

COMMENTARY NUMBER 820
June Production, Retail Sales, Consumer and Producer Inflation
July 16, 2016

**New Recession Remains Very Much in Play;
Second-Quarter GDP Prospects Have Dimmed, with
Auto Sales and Production Spiked by Prior-Month Downside Revisions**

**Never Seen Outside of Formal Recessions, Second-Quarter Production
Showed Third Consecutive Set of Annual and Quarterly Contractions**

**Down in June by 6.2% (-6.2%) from Its Pre-Recession High,
Second-Quarter Manufacturing Contracted**

Second-Quarter Real Earnings Contracted

**Although Positive in the Second Quarter,
Real Retail Sales Continued Its Intense Recession Signal**

**June 2016 Annual Inflation Changed Minimally, with
CPI-U at 1.0%, CPI-W Easing to 0.6% and ShadowStats at 8.7%**

**Monthly PPI Goods Inflation Rose by 0.84% and
Services Margins Rose by 0.45% in June 2016, with Total
Final-Demand PPI up by 0.36% for the Month, 0.27% for the Year**

PLEASE NOTE: The next regular Commentary, scheduled for Tuesday, July 19th, will cover June 2016 Housing Starts, and Preview the July 29th GDP Benchmarking.

Best wishes to all — John Williams

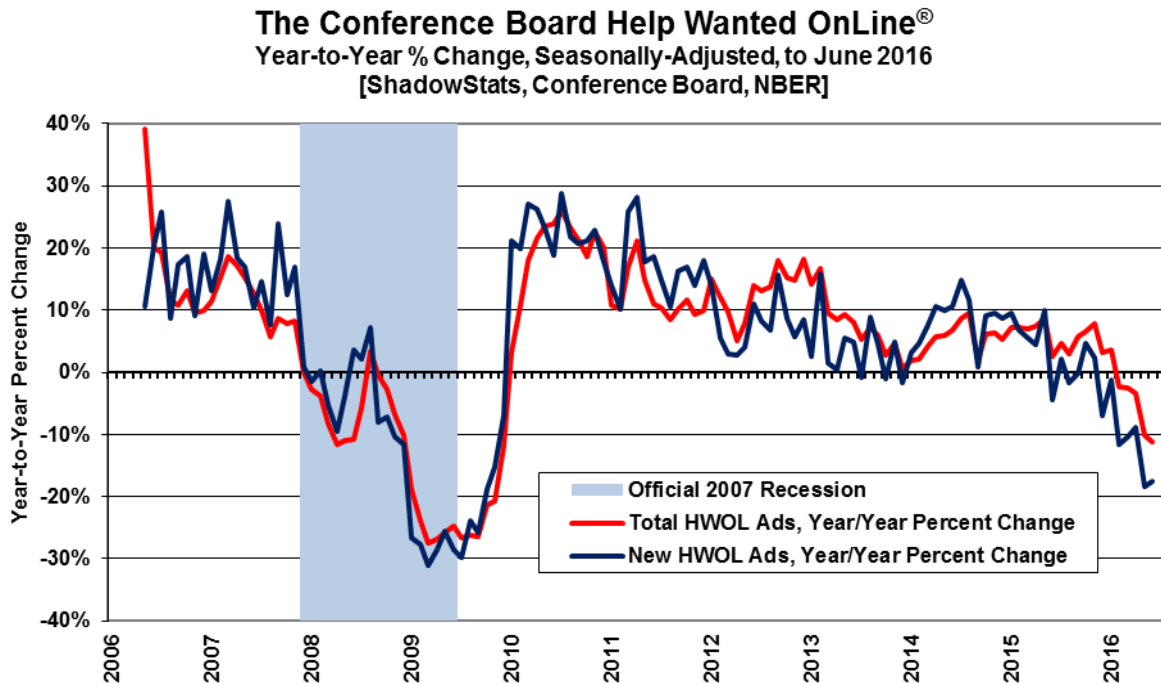
OPENING COMMENTS AND EXECUTIVE SUMMARY

Intensifying Indications of Renewed Downturn. June 2016 industrial production detail confirmed the third consecutive quarter-to-quarter decline in domestic production (the fifth decline in the last six quarters) and the third consecutive quarter of year-to-year contraction. Since the onset of the Federal Reserve’s Index of Industrial Production in 1918, such circumstances never have been seen outside of formal recessions as eventually declared by the National Bureau of Economic Research (NBER). Despite a quarterly gain, second-quarter real retail sales continued its intense, real-annual-growth recession signal.

In *Commentary No. 821* of July 19th, ShadowStats will review its assessment that a “new” recession soon should gain formal recognition, likely timed from December 2014. U.S. economic activity never really fully recovered from its collapse into 2009, and the unfolding downturn is no more than a continuation of the severe economic disruptions and displacements of the last decade. The pending review will be in the context of the latest headline details in government and privately surveyed indicators (see [Commentary No. 817](#) and [No. 818](#)) and of assessing the likely benchmark revisions to the GDP series on July 29th.

ShadowStats is pleased to introduce to its subscribers one of the best leading indicators (private or public) of economic activity, The Conference Board’s Help Wanted OnLine®. Where this reporting concept has roots as far back in time as the initial reporting of industrial production, The Conference Board has adapted the concept to reflect the fundamental shift of help-wanted advertising from printed newspapers to online advertising. The prior newspaper-based series simply was the best leading indicator of its day.

Opening Graph: The Conference Board Help Wanted OnLine® to June 2016



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The Conference Board Help Wanted OnLine[®] Advertising. Many thanks to The Conference Board for permission to publish the preceding graph of year-to-year change from its *Help Wanted OnLine[®]* (HWOL) data. The annual percentage change is plotted for two series: Total Ads (red line) and New Ads (blue line). Where, “Total ads are all unduplicated [online] ads appearing during the reference period. This figure includes ads from the previous months that have been reposted as well as new ads.” While, “New ads are all unduplicated ads which did not appear during the previous reference period. An online help wanted ad is counted as ‘New’ only in the month it first appears.” Related background, details and recent reporting are found here: [The Conference Board Help Wanted OnLine[®]](#).

The following comments and analysis are mine alone, not those of The Conference Board. Back in the days when help-wanted advertising was the primary source of classified-advertising revenue for the physically-printed, folding newspapers, the Conference Board’s Help-Wanted Advertising Index (newspapers) simply was the most reliable leading indicator available of broad economic activity. The NBER has published detail with the St. Louis Federal Reserve on help-wanted advertising indices constructed back to 1919. From the post-World War I era into the 2000s, year-to-year change in the various historical series always signaled what would become recognized as a formal recession, when annual change in the index contracted by 15% (-15%) or more.

Since formal tracking switched to help-wanted advertising on the Internet, around 2005, as seen with The Conference Board Help Wanted OnLine[®], that series has been through only one, formally confirmed down-cycle in the economy. The year-to-year growth plots in the accompanying graph begin with the first annual-growth rate availability in May 2006. Even with a limited initial history, the new series did track that headline downturn into 2009, and it appears to be tracking to the downside, again, in the current environment. Time will establish new annual growth parameters that would signal a formal recession. My betting is that they will look much like the earlier series, and much like the pattern seen in the present series in terms of year-to-year contraction. Those looking for independent confirmation of underlying economic conditions should find this series to be of high value.

Today’s Commentary (July 15th). The balance of these *Opening Comments* provides summary detail of June and second-quarter 2016 industrial production, real and nominal retail sales, consumer and producer inflation (the CPI and PPI) and real earnings.

The *Hyperinflation Watch* includes the regular monthly gold graphs, U.S. dollar measures and related comments. [Commentary No. 818](#) provides background to the unfolding financial and systemic circumstances. The most-recent *Hyperinflation Outlook Summary* is found in [Commentary No. 783](#). These various background *Commentaries* will be updated and consolidated in a new *Special Report*. With first half-2016 economic detail in place, publication is anticipated for August 19th.

The *Week and Month Ahead* section previews next week’s release of the June Housing Starts.

Industrial Production—June 2016—Intensifying “New” Recession Signal. Headline June 2016 industrial production jumped by 0.6% for the month, in the context of downside revisions to the levels of prior-period reporting. Those revisions helped in particular to boost headline monthly manufacturing by 0.4%. Production also was spiked by a regularly volatile and reversible 2.4% monthly gain in utilities,

which is a common artefact of unseasonable (too hot) weather. Separately boosting production, the second month of a dead-cat bounce in coal production spiked the mining sector by 0.2%.

With June 2016 reporting in place, however, second-quarter 2016 total industrial production fell into both annual and quarterly contractions. Such was the circumstance for the third consecutive quarter, a pattern never seen outside of formal recessions in the 97-year history of the Federal Reserve's Index of Industrial Production, which goes back to 1918 (1919 in terms of year-to-year growth rates). Suggested in the opening paragraphs of these *Opening Comments*, the U.S. economy has entered a “new” recession, and formal recognition of same remains likely, following shortly after the July 29th GDP benchmark revisions and the accompanying initial estimate of second-quarter 2016 GDP.

In the post-benchmark revision era for Industrial Production (see [Commentary No. 796-A](#) for specifics), the headline (not the ShadowStats-corrected) series recovered its pre-recession high only in November 2014, and it has been in fairly-consistent monthly decline ever since, falling month-to-month in 14 out of the 19 subsequent months. The headline “recovery” in November 2014 production likely was a gimmick. Nonetheless, headline June 2016 aggregate industrial production level stood at 2.39% (-2.39%) below that one-month recovery high, and was 1.51% (-1.51%) below its pre-recession peak of November 2007.

Separately, the dominant manufacturing sector of industrial production never recovered its pre-recession peak of December 2007 and currently is down by 6.22% (-6.22%) from that level as of June 2016. Manufacturing also just contracted quarter-to-quarter, at an annualized pace of 1.01% (-1.01%) in second-quarter 2016, despite the headline surge in June automobile manufacturing.

Headline Industrial Production. The headline monthly gain in June 2016 industrial production was 0.60%. That was against a revised, narrowed monthly contraction in May of 0.30% (-0.30%), a downwardly-revised gain of 0.45% in April, and a minimally revised contraction of 0.97% (-0.97%) in March 2016. Net of prior-period revisions, June 2016 rose by 0.56%, instead of the headline 0.60% gain.

Detailed by major industry group (see *Graphs 13, 15, 20 and 22* in the *Reporting Detail*), the headline June 2016 monthly aggregate production increase of 0.60% [a May 2016 decline of 0.30% (-0.30%)] was composed of a monthly June gain of 0.40% [a May decline of 0.28% (-0.28%)] in manufacturing activity; a June gain of 0.17% [a May gain of 0.30%] in mining activity (including oil and gas production); and a June gain of 2.42% [a May decline of 0.90% (-0.90%)] in utilities activity.

Year-to-year change in June 2016 production was a decline of 0.69% (-0.69%), following revised, deeper annual declines in May 2016 of 1.44% (-1.44%), in April 2016 of 1.38% (-1.38%) and in March 2016 of 2.05% (-2.05%).

Quarterly and Annual Production Contractions. Annual growth in aggregate production held in negative territory for the tenth straight month, again, down by 0.69% (-0.69%) in June 2016, with second-quarter 2016 showing quarter-to-quarter and annual contractions for the third consecutive quarter. With full quarterly reporting, second-quarter 2016 production contracted year-to-year by 1.17% (-1.17%), and quarter-to-quarter by 1.03% (-1.03%).

Going back a year, first-quarter 2015 industrial production contracted at an annualized quarterly pace of 1.85% (-1.85%), followed by a second-quarter 2015 contraction of 2.75% (-2.75%), with a third-quarter 2015 production gain of 1.53%, followed by a fourth-quarter 2015 contraction of 3.33% (-3.33%). The first-quarter 2016 annualized quarterly decline deepened to 1.80% (-1.80%).

Year-to-year growth patterns in quarterly production continued to slow and now have declined, ranging from a positive 2.43% in first-quarter 2015, to 0.36% in second-quarter 2015, to 0.12% in third-quarter 2015, to an annual decline of 1.62% (-1.62%) in fourth-quarter 2015 and a revised annual contraction of 1.60% (-1.60%) in first-quarter 2016.

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 28*). The level of headline production showed a topping-out process late in 2014, followed by a deepening downturn into first- and second-quarter 2015. Third-quarter 2015 showed some bounce, but activity in fourth-quarter 2015 and in first- and second-quarter 2016 turned down anew, dropping sharply into negative year-to-year growth and quarter-to-quarter growth, patterns never seen outside of what have become designated as formal recessions. Such faltering patterns of monthly, quarterly and annual decline last were seen in the depths of the economic collapse from 2007 into 2009.

Headline reporting for June 2016 took second-quarter 2016 production into year-to-year and quarter-to-quarter declines. Such was the third consecutive quarter-to-quarter and year-to-year quarterly declines, a pattern never seen outside of formal recessions in the 97-year history of the Fed's Index of Industrial Production. The quarterly contraction in second-quarter 2016 GDP also was the fifth quarterly contraction in the last six quarters

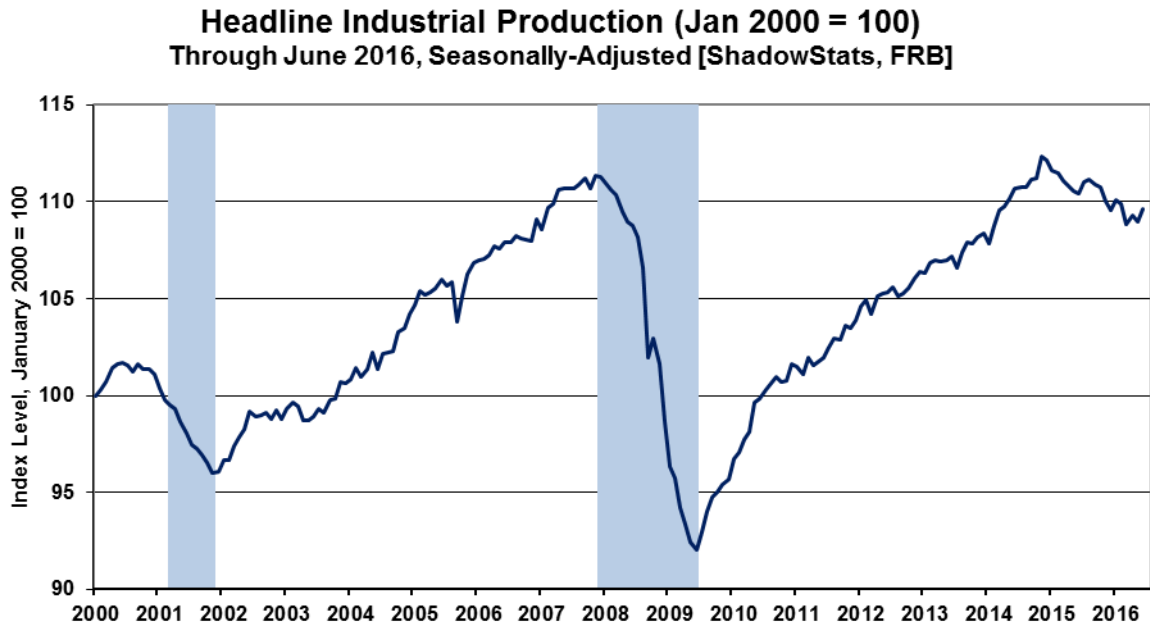
Graphs 1 and 2, which follow in this section, address reporting quality issues tied just to the overstatement of headline growth in the total series that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into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

Graph 1 shows official, headline industrial production reporting, but indexed to January 2000 = 100, instead of the Fed's formal index that is set at 2012 = 100. The 2000 indexing simply provides for some consistency in the series of revamped "corrected" graphics including real retail sales (see the following section), new orders for durable goods (see [Commentary No. 816](#)) and the GDP (see [Commentary No. 817](#)). It does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of *Graph 1* to *Graph 13* in the *Reporting Detail* section).

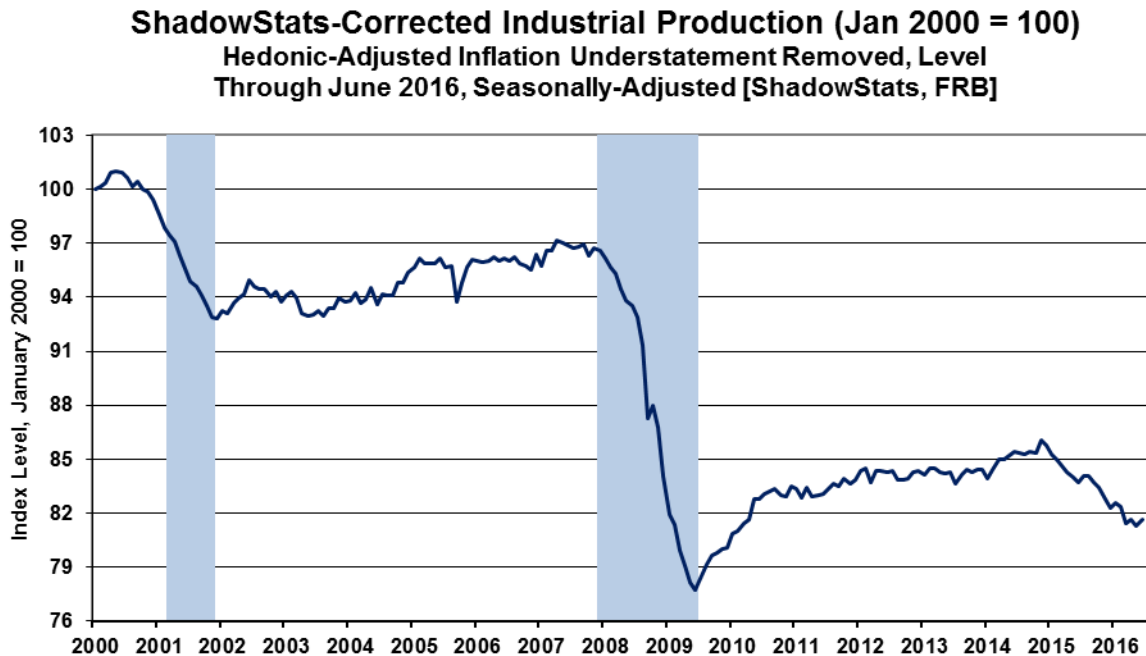
Graph 2 is a recast version of *Graph 1*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official industrial-production deflators used for headline reporting.

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

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



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



This “corrected” *Graph 2* shows some growth in the period subsequent to the official June 2009 trough in production activity, but that upturn has been far shy of the full recovery and the renewed expansion reported in official GDP estimation (again, see [Commentary No. 817](#) and [No. 777 Year-End Special](#))

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

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

Retail Sales (Real and Nominal)—June 2016—Auto Sales Gain Was Due to Downside May Revision. Headline “strong” nominal retail sales reporting for June 2016 and related revisions to May detail were suspect, just a week before the nominating conventions. Even so, the headline total nominal sales gains in May and June were not statistically significant.

While expectations had been for a monthly decline in auto sales—always a very heavily massaged number, despite the availability of reasonably complete detail—auto sales gained a headline 0.06%. That was due simply to a downside revision to May auto sales. Against what had been reported initially in May, headline June auto sales would have declined by 1.38% (-1.38%).

In like manner, net of prior-period revisions, the headline June nominal retail sales gain of 0.58% would have been 0.29%. Net of headline June CPI-U inflation, the headline inflation-adjusted June gain of 0.36% was just 0.08%, net of the boost from the downside prior-period downside revisions.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—June 2016. In the context of downside revisions to May and April 2016 activity, headline nominal Retail Sales for June 2016 rose 0.6%, against a downwardly revised 0.2% in May 2016. At the second decimal point, Retail Sales showed a statistically-insignificant, seasonally-adjusted monthly gain of 0.58%. Net of prior-period revisions, June sales rose by 0.29%. May 2016 nominal retail sales showed a statistically-insignificant, revised month-to-month gain of 0.21%, while April activity rose by a downwardly revised 1.21%.

June 2016 nominal year-to-year change was a statistically-significant increase of 2.72%, versus a downwardly-revised annual gain of 2.24% in May and a downwardly-revised April gain of 2.96%.

Real (Inflation-Adjusted) Retail Sales—June 2016. All the preceding numbers were before the effects of inflation. The initial monthly and annual inflation-adjusted real growth rates for June 2016 Retail Sales, and the trend for annualized second-quarter 2016 real change in retail sales follow, based on the coincident July 15th headline release of the June 2016 CPI-U (see the following section on the *CPI*).

Based on the headline seasonally-adjusted monthly CPI-U increases of 0.22% in June 2016, 0.22% in May and 0.41% in April, June 2016 real Retail Sales rose by 0.36%, following a negatively revised monthly change from a gain to a contraction of 0.01% (-0.01%) in May, and a downwardly-revised gain

of 0.81% in April. Net of prior-period revisions, real Retail Sale in June 2016 rose month-to-month by 0.08%, instead of the headline 0.36%. The levels of real-retail sales are plotted in *Graphs 29* and *31* in the Reporting Detail section

Intense Signal of Recession in Annual Real Growth. During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal has been in play since February 2015 (the “new” recession likely will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn.

