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

COMMENTARY NUMBER 591
December Producer Price Index and Redefined PPI Series

January 15, 2014

December Headline PPI Surged 0.4% in Current Reporting,
Up by Just 0.1% Based on What Will Be the New Series Next Month

New and Expanded PPI Tends to Show Lower Inflation
Amidst Higher Oil Prices

The Old PPI Series Has the Better Leading Relationship to CPI

PLEASE NOTE: The next regular Commentary *is scheduled for tomorrow, Thursday, January 16th, covering December CPI, real retail sales and earnings, followed by a subsequent* Commentary *on January 17th, reviewing December housing starts and industrial production.*

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

PPI Inflation Jumps, But the New Series Would Have Tempered That. Today's (January 15th) *Commentary* is relatively brief, covering the release of the December Producer Price Index (PPI) and reviewing the new series that will replace it next month. Tomorrow's *Commentary* will cover the release of the December CPI and related deflated series, such as real (inflation-adjusted) retail sales and earnings. The January 17th *Commentary* will cover December housing starts and industrial production, along with a summary of December economic reporting up through that time.

Today's headline 0.41% gain in the monthly December PPI would have been just 0.09% using the pending new PPI series. Weaker PPI inflation is the general trend in the recreated historical detail that the Bureau of Labor Statistics (BLS) has published for the new series, particularly in diluting inflation resulting from higher oil prices. Separately, the current or old series has a somewhat stronger leading relationship to the Consumer Price Index (CPI) than does the new and improved version. The first section, following, and the *Reporting Detail* section cover headline reporting of the current PPI series for December 2013. The second section, following, explores and graphs the published historical data for the pending (new) series, and comparative detail with the current (old) PPI series and the CPI.

Producer Price Index—PPI (December 2013) Jumped by 0.4%, Thanks to Higher Energy and Core Inflation. Today was the last headline reporting of finished goods inflation in the PPI. With the reporting on February 19th, of the January 2014 PPI, the BLS will introduce a fully revamped and redesigned PPI, which will include accounting from the services sector, along with goods inflation, in its headline number. See the next section for detail.

December PPI Rose With Higher Energy and Core Inflation, Despite Weaker Food Prices. The seasonally-adjusted finished-goods PPI for December 2013 rose by 0.41%, at the second decimal point, and was up by 0.10% for the month on a not-seasonally-adjusted basis. That followed November's monthly contraction of 0.05%, at the second decimal point, a decline of 0.51% unadjusted.

December's monthly gain in finished goods inflation reflected a seasonally-adjusted 1.57% (0.59% unadjusted) monthly increase in energy costs, and an adjusted 0.27% gain (an unadjusted 0.11% increase) in core inflation (net of food and energy), with an offsetting seasonally-adjusted 0.59% (0.39% unadjusted) decline in monthly food costs.

Unadjusted and year-to-year, December 2013 total finished-goods PPI inflation rose to 1.24%, from 0.72% in November. Year-to-year December 2012 PPI inflation was 1.36%. On the basis of annual-average inflation, finished goods PPI was up by 1.24% in 2013, versus 1.94% in 2012.

Intermediate and Crude Goods. Also reflecting stronger energy prices, seasonally-adjusted December 2013 intermediate-goods inflation was up by 0.6%, having been down by 0.5% in November, while December crude-goods inflation gained 2.4% in the month, following a 2.6% contraction in November.

Year-to-year inflation in unadjusted December 2013 intermediate goods was unchanged, having been down by 0.5% in November. Year-to-year inflation in December 2013 crude goods was a negative 2.2%, versus a 3.3% contraction in November.

New PPI—Final Demand (Goods and Services) versus Finished Goods. With the February 19th release of the January 2014 Produce Price Index (PPI) data, the PPI series will be redefined and expanded so as to include wholesale inflation in the services sector. Descriptive material also is available on the BLS Web site here: *New PPI Series* and *New PPI Detail*.

Wholesale inflation in the services sector is difficult to define and measure meaningfully. Nonetheless, its inclusion in the PPI will moderate headline PPI inflation, which will be relatively less volatile in terms of the impact of large swings of oil prices as seen in recent years. Relatively softer services inflation will tend to reduce the harder, oil-price-induced inflation, usually seen in the goods sector.

