

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

COMMENTARY NUMBER 780

December Industrial Production, Retail Sales and Producer Prices (PPI)

January 16, 2016

Recession in Hand – Here Is What It Looks Like

**Fourth-Quarter Production Plunged by 3.4% (-3.4%) at Annualized Pace;
Quarter Was Down Year-to-Year by 0.9% (-0.9%)**

**Year-to-Year Decline Was of a Magnitude Seen Previously Only in
Formal Recessions, Post-World War II, and with the 1952 Steel Strike,
When President Truman Nationalized the Steel Industry**

**Headline Nominal December Retail Sales Fell by 0.1% (-0.1%),
Down by 0.4% (-0.4%) Using Old-Fashioned, Consistent Seasonal Factors**

**Quarterly Retail Sales Growth Slowed Sharply, Possibly Flat Net of Inflation, with
Continued Recession Signal Generated by Sub-Par Annual Growth**

**December Headline Wholesale Goods Inflation Fell by 0.74% (-0.74%),
While Wholesale Service-Industry Profit Margins Rose by 0.09%;
Headline, Hybrid PPI Declined by 0.18% (-0.18%) for the Month**

PLEASE NOTE: The next regular Commentary, scheduled for Wednesday, January 20th, will cover the December Consumer Price Index (CPI), Real Retail Sales, Real Earnings and Housing Starts.

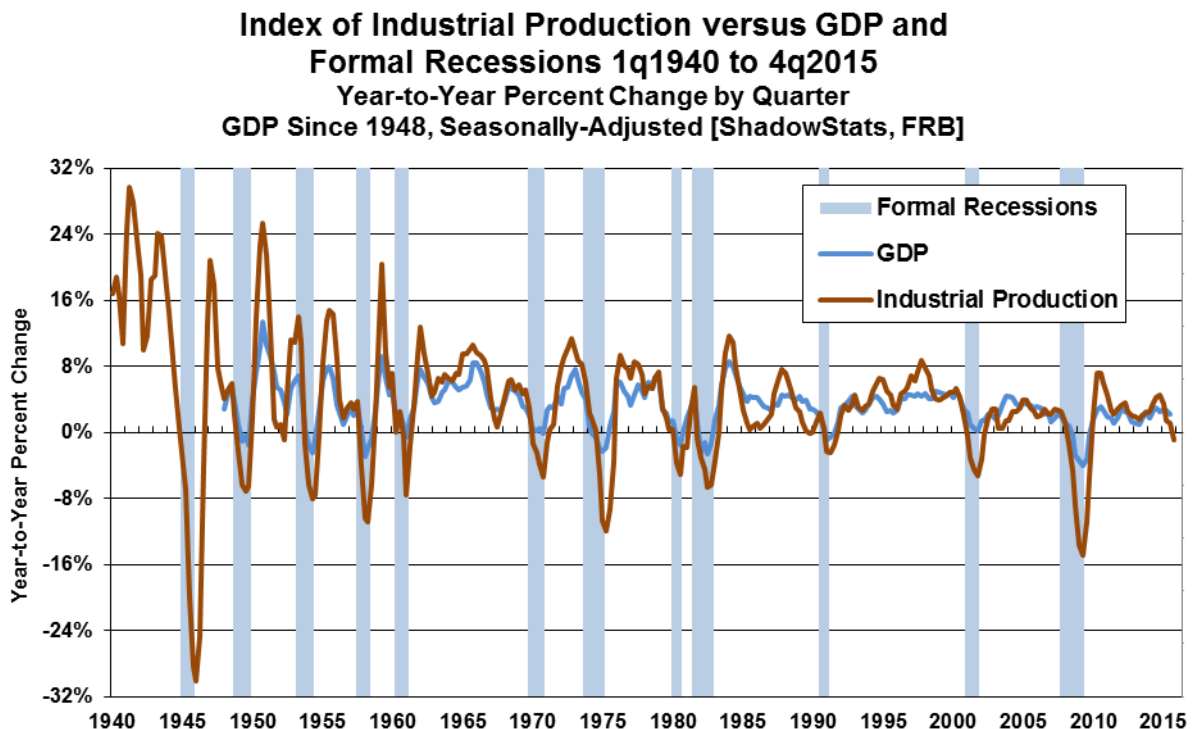
Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

The Economy Does Not Behave Like This Outside of Recessions. Sharp contractions in industrial production and weaker retail sales activity appear to have moved consensus forecasts increasingly towards the “pending recession” camp. Discussed frequently here, however, the U.S. economy has been in a “new” recession since December 2014. What that looks like graphically is shown shortly in *Graphs 2* and *3*. A fourth-quarter 2015 GDP contraction not only has been signaled by the latest headline industrial production and retail sales numbers, but also by construction activity, the trade deficit and U.S. corporate revenues, all as discussed in [No. 777 Year-End Special Commentary](#), and as will be discussed with near-term reporting in the week ahead.

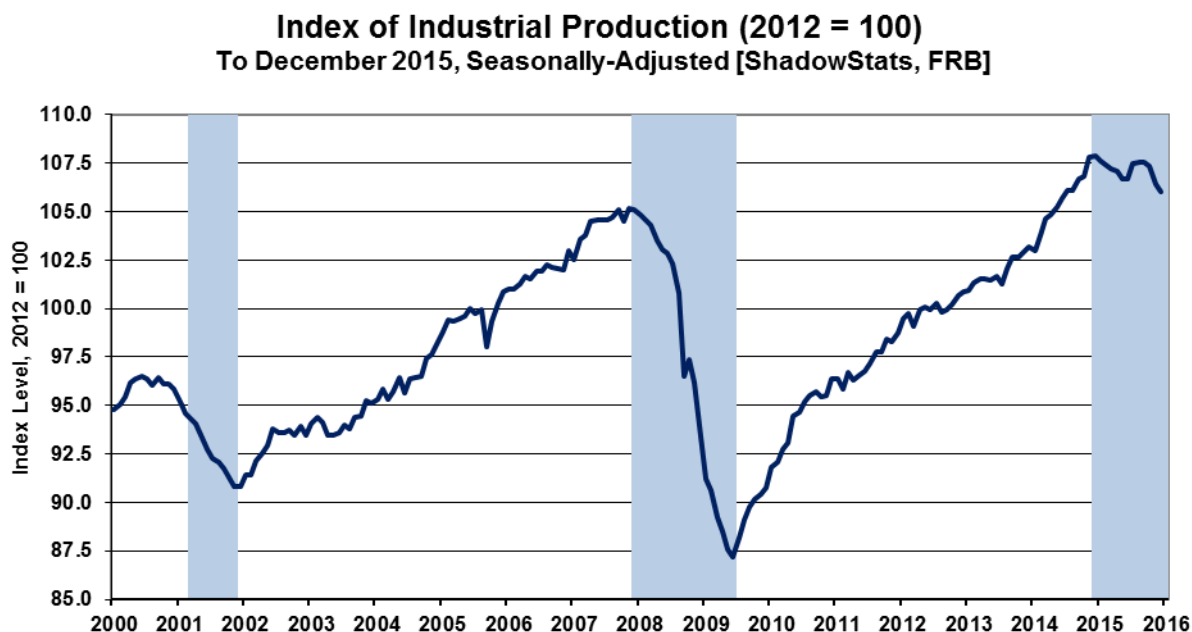
Industrial Production Is Crashing. Shown in *Graphs 8* and *9* in the *Reporting Detail*, the 1.8% year-to-year decline in December 2015 industrial production was of a magnitude not seen before, outside of formal post-World War II recessions. Headline activity in fourth-quarter 2015 industrial production also was of a nature rarely seen outside of formal recessions. On a year-to-year basis, fourth-quarter production contracted by 0.9% (-0.9%). The only other time in the post-World War II era that quarterly production fell year-to-year by 0.9% (-0.9%) or more and the economy was not in formal recession was in second-quarter 1952 tied to the national steel strike, when President Harry Truman nationalized the steel industry. Shown in *Graph 1*, outside of the referenced periods, the only other time that quarterly production turned negative year-to-year, was a 0.2% annual decline in fourth-quarter 1989, but that can be viewed appropriately as leading into the 1990 recession.

Graph 1: Annual Contraction in Fourth-Quarter 2015 GDP Seen Only in Recessions or 1952 Steel Strike

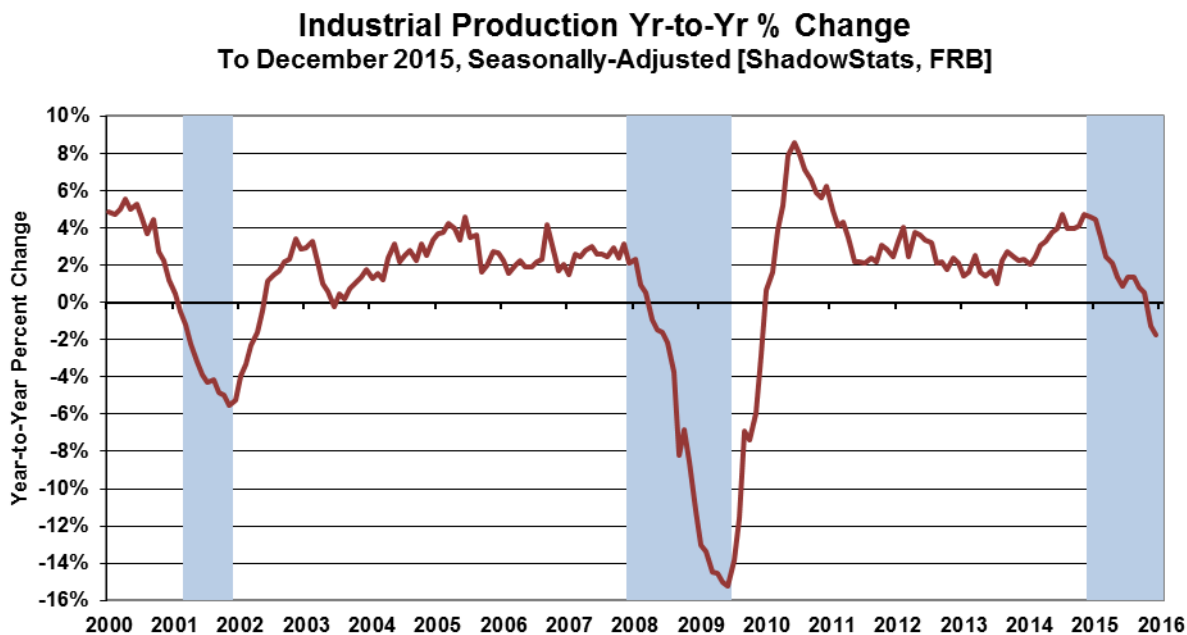


**HERE IS WHAT THE “NEW” RECESSION LOOKS LIKE,
WITH A PRO-FORMA 2014-RECESSION BAR IN PLACE**

Graph 2: Industrial Production Level Plotted with Pro-Forma 2014 Recession Bar (Recasting Graph 11)



Graph 3: Year-to-Year Industrial Production Plotted with Pro-Forma 2014 Recession Bar (Recasting Graph 10)



Graphs 2 and 3, preceding, show the recession bar as it likely will end up in official timing and as will be graphed commonly, otherwise, with the “new” recession onset timed from December 2014. There is no new formal recession declared yet—not even public talk of same—but it could surface shortly after the announcement of a fourth-quarter 2015 GDP contraction, which increasingly appears to be in play for the next month or two.

Today’s Commentary (January 16th). The balance of these *Opening Comments* provides summary coverage of December Industrial Production, nominal Retail Sales, a related brief Consumer Liquidity update, and the Producer Price Index (PPI).

The *Hyperinflation Outlook Summary*, updated in the *Opening Comments* and *Executive Summary* of [No. 777 Year-End Special Commentary](#), will be condensed, extracted and included the next *Commentary No. 781* on January 20th.

The *Week Ahead* previews Wednesday’s (January 20th) reporting of the December 2015 Consumer Price Index (CPI), real Retail Sales and Housing Starts.

Index of Industrial Production—December 2015—Increasing Recognition of an Unfolding “New” Recession. With all major industry groups in consecutive monthly contractions, with a worse-than-expected headline drop of 0.4% (-0.4%) in December 2015 industrial production, and in the context of a downwardly-revised monthly contraction of 0.9% (-0.9%) in November production, the consensus economic outlook appears to have been rattled a bit, with talk of a possible recession gaining some traction. On top of the collapsing monthly data, year-to-year change for December 2015 production was a decline of 1.8% (-1.8%), a level of contraction not seen in the post-World II era outside of formal recessions.

Fourth-quarter 2015 production contracted at an annualized pace of 3.4% (-3.4%), the third quarter-to-quarter contraction of 2015, with fourth-quarter year-to-year growth contracting by 0.9% (-0.9%). As discussed and graphed in the opening paragraphs of these *Opening Comments* (see *Graph 1*), annual contractions in quarterly production have not been seen outside of (or leading into) formal post-World War II recessions, except for second-quarter 1952, when a national steel strike was met by President Harry Truman nationalizing the steel industry (labor disruptions are not recognized as recessions).

With a recession in hand, though, *Graphs 11 and 10* in the *Reporting Detail* were recast to show pro-forma 2014-recession bars (recession timed from December 2014) in *Graphs 2 and 3*, again in the opening paragraphs of these *Opening Comments*.

Meaningful Downturn in Quarterly and Annual Production for Fourth-Quarter 2015. First-quarter 2015 production contracted at an annualized quarterly pace of 0.35% (-0.35%), followed by a second-quarter 2015 contraction of 2.30% (-2.30%), and an upwardly revised gain of 2.77% in third-quarter 2015 production. Based on initial full reporting for fourth-quarter 2015, production contracted at an annualized quarterly pace of 3.41% (-3.41%).

Separately, year-to-year growth in quarterly production continued to slow and now is in decline, ranging from a positive 3.47% in first-quarter 2015, to 1.45% in second-quarter 2015, to a downwardly revised 1.17% in third-quarter 2015, to an initial headline annual decline of 0.85% (-0.85%) in fourth-quarter 2015. Again, except in unusual circumstances such as national strikes, annual quarterly production growth does not contract outside of periods that eventually are declared formal recessions.

