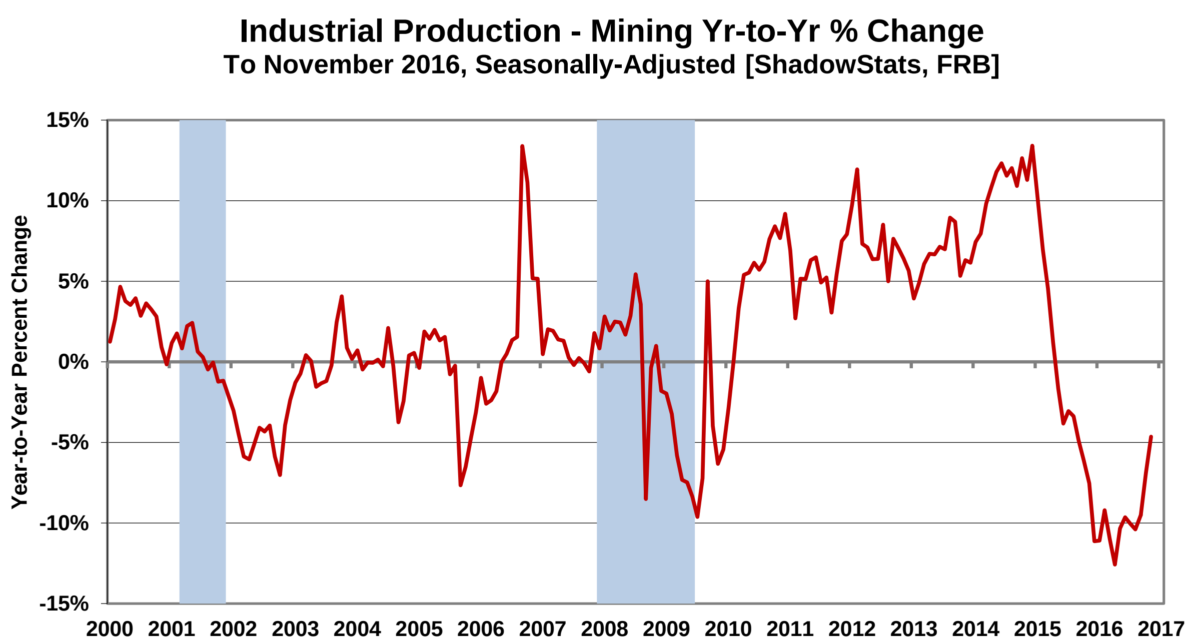


Monthly volatility in the utilities sector (*Graph 12*) usually reflects unseasonable shifts in weather conditions and reversals of same. The 4.45% (-4.45%) monthly decline in November 2016 utilities was of that nature.

Graph 23: Industrial Production - Mining, Including Oil and Gas (10.76% of the Aggregate in 2015)



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

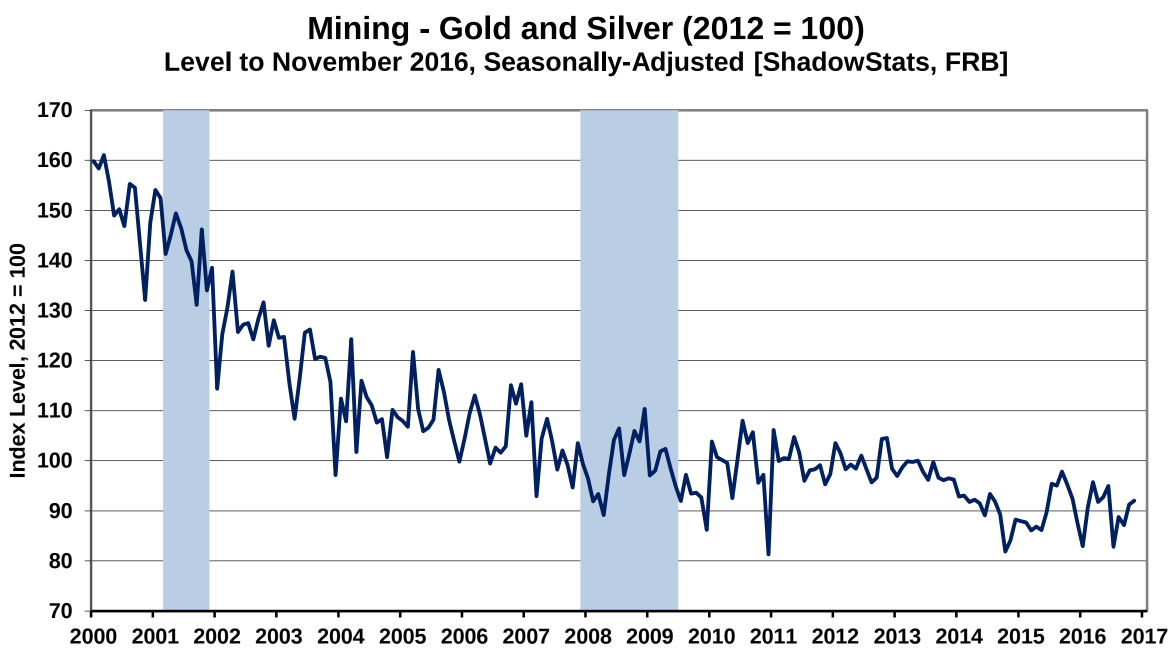


Activity in the mining sector (*Graph 23*), particularly in oil and gas exploration and production, and in coal production, still remains the near-term focus of this analysis. The sector easily recovered its pre-recession high and accounted for the full "recovery," albeit extremely short-lived, seen in the aggregate production detail since the economic collapse. Since then, however, mining production had turned down sharply, reflecting a number of factors, including the impact of largely orchestrated lower oil prices, which subsequently have been up and down tied to dollar and supply issues, as well as U.S. government actions to limit coal consumption and production. Year-to-year mining activity (*Graph 24*), still down by 4.64% (-4.64%), has moved off bottom, thanks to a brief rebound in coal production and a bottoming and minimal upturn following the collapse of oil and gas exploration.

