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

#### **COMMENTARY NUMBER 963**

June 2018 Retail Sales, Production, Durable Goods Orders and Freight Activity

July 31, 2018

Economic Reality: Well Shy of Recovery, But Off Bottom and Growing

Net of Inflation-Gimmicked Boosts to Headline U.S. Real GDP Growth, the Broad Economy Remains Well Shy of Recovering Its Peak Activity of 2007

Nonetheless, Real Economic Activity Is Off Its 2009 Bottom, Growing Both Quarter-to-Quarter and Year-to-Year, Since Second-Quarter 2017

Downside Risks to Activity Continue from Deteriorating Consumer Liquidity, Exacerbated by Federal Reserve Tightening Policies

June Real Retail Sales Increased on Top of Upside Revisions, Thanks Again to Unstable and Inconsistent Inflation and Seasonal Adjustments

> **Soft Consumer Goods Production and Orders Throw "Booming" Real Retail Sales Into Question**

June Manufacturing Held Below April Activity, Despite Reversing May Disruptions, Still Shy by 5.6% (-5.6%) of Recovering Its 2007 Pre-Recession High, in a Record 42-Consecutive Quarters (126 Months) of Economic Non-Expansion

> Production Increased on Top of Downside Revisions, the Manufacturing Reversal and Strength in Oil and Gas Extraction

Annual Growth in June Freight Index Backed Off Recent Surge; Current Activity Still Shy by 5.2% (-5.2%) of Recovering a Pre-Recession High

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**PLEASE NOTE:** Following in the next day or two, *Commentary No. 964* will provide expanded coverage of the first estimate of Second-Quarter 2018 GDP and the Comprehensive Annual GDP Benchmark revisions back to 1929, updating the initial coverage in *Commentary No. 962*.

Preliminary coverage on July Employment and Unemployment, and the June Trade Deficit and Construction Spending will follow on Friday August 3rd. Updated Hyperinflation and Consumer Liquidity Watches should be posted early in the August 6th week.

Links to the most-recent *Watches:* <u>Hyperinflation Watch – No. 2</u> (July 20th) and <u>Consumer Liquidity Watch – No. 3</u> (July 18th). The *Watches* always are available directly at <u>www.shadowstats.com</u>, along with your case-sensitive login and password. Updates are advised by e-mail, unless you request otherwise (send a note to: <u>johnwilliams@shadowstats.com</u>).

Planned publication schedules, revisions to same and notes to subscribers are posted regularly in the top left hand-column (under the *Latest Commentaries* heading) of the *ShadowStats* home page.

Best wishes to all, John Williams (707) 763-5786

New Orders for Durable Goods and the Cass Freight Index<sup>TM</sup>.

**Today's (July 31st)** *Opening Comments* reviews the current economic circumstance in the context of headline second-quarter GDP reporting and annual benchmark revisions, and recent reporting of June Industrial Production,

The *Reporting Detail* reviews the June 2018 Nominal and Real Retail Sales, Industrial Production and Nominal and Real New Orders for Durable Goods.

The *Week, Month and Year Ahead* provides background on recent *Commentaries* and discusses/previews this week's releases of the June 2018 Construction Spending and Trade Deficit and the reporting of July Employment and Unemployment.

Commentary No. 963 major topic contents, graphs and tables are linked on following page.

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#### **OPENING COMMENTS**

Economic Reality Remains Well Shy of Full Recovery, But Off Bottom and Growing GDP Versus Manufacturing, New Orders and Cass Freight Index<sup>TM</sup> (June 2018)

**Deflated by Realistic Inflation, Not by the Understated Inflation Used to Spike Headline Real GDP, the U.S. Economic Activity Is Off Bottom and Growing, but It Never Has Recovered Its 2007 Peak.** Discussed in the *Public Commentary on Inflation Measurement*, and as will be reviewed and detailed in the pending *Special Commentary No. 964*, the headline, inflation-adjusted or real estimates of U.S. Gross Domestic Product (GDP) growth and level of activity, consistently and systematically have been overstated by the government, through the use of deliberately understated headline inflation. Using too low an inflation rate in deflating economic growth results in an overstatement of the inflation-adjusted or "real" headline growth. At present, that inflation-rate differential for the GDP is running at about two-percentage points on an annual basis, slightly increased post-2018 benchmark revisions.

*Headline GDP*. Both before and after the July 27th comprehensive benchmarking to the GDP and the initial estimate of second-quarter 2018 GDP, headline U.S. GDP activity peaked in fourth-quarter 2007, plunged into second-quarter 2009, recovered its pre-recession high in second-quarter 2012, and expanded sharply into the latest headline reporting. The benchmarking left in place the worst recession since the Great Depression, albeit somewhat shallower, and the expansion somewhat greater than previously reported.

Peak-to-trough, headline GDP collapsed by 4.0% (-4.0%) [previously by 4.2% (-4.2%)] and expanded beyond its pre-recession high by 17.4% as of second-quarter 2018, by 16.3% [previously 15.9%] as of first-quarter 2018. Against its cycle low, headline second-quarter 2018 was up by 22.3%.

