

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

**COMMENTARY NUMBER 786**  
**Industrial Production, Housing Starts, PPI**

**February 18, 2016**

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**Fourth-Quarter GDP Revision Looms**

**First-Quarter Activity Has Started Off on the Downside**

**First-Quarter Production on Early Track for  
Quarterly and Annual Contractions**

**January Downturn in Unstable Housing Starts Followed a  
Revised, Deeper Contraction in Fourth-Quarter Activity**

**Unusual Inflation Revisions Suggested Much-Weaker  
Fourth-Quarter 2015 GDP in Mid-Year Benchmarking**

**January PPI Goods Inflation Fell by 0.65% (-0.65%),  
While Services Profit Margins Rose by 0.54%**

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*PLEASE NOTE: The next regular Commentary, tomorrow Friday, February 19th will cover the January Consumer Price Index (CPI), annual CPI revisions and related Real Retail Sales and Earnings.*

*Best wishes to all — John Williams*

## OPENING COMMENTS AND EXECUTIVE SUMMARY

**No Happy News Here in Near-Term Economic Reporting.** Tomorrow's *Commentary No. 787* will review the pending downside revision to, and ultimate headline contraction in, fourth-quarter 2015 GDP, which currently shows annualized quarterly real growth of 0.69%. The first revision is due on Friday, February 26th. The downside revision to fourth-quarter housing starts activity darkened that outlook, while the largely unrevised fourth-quarter production detail was neutral. The headline January economic reporting, though, already has begun to set up first-quarter 2016 GDP for an outright contraction, as well.

Also to be discussed in *No. 787*, just-published, annual seasonal-adjustment revisions to consumer and wholesale inflation were of enough substance to suggest that roughly another 0.5% in annualized growth will be knocked off fourth-quarter 2015 GDP, in the July 29th GDP benchmark revisions. Such would be due to just the implied changes in the GDP's inflation measure, the implicit price deflator.

**Today's *Commentary* (February 18th).** The balance of these *Opening Comments* provides summary coverage of the January reporting on Industrial Production, Housing Starts and the Producer Price Index (PPI) and related annual revisions. The *Week Ahead* updates the preview for tomorrow's release of the January 2016 Consumer Price Index (CPI) and related real Retail Sales and Earnings. The latest *Hyperinflation Outlook Summary* is found in [Commentary No. 783](#).

**Index of Industrial Production—January 2016—First-Quarter on Early Track for Annual and Quarterly Contractions.** In the context of contracting annual growth and downside prior-period revisions, the headline January 2016 production gain was dominated by weather-distorted utility usage. The three major industry groups that comprise U.S. industrial production turned higher or did not decline in headline January 2016 reporting, with aggregate industrial production gaining a greater-than-expected 0.9% for the month. Dominated by a 5.4% weather-induced surge in utility usage, the headline January aggregate increase followed a downwardly-revised monthly contraction of 0.7% (-0.7%) in December. Annual growth held in negative territory, down by 0.7% (-0.7%) in January 2016, versus a downwardly-revised 1.9% (-1.9%) year-to-year plunge in December 2015.

Fourth-quarter recession markers of contracting annual and quarterly production remained in place, with similar activity already likely for first-quarter 2016, allowing for the vagaries and shifting of unseasonable weather effects.

**Meaningful Downturns in Quarterly and Annual Production Held for Fourth-Quarter 2015, with First-Quarter 2016 Likely to Follow, Despite Weather-Related Flux.** First-quarter 2015 industrial 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 a downwardly-revised gain of 2.65% in third-quarter 2015

production. Based on the detail accompanying the headline January 2016 reporting, fourth-quarter 2015 production contracted at a revised annualized pace of 3.25% (-3.25%).

Reflecting just the headline January 2016 numbers, first-quarter 2016 production was growing at an annualized quarterly pace of 0.87%, but all the positive movement there was in a utility surge created by unseasonably cold weather. That distortion will reverse and balance out over time. Viewed from the standpoint of stable utility usage, first-quarter production was on track for an annualized quarterly contraction of 1.44% (-1.44%).

Separately, year-to-year growth in quarterly production has 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 a revised annual decline of 0.84% (-0.84%) in fourth-quarter 2015. Based on the headline January 2016 detail, first-quarter 2016 activity was on track for a straight annual contraction of 0.54% (-0.54%), which would be a year-to-year annual contraction of 1.11% (-1.11%) with weather patterns balanced out.

Historical patterns of this series as they relate to recessions were reviewed meaningfully in the prior production [Commentary No. 780](#). Discussed there, except in unusual circumstances such as national strikes, annual quarterly growth in industrial production does not contract outside of periods that eventually are declared formal recessions. In consistent form, the industrial production series continues to indicate that broad U.S. economic activity entered a “new” recession, still likely to be timed officially from December of 2014.

**Headline Industrial Production—January 2016.** In the context of a 0.12% (-0.12%) downside revision to the level of December 2015 production, headline monthly production rose by 0.92% month-to-month in the initial estimate for January 2016. Net of prior-period revisions, the January monthly gain would have been 0.78%.

The headline January 2016 gain of 0.92% also followed a revised, deeper monthly decline in December 2015 of 0.67% (-0.67%), a shallower revised monthly decline in November of 0.76% (-0.76%) and a revised monthly decline in October of 0.12% (-0.12%).

Headline details were in the context of a re-weighting of major industry groups in the industrial production index, where a reduced weighting was given to the heavily-negative activity in the mining sector. Activity by industry group is shown in *Graphs 14 to 17* in the *Reporting Detail*. The headline, reweighted January 2016 monthly aggregate production gain of 0.9% [a December monthly contraction of 0.7% (-0.7%)] was composed of a monthly January gain of 0.5% [a December monthly contraction of 0.2% (-0.2%)] in manufacturing activity; an “unchanged” 0.0% reading in January [a December decline of 2.0% (-2.0%)] in mining activity (including oil and gas production); and a jump of 5.4% in January [a December decline of 2.9% (-2.9%)] in utilities activity.

Year-to-year, January 2016 growth declined by 0.70% (-0.70%), versus a deeper, revised December 2015 annual decline of 1.89% (-1.89%), a narrowed decline in November 2015 of 1.13% (-1.13%), and a revised annual gain of 0.52% in October 2015. Again, annual growth has turned sharply negative, a circumstance common to formal, post-World-War II recessions.

**Production Graphs—Corrected and Otherwise.** The regular graphs of headline production level and annual growth detail are found in the *Reporting Detail* (*Graphs 11 to 14*), along with the drill-down

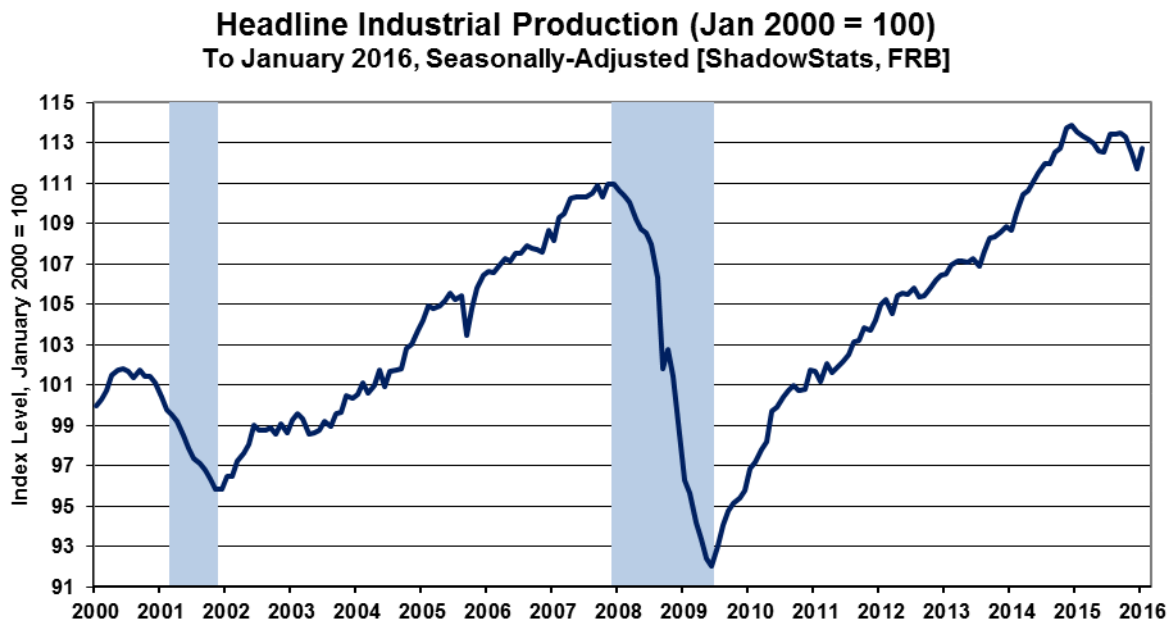
graphs of major subcomponents of the production series (*Graphs 15 to 22*). The level of headline production showed a topping-out process late in 2014, followed by a deepening downturn into first- and second-quarter 2015. Third-quarter 2015 showed some bounce, but fourth-quarter activity turned down 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 (again, see [Commentary No. 780](#)). The broad downtrend continued in January 2016, despite the largely weather-driven spike in the headline detail. Such faltering patterns of monthly, quarterly and annual decline last were seen 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 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, 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 14* in the *Reporting Detail* section).

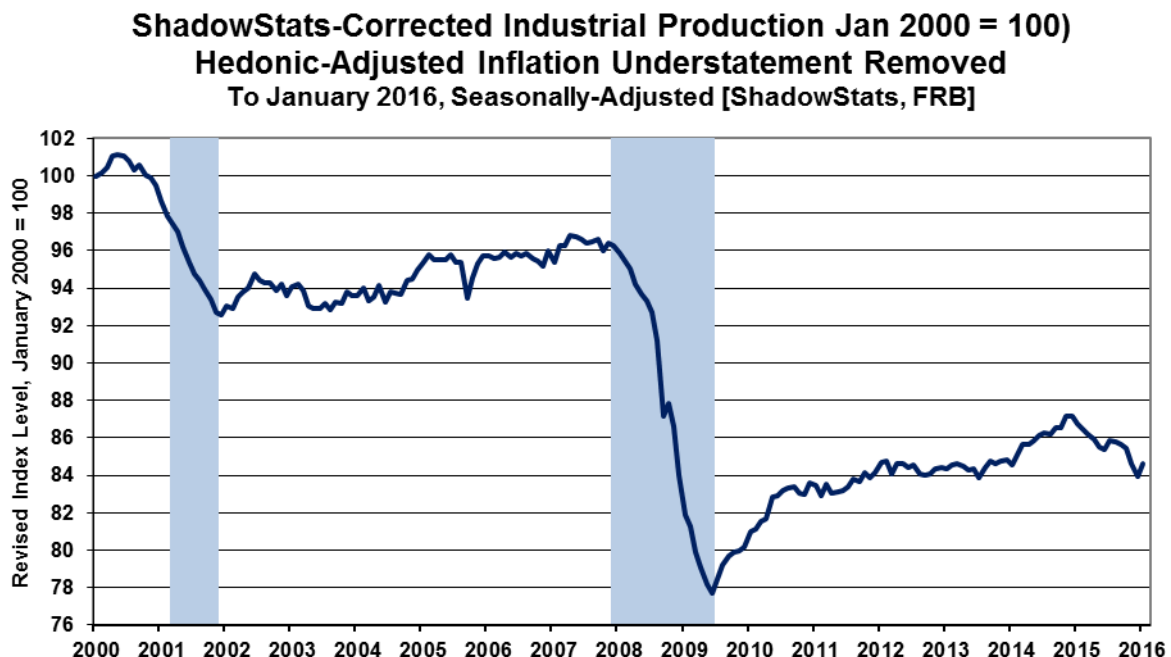
**Graph 1: Indexed Headline Level of Industrial Production (Jan 2000 = 100)**



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

This “corrected” *Graph 2* shows some growth in the period subsequent to the official June 2009 trough in production activity, however, that upturn has been far shy of the full recovery and the renewed expansion reported in official GDP estimation (see [Commentary No. 783](#), 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 limited upside activity in third-quarter 2015.

**Graph 2: 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, with continued quarterly downturn in first-quarter 2016 likely as well.

**Housing Starts—January 2016— First-Quarter 2016 Headed Lower as Fourth-Quarter Contraction Intensified.** Showing a continued, smoothed pattern of faltering stagnation, headline January 2016 housing starts took an unexpected monthly tumble, in the context of downside revisions to recent history. While not one of the headline monthly changes was statistically significant—which was

usual—the annualized contraction in the series not only deepened in fourth-quarter 2015, but the headline January 2016 detail was suggestive of an even greater contraction already unfolding in first-quarter 2016.

***First-Quarter Housing Starts on Track for Annualized Contraction of 10.5% (-10.5%).*** In terms of annualized quarter-to-quarter change, the regularly unstable aggregate housing-starts count fell at an annualized-quarterly pace of 26.2% (-26.2%) in first-quarter 2015, rose at an annualized 96.3% pace in second-quarter 2015, basically was flat with an unrevised 0.2% annualized third-quarter 2015 pace of growth, and fell at a revised, intensifying annualized pace of 9.4% (-9.4%) in fourth-quarter 2015.

Based solely on the headline January 2016 detail, housing starts are on track for an annualized first-quarter 2016 contraction of 10.5% (-10.5%).

***Smoothed Numbers.*** Despite the regular volatility and instabilities in the housing starts series, the general pattern of low-level stagnation continued, with its up-trending six-month moving-average pattern faltering anew, softening in tandem with the most-recent headline detail. This pattern is viewed best in terms of the longer-range historical graph of aggregate activity (*Graph 24*) in the *Reporting Detail* section, and particularly in the context of the headline activity, smoothed by a six-month moving average, as shown here in *Graph 6*. While the minor upside trend in the broad pattern of stagnation in the aggregate series appears to have stalled, total January 2016 housing-starts activity remained well below any recovery level, down from its pre-recession high by 52% (-52%).

Separately, the dominant, single-unit housing starts component of the series (see *Graphs 7 and 8*) remained down by 60% (-60%) from its January 2006 pre-recession peak.

Reflected in the smoothed graphs, the aggregate housing-starts series continued to falter from what had been an earlier, minimal uptrend. Such encompassed downticks in both the six-month smoothed single-unit activity (*Graph 8*) and the smoothed multiple-unit starts (*Graph 10*).

Over time, the bulk of the extreme, reporting instability and what had been the minimal uptrend in the aggregate series was due largely to particularly-volatile reporting in the multiple-unit housing-starts category (apartments, etc.). Recent activity in multiple-unit starts had recovered to above pre-recession levels, again, in the context of extreme month-to-month volatility. Even so, the recent impact of that recovery has been fading, likely in response to the intensifying general economic slowdown. Otherwise, the multiple-unit series detail largely has been lost in the aggregate housing starts series.