Graph 25 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 price volatility in the markets.

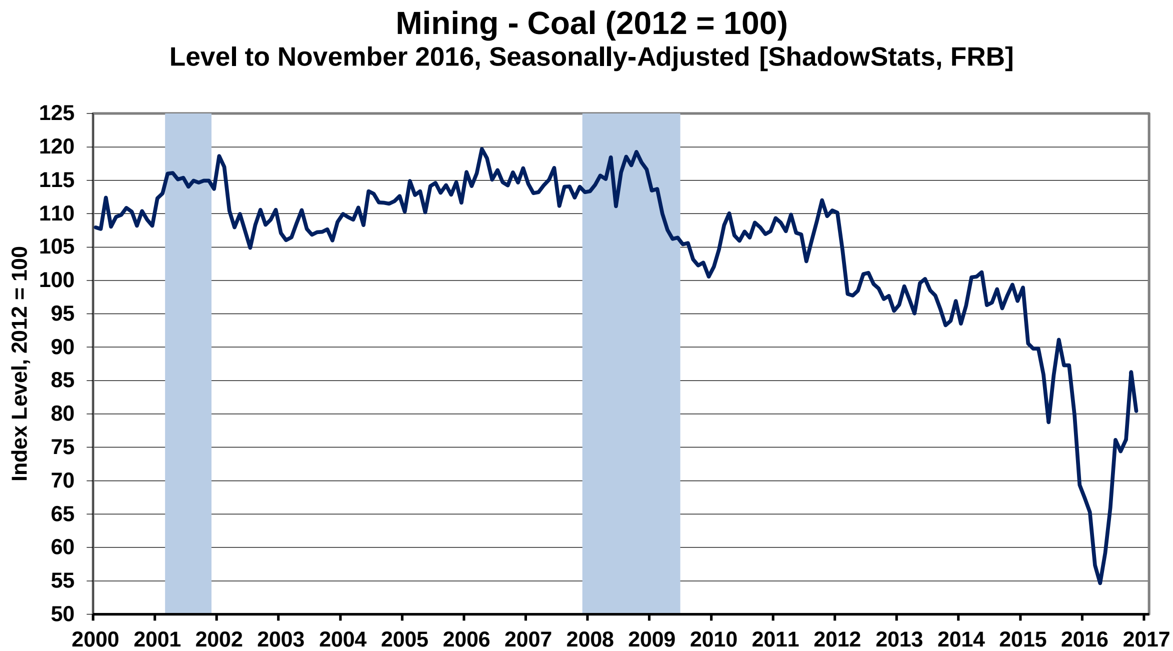
Graph 26 still shows an extraordinary rebound in monthly coal production, which was down year-to-year by 18.39% (-18.39%) in August 2016, but now is up year-to-year by 0.70% as of November 2016, although the latest month-to-month activity was in decline, and although current activity still is down sharply from its near-term May 2014 production peak.

Graph 25: Mining – Gold and Silver Mining (Since 2000)

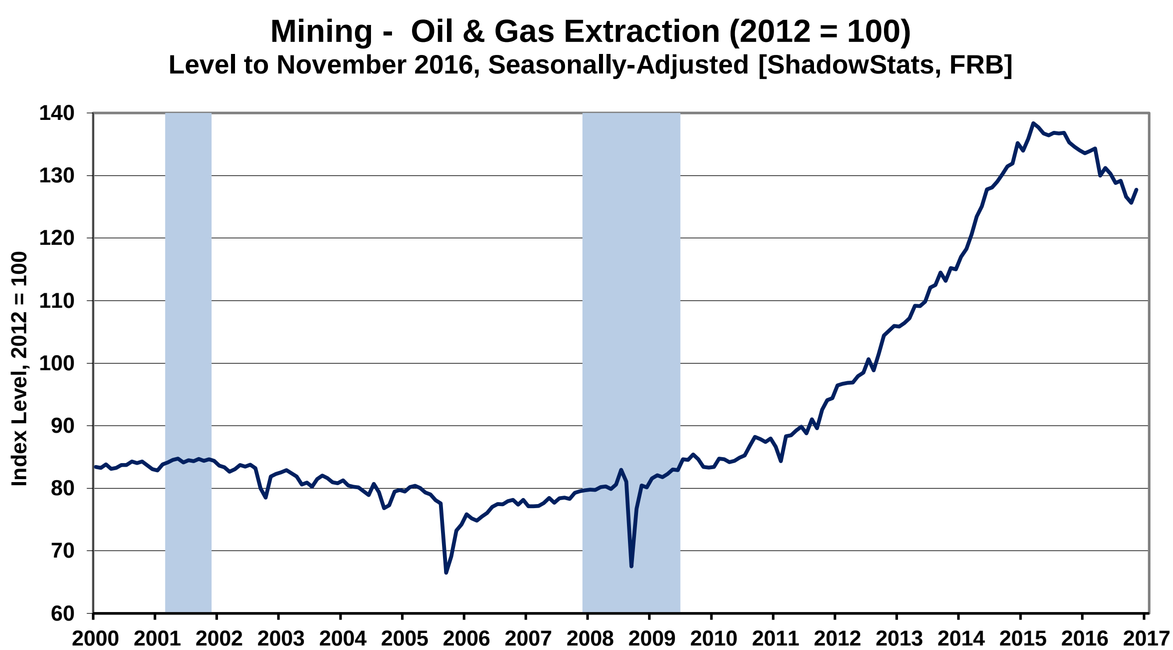


[Graphs 26 and 27 follow on the next page.]