Headline GDP Corrected for Underestimated Headline Inflation. Regularly estimated and plotted by ShadowStats is headline GDP activity, corrected for the deliberate and regular understatement of the GDP inflation rate. Using understated inflation here has had politicians' desired effect of boosting headline real economic growth from what it would have in common experience. Allowing for former intermittent peak levels as early as first-quarter 2016, the "Corrected" U.S. GDP activity also had a near-peak in fourth-quarter 2007, plunged into third-quarter 2009, but it never has come close to recovering its pre-recession high, let alone expanding beyond it. "Recovery" is defined here as activity recovering its pre-recession peak. "Expansion" is defined as growth above pre-recession peak activity.

Nonetheless, the benchmark-revised "Corrected" GDP series is off the bottom, at its highest level since 2008, and it has enjoyed positive quarterly and annual real growth since second-quarter 2017.

Based on the latest details, peak-to-trough, headline "Corrected" GDP collapsed by 7.0% (-7.0%), and at present, has recovered from its trough of third-quarter 2009 by 1.9%. Considering the bottom bouncing of recent years, the second-quarter 2018 level of activity was at its highest level in almost ten years since fourth-quarter 2008. In the corrected benchmarking, it beat the prior-peak activity seen with a brief rally during the Obama Administration, which petered out in late-2015. Now the corrected activity is at its highest level since fourth-quarter 2008, when it still was in a state of collapse.

Encouraging now is that the quarter-to-quarter and year-to-year changes consistently have been in positive territory for five straight quarters, since second-quarter 2017, which happens to have been the first full quarter of the Trump Administration.

"Corrected" Activity Patterns of the GDP Are Confirmed by Some Real-World Economic Measures, Including Freight Activity, Manufacturing and New Orders for Durable Goods. The purpose in discussing the benchmarked "Corrected" Real GDP numbers here, in today's *Commentary*, although they also will be detailed in the extended GDP coverage of pending *Commentary No. 964*, is that the patterns of early recovery now seen in the GDP, happen to be moving largely in tandem with some other of the better-quality statistics than the gimmicked Headline Real GDP.

Activity patterns shown in the accompanying "Corrected" GDP *Graph OC-1* and the Cass Freight Index<sup>TM</sup> *OC-2* are similar; note the consistent patterns of aborted 2015 recoveries, now having moved to uptrending, higher activity in the latest 2018 detail. Those patterns are repeated in *Graph OC-3* of Manufacturing and *OC-4* of New Orders. Annual growth patterns are plotted in *Graphs OC-5* to *OC-8*.

Consider that the just-discussed, benchmark-revised, second-quarter "Corrected" Real GDP estimate was 5.3% (-5.3%) shy of recovering its pre-recession peak, while the headline, gimmicked second-quarter 2018 Real GDP again was up by 22.3% against its recession trough, and expanded by 17.4% beyond its pre-recession peak. As will be discussed in *No. 964*, no other economic measure or employment indicator comes close to the purported headline GDP expansion.

Yet, in the context of second-quarter "Corrected" GDP, again, being 5.3% (-5.3%) shy of recovering its pre-recession peak, the other indicators tend to confirm that. Based on headline June 2018 reporting for each monthly series, versus its pre-recession peak, the CASS Freight Index<sup>TM</sup> was down by 5.2% (-5.2%), the Manufacturing Sector of Industrial Production was down by 5.6% (-5.6%) and Real New Orders for Durable Goods, Ex-Commercial Aircraft was down by 5.9%. Where the Manufacturing and New Orders series regularly are compared here with the release of a given month's freight index, today's assessment includes the "Corrected" GDP, which otherwise will be explored in *No. 964*. Discussion of the headline production and new orders details follow in later, separate sections.

Freight Index Pulls Back From Its Unadjusted, Monthly Post-Recession Peak High, With Slowing Annual Growth, Still Non-Expanding; Shy by 5.2% (-5.2%) of Recovering Its Pre-Recession Peak. An independent, reliable private indicator of real-world economic activity and shifting business patterns, the June 2018 Cass Freight Index<sup>TM</sup> was published July 18th. Again, we thank Cass Information Systems for their permission to use the data.

Although uptrending, the improving series remains shy of full economic recovery and took a somewhat slower, albeit still-strong pace of annual growth in the latest detail. The headline detail here remains as published, not seasonally adjusted and not subject to annual benchmark revisions, unlike some of the purportedly better-quality government numbers, such as Industrial Production and New Orders for Durable Goods that still are heavily modeled and gimmicked (see <u>Commentary No. 942-B</u> and <u>Commentary No. 950</u>), let alone the extraordinarily heavy gimmicking in the headline GDP.

The June 2018 Cass Freight Index numbers continued in low-level economic non-expansion as otherwise reflected in some elements of broad economic and general business activity, yet showing a pattern of positive, uptrending headline activity. The pace of year-to-year growth backed off to 7.2% in June 2018, from 11.9% in May, from near-term January 2018 peak of 12.5%. The unadjusted monthly level of June activity also backed off May's post-recession high, still holding below its pre-recession peak activity.

The 12-month trailing average of activity, however, did hit a post-recession high, yet it remained meaningfully shy of recovering its pre-recession peak. Activity reflected in the 12-month trailing average—used to eliminate seasonality in the unadjusted series (see the *General Background to the Freight Index*)—remained in low-level, uptrending stagnation, down by 5.16% (-5.16%) from recovering its formal pre-recession high, down by 8.17% (-8.17%) from its precursor peak (see *Graph OC-2*).