***Consumer Liquidity Problems Continue to Impair Housing Activity.*** Broadly discussed in [No. 777 Year-End Special Commentary](#) and briefly updated in the *Opening Comments* of prior [Commentary No. 785](#), the primary underlying issues restraining current activity in residential real estate 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, particularly tied to homeowner real estate. There remains no chance of a near-term, sustainable turnaround in the housing market, without a fundamental upturn in consumer and banking-liquidity conditions.

On a per-structure basis, housing starts volume, again, is dominated by the single-unit category, which has remained broadly stagnant, with something of a renewed downtrend in development, on a smoothed basis. The private housing sector never recovered from the business collapse of 2006 into 2009, holding at a low level of activity, since hitting bottom in early-2009.



**January 2016 Housing-Starts, Headline Reporting.** Headline January 2016 Housing Starts declined minimally, in the context of minor downside revisions to November and December reporting, intensifying not only the annualized fourth-quarter 2015 contraction in housing starts, but also suggesting a continued housing downturn in first-quarter 2016. The headline, seasonally-adjusted January monthly decline of 3.8% (-3.8%) was statistically insignificant. Such followed a revised monthly decline of 2.8% (-2.8%) in December 2015, and a revised 9.8% gain in November. Net of prior-period revisions, January 2016 housing starts fell by 4.4% (-4.4%) for the month, instead of the headline decline of 3.8% (-3.8%). Level-of- activity detail is plotted in accompanying *Graphs 3* and *5*, and in *Graphs 23* and *24* at the end of *Reporting Detail*.

Year-to-year change in the seasonally-adjusted, aggregate January 2016 housing-starts measure was a statistically-insignificant gain of 1.8%, versus downwardly revised annual gains of 5.8% in December 2015 and 16.8% in November 2015.

The January 2016 headline decline of 3.8% (-3.8%) in total housing starts encompassed headline monthly contractions of 3.9% (-3.9%) in the “one unit” category and 2.5% (-2.5%) in the “five units or more” category. As most commonly is the case, not one of the headline changes was statistically significant, on either a month-to-month or a year-to-year basis.

**By-Unit Category.** Where the irregular housing starts series can show varying patterns, that partially is due to a reporting mix of residential construction products, with the largest physical-count category of one-unit structure housing starts—generally for individual consumption, resulting in new home sales—versus multi-unit structure starts that generally reflect the building of rental and apartment units.

Housing starts for single-unit structures in January 2016 declined month-to-month by a statistically-insignificant 3.9% (-3.9%), following a revised, similar decline of 3.9% (-3.9%) in December 2015, and a revised gain of 9.9% in November. Single-unit starts for January 2016 showed a statistically-insignificant year-to-year annual gain of 3.5%, versus revised annual gains of 5.1% in December 2015 and 17.2% in November 2015 (see *Graphs 3, 4, 7* and *8*).

Housing starts for apartment buildings (generally 5-units-or-more) in January 2016 fell month-to-month by a statistically-insignificant 2.5% (-2.5%), versus a revised contraction of 5.5% (-5.5%) in December 2015, and a revised monthly gain of 11.6% in November. The statistically-insignificant January 2016 year-to-year decline of 3.8% (-3.8%) followed revised annual gains of 8.0% in December 2015 and 17.0% in November 2015.

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

Accordingly, the statistically-insignificant January 2016 monthly decline of 3.8% (-3.8%) in aggregate starts was composed of statistically-insignificant declines of 3.9% (-3.9%) in one-unit structures and 3.7% (-3.7%) in the multiple-unit structures categories (2-units-or-more, including the 5-units-or-more category).

***Housing Starts Graphs.*** Headline reporting of housing starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,099,000 in January 2016, versus a revised 1,143,000 (previously 1,149,000) in December 2015. The scaling detail in the aggregate *Graphs 23* and *24* at the end of the *Reporting Detail* section reflects those annualized numbers.

Nonetheless, given the nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the headline 236,000 month-to-month gain in the annualized April 2015 housing starts was larger than any actual total (non-annualized) level of monthly starts ever, for a single month. That is since related starts detail first was published after World War II.

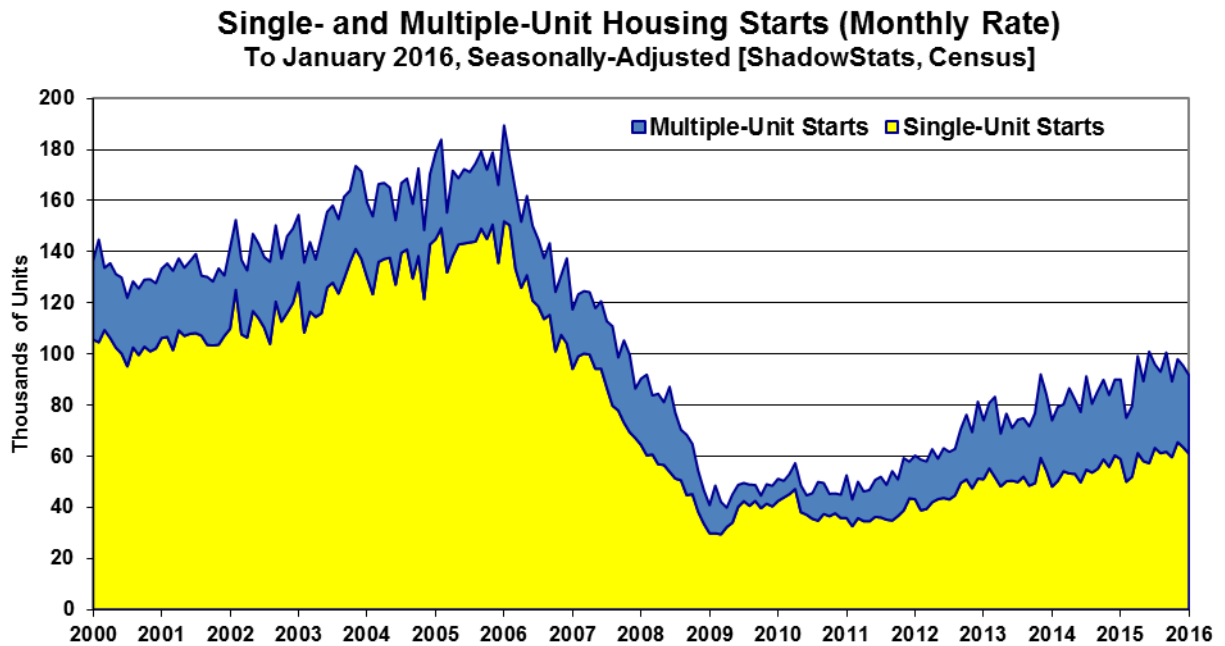
Accordingly, the monthly rate of 91,583 units in January 2016, instead of the annualized 1,099,000-headline number, is used in the scaling of the *Graphs 3* to *10* in these *Opening Comments*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as can be seen in a comparison of *Graph 5* versus *Graph 23* in the *Reporting Detail*.

The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down 79% (-79%) from the January 2006 pre-recession peak. Against that downside-spiked low in April 2009, the January 2016 headline number was up by 130%, but it still was down by 52% (-52%) from the January 2006 pre-recession high for the series. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in stagnation at low levels that otherwise have been at or near the historical troughs of recession activity of the last 70 years, as reflected in *Graph 24* at the end of the *Reporting Detail* section.

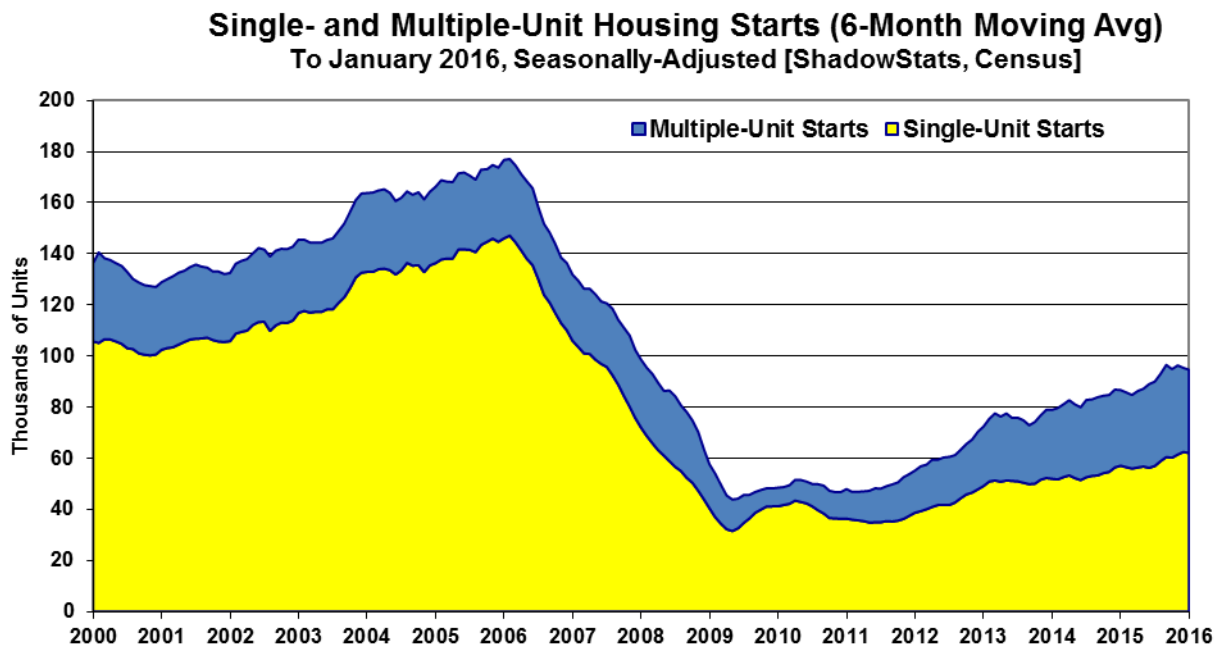
[Graphs 3 to 10 begin on the next page]



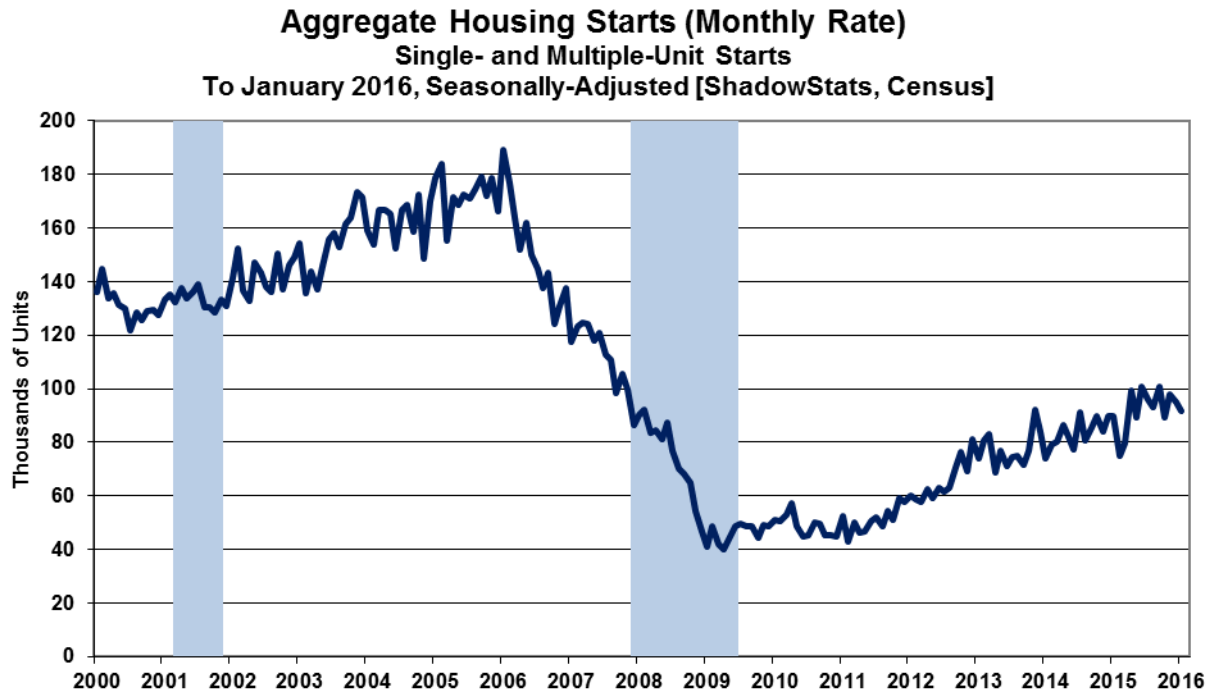
**Graph 3: Single- and Multiple-Unit Housing Starts (Monthly Rate of Activity)**



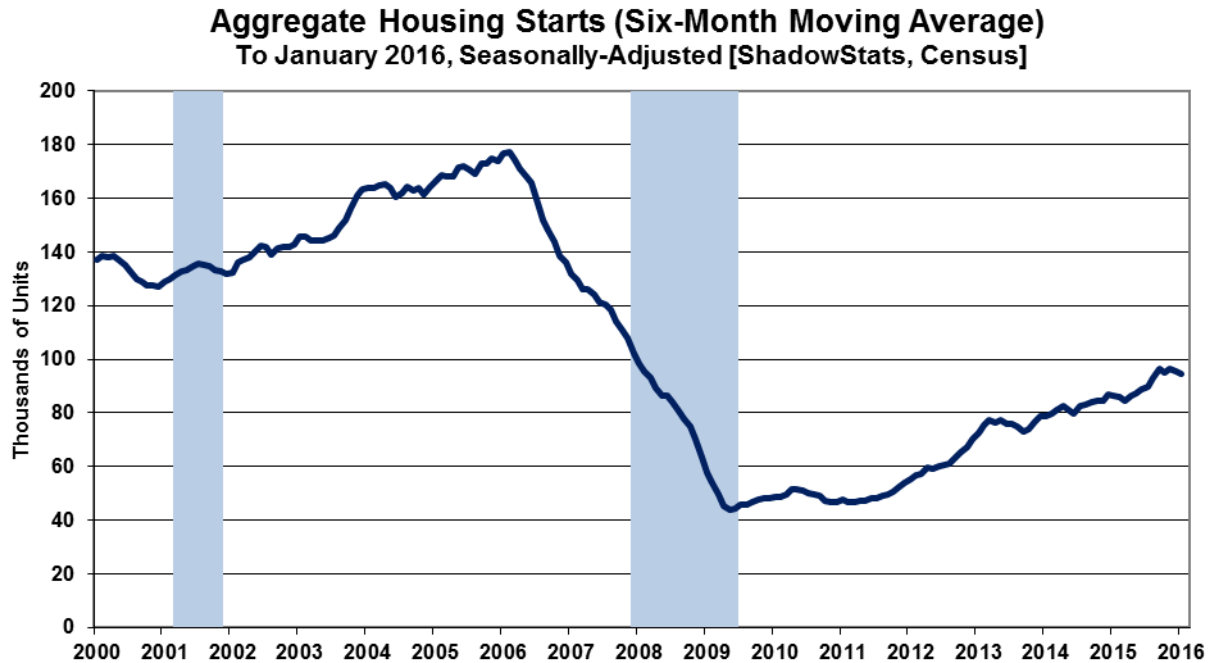
**Graph 4: Single- and Multiple-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)**