Year-to-year, June 2016 real retail sales rose by 1.65%, versus a downwardly-revised 1.16% gain in May 2016 and a downwardly-revised 1.81% in April 2016. With annual real growth of 1.54% in second-quarter 2016, versus 1.62% in first-quarter 2016 and 1.61% in fourth-quarter 2015, the recession signal remains intense, consistent with an unfolding recession. *Graphs 30* and *32* in the *Reporting Detail* show the latest patterns of headline annual real growth.

Second-Quarter 2016 Annualized Real Growth Came in Below Early Trend, with First-Quarter Still Flat. Second-quarter 2016 real Retail Sales showed initial reporting of 3.30% annualized growth, down slightly from its early trend for 3.48% based on just April and May reporting. Such was against an unrevised estimate of annualized quarterly real growth 0.10%—effectively flat—in first-quarter 2016.

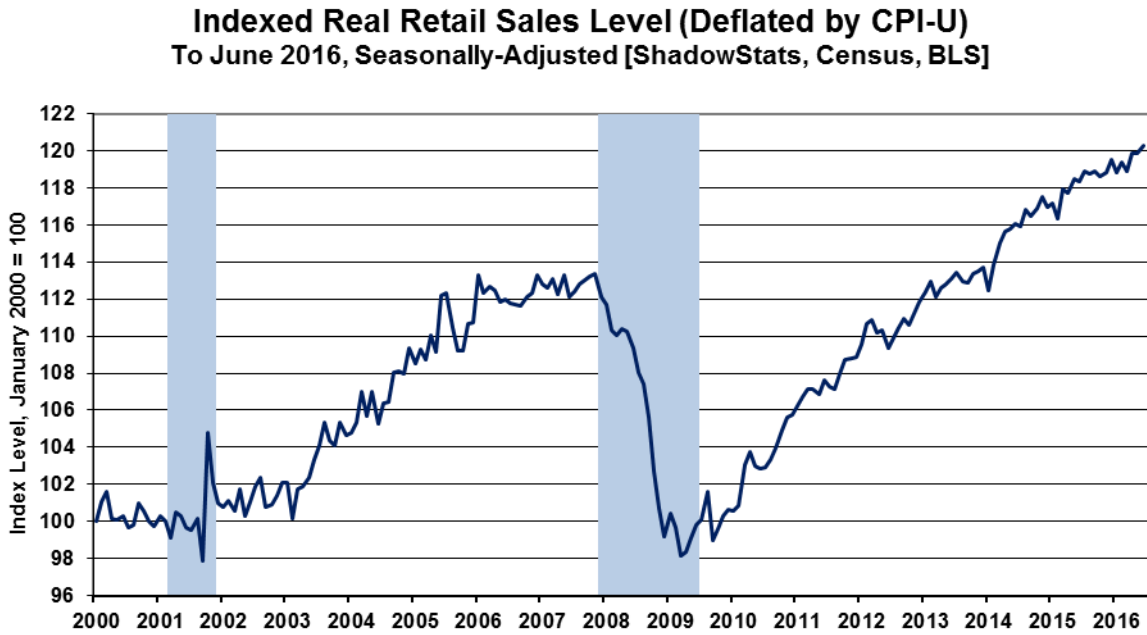
Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as last fully reviewed in [General Commentary No. 811](#) of June 10th. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer is unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending.

As official consumer inflation continues its upside climb in the year ahead, and as overall retail sales continue to suffer from the ongoing consumer liquidity squeeze—reflected partially by the general pattern of ongoing real earnings difficulties discussed in the *CPI* section—these data should continue trending meaningfully lower, in what should be recognized soon as a formal “new” recession.

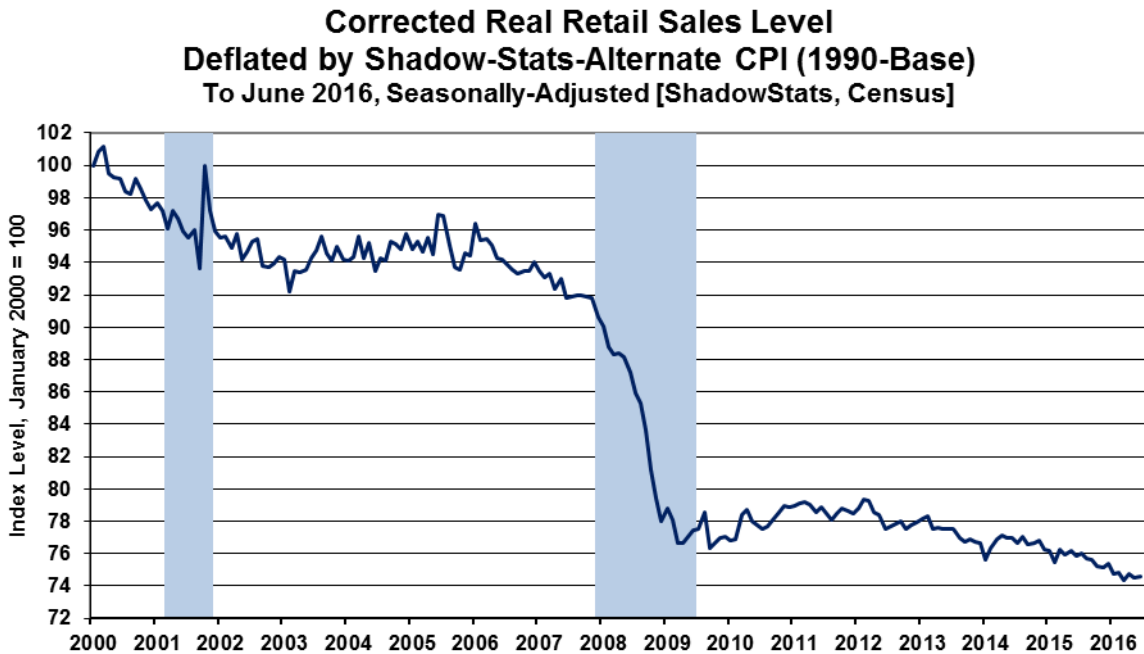
Corrected Real Retail Sales—June 2016. The apparent “recovery” of headline real retail sales shown in *Graph 3* (see also *Graph 29* in the *Reporting Detail*) generally continued into late-2014, although headline reporting turned down in December 2014, into first-quarter 2015, turned higher into the third-quarter 2015, slowed to a near-standstill in fourth-quarter 2015 and first-quarter 2016, with an uptick in second-quarter 2016. Nonetheless, headline real growth in retail sales continues to be overstated heavily, due to the understatement of the rate of CPI-U inflation used in deflating the retail sales series. Discussed more fully in *Chapter 9* of [2014 Hyperinflation Report—Great Economic Tumble – Second Installment](#) and [Public Commentary on Inflation Measurement](#), deflation by too-low an inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted economic growth.

Both of the accompanying graphs are indexed to January 2000 = 100.0 to maintain consistency in the series of graphs related to corrected inflation-adjustment (including the regular plots of the “corrected” industrial production index shown in the prior *Industrial Production* section, as “corrected” new orders for durable goods “corrected” GDP, also linked in the prior section.

Graph 3: Headline Real Retail Sales Level, Indexed to January 2000 = 100



Graph 4: "Corrected" Real Retail Sales Level, Indexed to January 2000 = 100



The first graph here reflects the official real retail sales series, except that it is indexed, instead of being expressed in dollars. The plotted patterns of activity and rates of growth are exactly same for the official series, whether the series is indexed or expressed in dollars, again, as is evident in a comparison of *Graph 3* with *Graph 29* in the *Reporting Detail* section.

Instead of being deflated by the CPI-U, the “corrected” real retail sales numbers—in *Graph 4*—use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation. With the higher inflation of the ShadowStats measure, the revamped numbers show a pattern of plunge and stagnation and renewed downturn. That pattern generally is consistent with consumer indicators such as real average weekly earnings (see the following CPI section, [Commentary No. 817](#), [No. 816](#) and [No. 811](#)), broad unemployment series (see [Commentary No. 819](#)) and most housing statistics such as Housing Starts detail (see [Commentary No. 815](#) and next week’s *Commentary No. 821*).

A topping out in late-2011 and early-2012 reverted to renewed decline in second-quarter 2012 in this series (*Graph 4*), which had been bottom-bouncing at a low-level plateau of economic activity since the economic collapse into 2009. The renewed contraction has trended into and deepened on a monthly basis throughout 2015, and now into second-quarter 2016, allowing for occasional and temporary upside blips.

Consumer Price Index (CPI)—June 2016—Headline Inflation Moved Higher with Gasoline Prices, but Still Was Hit by Negative Seasonal Adjustments. The headline June 2016 CPI-U monthly inflation of 0.2% came in on the low-side of expectations, largely due to continuing irregular and unstable seasonal adjustments to energy inflation. Where the general trend remained negative for those seasonal adjustments in the first half of the calendar year, moving into July and the third-quarter, the seasonal adjustments used in battering first-half energy prices, generally will reverse, boosting the monthly unadjusted gasoline prices in the months ahead.

June 2016 gasoline prices continued to rise (up by 4.05% for the month per the Department of Energy, up by 4.38% in June per the BLS). Yet, the BLS seasonal adjustments for June depressed adjusted gasoline prices enough to generate a headline monthly CPI-U gain of 0.22%, instead of what would have been 0.30%. Such remained well shy of common experience.

Discussed in other, recent CPI *Commentaries* (see [Commentary No. 793](#)), it is the unadjusted, not the seasonally-adjusted detail that tends to match consumer experience most closely, to the extent that these numbers come close to matching actual experience at all. On an unadjusted basis, monthly CPI-U rose by 0.33% in June 2016.

Separately, although official annual CPI-U inflation has been holding around 1.0%, year-to-year inflation is not and has not been quite as soft as indicated, when considered in the context of traditional CPI reporting and common experience. The ShadowStats-Alternate Inflation Measures showed annual inflation in June 2016 of 4.6%, based on 1990 methodologies, and 8.7%, based on 1980 methodologies.

CPI-U. The headline, seasonally-adjusted June 2016 CPI-U rose by 0.22% month-to-month. That followed an identical headline May monthly gain of 0.22% and an April increase of 0.41% month-to-month.

The adjusted headline June 2016 inflation gain was reduced by negative seasonal adjustments to the energy sector, but otherwise received effectively positive seasonal-adjustment contributions from the negative foods sector and positive “core” inflation. On an unadjusted basis, monthly June 2016 CPI-U rose by 0.33%, following unadjusted monthly gains of 0.41% in May and 0.47% in April.

Encompassed by the seasonally-adjusted monthly gain of 0.22% in June 2016 [up by an unadjusted

0.33%] in the headline CPI-U, June food inflation declined by a seasonally-adjusted 0.08% (-0.08%) [down by 0.15% (-0.15%) unadjusted], June energy inflation rose by a seasonally-adjusted 1.25% [up by an unadjusted 3.78%], while the adjusted “core” (ex-food and energy) inflation rate rose by 0.17% [up by 0.11% unadjusted].

Separately, core CPI-U inflation showed unadjusted year-to-year inflation of 2.23% in June, versus 2.24% in May 2016 and from 2.15% in April 2016.

Not seasonally adjusted, June 2016 year-to-year inflation for the CPI-U held at 1.01%, versus 1.02% in May 2016, and 1.13% in April 2016.

On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-U rose by 2.54% in second-quarter 2016, having declined by 0.31% (-0.31%) in first-quarter 2016. On an unadjusted, year-to-year basis, annual inflation by quarter was up by 1.05% in second-quarter 2016, versus 1.08% in first-quarter 2016.

For living in a not-seasonally-adjusted world, annualized quarterly inflation was 4.79% in second-quarter 2016, versus 0.26% in first-quarter 2016.

CPI-W. The June 2016 seasonally-adjusted, headline CPI-W, which is a narrower series and has greater weighting for gasoline than does the CPI-U, rose month-to-month by 0.21%, following monthly gains of 0.20% in May and 0.45% in April. On an unadjusted basis, the monthly CPI-W rose by 0.37% in June 2016, versus 0.43% in May 2016 and 0.53% in April 2016. Unadjusted, June 2016 annual CPI-W rose by 0.64%, versus 0.66% in May 2016 and 0.83% in April 2016.

On an annualized quarter-to-quarter basis, the seasonally-adjusted CPI-W rose by 2.58% in second-quarter 2016, having declined by 1.08% (-1.08%) in first-quarter 2016. On an unadjusted year-to-year basis, annual inflation by quarter was up by 0.71% in second-quarter 2016, versus by 0.79% in first-quarter 2016.

Chained-CPI-U. The headline C-CPI-U is not seasonally adjusted. June 2016 C-CPI-U annual inflation came in at 0.66%, versus 0.62% in May 2016 and 0.71% in April 2016.

Alternate Consumer Inflation Measures. The ShadowStats-Alternate Consumer Inflation Measures are constructed on top of the unadjusted CPI-U series. Adjusted to 1990 methodologies—the ShadowStats-Alternate Consumer Inflation Measure (1990-Base)—year-to-year annual inflation was roughly 4.6% in June 2016, versus 4.6% in May 2016 and 4.7% in April 2016. The June 2016 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, held at about 8.7% year-to-year, versus 8.7% in May 2016 and 8.8% in April 2016.

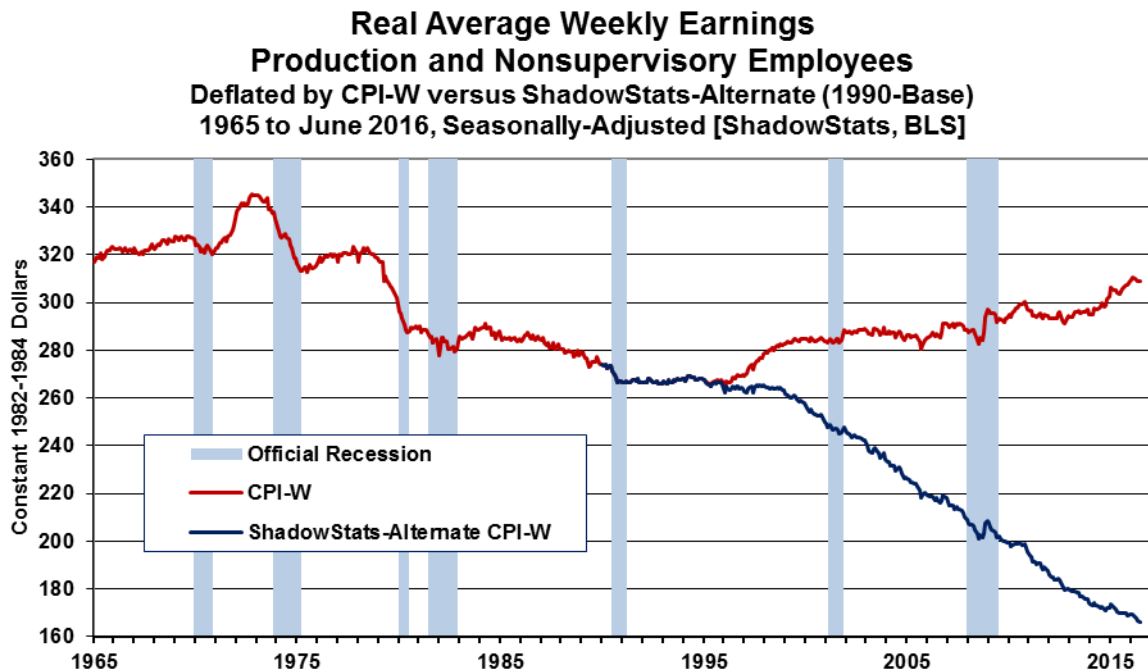
Real Average Weekly Earnings—June 2016—Second-Quarter Contraction. Deflated by inflation data released for the June 2016 CPI-W, real average weekly earnings contracted for the fourth consecutive month, and quarter-to-quarter for second-quarter 2016.

In the production and nonsupervisory employees category—the only series for which there is a meaningful history, real average weekly earnings in June 2016 declined by 0.03% (-0.03%), versus a revised, deeper monthly contraction of 0.16% (-0.16%) in May, and an unrevised monthly decline of

0.17% (-0.17%) in April. Those negative readings were sufficient to generate an annualized quarter-to-quarter contraction of 1.09% (-1.09%) in real average weekly earnings. The last quarter-to-quarter real contractions in this series were 0.46% (-0.46%) and 0.49% (-0.49%), respectively in third- and second-quarter 2015.

While these usually heavily revised and seasonally-adjusted monthly changes are without much, if any, meaning in the near-term, over the longer term and quarterly, and particularly the benchmarked trends tend to be of some substance. As with the BLS reporting tied to the nonfarm payrolls, the headline seasonally-adjusted data here are not comparable due to reporting issues with concurrent seasonal factor adjustments (see *Headline Distortions from Shifting Concurrent-Seasonal Factors* in [Commentary No. 819](#) and the discussion on reporting inconsistencies and distortions in the *Reporting Detail*).

Graph 5: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date



The preceding *Graph 5* plots the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much closer to common experience than the pattern suggested by the CPI-W. See the [Public Commentary on Inflation Measurement](#) for further detail.

Producer Price Index (PPI)—June 2016—Headline Goods Inflation Increased by 0.84%; Construction Inflation Rose by 0.09%; Profit Margins in the Dominant Services Sector Gained 0.45%; Aggregate PPI Rose by 0.54%. The aggregate monthly increase of 0.54% in June 2016 PPI was spread across gains in each of the major goods and services categories, except for the headline “core” (net of food and energy) goods sector, which showed an “unchanged” headline inflation rate for the month.

In June, the dominant services sector, which has nearly double the weighting of the goods sector, showed about half the headline inflation as the goods sector. Despite its light weighting in the PPI, construction inflation also showed a continuing pickup, with a seasonally-adjusted monthly gain in headline inflation of 0.09%, still not a happy signal for inflation-adjusted real construction spending.

Rising margins in “securities brokerage and dealing” and rising energy costs were the strongest inflation elements in the respective services and goods sectors. In the construction sector, where privately surveyed cost measures are calculated and published regularly, the headline annual inflation rate of 2.0% in June 2016 construction still was running roughly 100 to 200 basis points (1% to 2%) shy of real-world estimates.

Discussed in the *Inflation that Is More Theoretical than Real World?* section in the *Reporting Detail*, the conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily or meaningfully in this current version of the PPI. While, the dual measures are more meaningfully viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand—ShadowStats separates the analyses of those sectors in by sub-category—the aggregate headline series also is reviewed and covered with the headline reporting conventions of the Bureau of Labor Statistics (BLS).

June 2016 Headline PPI Detail. The seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for June 2016 was a gain of 0.54%, versus a monthly gain 0.36% in May. The impact of seasonal adjustments on the headline PPI reporting was negative, where the unadjusted monthly June measure gained 0.73%.

Not an extraordinarily stable series, the PPI index is revised each month, for one month four months back in time. With the headline June 2016 detail, for example, February 2016 inflation was revised higher, with the headline adjusted index revising from 109.6 to 109.7, and with the monthly headline inflation being revised from a monthly contraction of 0.36% (-0.36%) to a contraction of 0.27% (-0.27%). That change will tend to be passed along in next month’s revisions to March 2016.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in June 2016 was as gain of 0.27%, following an annual decline in May 2016 of 0.09% (-0.09%). Unadjusted February 2016 annual PPI inflation revised from “unchanged” at 0.00% to a gain of 0.09%.

For the three major subcategories of June 2016 Final Demand PPI, headline monthly Goods inflation rose by 0.84%, Services inflation gained 0.45% (rounds to 0.4% at the first decimal point) and Construction inflation rose by 0.09%.

Final Demand Goods (Weighted at 33.60% of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in June 2016 rose by 0.84%, up from a 0.66% gain in May. There was negative impact on the aggregate headline June

reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, June Final Demand Goods inflation also rose by 1.12% for the month. Unadjusted, year-to-year goods inflation in June 2016 declined by 2.16% (-2.16%), having declined in May 2016 declined by 2.63% (-2.63%).

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

- “Foods” inflation (weighted at 5.56% of the total index) rose month-to-month in June 2016 by 0.87%, having gained by 0.35% in May. Seasonal adjustments were a negative factor for the June monthly change, which was up by 1.12% unadjusted. Unadjusted and year-to-year, annual June 2016 foods inflation declined by 2.25% (-2.25%), where May 2016 had declined on an annual basis by 2.61% (-2.61%).
- “Energy” inflation (weighted at 5.23% of the total index) rose by 4.07% in June 2016, versus a gain of 2.79% in May. Seasonal adjustments were a negative factor for the June monthly change, with unadjusted monthly energy inflation rising by 5.81%. Unadjusted and year-to-year, the June 2016 annual contraction in energy prices narrowed to 11.41% (-11.41%), versus an annual decline of 14.60% (-14.60%) in May 2016.
- “Less foods and energy” (“Core” goods) monthly inflation (weighted at 22.81% of the total index) was “unchanged” at 0.00% in June 2016, versus a gain of 0.27% in May. Seasonal adjustments were neutral for monthly core inflation, with an unadjusted monthly change also at 0.00%. Unadjusted and year-to-year, June 2016 was up by 0.45%, versus an annual gain of 0.73% in May 2016.