For the nineteenth consecutive month, the twentieth month in the last twenty-one, year-over-year change in the unadjusted monthly index was positive. It dropped sharply, though, to 7.22%, versus 11.90% in May 2018, 10.18% in April 2018, and still down from its near-term peak of 12.54% in January 2018, which had surged, having started to pick up in year-to-year change with November 2017, after several months of slowing growth (see *Graph OC-6*). Annual growth had hit a near-term peak of 7.06% in May 2017, falling back to 4.77% in June 2017, slowing to 1.35% in July 2017, rebounding to 3.86% in August 2017, falling back anew to 3.24% in September 2017 and to 2.85% in October 2017. It began rebounding in November 2017 to 6.26%, to 7.17% in December 2017, peaking at 12.54% in January 2018, easing back to 11.44% in February 2018, then 11.94% in March 2018, 10.18% in April 2018, 11.90% in May 2018 and now back to 7.22% in June 2018.

A consecutive string of nineteen months of annual contraction in the Freight Index began in March 2015. That was consistent with the "new" recession signal following the near-term Industrial Production peak in November 2014 (recovered anew in initial March 2018, reporting, lost again with the annual benchmark revisions, only to be regained once more with the headline April 2018 level, yet easing back, though still recovered in headline May 2018 detail as discussed in the prior section).

Comparative growth patterns of the Freight Index versus the never-recovered, dominant Manufacturing Sector of Industrial Production and Real New Orders for Durable Goods, Ex-Commercial Aircraft are shown in *Graphs OC-2* to *OC-4* as to level and in *Graphs OC-6* to *OC-8* as to year-to-year change. Again, the respective comparative graphs for the "Corrected" GDP are *Graphs 1* and *Graph 5*.

The recent, strengthening pattern of monthly year-to-year gains in the Cass Index excited the trucking-industry that the recession in freight activity had hit bottom, and that activity was moving higher, once again. That certainly still appears to be the case. Yet, even with high levels of positive annual gain in the first six months of 2018, current patterns of smoothed levels of activity and year-to-year gains have yet to break out of the not-recovered pattern of the last ten-plus years and to enter a period of new economic expansion. As shown in *Graph OC-2*, monthly activity is uptrending, although not yet fully recovered.

*Early Recovery, But No Economic Expansion*. When economic activity starts to recover, such happy growth traditionally is not clocked formally as new economic "Expansion," until the level of the series breaks above its prior, pre-recession high. This is reviewed in *Commentary No.* 875 and expanded upon in *Commentary No.* 876, on the nature of the business cycle.

Noted earlier, the ShadowStats smoothed (12-month trailing average) headline reading on the Cass Freight Index, through June 2018 (*Graph OC-2*) remained down by 8.17% (-8.17%) from "Recovering" its preliminary pre-recession peak of September 2006, down by 5.16% (-5.16%) from recovering its formal "Pre-Recession Peak" of December 2007 (Fourth-Quarter 2007). That also was the formal peak for the Industrial Production, Manufacturing and GDP series. While the "Recovery" receives the benefit of growth off low levels of activity—the recession "Trough"—the deficit in current activity versus the pre-recession peak has to be overcome, before formal, economic "Expansion" begins.

Economic downturns eventually hit bottom. The official collapse in aggregate economic activity (as measured by the headline, inflation-adjusted, real Gross Domestic Product or GDP), which formally has been recognized from peak activity in December 2007 to a trough in June 2009, appears to be accurate in terms of timing the trough.

General Background to the Freight Index. [This section largely is repeated from its prior version in Commentary No. 956.] Beginning with Commentary No. 782 (further information is available there), ShadowStats published the detail on the Cass Index, a measure of North American freight volume as calculated by, and used with the permission of Cass Information Systems, Inc. Freight activity is a basic, underlying indicator of commercial activity and broad GDP. Of the combined U.S. and Canadian (North American) GDP in 2017, roughly 92% was attributable to the United States.

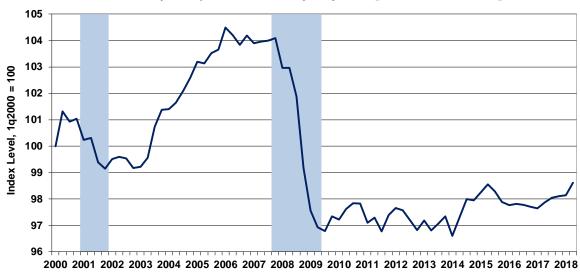
Graph OC-2 reflects the monthly freight numbers updated through June 2018. While adjusted for factors such as days in a month, the headline monthly detail is not adjusted for broad seasonality patterns, such as retailers stocking for the holiday shopping season. Accordingly, ShadowStats plots the series using a trailing twelve-month average, which tends to neutralize regular seasonal patterns over the period of a year, along with the unadjusted monthly detail plotted in the background. ShadowStats also re-indexed the series to January 2000 = 100, consistent with other graphs used here. The headline Cass Index plot is based on January 1990 = 100. The plot of the trailing twelve-month average of the freight index shows it hit a near-term peak in February 2015, consistent with the onset of a "new recession" in December 2014. It slowed through September 2016, then flattened out and turned back to the upside through the current June 2018 reading, its highest level of the post-recession period, although still shy of its pre-recession peak (again, see Graph OC-2).