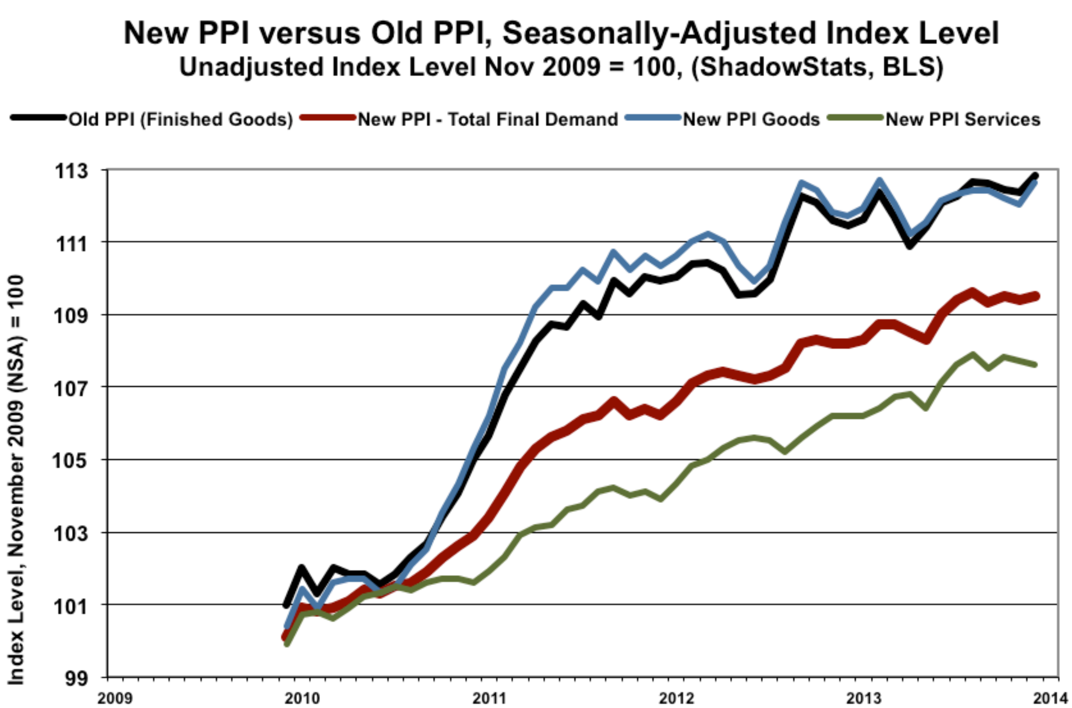
The services sector often has been used to create more-positive data. Some years back, adding the perpetual surplus of the nebulous, and often-unquantifiable services sector to the trade data, moderated the ever-deepening trade deficit. Additionally, the hard-to-quantify and measure services sector also was a big plus for GDP reporting in recent decades, more than balancing a weakening production/ manufacturing sector that deliberately had been wasted away as a function of bad trade policies.

Such observations aside, the BLS noted that the new PPI measure "more than doubles current PPI coverage of the United States economy to over 75% of in-scope domestic production [first BLS link]."

Where the traditional headline PPI inflation has been from the "finished goods index," the new measure is from the "final demand index," comprised of "final demand goods" and "final demand services." As specified by the BLS [first link], "The composition of products in the final demand index differs from that of the finished goods index in two major respects. First, it includes government purchases and exports. Second, it includes services and construction, which are not reflected in finished goods."

The BLS has published historical data on the new indices back to November 2009 (the not-seasonally-adjusted indices are set with November 2009 = 100). With the economy and financial markets in turmoil post-2008 Panic, the limited historical period here hardly is representative of normal conditions.

Graph 1:



That said, here are graphs of the new numbers, along with comparisons of the old PPI series and the ongoing, current CPI series.