The Fed's industrial production series continues to indicate that broad economic activity entered a "new" recession, likely to be timed officially from December of 2014.

Headline Industrial Production—December 2015. In the context of a downside revision to the November production level, seasonally-adjusted December 2015 industrial production declined by a headline 0.36% (-0.36%). Net of prior-period revisions, the December monthly contraction would have been 0.48% (-0.48%).

The headline December decline of 0.36% (-0.36%) followed a deeper revised monthly decline in November of 0.90% (-0.90%), a shallower revised monthly decline of 0.16% (-0.16%) in October, and a revised decline of 0.02% (-0.02%) in September.

Detailed in *Graphs 11 to 14* of the *Reporting Detail*, covering the major industry groups, the headline December 2015 monthly aggregate production contraction of 0.4% (-0.4%) [a November contraction of 0.9% (-0.9%)] was composed of monthly declines of 0.1% (-0.1%) in both December and November manufacturing activity; a December decline in mining activity (including oil and gas production) of 0.8% (-0.8%) [a November decline of 2.1% (-2.1%)]; and a December decline of 2.0% (-2.0%) in utilities [a decline of 5.0% (-5.0%) in November].

Year-to-year, December 2015 growth declined by 1.75% (-1.75%), versus a downwardly revised November 2015 decline of 1.29% (-1.29%), an upwardly revised annual gain of 0.50% in October 2015, and an upwardly revised annual gain of 0.82% in September 2015. Again, annual growth has turned sharply negative, a circumstance common to formal post-World-War II recessions.

Production Graphs—Corrected and Otherwise. Again, the regular graphs of headline production level and annual growth detail are found in the *Reporting Detail (Graphs 8 to 11)*, along with the drill-down graphs of major subcomponents of the production series (*Graphs 12 to 19*). 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 fourth-quarter activity turned down anew, well off recent-peak activity, dropping sharply into negative year-to-year growth and quarterly growth on a quarterly basis, patterns rarely seen outside of recession (see discussion in the opening paragraphs of these *Opening Comments*). Such faltering patterns of monthly, quarterly and annual decline last were seen in the depths of the economic collapse from 2007 into 2009.

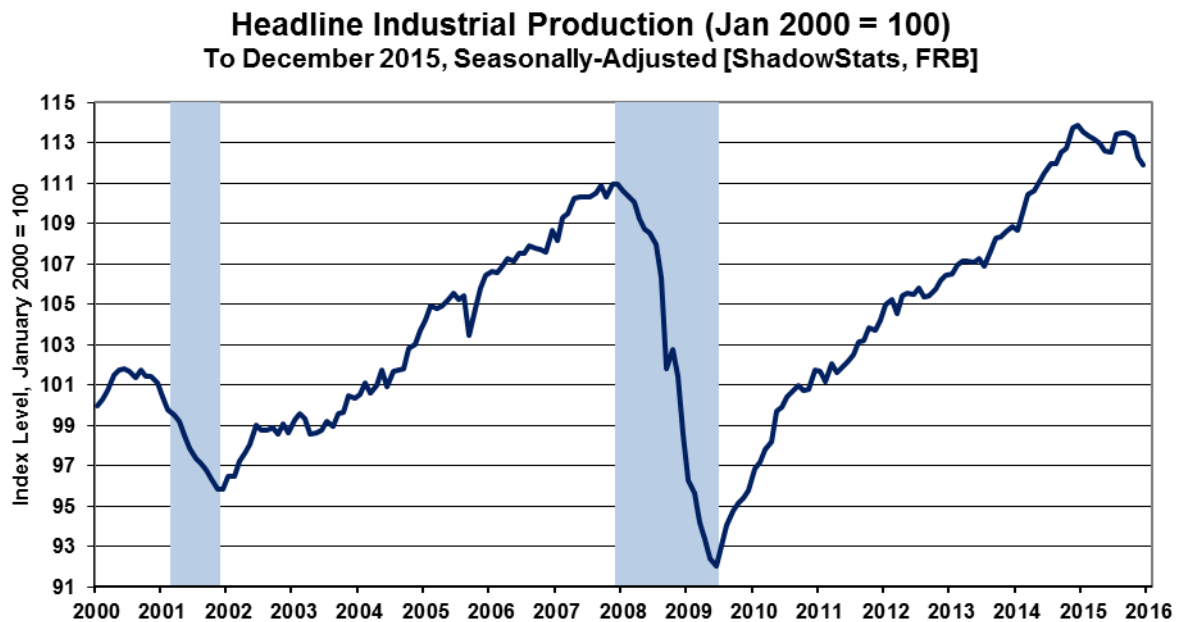
Graphs 4 and 5, which follow in this section, address reporting quality issues tied just to the overstatement of headline growth that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into real dollar terms, 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 4 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, new orders for durable goods and the GDP); it does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison to *Graph 11* in the *Reporting Detail* section).

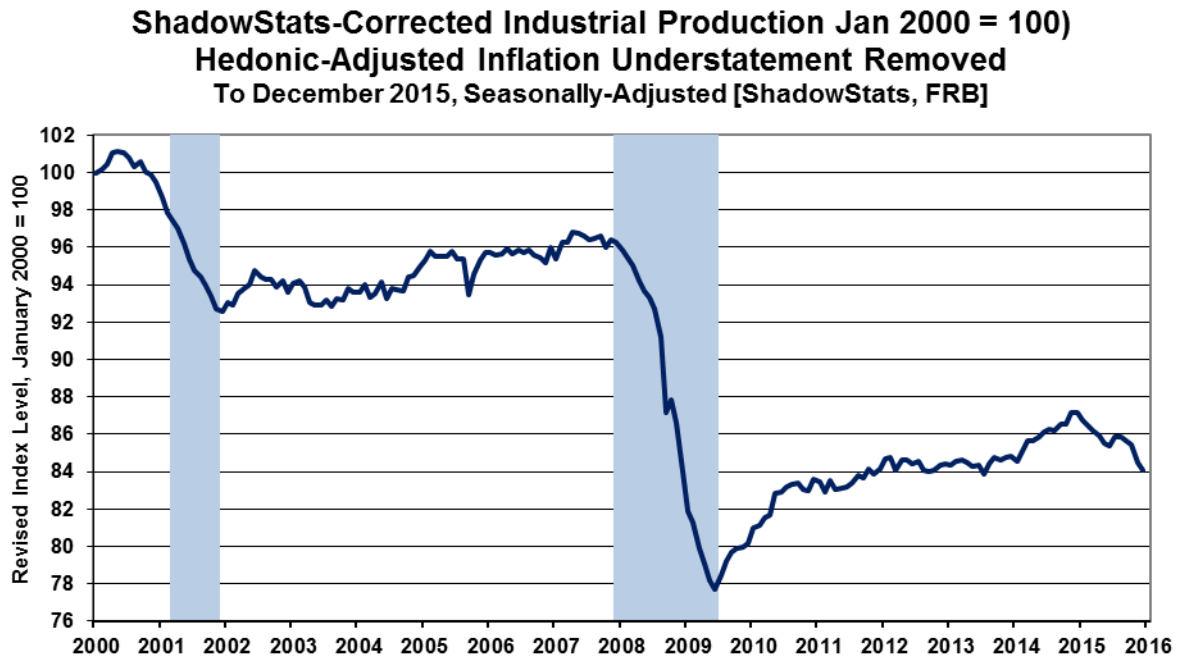
Graph 4: Indexed Headline Level of Industrial Production (Jan 2000 = 100)



Graph 5 is a recast version of *Graph 4*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official industrial-production deflators used for headline reporting.

This “corrected” *Graph 5* shows some growth in the period subsequent to the official June 2009 trough in production activity, however, that upturn has been far shy of the full recovery and the renewed expansion reported in official GDP estimation (see [Commentary No. 775](#), and [No. 777 Year-End Special Commentary](#)). Unlike the headline industrial production data and the headline GDP numbers, corrected production levels have not recovered pre-recession highs. Instead, corrected production entered a period of protracted low-level, but up-trending, stagnation in 2010, with irregular quarterly contractions seen through 2014, and an irregular uptrend into 2014, a topping-out in late-2014 and turning down into 2015 through the year-end 2015, despite a limited upside activity in third-quarter 2015.

Graph 5: Headline ShadowStats-Corrected Level of Industrial Production (Jan 2000 = 100)



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; this is a pattern of severe economic weakness last seen during the economic collapse. Despite the brief third-quarter uptick, fourth-quarter 2015 industrial production saw both annual and quarterly contractions.

Nominal Retail Sales—December 2015—Not a Happy Holiday-Shopping Season, Annualized Fourth-Quarter Growth Slowed Sharply, Possibly Flat After Inflation. All seasonal-adjustment gimmicks aside, retailers look regularly to November and primarily to December for gains in their annual sales activity, but 2015 was not a good year. Seasonally-adjusted nominal December 2015 retail sales fell by 0.11% (-0.11%) for the month, following revised monthly gains of 0.37% in November, 0.02% in October and an unrevised decline of 0.06% (-0.06%) in September.

With initial full reporting in place for fourth-quarter 2015, annualized quarter-to-quarter growth for nominal retail sales, before inflation adjustment, slowed to 0.75%, from 4.51% in third-quarter 2015. Net of inflation-adjustment, the annualized fourth-quarter real change effectively could be flat, consistent with an increasingly likely downturn in real fourth-quarter 2015 GDP. Constraining retail sales activity, consumer liquidity issues continue to present sustainable growth in personal consumption, as discussed in the following *Consumer Liquidity* section.

Headline December 2015 Monthly Contraction of 0.1% (-0.1%) Would Have Been 0.4% (-0.4%) but for Covert Seasonal Shifts. The headline monthly contraction of 0.1% (-0.1%) had selective, offsetting seasonal factor shifts that boosted the headline December detail by about 0.3%. The issues were within the usual inconsistent and non-comparable shifts in the published seasonally-adjusted data, based on

monthly “concurrent seasonal adjustment” calculations and lack of relevant publication of consistent, historical data. Accordingly, using old-fashioned consistent reporting, headline nominal December 2015 retail sales likely contracted about 0.4% (-0.4%) month-to-month.

The selective prior-year revisions (only November and December 2014) had the effect of distorting and boosting the headline December 2015 monthly retail sales gain. Following on top of a similar distortion in last month’s headline November 2015 reporting, a relative upside revision of 0.3% to December 2014 seasonally-adjusted monthly activity, generated a similar positive swing in relative December 2015 seasonal adjustments of about 0.3%. That had the effect of turning an already sharply negative month—down about 0.4% (-0.4%)—to an otherwise less-negative, headline monthly sales contraction of about 0.1% (-0.1%), as explained and detailed in *Seasonal-Factor Distortions and Other Reporting Instabilities* found in the *Reporting Detail*.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—December 2015. In the context of an upside revision to headline November 2015 retail sales, and boosted by the implied seasonal-factor shifts from an upside revision to December 2014 and downside revision to November 2014 activity, December 2015 headline nominal sales fell by 0.1% (-0.1%), at the first decimal point. At the peak of the holiday shopping season and the largest shopping month of the year, December’s headline activity came in below expectations, with sub-par annual growth, and such was despite the gimmicked, upside reporting pressures on the headline numbers.

At the second decimal point, December 2015 retail sales showed a statistically-insignificant, seasonally-adjusted decline of 0.11% (-0.11%). Net of prior-period revisions, nominal December retail sales virtually were unchanged at a monthly decline of 0.01% (-0.01%). Such followed a statistically-significant, upwardly revised monthly gain of 0.37% in November, and a downwardly-revised monthly gain of 0.02% in October.

Year-to-Year Annual Change. Year-to-year nominal change in December 2015 retail sales was a statistically-significant increase of 2.21%, versus an upwardly revised 1.59% in November 2015, and a downwardly-revised 1.63% gain in October 2015.

Annualized Quarterly Changes. With December headline reporting in place, the pace of annualized nominal retail sales decline in first-quarter 2015 deepened to a contraction of 4.48% (-4.48%), the worst quarter-to-quarter showing since the economic collapse. These revisions to first-quarter 2015 have nothing to do with better-quality historical detail, only the use of concurrent seasonal-adjustment revisions to help shift headline sales activity into December 2015 headline reporting.

Annualized second-quarter 2015 retail sales growth held at an unrevised gain of 6.81%, and annualized third-quarter 2015 growth at an unrevised 4.51% annualized gain. Based on initial full reporting for fourth-quarter 2015 nominal retail sales, the annualized fourth-quarter 2015 nominal growth rate slowed markedly to 0.75%.

Net of inflation, the annualized contraction in first-quarter 2015 real retail sales deepened further to 1.47% (-1.47%). The quarterly change in second-quarter real retail sales held at an unrevised gain of 3.72%. Third-quarter showed an unrevised gain of 2.89%. The fourth-quarter change will be assessed in the December CPI-U *Commentary*, where headline, real quarterly growth could be flat. Adjusted for

realistic inflation (see [No. 777 Year-End Special Commentary](#)), real retail sales and the broad economy never truly recovered from the economic collapse into 2008 and 2009.

Real (Inflation-Adjusted) Retail Sales—December 2015. The nominal decline of 0.11% (-0.11%) in December 2015 retail sales was before accounting for inflation. The monthly change in real retail sales for December awaits the headline estimate of the CPI-U consumer inflation for December 2015, in the next *Commentary No. 781* of Wednesday, January 20th. Barring a negative surprise to what likely will be a slightly positive headline move in the December CPI-U, the headline monthly change in real December retail sales should be slightly more negative, with annualized real quarterly sales growth effectively flat, and with annual real retail sales growth likely holding solidly in intense-recession signal territory (see the *Week Ahead* section).