Graph 26: Mining - Coal Mining (Since 2000)



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

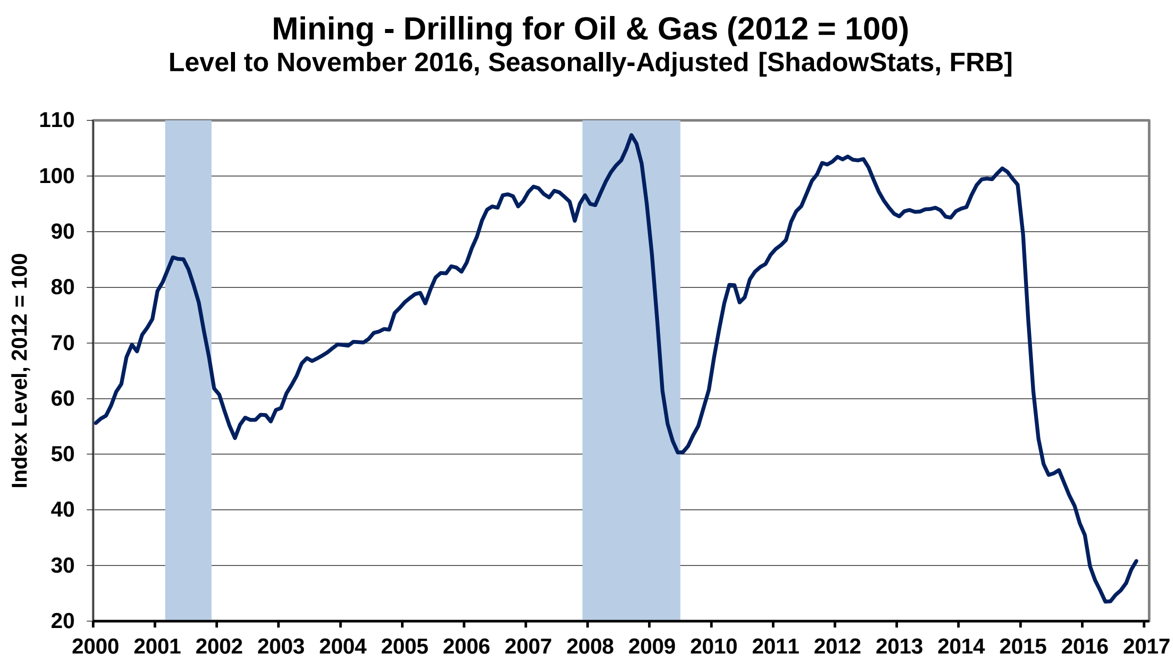


With oil prices fluctuating above recent lows, oil and gas extraction just gained 1.69% for the month of November, still remaining well off its all-time high.

Exploration in terms of oil and gas drilling (*Graph 28*) has continued to move higher in what increasingly looks like a bottoming process, up by 5.28% month-to-month in November.

Regularly discussed here, the collapse in drilling largely was an artefact of the massive U.S. dollar rally and oil-price plunge that began in July 2014. Those shifts appeared, at least initially, to be U.S.-orchestrated covert actions designed to stress Russia, financially, in response the circumstance in Ukraine. Since the related September 2014 peak in oil drilling, activity there still has collapsed by 69% (-69%).

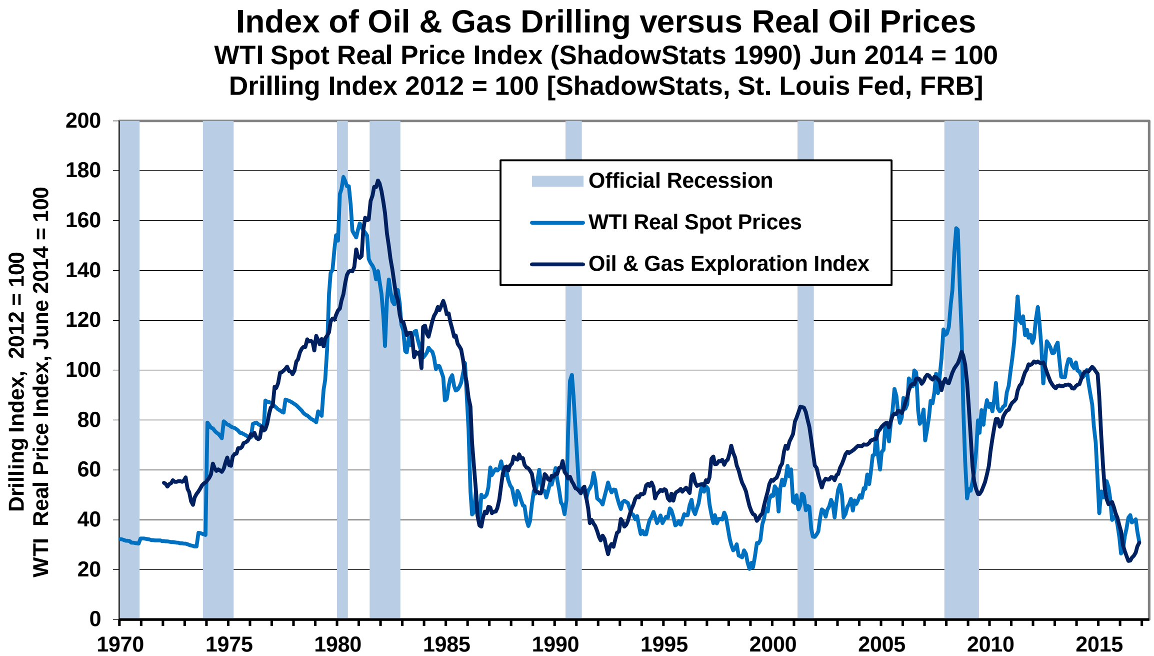
Graph 28: U.S. Drilling for Oil & Gas (Since 2000)