Another approach to assessing not-seasonally-adjusted monthly detail is to look at year-to-year change by individual month, as plotted in *Graph OC-6*. The unadjusted monthly detail had been in continual year-to-year decline since March of 2015, down at an intensified annual rate of 3.05% (-3.05%) in September 2016. It rallied to an annual gain of 2.66% in October 2016, but fell back into year-to-year contraction of 0.05% (-0.05%) in November 2016, coming back to the plus-side by 3.46% in December 2016. Annual growth fluctuated thereafter in direction until rebounding to 6.26% in November 2017, 7.17% in December 2017, 12.54% in January 2018, with easing back 10.18% in April 2018, up to 11.90% in May 2018 and now dropping to a still strongly positive 7.22% in June 2018. In combination, *Graphs OC-1* to *OC-8* remain consistent with a pattern of collapsing economic and business activity into 2009, low-level, non-recovering, albeit currently uptrending stagnation.

Graph OC-1: Benchmark-Revised, Real GDP, Corrected for Understated Headline Inflation Used in Deflation

#### **Benchmark-Revised Corrected Real GDP**

Nominal GDP Deflated by Implicit Price Deflator Corrected for Roughly Two-Percentage Point Understatement of Annual Inflation Quarterly to 2q2018, Seasonally-Adjusted [ShadowStats, BEA]



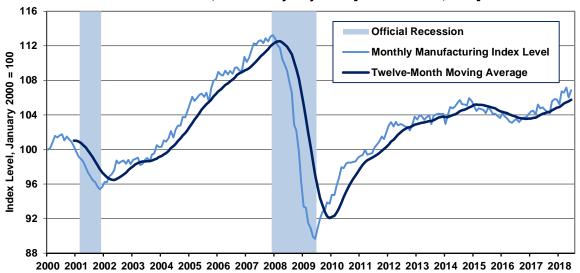
Graph OC-2: CASS Freight Index™ Moving-Average Level (2000 to June 2018)

## Cass Freight Index<sup>™</sup> (January 2000 = 100) To June 2018, Not Seasonally Adjusted [ShadowStats, Cass Information Systems, Inc.]

125 120 Official Recession 115 Monthly Level, Not Seasonally Adjusted Index Level, January 2000 = 100 12-Month Trailing Average 110 105 100 95 90 85 80 75 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

Graph OC-3: Industrial Production-Manufacturing, 12-Month Moving-Average Level (2000 to June 2018)

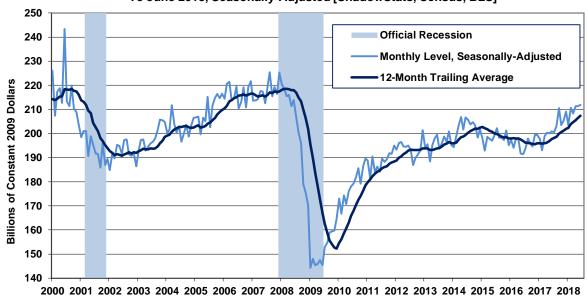
## Production - Manufacturing (SIC) Index Reset to January 2000 = 100, Monthly and 12-Month Moving Average To June 2018, Seasonally Adjusted [ShadowStats, FRB]



Graph OC-4: New Orders for Durable Goods, 12-Month Moving-Average Level (2000 to June 2018)

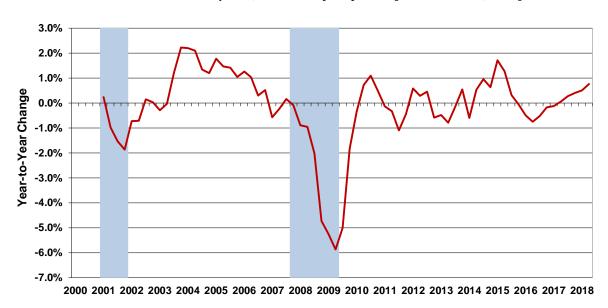
Real Durable Goods Orders (Ex-Commercial Aircraft)

Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



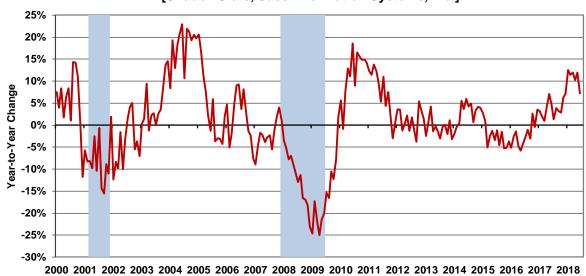
Graph OC-5: Benchmark-Revised Corrected-GDP, Year-to-Year Percent Change (2000 to Second-Quarter 2018)

### Benchmark-Revised Corrected-GDP Yr-to-Yr Percent Change 2000 to 2q2018, Seasonally-Adjusted [ShadowStats, BEA]



Graph OC-6: CASS Freight Index, Monthly Year-to-Year Percent Change (2000 to June 2018)

## Cass Freight Index™ (Year-to-Year Percent Change) Monthly to June 2018, Not Seasonally Adjusted [ShadowStats, Cass Information Systems, Inc.]