The preceding *Graph 1* shows the index levels of the various new final demand series and the old finished goods series, plotted to a consistent scale. Since the November 2009 onset of the data, goods prices have run higher than services prices, with total "final demand" running inbetween. The old "finished goods" and "final demand goods" have been reasonably consistent with some fluctuation arround each other. As shown in *Graph 5*, the year-to-year changes in those two series are close. Where annual inflation in "finished goods" has a 99.4% correlation (that means the data move with each other 99.4% of the time) with "final demand goods" annual inflation, the correlation with annual inflation in "final demand services" is 46.7%.

Graph 2 shows the year-to-year inflation in the former-headline "finished goods" versus the new-headline number, the aggregate "final demand" year-to-year inflation. Despite the higher "finished goods" annual inflation in 2012, the two series still have moved together 97.6% of the time.

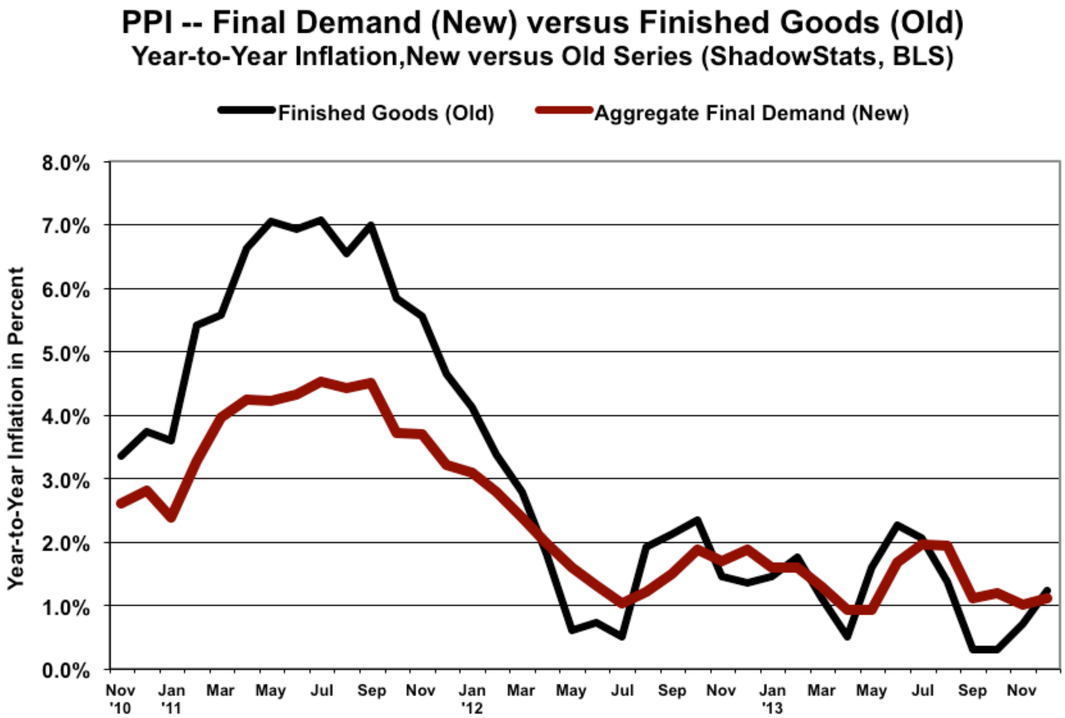
Graph 3 shows the new annual "final demand" inflation versus annual inflation in the CPI-U. The correlation on a coincident basis is 89.7%, but that increases to 91.7%, when the "final demand" inflation is considered with a one-month leading relationsip to the CPI. On a coincident basis, the annual inflation in the old "finished goods" had an 88.6% correlation, but that jumped to 93.8% with "finished goods" inflation leading the CPI by one month. The old PPI series had a better leading relationship to the CPI than does the new series.

Graph 4 shows the comparative year-to-year inflation in the "final demand" aggregate and the two "goods" and "services" components. Again, rising oil-prices will tend to spike the "goods" inflation relative to the "services" inflation.