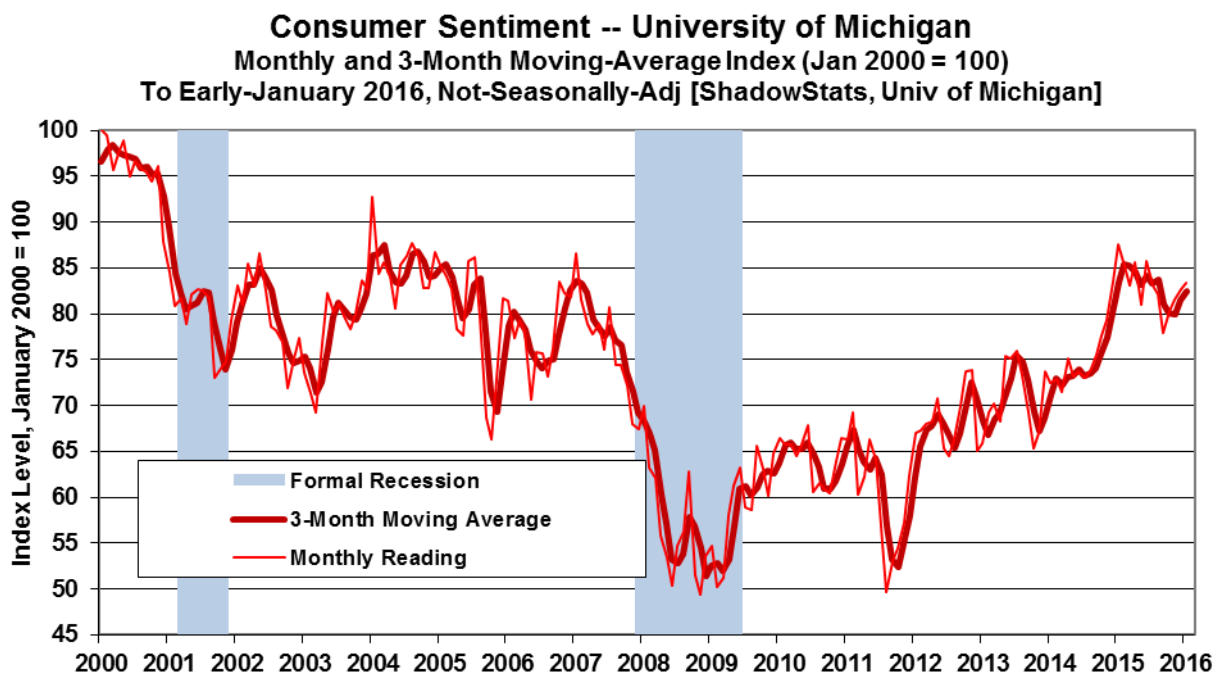
Consumer Liquidity—Updated Consumer Credit and Early-January Consumer Sentiment.

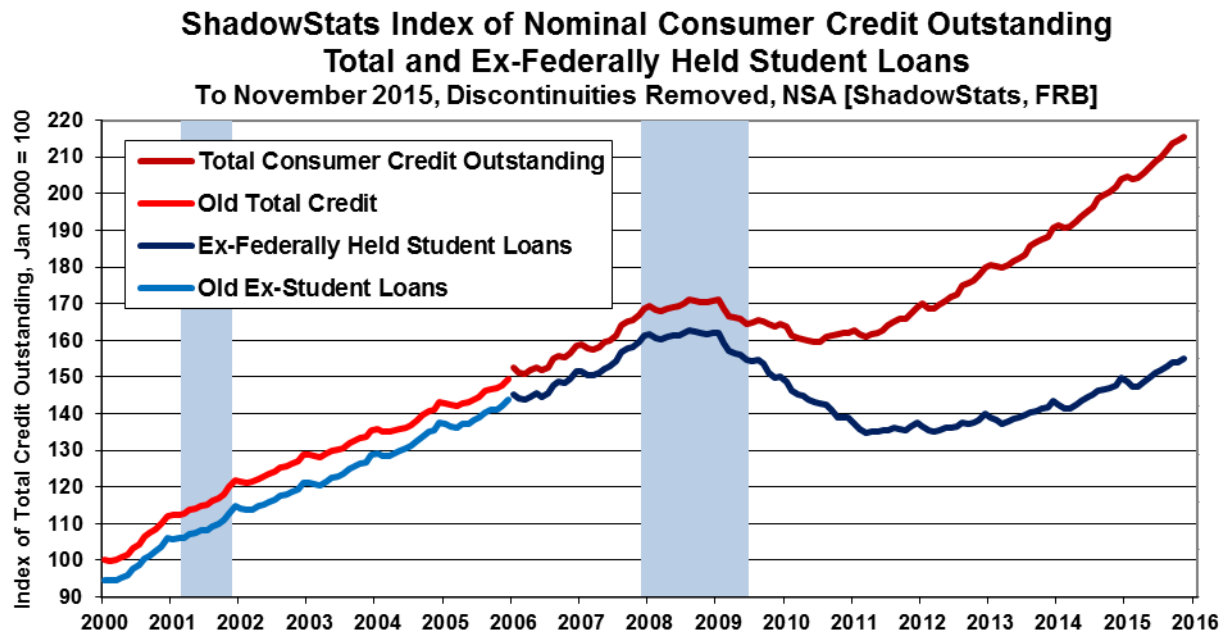
Consumer liquidity conditions were reviewed fully, most recently, in the December 30th [No. 777 Year-End Special Commentary](#). Today's update covers subsequent monthly releases on Consumer Sentiment and Consumer Credit Outstanding.

In *Graph 6*, this morning's (January 15th) release of the University of Michigan's early-January 2016 Consumer Sentiment measure initially notched higher for the month, along with a related uptick in the three-month moving average of the series.

In *Graph 7*, a small seasonal uptick in student-loan activity was seen in the not-seasonally-adjusted Consumer Credit Outstanding series for November 2015. Neither graph alters the general bleak outlook for consumer conditions.

Graph 6: Consumer Sentiment Index to Early-January 2016 (University of Michigan)



Graph 7: Index of Nominal Consumer Credit Outstanding to November 2015

The primary underlying issues restraining current retail sales activity remain the intense, structural-liquidity woes besetting the consumer. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity.

Without real growth in income, and without the wherewithal and/or willingness to offset declining purchasing power with debt expansion, the consumer lacks the ability to fuel traditional, consumption-based growth or recovery in U.S. economic activity, including retail sales, real or otherwise. With a significant portion of consumers under financial stress, there has been no basis for a sustainable economic expansion since the Panic of 2008, and there are no prospects for a recovery in the near future. Again, see [No. 777](#) for comprehensive detail.

Producer Price Index (PPI)—December 2015—Aggregate Decline of 0.18% (-0.18%); Composed of 0.09% Gain in Services Margins and Drop of 0.74% (-0.74%) in Wholesale Goods Inflation. On the goods side, where headline wholesale inflation fell by 0.74% (-0.74%) for the month of December 2015, the dominant declining oil prices were supplemented by falling food prices. A decline of 8.3% (-8.3%) in gasoline prices accounted for about half the downturn, per the Bureau of Labor Statistics (BLS).

The partial upside offset to the 0.74% (-0.74%) drop in goods inflation was a relatively small 0.09% increase in the profit margins of the dominant services sector, with a combined effect of a decline of 0.18% (-0.18%) in the aggregate headline PPI series. Per the BLS, the higher services “inflation” was reflected a “30.3% monthly jump in prices related to securities brokerage and dealing.”

Regular Monthly Revisions to the PPI; Annual Revisions Loom. The BLS standardly revises PPI reporting for the fifth month back from the headline detail. This month, headline monthly reporting for August 2015 PPI inflation revised lower by 0.1% (-0.1%), now down by 0.2% (-0.2%) month-to-month, having been down previously by 0.1% (-0.1%).

Annual revisions to the PPI series loom in the reporting of the January 2016 detail on February 17th. Monthly detail will be revised back for five years.

Combined Reporting Often Runs Contrary to Common Experience. In the realm of reporting methodology outside of common experience, the BLS might consider publishing just two separate indices, one reflecting costs of wholesale goods (similar to the original PPI), and one reflecting wholesale margin trends, instead of mixing the concepts between the hard costs of physical products and the theoretical, often offsetting-margin movements in the services industries. Going forward, ShadowStats will emphasize the dual measures as being more meaningful than the hybrid combination of the two concepts.

What does a business do if its profit margins are too small and/or shrinking? Traditional solutions are to increase sales, to raise prices and to cut costs. The one area that can be addressed simply—although not always easily—is to raise prices. Accordingly, in the services industry, if margins are too tight, prices tend to go higher. That is not the view of the BLS, which counts that circumstance as deflationary, not inflationary, even though wholesale “prices” likely are going higher for the service firms with shrinking margins.

The reverse is true with widening margins (*i.e.*, falling gasoline prices) in competitive industries, where such activity is inflationary in BLS accounting, but it is deflationary in the real world. The general effect is that movement in the headline aggregate PPI tends to move counter to underlying costs of goods (such as falling oil prices), which often pressures services-sector margins in a counter direction, muting the aggregate inflation effects from what at one time was the dominant goods sector.

From a practical standpoint, the aggregate Final Demand Producer Price Index has minimal relationship to real-world activity. Beyond issues of substitution and hedonic-quality-adjustment methodologies (see [Public Commentary on Inflation Measurement](#)), problems in the goods area have been and remain unstable seasonal factors (particularly as applied to energy), versus shifting market activity. In the services sector—the dominant component of the index, by weighting—inflation, again, is defined in terms of profit margins, not prices, where those margins often—but temporarily—move initially in the opposite direction of related prices, such as “inflationary” rising margins created by falling oil and gasoline prices.

December 2015 Headline PPI Detail. The seasonally-adjusted, month-to-month, headline PPI Final Demand inflation for December 2015 fell by 0.18% (-0.18%), versus an unrevised gain of 0.27% in November, an unrevised contraction of 0.36% (-0.36%) in October, and a less-negative, revised contraction of 0.36% (-0.36%) in September.

The broad impact of seasonal adjustments on the headline PPI reporting largely was positive in December, with the unadjusted monthly December index down by 0.36% (-0.36%).

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation contracted by 1.00% (-1.00%) in December 2015, versus unrevised declines of 1.08% (-1.08%) in November 2015, 1.62% (-1.62%) in October 2015, 1.08% (-1.08%) in September 2015, and a revised, more-negative annual decline of 0.99% (-0.99%) in August 2015.

For the three major subcategories of December 2015 Final Demand PPI, headline monthly Goods inflation fell by 0.74% (-0.74%), Services inflation rose by 0.09%, and Construction inflation was unchanged at 0.00% for the month.

Final Demand Goods (Weighted at 34.67%). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation dropped by 0.74% (-0.74%) in December 2015, following an unrevised decline of 0.09% (-0.09%) in November. There was positive impact on the aggregate headline December reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, December Final Demand Goods inflation fell by 0.84% (-0.84%) for the month.

Unadjusted, year-to-year goods inflation was down by 3.70% (-3.70%) in December 2015, versus an annual contraction of 4.27% (-4.27%) in November 2015.

Headline seasonally-adjusted monthly changes by major components of the December 2015 Final Demand Goods:

- “Foods” inflation fell month-to-month by 1.27% (-1.27%) in December 2015, following a headline gain of 0.26% in November, with seasonal adjustments a positive factor for the December monthly change, which was down by 1.53% (-1.53%) unadjusted. Unadjusted and year-to-year, annual December 2015 foods inflation declined by 5.24% (-5.24%), versus a decline of 3.92% (-3.92%) in November 2015.
- “Energy” inflation declined by 3.38% (-3.38%) in December 2015, following a decline of 0.63% (-0.63%) in November, with the December reading boosted by seasonal adjustments. Unadjusted, monthly December energy inflation fell by 4.12% (-4.12%). Unadjusted and year-to-year, the annual contraction in energy prices narrowed to 16.19% (-16.19%) in December 2015, from an annual decline of 18.96% (-18.96%) in November 2015.
- “Less foods and energy” (“Core” goods) monthly inflation rose by 0.09% in December 2015, offsetting the previous monthly decline of 0.09% (-0.09%) in November. Seasonal adjustments were neutral for monthly core inflation, with an unadjusted gain of 0.09% in December. Unadjusted and year-to-year, December 2015 core inflation showed was “unchanged” at 0.00%, versus an annual contraction of 0.09% (-0.09%) in November 2015.

Final Demand Services (Weighted at 63.31% of the Aggregate). Headline monthly Final Demand Services inflation rose by 0.09% in December 2015, versus monthly gain of 0.45% in November. The overall seasonal-adjustment impact on headline December services inflation was positive, with an unadjusted monthly December contraction of 0.09% (-0.09%). Year-to-year, unadjusted December 2015 services inflation was 0.36%, versus an annual gain of 0.55% in November 2015.

The headline monthly changes by major component for December 2015 Final Demand Services inflation:

- “Services less trade, transportation and warehousing” inflation, or the “Other” category, showed positive monthly inflation of 0.37% in December 2015, versus a gain of 0.09% in November. Seasonal-adjustment impact on the adjusted December detail was positive, where the unadjusted monthly gain was 0.18%. Unadjusted and year-to-year, December 2015 “other” services inflation was 1.02%, up from the annual gain of 0.83% in November 2015.
- “Transportation and warehousing” inflation fell month-to-month by 0.44% (-0.44%), having gained 0.35% in November. Seasonal adjustments had negative impact on the headline December number, where the unadjusted monthly reading contracted by 0.35% (-0.35%). Unadjusted and year-to-year, December 2015 transportation inflation fell by 3.40% (-3.40%), versus an annual contraction of 2.82% (-2.82%) in November 2015.

- “Trade” inflation fell by 0.36% (-0.36%) month-to-month in December 2015, having gained 1.17% in November. Seasonal adjustments had a positive impact here, where unadjusted monthly inflation declined by 0.53% (-0.53%) in December. Unadjusted and year-to-year, December 2015 trade inflation rose by 0.18%, having increased by 0.99% in November 2015.

Final Demand Construction (Weighted at 2.02% of the Aggregate). Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Nonetheless, headline numbers are published, and month-to-month construction inflation was unchanged at 0.00% in December 2015, having declined by 0.26% (-0.26%) in November. The impact of seasonal factors on the December reading was positive, where the unadjusted monthly change was a contraction of 0.09% (-0.09%).

On an unadjusted basis, year-to-year construction inflation was 1.79% in December 2015, versus 2.06% in November 2015.