Shown in *Graph 29*, with some lag following the sharp movements in oil prices, oil and gas exploration tends to move in tandem, and an upswing, indeed, appears to be in its early stages. The oil price index used is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the ShadowStats Alternate CPI measure (1990 Base).

When the dollar recently started to weaken anew, dollar-denominated oil prices also began to strengthen, even in a circumstance with excess supply conditions. At such time as the U.S. dollar declines meaningfully—ShadowStats looks for a massive sell-off in the dollar in the year ahead—U.S. dollar-denominated oil prices should rally (see *General Commentary No. 811*). That said, post-election, the U.S. dollar has rallied sharply, but there has not been a commensurate decline in oil prices, with supply being tightened artificially. Those circumstances will be discussed again in the *Hyperinflation Watch* of tomorrow's (December 15th) *Commentary No. 855*.

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



NOMINAL RETAIL SALES (November 2016)

Holiday Season Shopping Had a Rough Start. The monthly gain of 0.1% in November retail sales would have been a contraction of 0.1% (-0.1%), before the downside revisions to October. Further adjusted for a net 0.1% monthly growth boost from inconsistent usage of revised seasonal adjustments, the monthly contraction would deepen to 0.2% (-0.2%). That would become a compounded, inflation-adjusted real monthly decline of 0.4% (-0.4%), if the headline November CPI-U should gain 0.2%, as expected. The Holiday Season (November and December) dominates annual retail sales, and the November start to the Season was far from a happy, robust one.

Separately, the initial headline 0.8% monthly "boom" in last month's nominal October retail sales was not credible (*Commentary No. 847*), and today's downside revision to a 0.6% October gain still was not credible. Nonetheless, that revision and the weaker-than expected headline November detail should reduce expectations for fourth-quarter GDP growth.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—November 2016. In the context of a downside revision to the previously-reported level of October activity and a minimal upside revision to September, the Census Bureau reported today (December 14th) that headline nominal November 2016 Retail Sales rose by 0.08% month-to-month, versus a negatively-revised 0.62% [previously 0.82%] gain in October, and a positively-revised 1.00% [previously 0.96%, initially 0.62%] gain in September.

That seasonally-adjusted, headline November gain of 0.08% +/- 0.59% was statistically-insignificant (all confidence intervals are expressed at the 95% level). Net of prior-period revisions, November sales contracted by 0.09% (-0.09%). The downwardly-revised headline October 2016 monthly retail sales gain of 0.62% +/- 0.23%, however, remained statistically-significant.

Year-to-Year Annual Change. November 2016 nominal year-to-year change showed a statistically-significant increase of 3.75% +/- 0.82%, versus a downwardly-revised 4.18% [previously 4.30%] gain in October 2016 and an upwardly-revised 3.27% [previously 3.23%, initially 2.67%] gain in September 2016.

November 2016 Core Retail Sales, Net of Food and Gasoline. Reflecting an environment that should be seeing rising, seasonally-adjusted food prices and gasoline prices [an unadjusted November decline of 2.71% (-2.71%) per the Department of Energy in gasoline prices], seasonally-adjusted monthly grocery-store sales increased by 0.10% in November 2016, with gasoline-station sales up by 0.31% 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 historical preference for ignoring food and energy prices when “core” inflation is lower than full inflation (when the Fed is looking to downplay inflation)—are estimated using two approaches:

<u>Version I:</u> November 2016 versus October 2016 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—rose by 0.06%, versus the official headline aggregate sales gain of 0.08%.

<u>Version II:</u> November 2016 versus October 2016 seasonally-adjusted retail sales series—net of the monthly change in the level of revenues for grocery stores and gas stations—rose by 0.05%, versus the official headline aggregate sales gain of 0.08%.

Real Retail Sales (November 2016). Coincident with tomorrow’s (December 15th) release of the November CPI, headline nominal November Retail Sales will be adjusted for inflation and recast as real Retail Sales. Such will be covered in *Commentary No. 855* (see discussion in the *Week Ahead* section).

Where headline November CPI-U likely will show a moderate monthly increase, there is a parallel chance for the monthly real change in November retail sales to weaken from today’s headline nominal monthly gain of 0.08%, most likely turning the headline month-to-month activity into a real contraction. The pace of annual CPI-U inflation also should increase sharply, enough to reduce the headline nominal annual growth rate of 3.75% to the recession-signal-generating threshold of 2.0% or weaker.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as updated in the *Consumer Liquidity Conditions* section in the *Opening Comments*. 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 nine-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending.