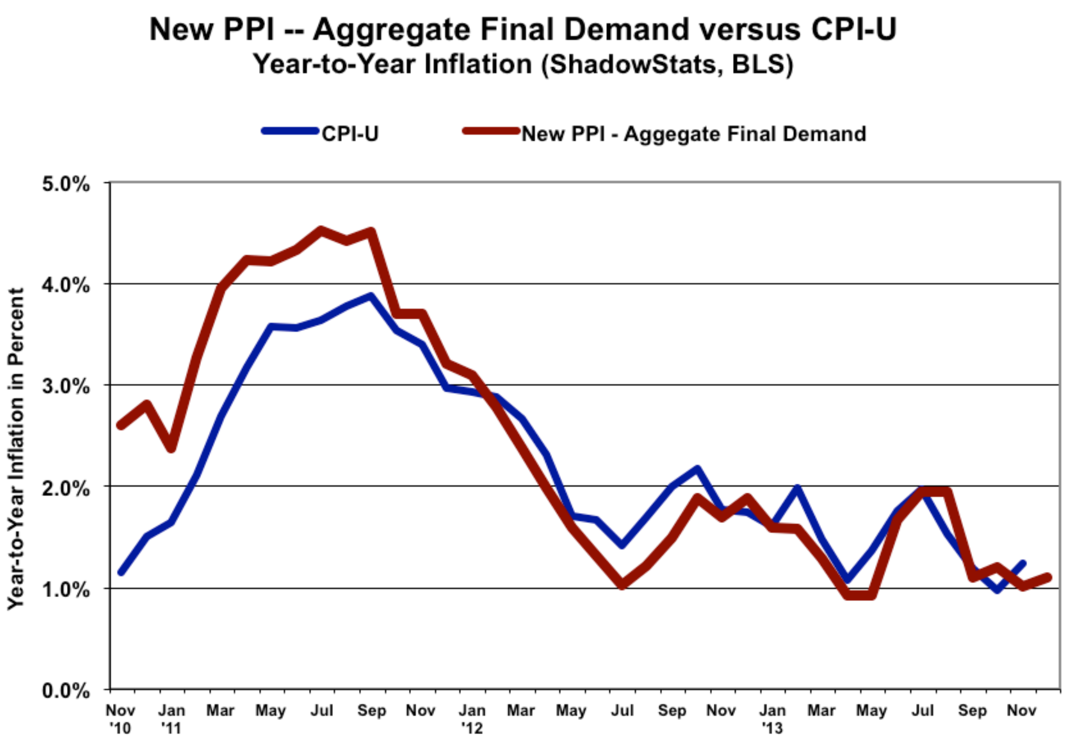
Graph 5 shows the "finished goods" versus the "final demand goods" annual inflation rates to be close and highly correlated, as discussed with *Graph 1*.

The oil-effect, where the new "final demand" series will tend to show weaker inflation than the "finished goods" series, in a rising-oil-price environment, was seen in December 2013 reporting. With higher energy prices, the headline number—based on the current (old) "finished good" series—showed a seasonally-adjusted 0.41% headline gain for the month, versus the "experimental" new "final demand" series with an adjusted headline gain of 0.09%. The new "final demand goods" showed headline, seasonally-adjusted monthly inflation of 0.54%, with "final demand services" showing a headline monthly decline of 0.09%.