- “Construction for private capital investment” headline monthly inflation in December 2015 was unchanged at 0.00%, following a contraction of 0.35% (-0.35%) in November. As usual, seasonal adjustments also had neutral impact here, where the unadjusted December monthly inflation was “unchanged” at 0.00%. Unadjusted and year-to-year, December 2015 private construction inflation was 1.80%, down versus 1.98% in November 2015.
- “Construction for government” inflation rose by 0.09% in December 2015, having declined by 0.09% (-0.09%) in November. Seasonal adjustments had positive impact, where unadjusted monthly December inflation was “unchanged.” Unadjusted and year-to-year, December 2015 government construction inflation was 1.97%, versus 2.06% in November 2015.

[The *Reporting Detail* section includes significant graphs covering December Industrial Production and additional detail on Production, Nominal Retail Sales and the PPI.]

HYPERINFLATION WATCH

HYPERINFLATION OUTLOOK SUMMARY

Update Next Week. The *Hyperinflation Outlook Summary* was revised in the *Opening Comments* and *Executive Summary* of the December 30th [*No. 777 Year-End Special Commentary*](#). That will be condensed, extracted and included in the next regular *Commentary No. 781* on January 20th.

Monetary developments discussed in [Commentary No. 779](#) and [No.779-A](#) also will be incorporated into the new *Summary*. Since the Fed hiked interest rates effective December 17th, the monetary base (St. Louis Fed version)—effectively a measure of total, liquid cash in the system—began to decline sharply. The record high level of the base had been credited with some of the ongoing strength in the stock market; it also meant that banks were not lending normally into the flow of commerce (they were holding excess cash reserves with the Fed, receiving interest on same), which took a toll on the economy.

A declining monetary base generally would not be good news for the markets, but its implications for the economy depended on what was happening. For example, if the base were dropping due to expanded bank lending into commercial activity or mortgages, that would have been a plus for business activity. Those questions were the reason for the comments in *No. 779*.

No. 779-A had some clarification as to why the monetary base was declining, at least technically. The Federal Reserve interacts in the open markets with banks and related financial institutions to force the “federal funds rate” to trade at its announced target level, again, which was hiked mid-December. That rate is the underlying cost of money for the banks and their lending system.

The Fed’s market interventions to enforce the new federal funds rate had the effect of temporarily reducing bank reserves, a primary component of the monetary base. The latest unadjusted, weekly reporting from the Fed (January 14th) has indicated some reversal of the process, with reserves up and reverse repos down sharply. While that was indeed a partial reason for the post-rate hike decline in the monetary base, there is no clarity, yet, as to resulting, longer-term underlying shifts in banking-system activity that would impact the financial markets and/or general business conditions. As more evidence becomes available, such will be covered in upcoming *Commentaries*.

REPORTING DETAIL

INDEX OF INDUSTRIAL PRODUCTION (December 2015)

Increasing Recognition of an Unfolding “New” Recession in the Wake of Crashing Production Activity. With all major industry groups in consecutive headline, monthly contractions, with a worse-than-expected headline drop of 0.4% (-0.4%) in December 2015 industrial production, and in the context of a downwardly-revised monthly contraction of 0.9% (-0.9%) in November production, the consensus economic outlook appears to have been rattled a bit, with talk of a possible recession gaining some traction. On top of the collapsing monthly data, year-to-year change for December 2015 production fell by 1.8% (-1.8%), a level of contraction not seen in the post-World II era outside of formal recessions.

With all major industry groups in consecutive headline, monthly contractions, a worse-than-expected headline drop of 0.4% (-0.4%) in December 2015 industrial production, and in the context of a downwardly-revised monthly contraction of 0.9% (-0.9%) in November production, the consensus economic outlook appears to have been rattled a bit, with talk of possible recession gaining some traction. On top of the collapsing monthly data, year-to-year change for December 2015 production dropped by 1.8% (-1.8%), a level of contraction not seen otherwise in the post-World II era outside of formal recessions.

For fourth-quarter 2015, production contracted at an annualized pace of 3.4% (-3.4%), the third quarter-to-quarter contraction of 2015, with year-to-year growth for the fourth-quarter 2015 contracting by 0.9% (-0.9%). As discussed and graphed in the opening paragraphs of the *Opening Comments* (see *Graph 1*), annual contractions in quarterly production have not been seen outside of (or leading into) formal post-World War II recessions, except for second-quarter 1952, when a national steel strike was met by President Harry Truman nationalizing the steel industry. While the nationalization did not survive a court challenge, the economy was disrupted. Labor disruptions to the economy generally are not counted as recessions.

With a recession in hand, though, accompanying *Graphs 11* and *10* of the production level and annual change since 2000 have been recast to show pro-forma 2014-recession bars (recession timed from December 2014) in *Graphs 2* and *3* in the opening paragraphs of the *Opening Comments*.

Meaningful Downturn in Quarterly and Annual Production for Fourth-Quarter 2015. First-quarter 2015 production contracted at an annualized quarterly pace of 0.35% (-0.35%), followed by a second-quarter 2015 contraction of 2.30% (-2.30%), and an upwardly revised gain of 2.77% [previously up 2.92%, by 2.62%, and initially up by 1.85%] in third-quarter 2015 production. Based on initial full reporting for the quarter, fourth-quarter 2015 production contracted at an annualized quarterly pace of 3.41% (-3.41%).

Separately, year-to-year growth in quarterly production continued to slow and now is in decline, ranging from a positive 3.47% in first-quarter 2015, to 1.45% in second-quarter 2015, to a revised 1.17% [previously 1.21%, 1.14% and initially 0.93%] in third-quarter 2015, to an initial headline annual decline of 0.85% (-0.85%) in fourth-quarter 2015. Again, except in unusual circumstances such as national strikes, annual quarterly production growth does not contract outside of periods that eventually are declared formal recessions.

The Fed's industrial production series continues to indicate that broad economic activity entered a "new" recession, likely to be timed officially from December of 2014.

Headline Industrial Production—December 2015. The Federal Reserve Board released its first estimate of seasonally-adjusted, December 2015 industrial production this morning, Friday, January 15th. In the context of a downside revision of 0.12% (-0.12%) to the level of November production, headline monthly production declined by 0.36% (-0.36%) in December. Net of prior-period revisions, the December monthly contraction would have been 0.48% (-0.48%).

The headline December decline of 0.36% (-0.36%) followed a deeper revised monthly decline in November of 0.90% (-0.90%) [previously down by 0.56% (-0.56%)], a shallower revised monthly decline of 0.16% (-0.16%) [previously down by 0.37% (-0.37%), initially down by 0.15% (-0.15%)] in October,

and a revised decline of 0.02% (-0.02%) [previously down by 0.12% (-0.12%), down by 0.21% (-0.21%), initially down by 0.19% (-0.19%)] in September.

Detailed in *Graphs 11 to 14*, including major industry groups, the headline December 2015 monthly aggregate production loss of 0.4% (-0.4%) [a November contraction of 0.9% (-0.9%)] was composed of monthly declines of 0.1% (-0.1%) in both December and November manufacturing activity; a December decline in mining activity (including oil and gas production) of 0.8% (-0.8%) [a November decline of 2.1% (-2.1%)]; and a December decline of 2.0% (-2.0%) in utilities [a decline of 5.0% (-5.0%) in November].

Year-to-year, December 2015 growth declined by 1.75% (-1.75%), versus a downwardly revised November 2015 decline of 1.29% (-1.29%) [previously down by 1.17% (-1.17%)], an upwardly revised annual gain of 0.50% [previously up by 0.27%, initially up by 0.34%] in October 2015, and an upwardly revised annual gain of 0.82% [previously up by 0.81%, by 0.66% and initially up by 0.39%] in September 2015. Again, annual growth has turned sharply negative, a circumstance common to formal post-World-War II recessions.

Production Graphs. The regular two sets of long- and short-term industrial production levels and annual growth rates (*Graphs 8 to 11*) set the background for the drill-down detail graphs of various components of the aggregate industrial series (*Graphs 12 to 19*).

Graphs 8 and 9, and *Graphs 10 and 11* show headline industrial production activity to date. *Graph 8* shows the monthly year-to-year percent change in the aggregate series, in historical context since World War II (see also related detail on a quarterly year-to-year basis in *Graph 1*, discussed in the opening paragraphs of the *Opening Comments*). With the headline annual decline in monthly production now at 1.75% (-1.75%), the pattern is one not seen outside of formal recessions, post-World War II.

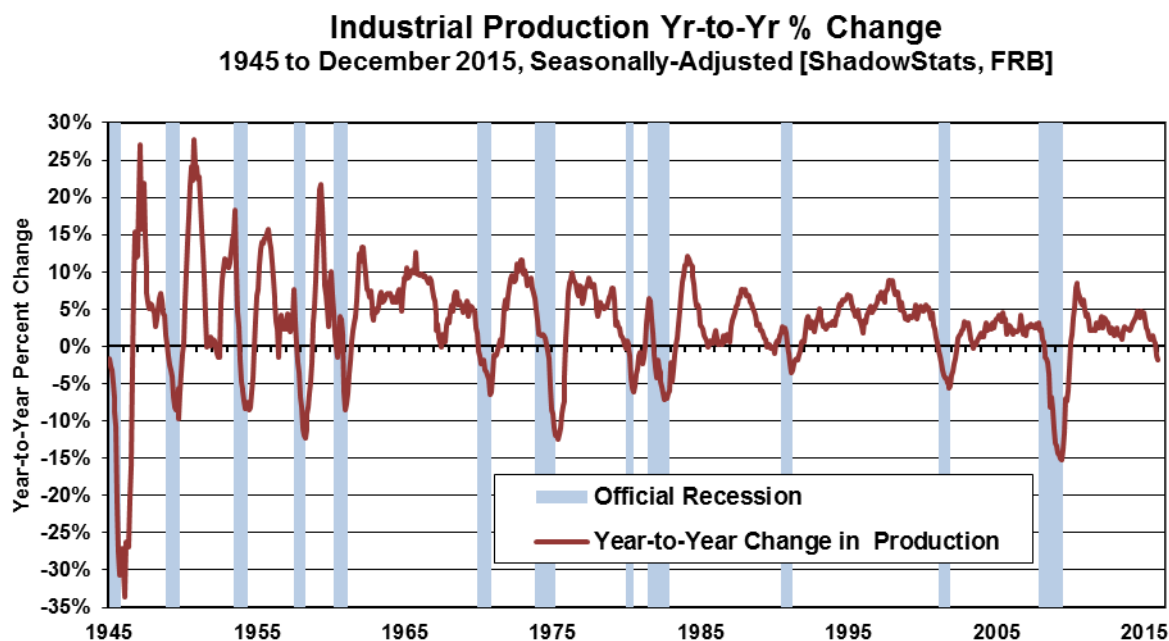
Graph 9 shows the monthly level of the production index post-World War II, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015, with a bounce in third-quarter 2015 now followed by a renewed and deeper fourth-quarter contraction. Such patterns of monthly and quarterly declines and stagnation were seen last in the economic collapse into 2009. *Graphs 10 and 11* show the same series in greater near-term detail, beginning in January 2000. *Graphs 11 and 10* also are recast as *Graphs 2 and 3* in the *Opening Comments*, showing pro-forma 2014-recession bars with a likely timing for the onset of a formal “new” recession from December 2014.

Seen most clearly in *Graph 10*, the pattern of year-to-year activity dipped anew in 2013, again, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, now turning sharply negative, as seen traditionally only in formal recessions. Growth remains well off the recent relative peak for the series, which was 8.56% in June 2010, going against the official June 2009 trough of the economic collapse. Indeed, as shown in *Graph 8*, the June 2009 year-to-year contraction of 15.20% (-15.20%)—the end of second-quarter 2009—was the steepest annual decline in production since the shutdown of wartime production following World War II.

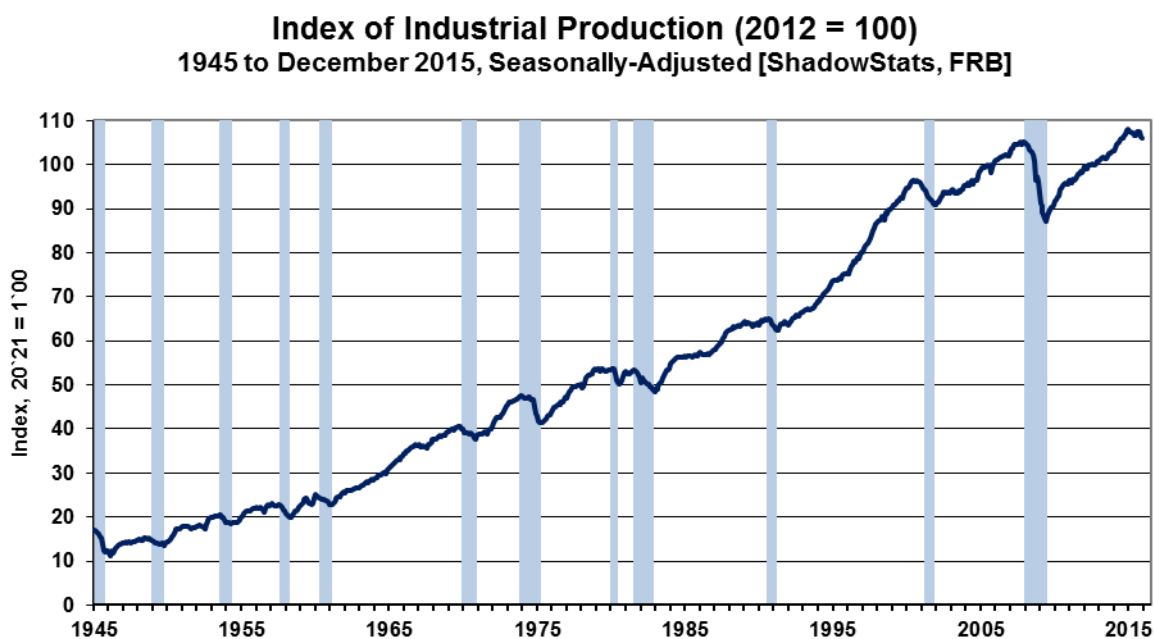
Although official production levels have moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Opening Comments* section, *Graph 5*) the series has shown more of a pattern of stagnation with a slow upside trend, since 2009, with irregular quarterly contractions interspersed. The slow uptrend continued into a

topping out pattern in late-2014. Headline real growth contracted in both first- and second-quarter 2015, with monthly activity moving lower again, following a third-quarter increase. The “corrected” series has done the same but remains well shy of a formal recovery.