Final Demand Services (Weighted at 64.32% of the Aggregate Index). Headline monthly Final Demand Services inflation rose by 0.45% (rounds to 0.4% at the first decimal point) in June 2016, having gained 0.18% in May. The overall seasonal-adjustment impact on headline June services inflation was neutral, with an unadjusted monthly gain of 0.45% (0.4%). Year-to-year, unadjusted June 2016 services inflation rose to 1.55% (rounds to 1.5%) from 1.37% in May 2016.

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

- “Services less trade, transportation and warehousing” inflation, or the “Other” category (weighted at 38.97% of the total index), rose by 0.36% in June 2016, having declined by 0.18% (-0.18%) in May. Seasonal-adjustment impact on the adjusted June detail was negative, where the unadjusted monthly reading was a gain of 0.45%. Unadjusted and year-to-year, June 2016 “other” services inflation was 1.47%, versus 1.29% in May 2016.
- “Transportation and warehousing” inflation (weighted at 4.99% of the total index) gained month-to-month in June 2016 by 0.53%, having declined by 0.62% (-0.62%) in May. Seasonal adjustments had negative impact on the headline June gain, where the unadjusted monthly reading had been an increase of 1.16%. Unadjusted and year-to-year, June 2016 transportation inflation fell by 2.49% (-2.49%), following an annual decline of 2.94% (-2.94%) in May 2016.
- “Trade” inflation (weighted at 20.36% of the total index) rose by 0.70% in the month of June 2016, having gained 1.25% (rounds to 1.2%) in May. Seasonal adjustments had a positive impact here, where unadjusted monthly inflation gained 0.44% in June. Unadjusted and year-to-year, June 2016 trade inflation rose by 2.79%, having gained 2.43% in May 2016.

Final Demand Construction (Weighted at 2.08% 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 in June 2016 rose by 0.09%, the same as in May. The impact of seasonal factors on the June reading was neutral, where the unadjusted monthly change also was a gain of 0.09%. On an unadjusted basis, year-to-year construction inflation rose by 1.96% in June 2016, versus 1.87% in May 2016.

Further inflation specifics on construction sub-categories and new orders for durable are discussed in the *Reporting Detail*.

[The Reporting Detail section contains significant additional analysis and graphs.]

HYPERINFLATION WATCH

GOLD, DOLLAR GRAPHS AND THE FOMC

The U.S. Dollar Remains the Primary Point of Vulnerability for the Global Financial Markets and System. Irrespective of near-term social or political upheaval around the globe, terrorist attacks or disintegrating trade blocs and currency unions, the big issue facing the global financial system remains the inability of the Federal Reserve and the U.S. government to stabilize the domestic economy, the domestic banking system and the federal government's fiscal operations.

The U.S. economy is tanking quickly, with sharply negative implications for areas ranging from banking-system stresses and U.S. Treasury funding needs, to the financial markets. Impact on the U.S. presidential race also should be significant. The first three issues, the Federal Reserve likely will be forced to address with some form of quantitative easing (see [Commentary No. 818](#)).

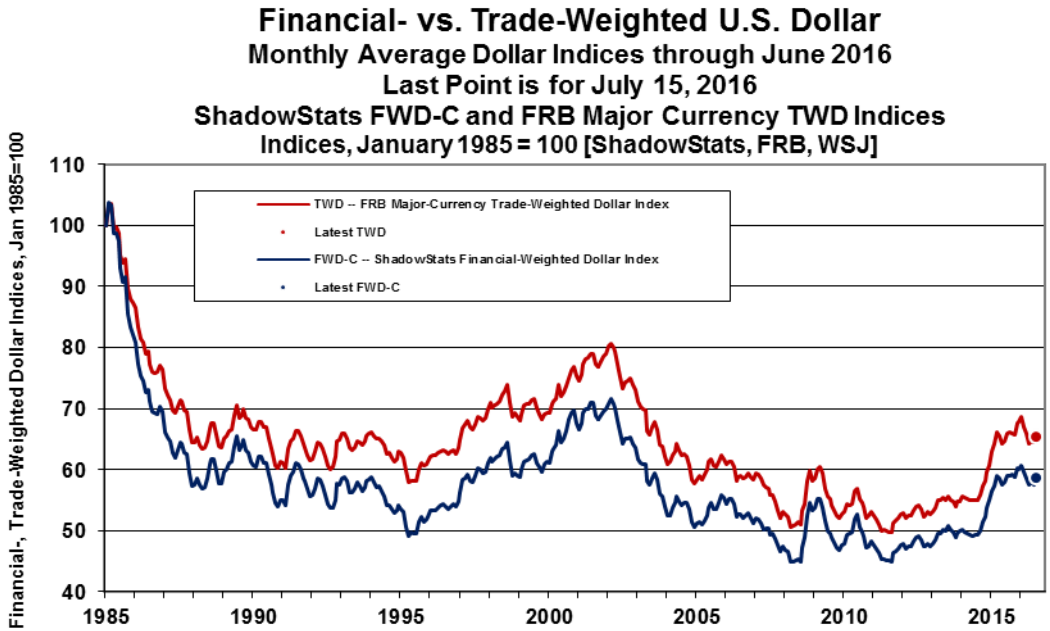
The U.S. central bank gave up its other options back in 2008, when in it moved to maintain the current banking system at all costs. In response, the world increasingly should be dumping U.S. Treasuries. Intensifying weakness in the U.S. dollar should result in a self-feeding cycle of flight from the dollar and dumping the Treasuries, as sovereign treasuries look to self-defense in increasingly unstable circumstances.

The more troubled the U.S. economy and the more intense will be the selling pressure on the U.S. currency, the more difficult circumstances will become for the U.S. equity markets. The broad impact

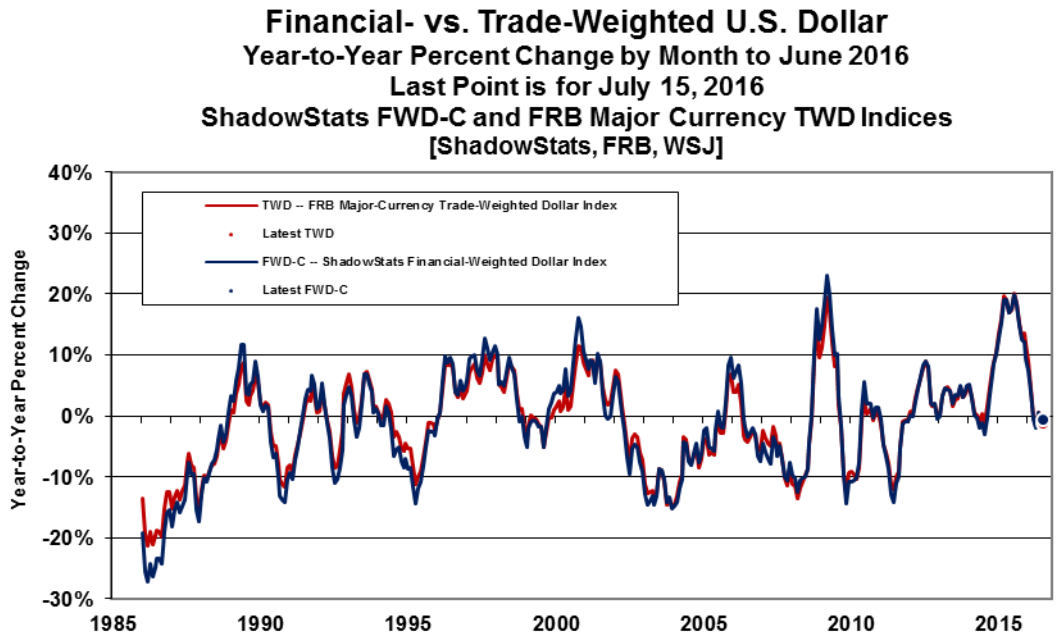
from weakness in the U.S. dollar should be seen in higher domestic inflation, including rising oil prices, as well as continued and rapidly increasing flight to the precious metals of gold and silver.

Monthly plots follow of the U.S. Dollar (*Graphs 6 and 7*), along with the three gold graphs (*Graphs 8, 9 and 10*), updated through end-of-day New York prices for July 15th. Those prices reflected some late-day movement generated by news of the attempted coup d'état in Turkey, in what otherwise has been highly volatile trading in recent weeks.

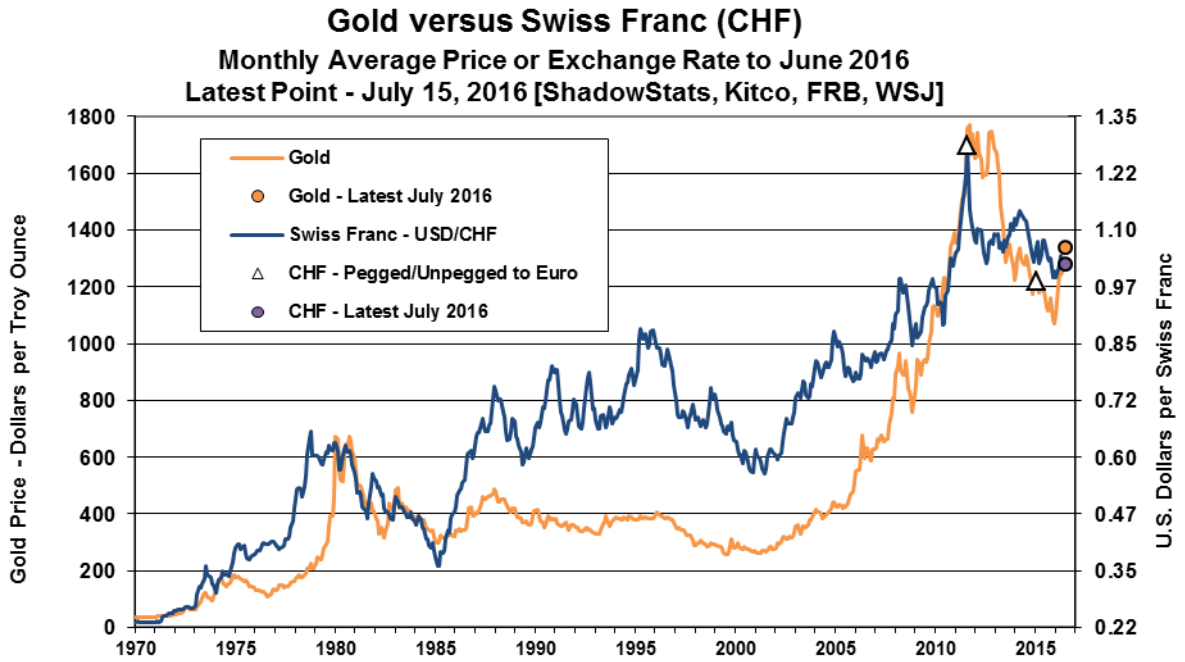
Graph 6: Financial- versus Trade-Weighted U.S. Dollar



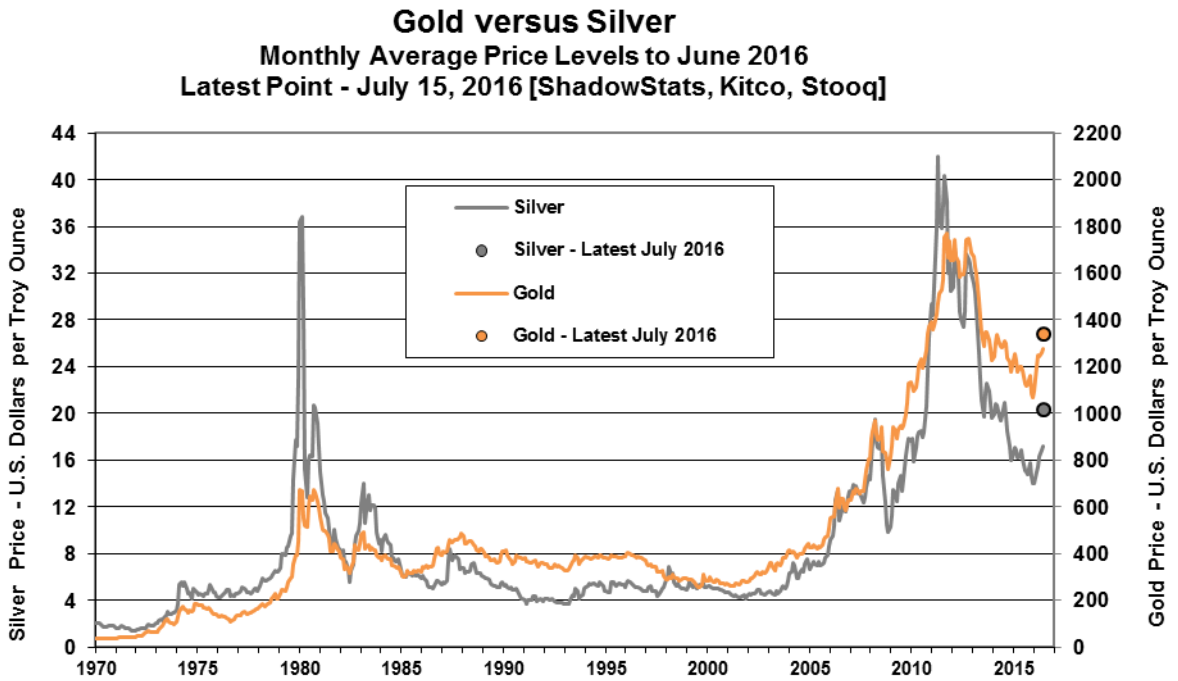
Graph 7: Year-to-Year Change, Financial- versus Trade-Weighted U.S. Dollar



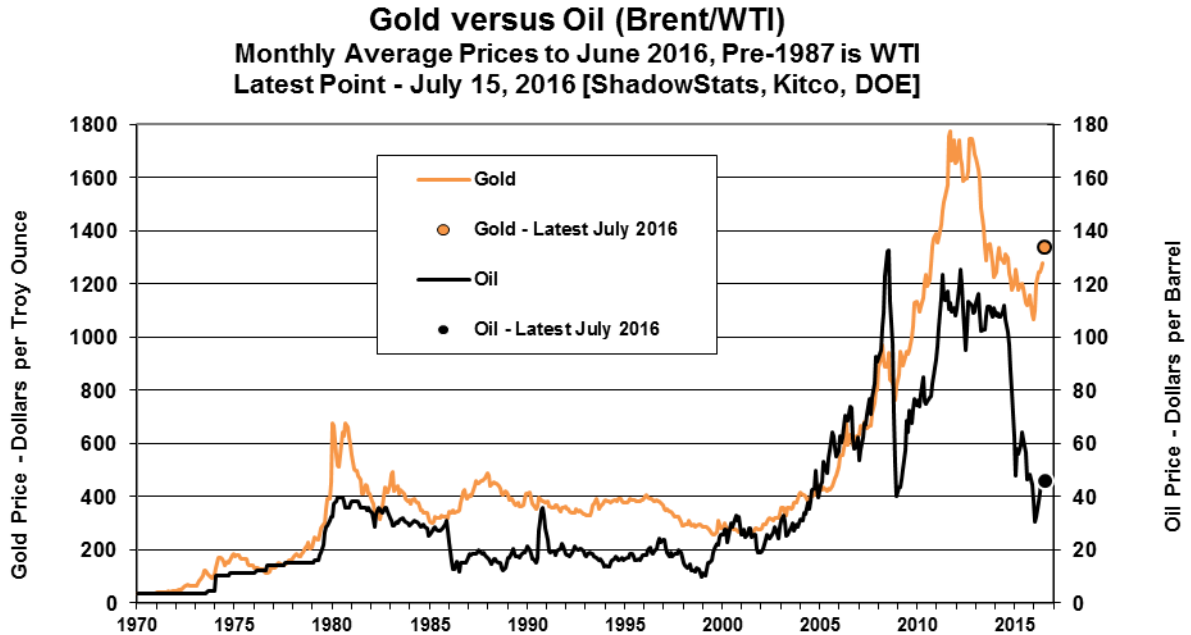
Graph 8: Gold versus the Swiss Franc



Graph 9: Gold versus Silver



Graph 10: Gold versus Oil



Circumstances here will be addressed in the pending *Special Commentary* and as the economic, financial, political and central-banking issues continue to unfold.

—Always happy to talk – John Williams (707) 763-5786.

REPORTING DETAIL

INDEX OF INDUSTRIAL PRODUCTION (June 2016)

Intensifying “New” Recession Signal. Headline June 2016 industrial production jumped by 0.6% for the month, in the context of downside revisions to the levels of prior-period reporting. Those revisions helped in particular to boost headline monthly manufacturing by 0.4%. Production also was spiked by a regularly volatile and reversible 2.4% monthly gain in utilities, which is a common artefact of

unseasonable (too hot) weather. Separately boosting production, the second month of a dead-cat bounce in coal production spiked the mining sector by 0.2%.

With June 2016 reporting in place, however, second-quarter 2016 total industrial production fell into both annual and quarterly contractions. Such was the circumstance for the third consecutive quarter, a pattern never seen outside of formal recessions in the 97-year history of the Federal Reserve's Index of Industrial Production, which goes back to 1918 (1919 in terms of year-to-year growth rates). Suggested in the opening paragraphs of the *Opening Comments*, the U.S. economy has entered a "new" recession, and formal recognition of same remains likely, following shortly after the July 29th GDP benchmark revisions and the accompanying initial estimate of second-quarter 2016 GDP. That circumstance will be reviewed in the next *Commentary No. 821* (July 19th).

An overriding issue that has continued to stymie policies of the Fed is that the U.S. economy never really recovered from the "2007 Recession." The unfolding "new" downturn remains no more than another down-leg in an economic collapse that began to show itself in 2005 and 2006 (see [No. 777 Year-End Special Commentary](#)). In the post-benchmark revision era for Industrial Production (see [Commentary No. 796-A](#) for specifics), the headline (not the ShadowStats-corrected) series recovered its pre-recession high only in November 2014, and it has been in fairly-consistent monthly decline ever since, falling month-to-month in 14 out of the 19 subsequent months. The headline "recovery" in November 2014 production likely was a gimmick. Nonetheless, headline June 2016 aggregate industrial production level stood at 2.39% (-2.39%) below that one-month recovery high, and was 1.51% (-1.51%) below its pre-recession peak of November 2007.

Separately, the dominant manufacturing sector (78.48%) of industrial production never recovered its pre-recession peak of December 2007 and currently is down by 6.22% (-6.22%) from that level as of June 2016. Manufacturing also just contracted quarter-to-quarter, at an annualized pace of 1.01% (-1.01%) in second-quarter 2016, despite the headline surge in June automobile manufacturing.

Headline Industrial Production—June 2016. The Federal Reserve Board released its first estimate of seasonally-adjusted, June 2016 industrial production on July 15th. In the context of the significantly-negative, April 1st benchmark revisions (see [Commentary No. 796-A](#)) and continued prior-period revisions with subsequent headline reporting through the current June 2016 detail, the monthly gain in June production was 0.60%. That was against a revised, narrowed monthly contraction in May of 0.30% (-0.30%) [previously down by 0.42% (-0.42%)], a downwardly-revised gain of 0.45% [previously up by 0.57%, initially up by 0.66%] in April, and a minimally revised contraction of 0.97% (-0.97%) [previously down by 0.98% (-0.98%), 0.87% (-0.87%) and initially by 0.60% (-0.60%)] in March 2016.

Net of prior-period revisions, June 2016 rose by 0.56%, instead of the headline 0.60% gain.

Detailed by major industry group (see *Graphs 13, 15, 20* and *22*), the headline June 2016 monthly aggregate production increase of 0.60% [a May 2016 decline of 0.30% (-0.30%)] was composed of a monthly June gain of 0.40% [a May decline of 0.28% (-0.28%)] in manufacturing activity; a June gain of 0.17% [a May gain of 0.30%] in mining activity (including oil and gas production); and a June gain of 2.42% [a May decline of 0.90% (-0.90%)] in utilities activity.

Year-to-year change in June 2016 production was a decline of 0.69% (-0.69%), following a revised, deeper annual decline in May 2016 of 1.44% (-1.44%) [previously down by 1.40% (-1.40%)], a revised,

deeper annual decline of 1.38% (-1.38%) [previously down by 1.22% (-1.22%), initially down by 1.07% (-1.07%)] in April 2016, and a deeper annual decline of 2.05% (-2.05%) [previously 2.01% (-2.01%), 1.94% (-1.94%), and initially down by 2.03% (-2.03%)] in March 2016.

Quarterly and Annual Production Contractions. Annual growth in aggregate production held in negative territory for the tenth straight month, again, down by 0.69% (-0.69%) in June 2016, with second-quarter 2016 showing quarter-to-quarter and annual contractions for the third consecutive quarter. Those patterns of activity are unprecedented outside of formal recessions. With full quarterly reporting in hand, second-quarter 2016 production contracted year-to-year by 1.17% (-1.17%), and quarter-to-quarter by 1.03% (-1.03%).