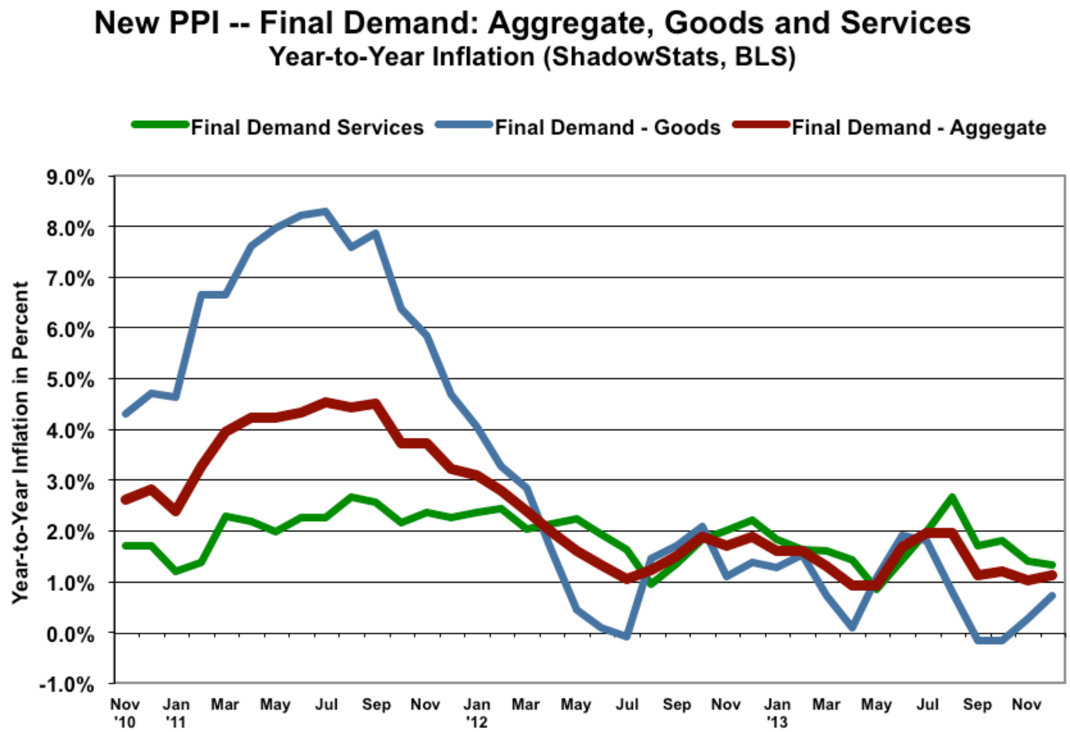
Graph 2:



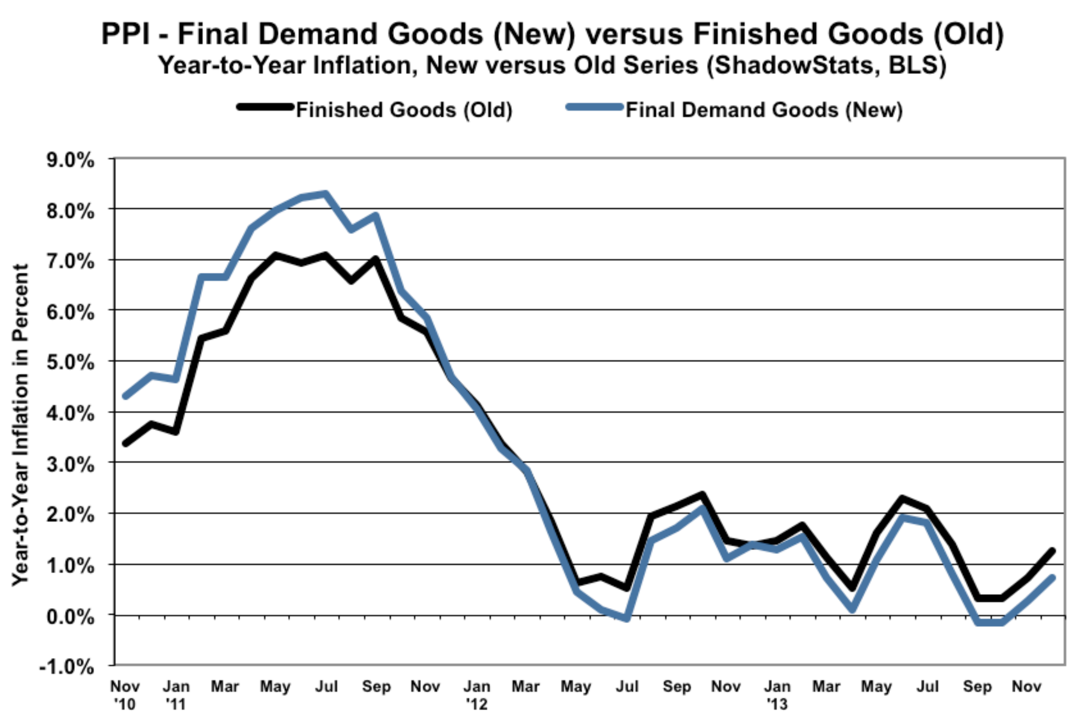
Graph 3:



Graph 4:



Graph 5:



[For greater detail on the December PPI, see the **Reporting Detail** *section.]*

HYPERINFLATION WATCH

Hyperinflation Outlook. With *Hyperinflation 2014—The End Game Begins* published on January 7th, a new *Hyperinflation Summary* for this section will be added shortly.