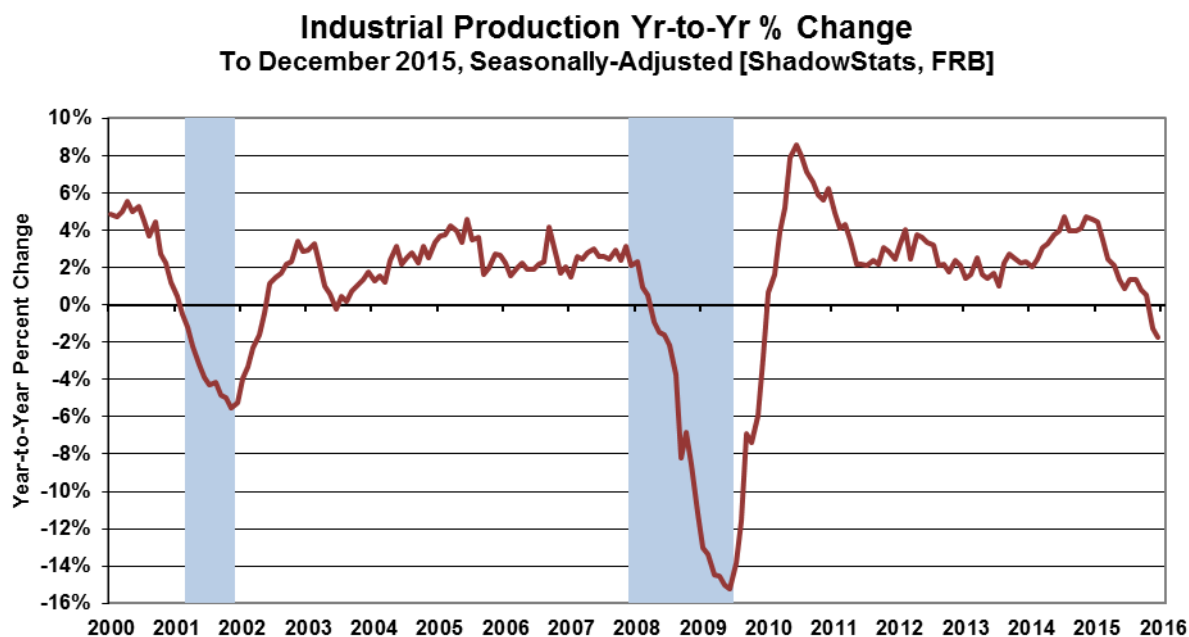
Graph 8: Industrial Production, Year-to-Year Percent Change since 1945



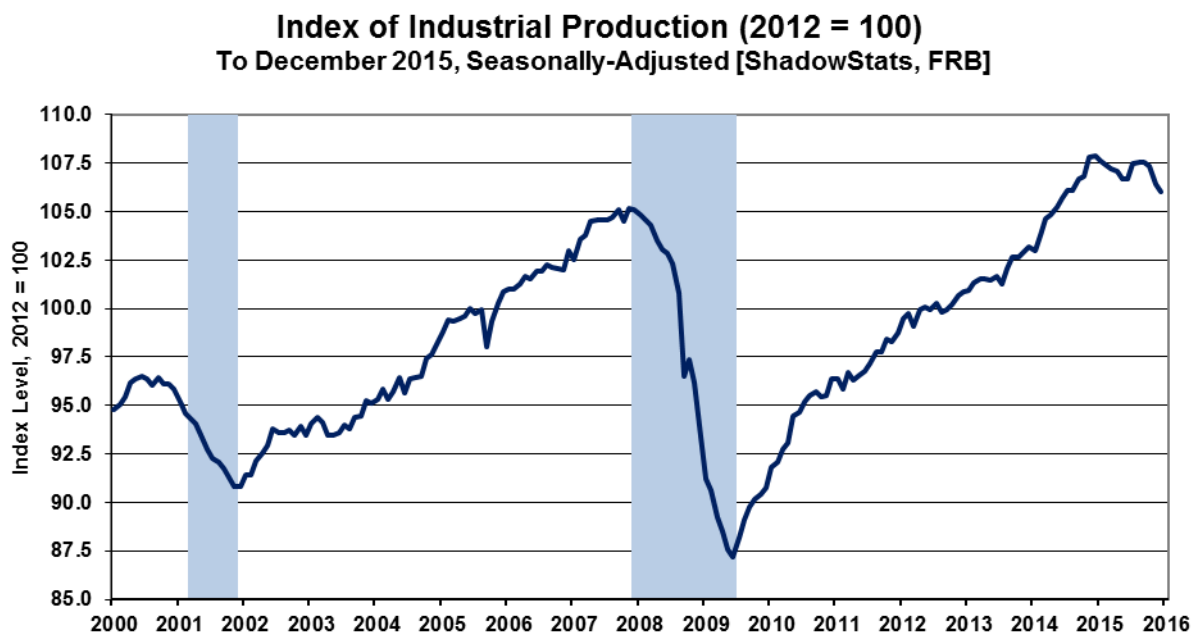
Graph 9: Index of Industrial Production (Aggregate) since 1945



Graph 10: Aggregate Industrial Production, Year-to-Year Percent Change since 2000



Graph 11: Index of Aggregate Industrial Production since 2000

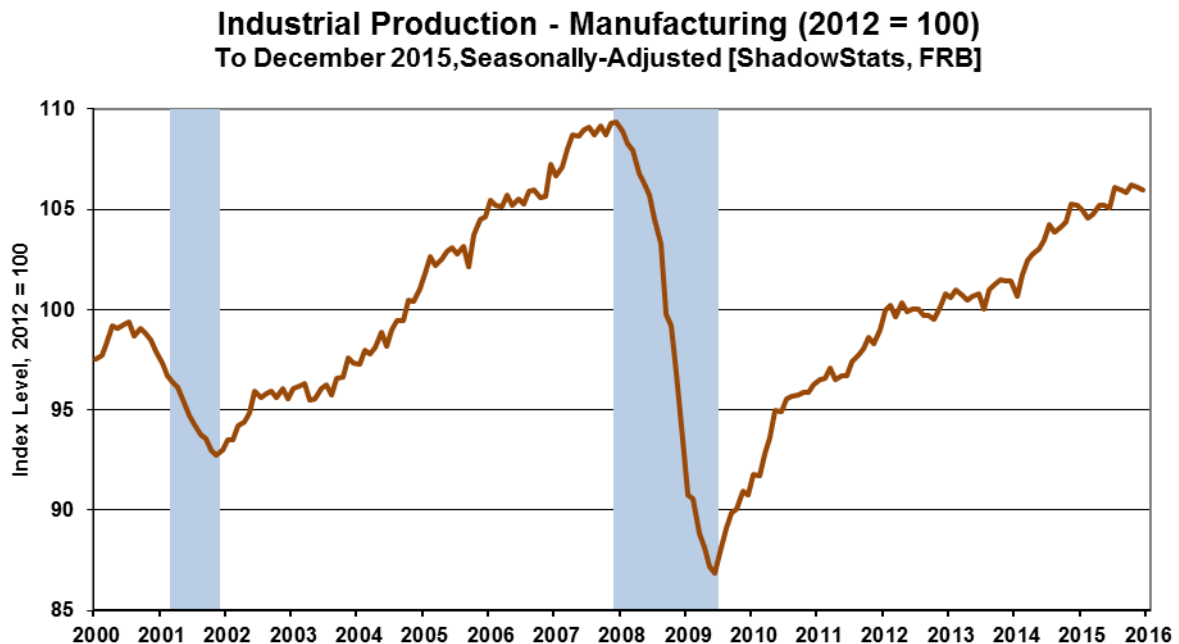


Drilling Down into the December 2015 U.S. Industrial Production Detail. Graphs 11 to 13 show headline reporting of industrial production and its major components. The broad, aggregate index (Graph

11) contracted in both first- and second-quarter 2015, and again in fourth-quarter 2015, after a third-quarter bounce. Such circumstances are not seen outside of recessions, discussed in the regular reporting of headline production earlier in this section and in the *Opening Comments*.

The headline monthly decline of 0.36% (-0.36%) in December 2015 aggregate production activity followed a monthly decline of 0.90% (-0.90%) in November, and both down months reflected consecutive, headline monthly contractions in the three major components of the aggregate series, specifically manufacturing, utilities and mining (*Graphs 12 to 14*).

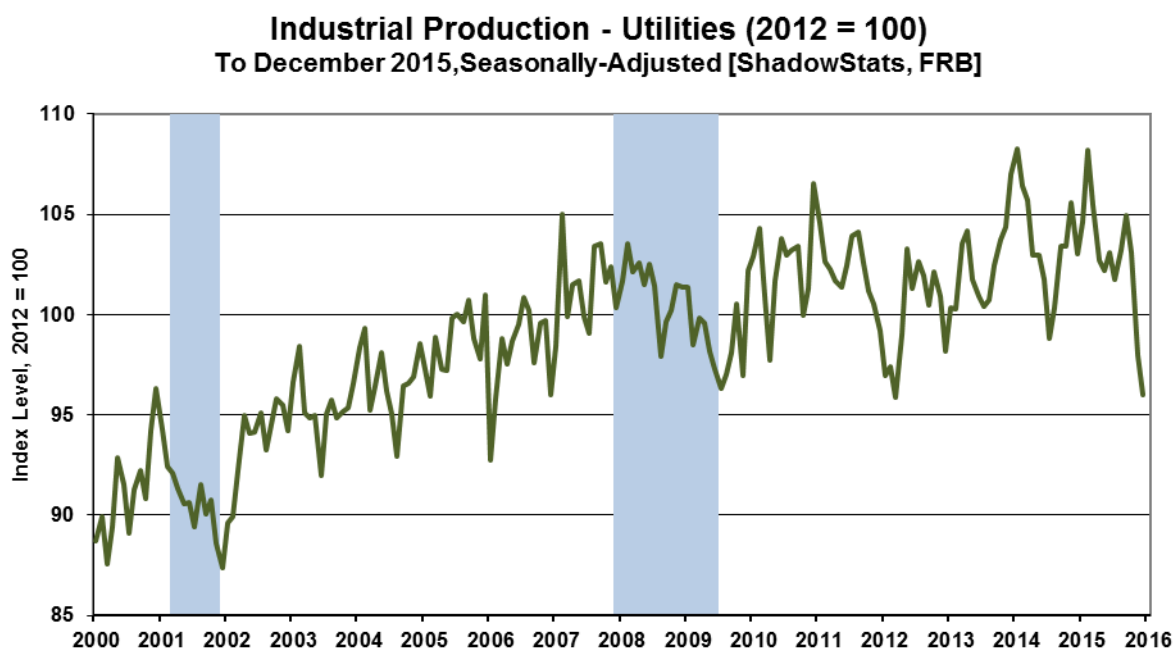
Graph 12: Industrial Production – U.S. Manufacturing (73.91% Weighting in Aggregate Index)



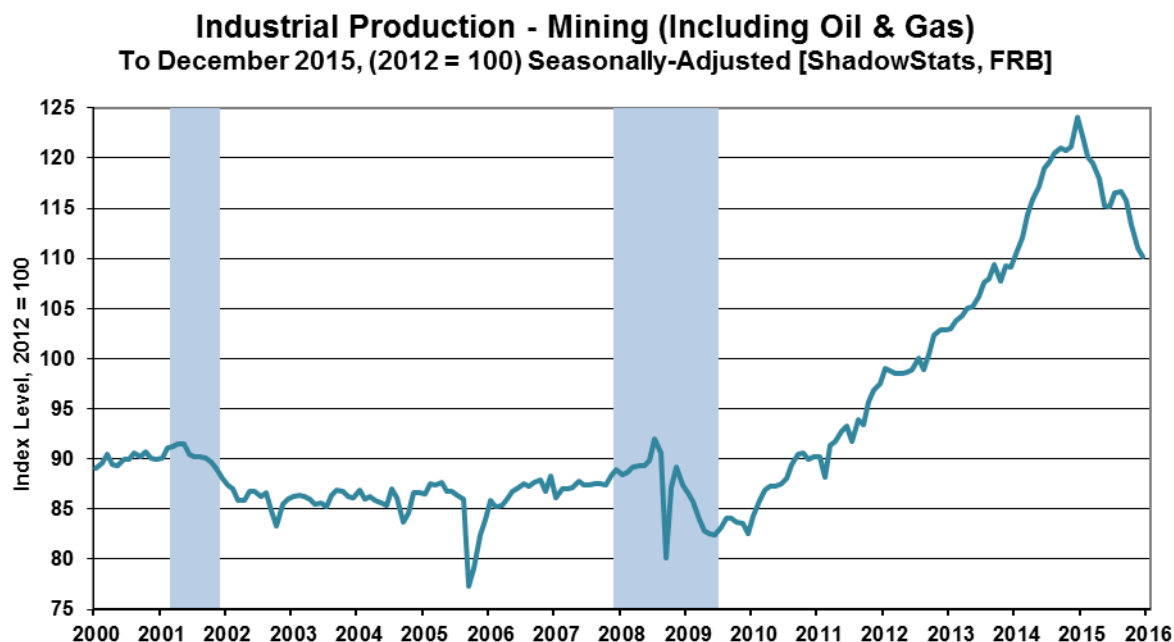
Graph 12 of the dominant manufacturing sector (73.91%) of aggregate production showed a month-to-month decline of 0.07% (-0.07%) in December 2015, having been down by 0.15% (-0.15%) for the month in November. This series remains down by 3.08% (-3.08%) from reclaiming its pre-recession high of December 2007.

The utilities sector (*Graph 13*), which accounts for 10.63% of aggregate activity, by weighting, declined month-to-month in December 2015 by 2.05% (-2.05%), following a monthly drop of 4.97% (-4.97%) in November. As usual, most of the heavy volatility in month-to-month activity reflected the temporary impact of “unseasonable” extremes in weather patterns, a warm winter in the current circumstance.