Going back a year, first-quarter 2015 industrial production contracted at an annualized quarterly pace of 1.85% (-1.85%), followed by a second-quarter 2015 contraction of 2.75% (-2.75%), with a third-quarter 2015 production gain of 1.53%, followed by a fourth-quarter 2015 contraction of 3.33% (-3.33%). The first-quarter 2016 annualized quarterly decline deepened to 1.80% (-1.80%) [previously 1.62% (-1.62%), 1.60% (-1.60%) and initially down by 2.24% (-2.24%)].

Year-to-year growth patterns in quarterly production continued to slow and now have declined, ranging from a positive 2.43% in first-quarter 2015, to 0.36% in second-quarter 2015, to 0.12% in third-quarter 2015, to an annual decline of 1.62% (-1.62%) in fourth-quarter 2015, and a revised annual contraction of 1.60% (-1.60%) [previously down by 1.55% (-1.55%), initially 1.70% (-1.70%)] in first-quarter 2016.

Production Graphs. The regular two sets of plots for 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 28*).

Graphs 11 and *12*, and *Graphs 13* and *14* show headline industrial production activity to date. *Graph 12* shows the monthly year-to-year percent change in the aggregate series, in historical context since World War II. With the headline annual decline in monthly production currently at 0.69% (-0.69%) in June 2016, and with headline annual contractions in place for the last ten months, the pattern is one that never has been seen outside of formal recessions.

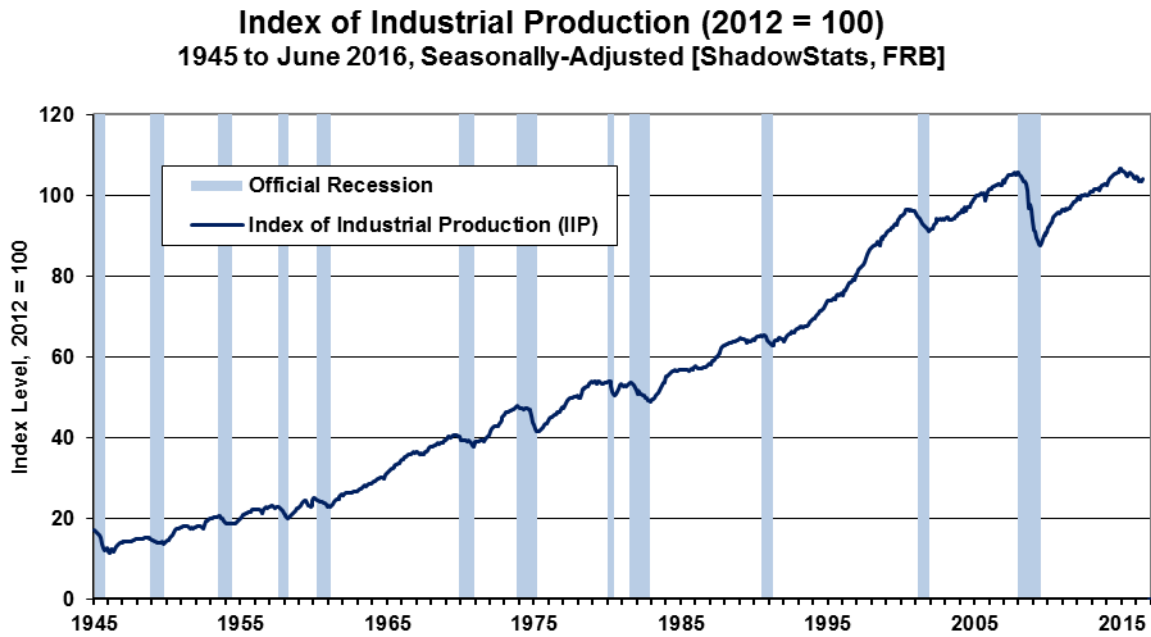
Graph 11 shows the monthly level of the production index post-World War II, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015, with a bounce in third-quarter 2015, followed by renewed and deeper contractions in fourth-quarter 2015 and first- and second-quarter 2016. Such patterns of monthly and quarterly and annual declines were seen last in the economic collapse into 2009. *Graphs 13* and *14* show the same series in near-term detail, beginning in January 2000.

Seen most clearly in *Graph 14*, the pattern of year-to-year activity dipped anew in 2013, again, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, now turning sharply negative, again, as seen only in formal recessions. Year-to-year growth remains well off the recent relative peak for the series, which was 8.48% in June 2010, going against the official June 2009 trough of the economic collapse. Indeed, as shown in *Graph 12*, the June 2009 (the end of second-quarter 2009) year-to-year contraction of a 15.40% (-15.40%) was the steepest annual decline in production since the shutdown of wartime production following World War II.

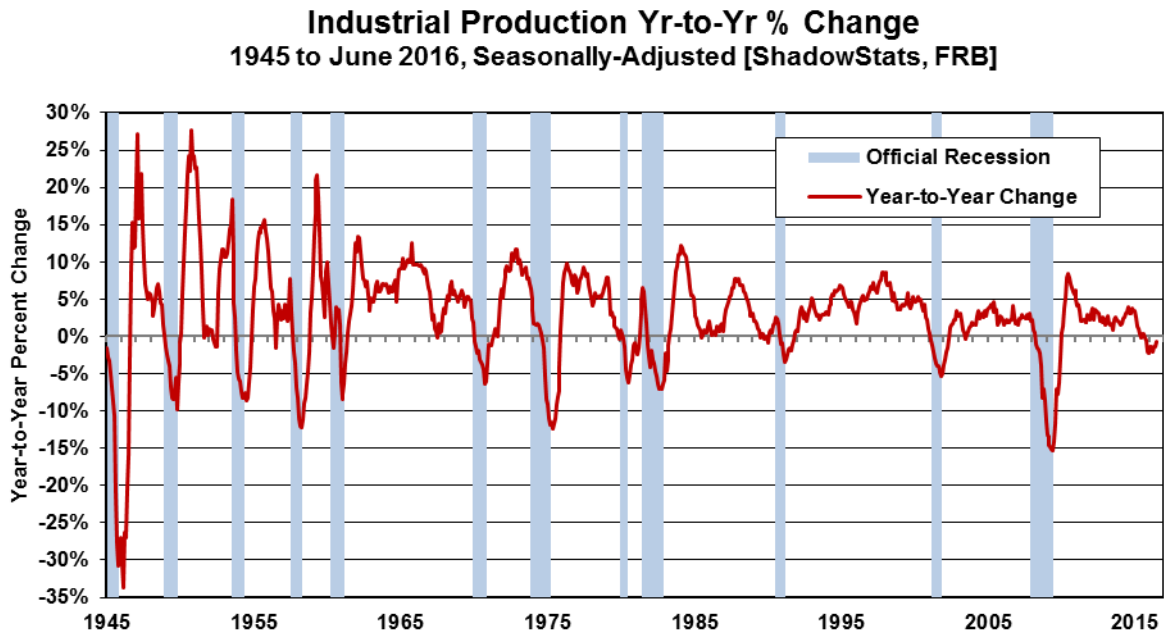
Although now-faltering official production levels had moved higher since the June 2009 trough, corrected for the understatement of inflation used in deflating portions of the industrial production index (see the *Opening Comments* section, *Graph 2*) the series has shown more of a pattern of stagnation 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 already neutered of any inflation impact—contracted in both first- and second-quarter 2015, with monthly activity moving consistently lower, again, following a third-quarter increase. The “corrected” series has done the same but remains well shy of ever reflecting a formal recovery.

[Graphs 11 to 16 begin on the following page]

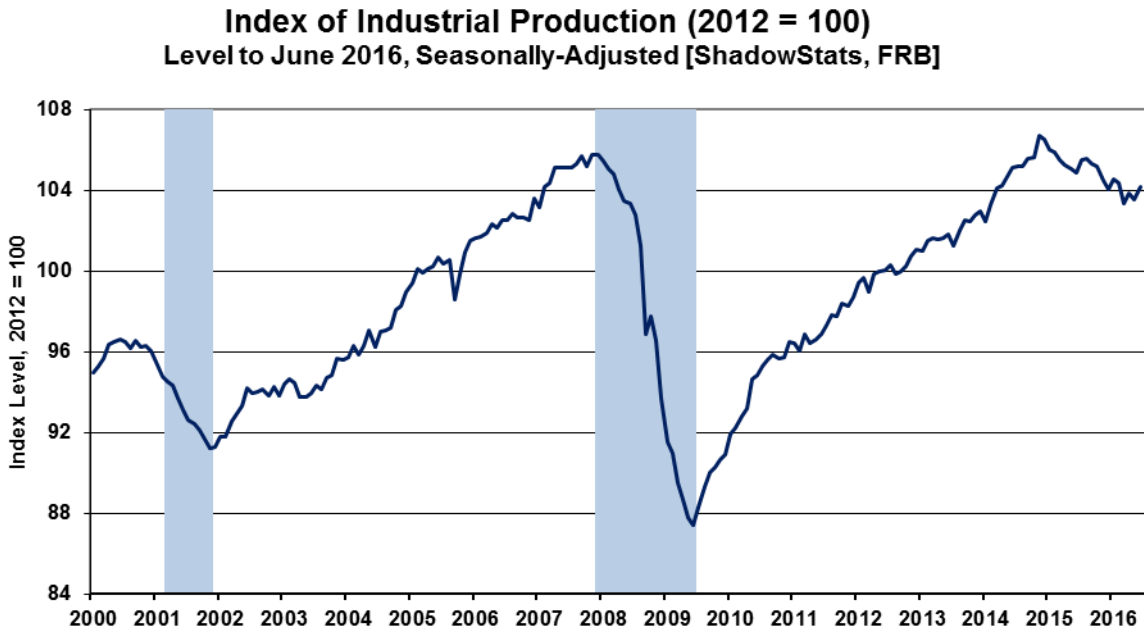
Graph 11: Index of Industrial Production (Aggregate) since 1945



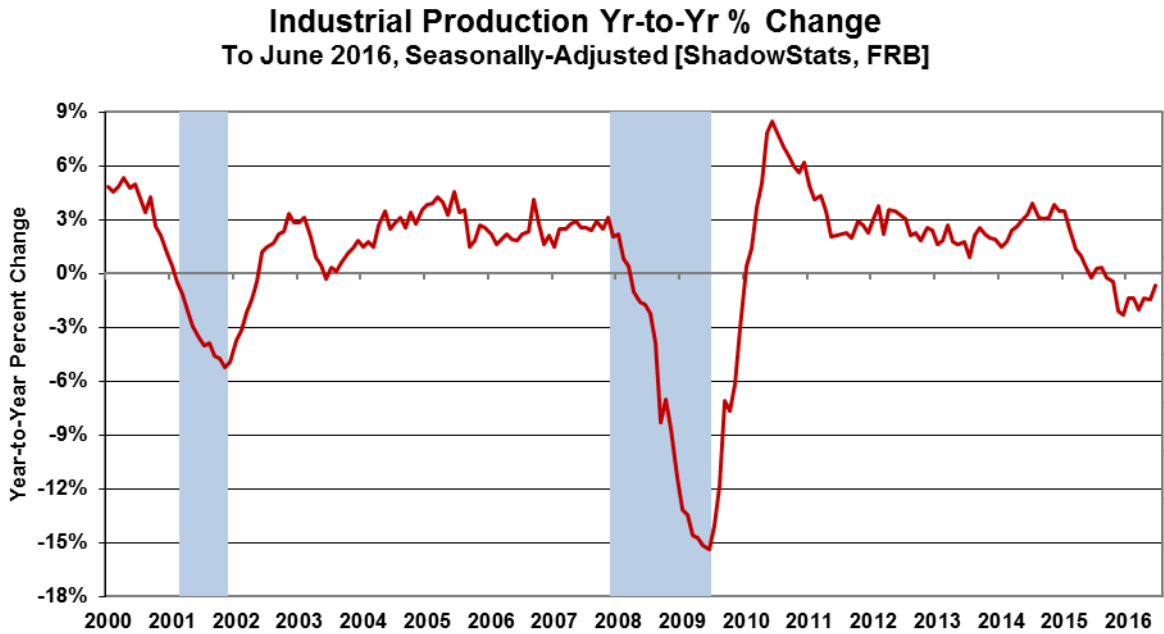
Graph 12: Industrial Production, Year-to-Year Percent Change since 1945



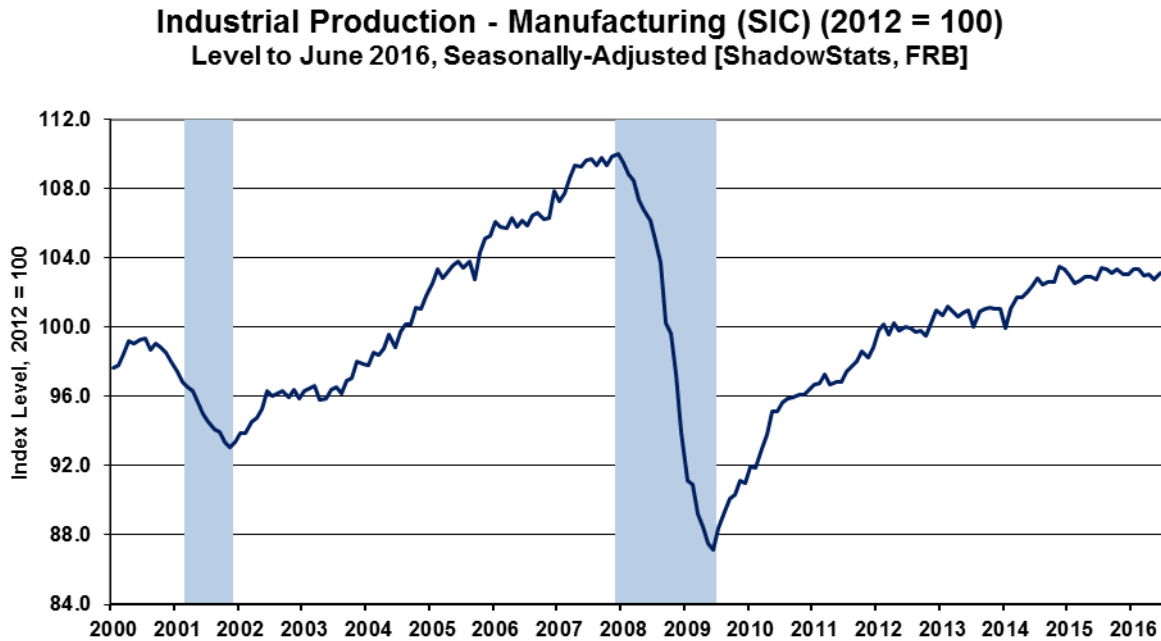
Graph 13: Index of Aggregate Industrial Production since 2000



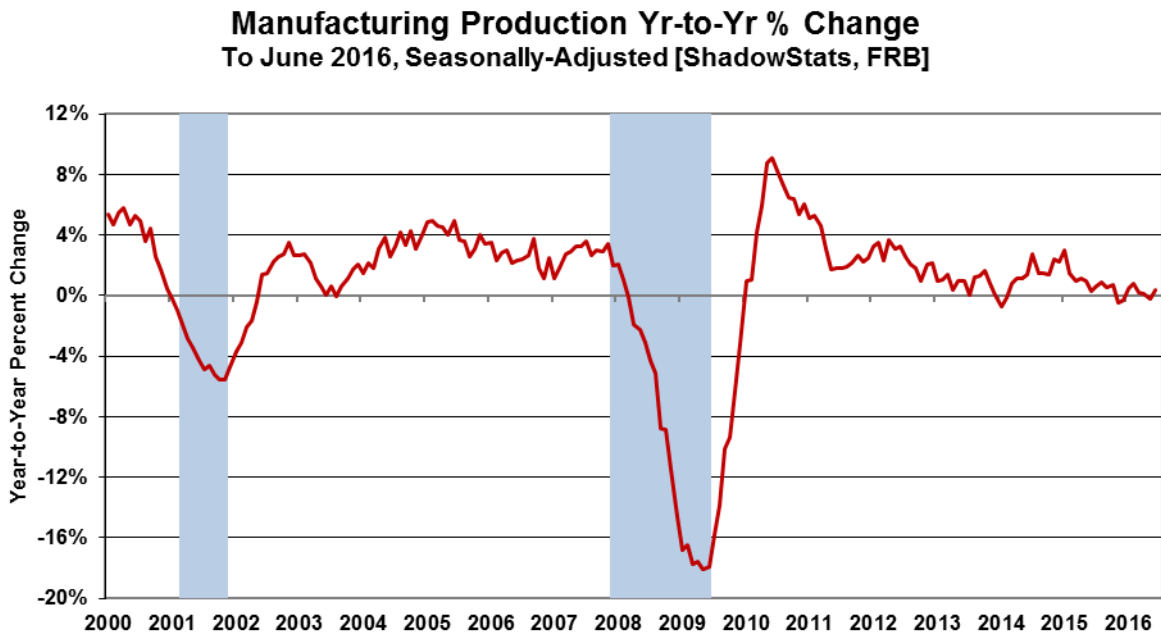
Graph 14: Aggregate Industrial Production, Year-to-Year Percent Change since 2000



Graph 15: Industrial Production - Manufacturing (78.48% of the Aggregate in 2015)



Graph 16: Industrial Production - Manufacturing, Year-to-Year Percent Change Since 2000



Drilling Down into the June 2016 U.S. Industrial Production Detail. Graphs 13, 15, 20 and 22 show headline reporting of industrial production and its major components. The broad, aggregate index (Graph 13) contracted in both first- and second-quarter 2015, with a third-quarter 2015 bounce, followed by

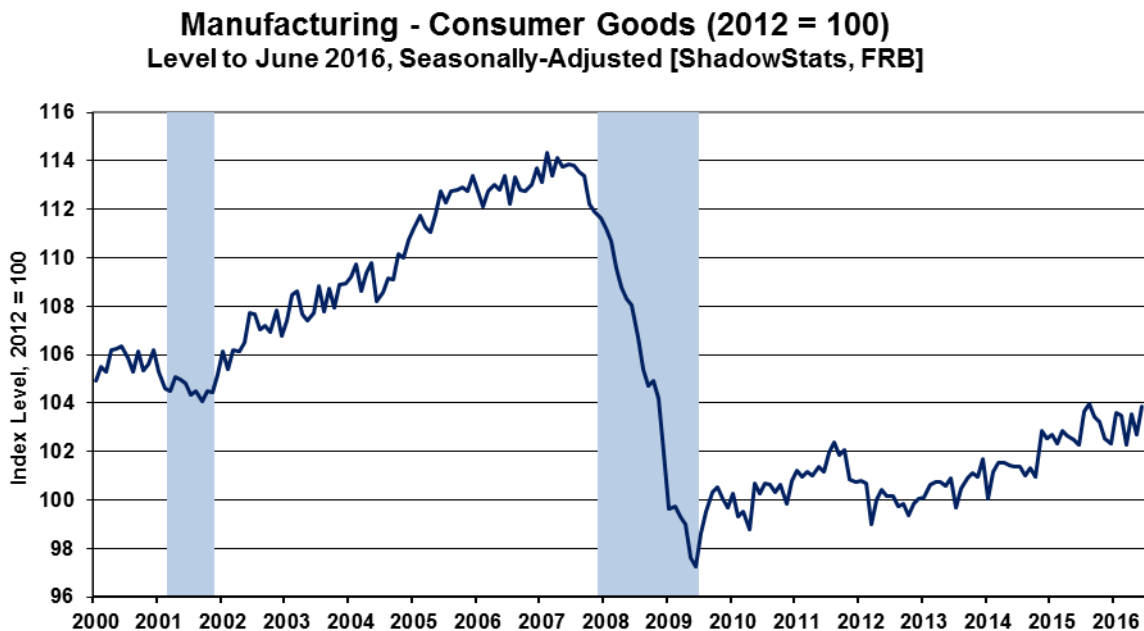
ongoing, consecutive quarterly and annual contractions in fourth-quarter 2015, first-quarter 2016 and second-quarter 2016. Such circumstances simply are not seen outside of recessions, discussed earlier.

In headline June 2016 reporting, each of the three major industry groups, manufacturing, mining and utilities showed a monthly gain, as reflected in *Graphs 15, 20 and 22*, respectively. Where manufacturing was boosted by downside, prior-period revisions, and utilities jumped due to one-time weather distortions, the gain in mining continued to reverse a recent downtrend. Mining showed a second straight monthly gain, albeit minimal, having been in decline since August 2015. That reflected a second monthly upturn in coal production, with relatively flat oil and gas extraction, drilling and gold and silver mining.