Graph OC-7: Manufacturing, Year-to-Year Percent Change (2000 to June 2018)
(Same as Graph 16 in the Reporting Detail)

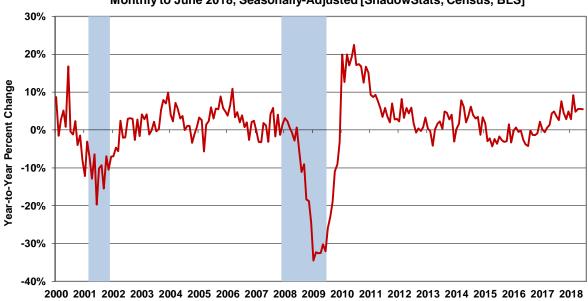
### Production - Manufacturing (Year-to-Year Percent Change) To June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph OC-8: New Orders for Durable Goods, Year-to-Year Percent Change (2000 to June 2018)

(Same as Graph 33 in the Reporting Detail)

## Real New Orders for Durable Goods (Ex-Commercial Aircraft) Year-to-Year Percent Change, Deflated by PPI Durable Manufactured Goods Monthly to June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



#### REPORTING DETAIL

#### Retail Sales (June 2018)

Headline June Retail Sales Gained Sharply, on Top of Upside Revisions, Skewed Again by Inconsistent Seasonal Factors. Before inflation adjustment, nominal, seasonally-adjusted Retail Sales in April, May and June, respectively rose month-to-month by 0.3%, 1.3% and 0.5%. Net of headline, seasonally-adjusted CPI-U inflation, real changes in those same month-to-month periods were 0.1% in April, 1.1% in May and 0.4% in June. Yet, for a second month, seasonal factors were skewed heavily, likely by relative seasonal-factor distortions that included unusual price swings in gasoline, and seasonal adjustments to same, as separately seasonally-adjusted in the CPI series relative to nominal sales volume.

If the same seasonal adjustments for May and June 2017 were used for May and June 2018, the headline month-to-month change in June 2018 sales would have been a nominal contraction, instead of a gain. Given somewhat more-stable gasoline prices in the last couple of months, these distortion may balance out a bit with the headline July Retail Sales reporting and revisions to June and May with the pending August 15th reporting. At present, the headline numbers do not appear to be particularly stable or credible.

Nonetheless, where these headline real monthly sales gains were respectable, they still ran counter to broadly based weakness in the production of June consumer goods, allowing for May-to-June gyrations due to a May supply distortion, as will be discussed in the Industrial Production detail. Separately, the Retail Sales strength is running counter to a variety of faltering consumer liquidity indicators (see  $Consumer\ Liquidity\ Watch-No.\ 3$ ).

*Headline Nominal Retail Sales—June 2018.* The Census Bureau reported its "advance" estimate of June 2018 *Retail Sales* on Monday, July 16th. The headline, seasonally-adjusted monthly gain of 0.49% +/-0.59% was statistically-insignificant (all confidence intervals are expressed at the 95% level). The upwardly revised May monthly gain of 1.32% [previously 0.83%] +/- 0.23%, however, was statistically-significant.

That May gain was on top of the revised monthly gain of 0.34% [previously 0.36%, initially 0.23%] in April, and unrevised gains of 0.72% in March, 0.10% in February and a decline of 0.12% (-0.12%) in January. Net of the prior-month's revision, the June 2018 nominal monthly sales gain was 0.96% instead of the headline 0.49%.

*Year-to-Year Annual Nominal Change*. The June 2018 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 6.60% +/- 0.82%, versus revised annual gains of 6.46%

[previously 5.87%] in May 2018 and 4.76% [previously 4.78%, initially 4.64%] in April 2018 and unrevised annual gains of 5.09% in March 2018, 4.53% in February 2018 and 3.95% in January 2018.

June 2018 "Core" Retail Sales, Net of Food and Gasoline. In theory, the nominal June 2018 environment should have been positive for grocery stores, with seasonally-adjusted food prices rising by 0.18%, and positive for gasoline stations, with seasonally-adjusted gasoline prices up by 0.57%, per the Bureau of Labor Statistics (BLS). That said, adjusted retail sales grocery-store sales declined by 0.21% (-0.21%), per the Census Bureau, with seasonally-adjusted gasoline-station sales up by 1.02% (unadjusted price gained by 0.31% in the month). Given the extreme volatility in headline gasoline prices, seasonally-adjusted and otherwise (May adjusted gasoline rose by 1.72%, unadjusted by 5.87% in the month, versus a revised sales gain of 3.02% [previously 2.01%]), one has to wonder as to the nature and consistency of the headline reporting and seasonal adjustments being used between these two series, as combined by the Saint Louis Fed in its monthly calculations of Real Advance Retail Sales. Consistent reflection of headline gasoline prices versus gasoline-station sales would have resulted in weaker Real Retail Sales growth in both June and May.