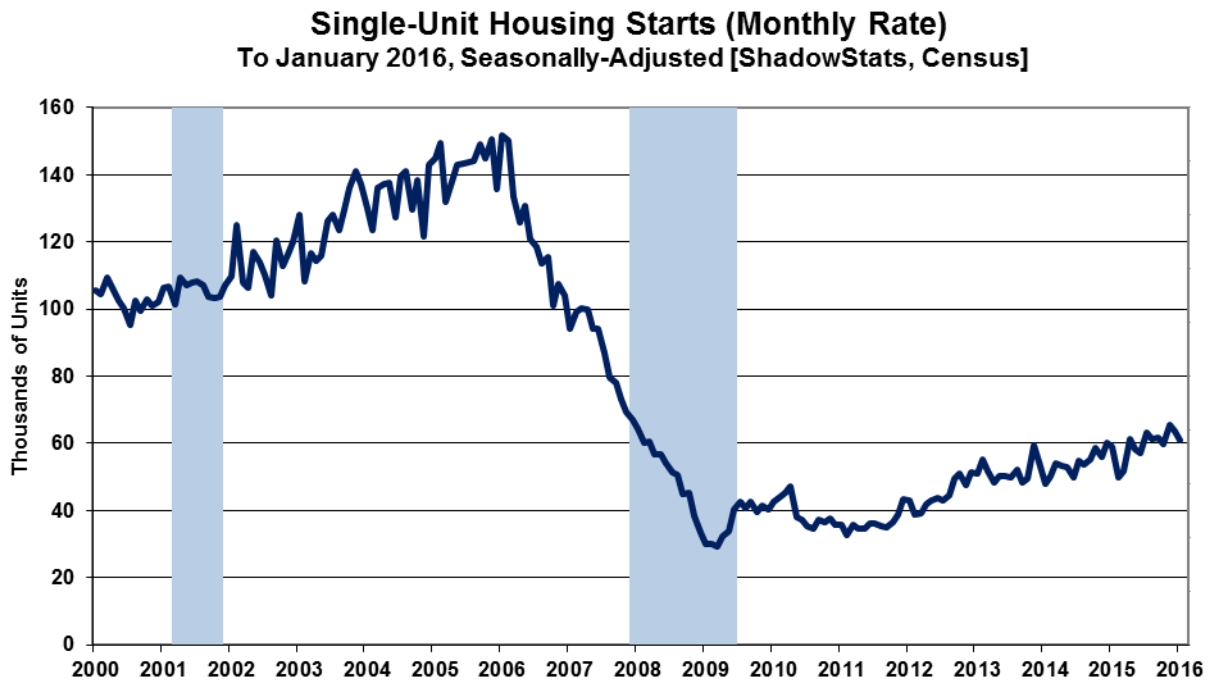
**Graph 5: Aggregate Housing Starts (Monthly Rate of Activity)**



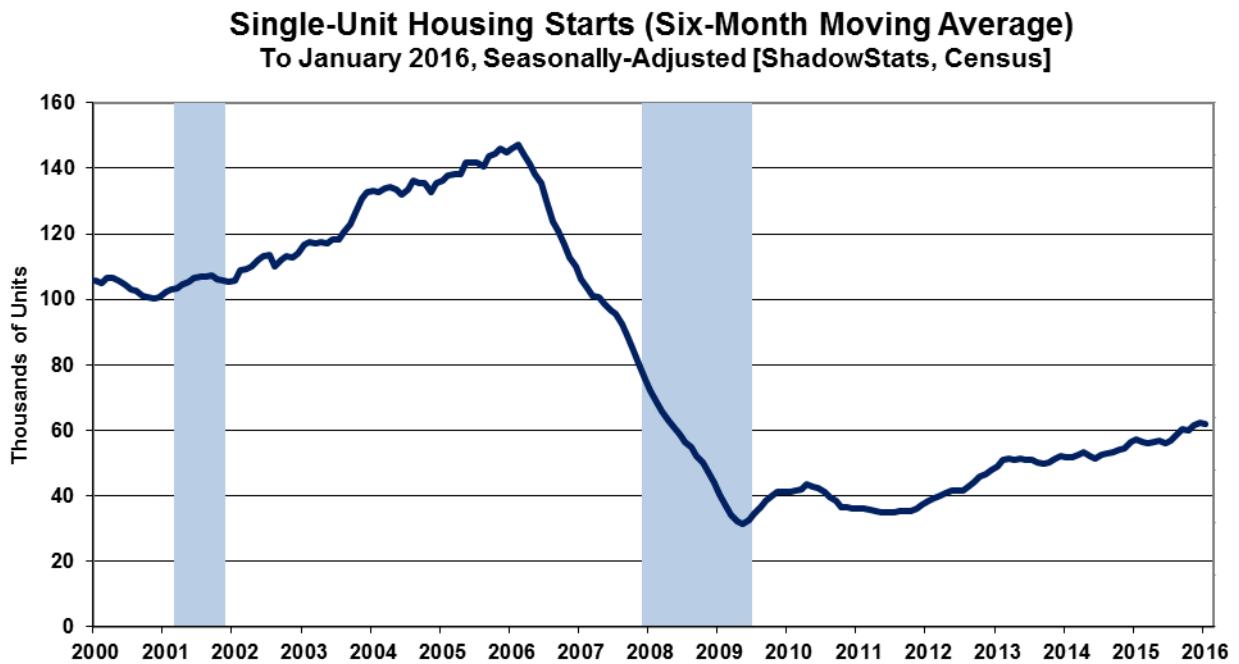
**Graph 6: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)**



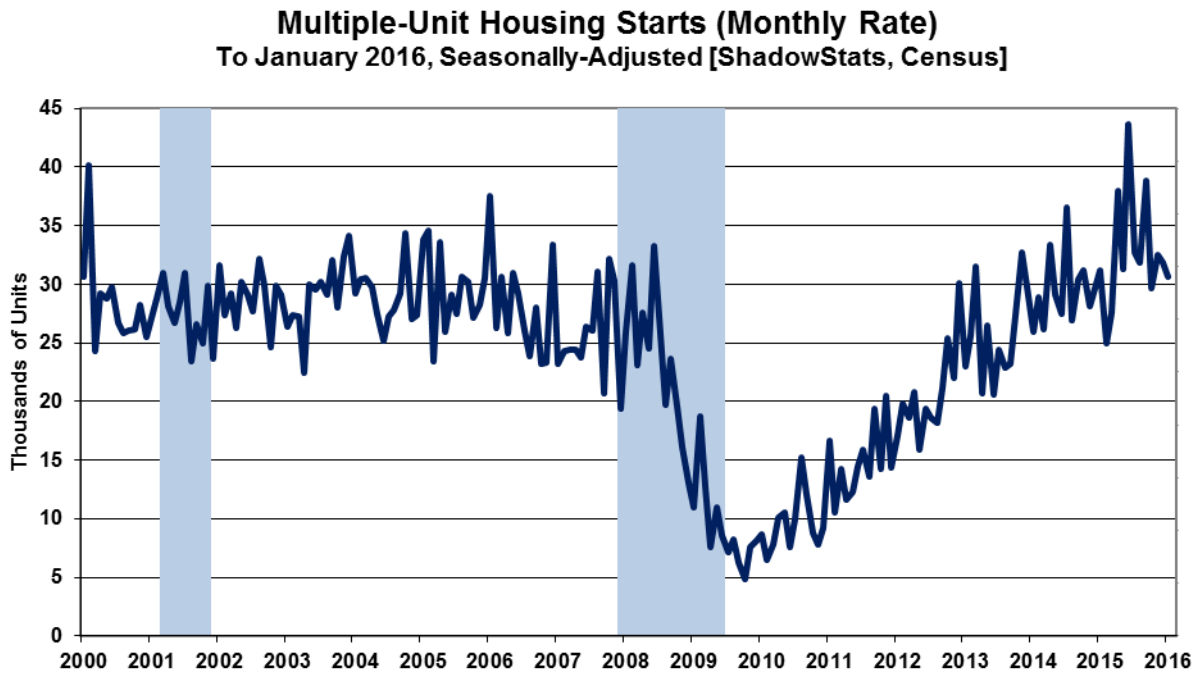
**Graph 7: Single-Unit Housing Starts (Monthly Rate of Activity)**



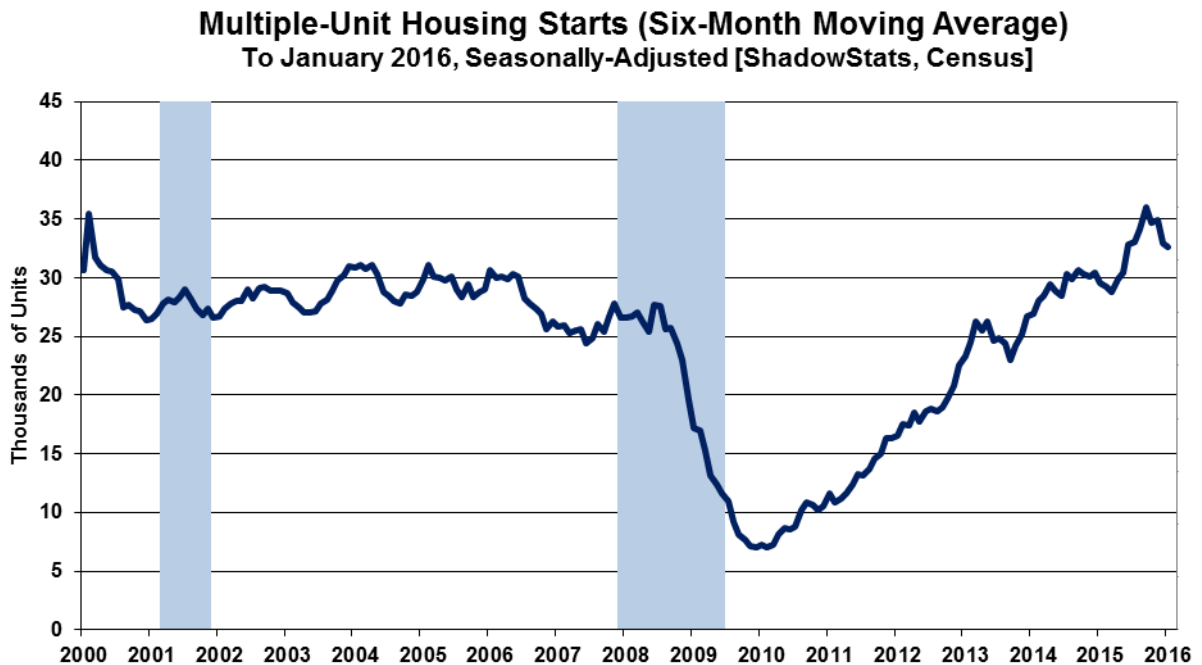
**Graph 8: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)**



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



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



**Producer Price Index (PPI)—January 2016—Goods Inflation Fell by 0.65% (-0.65%), Services Profit Margins Rose by 0.54%, Combined PPI up by 0.09%.** On the goods side, where headline wholesale inflation fell by 0.65% (-0.65%) in the month of January 2016, the dominant effect of declining oil prices largely was offset partially by rising food prices, with no impact from “core” (net of food and energy) inflation.

The upside offset to the 0.65% (-0.65%) drop in goods inflation was a relative boost of 0.54% in the profit margins of the dominant services sector (perversely boosted partially by the effects of declining oil prices).

Discussed in the *Reporting Detail*, the conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily. Accordingly, ShadowStats emphasizes the dual measures are more meaningful viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand, which rose by a headline 0.09% for the month of January 2016.

***Revisions: Seasonal Adjustments Shifted with Energy and Food; Weighting Revisions Had Minimal Impact, Unadjusted General Data Negligibly Affected.*** In the context annual revisions to the weightings of the PPI components and recalculations of seasonal-adjustment factors, the re-weightings had negligible impact on the broad numbers (although the weightings generally moved away from food and energy).

The PPI seasonal-adjustment revisions, however, showed some unusually sharp swings, quarter-to-quarter, generally consistent with the annual seasonal-adjustment revisions also just published for the Consumer Price Index, to be discussed in tomorrow’s *CPI Commentary No. 787* (see also today’s *Opening Comments*). The PPI re-weightings are shown here in the usual break-out of monthly detail, as are the adjusted revisions to the recent reporting.

In particular, the seasonal adjustment revisions generally weakened energy and food inflation in May through October, and increased headline inflation in November through April. The effect was to spike headline fourth-quarter and first-quarter annualized inflation rates, with offsetting reductions in second- and third quarter detail.

***January 2016 Headline PPI Detail.*** The seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for January 2016 rose by 0.09%, where the headline December 2015 measure declined by an unrevised 0.18% (-0.18%), versus a revised gain of 0.37% [previously up by 0.27%] in November, and a revised contraction of 0.27% (-0.27%) [previously down by 0.36% (-0.36%)] in October. The broad impact of the new seasonal adjustments on the headline PPI reporting was negative in January, with the unadjusted monthly January up by 0.27%.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted and are not affected by the annual seasonal-adjustment revisions—year-to-year PPI Final Demand inflation contracted by 0.18% (-0.18%) in January 2016, versus an unrevised contraction of 1.00% (-1.00%) in December 2015.

For the three major subcategories of January 2016 Final Demand PPI, headline monthly Goods inflation fell by 0.65% (-0.65%), Services inflation rose by 0.54%, and Construction inflation fell in the month by 0.35% (-0.35%).

Final Demand Goods (Weighted at 33.60% [previously 34.67%] of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand

Goods inflation in January 2016 dropped by 0.65% (-0.65%) , having declined in December 2015 by an unrevised 0.74% (-0.74%), following an revised gain of 0.09% [previously a decline of 0.09% (-0.09%)] in November. There was negative impact on the aggregate headline January reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, January Final Demand Goods inflation fell by 0.47% (-0.47%) for the month.