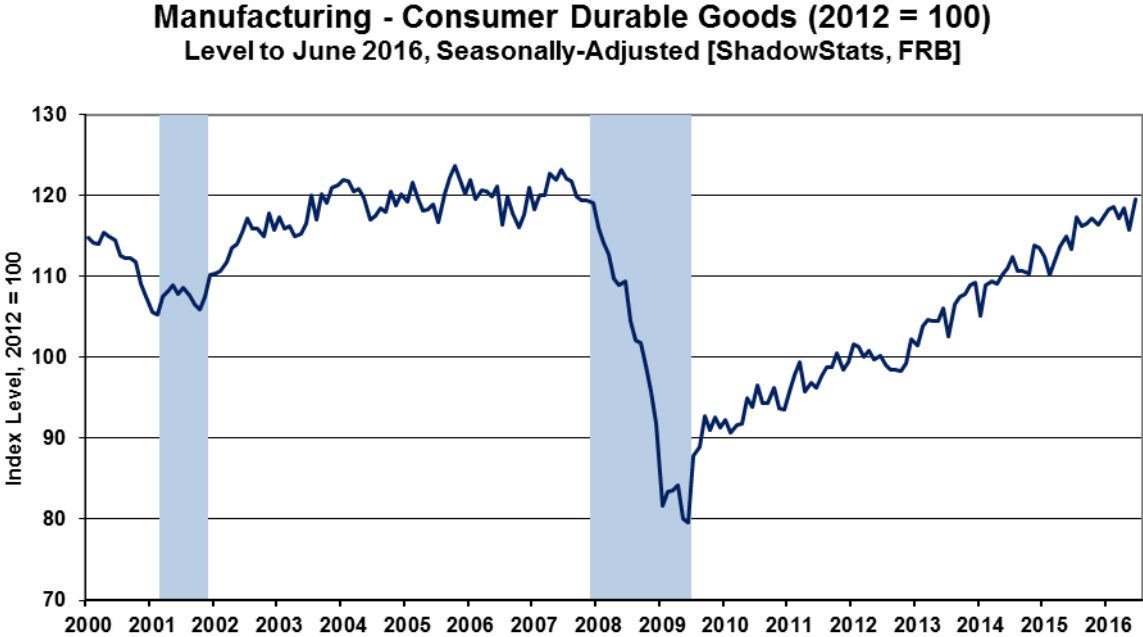
Graph 15 of the dominant manufacturing sector showed a month-to-month gain of 0.40% in June 2016, which was a gain of 0.35% net of prior-period revisions. The headline detail was against a narrowed monthly contraction of 0.28% (-0.28%) [previously down by 0.40% (-0.40%)] in May. The series remains down by 6.22% (-6.22%) from reclaiming its pre-recession high of December 2007. *Graph 16* reflects annual growth patterns in manufacturing, which have been fluttering at low levels since an initial bounce off the 2009 trough, turning up year-to-year by 0.39% in June 2016, versus a deeper annual decline of 0.20% (-0.20%) [previously down by 0.15% (-0.15%)] in May 2016.

The story with consumer goods remains bleak, in line with troubled real retail sales, discussed in the next section, and irrespective of the unsustainable and heavily revised monthly gains in auto sales and production. Seen in *Graphs 17 to 18*, total consumer goods have remained in low-level stagnation since the economic collapse, with all the series showing relative monthly gains for June 2016, slightly more than offsetting the declines in May, up respectively in the latest monthly detail by 1.13% for total consumer goods, with durables up by 3.42% and nondurables up by 0.41%, .

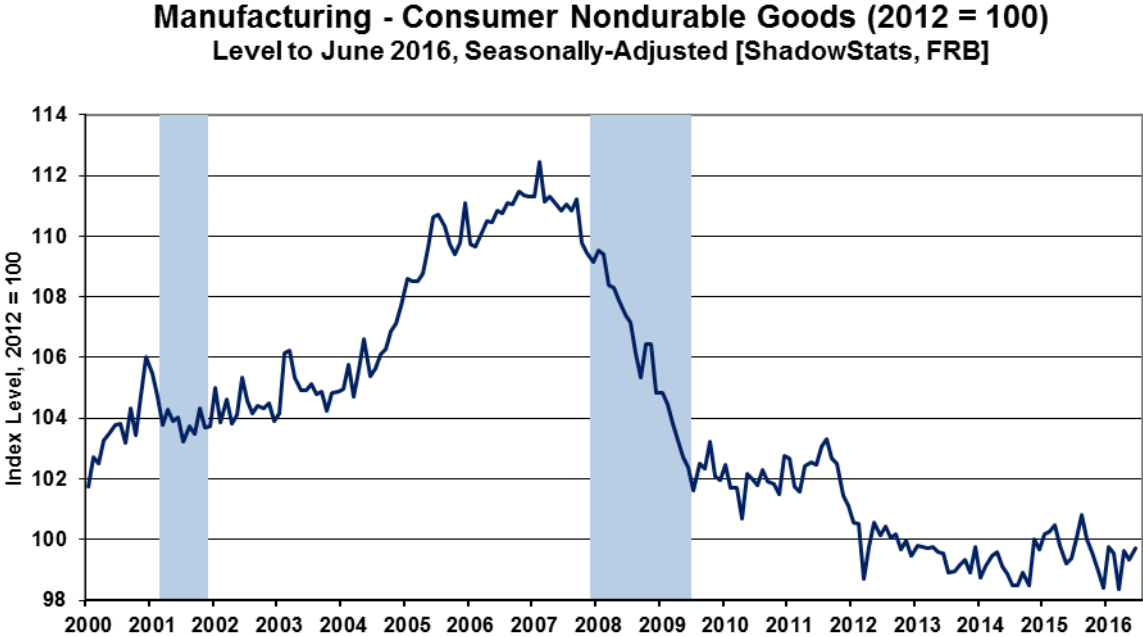
Graph 17: Consumer Goods (27.08% of the Aggregate in 2015)



Graph 18: Durable Consumer Goods (6.36% of the Aggregate in 2015)

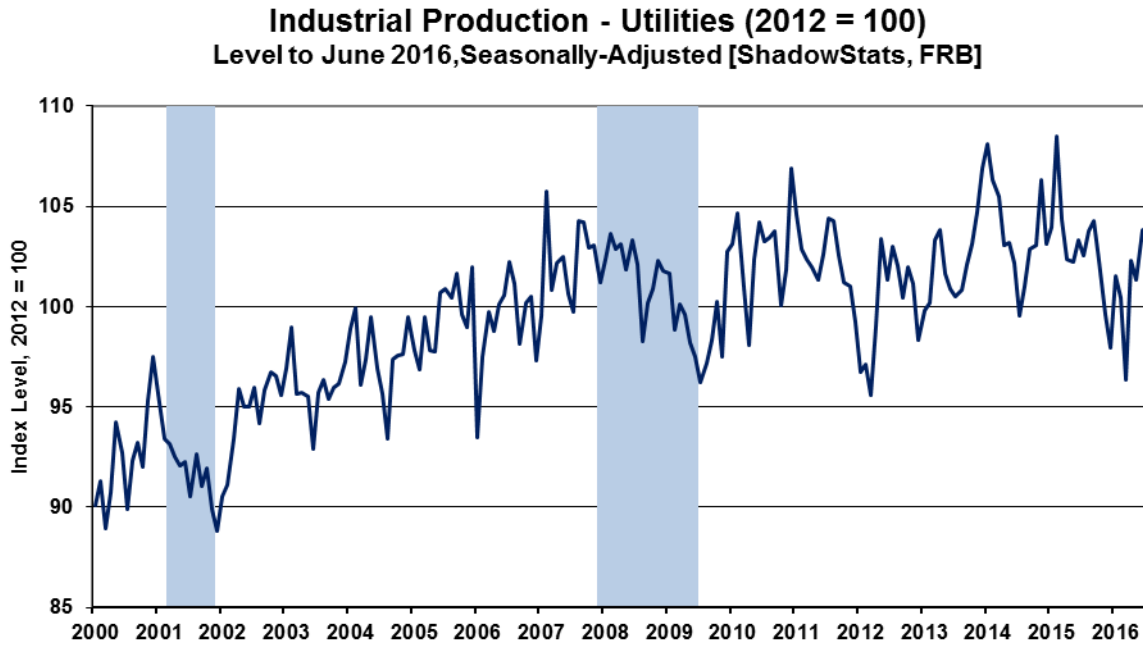


Graph 19: Nondurable Consumer Goods (20.73% of the Aggregate in 2015)

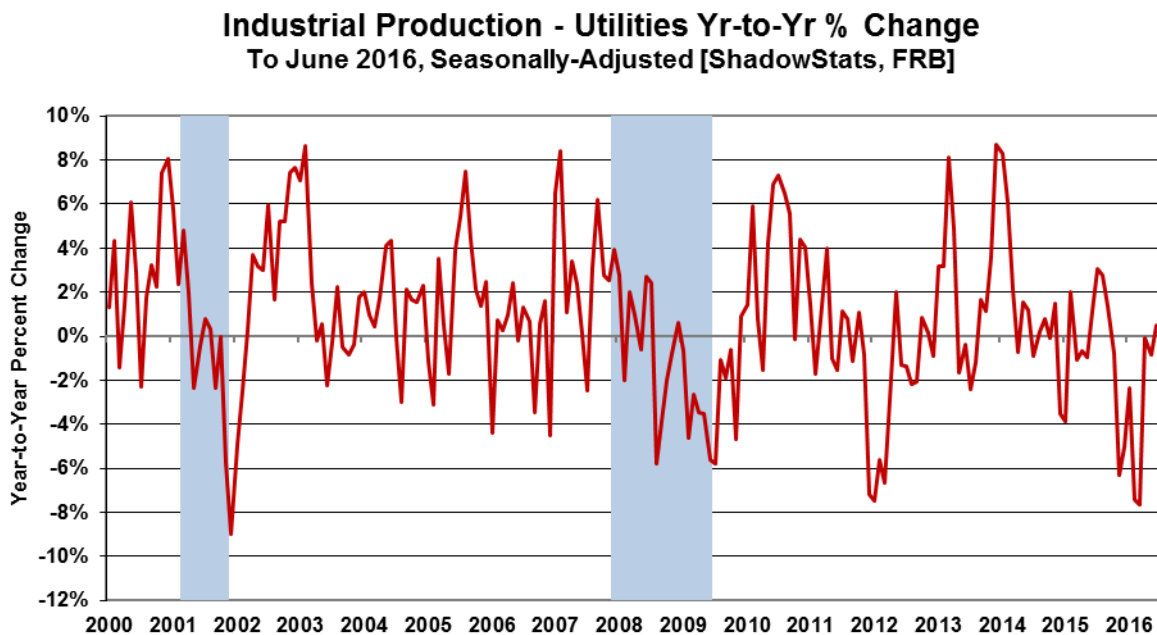


Monthly volatility seen the utilities sector (*Graph 20*) most often reflects unseasonable shifts in weather conditions and reversals of same, and such was the case with the 2.42% gain in June 2016 activity, following a narrowed, revised headline decline of 0.90% (-0.90%) in May.

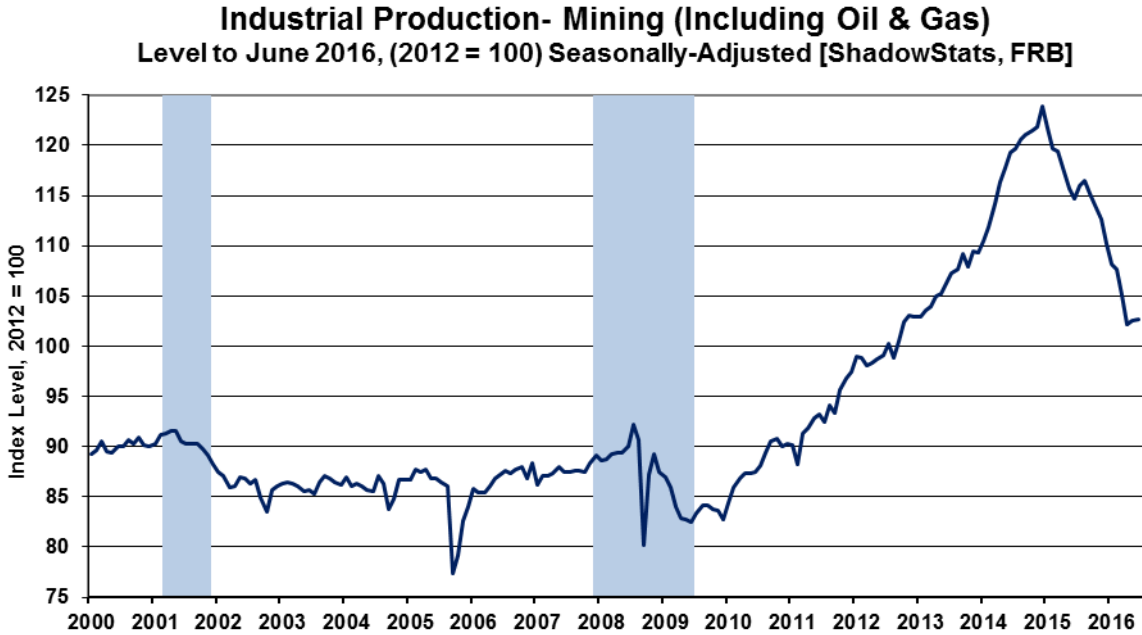
Graph 20: Industrial Production - Utilities (10.76% of the Aggregate in 2015)



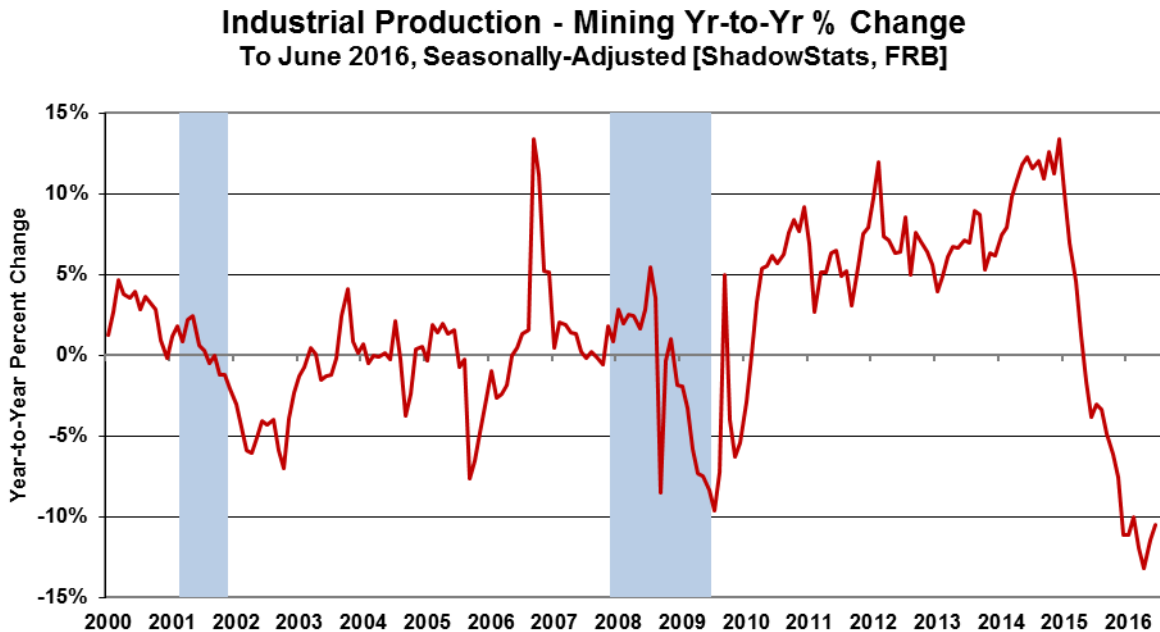
Graph 21: Industrial Production - Utilities, Year-to-Year Percent Change Since 2000



Graph 22: Industrial Production - Mining, Including Oil and Gas (10.76% of the Aggregate in 2015)



Graph 23: Industrial Production - Mining, Year-to-Year Percent Change



Activity in the mining (*Graph 22*), particularly in oil and gas exploration and production, and in coal production, remains the near-term focus of this analysis. This sector easily recovered its pre-recession

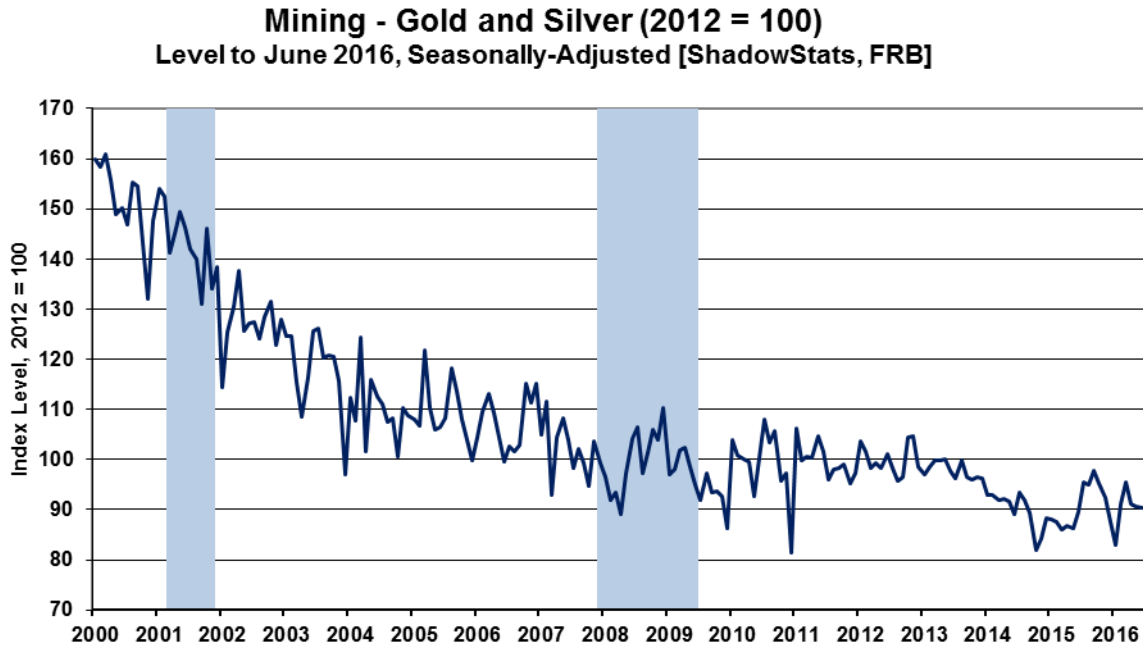
high and accounted for the full “recovery,” albeit extremely short-lived, seen in the aggregate production detail since the economic collapse. Since then, however, mining production has turned down sharply, reflecting a number of factors, including the impact of largely orchestrated lower oil prices (and related recent, now-faltering U.S. dollar strength), as well as U.S. government actions to limit coal consumption and production. Year-to-year June 2016 mining activity still was down by 10.50% (-10.50%), versus a revised annual drop of 11.47% (-11.47%) in May 2016.

That said, mining-sector activity showed its first monthly uptick in ten months in May 2016, gaining a revised 0.30% [previously up by 0.22%], with a second consecutive uptick in June 2016 of 0.17%. Year-to-year change in this sector (*Graph 23*) also reflected a minimal uptick.

The May and June 2016 breathers in mining activity largely reflected respective monthly gains of 8.42% and 11.37% in monthly coal production (*Graph 25*), and reasonably stable gold and silver mining, oil and gas extraction and drilling and exploration (*Graphs 24, 26 and 27*) in the month

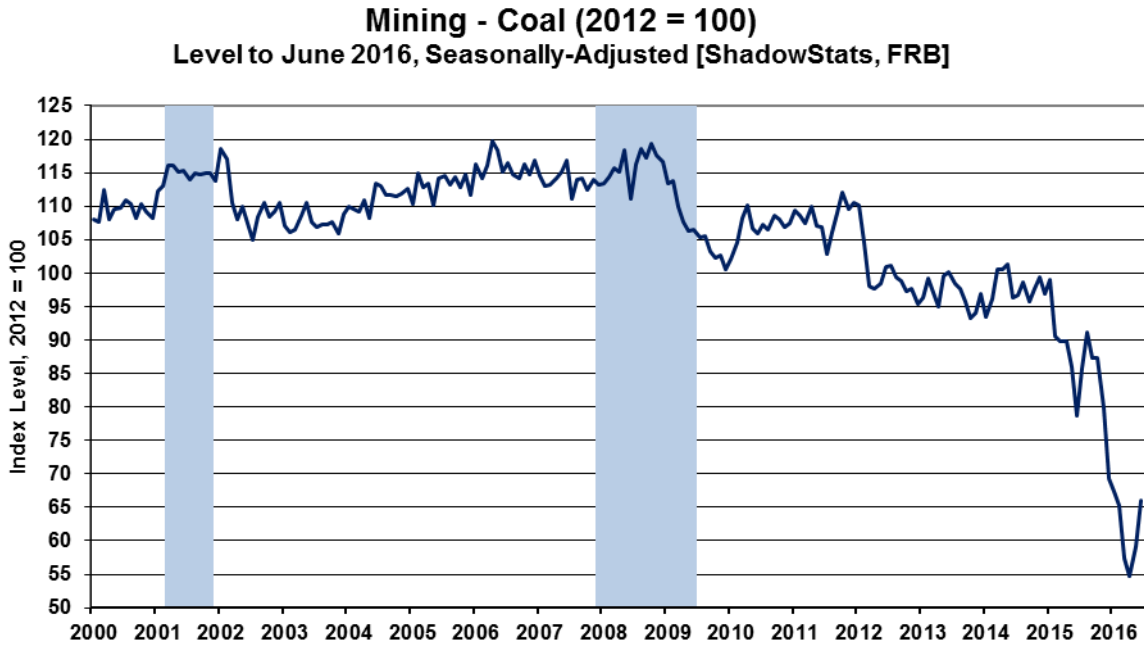
Graph 24 reflects monthly production continuing off the near-term-trough in activity for gold and silver, irrespective of the pummeling given the prices of precious metals in recent years by market interventions orchestrated by flailing central banks as well as a recent. Discussed in the *Hyperinflation Watch* and [General Commentary No. 811](#), however, pricing circumstances may be shifting to the upside for gold and silver, as well as for oil.