That said, under normal conditions, the bulk of non-seasonal variability in fundamental food and gasoline sales is in pricing, instead of demand. Consistent with the Federal Reserve's historical preference for ignoring food and energy prices (as though people can live without consuming same), when "Core" inflation is lower than full inflation (at times when the Fed is looking to downplay inflation), "Core" retail sales are estimated using two approaches:

<u>Version I:</u> Nominal June versus May 2018 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—rose by 0.52%, versus the official headline aggregate sales gain of 0.49%.

<u>Version II:</u> Nominal June versus May 2018 seasonally-adjusted retail sales series—net of the monthly *change* in grocery store and gasoline-station revenues—rose by 0.42%, versus the official headline aggregate sales gain of 0.49%.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind increasingly should be constraining retail sales and other consumer activity (see particularly the earnings and consumer credit details in the Consumer Liquidity Watch – No. 3). Without sustainable growth in, and with intensified patterns of, consecutive quarterly contractions in real earnings, and without the ability and/or willingness to take on meaningful new credit in order to make up for the income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including retail sales, real or nominal, at least in theory. That circumstance—in the last ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad, inflation-adjusted U.S. economic activity.

Of note, the consumer-dependent now-72.7% portion of benchmarked revamped second-quarter GDP shrank from 72.8% in first-quarter 2018, and from 73.1% in fourth-quarter 2017 real GDP activity, reflecting mounting constraints on both consumer consumption and investment. The consumer drives the economy, and a pullback there increasingly should be reflected in almost all other sectors of the economy.

As headline consumer inflation continues its upside climb in the year ahead, and as overall headline Retail Sales should continue to suffer from the ongoing consumer liquidity squeeze, irrespective of current headline strength, real Retail Sales growth should trend meaningfully lower.

Real Retail Sales Corrected for Understated Inflation and Otherwise. Graphs 3 and 5 show the headline levels of inflation-adjusted Real Retail Sales activity (deflated by the CPI-U), while Graphs 4 and 6 show year-to-year percent change. Headline real retail sales peaked with the broad economy (GDP) in fourth-quarter 2007 (December 2007) and collapsed into 2009. The March 2009 trough was followed by a "recovery" into 2012, recovering its pre-recession high, and an "expansion" 2013-to-date, with headline activity moving beyond its pre-recession peak level. Those patterns also are reflected here in Graph 1.

That "recovery" and "expansion" shown in the headline graphs, however, largely reflected the U.S. government's deliberate understatement of headline CPI-U inflation. Most economic numbers are viewed net of inflation, so as to get a sense of underlying physical activity and volume in the economy.

For example, if a retail storeowner noted that sales in June 2018 were up year-to-year by 4.0% from the year-before, there would be some value in knowing that 2.8% of that gain was in inflation, with physical sales (real sales) volume up by 1.2%.

If the inflation estimate used were understated, the resulting "real" or "inflation-adjusted" growth would be overstated. Using the prior example, if sales were up by 4.0%, but inflation was really 5.0%, instead of 2.8%, physical sales volume would have declined by 1.0% (-1.0%) instead of having gained 1.2%.

Discussed in the <u>Public Commentary on Inflation Measurement</u>, the U.S. government began changing CPI reporting methodologies back in 1980s so as to reduce headline inflation and inflation-adjusted government outlays, such as Cost of Living Adjustments for Social Security recipients. Also see <u>Chapter 9 of 2014 Hyperinflation Report—Great Economic Tumble</u> – <u>Second Installment</u>. These inflation-adjustment issues are separate from the adjustment issues mentioned in the opening paragraph of this section.

Graphs Reflecting Alternate Inflation-Adjustment. Both of the accompanying Graphs 1 and 2 of Real Retail Sales are indexed to January 2000 = 100.0, so as to maintain consistency with the series of graphs related to corrected inflation-adjustment. Parallel, regular plots of the ShadowStats "corrected" Industrial Production Index are found in that section (see Graphs 8 and 9 on page 24), Graphs 34 to 37 (on page 46) follow for the "corrected" New Orders for Durable Goods in that section, and Graph OC-1 (on page 9) for GDP series in today's Opening Comments. Covered previously in Commentary No. 957, the GDP series will be discussed and updated in pen ding Commentary No. 964, which will provide extended coverage on will detail the just-published second-quarter GDP and comprehensive GDP benchmark revisions back to 1927.

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 the same for the official series, whether the series is indexed or expressed in dollars, as is evident in a comparison of *Graph 1* with *Graph 3* plotted in headline CPI-U deflated dollars.

Instead of being deflated by the CPI-U, the "corrected" Real Retail Sales numbers—in *Graph 2*—use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation.

Graph 1: Headline Real Retail Sales Level, Indexed to January 2000 = 100

### Indexed Real Retail Sales Level (Deflated by CPI-U) To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 2: "Corrected" Real Retail Sales Level, Indexed to January 2000 = 100

## Corrected Real Retail Sales Level Deflated by Shadow-Stats-Alternate CPI (1990-Base) To June 2018, Seasonally-Adjusted [ShadowStats, Census]



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 more consistent with consumer indicators such as Real Average Weekly Earnings (see *Graph CLW-8* in the *Consumer Liquidity Watch – No. 3*) and faltering consumer liquidity conditions, than is seen with headline Real Retail Sales detail.