As headline consumer inflation continues its upside climb in the year ahead, and as overall retail sales continue to suffer from the ongoing consumer liquidity squeeze, the real retail sales data generally should continue to trend meaningfully lower, in what eventually should gain recognition as a formal "new" recession.

Detectable Seasonal-Factor Distortions Boosted Headline November Sales by 0.1%. Unlike the headline reporting detail for October 2016—discussed in this same section of *Commentary No. 847*—the regular, inconsistent shifting in seasonal-adjustment factors had meaningful impact on the headline November 2016 detail. 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. Where the usual seasonal-factor games had been reasonably inactive in the reporting period since the April 2016 benchmarking of this series, they came back into play with the headline August and September 2016 reporting, were of muted impact for October, but came back into play for November.

While headline retail sales data reflect new seasonal-factor adjustments each month, the presumed comparable historical series do not. The only "comparable" headline historical detail published with the headline November 2016 sales data were the sales levels for the prior two months of October and September 2016, and the year-ago months of November and October 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 gain of 0.08% in November 2016, reflected positive net impact of 0.10% [a revised reduction of 0.05% (-0.05%) in the level October 2015 sales (a relative positive for November), and a supplemental upside revision to the level of November 2015 sales of 0.05% (also a positive for November)]. Those changes reflect the implied seasonal factor changes for the same months in 2016. Net of those distortions, the headline monthly change in November 2016 sales would have been a monthly decline of 0.02% (-0.02%), instead of the 0.08% gain.

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 November 2016 detail. These revisions were not due to the availability of any new historical data back in October or November 2015, but rather due to just the inconsistent shifts in the published versus unpublished seasonal adjustments, generated by the latest historical series based on the unique November 2016 seasonal estimates.

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 *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 (post-2007) economic downturn in the post-World War II era, the period of modern economic reporting. The effect remains that the published "adjusted" monthly data are not fully comparable with each other. See also the link to John Crudele's (*New York Post*) recent article on retail sales reporting issues in the *Note on Reporting-Quality Issues and Systemic-Reporting Biases* in the *Week, Month and Year Ahead* section.

PRODUCER PRICE INDEX (November 2016)

Headline November PPI Goods Inflation Rose by 0.18%; Construction Inflation Rose by 0.09%; Profit Margins in the Services Sector Rose by 0.56%; with Aggregate PPI Inflation Up by 0.36%. The headline month-to-month November 2016 PPI inflation of 0.4% (0.36% at the second decimal point) generally reflected neither real-world activity, nor common experience. Monthly inflation was dominated, as usual by the services sector, with declining energy prices providing a counterintuitive boost to "trade" inflation as measured by widening margins.

Beyond the broad issues with general inflation measurement (see *Public Commentary on Inflation Measurement*), indeed the bulk of the PPI is covered by the "services" sector, where inflation is determined by shifting profit margins. Discussed in the next section, entitled *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 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.

November 2016 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported this morning, December 14th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for November 2016 was 0.36%, versus unchanged at 0.00% in October. The impact of seasonal adjustments on the headline PPI reporting was positive, in aggregate, with the unadjusted monthly November measure up by 0.09% for the month.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in November 2016 rose to 1.28% versus 0.82% in October 2016.

For the three major subcategories of November 2016 Final Demand PPI, headline monthly Goods inflation rose by 0.18%, Services inflation gain 0.54% and Construction inflation rose by 0.09%.

Final Demand Goods (Weighted at 33.63% of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in November 2016 rose by 0.18%, having gained 0.37% in October. There was positive impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, November Final Demand Goods inflation was a negative 0.28% (-0.28%).

Unadjusted, year-to-year goods inflation in November 2016 showed an annual gain of 0.56%, following an annual gain of 0.28% in October 2016.

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

- "Foods" inflation (weighted at 5.56% of the total index) rose month-to-month in November 2016 by 0.62%, having declined in October by 0.79% (-0.79%). Seasonal adjustments were positive for the November headline change, which was up by 0.53% unadjusted. Unadjusted and year-to-year, annual November 2016 foods inflation declined by 2.74% (-2.74%) having been down in October 2016 by 3.50% (-3.50%).
- "Energy" inflation (weighted at 5.24% of the total index) declined by 0.32% (-0.32%) month-to-month, having gained 2.48% in October. Seasonal adjustments here were still strongly positive, with unadjusted monthly energy inflation down by 2.55% (-2.55%) in the month. Unadjusted and year-to-year, November 2016 energy prices declined by 0.11% (-0.11%), having gained 0.32% in October 2016.
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 22.83% of the total index) rose by 0.18% in November 2016, having gained 0.09% in October. Seasonal adjustments were positive for monthly core inflation, with an unadjusted monthly gain of 0.09%. Unadjusted and year-to-year, November 2016 was up by 1.55%, versus a gain of 1.27% in October 2016.

Final Demand Services (Weighted at 64.28% of the Aggregate Index). Headline monthly Final Demand Services inflation rose by 0.54% in November 2016, having declined by 0.27% (-0.27%) in October. The overall seasonal-adjustment impact on headline November services inflation was positive, with an unadjusted monthly gain of 0.27%. Year-to-year, unadjusted November 2016 services rose by 1.54%, following a gain of 1.09% in October 2016.