Graph 24: Mining – Gold and Silver Mining (Since 2000)

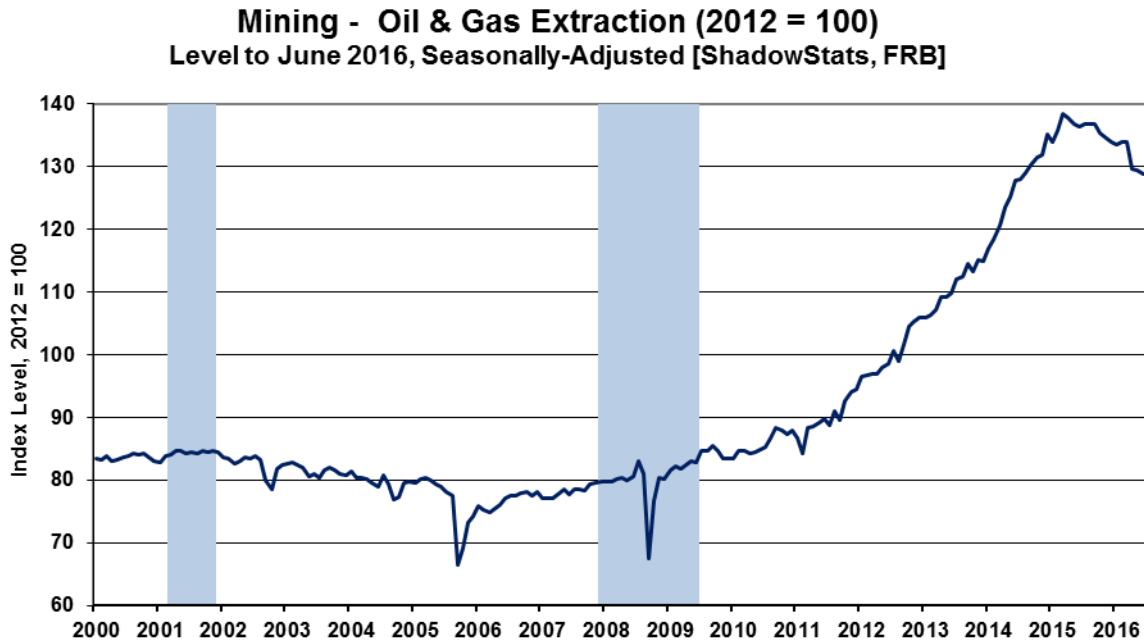


Graph 25 still shows an extraordinarily sharp drop in monthly coal production, despite the May and June 2016 rebound. June 2016 activity was down by 16.23% (-16.23%) year-to-year, versus an annual decline 31.04% (-31.04%) in May 2016. Versus the near-term May 2014 peak in coal production, June 2014 activity was down by 34.85% (-34.85%), with May 2016 down by 41.11% (-41.11%).

Graph 25: Mining - Coal Mining (Since 2000)



Graph 26: Mining – U.S. Oil & Gas Extraction (Since 2000)

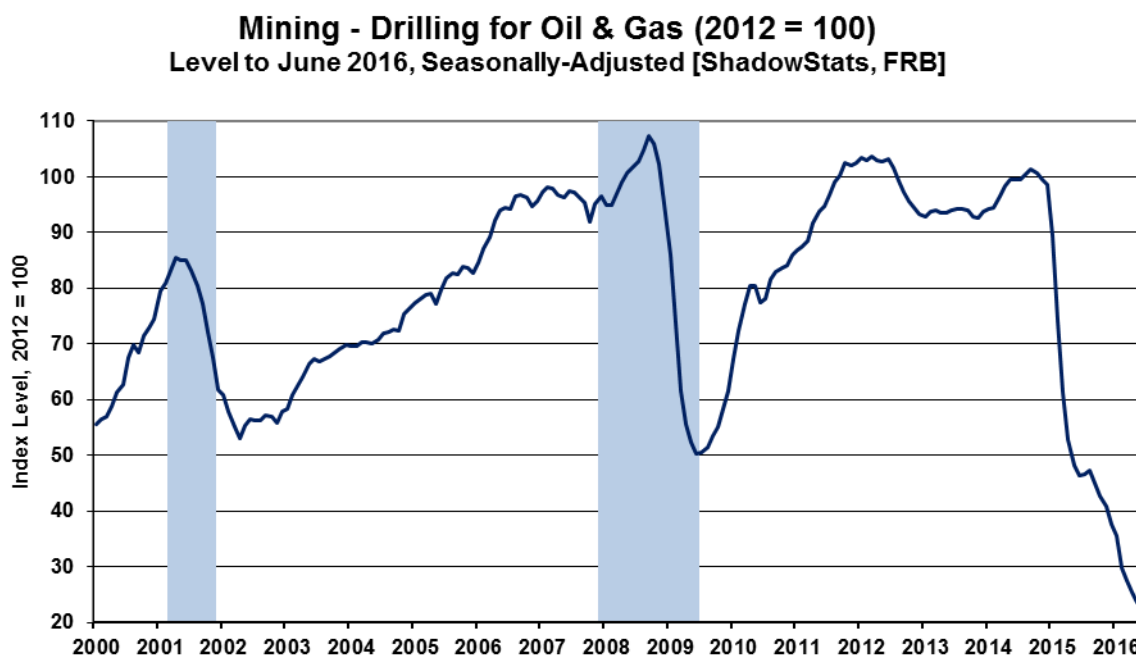


With oil prices moving off recent lows, oil and gas extraction still has remained well off its all-time high, but it leveled out in the last two months, down month-to-month in June 2016 by 0.57% (-0.57%), versus a

decline of 0.14% (-0.14%) in May, and down year-to-year by 5.61% in June 2016, versus 5.26% (-5.26%) in May 2016, as seen in *Graph 26*. Exploration in terms of oil and gas drilling (*Graph 27*) leveled out month-to-month in June, up by 0.34%, versus a monthly plunge of 7.87% (-7.87%) in May, down year-to-year 49.075 in June 2016, versus an annual drop of 51.30% (-51.30%) in May 2016.

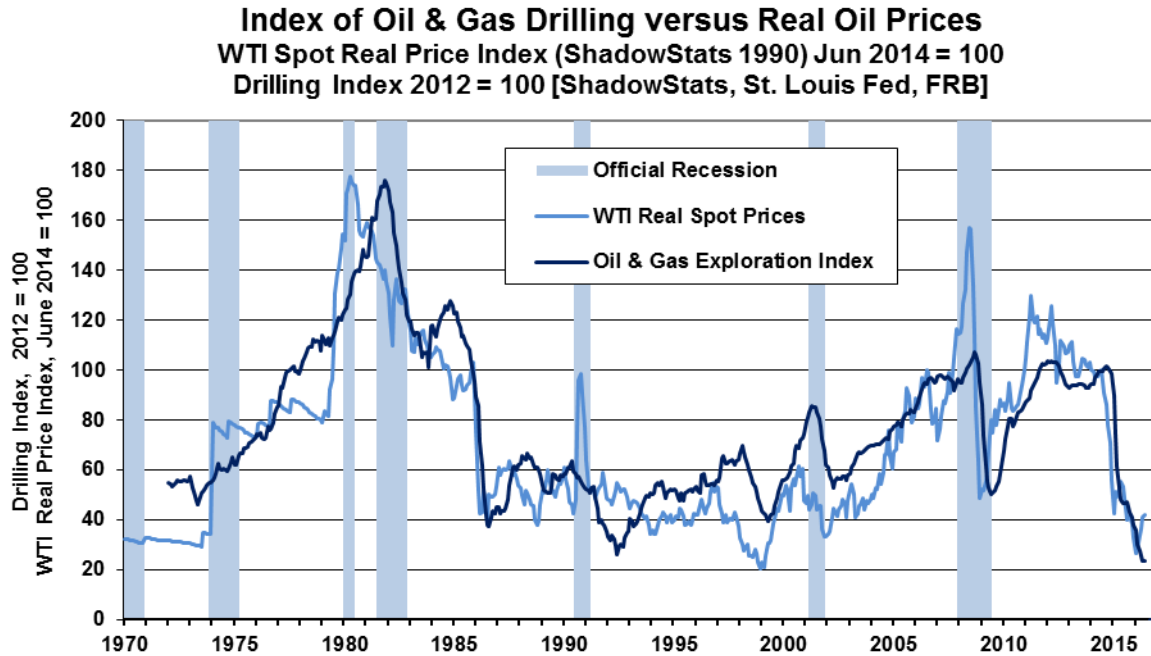
Regularly discussed, the collapse in drilling largely is an artefact of the massive U.S. dollar rally and oil-price plunge that began in July 2014. Those shifts appeared, at least initially, to be U.S.-orchestrated covert actions designed to stress Russia, financially, in response the circumstance in Ukraine. Since the related September 2014 peak in oil drilling, activity there has collapsed by 76.74% (-76.74%).

Graph 27: U.S. Drilling for Oil & Gas (Since 2000)



Shown in *Graph 28*, 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 (1990 Base).

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

Graph 28: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base)

NOMINAL AND REAL RETAIL SALES—June 2016

June Auto Sales Gain Was Due to Downside May Revision. Headline “strong” nominal retail sales reporting for June 2016 and related revisions to May detail were suspect, just a week before the nominating conventions. Even so, the headline total nominal sales gains in May and June were not statistically significant.

While expectations had been for a monthly decline in auto sales—always a very heavily massaged number, despite the availability of reasonably complete detail—auto sales gained a headline 0.06%. That was due simply to a downside revision to May auto sales. Against what had been reported initially in May, headline June auto sales would have declined by 1.38% (-1.38%).

In like manner, net of prior-period revisions, the headline June nominal retail sales gain of 0.58% would have been 0.29%. Net of headline June CPI-U inflation, the headline inflation-adjusted June gain of 0.36% was just 0.08%, net of the boost from the downside prior-period downside revisions.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—June 2016. In the context of downside revisions to May and April 2016 activity, the Census Bureau reported July 15th that headline nominal Retail Sales for June 2016 rose 0.6%, against a downwardly revised 0.2% in May 2016. At the second decimal point, Retail Sales showed a statistically-insignificant, seasonally-adjusted monthly gain of 0.58% +/- 0.59% (this and all other confidence intervals are expressed at the 95% level). Net of prior-period revisions, June sales rose by 0.29%.

May 2016 nominal retail sales showed a statistically-insignificant, revised month-to-month gain of 0.21% +/- 0.23% [previously up by 0.45%], April activity rose by a downwardly revised 1.21% [previously up by 1.27%, initially up 1.26%].

Year-to-Year Annual Change. June 2016 nominal year-to-year change was a statistically-significant increase of 2.72% +/- 0.82%, versus a downwardly-revised annual gain of 2.24% [previously up by 2.55%] in May, and versus a downwardly-revised April gain of 2.96% [previously and initially 3.00%].

June 2016 Core Retail Sales, Net of Food and Gasoline. Reflecting an environment that should be seeing rising, seasonally-adjusted food prices and gasoline prices [an unadjusted June 2016 gain of 4.05% per the Department of Energy in gasoline prices], seasonally-adjusted monthly grocery-store sales increased by 0.27% in June 2016, with gasoline-station sales up by 1.18% for the month.

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

Version I: June 2016 versus May 2016 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—reflected a monthly gain of 0.56%, versus the official headline aggregate sales gain of 0.58%.

Version II: June 2016 versus May 2016 seasonally-adjusted retail sales series—net of the monthly change in revenues for grocery stores and gas stations—reflected a month-to-month gain of 0.46%, versus the official headline aggregate sales increase of 0.58%.

Real (Inflation-Adjusted) Retail Sales—June 2016—Headline Growth Bloated by Prior Revisions. All the preceding numbers were before any consideration for the effects of inflation. The initial monthly and annual inflation-adjusted real growth rates for June 2016 Retail Sales, and the trend for annualized second-quarter 2016 real change in retail sales follow, based on the coincident July 15th headline release of the June 2016 CPI-U (see the following section on the *CPI*).

Based on the headline seasonally-adjusted monthly CPI-U increases of 0.22% in June 2016, 0.22% in May 2016, 0.41% in April, June 2016 real Retail Sales rose by 0.36%, following a negatively revised monthly change from a gain to a contraction of 0.01% (-0.01%) [previously a gain of 0.23%] in May, and a downwardly-revised gain of 0.81% [previously up by 0.86%, initially up by 0.85%] in April.

Net of prior-period revisions, real Retail Sale in June 2016 rose month-to-month by 0.08%, instead of the headline 0.36%.

Intense Signal of Recession in Annual Real Growth. During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal has been in play since February 2015 (the “new” recession likely will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn.

Year-to-year, June 2016 real retail sales rose by 1.65%, versus a downwardly-revised 1.16% [previously 1.46%] gain in May 2016 and a downwardly-revised 1.81% [previously 1.85%, initially 1.83%] in April

2016. With annual real growth of 1.54% in second-quarter 2016, versus 1.62% in first-quarter 2016 and 1.61% in fourth-quarter 2015, the recession signal remains intense, consistent with an unfolding recession. *Graphs 30 and 32*, following, show the latest patterns of headline annual real growth.

Second-Quarter 2016 Annualized Real Growth Came in Below Early Trend, with First-Quarter Still Flat. Second-quarter 2016 real Retail Sales showed initial reporting of 3.30% annualized growth, down slightly from its early trend for 3.48% based on just April and May reporting. Such was against an unrevised estimate of annualized quarterly real growth 0.10%—effectively flat—in first-quarter 2016.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as was updated briefly in [Commentary No. 817](#) and [Commentary No. 816](#) and last fully reviewed in [General Commentary No. 811](#) of June 10th. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer is unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending.

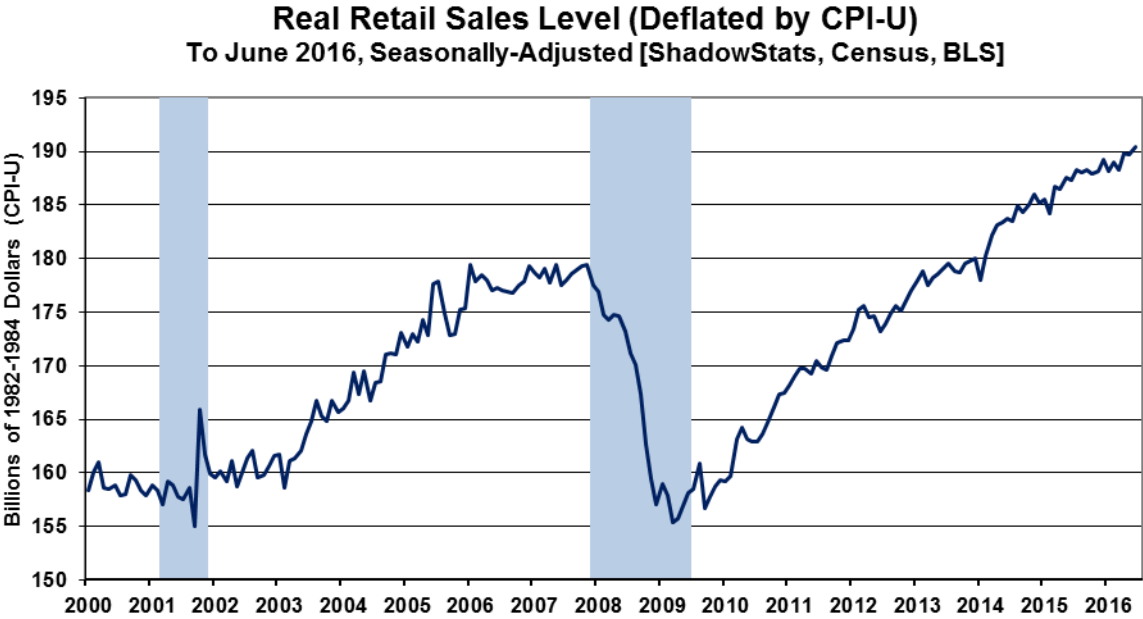
As official consumer inflation continues its upside climb in the year ahead, and as overall retail sales continue to suffer from the ongoing consumer liquidity squeeze—reflected partially by the general pattern of ongoing real earnings difficulties discussed in the *CPI* section—these data should continue trending meaningfully lower, in what should be recognized soon as a formal “new” recession.

Real Retail Sales Graphs. *Graph 29*, the first of the four graphs following, shows the level of real retail sales activity (deflated by the CPI-U) since 2000; *Graph 30* shows the year-to-year percent change for the same period. Where the aggregate headline fourth-quarter 2015 growth largely had dissipated in various revisions, and flattened out, real first-quarter 2016 activity also did the same, and the preliminary second-quarter increase likely will be short-lived as well.

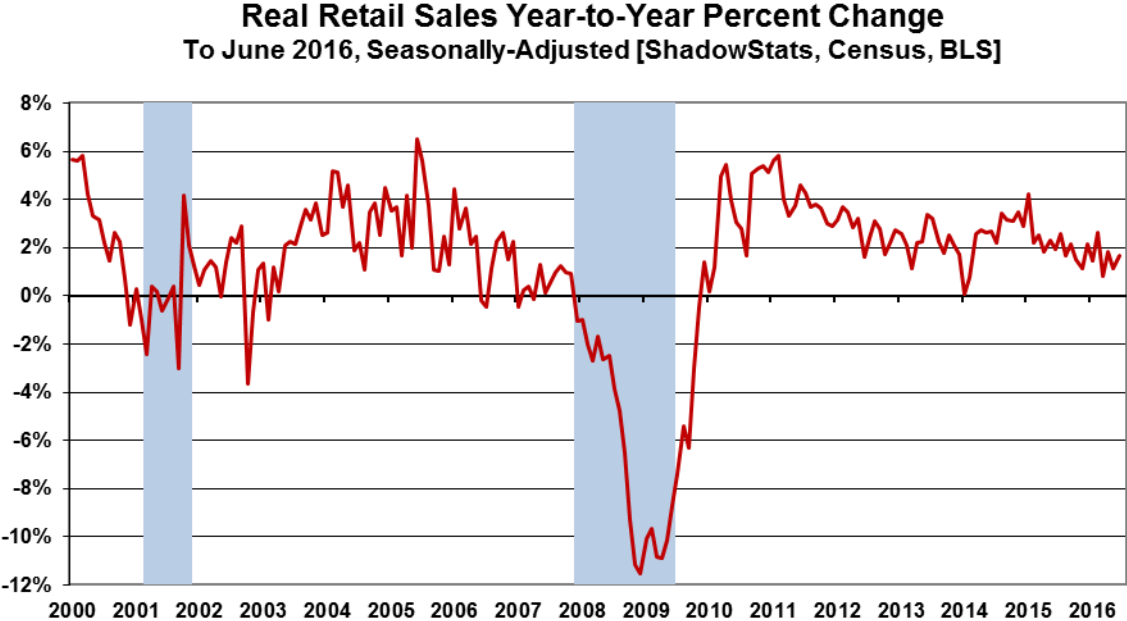
Annual real growth had slowed markedly into fourth-quarter 2015, and tumbled to a 25-month low of 0.81% in March 2016, the weakest showing since February 2014, generating an intense recession signal, with annual growth at 1.65% in June 2016 and at 1.16% in May 2016, following a short-lived spike to 1.80% in April. *Graphs 31 and 32* show the level of, and annual growth in, real retail sales (and its predecessor series) in full post-World War II detail.

[Graphs 29 to 32 begin on the next page.]