Unadjusted, year-to-year goods inflation in January 2016 fell by 2.48% (-2.48%), versus an unrevised annual contraction of 3.70% (-3.70%) in December 2015.

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

- “Foods” inflation (weighted at 5.56% [previously 5.80%] of the total index) in January 2016 jumped month-to-month by 1.04%, having declined by 1.36% (-1.36%) [previously down by 1.27% (-1.27%)] in December 2015, following an unrevised headline gain of 0.26% in November. Seasonal adjustments were a positive factor for the January monthly change, which was up by 0.61% unadjusted. Unadjusted and year-to-year, annual January 2016 foods inflation declined by 3.48% (-3.48%), versus an unrevised annual declined of 5.24% (-5.24%) in December 2015.
- “Energy” inflation (weighted at 5.23% [previously 6.31%] of the total index) fell in January 2016 by 5.00% (-5.00%), following a revised declined of 3.46% (-3.46%) in December 2015 [previously down by 3.38% (-3.38%)], and a revised gain of 0.53% in November [previously a decline of 0.63% (-0.63%)], with the January reading hit by seasonal adjustments. Unadjusted, monthly January 2016 energy inflation fell by 4.29% (-4.29%). Unadjusted and year-to-year, the annual contraction in energy prices narrowed further to 11.49% (-11.49%), following an unrevised decline of 16.19% (-16.19%) in December 2015.
- “Less foods and energy” (“Core” goods) monthly inflation (weighted at 22.81% [previously 22.57%] of the total index) was “unchanged” at 0.00% in January 2016, having risen by an unrevised 0.09% in December 2015, versus a revised “unchanged” reading [previously a monthly decline of 0.09% (-0.09%)] in November. Seasonal adjustments were negative for monthly core inflation, with an unadjusted gain of 0.27% in January. Unadjusted and year-to-year, January 2016 was “unchanged” at 0.00%, the same reading as in December 2015.

Final Demand Services (Weighted at 64.32% [previously 63.31%] of the Aggregate Index). Headline monthly Final Demand Services inflation rose by 0.54% in January 2016, having risen by an unrevised 0.09% in December 2015, versus a revised monthly gain of 0.55% [previously up by 0.45%] in November. The overall seasonal-adjustment impact on headline January services inflation was neutral, with an unadjusted monthly January gain also at 0.54%. Year-to-year, unadjusted January 2016 services inflation was 0.91%, versus an unrevised 0.36% in December 2015.

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

- “Services less trade, transportation and warehousing” inflation, or the “Other” category (weighted at 38.97% [previously 38.16%] of the total index), rose by 0.37% in January 2016, following a revised gain of 0.28% [previously up by 0.37%] in December 2015, and a revised gain of 0.18% [previously up by 0.09%] in November. Seasonal-adjustment impact on the adjusted January detail was negative, where the unadjusted monthly gain was 0.64%. Unadjusted and year-to-year,



January 2016 “other” services inflation was 1.57%, up from an unrevised 1.02% in December 2015.

- “Transportation and warehousing” inflation (weighted at 4.99% [previously 5.11%] of the total index) rose month-to-month by 0.44% in January 2016, having declined in December by an unrevised 0.44% (-0.44%), and having been a revised “unchanged” at 0.00% [previously up by 0.35%] in November. Seasonal adjustments had negative impact on the headline January number, where the unadjusted monthly reading had been a gain of 0.62%. Unadjusted and year-to-year, January 2016 transportation inflation fell by 2.23% (-2.23%), versus an annual contraction of 3.40% (-3.40%) in December 2015.
- “Trade” inflation (weighted at 20.36% [previously 20.03%] of the total index) gained by 0.89% in January 2016, having declined by a revised 0.09% (-0.09%) [previously down by 0.36% (-0.36%)] month-to-month in December 2015, having gained a revised 1.26% [previously up by 1.17%] in November. Seasonal adjustments had a positive impact here, where unadjusted monthly inflation rose by 0.27% in January. Unadjusted and year-to-year, January 2016 trade inflation rose by 0.45%, having increased by an unrevised 0.18% in December 2015.

Final Demand Construction (Weighted at 2.08% [previously 2.02%] of the Aggregate Index). 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 contracted by 0.35% (-0.35%) in January 2016, versus an unrevised “unchanged” 0.00% reading in December 2015, and an unrevised monthly decline of 0.26% (-0.26%) in November. The impact of seasonal factors on the January reading was negative, where the unadjusted monthly change was a contraction of 0.26% (-0.26%).

On an unadjusted basis, year-to-year construction inflation was 1.16% in January 2016, versus an unrevised 1.79% in December 2015.

- “Construction for private capital investment” headline monthly inflation (weighted at 1.40% [previously 1.36%] of the total index) in January 2016 contracted by 0.26% (-0.26%) for the month, having been unrevised and unchanged at 0.00% in December 2015. As usual, seasonal adjustments had neutral impact here, where the unadjusted January monthly inflation was a contraction of 0.26% (-0.26%). Unadjusted and year-to-year, January 2016 private construction inflation was 0.98%, down versus an unrevised 1.80% in December 2015.
- “Construction for government” inflation (weighted at 0.68% [previously 0.66%] of the total index) in January 2016 declined by 0.44% (-0.44%) in the month, following an unrevised gain of 0.09% in December 2015. Seasonal adjustments had negative impact, where unadjusted monthly January inflation was a negative 0.35% (-0.35%). Unadjusted and year-to-year, January 2016 government construction inflation was 1.43%, versus an unrevised 1.97% in December 2015.

**[The *Reporting Detail* section includes significant additional detail and graphs on Industrial Production, Housing Starts and added detail on the PPI.]**

## HYPERINFLATION WATCH

**HYPERINFLATION OUTLOOK SUMMARY** (The latest version: in [Commentary No. 783](#).)

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### REPORTING DETAIL

#### INDEX OF INDUSTRIAL PRODUCTION (January 2016)

**First-Quarter Production on Early Track for Annual and Quarterly Contractions.** In the context of contracting annual growth and downside prior-period revisions, the headline January 2016 production gain was dominated by weather-distorted utility usage. The three major industry groups that comprise U.S. industrial production turned higher or did not decline in headline January 2016 reporting, with aggregate industrial production gaining a greater-than-expected 0.9% for the month. Dominated by a 5.4% weather-induced surge in utility usage, the headline January aggregate increase followed a downwardly-revised monthly contraction of 0.7% (-0.7%) [previously down by 0.4% (-0.4%)] in December. Annual growth held in negative territory, down by 0.7% (-0.7%) in January 2016, versus a downwardly-revised 1.9% (-1.9%) [previously 1.8% (-1.8%)] year-to-year plunge in December 2015.

Fourth-quarter recession markers of contracting annual and quarterly production remained in place, with similar activity already likely for first-quarter 2016, allowing for the vagaries and shifting of unseasonable weather effects.

**Meaningful Downturns in Quarterly and Annual Production Held for Fourth-Quarter 2015, with First-Quarter 2016 Likely to Follow, Despite Weather-Related Flux.** First-quarter 2015 industrial 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 a downwardly-revised gain of 2.65% [previously up by 2.77%, by 2.92%, by 2.62%, and initially up by 1.85%] in third-quarter 2015 production. Based on the detail accompanying the headline January 2016 reporting, fourth-quarter 2015 production contracted at a revised annualized pace of 3.25% (-3.25%) [previously down by 3.41% (-3.41%)].

Based solely on the headline January 2016 numbers, first-quarter 2016 production was growing at an annualized pace of 0.87%, but all the positive movement there was in a utility surge created by unseasonably cold weather. That distortion will reverse and balance out over time. Viewed from the standpoint of stable utility usage, first-quarter production was on track for an annualized quarterly contraction of 1.44% (-1.44%).

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 a revised annual decline of 0.84% (-0.84%) [previously down by 0.85% (-0.85%)] in fourth-quarter 2015. Based on the headline January 2016 detail, first-quarter 2016 activity was on track for a straight annual contraction of 0.54% (-0.54%), which would be a year-to-year annual contraction of 1.11% (-1.11%) with weather patterns balanced out.

Historical patterns of this series as they relate to recessions were reviewed meaningfully in the prior production [Commentary No. 780](#). Discussed there, except in unusual circumstances such as national strikes, annual quarterly growth in industrial production does not contract outside of periods that eventually are declared formal recessions. In consistent form, the industrial production series continues to indicate that broad U.S. economic activity entered a “new” recession, likely to be timed officially from December of 2014.

**Annual Revisions “Around the End of the First Quarter of 2016.”** The Federal Reserve Board has announced its intent to publish annual revisions to the industrial production series around the end of the current quarter. The changes should reflect more complete and accurate information for the period surrounding 2014, as well as revamped seasonal factors. The Fed noted also that “estimation methods for some series may be changed,” with related data recast back to 1972. More complete and accurate data usually result in downside revisions to previously estimated activity. Changes to reporting methodology usually have the effect of adding in new upside assumptions and biases to the series. Revisions here will be incorporated in the July 29th annual benchmark revisions to the GDP.

**Headline Industrial Production—January 2016.** The Federal Reserve Board released its first estimate of seasonally-adjusted, January 2016 industrial production on February 17th. In the context of a downside revision of 0.12% (-0.12%) to the level of December 2015 production, headline monthly production rose by 0.92% month-to-month in January 2016. Net of prior-period revisions, the January monthly gain would have been 0.78%.

The headline January 2016 gain of 0.92% also followed a deeper, revised monthly decline in December 2015 of 0.67% (-0.67%) [previously down by 0.36% (-0.36%)], a shallower revised monthly decline in November of 0.76% (-0.76%) [previously down by 0.90% (-0.90%), initially down by 0.56% (-0.56%)], and a revised monthly decline in October of 0.12% (-0.12%) [previously down by 0.16% (-0.16%), by 0.37% (-0.37%) and initially down by 0.15% (-0.15%)].

Detailed in *Graphs 14 to 17*, including re-weighted major industry groups, the headline January 2016 monthly aggregate production gain of 0.9% [a December contraction of 0.7% (-0.7%)] was composed of a monthly January gain of 0.5% [a December contraction of 0.2% (-0.2%)] in manufacturing activity; an “unchanged” 0.0% reading in January [a December decline of 2.0% (-2.0%)] in mining activity (including oil and gas production); and a jump of 5.4% in January [a December decline of 2.9% (-2.9%)] in utilities activity.

Year-to-year, January 2016 growth declined by 0.70% (-0.70%), versus a deeper, revised December 2015 annual decline of 1.89% (-1.89%) [previously down by 1.75% (-1.75%)], a narrowed decline in November 2015 of 1.13% (-1.13%) [previously down by 1.29% (-1.29%), initially by 1.17% (-1.17%)], and a revised annual gain of 0.52% [previously up by 0.50%, by 0.27% and initially up by 0.34%] in October 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 11 to 14*) set the background for the drill-down detail graphs of various components of the aggregate industrial series (*Graphs 15 to 22*).

*Graphs 11 and 12*, and *Graphs 13 and 14* show headline industrial production activity to date. *Graph 11* 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 hitting 1.89% (-1.89%) in December, and holding at 0.70% (-0.70%) in January, the pattern is one not seen outside of formal recessions, post-World War II.

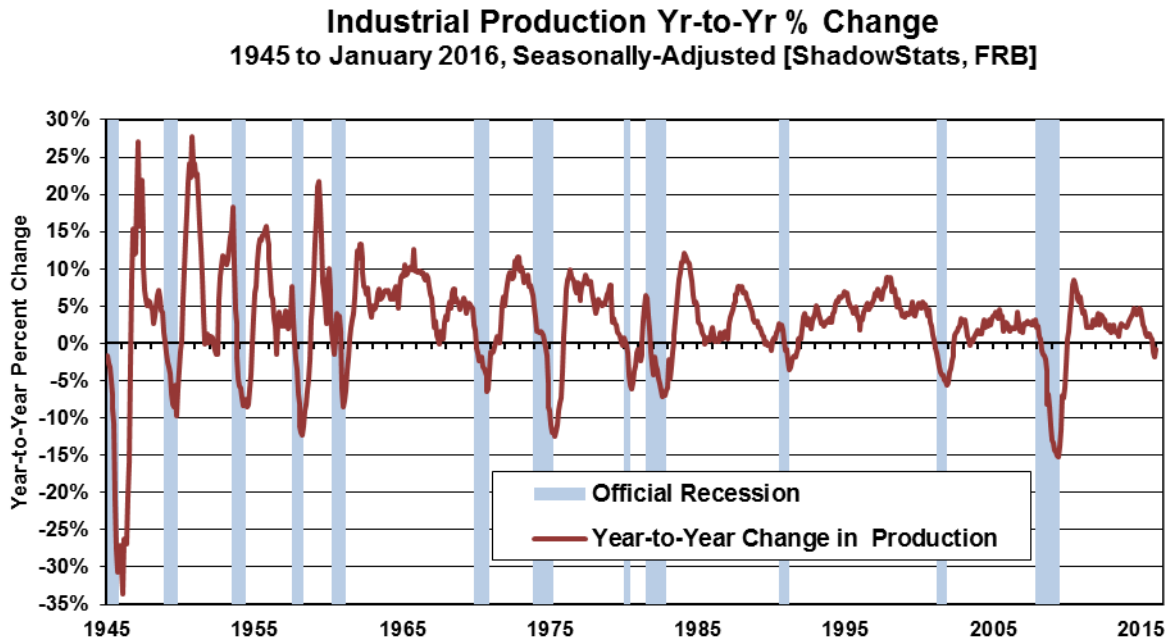
*Graph 12* shows the monthly level of the production index post-World War II, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015, with a bounce in third-quarter 2015, followed by a renewed and deeper fourth-quarter contraction, with January 2016 still in keeping with the general downtrend. Such patterns of monthly and quarterly declines and stagnation were seen last in the economic collapse into 2009. *Graphs 13 and 14* show the same series in greater near-term detail, beginning in January 2000.

Seen most clearly in *Graph 13*, 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 11*, 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.