Formal Headline Real Retail Sales—June 2018—Despite Some Mixed Shifts in Positive Headline CPI-U Inflation, Real Sales Gained by 0.37% in the Month with Annual Growth at 3.71%. Calculated by the Saint Louis Federal Reserve, Real Retail Sales deflates the Commerce Department's Nominal Retail Sales numbers using the headline Consumer Price Index CPI-U, as published by the Bureau of Labor Statistics on July 12th (see Commentary No. 960). The headline levels of, and year-to-year change in, the monthly Real Retail Sales are plotted in Graphs 3 to 6.

The June 2018 Consumer Price Index showed the seasonally-adjusted CPI-U up month-to-month by 0.13%, versus 0.21% in May and 0.22% in April, a decline of 0.06% (-0.06%) in March and gains of 0.15% in February and 0.54% in January (see the *Consumer Price Index* section of *Commentary No. 960* for detail).

Deflated by the CPI-U, June 2018 Real Retail Sales gained by 0.37% month-to-month, following real monthly gains of 1.11% in May, 0.12% in April, 0.78% in March and declines of 0.05% (-0.05%) in February and 0.66% (-0.66%) in January. That headline real monthly gain in June 2018 Retail Sales of 0.38%, was a gain of 0.84% net of prior-period revisions.

In the context of year-ago revisions for May 2017 (downside) and June 2017 (downside), year-to-year real growth was 3.71% in June 2018, 3.64% in May 2018, 2.28% in April 2018, 2.67% in March 2018, 2.22% in February 2018 and 1.77% in January 2018, 3.10% in December 2017 and what was a three-year high of 3.85% in November 2017. Accordingly, as discussed in *Commentary No. 936*, the upside boost to real retail sales activity from the late-2017 natural-disaster-recovery distortions appeared to have peaked in November 2017. The underlying ShadowStats outlook of minimally-recovering (see the *Opening Comments*) or non-recovering broad economic activity and renewed downturn in recent years, based partially on key headline reporting being systematically overstated, has not changed (again, see *Real Retail Sales Corrected for Inflation Understate and Otherwise*).

**Real Retail Sales Graphs.** The first of four graphs following, *Graph 3* shows the level of real retail sales activity (deflated by the CPI-U) since 2000; *Graph 4* shows the year-to-year percent change for the same period. Annual real growth had slowed markedly into fourth-quarter 2015 and 2016, generating an intense recession signal. Again, with recent volatility, including natural-disaster-recovery activity and the near-term peak in annual real growth in November 2017, that recession signal had been put in temporary abeyance. Yet, with first-quarter 2018 real annual growth now at a benchmark revised 2.2% (prebenchmark of 2.0%), a solid recession signal had been restored, only to disappear anew with initial year-to-year real retail sales growth in second-quarter 2018 up at 3.2%. *Graphs 5* and 6 show the level of, and annual growth in, real retail sales (and predecessor series) in full post-World War II detail.

Inflation-Adjusted Series Showed a Sharp Second-Quarter Quarterly Gain, Off a Sharp First-Quarter Quarterly Contraction. As reported by the Saint Louis Federal Reserve in its regular deflation of nominal retail sales using the CPI-U, the headline, inflation-adjusted or real first-quarter 2018 Retail Sales contracted at an annualized quarterly pace of 1.67% (-1.67%), the weakest quarter since second-quarter

2012. Such at least partially reflected a sharp easing from fourth-quarter natural-disaster-recovery boosts. With June 2018 reporting in hand, second-quarter 2018 real growth jumped to an annualized 6.11%.

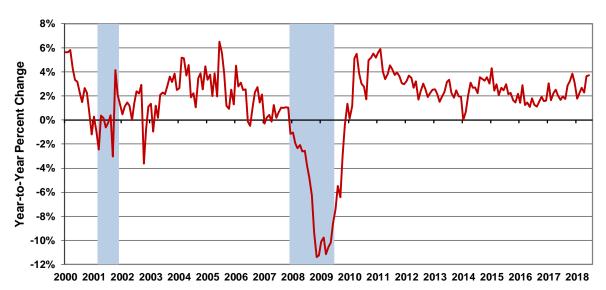
Graph 3: Level of Real Retail Sales (2000 to Date)





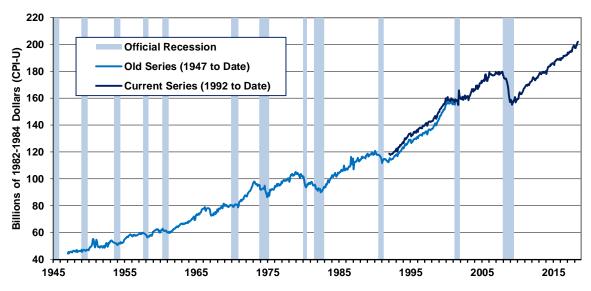
Graph 4: Real Retail Sales (2000 to Date), Year-to-Year Percent Change

#### Real Retail Sales Year-to-Year Percent Change To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



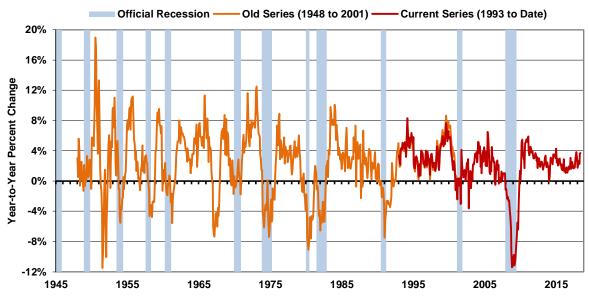
Graph 5: Level of Real Retail Sales (1947 to Date)





Graph 6: Real Retail Sales (1948 to Date), Year-to-Year Percent Change

#### Real Retail Sales Year-to-Year Percent Change 1948 to June 2018, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



[Coverage of June 2018 Industrial Production begins on the next page.]