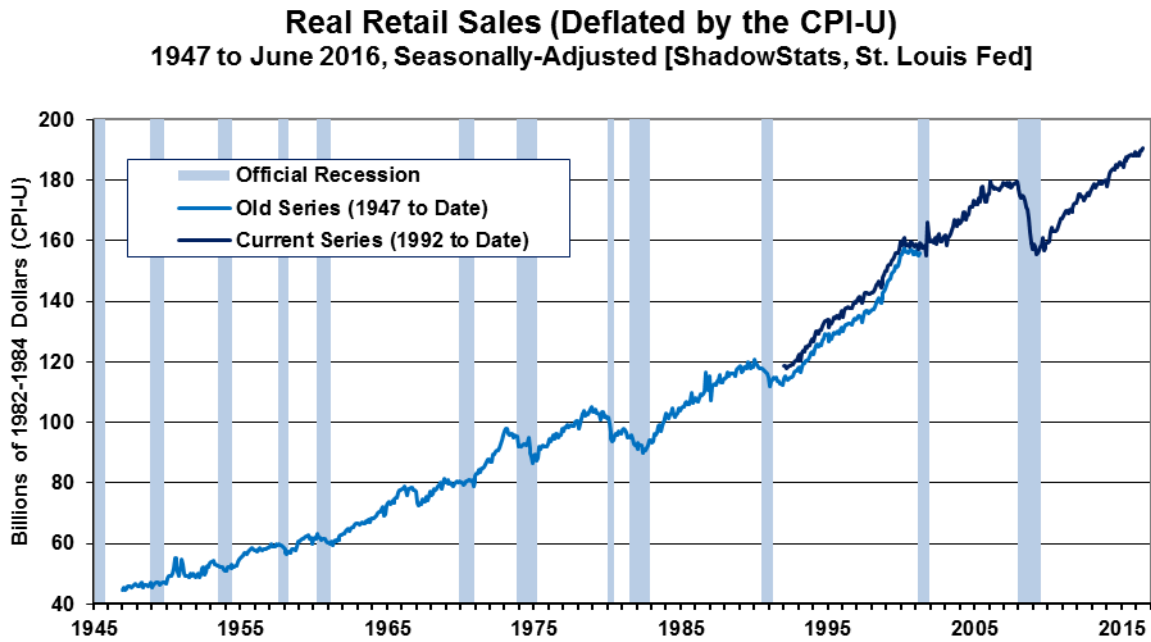
Graph 29: Level of Real Retail Sales (2000 to 2016)



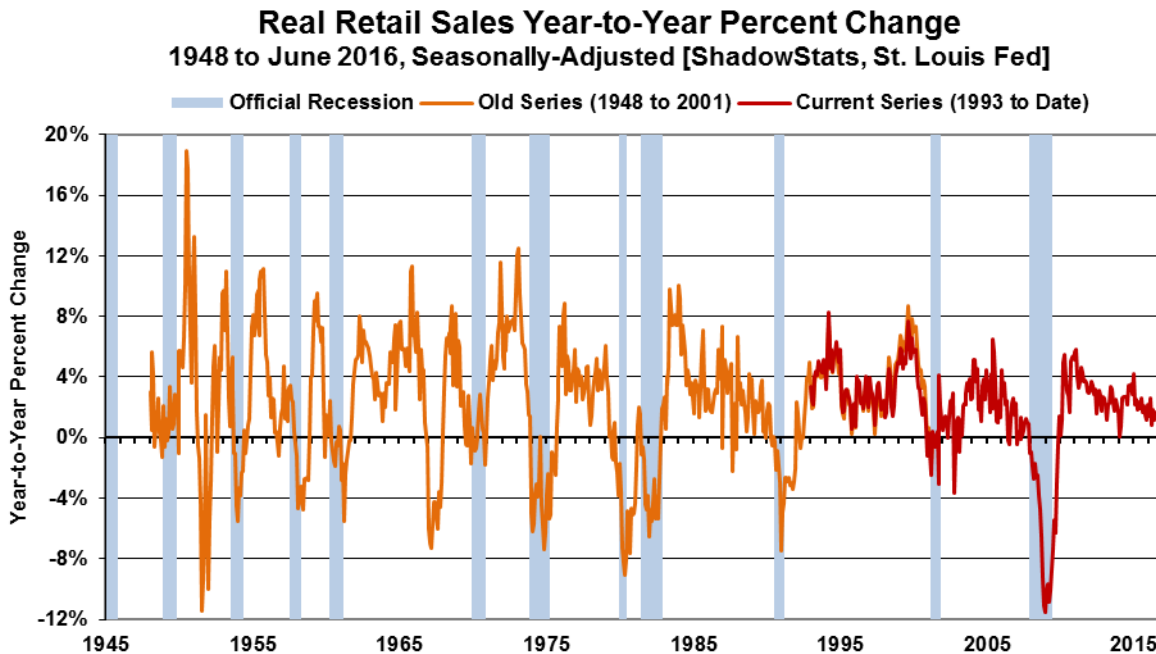
Graph 30: Real Retail Sales (2000 to 2016), Year-to-Year Percent Change



Graph 31: Level of Real Retail Sales (1947 to 2016)



Graph 32: Real Retail Sales (1948 to 2016), Year-to-Year Percent Change



The relative strength seen in the real retail series since the economic trough in 2009 largely has reflected the understatement of the rate of inflation used in deflating the series. Discussed more fully in *Chapter 9 of 2014 Hyperinflation Report—Great Economic Tumble – Second Installment*, deflation by too low an

inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted, real economic growth.

Shown in the latest “corrected” real retail sales—*Graph 4* in the *Opening Comments* section—with the deflation rates corrected for the understated inflation reporting of the CPI-U, the recent pattern of real sales activity has turned increasingly negative. The corrected graph shows that the post-2009 period of protracted stagnation ended, and a period of renewed and ongoing contraction began in second-quarter 2012 and continues to date. The corrected real retail sales numbers use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation instead of the CPI-U.

CONSUMER PRICE INDEX—CPI (June 2016)

Headline CPI-U Inflation Moved Higher with Gasoline Prices, but Still Was Hit by Negative Seasonal Adjustments. [*These first three paragraphs largely are repeated from the Opening Comments section.*] The headline June 2016 CPI-U monthly inflation of 0.2% came in on the low-side of expectations, largely due to continuing irregular and unstable seasonal adjustments to energy inflation. Where the general trend remained negative for those seasonal adjustments in the first half of the calendar year, moving into July and the third-quarter, the seasonal adjustments used in battering first-half energy prices, generally will reverse, boosting the monthly unadjusted gasoline prices in the months ahead.

June 2016 gasoline prices continued to rise (up by 4.05% for the month per the Department of Energy, up by 4.38% in June per the BLS). Yet, the BLS seasonal adjustments for June depressed adjusted gasoline prices enough to generate a headline monthly CPI-U gain of 0.22%, instead of what would have been 0.30%. Such remained well shy of common experience.

Discussed in other, recent *CPI Commentaries* (see [Commentary No. 793](#)), it is the unadjusted, not the seasonally-adjusted detail that tends to match consumer experience most closely, to the extent that these numbers come close to matching actual experience at all. On an unadjusted basis, monthly CPI-U rose by 0.33% in June 2016.

Separately, although official annual CPI-U inflation has been holding around 1.0%, year-to-year inflation is not and has not been quite as soft as indicated, when considered in the context of traditional CPI reporting and common experience. The ShadowStats-Alternate Inflation Measures showed annual inflation in June 2016 of 4.6%, based on 1990 methodologies, and 8.7%, based on 1980 methodologies.

Longer-Range Inflation Outlook. Reviewed in today’s *Hyperinflation Watch* and discussed more broadly in [Commentary No. 818](#), [General Commentary No. 811](#) and [No. 777 Year-End Special Commentary](#), high risk of extreme flight from the U.S. dollar—a massive dollar debasement—continues to threaten an increasingly-rapid upturn in energy and dollar-based commodity inflation, which would drive headline U.S. consumer inflation much higher. That process continues, and it should accelerate in tandem with renewed tumbling in U.S. economic activity. Global markets increasingly are realizing that the U.S. Federal Reserve and other major central banks have no effective idea as to how to boost current economic activity, or to stabilize global banking-system solvency. That circumstance is exacerbated regularly by the Fed’s continual bluffing on raising rates.

Notes on Different Measures of the Consumer Price Index

The Consumer Price Index (CPI) is the broadest inflation measure published by the U.S. Government, through the Bureau of Labor Statistics (BLS), Department of Labor:

*The **CPI-U (Consumer Price Index for All Urban Consumers)** is the monthly headline inflation number (seasonally adjusted) and is the broadest in its coverage, representing the buying patterns of all urban consumers. Its standard measure is not seasonally-adjusted, and it never is revised on that basis except for outright errors.*

*The **CPI-W (CPI for Urban Wage Earners and Clerical Workers)** covers the more-narrow universe of urban wage earners and clerical workers and is used in determining cost of living adjustments in government programs such as Social Security. Otherwise, its background is the same as the CPI-U.*

*The **C-CPI-U (Chain-Weighted CPI-U)** is an experimental measure, where the weighting of components is fully substitution based. It generally shows lower annual inflation rate than the CPI-U and CPI-W. The latter two measures once had fixed weightings—so as to measure the cost of living of maintaining a constant standard of living—but now are quasi-substitution-based. Since it is fully substitution based, the series tends to reflect lower inflation than the other CPI measures. Accordingly, the C-CPI-U is the “new inflation” measure being proffered by Congress and the White House as a tool for reducing Social Security cost-of-living adjustments by stealth. Moving to accommodate the Congress, the BLS introduced changes to the C-CPI-U estimation process with the February 26, 2015 reporting of January 2015 inflation, aimed at finalizing the C-CPI-U estimates on a more-timely basis, and enhancing its ability to produce lower headline inflation than the traditional CPI-U.*

*The **ShadowStats Alternative CPI-U Measures** are attempts at adjusting reported CPI-U inflation for the impact of methodological change of recent decades designed to move the concept of the CPI away from being a measure of the cost of living needed to maintain a constant standard of living. There are two measures, where the first is based on reporting methodologies in place as of 1980, and the second is based on reporting methodologies in place as of 1990.*

CPI-U. The Bureau of Labor Statistics reported on July 15th that the headline, seasonally-adjusted June 2016 CPI-U rose by 0.2% month-to-month, up by 0.22% at the second decimal point. That followed an identical headline May increase of 0.2% month-to-month, up by 0.22% at the second decimal point, and an April increase of 0.4% month-to-month, up by 0.41% at the second decimal point.

The adjusted headline June 2016 inflation gain was reduced by negative seasonal adjustments to the energy sector, but otherwise received effectively positive seasonal-adjustment contributions from the negative foods sector and positive “core” inflation. On an unadjusted basis, monthly June 2016 CPI-U rose by 0.33%, following unadjusted monthly gains of 0.41% in May and 0.47% in April.

Seasonal adjustments for monthly gasoline inflation again were sharply negative in June 2016, turning an unadjusted headline gain of 4.38% gas prices into an adjusted increase of 3.29%. The Department of Energy (DOE) had estimated a headline, unadjusted monthly gain of 4.05% for the month.

Major CPI-U Groups. Encompassed by the seasonally-adjusted monthly gain of 0.22% in June 2016 [up by an unadjusted 0.33%] in the headline CPI-U, June food inflation declined by a seasonally-adjusted 0.08% (-0.08%) [down by 0.15% (-0.15%) unadjusted], June energy inflation rose by a seasonally-adjusted 1.25% [up by an unadjusted 3.78%], while the adjusted “core” (ex-food and energy) inflation rate rose by 0.17% [up by 0.11% unadjusted].

Separately, core CPI-U inflation showed unadjusted year-to-year inflation of 2.23% in June, versus 2.24% in May 2016 and from 2.15% in April 2016.

Year-to-Year CPI-U. Not seasonally adjusted, June 2016 year-to-year inflation for the CPI-U held at 1.0% (1.01% at the second decimal point), versus 1.0% (1.02% at the second decimal point) in May, and 1.1% (1.13%) in April 2016.

Year-to-year, CPI-U inflation would increase or decrease in next month’s July 2016 reporting, dependent on the seasonally-adjusted monthly change, versus the adjusted, headline gain of 0.13% in July 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 July 2016, the difference in July’s headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the June 2016 annual inflation rate of 1.01%. For example, another seasonally-adjusted, headline monthly gain of 0.2% in the July 2016 CPI-U, would notch the annual CPI-U inflation rate for July 2016 higher to about 1.1%, plus-or-minus, depending on rounding.

Quarterly CPI-U. On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-U rose by 2.54% in second-quarter 2016, having declined by 0.31% (-0.31%) in first-quarter 2016, having been up by 0.77% in fourth-quarter 2015, by 1.38% in third-quarter 2015, by 2.44% in second-quarter 2015 and down by 2.86% (-2.86%) in first-quarter 2015.

On an unadjusted, year-to-year basis, annual inflation by quarter was up by 1.05% in second-quarter 2016, versus 1.08% in first-quarter 2016, 0.47% in fourth-quarter 2015, 0.11% in third-quarter 2015, and down in second-quarter 2015 by 0.04% (-0.04%), and by 0.06% (-0.06%) in first-quarter 2015.

For living in a not-seasonally-adjusted world, annualized quarterly inflation was 4.79% in second-quarter 2016, versus 0.26% in first-quarter 2016.

CPI-W. The June 2016 seasonally-adjusted, headline CPI-W, which is a narrower series and has greater weighting for gasoline than does the CPI-U, rose month-to-month by 0.21%, following monthly gains of 0.20% in May and 0.45% in April. On an unadjusted basis, the monthly CPI-W rose by 0.37% in June 2016, versus 0.43% in May and 0.53% in April.

Year-to-Year CPI-W. Unadjusted, June 2016 annual CPI-W rose by 0.64%, versus 0.66% in May 2016 and 0.83% in April 2016.

Quarterly CPI-W. On an annualized quarter-to-quarter basis, the seasonally-adjusted CPI-W rose by 2.58% in second-quarter 2016, having declined by 1.08% (-1.08%) in first-quarter 2016, having been up by 0.39% in fourth-quarter 2015, by 2.56% in third-quarter 2015, by 1.23% in the second-quarter 2015, and down by 4.21% (-4.21%) in first-quarter 2015.

On an unadjusted year-to-year basis, annual inflation by quarter was up by 0.71% in second-quarter 2016, versus by 0.79% in first-quarter 2016 and 0.03% in fourth-quarter 2015, and down by 0.41% (-0.41%) in third-quarter 2015, by 0.59% (-0.59%) in second-quarter 2015, and by 0.68% (-0.68%) in first-quarter 2015.

Chained-CPI-U. The headline C-CPI-U is not seasonally adjusted. June 2016 C-CPI-U annual inflation came in at 0.66%, versus 0.62% in May 2016 and 0.71% in April 2016.

See discussions in the earlier CPI [Commentary No. 721](#) and in the opening notes in the *CPI Section* of [Commentary No. 699](#) as to recent changes in the series. More-frequent revisions and earlier finalization of monthly detail are designed to groom the C-CPI-U series as the new Cost of Living Adjustment (COLA) index of choice for the budget-deficit-strapped federal government, as discussed in the [Public Commentary on Inflation Measurement](#).

Caution: Artificially-low inflation numbers estimated by the U.S. Government and used in fields ranging from Social Security COLAs to determining income-tax brackets, have been redesigned in recent decades specifically to help reduce the federal deficit. They are harmfully misleading to anyone using a government CPI estimate as a meaningful cost-of-living measure for guidance on income or investment purposes.

Alternate Consumer Inflation Measures. The ShadowStats-Alternate Consumer Inflation Measures are constructed on top of the unadjusted CPI-U series. Adjusted to 1990 methodologies—the ShadowStats-Alternate Consumer Inflation Measure (1990-Base)—year-to-year annual inflation was roughly 4.6% in June 2016, versus 4.6% in May 2016 and 4.7% in April 2016.

The June 2016 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, held at about 8.7% (8.66% for those using a second decimal point) year-to-year, versus 8.7% in May 2016 and 8.8% in April 2016.

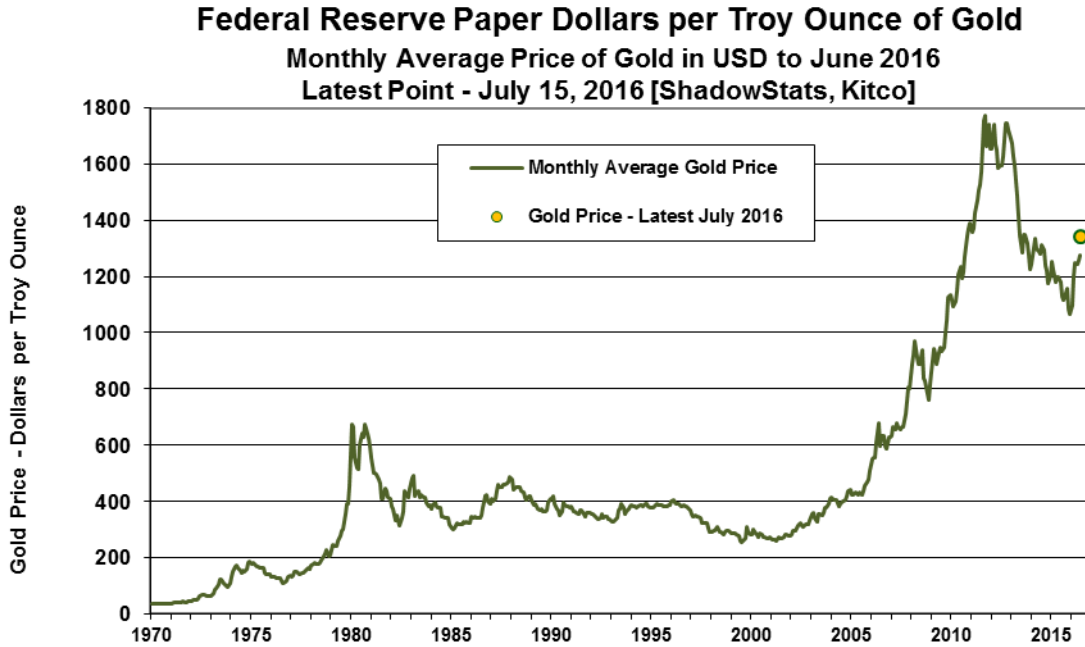
Note: The ShadowStats-Alternate Consumer Inflation Measures largely have been reverse-engineered from BLS estimates of the anticipated impact on annual CPI inflation from various changes made to CPI reporting methodology since the early 1980s, as also incorporated in the CPI-U-RS series. That series provides an official estimate of historical inflation, assuming that all current methodologies were in place going back in time. The changes reflected there are parallel with and of the same magnitude of change as estimated by the BLS, when a given methodology was changed.

The ShadowStats estimates are adjusted on an additive basis for the cumulative impact on the annual inflation rate from the various BLS changes in methodology (reversing the net aggregate inflation reductions by the BLS). The series are adjusted by ShadowStats for those aggregate changes, but the series otherwise are not recalculated.

Over the decades, the BLS has altered the meaning of the CPI from being a measure of the cost of living needed to maintain a constant standard of living, to something that neither reflects the constant-standard-of-living concept nor measures adequately what most consumers view as out-of-pocket expenditures. Roughly five percentage points of the additive ShadowStats adjustment since 1980 reflect the BLS's formal estimate of the annual impact of methodological changes; roughly two percentage points reflect changes by the BLS, where ShadowStats has estimated the impact not otherwise published by the BLS.

For example, the BLS does not consider more-frequent weightings of the CPI series or shifting the nature of retail outlets to be changes in methodology. Yet those changes have had the effect of reducing headline inflation from what it would have been otherwise (See [Public Commentary on Inflation Measurement](#) for further details.)

Graph 33: Monthly Average Gold Price in Dollars (Federal Reserve Notes)



Gold and Silver Historic High Prices Adjusted for June 2016 CPI-U/ShadowStats Inflation—

CPI-U: GOLD at \$2,633 per Troy Ounce, SILVER at \$153 per Troy Ounce
ShadowStats: GOLD at \$13,126 per Troy Ounce, SILVER at \$764 per Troy Ounce

Despite the September 5, 2011 historic-high gold price of \$1,895.00 per troy ounce (London afternoon fix), and despite the multi-decade-high silver price of \$48.70 per troy ounce (London fix of April 28, 2011), gold and silver prices have yet to re-hit their 1980 historic levels, adjusted for inflation. The earlier all-time high of \$850.00 (London afternoon fix, per Kitco.com) for gold on January 21, 1980 would be \$2,633 per troy ounce, based on June 2016 CPI-U-adjusted dollars, and \$13,136 per troy ounce, based on June 2016 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (all series here are not seasonally adjusted).

In like manner, the all-time high nominal price for silver in January 1980 of \$49.45 per troy ounce (London afternoon fix, per silverinstitute.org)—although approached in 2011—still has not been hit since 1980, including in terms of inflation-adjusted dollars. Based on June 2016 CPI-U inflation, the 1980 silver-price peak would be \$153 per troy ounce and would be \$761 per troy ounce in terms of June 2016 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (again, all series not seasonally adjusted).

As shown in Table 1, on page 31 of [2014 Hyperinflation Report—The End Game Begins – First Installment Revised](#), over the decades, the increases in gold and silver prices have compensated for more

than the loss of the purchasing power of the U.S. dollar as reflected by CPI inflation. They also effectively have come close to fully compensating for the loss of purchasing power of the dollar based on the ShadowStats-Alternate Consumer Price Measure (1980-Methodologies Base).