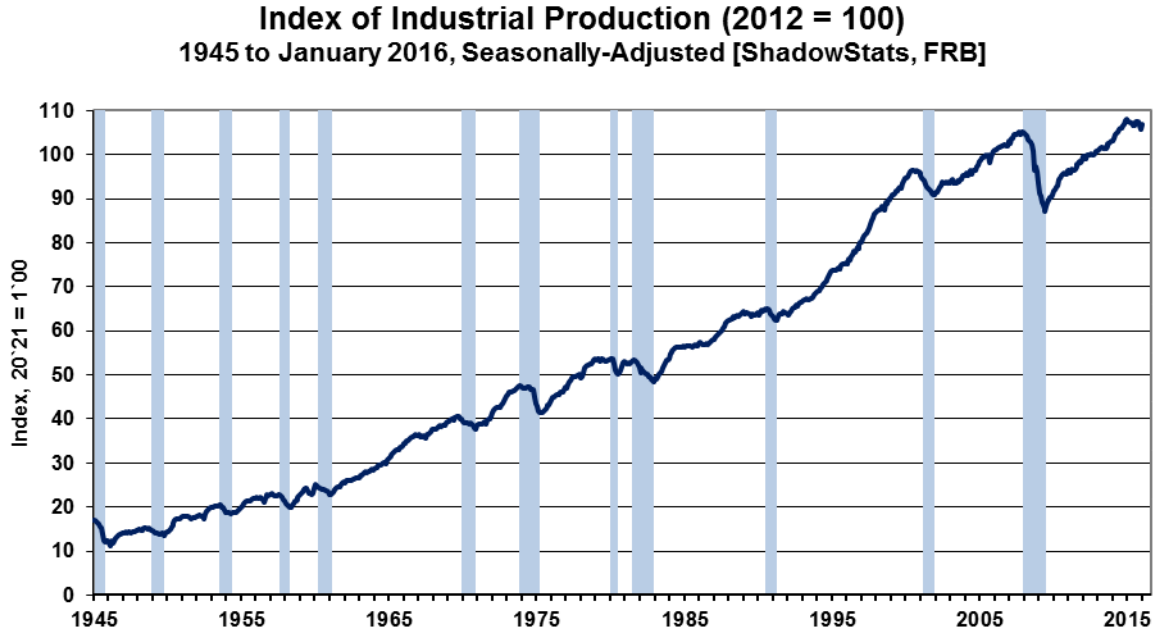
Although official production levels have moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Opening Comments* section, *Graph 2*) the series has shown more of a pattern of stagnation with a slow upside trend, since 2009, with irregular quarterly contractions interspersed. The slow uptrend continued into a topping out pattern in late-2014. Headline growth—purportedly neutered of any inflation impact—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.

[Graphs 11 to 14 begin on the following page]

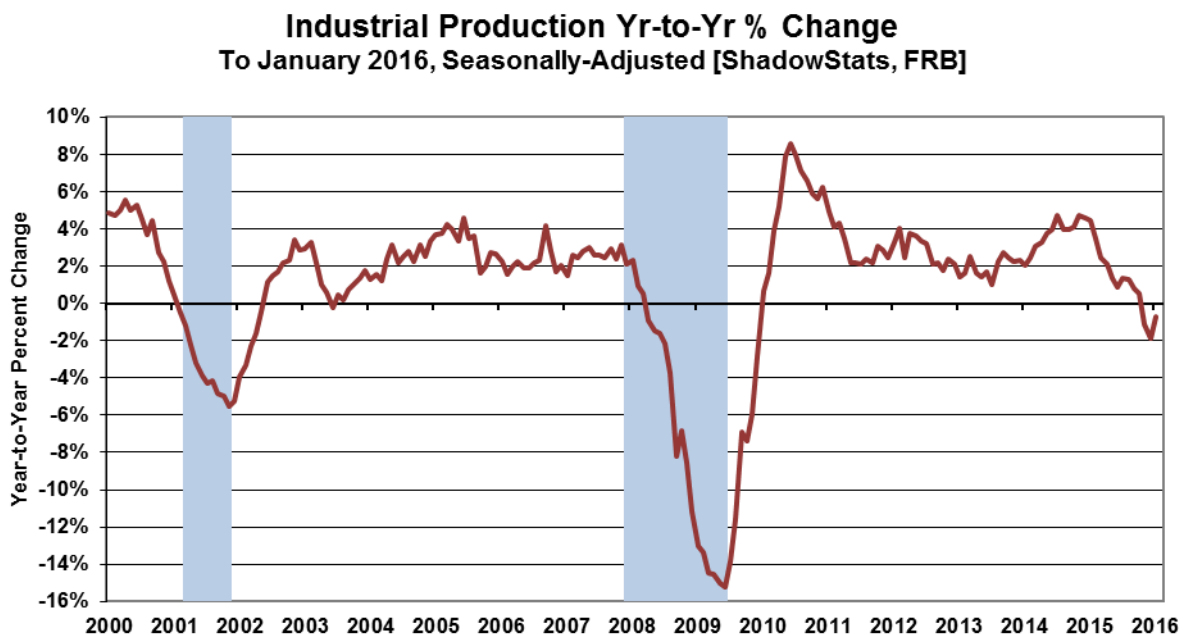
**Graph 11: Industrial Production, Year-to-Year Percent Change since 1945**



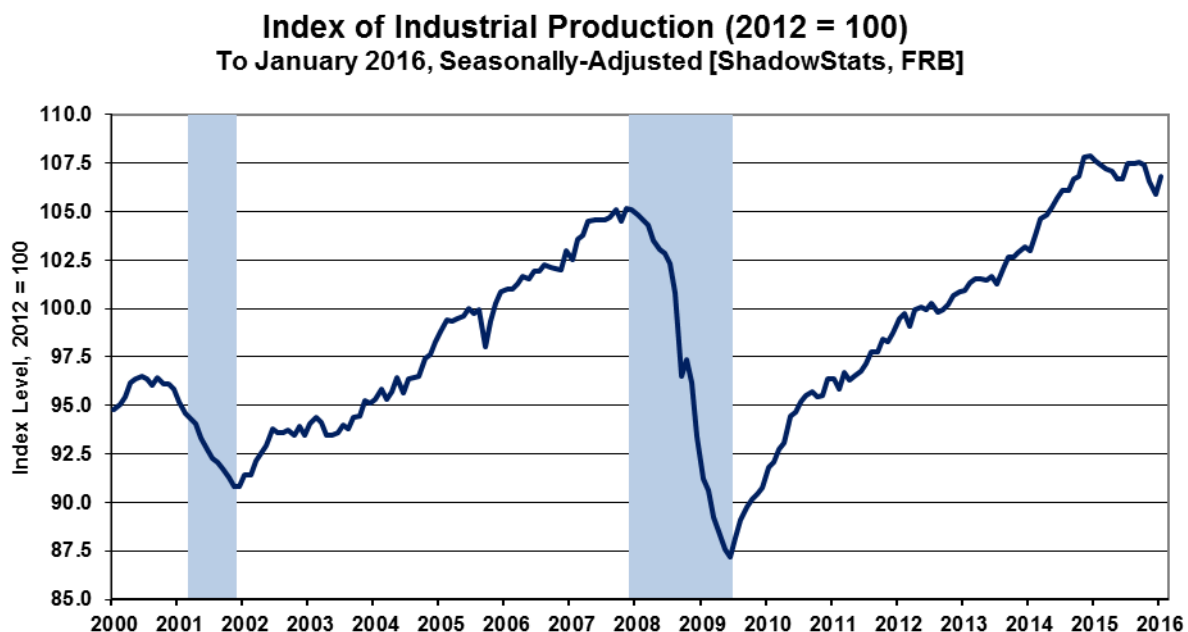
**Graph 12: Index of Industrial Production (Aggregate) since 1945**



**Graph 13: Aggregate Industrial Production, Year-to-Year Percent Change since 2000**



**Graph 14: Index of Aggregate Industrial Production since 2000**



**Drilling Down into the January 2016 U.S. Industrial Production Detail.** Graphs 14 to 17 show headline reporting of industrial production and its major components. The broad, aggregate index (Graph 14) contracted in both first- and second-quarter 2015, and again in fourth-quarter 2015, after a third-quarter

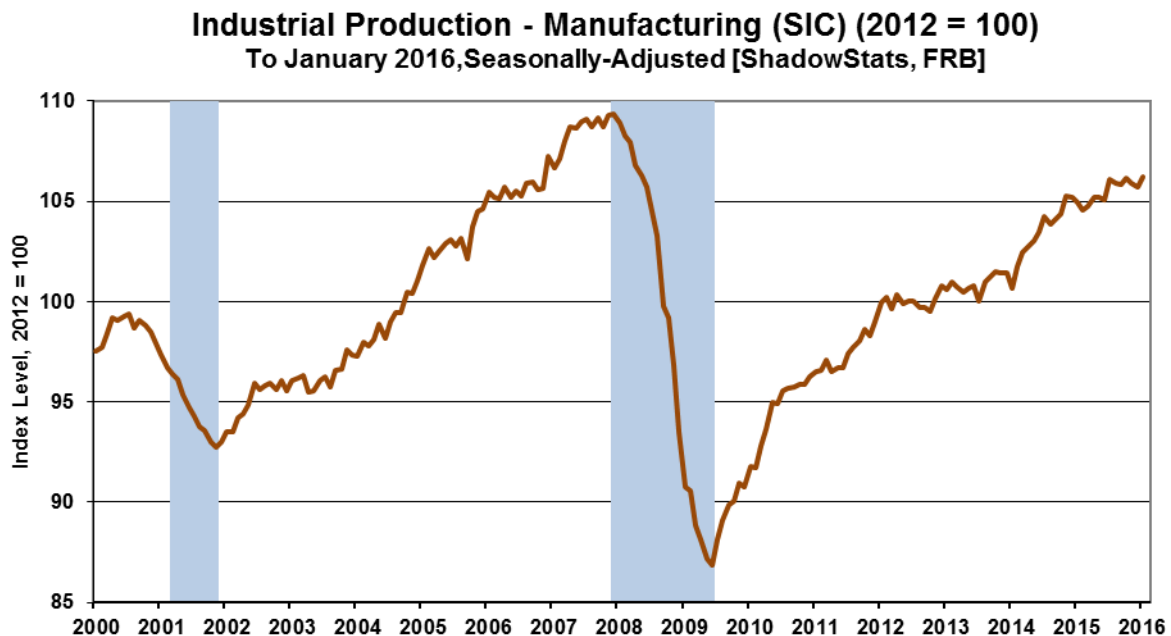


bounce. January 2016 headline reporting was consistent with a further contraction for first-quarter 2016 activity. Such circumstances are not seen outside of recessions, discussed in the regular reporting of headline production earlier in this section and in [Commentary No. 780](#).

After two months of headline monthly contractions, the January production series were either stronger month-to-month (manufacturing and utilities) or flat (mining), as reflected in *Graphs 15 to 17*.

**New Weightings for Production Sub-Series.** Annual revisions to the weightings of the major component series of production have shifted relative impact away from the negative mining sector to the more-positive manufacturing sector. For 2015, annual weighting has been reset to 75.93% (previously 73.91%) for manufacturing, to 13.20% (previously 15.46%) for mining, and to 10.86% (previously 10.63%) for utilities.

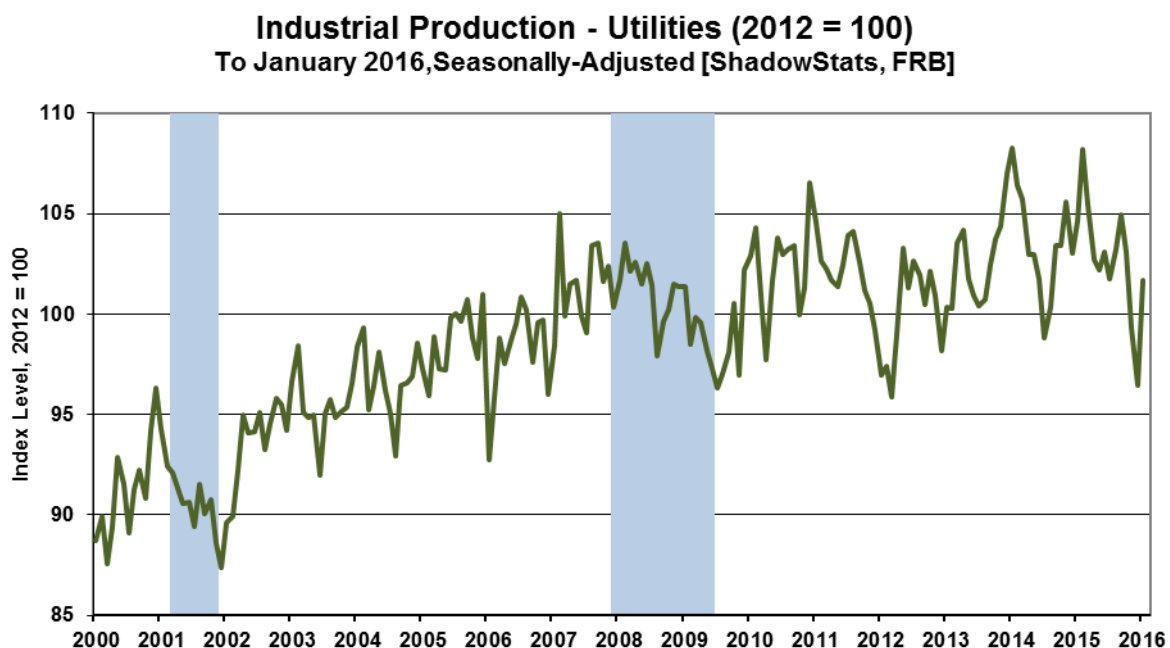
**Graph 15: Industrial Production - Manufacturing (75.93% of Aggregate)**



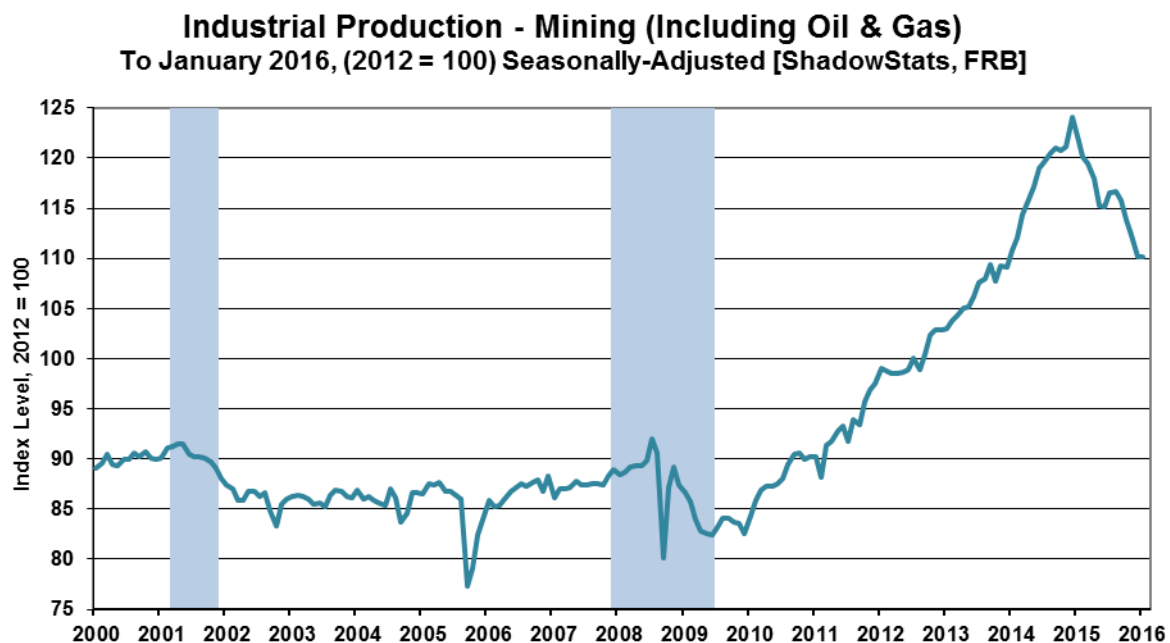
*Graph 15* of the dominant manufacturing sector showed a month-to-month gain of 0.47% in January 2016, versus a revised decline of 0.16% (-0.16%) [previously down by 0.07% (-0.07%)] in December 2015. This series still remains down by 2.87% (-2.87%) from reclaiming its pre-recession high of December 2007.