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

- "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 38.96% of the total index), gained 0.09% month-to-month in November 2016, having declined by 0.27% (-0.27%) in October. Seasonal-adjustment impact on the adjusted November detail was positive, where the unadjusted monthly reading was a contraction of 0.09% (-0.09%). Unadjusted and year-to-year, November 2016 "other" services inflation was 2.12%, versus 2.02% in October 2016.
- "Transportation and warehousing" inflation (weighted at 4.99% of the total index) rose month-to-month in November 2016 by 0.09%, having gained 0.18% in October. Seasonal adjustments were positive for the headline November reading, where the unadjusted monthly number had been unchanged at 0.00%. Unadjusted and year-to-year, November 2016 transportation inflation declined by 0.18% (-0.18%), the same annual decline as in October 2016.
- "Trade" inflation (weighted at 20.34% of the total index) increased month-to-month in November 2016 by 1.25%, having declined in October by 0.27% (-0.27%). Seasonal adjustments had a positive impact here, where the unadjusted monthly change was a gain of 0.89%. Unadjusted and year-to-year, November 2016 trade inflation showed a gain of 1.07%, following an annual decline of 0.18% (-0.18%) in October 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 rose by 0.09% in November 2016, having gained 0.70% in October. The impact of seasonal factors on the November reading was neutral, where the unadjusted monthly gain also was 0.09%. The issues here are a combination of monthly headline cost changes along with a quarterly estimate of contractor profit-margin changes that little connection to real-world activity. The latter circumstance was addressed in *Commentary No. 829* of September 2nd.

On an unadjusted basis, year-to-year construction inflation rose by 0.79% in November 2016, having gained by 0.61% in October 2016. At present, private surveys are showing much higher construction-related inflation than is reported in the PPI, by an order of magnitude of several hundred basis points, such as reflected in the privately-published Building Cost and Construction Cost Indices [Dodge Data and Analytics (McGraw Hill) *Engineering News-Record*] and in construction-related price deflators in the National Income Accounts, such as the Gross Domestic Product (GDP).

Discussed in *Commentary No. 829*, ShadowStats has constructed a Composite Construction Deflator (CCD) 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 November 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%, in November, having gained 0.42% in October 2016 and having declined by 0.06% (-0.06%) in September. Year-to-year annual inflation rose to 0.66% in November 2016, from 0.36% in October 2016 and 0.12%

in September 2016. November 2016 durable goods orders will be reported on December 22nd and covered in ShadowStats *Commentary No. 857* of that date.

WEEK, MONTH AND YEAR AHEAD

New Fiscal Stimulus Looms, but Trump Administration Needs to Develop a Credible, Long-Range U.S. Solvency Plan to Forestall a Dollar Disaster. Discussed in *Commentary No. 851*, a looming U.S. dollar crisis already is in play for the Trump Administration, from the outgoing Administration and a still-befuddled Federal Reserve. Despite expectations for better business conditions under a Trump Administration, market expectations for near-term (not long-term) business activity should continue to falter, amidst ongoing and intensifying, negative near-term headline economic reporting that will continue to play out for the next twelve months or so. Such was seen in today's headline economic reporting.

New fiscal stimulus under consideration by the incoming Administration will have at least a nine-month lead-time before its impact will surface in headline economic activity, most likely not before early-2018. Accordingly, the new Administration could face deteriorating funding needs for its own Treasury. In the near-term, the federal deficit should swell, reflecting revenue flows already impaired by the current economic downturn, as well as taking an initial hit from any new federal spending and or new tax relief, before hoped-for increased tax revenues begin to flow from a strengthened economy (see *Commentary No. 846*). As the federal deficit expands, global financial market concerns should begin to refocus on the long-term sovereign-solvency risks of the United States.

Discussed in today's *Opening Comments*, irrespective of the FOMC rate hike, the still-ongoing and deepening domestic economic downturn promises continuing and intensified stresses on systemic liquidity. That circumstance ultimately—sooner rather than later—dooms the U.S. central bank to an intensified quantitative easing, regardless of the rate action taken today.

These circumstances reflect unusual crosscurrents in the markets, which, when combined with a still-impotent Fed and re-intensifying banking and fiscal crises, foreshadow U.S. dollar and systemic crises in 2017. Separately, and most dangerously, the Trump Administration will have a difficult time working with or around the Federal Reserve's self-created quagmire of continuing domestic and global banking-system illiquidity issues. See the *Opening Comments* of *No. 851* and the *Hyperinflation Watch* in *Commentary No. 849*.

Commentary No. 853 reviewed the catch-up and meaningful deterioration in the October trade deficit and related negative implications for fourth-quarter 2016 GDP. Also discussed was the background going into to today's FOMC meeting, the results of which again are covered in the *Opening Comments* and also will be reviewed in subsequent *Commentary No. 855*.

Commentary No. 852 assessed the November employment and unemployment headline details, which continued to reflect a number of reporting issues, far from the happy story put out by the popular media. Despite upside revisions to headline October construction spending, net of inflation, the activity there remained in broad, non-recovering stagnation.

Separate from developing banking-system liquidity issues, *No. 851* covered the second revision to third-quarter 2016 GDP, along with updated consumer liquidity conditions. *Commentary No. 850* reviewed October new orders for durable goods and new- and existing-home sales, where the latest details showed continuing non-recovery in all the covered series. Unfolding annual and quarterly contractions in new orders signaled negative pressures for first-quarter 2017 industrial production. Separately, downside revisions to shipments and orders suggested that surging auto sales, which had been boosting headline GDP and retail sales reporting, might not have been quite as strong as advertised, as was confirmed in today's Retail Sales reporting (see the *Opening Comments*).