Graph 13: Industrial Production – U.S. Utilities (10.63% Weighting in Aggregate Index)



Graph 14: Industrial Production – U.S. Mining, Including Oil and Gas (15.46% Weighting in Aggregate Index)



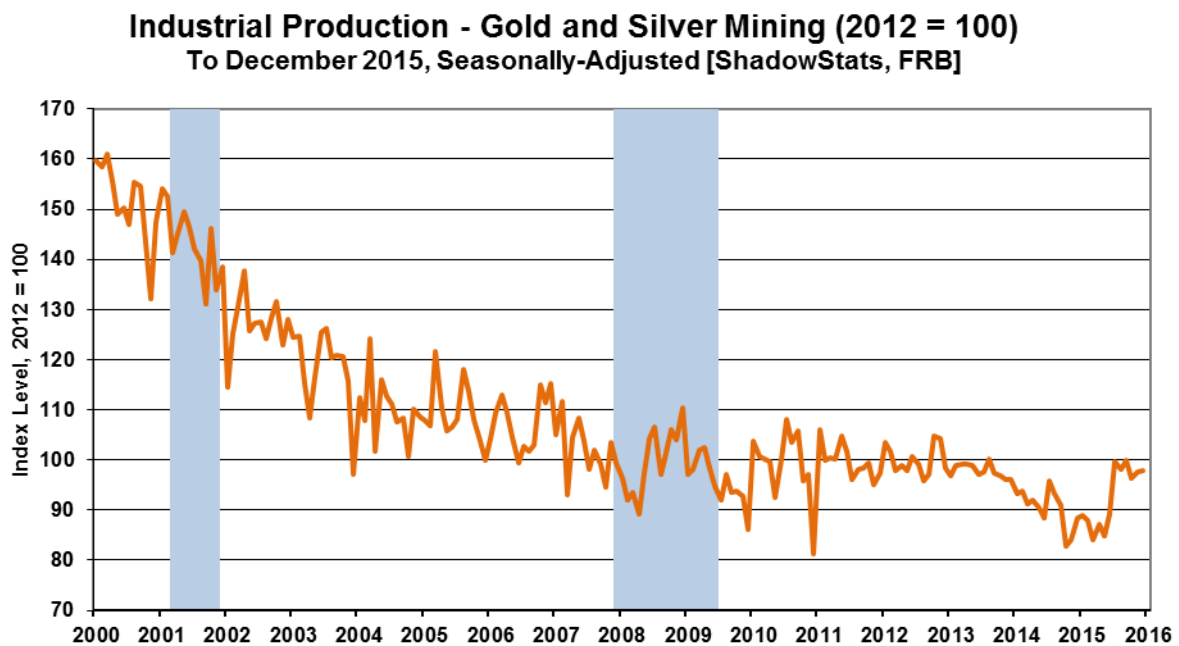
Mining-sector activity (*Graph 14*), accounts for 15.46% of aggregate industrial production activity, by weighting. Activity here, particularly in oil and gas exploration and production, remains the near-term focus of this analysis, where it has taken an increasing toll on aggregate production and broad economic

activity. This sector easily recovered its pre-recession high and accounts for the full “recovery” seen in the aggregate production detail. Mining production, however, has turned down sharply recently, reflecting a number of factors, including the decline in oil prices (and related U.S. dollar strength). Broad December 2015 activity fell month-to-month by 0.80% (-0.80%), versus a decline of 2.07% (-2.07%) in November. Activity in December 2015 was down by 11.24% (-11.24%) from its near-term peak in December 2014.

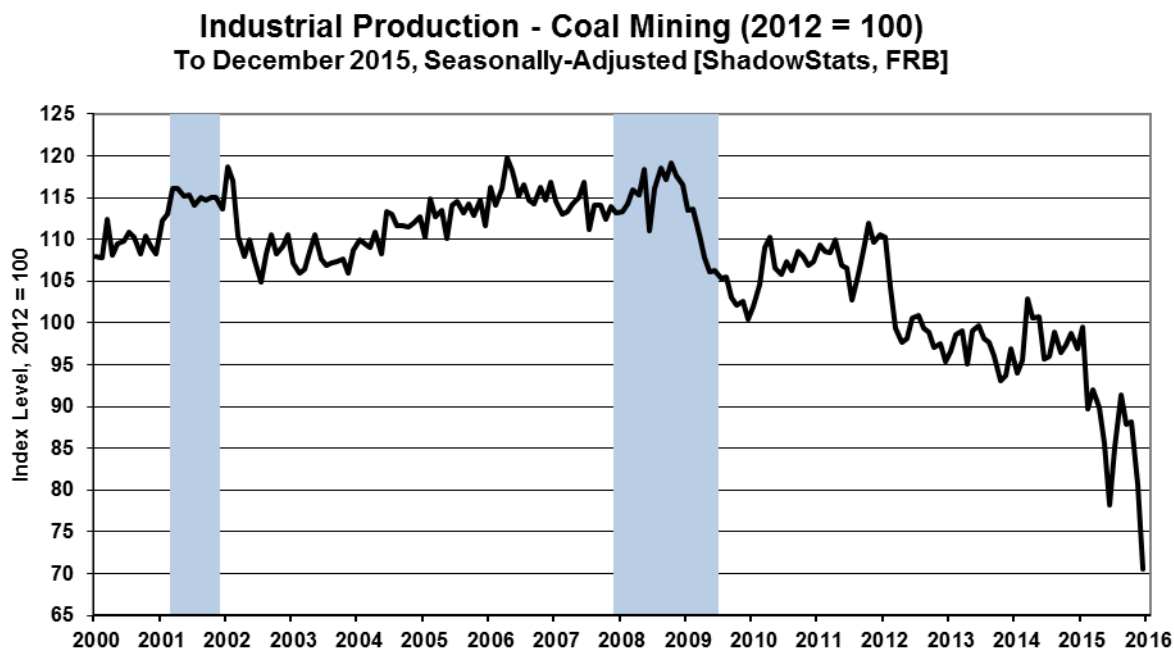
Graph 15 reflects monthly production continuing off the near-term-trough in activity for gold and silver, irrespective of the recent pummeling given the prices of precious metals by market interventions likely orchestrated by flailing central banks, while *Graph 16* shows a further, sharp headline drop in volatile month-to-month coal production.

With continued weakness in oil prices, oil and gas extraction is off its all-time high, but showing some near-term stability, as seen in *Graph 17*, with exploration in terms of oil and gas drilling (*Graph 18*) dropping sharply, again. The recent collapse in drilling largely is an artefact of a massive U.S. dollar rally and oil-price plunge, beginning 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. Shown in *Graph 19*, with some lag following the sharp movements in oil prices, oil and gas exploration tends to move in tandem. The oil price index used is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the ShadowStats Alternate CPI measure (based on 1990 methodologies).

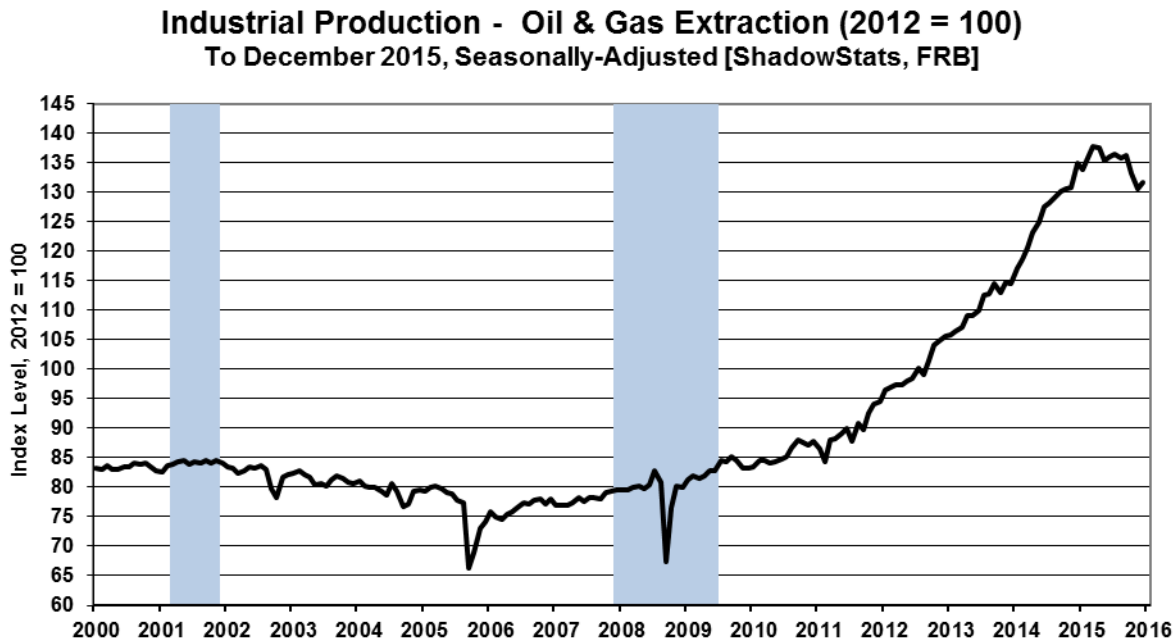
Graph 15: Mining – Gold and Silver Mining (Since 2000)



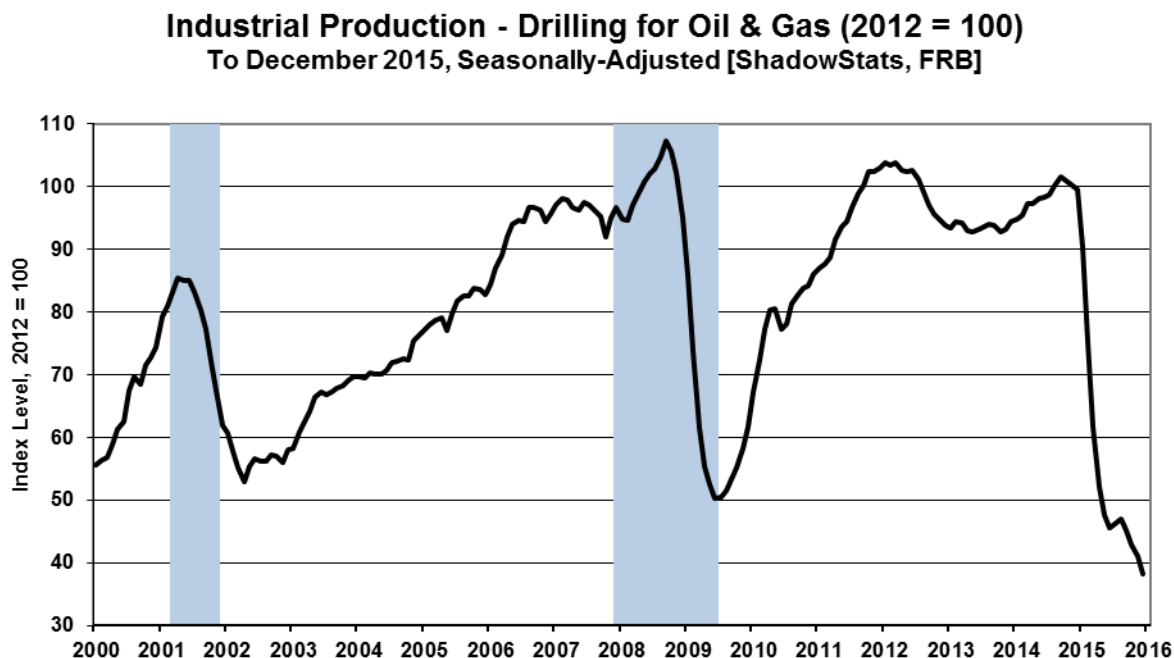
Graph 16: Mining - Coal Mining (Since 2000)



Graph 17: Mining – U.S. Oil & Gas Extraction (Since 2000)

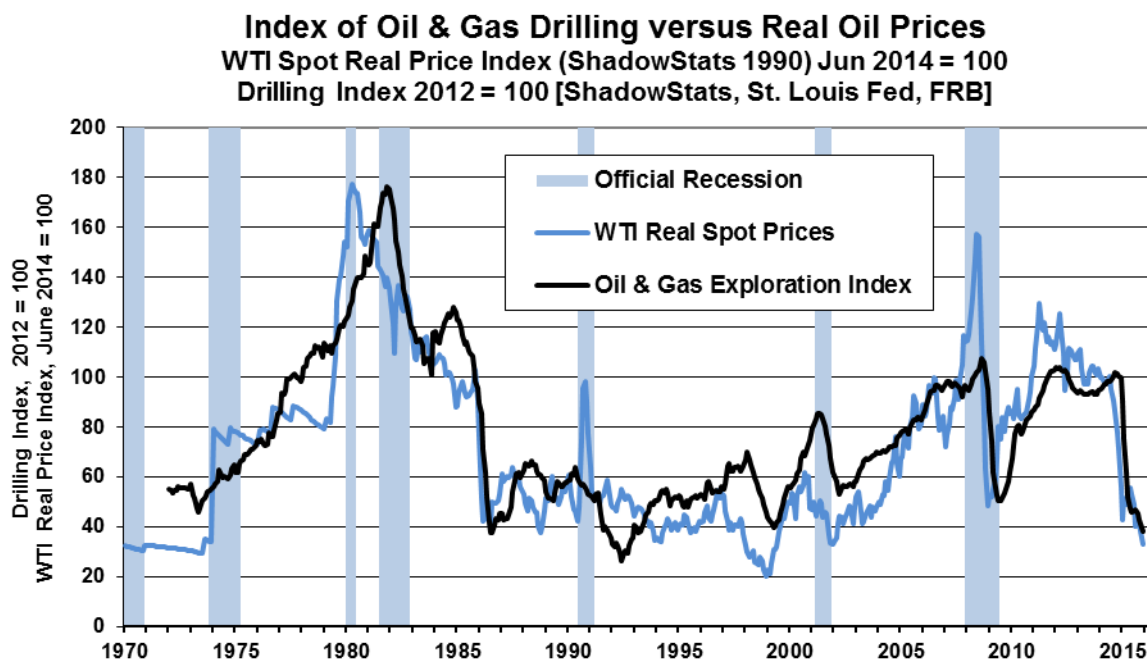


Graph 18: Mining – U.S. Drilling for Oil & Gas (Since 2000)



As the dollar strengthens, dollar-denominated oil prices weaken on a relative basis, and vice versa, even in circumstances with unusual supply conditions. At such time as the U.S. dollar declines meaningfully—ShadowStats is looking for a massive sell-off in the dollar in the year ahead—oil prices will rally anew.