The utilities sector (*Graph 16*) gained month-to-month by 5.41% in January 2016, boosted by the temporary impact of “unseasonable” extremes in weather patterns, extreme cold in the current circumstance. That followed a revised decline of 2.88% (-2.88%) [previously down by 2.05% (-2.05%)] in December 2015.

**Graph 16: Industrial Production - Utilities (10.86% of the Aggregate)**



**Graph 17: Industrial Production - Mining, Including Oil and Gas (13.20% of the Aggregate)**



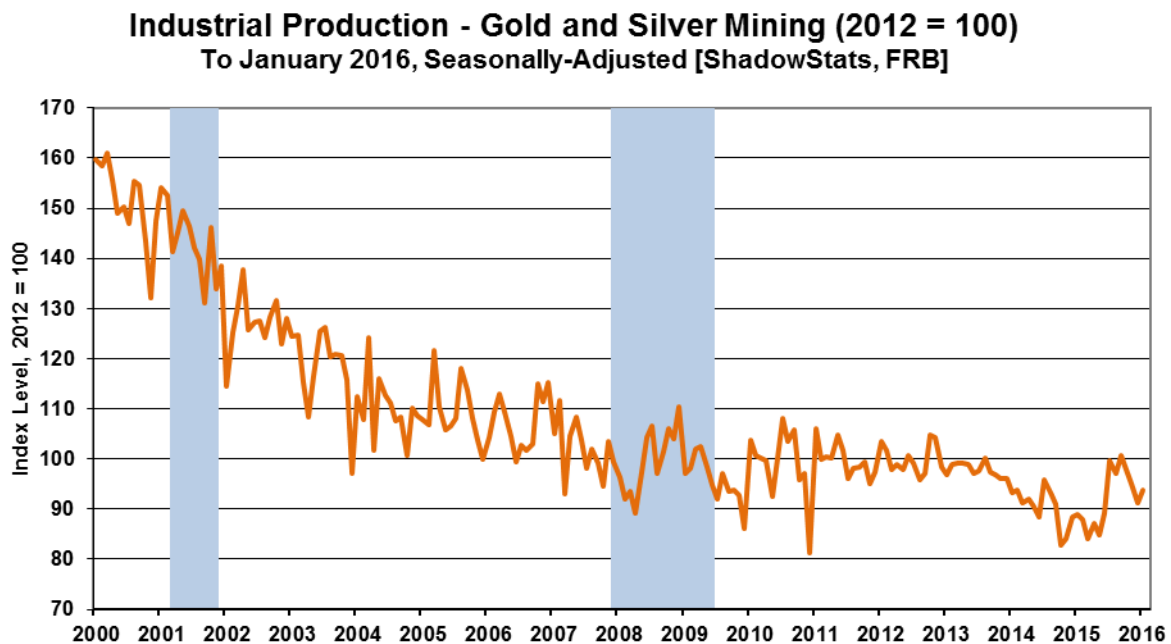
Mining-sector activity (*Graph 17*) was virtually flat in January 2016, up by just 0.02%, versus a downwardly revised monthly contraction of 1.95% (-1.95%) [previously down by 0.80% (-0.80%)] in December 2015.

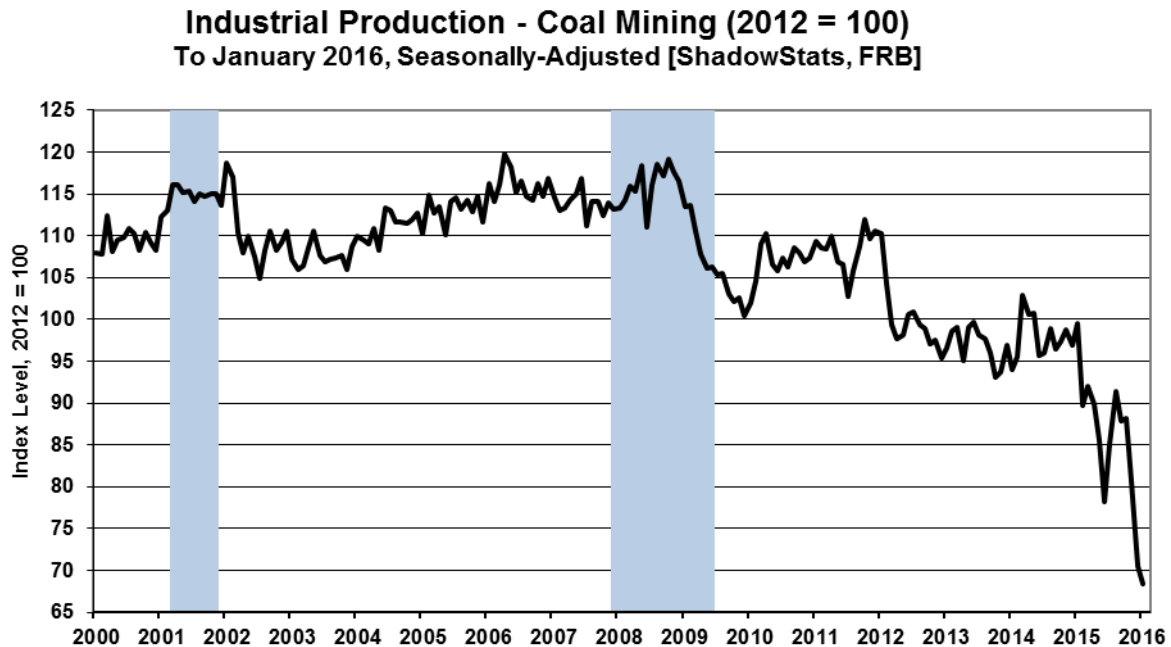
Activity here, particularly in oil and gas exploration and production, remains the near-term focus of this analysis, where oil and gas pricing issues increasingly have taken a toll on aggregate production and broad economic activity. This sector easily recovered its pre-recession high and accounts for the full “recovery” seen in the aggregate production detail since the economic collapse. 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 January 2016 mining activity remained down by 11.25% (-11.25%) from its December 2014 peak.

*Graph 18* 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. Discussed in [Commentary No. 785](#), however, pricing circumstances may be shifting to the upside for gold and silver.

*Graph 19* shows a further, sharp headline drop in volatile month-to-month coal production.

***Graph 18: Mining – Gold and Silver Mining (Since 2000)***

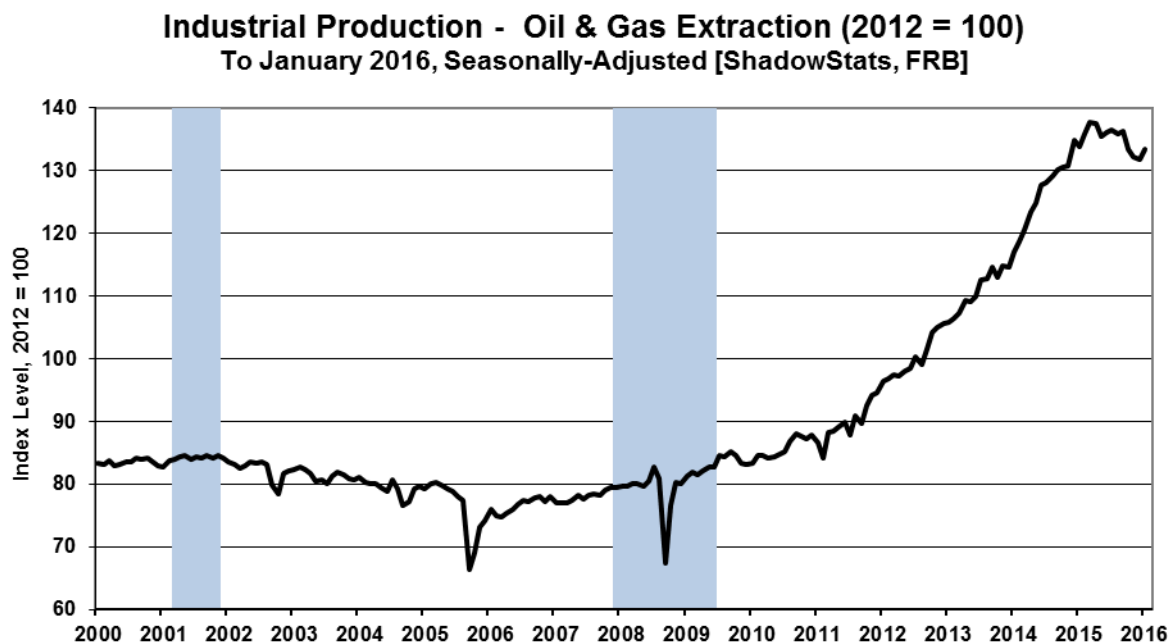


**Graph 19: Mining - Coal Mining (Since 2000)**

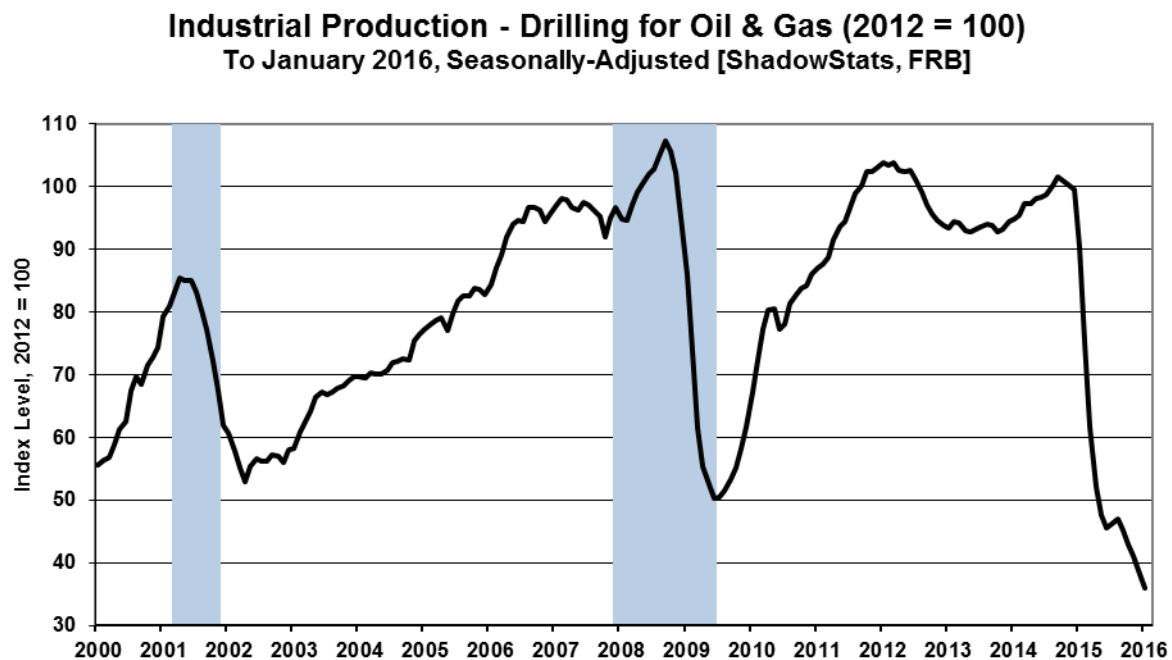
With continued weakness in oil prices, oil and gas extraction is off its all-time high, but still is showing some near-term stability, a minor upturn, as seen in *Graph 20*, with exploration in terms of oil and gas drilling (*Graph 21*) continuing to drop sharply. The recent collapse in drilling largely 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 22*, 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).

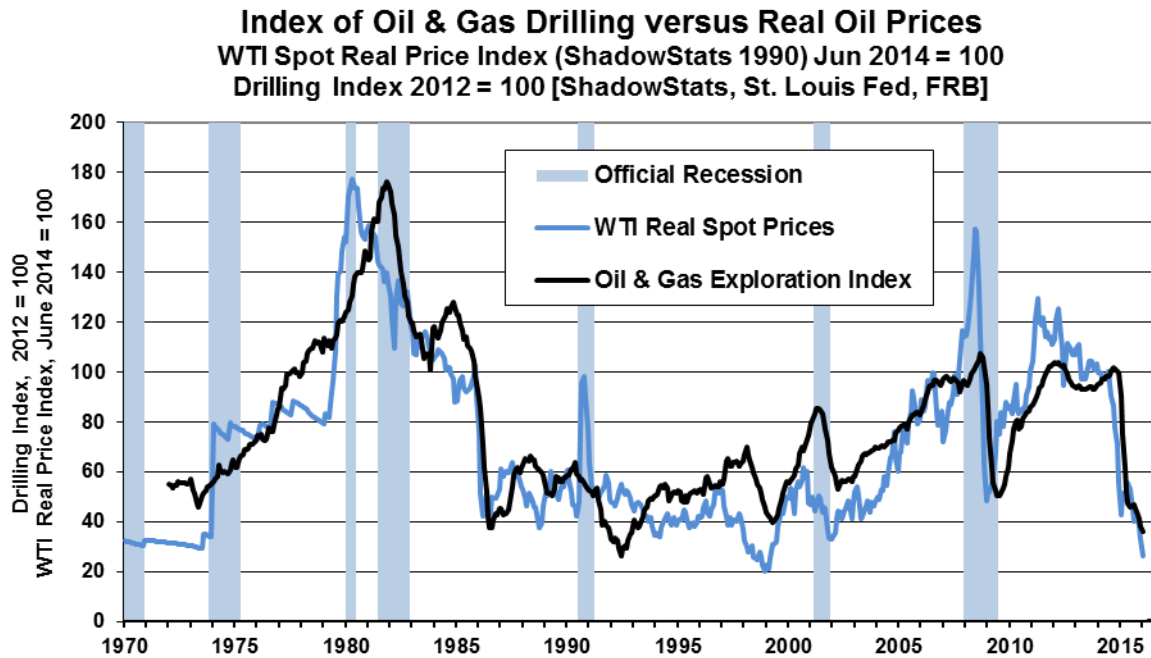
As the dollar begins to weaken anew, dollar-denominated oil prices should strengthen on a relative basis, and vice versa, even in circumstances with the current excessive supply conditions. At such time as the U.S. dollar declines meaningfully—ShadowStats is looking for a massive sell-off in the dollar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

**Graph 20: Mining – U.S. Oil & Gas Extraction (Since 2000)**



**Graph 21: Mining – U.S. Drilling for Oil & Gas (Since 2000)**



**Graph 22: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)****RESIDENTIAL INVESTMENT (January 2016)****First-Quarter 2016 Housing Starts Headed Lower as Fourth-Quarter Contraction Intensified.**

Showing a continued, smoothed pattern of faltering stagnation, headline January 2016 housing starts took an unexpected monthly tumble, in the context of downside revisions to recent history. While not one of the headline monthly changes was statistically significant—which was usual—the annualized contraction in the series not only deepened in fourth-quarter 2015, but the headline January 2016 detail was suggestive of an even greater contraction already unfolding in first-quarter 2016.