Commentary No. 848 covered October industrial production and the PPI, where industrial production confirmed ongoing recession, and the PPI showed energy-related inflation turning positive year-to-year, for the first time since the 2014 collapse in oil prices. *Commentary No. 847* reviewed the highly-suspect headline surge in nominal October retail sales.

Covered in *Commentary No. 845*, October employment and unemployment, and September construction spending, did not offer a brightening economic outlook. The sharp narrowing in the September and third-quarter 2016 trade deficit generally reflected nonrecurring elements of highly-suspect quality.

Reviewed in *Commentary No. 844* was the above-consensus "advance" estimate of third-quarter 2016 GDP.

Commentary No. 843 offered a *Special Comment* on background economic circumstances and the then pending election, following up on *No. 841*. Headline related details from September new- and existing-home sales and from new orders for durable goods reporting also were reviewed. That followed *Commentary No. 842*, which assessed the negative shifts in monthly, quarterly and annual growth patterns of the housing-starts series.

Noted in *Commentary No. 841*, consumer inflation started to rebound, along with higher gasoline prices, yet the economy continued to falter as indicated in September freight activity, and as seen in the headline detail of September housing starts. The *Special Comments* in *No. 841* also looked a little deeper into the likely impact of unusually protracted and negative economic conditions on the presidential election and on the post-election environment for the U.S. dollar and precious metals.

September industrial production detail disappointed market expectations and deteriorated sharply in the context of downside, prior-period revisions. Such was reviewed in *Commentary No. 840*. *Commentary No. 839* provided the opening salvo of comments on the November 8th election and potential aftermath for the economy and the markets. Consumer liquidity conditions also were updated, along with a review of September 2016 nominal Retail Sales and the PPI.

September employment and unemployment circumstances were covered in *Commentary No. 838*. Fed-policy retrenchment should remain very much alive, shifting towards that renewed quantitative easing, in the post-election environment, as discussed in the *Opening Comments* of *No. 839*, and those of *Commentary No. 837* and *Commentary No. 835*, which respectively also reviewed the August trade deficit and construction spending, and August durable goods orders, home-sales activity and the most-recent FOMC inaction.

The general trend in weakening expectations for business activity and movement towards looming recession recognition, reflected an ongoing broad spectrum of market-disappointing headline data, such as seen in the industrial production detail (*No. 840*) and in *Commentary No. 832*. Earlier FOMC considerations also were covered in *Commentary No. 831*, while the initial payroll benchmark revision for 2016 was discussed in *Commentary No. 830*.

Broad economic and systemic details otherwise have been reviewed regularly 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*.

Post-election market activity has seen positive boosts to the equity markets and the U.S. dollar, with sharply negative impact on prices of precious metals. Again, severe market concerns as to the Federal Reserve's quagmire should resurface fairly quickly, where 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 pre-election, weaker-than-expected headline economic data or suggestions of a less-aggressive tightening stance by the Fed. Then, Fed rate-hike jawboning put a temporary flutter into those market movements, placing some Fed-desired support under the U.S. currency.

Again, though, the fundamental liquidity issues facing the Fed remain dominated by perpetual U.S. economic non-recovery and a renewed, intensifying downturn. Even with the Fed raising rates, ongoing negative economic pressures still will mount, forcing the U.S. central bank shortly back into a position of having to support domestic financial- and banking-system liquidity needs. Effectively, the Fed will have no way out other than eventually to return to some form of expanded quantitative easing.

Temporary jawboning aside, market reactions into 2017 increasingly should reflect a renewed sense of Federal Reserve impotence, with bleak longer-term implications for the U.S. dollar. Irrespective of today's likely one-shot rate hike, renewed quantitative easing increasingly should become the target of post-election speculation, as the deepening recession continues to unfold.

Rapidly weakening, regular monthly economic reporting should continue and result in much worse-than-expected—increasingly negative—reporting, beginning with fourth-quarter 2016 and for at least the next several quarters of GDP (and GDI and GNP). Although such was far from being in place with the headline, second-estimate of third-quarter 2016, quarterly economic contractions remain fair bets in fourth-quarter 2016 and first-quarter 2017.

CPI-U consumer inflation—intermittently driven lower in 2015 and early-2016 by collapsing prices for gasoline and other oil-price related commodities—has seen its near-term, year-to-year low and likely is pushing on to a two-year high. 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. August CPI was boosted by "core" inflation, September and October CPIs were spiked by gasoline prices and positive seasonal adjustments, while the November CPI also should be boosted by seasonals, despite a monthly decline in gasoline prices. Going forward, a weakening U.S. dollar (in a sharp downturn from current levels) increasingly should boost inflation, with a related and continued 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 inflation and to overstate economic activity—as generally viewed in common experience by Main Street, U.S.A.—ongoing headline reporting issues are tied largely to systemic distortions of monthly seasonal adjustments.

Data instabilities—induced partially by the still-evolving economic turmoil of the last nine-to-eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn provide particularly unstable headline economic results, with the use of concurrent seasonal adjustments (as seen with retail sales, durable goods orders, employment and unemployment data). That issue is discussed and explored in the labor-numbers related *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*, and as updated on October 24th: *Crudele*. Mr. Crudele's latest investigation focuses on retail sales reporting: *John Crudele on Retail Sales*.