Graph 19: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)



RETAIL SALES (December 2015)

Not a Happy Holiday Shopping Season, Annualized Fourth-Quarter 2015 Slowed Sharply and May Have Been Flat, Depending on the CPI. All seasonal-adjustment gimmicks aside, retailers look regularly to November and primarily to December for gains in their annual sales activity, but 2015 was not a good year. Seasonally-adjusted December 2015 sales fell by 0.11% (-0.11%) for the month, following revised monthly gains of 0.37% in November, 0.02% in October and an unrevised decline of 0.06% (-0.06%) in September.

With initial full reporting in place for fourth-quarter 2015, annualized quarter-to-quarter growth for nominal retail sales, before inflation adjustment, slowed to 0.75%, from 4.51% in third-quarter 2015. Net of inflation-adjustment, the annualized fourth-quarter real change effectively could be flat, consistent with an increasingly likely downturn in real fourth-quarter 2015 GDP.

Headline December 2015 Monthly Contraction of 0.1% (-0.1%) Would Have Been 0.4% (-0.4%) but for Covert Seasonal Shifts. The headline monthly contraction of 0.1% (-0.1%) had selective, offsetting seasonal factor shifts that boosted the headline December detail by about 0.3%. The issues were within the usual inconsistent and non-comparable shifts in the published seasonally-adjusted data, based on monthly “concurrent seasonal adjustment” calculations and lack of relevant publication of consistent, historical data. Accordingly, using old-fashioned consistent reporting, headline nominal December 2015 retail sales likely contracted about 0.4% (-0.4%) month-to-month.

The selective prior-year revisions (only November and December 2014) had the effect of distorting and boosting the headline December 2015 monthly retail sales gain. Following on top of a similar distortion in last month’s headline November 2015 reporting, a relative upside revision of 0.3% to December 2014 seasonally-adjusted monthly activity, generated a similar positive swing in relative December 2015 seasonal adjustments of about 0.3%. That had the effect of turning an already sharply negative month—down about 0.4% (-0.4%)—to an otherwise less-negative, headline monthly sales contraction of about 0.1% (-0.1%), as explained and detailed in *Seasonal-Factor Distortions and Other Reporting Instabilities*.

Separately, before inflation consideration, annual nominal growth jumped sharply against an extraordinarily weak December 2014. Yet, net of likely headline December 2015 annual CPI-U annual inflation, the real annual growth rate should continue to generate an intensified recession signal. In nominal terms, year-to-year change in sales widened to 2.2% in December 2015, versus 1.6% in November 2015. In inflation-adjusted real terms, that should be reflected in annual sales growth of about 1.3% in December 2015, versus 1.1% in November 2015, where a recession signal is generated when annual real retail sales growth falls below 2.0%.

Structural Liquidity Issues Constrain Consumer Economic Activity. Broadly discussed in [No. 777 Year-End Special Commentary](#) and briefly updated in today’s *Opening Comments*, the primary underlying issues restraining current retail sales activity remain intense, structural-liquidity woes besetting the consumer. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, let alone consumer-driven, real retail sales activity.

Without real growth in income, and without the ability and/or willingness to offset declining purchasing power with debt expansion, the consumer lacks the ability to fuel traditional, consumption-based growth or recovery in U.S. economic activity, including retail sales, real or otherwise. With a significant portion of consumers under financial stress, there has been no basis for a sustainable economic expansion since the Panic of 2008, and there are no prospects for a recovery in the near future.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—December 2015. In the context of an upside revision to headline November 2015 retail sales, and boosted by the implied seasonal-factor shifts from an upside revision to December 2014 and downside revision to November 2014 activity, December 2015 headline nominal sales fell by 0.1% (-0.1%), at the first decimal point, as reported yesterday (January 15th) by the Census Bureau. At the peak of the holiday shopping season and the largest shopping month of the year, December's headline activity came in below expectations, with sub-par annual growth, and that was despite the gimmicked, upside reporting pressures on the headline numbers.

At the second decimal point, December 2015 retail sales showed a statistically-insignificant, seasonally-adjusted decline of 0.11% (-0.11%) +/- 0.59% (this and all other confidence intervals are expressed at the 95% level). Net of prior-period revisions, nominal December retail sales virtually were unchanged at a monthly decline of 0.01% (-0.01%).

Such followed a statistically-significant, revised monthly gain of 0.37% +/- 0.23% [previously up by 0.22%] in November, and a revised monthly gain of 0.02% [previously up by 0.06%, initially up by 0.05%] in October.

Year-to-Year Annual Change. Year-to-year nominal change in December 2015 retail sales was a statistically-significant increase of 2.21% +/- 0.82%, versus an upwardly revised 1.59% [previously up by 1.35%] in November 2015, and a downwardly-revised 1.63% gain [previously up by 1.68%, initially up by 1.69%] in October 2015.

Annualized Quarterly Changes. With December headline reporting in place, the pace of annualized nominal retail sales decline in first-quarter 2015 deepened to a contraction of 4.48% (-4.48%) [previously down by 4.42% (-4.42%), by 4.23% (-4.23%), initially down by 4.04% (-4.04%)], the worst quarter-to-quarter showing since the economic collapse. These revisions to first-quarter 2015 have nothing to do with better-quality historical detail, only the use of concurrent seasonal-adjustment revisions to help shift headline sales activity into December 2015 headline reporting.

Annualized second-quarter 2015 retail sales growth held at an unrevised gain of 6.81%, and annualized third-quarter 2015 growth at an unrevised 4.51% annualized gain. Based on initial full reporting for fourth-quarter 2015 nominal retail sales, the annualized fourth-quarter 2015 nominal growth rate slowed markedly to 0.75%. Based solely on October and November's reporting, annualized fourth-quarter 2015 growth was on track for an annualized nominal gain of 0.53%. Based solely on initial October reporting, annualized fourth-quarter 2015 growth was on track for a nominal gain of 0.15%.

Net of inflation, the annualized contraction in first-quarter 2015 real retail sales deepened further to 1.47% (-1.47%) [previously down by 1.39% (-1.39%), down by 1.21% (-1.21%) and it initially fell by 1.02% (-1.02%)]. The quarterly change in second-quarter real retail sales held at an unrevised gain of 3.72%. Third-quarter showed an unrevised gain of 2.89%. The fourth-quarter change will be assessed in the December CPI-U *Commentary*, where headline, real quarterly growth could be flat. Adjusted for

realistic inflation (see [No. 777 Year-End Special Commentary](#)), real retail sales and the broad economy never truly recovered from the economic collapse into 2008 and 2009.

December Core Retail Sales—Core Sales Growth. Reflecting an environment that still should be seeing rising food prices and a seasonally-adjusted decline [an unadjusted drop of 5.13% (-5.13%) per the Department of Energy] in gasoline prices, seasonally-adjusted monthly grocery-store sales were up by 0.57% in December 2015, with gasoline-station sales down by 1.15% (-1.15%) for the month.

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

Version I: December 2015 versus November 2015 seasonally-adjusted retail sales series—net of total grocery store and gasoline station sales—reflected a monthly decline of 0.11% (-0.11%), the same as the official headline aggregate sales decline of 0.11% (-0.11%).

Version II: December 2015 versus November 2015 seasonally-adjusted retail sales series—net of the monthly change in revenues for grocery stores and gas stations—reflected a month-to-month decline of 0.09% (-0.09%), versus the official headline aggregate sales decline of 0.11% (-0.11%).

Real (Inflation-Adjusted) Retail Sales—December 2015. The nominal decline of 0.11% (-0.11%) in December 2015 retail sales was before accounting for inflation. The monthly change in real retail sales for December awaits the headline estimate of the CPI-U consumer inflation for December 2015, in the next *Commentary No. 781* of Wednesday, January 20th. Barring a negative surprise to what likely will be a slightly positive headline move in the December CPI-U, the headline monthly change in real December retail sales should be slightly more negative, with annualized real quarterly sales growth effectively flat, and with annual real retail sales growth likely holding solidly in intense-recession signal territory (see the *Week Ahead* section).

Seasonal-Factor Distortions and Other Reporting Instabilities. Without the inconsistent shifting in seasonal factors, the December 2015 headline change would have been down by about 0.4% (-0.4%) instead of the decline of 0.1% (-0.1%). Yet, the usual seasonal-factor distortions were at play, again, with the December 2015 reporting, where the headline data reflected concurrent seasonal adjustments. Given Census Bureau reporting procedures, the headline detail is not comparable with most earlier reporting. Accordingly, current data can reflect growth shifts from earlier periods, without the specifics being published. 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](#).

The adjustment issues here are the same as with the employment and unemployment series. The reporting fraud is not in the use of concurrent seasonal-factor adjustments *per se*, but rather in the Census Bureau’s not publishing fully-consistent, historical data each month. As is the common pattern in all the headline monthly reporting for the retail series, the year-ago numbers of November 2014 and December 2014 were revised, along with the publication of the December 2015 data and revised detail on November 2015 and October 2015. 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 that generated the headline December 2015 detail. The revisions were not due to the availability of any new

historical data back in 2014, but rather due to just the inconsistent shifts in the published versus unpublished seasonal adjustments. Only the new headline levels for November and December 2014 and for October and November 2015 were published on a basis consistent with the December 2015 number.

Specifically, the level of November 2014 revised lower by 0.13% (-0.13%), largely reversing its upside revision of 0.16% last month, while December 2014 revised higher by 0.19%. The net effect on December 2014 relative retail sales activity was a net-positive shift of 0.32%, suggestive of a parallel positive shift in December 2015 seasonals, from where they were implied to be last month and from what they likely would have been in the old fixed-seasonal adjustment system. The effect was to up the monthly change performance in December 2015 from a drop of 0.4% (-0.4%) to the headline contraction of 0.1% (-0.1%).

Seen broadly in reporting of the prior year, and again in the headline December 2015 data, the year-ago number most commonly was revised higher each month, with the effect—desired or otherwise—of boosting the seasonal adjustments for the headline month, minimizing the reporting of headline monthly contractions or maximizing the headline gains. Instead of December 2015 sales declining by a statistically-insignificant 0.11% (-0.11%), they would have been down in the month by a still-insignificant 0.44% (-0.44%), down by 0.4% (-0.4%) at the headline first decimal point, but for the inconsistent seasonal shifts in the published historical data. All this happens without the specifics as to where headline activity has been shifted month-to-month. Full detail is available internally to the Census Bureau, but the Bureau chooses not to publish the detail.

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

PRODUCER PRICE INDEX—PPI (December 2015)

December PPI Declined by 0.18% (-0.18%); Net of a 0.09% Gain in Services Margins, Wholesale Goods Inflation Declined by 0.74% (-0.74%). On the goods side, where headline wholesale inflation fell by 0.74% (-0.74%) in the month of December 2015, the dominant effect of declining oil prices was supplemented by falling food prices. A decline of 8.3% (-8.3%) in gasoline prices accounted for about half the downturn, per the Bureau of Labor Statistics (BLS).

The upside offset to the 0.74% (-0.74%) drop in goods inflation was a relatively small 0.09% increase in the profit margins of the dominant services sector, with a combined effect of a decline of 0.18% (-0.18%) in the aggregate headline PPI series. Per the BLS, the higher services “inflation” was dominated by a “30.3% monthly jump in prices related to securities brokerage and dealing.”

Regular Monthly Revisions to the PPI; Annual Revisions Loom. The BLS standardly revises PPI reporting for the fifth month back from the headline detail. Four months ago, headline monthly April 2015 PPI inflation revised higher by 0.2%, down by 0.1% (-0.1%) month-to-month, having been down previously in initial reporting by 0.3% (-0.3%). Three months ago, headline monthly reporting for May 2015 PPI inflation revised higher by 0.2%, now up by 0.6%, having been up previously by 0.4%. Two months ago, headline monthly reporting for June 2015 PPI inflation revised higher by 0.2%, now up by

0.4%, having been up previously by 0.2%. Last month, headline monthly reporting for July 2015 PPI inflation revised higher by 0.1%, now up by 0.1%, having been “unchanged” previously.

This month, headline monthly reporting for August 2015 PPI inflation revised lower by 0.1% (-0.1%), now down by 0.2% (-0.2%) month-to-month, having been down previously by 0.1% (-0.1%).

Annual revisions to the PPI series loom in the reporting of the January 2016 detail on February 17th. Monthly detail will be revised back for five years.

Combined Reporting Often Runs Contrary to Common Experience. In the realm of reporting methodology outside of common experience, the BLS might consider publishing just two separate indices, one reflecting costs of wholesale goods (similar to the original PPI), and one reflecting wholesale margin trends, instead of mixing the concepts between the hard costs of physical products and the theoretical, often offsetting-margin movements in the services industries. Going forward, ShadowStats will emphasize the dual measures as being more meaningful than the hybrid combination of the two concepts.

What does a business do if its profit margins are too small and/or shrinking? Traditional solutions are to increase sales, to raise prices and to cut costs. The one area that can be addressed simply—although not always easily—is to raise prices. Accordingly, in the services industry, if margins are too tight, prices tend to go higher. That is not the view of the BLS, which counts that circumstance as deflationary, not inflationary, even though wholesale “prices” likely are going higher for the service firms with shrinking margins.

The reverse is true with widening margins (*i.e.*, falling gasoline prices) in competitive industries, where such activity is inflationary in BLS accounting, but it is deflationary in the real world. The general effect is that movement in the headline aggregate PPI tends to move counter to underlying costs of goods (such as falling oil prices), which often pressures services-sector margins in a counter direction, muting the aggregate inflation effects from what at one time was the dominant goods sector.

From a practical standpoint, the aggregate Final Demand Producer Price Index has minimal relationship to real-world activity. Beyond issues of substitution and hedonic-quality-adjustment methodologies (see [Public Commentary on Inflation Measurement](#)), problems in the goods area have been and remain unstable seasonal factors (particularly as applied to energy), versus shifting market activity. In the services sector—the dominant component of the index, by weighting—inflation, again, is defined in terms of profit margins, not prices, where those margins often—but temporarily—move initially in the opposite direction of related prices, such as “inflationary” rising margins created by falling oil and gasoline prices.