REPORTING DETAIL

PRODUCER PRICE INDEX—PPI (December 2013)

December 2013 Was the Last Headline Reporting of Finished Goods Inflation in the PPI. With the reporting of the January 2014 PPI, on February 19th, the Bureau of Labor Statistics (BLS) will introduce a fully revamped and redesigned Producer Price Index (PPI), which will include inflation accounting from the services sector, along with goods inflation, in its headline number. As discussed in a separate section of the *Opening Comments* section, the BLS has published detail on the new series. Differences between the old and new PPI accounting are discussed and graphed there. Descriptive material also is available on the BLS Web site here: *New PPI Series* and *New PPI Detail*. This ShadowStats reporting section covers just the regular release of the December PPI

December PPI Rose With Higher Energy and Core Inflation, Despite Weaker Food Prices. As reported this morning (January 15th) by the BLS, the regularly-volatile, seasonally-adjusted finished-goods producer price index (PPI) for December 2013 rose by 0.4% (0.41% at the second decimal point) and was up by 0.10% for the month on a not-seasonally-adjusted basis. That followed November's headline decline of 0.1% (a contraction of 0.05% at the second decimal point), which was a drop of 0.51%

unadjusted. Energy prices pulled the aggregate, seasonally-adjusted December PPI higher, with rising oil and gasoline prices, and higher core inflation, partially offset by declining food prices.

December's monthly gain in finished goods inflation reflected a seasonally-adjusted 1.57% (0.59% unadjusted) increase in energy costs, with a seasonally-adjusted 0.59% decline (down by 0.39% unadjusted) in food costs, and an adjusted 0.27% gain (an unadjusted 0.11% increase) in core inflation (net of food and energy).

Unadjusted and year-to-year, December 2013 total finished-goods PPI inflation rose to 1.24%, from 0.72% in November. Year-to-year December 2012 PPI inflation was 1.36%.

On the basis of annual-average inflation, finished goods PPI was up by 1.24% in 2013, versus 1.94% in 2012.

Core Finished Goods. "Core" inflation is net of food and energy inflation. The concept of core inflation as a realistic inflation measure remains nonsensical, where food and energy account for 41.4% of the weighting of finished goods in the current version of the PPI (24.6% of the CPI-U, 27.6% of the CPI-W).

That said, the core measure still is useful as an indication of how energy prices, in particular, are impacting inflation in the broader economy. The impact of higher energy costs eventually is found in most products and services. For December 2013, again, the seasonally-adjusted, month-to-month core PPI inflation gained 0.27% (up 0.11% on an unadjusted basis). Year-to-year, unadjusted December core finished-goods inflation increased to 1.41% from 1.31% in November. The usual graph comparing core-PPI year-to-year growth with the CPI-U for November will be published in tomorrow's *Commentary No. 592*, which will cover the CPI release.

Intermediate and Crude Goods. Also reflecting stronger energy prices, seasonally-adjusted December 2013 intermediate-goods inflation was up by 0.6%, having been down by 0.5% in November, while December crude-goods inflation gained 2.4% in the month, following a 2.6% contraction in November.

Year-to-year inflation in unadjusted December 2013 intermediate goods was unchanged, having been down by 0.5% in November. Year-to-year inflation in December 2013 crude goods was a negative 2.2%, versus a 3.3% contraction in November.

WEEK AHEAD

Weaker-Economic and Stronger-Inflation Reporting Likely in the Months and Year Ahead. At the moment, markets generally are overly optimistic as to the economic outlook, based on data that likely were puffed-up in the process of going through the data-gathering and reporting distortions of the October shutdown to the federal government. Although expectations should soften anew, quickly, there remains the potential for unusual, irregular and eventually corrective reporting and revisions in the months ahead.