Real (Inflation-Adjusted) Retail Sales—June 2016 (See the preceding *Nominal- and Real-Retail Sales Section covering today's coincident retail sales and CPI releases*).

Real (Inflation-Adjusted) Average Weekly Earnings—June 2016—Second-Quarter Contraction. The BLS published its estimates for June 2016 real average weekly earnings, coincident with the release of the June CPI-W. In the production and nonsupervisory employees category—the only series for which there is a meaningful history, real average weekly earnings in June 2016 declined by 0.03% (-0.03%), versus a revised, deeper monthly contraction of 0.16% (-0.16%) [previously down by 0.06% (-0.06%)] in May, and an unrevised monthly decline 0.17% (-0.17%) in April.

Those negative readings were sufficient to generate a second-quarter 2016 annualized quarter-to-quarter contraction of 1.09% (-1.09%) in real average weekly earnings. The last quarter-to-quarter real contractions in this series were 0.46% (-0.46%) and 0.49% (-0.49%), respectively in third- and second-quarter 2015.

While these usually heavily revised and seasonally-adjusted monthly changes are without much, if any, meaning in the near-term, over the longer term and quarterly, and particularly the benchmarked trends tend to be of some substance. As with the BLS reporting tied to the nonfarm payrolls, the headline seasonally-adjusted data here are not comparable due to reporting issues with concurrent seasonal factor adjustments (see *Headline Distortions from Shifting Concurrent-Seasonal Factors* in [Commentary No. 819](#)).

For those not living in a seasonally-adjusted world, after declining month-to-month since November 2015, real average weekly earnings turned higher month-to-month in April and May 2016, and down anew in June. Separately, where year-to-year change should be reasonably consistent on a monthly basis, regardless of seasonal adjustment, consider that annual changes April to June 2016 respectively were up by 1.73% and 3.06% and 1.44%, not seasonally adjusted, while those same annual growth rates were 1.36%, 1.54% (previously 1.64%) and 1.70% seasonally adjusted.

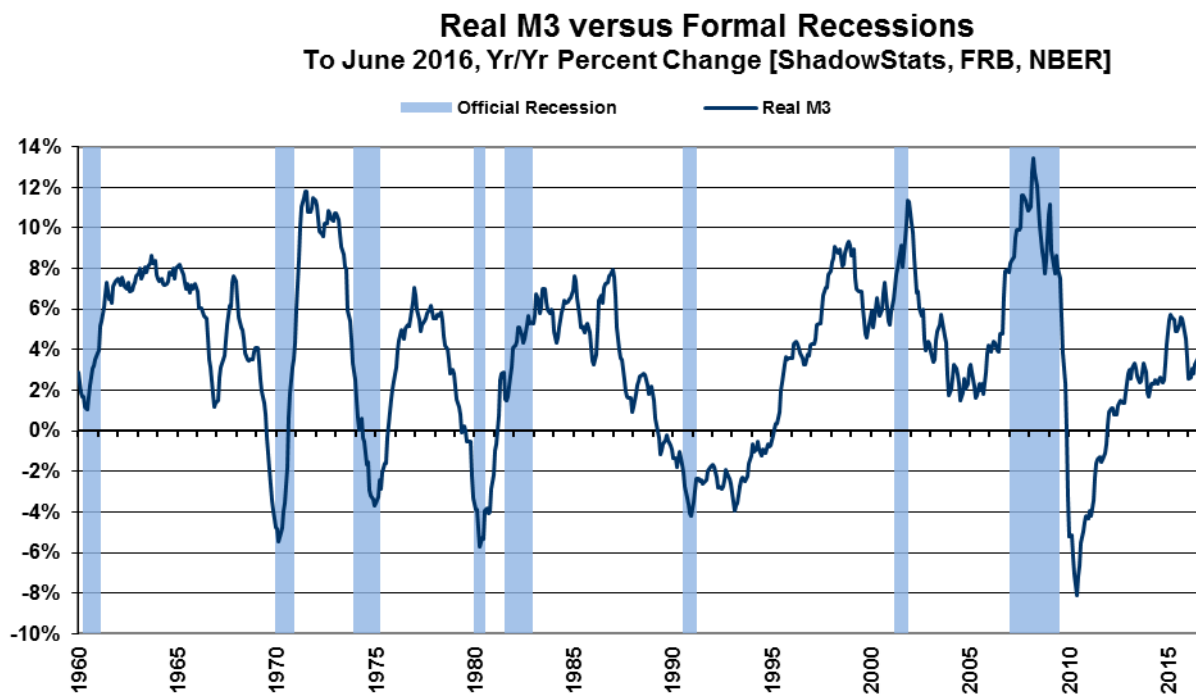
Separately, the CPI-W deflated reporting here also is distorted versus the CPI-U-deflated series, where the CPI-W—more heavily weighted with gasoline prices—tends to have much deeper, negative headline inflation, with resulting stronger headline, real growth than would be seen with the CPI-U, when gasoline prices are falling. The reverse was true for the fourth month, however, with rising gasoline prices.

Found in the *Opening Comments* section, *Graph 5* plots this series, showing the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much

closer to common experience than the pattern suggested by the CPI-W. See the [Public Commentary on Inflation Measurement](#) for further detail.

Real (Inflation-Adjusted) Money Supply M3—June 2016—Some Continuing Rebound in Annual Growth. The signal for a double-dip, multiple-dip or simply protracted, ongoing recession, based on annual contraction in the real (inflation-adjusted) broad money supply (M3), remains in place, despite real annual M3 growth having rallied in positive territory for a number of years. The economic downturn never evolved into a sustainable recovery. As shown in the accompanying graph—based on June 2016 CPI-U reporting and the latest ShadowStats-Ongoing M3 Estimate (including annual Federal Reserve Board money supply revisions)—annual inflation-adjusted growth in June 2016 M3 moved higher to 3.5%, from 3.2% in May 2016 and a near-term trough 2.8% gain in April 2016. The 0.3% gain in the monthly rate of year-to-year change reflected a 0.3% jump in the level of annual M3 growth and no relative monthly change in annual CPI-U inflation (see [Commentary No. 819](#)).

Graph 34: Real M3 Annual Growth versus Formal Recessions



The signal for a downturn or an intensified downturn is generated when annual growth in real M3 first turns negative in a given cycle; the signal is not dependent on the depth of the downturn or its duration. Breaking into positive territory does not generate a meaningful signal one way or the other for the broad economy. The current “new” downturn signal was generated in December 2009, even though there had been no upturn since the economy purportedly hit bottom in mid-2009. Again, when real M3 growth breaks above zero, there is no signal; the signal is generated only when annual growth moves into negative territory. The broad economy tends to follow in downturn or renewed deterioration roughly six-to-nine months after the signal. Weaknesses in a number of economic series have continued to the present, with significant new softness in recent reporting. Actual post-2009 economic activity has remained at relatively low levels of activity—in protracted stagnation, with no actual recovery (see [Graphs 2 and 4 in the Opening Comments](#) and [No. 777 Year-End Special Commentary](#)).

Despite the purported, ongoing recovery shown in headline GDP activity, a renewed downturn in official data is underway that still should gain official recognition in the next month or two as a “new” or multiple-dip recession. Underlying reality remains that the economic collapse into 2009 was followed by a plateau of low-level economic activity—no meaningful upturn, no recovery from or end to the official 2007 recession—and the unfolding renewed downturn remains nothing more than a continuation and re-intensification of the downturn that began unofficially in 2006.

PRODUCER PRICE INDEX—PPI (June 2016)

Headline June PPI Goods Inflation Increased by 0.84%; Construction Inflation Rose by 0.09%; Profit Margins in the Dominant Services Sector Gained 0.45%; Aggregate PPI Rose by 0.54%. The aggregate monthly increase of 0.54% in June 2016 PPI was spread across gains in each of the major goods and services categories, except for the headline “core” (net of food and energy) goods sector, which showed an “unchanged” headline inflation rate for the month.

In June, the dominant services sector, which has nearly double the weighting of the goods sector, showed about half the headline inflation as the goods sector. Despite its light weighting in the PPI, construction inflation also showed a continuing pickup, with a seasonally-adjusted monthly gain in headline inflation of 0.09%, still not a happy signal for inflation-adjusted real construction spending.

Rising margins in “securities brokerage and dealing” and rising energy costs were the strongest inflation elements in the respective services and goods sectors. In the construction sector, where privately surveyed cost measures are calculated and published regularly, the headline annual inflation rate of 2.0% in June 2016 construction still was running roughly 100 to 200 basis points (1% to 2%) shy of real-world estimates.

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

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

The new and otherwise dominant Final Demand Services sector largely reflects problematic and questionable surveying of intermediate or quasi-wholesale profit margins in the services area. To the extent that profit margins shrink in the services sector, one could argue that the resulting lowered estimation of inflation actually is a precursor to higher inflation, as firms subsequently would move to raise prices, in an effort to regain more-normal margins. In like manner, in the circumstance of “increased” margins—due to the lower cost of petroleum-related products not being passed along immediately to customers—competitive pressures to lower margins would tend to be reflected eventually

in reduced retail prices (CPI). The oil-price versus margin gimmick works both way. In times of rapidly rising oil prices, it mutes the increase in Final Demand inflation, in times of rapidly declining oil prices; it tends to mute the decline in Final Demand inflation.

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

June 2016 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported July 14th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for June 2016 was a gain of 0.54%, versus a monthly gain 0.36% in May. The impact of seasonal adjustments on the headline PPI reporting was negative, where the unadjusted monthly June measure gained 0.73%.

Not an extraordinarily stable series, the PPI index is revised each month, for one month four months back in time. With the headline June 2016 detail, for example, February 2016 inflation was revised higher, with the headline adjusted index revising from 109.6 to 109.7, and with the monthly headline inflation being revised from a monthly contraction of 0.36% (-0.36%) to a contraction of 0.27% (-0.27%). That change will tend to get passed along in next month's revisions to March 2016.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in June 2016 was as gain of 0.27%, following an annual decline in May 2016 of 0.09% (-0.09%). Unadjusted February 2016 annual PPI inflation revised from “unchanged” at 0.00% to a gain of 0.09%.

For the three major subcategories of June 2016 Final Demand PPI, headline monthly Goods inflation rose by 0.84%, Services inflation gained 0.45% (rounds to 0.4% at the first decimal point) and Construction inflation rose by 0.09%.

Final Demand Goods (Weighted at 33.60% of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in June 2016 rose by 0.84%, up from a 0.66% gain in May. There was negative impact on the aggregate headline June reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, June Final Demand Goods inflation also rose by 1.12% for the month.

Unadjusted, year-to-year goods inflation in June 2016 declined by 2.16% (-2.16%), having declined in May 2016 declined by 2.63% (-2.63%).

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

- “Foods” inflation (weighted at 5.56% of the total index) rose month-to-month in June 2016 by 0.87%, having gained by 0.35% in May. Seasonal adjustments were a negative factor for the June monthly change, which was up by 1.12% unadjusted. Unadjusted and year-to-year, annual June 2016 foods inflation declined by 2.25% (-2.25%), where May 2016 had declined on an annual basis by 2.61% (-2.61%).

- “Energy” inflation (weighted at 5.23% of the total index) rose by 4.07% in June 2016, versus a gain of 2.79% in May. Seasonal adjustments were a negative factor for the June monthly change, with unadjusted monthly energy inflation rising by 5.81%. Unadjusted and year-to-year, the June 2016 annual contraction in energy prices narrowed to 11.41% (-11.41%), versus an annual decline of 14.60% (-14.60%) in May 2016.
- “Less foods and energy” (“Core” goods) monthly inflation (weighted at 22.81% of the total index) was “unchanged” at 0.00% in June 2016, versus a gain of 0.27% in May. Seasonal adjustments were neutral for monthly core inflation, with an unadjusted monthly change also at 0.00%. Unadjusted and year-to-year, June 2016 was up by 0.45%, versus an annual gain of 0.73% in May 2016.

Final Demand Services (Weighted at 64.32% of the Aggregate Index). Headline monthly Final Demand Services inflation rose by 0.45% (rounds to 0.4% at the first decimal point) in June 2016, having gained 0.18% in May. The overall seasonal-adjustment impact on headline June services inflation was neutral, with an unadjusted monthly gain of 0.45% (0.4%). Year-to-year, unadjusted June 2016 services inflation rose to 1.55% (rounds to 1.5%) from 1.37% in May 2016.

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

- “Services less trade, transportation and warehousing” inflation, or the “Other” category (weighted at 38.97% of the total index), rose by 0.36% in June 2016, having declined by 0.18% (-0.18%) in May. Seasonal-adjustment impact on the adjusted June detail was negative, where the unadjusted monthly reading was a gain of 0.45%. Unadjusted and year-to-year, June 2016 “other” services inflation was 1.47%, versus 1.29% in May 2016.
- “Transportation and warehousing” inflation (weighted at 4.99% of the total index) gained month-to-month in June 2016 by 0.53%, having declined by 0.62% (-0.62%) in May. Seasonal adjustments had negative impact on the headline June gain, where the unadjusted monthly reading had been an increase of 1.16%. Unadjusted and year-to-year, June 2016 transportation inflation fell by 2.49% (-2.49%), following an annual decline of 2.94% (-2.94%) in May 2016.
- “Trade” inflation (weighted at 20.36% of the total index) rose by 0.70% in the month of June 2016, having gained 1.25% (rounds to 1.2%) in May. Seasonal adjustments had a positive impact here, where unadjusted monthly inflation gained 0.44% in June. Unadjusted and year-to-year, June 2016 trade inflation rose by 2.79%, having gained 2.43% in May 2016.

Final Demand Construction (Weighted at 2.08% 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 in June 2016 rose by 0.09%, the same as in May. The impact of seasonal factors on the June reading was neutral, where the unadjusted monthly change also was a gain of 0.09%.

On an unadjusted basis, year-to-year construction inflation rose by 1.96% in June 2016, versus 1.87% in May 2016.

- “Construction for private capital investment” headline monthly inflation (weighted at 1.40% of the total index) rose by 0.09% in June 2016, the same monthly gain as in May. As usual, seasonal adjustments had neutral impact here, where the unadjusted June monthly inflation also was up by

0.09%. Unadjusted and year-to-year, June 2016 private construction inflation was up by 1.96%, versus 1.88% in May 2016.

- “Construction for government” inflation (weighted at 0.68% of the total index) gained month-to-month by 0.09% in June 2016, having gained 0.17% in May. Seasonal adjustments had neutral impact, where unadjusted monthly inflation also showed a gain of 0.09% in June. Unadjusted and year-to-year, June 2016 government construction inflation was 1.87%, versus 1.78% in May 2016.

Discussed in [Commentary No. 818](#), ShadowStats uses the Final Demand Construction index for deflating headline activity in the monthly construction-spending series. The August 1st release of June 2016 U.S. Construction Spending will be covered in ShadowStats *Commentary No. 824* of August 5th. The continued rise in headline construction inflation should continue to take a toll on the inflation-adjusted real June 2016 numbers.

PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods. As to the upcoming reporting of June 2016 new orders for durable goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods was “unchanged” at 0.00% in June 2016, having gained 0.18% in May. The decline in annual inflation continued to narrow, however, to a contraction in June 2016 of 0.42% (-0.42%), versus an annual decline of 0.60% (-0.60%) in May 2016. June 2016 durable goods orders will be reported on July 27th and covered in ShadowStats *Commentary No. 822* of that date.

WEEK AND MONTH AHEAD

Economic Deterioration Should Intensify in the Weeks and Month Ahead, Increasingly Pummeling the U.S. Dollar and Boosting Gold, Silver and Eventually Oil Prices. Market expectations for business activity should continue to deteriorate at an accelerating pace, amidst intensifying, negative headline economic reporting and continued Fed-policy retrenchment, with likely movement towards renewed quantitative easing in the months ahead. The general trend in weakening expectations for business activity and movement towards looming recession recognition, reflect a broad spectrum of market-disappointing headline data. Those unfolding circumstances have been discussed in the *Opening Comments*, [Commentary No. 819](#), [Commentary No. 818](#), [Commentary No. 817](#), [Commentary No. 816](#), [Commentary No. 815](#), [Commentary No. 814](#), [Commentary No. 813](#), [Commentary No. 812](#), [General Commentary No. 811](#), [Supplemental Commentary No. 807-A](#), [Commentary No. 800](#), [Commentary No. 799](#), [Commentary No. 796-A](#), [Commentary No. 796](#) and [No. 777 Year-End Special Commentary](#).

In the context of continued systemic gyrations related to Brexit and a likely evolving re-organization of the EU and the euro, as well as in response to perpetual U.S. economic non-recovery and a renewed, intensifying downturn, negative market reactions have surfaced in trading of the U.S. dollar and in related financial markets, with upside pressures on gold, silver and oil prices. Market activity in oil has been mixed, due partially still to some relative U.S. dollar strength, as discussed in the *Opening Comments* of [No. 818](#). These market reactions reflect an intensifying sense of Federal Reserve impotence, with bleak longer term implications for the U.S. dollar. Further tightening by the Fed prior to the election appears unlikely, while renewed quantitative easing could become a target of intensified market speculation, as the deepening recession unfolds and becomes increasingly obvious in the next month or so.

Rapidly weakening, regular monthly economic reporting should be accompanied by much worse-than-expected—negative—reporting for at least the next several quarters of GDP (and GDI and GNP). That was seen with the initial reporting of a small first-quarter 2016 contraction in the Gross National Product (GNP)—the broadest measure of U.S. economic activity—discussed in [No. 809](#), which revised minimally into positive territory with inflation gimmicks (see the *Opening Comments* of [Commentary No. 817](#)).

Pending are meaningful downside revisions to GDP history (including likely headline quarterly contractions for first-quarter 2015, fourth-quarter 2015 and first-quarter 2016), come the July 29, 2016 annual GDP benchmark revisions. A review of likely pending revisions (revisions are limited to first-quarter 2013-to-date) will be published in the next *Commentary No. 821*.

Consistent with the relatively neutral benchmark revisions to retail sales ([No. 804](#)) and housing starts ([No. 807](#)) and in line with recent sharp downside revisions to industrial production ([No. 796-A](#)), durable goods orders ([No. 807-A](#)), and the real merchandise-trade deficit ([No. 810](#)), and despite the positive benchmark revisions to construction spending (see [No. 818](#)), expectations for the GDP benchmarking also should fall sharply. The GDP benchmarking now appears to be the most-likely point at which the elements for a “formal” recession call will come into full play.

CPI-U consumer inflation—intermittently driven lower in 2015 and early-2016 by collapsing prices for gasoline and other oil-price related commodities—likely has seen its near-term, year-to-year low. Headline monthly March to June 2016 detail moved into positive headline territory, in tandem with rising gasoline prices. CPI inflation is on track to increase again in July (with a switch to positive seasonal adjustments to gasoline in July) and likely going forward, still boosted by a weakening U.S. dollar environment, with a generally-related upturn in oil prices, gasoline and other commodities. Fundamental reporting issues with the headline CPI are discussed here: [Public Commentary on Inflation Measurement](#).

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

Data instabilities—induced partially by the still-evolving economic turmoil of the last nine-to-eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn provide particularly unstable headline economic results, when concurrent seasonal adjustments are used (as with retail sales, durable goods orders, employment

and unemployment data). That was discussed and explored in the labor-numbers related [Supplemental Commentary No. 784-A](#) and [Commentary No. 695](#).

Further, discussed in [Commentary No. 778](#), a heretofore unheard of spate of “processing errors” surfaced in recent surveys of earnings (Bureau of Labor Statistics) and construction spending (Census Bureau). This is suggestive of deteriorating internal oversight and control of the U.S. government’s headline economic reporting. At the same time, it indicates an increasing 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](#)). John Crudele of the *New York Post* continues his investigations in reporting irregularities: [Crudele Investigation](#).

PENDING RELEASES:

Residential Construction—Housing Starts (June 2016). The Census Bureau will release June 2016 residential construction detail on Tuesday, July 20th, which will be covered in *Commentary No. 821* of that date. In line with common-reporting experience of recent years, monthly results are likely to be unstable and not statistically meaningful, holding in a general pattern of down-trending stagnation. After recent volatility and annual seasonal-adjustment revisions, consensus estimates likely will be on the upside, as usual, but still well shy of any meaningful, statistically-significant gain.

Irrespective of the generally meaningless headline detail, the broad pattern of housing starts should remain consistent with the low-level, stagnant activity, seen at present, where May 2016 activity remained down by 49% (-49%) from the pre-recession high of the series. Such is particularly evident with the detail viewed in the context of a six-month moving average. Again, this series remains subject to regular and extremely-large, prior-period revisions.

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

The extreme liquidity bind besetting consumers continues to constrain personal-consumption expenditures and residential real estate sales and construction activity. Discussed in today’s Retail Sales comments, without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the U.S. consumer is unable to sustain growth in broad economic activity.