**First-Quarter Housing Starts on Track for Annualized Contraction of 10.5% (-10.5%).** In terms of annualized quarter-to-quarter change, the regularly unstable aggregate housing-starts count fell at an annualized-quarterly pace of 26.2% (-26.2%) in first-quarter 2015, rose at an annualized 96.3% pace in second-quarter 2015, basically was flat with an unrevised 0.2% annualized third-quarter 2015 pace of growth, and fell at a revised, intensifying annualized pace of 9.4% (-9.4%) [previously 8.5% (-8.5%)] in fourth-quarter 2015, in line with the still-developing, headline fourth-quarter 2015 GDP contraction.

Based solely on the headline January 2016 detail, housing starts are on track for an annualized first-quarter 2016 contraction of 10.5% (-10.5%).

**Smoothed Numbers.** Despite the regular volatility and instabilities in the housing starts series, the general pattern of low-level stagnation continued, with its up-trending six-month moving-average pattern faltering anew, softening in tandem with the most-recent headline detail. This pattern is viewed best in



terms of the longer-range historical graph of aggregate activity (*Graph 24*) at the end of this section, and particularly in the context of the headline activity, smoothed by a six-month moving average, as shown in *Graph 6* in the *Opening Comments* section. While the minor upside trend in the broad pattern of stagnation in the aggregate series appears to have stalled, total January 2016 housing-starts activity remained well below any recovery level, down from its pre-recession high by 52% (-52%).

Separately, the dominant, single-unit housing starts component of the series (*Graphs 7 and 8* in the *Opening Comments*) remained down by 60% (-60%) from its January 2006 pre-recession peak.

Reflected in the smoothed graphs in the *Opening Comments*, the aggregate housing-starts series continued to falter from what had been an earlier, minimal uptrend. Such encompassed downticks in both the six-month smoothed single-unit activity (*Graph 8*) and the smoothed multiple-unit starts (*Graph 10*).

Over time, the bulk of the extreme, reporting instability and what had been the minimal uptrend in the aggregate series was due largely to particularly-volatile reporting in the multiple-unit housing-starts category (apartments, etc.). Recent activity in multiple-unit starts had recovered to above pre-recession levels, again, in the context of extreme month-to-month volatility. Even so, the recent impact of that recovery has been fading, likely in response to the intensifying general economic slowdown. Otherwise, the multiple-unit series detail largely has been lost in the aggregate housing starts series.

***Consumer Liquidity Problems Continue to Impair Housing Activity.*** Broadly discussed in [No. 777 Year-End Special Commentary](#) and briefly updated in the *Opening Comments* of prior [Commentary No. 785](#), the primary underlying issues restraining current activity in residential real estate, and in retail sales, 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, particularly tied to homeowner real estate.

On a per-structure basis, housing starts volume, again, is dominated by the single-unit category, which has remained broadly stagnant, with something of a renewed downtrend at present, on a smoothed basis. It has continued to hold at a low level of activity, since hitting bottom in early-2009. The private housing sector never recovered from the business collapse of 2006 into 2009.

Without meaningful real (inflation-adjusted) growth in household income and without the ability or willingness to take on meaningful new debt, the consumer simply has not had the wherewithal to fuel sustainable economic growth. There remains no chance of a near-term, sustainable turnaround in the housing market, without a fundamental upturn in consumer and banking-liquidity conditions. That has not happened and does not appear to be in the offing.

***January 2016 Housing-Starts, Headline Reporting.*** Headline January 2016 Housing Starts declined minimally, in the context of minor downside revisions to November and December reporting, intensifying not only the annualized fourth-quarter 2015 contraction in housing starts, but also suggesting a continued housing downturn in first-quarter 2016. The Census Bureau reported February 17th, a statistically-insignificant, seasonally-adjusted, headline monthly decline of 3.8% (-3.8%) +/- 14.0% (all confidence intervals are expressed at the 95% level) in January 2016 housing starts. Such followed a revised monthly decline of 2.8% (-2.8%) [previously down by 2.5% (-2.5%)] in December 2015, and a revised 9.8% gain [previously up by 10.1%, initially up by 10.5%] in November. Net of prior-period revisions, January 2016 housing starts fell by 4.4% (-4.4%) for the month, instead of the headline decline of 3.8% (-3.8%).

Level-of- activity detail is plotted in *Graphs 3* and *5* of the *Opening Comments*, and in *Graphs 23* and *24* at the end of this section.

Year-to-year change in the seasonally-adjusted, aggregate January 2016 housing-starts measure was a statistically-insignificant gain of 1.8% +/- 15.8%, versus downwardly revised annual gains of 5.8% [previously up by 6.4%] in December 2015 and 16.8% [previously up by 17.1%, initially up by 16.5%] in November 2015.

The January 2016 headline decline of 3.8% (-3.8%) in total housing starts encompassed headline monthly contractions of 3.9% (-3.9%) in the “one unit” category and 2.5% (-2.5%) in the “five units or more” category. As most commonly is the case, not one of the headline changes was statistically significant, on either a month-to-month or a year-to-year basis.

***By-Unit Category (See Graphs in the Opening Comments).*** Where the irregular housing starts series can show varying patterns, that partially is due to a reporting mix of residential construction products, with the largest physical-count category of one-unit structure housing starts—generally for individual consumption, resulting in new home sales—versus multi-unit structure starts that generally reflect the building of rental and apartment units.

Housing starts for single-unit structures in January 2016 declined month-to-month by a statistically-insignificant 3.9% (-3.9%) +/- 12.3%, following a revised similar decline of 3.9% (-3.9%) [previously down by 3.3% (-3.3%)] in December 2015, and a revised gain of 9.9% [previously up by 11.0%, initially up by 7.6%] in November. Single-unit starts for January 2016 showed a statistically-insignificant year-to-year annual gain of 3.5% +/- 15.6%, versus revised annual gains of 5.1% [previously up by 6.1%] in December 2015 and 17.2% [previously up by 18.5%, initially up by 14.6%] in November 2015 (again see *Graphs 3, 4, 7* and *8* in the *Opening Comments*).

Housing starts for apartment buildings (generally 5-units-or-more) in January 2016 fell month-to-month by a statistically-insignificant 2.5% (-2.5%) +/- 28.0%, versus a revised contraction of 5.5% (-5.5%) [previously down by 3.4% (-3.4%)] in December 2015, and a revised monthly gain of 11.6% [previously up by 9.9%, initially up by 18.1%] in November. The statistically-insignificant January 2016 year-to-year decline of 3.8% (-3.8%) +/- 31.2% followed revised annual gains of 8.0% [previously up by 8.6%] in December 2015 and 17.0% [previously up by 15.2%, initially up by 21.3%] in November 2015.

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

Accordingly, the statistically-insignificant January 2016 monthly decline of 3.8% (-3.8%) in aggregate starts was composed of statistically-insignificant declines of 3.9% (-3.9%) in one-unit structures and 3.7% (-3.7%) in the multiple-unit structures categories (2-units-or-more, including the 5-units-or-more category). Again, these series all are graphed in the *Opening Comments* section.

***Housing Starts Graphs.*** Headline reporting of housing starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,099,000 in January 2016, versus a revised 1,143,000

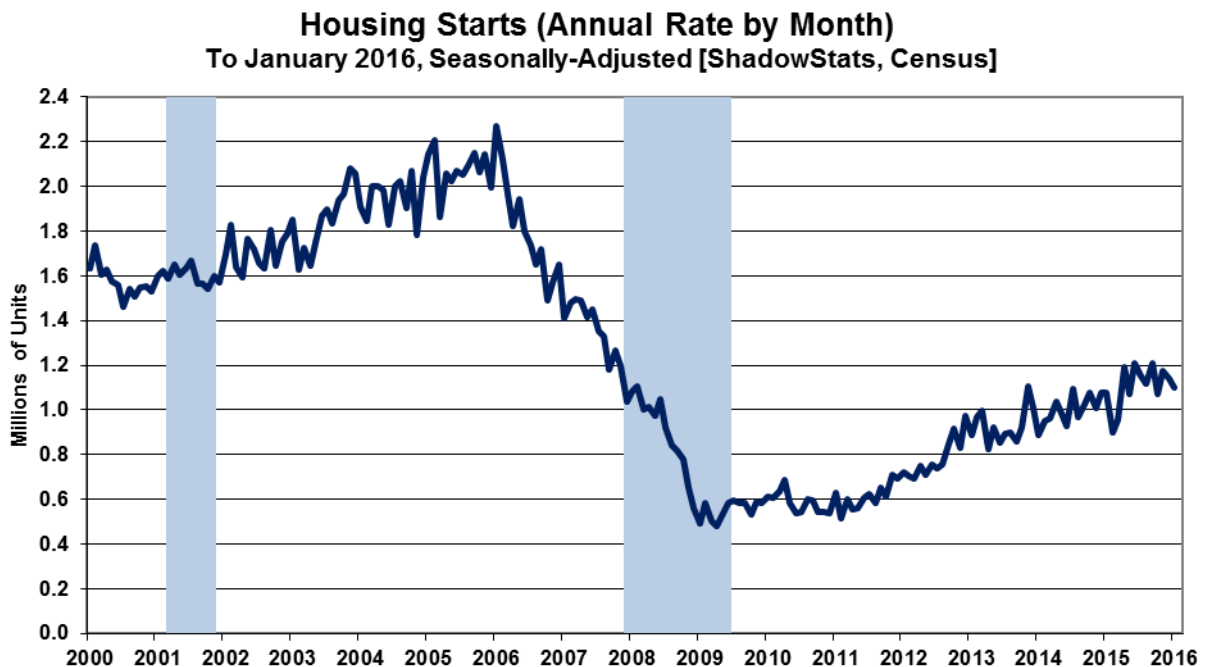
(previously 1,149,000) in December 2015. The scaling detail in the aggregate *Graphs 23* and *24* at the end of this section reflects those annualized numbers.

Nonetheless, given the nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the headline 236,000 month-to-month gain (not level) in the annualized April 2015 housing starts was larger than any actual total (non-annualized) level of monthly starts ever, for a single month. That is since related starts detail first was published after World War II.

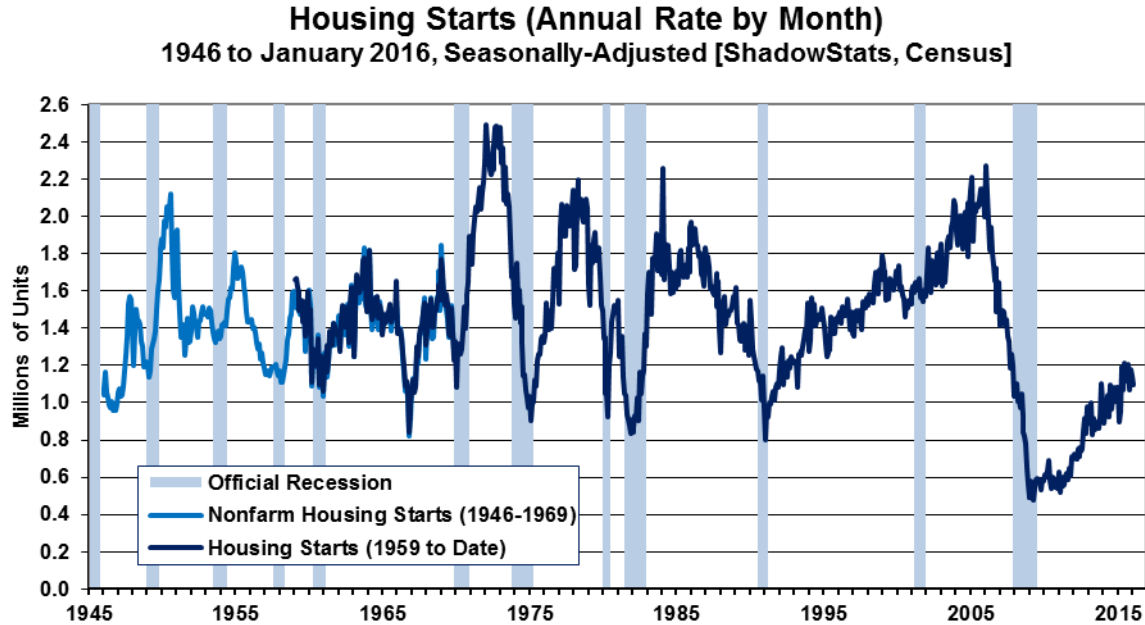
Accordingly, the monthly rate of 91,583 units in January 2016, instead of the annualized 1,099,000-headline number, is used in the scaling of the *Graphs 3* to *10* in the *Opening Comments*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as can be seen in a comparison of *Graph 23* with *Graph 4* in the *Opening Comments*.

The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down 79% (-79%) from the January 2006 pre-recession peak. Against that downside-spiked low in April 2009, the January 2016 headline number was up by 130%, but it still was down by 52% (-52%) from the January 2006 pre-recession high for the series. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in stagnation at low levels that otherwise have been at or near the historical troughs of recession activity of the last 70 years, as seen in accompanying *Graph 24*.

**Graph 23: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date**



**Graph 24: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date**



## PRODUCER PRICE INDEX—PPI, ANNUAL REVISIONS (January 2016)

**January 2016 PPI Goods Inflation Fell By 0.65% (-0.65%), Services Profit Margins Rose by 0.54%, with Aggregate PPI up by 0.09%.** On the goods side, where headline wholesale inflation declined by 0.65% (-0.65%) in the month of January 2016, the dominant effect of falling oil prices largely was offset partially by rising food prices, with no impact from “core” inflation (net of food and energy).