That circumstance, and underlying fundamentals that remain highly suggestive of deteriorating business activity, mean that weaker-than-consensus economic reporting should become the general trend.

Stronger inflation reporting is likely. Upside pressure on oil-related prices should reflect intensifying impact from a weakening U.S. dollar in the currency markets, and from ongoing political instabilities in the Middle East. The dollar faces pummeling from continuing QE3, the ongoing U.S. fiscal-crisis debacle, a weakening U.S. economy and deteriorating U.S. political conditions (see *Hyperinflation 2014—The End Game Begins*). Particularly in tandem with a weakened dollar, reporting in the year ahead generally should reflect much higher-than-expected inflation.

A Note on Reporting Quality Issues and Systemic Reporting Biases. Significant reporting-quality problems remain with most major economic series. Headline reporting issues are tied largely to systemic distortions of seasonal adjustments. The data instabilities were induced by the still-ongoing economic turmoil of the last seven-to-eight years, which has been without precedent in the post-World War II era of modern economic reporting. These impaired reporting methodologies provide particularly unstable headline economic results, where concurrent seasonal adjustments are used (as with retail sales, durable goods orders, employment and unemployment data), and they have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series.

PENDING RELEASES:

Consumer Price Index—CPI (December 2013). The release by the Bureau of Labor Statistics (BLS) of the December 2013 CPI is scheduled for tomorrow, Thursday, January 16th. The headline CPI-U is a good bet to increase by 0.2%, or more, based on gasoline prices and dependent on upside contributions from food prices and core inflation.

Average gasoline prices rose month-to-month in December 2013 by 1.1-percentage points, on a not-seasonally-adjusted basis, per the Department of Energy. The BLS seasonal adjustments will give gas prices a boost. As last revised, an unadjusted 4.2% monthly decline in December 2012 gasoline prices was narrowed to a 1.9% contraction, with upside seasonal adjustments. Similar effects in the December

2013 number, by themselves, would add 0.2% to the headline CPI-U number. Any upside surprise here would come from food prices or core inflation.

Year-to-year, CPI-U inflation would increase or decrease in December 2013 reporting, dependent on the seasonally-adjusted monthly change, versus an adjusted and negligible 0.03% increase in the monthly inflation reported for December 2012. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for December 2013, 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 2013 annual inflation rate of 1.24%. For example, if the headline December 2013 CPI-U increased by 0.2%, the new year-to-year inflation would be in the 1.4%-to-1.5% range.

Index of Industrial Production (December 2013). The December 2013 index of industrial production is scheduled for release on Friday, January 17th, by the Federal Reserve Board. Net of the irregular volatility in utility output tied to seasonable or seasonable weather, moderate expectations for December production growth are a fair bet to be disappointed, as companies increasingly move to reduce excessive inventory levels. There also remains the potential for unusual reporting volatility and revisions tied to data disruptions resulting from the October shutdown of the federal government.

Residential Construction—Housing Starts (December 2013). Also on Friday, January 17th, the Census Bureau will publish its estimate of December 2013 housing starts. This series was distorted heavily by data-gathering and reporting issues that resulted from the government shutdown in October. Given last month's seriously-flawed, coincident release of initial reporting for September, October and November 2013 monthly data, the December housing starts reporting could reflect catch-up reporting, significant prior-period revisions and/or further haphazard monthly detail. The markets appear to be looking for a large, downside correction, which is reasonable. Anything is possible in the December detail, but ultimately, the unbelievably strong data in the prior reporting should disappear in a sort-term correction or revisions in the next several moths.

Despite near-perpetual market expectations for strengthening activity in housing starts, reported month-to-month change likely will resume its regular pattern of statistical-insignificance, soon, with ongoing stagnation and renewed downturn seen in the aggregate series, as well as particularly for single-unit housing starts.

In the wake of a 75% collapse in aggregate activity from 2006 through 2008, and an ensuing five-year pattern of housing starts stagnation at historically low levels, little has changed. There remains no chance of a near-term, sustainable turnaround in the housing construction market, unless there is a fundamental upturn in consumer and banking-liquidity conditions. That has not happened and still does not appear to be in the offing.