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 new 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.

December 2015 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported January 15th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for December 2015 fell by 0.18% (-0.18%), versus an unrevised gain of 0.27% in November, an unrevised contraction of 0.36% (-0.36%) in October, and a revised contraction of 0.36% (-0.36%) [previously down by 0.54% (-0.54%)] in September.

The broad impact of seasonal adjustments on the headline PPI reporting largely was positive in December, with the unadjusted monthly December index down by 0.36% (-0.36%).

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation contracted by 1.00% (-1.00%) in December 2015, versus unrevised declines of 1.08% (-1.08%) in November 2015, 1.62% (-1.62%) in October 2015, 1.08% (-1.08%) in September 2015, and a revised annual decline of 0.99% (-0.99%) [previously down by 0.81% (-0.81%)] in August 2015.

For the three major subcategories of December 2015 Final Demand PPI, headline monthly Goods inflation fell by 0.74% (-0.74%), Services inflation rose by 0.09%, and Construction inflation was unchanged at 0.00% for the month.

Final Demand Goods (Weighted at 34.67%). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation dropped by 0.74% (-0.74%) in December 2015, following an unrevised decline of 0.09% (-0.09%) in November. There was positive impact on the aggregate headline December reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, December Final Demand Goods inflation fell by 0.84% (-0.84%) for the month.

Unadjusted, year-to-year goods inflation was down by 3.70% (-3.70%) in December 2015, versus an annual contraction of 4.27% (-4.27%) in November 2015.

Headline seasonally-adjusted monthly changes by major components of the December 2015 Final Demand Goods:

- “Foods” inflation fell month-to-month by 1.27% (-1.27%) in December 2015, following a headline gain of 0.26% in November, with seasonal adjustments a positive factor for the December monthly change, which was down by 1.53% (-1.53%) unadjusted. Unadjusted and year-to-year, annual December 2015 foods inflation declined by 5.24% (-5.24%), versus a decline of 3.92% (-3.92%) in November 2015.

- “Energy” inflation declined by 3.38% (-3.38%) in December 2015, following a decline of 0.63% (-0.63%) in November, with the December reading boosted by seasonal adjustments. Unadjusted, monthly December energy inflation fell by 4.12% (-4.12%). Unadjusted and year-to-year, the annual contraction in energy prices narrowed to 16.19% (-16.19%) in December 2015, from an annual decline of 18.96% (-18.96%) in November 2015.
- “Less foods and energy” (“Core” goods) monthly inflation rose by 0.09% in December 2015, offsetting the previous monthly decline of 0.09% (-0.09%) in November. Seasonal adjustments were neutral for monthly core inflation, with an unadjusted gain of 0.09% in December. Unadjusted and year-to-year, December 2015 core inflation showed was “unchanged” at 0.00%, versus an annual contraction of 0.09% (-0.09%) in November 2015.

Final Demand Services (Weighted at 63.31% of the Aggregate). Headline monthly Final Demand Services inflation rose by 0.09% in December 2015, versus monthly gain of 0.45% in November. The overall seasonal-adjustment impact on headline December services inflation was positive, with an unadjusted monthly December contraction of 0.09% (-0.09%). Year-to-year, unadjusted December 2015 services inflation was 0.36%, versus an annual gain of 0.55% in November 2015.

The headline monthly changes by major component for December 2015 Final Demand Services inflation:

- “Services less trade, transportation and warehousing” inflation, or the “Other” category, showed positive monthly inflation of 0.37% in December 2015, versus a gain of 0.09% in November. Seasonal-adjustment impact on the adjusted December detail was positive, where the unadjusted monthly gain was 0.18%. Unadjusted and year-to-year, December 2015 “other” services inflation was 1.02%, up from the annual gain of 0.83% in November 2015.
- “Transportation and warehousing” inflation fell month-to-month by 0.44% (-0.44%), having gained 0.35% in November. Seasonal adjustments had negative impact on the headline December number, where the unadjusted monthly reading contracted by 0.35% (-0.35%). Unadjusted and year-to-year, December 2015 transportation inflation fell by 3.40% (-3.40%), versus an annual contraction of 2.82% (-2.82%) in November 2015.
- “Trade” inflation fell by 0.36% (-0.36%) month-to-month in December 2015, having gained 1.17% in November. Seasonal adjustments had a positive impact here, where unadjusted monthly inflation declined by 0.53% (-0.53%) in December. Unadjusted and year-to-year, December 2015 trade inflation rose by 0.18%, having increased by 0.99% in November 2015.

Final Demand Construction (Weighted at 2.02% of the Aggregate). Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Nonetheless, headline numbers are published, and month-to-month construction inflation was unchanged at 0.00% in December 2015, having declined by 0.26% (-0.26%) in November. The impact of seasonal factors on the December reading was positive, where the unadjusted monthly change was a contraction of 0.09% (-0.09%).

On an unadjusted basis, year-to-year construction inflation was 1.79% in December 2015, versus 2.06% in November 2015.

- “Construction for private capital investment” headline monthly inflation in December 2015 was unchanged at 0.00%, following a contraction of 0.35% (-0.35%) in November. As usual, seasonal

adjustments also had neutral impact here, where the unadjusted December monthly inflation was “unchanged” at 0.00%. Unadjusted and year-to-year, December 2015 private construction inflation was 1.80%, down versus 1.98% in November 2015.

- “Construction for government” inflation rose by 0.09% in December 2015, having declined by 0.09% (-0.09%) in November. Seasonal adjustments had positive impact, where unadjusted monthly December inflation was “unchanged.” Unadjusted and year-to-year, December 2015 government construction inflation was 1.97%, versus 2.06% in November 2015.

Discussed in [Commentary No. 778](#), ShadowStats uses the Final Demand Construction index for deflating headline activity in the monthly construction-spending series. The February 1st release of December 2015 U.S. Construction Spending will be covered in ShadowStats *Commentary No. 784* of February 5th.

PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods. As to the upcoming reporting of December 2015 new orders for durable goods, unadjusted monthly inflation for new orders for manufactured durable goods fell by 0.24% (-0.24%) in December 2015, having contracted in November by 0.18% (-0.18%). The decline in annual inflation deepened, down by 1.08% in December 2015, versus annual declines of 0.90% (-0.90%) in November 2015, and 0.78% (-0.78%) in October 2015. December 2015 durable goods orders will be reported on January 28th and covered in ShadowStats *Commentary No. 782* of that date.

WEEK AHEAD

Economic Reporting Should Continue Trending Weaker than Expected, Well into 2016 Reporting; Inflation Should Rise Anew—Along with Oil Prices—in Response to a Weakening Dollar.

Fluctuating increasingly to the downside, amidst intensifying, negative headline reporting, market expectations for business activity nonetheless still gyrate with the latest economic hype in the popular media. That effect helps to hold the consensus outlook at overly-optimistic levels, with current expectations still exceeding underlying reality. Along with the broad trend in weakening expectations, however, movement towards looming recession recognition continues at an accelerating pace, as discussed in the *Opening Comments*, in [Commentary No. 778](#) and in December 30th’s [No. 777 Year-End Special Commentary](#).

Headline reporting of the regular monthly economic numbers increasingly should weaken in the weeks and months ahead, along with much worse-than-expected reporting for at least the next several quarters of GDP (and GDI and GNP), for fourth-quarter 2015 and well into 2016. That includes mounting odds for

an outright headline quarterly contraction in fourth-quarter 2015 GDP activity, due for release in two weeks, on January 29th, as well as pending downside revisions to recent GDP history in the 2016 annual benchmark revision due on July 29th.

CPI-U consumer inflation—intermittently driven lower this year by collapsing prices for gasoline and other oil-price related commodities—likely has seen its near-term, year-to-year low. Annual CPI-U turned minimally positive in June 2015, for the first time in six months, notched somewhat higher in July and August, with a minimal fallback in September, tied to renewed weakness in gasoline prices. With positive seasonal adjustments countering some of the monthly weakness in gasoline prices, combined with particularly weak headline inflation one year ago, headline November 2015 CPI-U annual inflation was boosted to 0.5%, with further upside continued movement in headline annual inflation likely for December reporting, as discussed in *Pending Releases*. Separately, fundamental reporting issues with the CPI are discussed here: [Public Commentary on Inflation Measurement](#).

Despite heavily-negative oil-supply circumstances, at present, significant inflation pressures should mount anew, at such time as oil prices rebound, a process that should accelerate, along with a pending sharp downturn in the exchange-rate value of the U.S. dollar. Those areas, the general economic outlook and longer range reporting trends were reviewed broadly, most recently, in [No. 777 Year-End Special Commentary](#) in complement to [No. 742 Special Commentary: A World Increasingly Out of Balance](#), [No. 692 Special Commentary: 2015 - A World Out of Balance](#) and the 2014 Hyperinflation Reports: [The End Game Begins](#) and [Great Economic Tumble](#).

Note on Reporting-Quality Issues and Systemic-Reporting Biases. Significant reporting-quality problems remain with most major economic series. Beyond the pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended to understate actual inflation and to overstate actual economic activity, ongoing headline reporting issues are tied largely to systemic distortions of monthly seasonal adjustments. Data instabilities—induced partially by the still-evolving economic turmoil of the last eight-to-ten 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, when concurrent seasonal adjustments are used (as with retail sales, durable goods orders, employment and unemployment data, discussed and explored in the labor-numbers related [Commentary No. 695](#)).

Separately, discussed in [Commentary No. 778](#), a heretofore unheard of spate of “processing errors” has surfaced, currently involving surveys of earnings and construction spending. This is suggestive of deteriorating internal oversight and control of the U.S. government’s headline economic reporting. At the same time, it indicates an openness of the involved statistical agencies in revealing the reporting-quality issues. Combined with recent allegations of Census Bureau falsification of data in its monthly Current Population Survey (the source for the Bureau of Labor Statistics’ 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](#)).

PENDING RELEASES:

Consumer Price Index—CPI (December 2015). The Bureau of Labor Statistics (BLS) will release the December 2015 CPI on Wednesday, January 20th. The headline December CPI-U should be on the plus-side of flat, perhaps rounding up to 0.1%, reflecting a decline in unadjusted gasoline prices, muted by seasonal adjustments, and more than offset otherwise by non-energy inflation.

Even so, given the sharp decline in headline December 2014 CPI-U, the year-to-year annual inflation rate likely will move higher, from 0.50% in November 2015, to roughly 0.8%, or more in December 2015. Market outlook for the headline monthly December CPI-U appears likely to settle around flat, which is not an unreasonable expectation.

Average gasoline prices moved lower, again, in December 2015, down by 5.13% (-5.13%) for the month on a not-seasonally-adjusted basis, per the Department of Energy (DOE). Where BLS seasonal adjustments to gasoline prices in December traditionally are sharply on the plus-side, they will not be enough to turn adjusted gasoline prices higher, leaving a likely net-negative contribution of about 0.11% (-0.11%) to the aggregate monthly headline CPI-U change. Higher food and “core” (net of food and energy) inflation largely should offset the adjusted, negative contribution from gasoline prices, pushing the headline CPI-U up to an aggregate flat-to-plus (rounding up to a) 0.1% reading for the month.

Annual Inflation Rate. Year-to-year, CPI-U inflation would increase or decrease in December’s reporting, dependent on the seasonally-adjusted monthly change, versus the adjusted, headline contraction of 0.33% (-0.33%) in December 2014 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for December 2015, the difference in December’s headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the November 2015 annual inflation rate of 0.50%. For example, a seasonally-adjusted, headline monthly “unchanged” reading in the December 2015 CPI-U would push annual December 2015 inflation up to roughly a positive 0.8% plus-or-minus, depending on rounding. Such would be the highest, CPI-U headline annual inflation rate since 1.32% in November 2014.

Updated—Real Retail Sales (December 2015). Based on the January 15th headline monthly contraction of 0.11% (-0.11%) in nominal (not-adjusted-for-inflation) December 2015 Retail Sales (see the *Opening Comments* and *Reporting Detail*), the estimate of real (inflation-adjusted) Retail Sales for December 2015 will follow in *ShadowStats Commentary No. 781* of January 20th, in conjunction with the publication of detail on the headline December CPI-U.

With a fair chance for a flat-to-minimally-positive headline monthly gain in December CPI-U inflation, discussed in the CPI outlook, there is a parallel chance for real growth in December sales to be minimally weaker than the headline nominal sales activity. That would be slightly more negative, with real retail sales perhaps down by 0.2% (-0.2%), net of the headline inflation rate.

The pace of annual CPI-U inflation, however, should increase sharply, maintaining an intense recession signal, as generated currently by the unusually-low, year-to-year growth in real retail sales. Where annual real sales growth below 2.0% traditionally signals pending recession, the annual real gain likely for

December 2015 should remain well below 2.0%, close to the 1.1% pace of November 2015. December annual real sales growth should generate an ongoing, intense signal of recession. That is despite the unusually weak, year-ago annual contraction in the series.

Constraining retail sales activity, the consumer remains in an extreme liquidity bind with weakening confidence, as broadly discussed in [No. 777 Year-End Special Commentary](#) and as updated briefly in the review of *Consumer Liquidity Conditions* in today's *Opening Comments*. Without sustained 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 is unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise.

Residential Construction—Housing Starts (December 2015). The Census Bureau will release December 2015 residential construction detail also on Wednesday, January 20th. 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. While consensus expectations likely will be on the upside, as usually is the case with this series, those expectations also likely will be well shy of statistical significance.

Irrespective of the generally meaningless headline detail, the broad pattern of housing starts should remain consistent with the low-level, albeit slightly up-trending, stagnation, seen in the series at present, where current activity still is down by about 48% (-48%) from its pre-recession high. Such is particularly evident with the detail viewed in the context of a six-month moving average. This series also is subject to regular and extremely-large, prior-period revisions.

As discussed in [Commentary No. 660](#) on the August 2014 version of this most-unstable of major monthly economic series, the monthly 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 those headline monthly growth rates rarely come close to being statistically significant.