PENDING RELEASES:

***Updated* - Consumer Price Index—CPI (November 2016).** The Bureau of Labor Statistics (BLS) will release the November 2016 CPI Tomorrow, Thursday, December 15th, covered in *Commentary No. 855* of that date. The headline November CPI-U is a good bet to show a continued month-to-month increase, perhaps 0.2%, in the context of declining gasoline prices more than offset by strongly-positive seasonal adjustments to same. Consensus expectations also are for a headline 0.2% gain. Headline, unadjusted year-to-year annual inflation for November 2016 likely will increase to around 1.9%, versus 1.6% in October 2016.

Further Positive Monthly Inflation Impact from Seasonal Adjustments to Gasoline Prices. Average gasoline prices declined in November 2016 by 2.71% (-2.71%) for the month on a not-seasonally-adjusted basis, per the Department of Energy (DOE). Where BLS seasonal adjustments to gasoline prices in November again are strongly on the plus-side, they should boost the unadjusted price gasoline prices, with seasonally-adjusted numbers contributing roughly a positive 0.07% to the headline monthly change in the CPI-U. Boosted further by higher food and "core" (net of food and energy) inflation, a headline monthly CPI-U reading of 0.2%, plus or minus, is a reasonable expectation.

Annual Inflation Rate. Noted in *Commentary No. 849*, year-to-year, CPI-U inflation would increase or decrease in November 2016 reporting, dependent on the seasonally-adjusted month-to-month change, versus the negligible adjusted, headline gain of 0.01% in November 2015 CPI-U versus October 2015. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for November 2016, the difference in November's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the October 2016 annual inflation rate of 1.64%. Given an estimate of a seasonally-adjusted 0.2% gain in the monthly November 2016 CPI-U, that would move the annual CPI-U inflation rate for November 2016 up to about 1.8% or 1.9%, plus-or-minus, depending on rounding. Such would be the strongest monthly year-to-year inflation since July 2014, when the U.S. appeared to be behind initial efforts to collapse oil prices and to rally the dollar to create financial stress for Russia during the Ukraine circumstance.

Real Retail Sales (November 2016). The Census Bureau released November 2016 nominal (not-adjusted-for-inflation) Retail Sales today (December 14th), showing a headline monthly gain of 0.08%, with annual growth of 3.75% (see the *Reporting Detail*). Those gains were boosted by rising inflation, and will be adjusted for the headline November 2016 CPI-U inflation in tomorrow's December 15th *Commentary No. 855.* With a likely moderate increase in the monthly CPI-U, November real retail sales growth should be weaker than the headline nominal sales activity, turning negative month-to-month, with annual real retail sales growth dropping back to the recession-signal threshold of 2.0% or below.

Discussed in today's *Consumer Liquidity* update, 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 liquidity-strapped U.S. consumer is unable to sustain growth in broad economic activity, including personal-consumption expenditures and retail sales. 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 is unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise.

***Updated* - Residential Construction—Housing Starts (November 2016).** The Census Bureau will release November 2016 residential construction detail, including Housing Starts, on Friday, December 16th, covered in *Commentary No. 856* of that date. In line with common-reporting experience of recent years, monthly results are likely to be unstable and not statistically meaningful, holding in a general pattern of down-trending stagnation. That said, in the wake of the nonsensical 26% month-to-month surge in October starts, some downside revision and/or corrective downside movements are likely in November, and market expectations also are in that direction.

Irrespective of the generally meaningless headline detail, the broad pattern of housing starts should remain consistent with the low-level, stagnant activity, still seen at present, where October 2016 activity was down by 42% (-42%) from the pre-recession high of the series, despite the unusual monthly gain. That stagnation is particularly evident with the headline detail viewed in the context of a six-month moving average. Again, this series remains subject to regular and extremely-large, prior-period revisions.

Discussed in *Commentary No. 660* on the August 2014 version of this most-unstable of major monthly economic series, the headline detail here simply is worthless. The series best is viewed in terms of a six-month moving average. Again, not only is month-to-month reporting volatility frequently extreme, but also the headline monthly growth rates rarely come close to being statistically significant.

Discussed in the *Consumer Liquidity* update in today's *Opening Comments*, 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 liquidity-strapped U.S. consumer remains unable to sustain growth in broad economic activity, including sustainable growth in demand for residential construction.

PENDING SHADOWSTATS *SPECIAL REPORT*. ShadowStats will update fully, into one, background piece—a comprehensive *Special Report (Commentary)*—encompassing the latest broad outlook for the U.S. and global economies, financial markets and systems, and inflation (U.S. hyperinflation). Encompassing a review of 2016 and an outlook for 2017, this massive missive now is planned for the last week of December, a period in which no major economic releases are scheduled.

Subsequently, various background articles available on the www.ShadowStats.com site also will be updated, early in 2017.

Initially planned for November 30th this *Special Report* was delayed due to illness, a seasonal malady that finally appears about to have run its course. I apologize to subscribers for the unexpected delay.

The *Special Commentary* will include the latest outlook and will incorporate fully revised materials from 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*. It 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.

The *Special Commentary* also will include a section with links to books and articles that we and/or our readers have found of particular interest and substance. Many thanks to those who already have submitted recommendations of specific books and publications. Anyone who would like to have materials considered for inclusion should send details in an e-mail to johnwilliams@shadowstats.com or call John Williams directly at (707) 763-5786.

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