The upside offset to the 0.65% (-0.65%) drop in goods inflation was a relative boost of 0.54% in the profit margins of the dominant services sector (perversely boosted partially by the effects of falling oil prices).

Discussed below, the conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily. The dual measures are more meaningful viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand, which rose by a headline 0.09% for the month.

**Revisions: Seasonal Adjustments Shifted with Energy and Food; Weighting Revisions Had Minimal Impact, Unadjusted General Data Negligibly Affected.** In the context of the February 12th annual revisions to the weightings of the PPI components and recalculations of seasonal-adjustment factors, the re-weightings had negligible impact on the broad numbers (although the weightings generally moved away from food and energy).

The PPI seasonal-adjustment revisions, however, showed some unusually sharp swings, quarter-to-quarter, generally consistent with the annual seasonal-adjustment revisions also just published (February 17th) for the Consumer Price Index, to be discussed in tomorrow’s *CPI Commentary No. 787* (see also

today's *Opening Comments*). The PPI re-weightings are shown here in the usual break-out of monthly detail, as are the adjusted revisions to the recent reporting.

In particular, the seasonal adjustment revisions generally weakened energy and food inflation in May through October, and increased headline inflation in November through April. The effect was to spike headline fourth-quarter and first-quarter annualized inflation rates, with offsetting reductions in second- and third quarter detail. Among other issues, these shifts (again paralleled in the CPI revisions and likely also in the GDP Implicit Price Deflator) should alter headline annualized quarterly real growth rates for the GDP, come the July 29th GDP benchmark revisions.

***Combined Reporting Often Runs Contrary to Common Experience.*** As suggested in the headline January 2016 detail, 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). The other index would reflect wholesale margin trends. The mixing of the concepts between the hard costs of physical products and the theoretical, often offsetting-margin movements in the services industries generates mixed and incompatible inflation signals. Accordingly, ShadowStats emphasizes 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, although that may have been addressed somewhat in the current annual revisions.

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.

**January 2016 Headline PPI Detail.** The Bureau of Labor Statistics (BLS) reported February 17th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for January 2016 rose by 0.09%, where the headline December 2015 measure declined by an unrevised 0.18% (-0.18%), versus a revised gain of 0.37% [previously up by 0.27%] in November, and a revised contraction of 0.27% (-0.27%) [previously down by 0.36% (-0.36%)] in October.

The broad impact of the new seasonal adjustments on the headline PPI reporting was negative in January, with the unadjusted monthly January up by 0.27%.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted and are not affected by the annual seasonal-adjustment revisions—year-to-year PPI Final Demand inflation contracted by 0.18% (-0.18%) in January 2016, versus an unrevised contraction of 1.00% (-1.00%) in December 2015.

For the three major subcategories of January 2016 Final Demand PPI, headline monthly Goods inflation fell by 0.65% (-0.65%), Services inflation rose by 0.54%, and Construction inflation fell in the month by 0.35% (-0.35%).

Final Demand Goods (Weighted at 33.60% [previously 34.67%] of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in January 2016 dropped by 0.65% (-0.65%), having declined in December 2015 by an unrevised 0.74% (-0.74%), following an revised gain of 0.09% [previously a decline of 0.09% (-0.09%)] in November. There was negative impact on the aggregate headline January reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, January Final Demand Goods inflation fell by 0.47% (-0.47%) for the month.

Unadjusted, year-to-year goods inflation in January 2016 fell by 2.48% (-2.48%), versus an unrevised annual contraction of 3.70% (-3.70%) in December 2015.

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

- “Foods” inflation (weighted at 5.56% [previously 5.80%] of the total index) in January 2016 jumped month-to-month by 1.04%, having declined by 1.36% (-1.36%) [previously down by 1.27% (-1.27%)] in December 2015, following an unrevised headline gain of 0.26% in November. Seasonal adjustments were a positive factor for the January monthly change, which was up by 0.61% unadjusted. Unadjusted and year-to-year, annual January 2016 foods inflation declined by 3.48% (-3.48%), versus an unrevised annual decline of 5.24% (-5.24%) in December 2015.
- “Energy” inflation (weighted at 5.23% [previously 6.31%] of the total index) fell in January 2016 by 5.00% (-5.00%), following a revised decline of 3.46% (-3.46%) in December 2015 [previously down by 3.38% (-3.38%)], and a revised gain of 0.53% in November [previously a decline of 0.63% (-0.63%)], with the January reading hit by seasonal adjustments. Unadjusted, monthly January 2016 energy inflation fell by 4.29% (-4.29%). Unadjusted and year-to-year, the annual contraction in energy prices narrowed further to 11.49% (-11.49%), following an unrevised decline of 16.19% (-16.19%) in December 2015.
- “Less foods and energy” (“Core” goods) monthly inflation (weighted at 22.81% [previously 22.57%] of the total index) was “unchanged” at 0.00% in January 2016, having risen by an unrevised 0.09% in December 2015, versus a revised “unchanged” reading [previously a monthly decline of 0.09% (-0.09%)] in November. Seasonal adjustments were negative for monthly core inflation, with an unadjusted gain of 0.27% in January. Unadjusted and year-to-year, January 2016 was “unchanged” at 0.00%, the same reading as in December 2015.

Final Demand Services (Weighted at 64.32% [previously 63.31%] of the Aggregate Index). Headline monthly Final Demand Services inflation rose by 0.54% in January 2016, having risen by an unrevised 0.09% in December 2015, versus a revised monthly gain of 0.55% [previously up by 0.45%] in November. The overall seasonal-adjustment impact on headline January services inflation was neutral, with an unadjusted monthly January gain also at 0.54%. Year-to-year, unadjusted January 2016 services inflation was 0.91%, versus an unrevised 0.36% in December 2015.

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

- “Services less trade, transportation and warehousing” inflation, or the “Other” category (weighted at 38.97% [previously 38.16%] of the total index), rose by 0.37% in January 2016, following a revised gain of 0.28% [previously up by 0.37%] in December 2015, and a revised gain of 0.18% [previously up by 0.09%] in November. Seasonal-adjustment impact on the adjusted January detail was negative, where the unadjusted monthly gain was 0.64%. Unadjusted and year-to-year, January 2016 “other” services inflation was 1.57%, up from an unrevised 1.02% in December 2015.
- “Transportation and warehousing” inflation (weighted at 4.99% [previously 5.11%] of the total index) rose month-to-month by 0.44% in January 2016, having declined in December by an unrevised 0.44% (-0.44%), and having been a revised “unchanged” at 0.00% [previously up by 0.35%] in November. Seasonal adjustments had negative impact on the headline January number, where the unadjusted monthly reading had been a gain of 0.62%. Unadjusted and year-to-year, January 2016 transportation inflation fell by 2.23% (-2.23%), versus an annual contraction of 3.40% (-3.40%) in December 2015.
- “Trade” inflation (weighted at 20.36% [previously 20.03%] of the total index) gained by 0.89% in January 2016, having declined by a revised 0.09% (-0.09%) [previously down by 0.36% (-0.36%)] month-to-month in December 2015, having gained a revised 1.26% [previously up by 1.17%] in



November. Seasonal adjustments had a positive impact here, where unadjusted monthly inflation rose by 0.27% in January. Unadjusted and year-to-year, January 2016 trade inflation rose by 0.45%, having increased by an unrevised 0.18% in December 2015.

Final Demand Construction (Weighted at 2.08% [previously 2.02%] of the Aggregate Index). 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 contracted by 0.35% (-0.35%) in January 2016, versus an unrevised “unchanged” 0.00% reading in December 2015, and an unrevised monthly decline of 0.26% (-0.26%) in November. The impact of seasonal factors on the January reading was negative, where the unadjusted monthly change was a contraction of 0.26% (-0.26%).

On an unadjusted basis, year-to-year construction inflation was 1.16% in January 2016, versus an unrevised 1.79% in December 2015.

- “Construction for private capital investment” headline monthly inflation (weighted at 1.40% [previously 1.36%] of the total index) in January 2016 contracted by 0.26% (-0.26%) for the month, having been unrevised and unchanged at 0.00% in December 2015. As usual, seasonal adjustments had neutral impact here, where the unadjusted January monthly inflation was a contraction of 0.26% (-0.26%). Unadjusted and year-to-year, January 2016 private construction inflation was 0.98%, down versus an unrevised 1.80% in December 2015.
- “Construction for government” inflation (weighted at 0.68% [previously 0.66%] of the total index) in January 2016 declined by 0.44% (-0.44%) in the month, following an unrevised gain of 0.09% in December 2015. Seasonal adjustments had negative impact, where unadjusted monthly January inflation was a negative 0.35% (-0.35%). Unadjusted and year-to-year, January 2016 government construction inflation was 1.43%, versus an unrevised 1.97% in December 2015.

Discussed in [Commentary No. 784](#), ShadowStats uses the Final Demand Construction index for deflating headline activity in the monthly construction-spending series. The March 1st release of January 2016 U.S. Construction Spending will be covered in ShadowStats *Commentary No. 790* of March 4th.

***PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods.*** As to the upcoming reporting of January 2016 new orders for durable goods, unadjusted and unrevised monthly inflation for new orders for manufactured durable goods was “unchanged” at 0.00%, having contracted in December 2015 by 0.24% (-0.24%), and by 0.18% (-0.18%) in November. The decline in annual inflation deepened, down by 1.31% (-1.31%) in January 2016, versus 1.02% (-1.02%) in December 2015 and an annual decline of 0.90% (-0.90%) in November 2015. January 2016 durable goods orders will be reported on February 25th and covered in ShadowStats *Commentary No. 788* of that date.

## WEEK AHEAD

**Economic Reporting Should Continue on the Downside of Expectations, Pummeling the Dollar and Boosting Gold, Silver and Oil Prices.** Moving to the downside, amidst intensifying, negative headline reporting, market expectations for business activity are deteriorating, even as reviewed in the popular media. The broad trend in weakening expectations for business activity has continued, and movement towards looming recession recognition has accelerated, as discussed in [Commentary No. 783](#) and in [No. 777 Year-End Special Commentary](#). Nascent negative reaction has surfaced in trading of the U.S. dollar, in related financial markets, with some upside movement recently in prices for gold and silver (see [Commentary No. 784](#)). Circumstances here also should limit further heavy selling in the oil market and begin to turn pricing there also to the upside.

Weaker headline reporting of the regular monthly economic numbers should increasingly be accompanied by much worse-than-expected—negative—reporting for at least the next several quarters of GDP (and GDI and GNP), for fourth-quarter 2015 and well into the current year. That includes mounting odds for an eventual outright quarterly contraction in revised fourth-quarter 2015 GDP activity, 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 in 2015 by collapsing prices for gasoline and other oil-price related commodities—likely has seen its near-term, year-to-year low. Although month-to-month headline inflation likely will be minimally on the downside for January 2016 (see *Pending Releases*), annual CPI-U should become increasingly positive, against negative inflation one year ago. Prices also should turn increasingly positive in an environment of a weakening U.S. dollar and a related upturn in otherwise battered oil prices. Separately, fundamental reporting issues with the CPI are discussed here: [Public Commentary on Inflation Measurement](#). Those areas, the general economic outlook and longer range reporting trends also 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). That has been discussed and explored in the labor-numbers related [Supplemental Commentary No. 784-A](#) and [Commentary No. 695](#).

Separately, discussed in [Commentary No. 778](#), a heretofore unheard of spate of “processing errors” has 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. At the same time, it indicates an openness of the involved statistical agencies in revealing the reporting-quality issues.

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](#)).

### ***PENDING RELEASES:***

**Consumer Price Index—CPI (January 2016).** The Bureau of Labor Statistics (BLS) will release the January 2016 CPI tomorrow, Friday, February 19th. In the context of annual seasonal adjustment revisions for the last five years (published February 17th), the headline January 2016 CPI-U should be on the downside-side by 0.1% (-0.1%) or so, plus or minus, reflecting continued weakness in unadjusted gasoline prices.

*Commentary No. 787* of February 19th will detail the impact of the CPI revisions on headline month-to-month, seasonally-adjusted reporting, and any related shifts in seasonally-adjusted quarterly patterns. Noted in the *Opening Comments*, however, an early assessment indicates stronger, seasonally-adjusted fourth-quarter CPI-U inflation, with implications for downside revisions to fourth-quarter growth in both Real Retail Sales and Real Earnings. Unadjusted year-to-year inflation measurements are not affected.

Even with a headline CPI-U monthly decline, allowing for the even greater month-to-month decline seen in headline January 2015 inflation, the year-to-year annual inflation rate for January 2016 likely will rise, possibly hitting a fifteen-month high of about 1.3%.

Average gasoline prices declined, again, in January 2016, down by 4.06% (-4.06%) for the month on a not-seasonally-adjusted basis, per the Department of Energy (DOE). Where BLS seasonal adjustments to gasoline prices in January were neutral as revised for January 2015, they should do little to alter the headline downturn in adjusted gasoline prices, barring intervention-analysis by the BLS. As the seasonals now stand, gasoline prices fell by enough for a net-negative contribution to the aggregate, seasonally-adjusted monthly headline CPI-U change of 0.14% (-0.14%). Somewhat higher food and “core” (net of food and energy) inflation may provide some positive offset.

**Annual Inflation Rate.** Year-to-year, CPI-U inflation would increase or decrease in January 2016 reporting, dependent on the seasonally-adjusted monthly change, versus the adjusted, revised headline decline of 0.64% (-0.64%) in the January 2015 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for January 2016, the difference in January's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the December 2015 annual inflation rate of 0.73%. For example, a seasonally-adjusted, headline monthly decline of 0.1% (-0.1%) in the January 2016 CPI-U would boost January 2016 annual inflation to roughly a positive 1.3% (plus-or-minus, depending on rounding).

***Real Retail Sales (January 2016).*** Based on the headline monthly gain of 0.18% in nominal (not-adjusted-for-inflation) January 2016 Retail Sales (see prior [Commentary No. 785](#)), the estimate of real (inflation-adjusted) Retail Sales for January 2016 also will follow in *Commentary No. 787* of February 19th. Again, the detail there is estimated in conjunction with the publication of detail on the headline January CPI-U and annual revisions to that seasonally-adjusted CPI-U series. With a likely small month-to-month decline in January CPI inflation (see preceding CPI discussion), there is a parallel chance for the inflation-adjusted real growth in January sales to be somewhat stronger than the headline nominal sales activity. The pace of annual CPI-U inflation, however, again should remain positive, with a continuing recession signal indicated by the low-level annual change in real retail sales.

Constraining retail sales activity, the consumer remains in an extreme liquidity bind with weakening sentiment, as updated last in the *Opening Comments* of [Commentary No. 785](#) and as fully reviewed in [No. 777 Year-End Special Commentary](#). 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.

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