#### **Industrial Production (June 2018)**

"Rebound" in June Production Largely Reflected a Downside Revision to May Activity; While the Manufacturing Sector Completed a Record 126th Straight Month of Economic Non-Expansion. Industrial Production gained 0.6% in June 2018, but 0.4% of that gain reflected a downside revision to the level of May production. The 0.8% monthly gain in June Manufacturing, reversing the negative impact of a supply disruption in May, did not fully offset May's revised decline of 1.0% (-1.0%) [previously down by 0.7% (-0.7%)]. June Manufacturing held shy by 5.6% (-5.6%) and 5.5% (-5.5%), respectively, of recovering its pre-recession peak on a monthly basis against December 2007, and on a quarterly basis for second-quarter 2018 versus fourth-quarter 2007.

May 2018 Manufacturing had been hit by a one-time supply disruption for truck assemblies, which hit that sector hard, but reversed in June. Nonetheless, the "recovered" June Manufacturing Sector held below April activity, as did Consumer Goods Production, both Durable and Non-Durable.

With June 2018 Manufacturing again holding shy of recovering its precession peak by 5.6% (-5.6%), the series now has logged a record string of 126 straight months or 42 straight quarters of economic non-expansion, a circumstance never seen in the 100-year history of Industrial Production reporting.

On the plus-side for aggregate production, Oil and Gas Exploration and Extraction continued to boost the Mining Sector in June, while Utility usage declined in the month.

**Headline Monthly and Annual Details.** The July 17th publication of June 2018 Industrial Production activity by the <u>Federal Reserve Board</u> included a related downside revision to May activity, an upside revision to April, with minimal revisions otherwise back to January 2018, all as reflected in *Table 1*. Those revisions also affected aggregate production activity for first-quarter 2018, along with the initial estimate of second-quarter 2018. Nonetheless, the dominant factor in the headline aggregate June production growth was the reversal of a one-time supply disruption that hit the dominant Manufacturing Sector, with a corresponding one-time reversal of the month-to-month distortion in June.

The June 2018 aggregate Industrial Production headline monthly gain of 0.62%, followed a revised May contraction of 0.50% (-0.50%) [previously 0.09% (-0.09%)] and a revised monthly gain of 1.10% [previously 0.91%] in April. Net of prior-period revisions, June production rose by 0.38%, instead of the headline 0.62%, while net of prior-period revisions, May 2018 activity declined by 0.32% (-0.32%) instead of the initial decline 0.09% (-0.09%).

Year-to-year, June 2018 Industrial Production gained 3.80%, versus a downwardly-revised 3.22% [previously 3.46%] in May 2018, versus an upwardly-revised 3.73% [previously 3.55%] in April 2018, where earlier annual revisions were minimal.

Table 1: Industrial Production and Its Major Sectors

Table 1: Index of Industrial Production (IIP) and Major Sectors to June 2018										
by Month, 2012 = 100.000 for All Indices										
Measure	Weight	Jun '18	May	Apr	Mar	Feb	Jan	Dec '17		
IIP Index	100.0%	107.714	107.052	107.587	106.413	105.870	105.437	105.770		
- Prior			107.301	107.400	106.429	105.874	105.432	105.770		
Mo/Mo		0.62%	-0.50%	1.10%	0.51%	0.41%	-0.31%	0.45%		
- Prior			-0.09%	0.91%	0.52%	0.42%	-0.32%	0.45%		
Yr/Yr		3.80%	3.22%	3.73%	3.59%	3.63%	2.83%	2.90%		
- Prior			3.46%	3.55%	3.61%	3.64%	2.82%	2.90%		
Manufacturing	75.5%	103.885	103.066	104.152	103.595	103.747	102.304	102.836		
- Prior			103.528	104.210	103.611	103.734	102.294	102.836		
Mo/Mo		0.80%	-1.04%	0.54%	-0.15%	1.41%	-0.52%	-0.05%		
- Prior			-0.66%	0.58%	-0.12%	1.41%	-0.53%	-0.05%		
Yr/Yr		1.91%	1.23%	1.86%	2.44%	2.12%	0.84%	1.69%		
- Prior			1.68%	1.92%	2.46%	2.11%	0.83%	1.69%		
Mining	14.1%	123.678	122.213	119.536	118.650	117.068	113.877	115.073		
- Prior			122.149	119.952	118.763	117.169	113.900	115.073		
Mo/Mo		1.20%	2.24%	0.75%	1.35%	2.80%	-1.04%	1.06%		
- Prior			1.83%	1.00%	1.36%	2.87%	-1.02%	1.06%		
Yr/Yr		12.92%	12.65%	10.83%	11.21%	9.99%	9.38%	12.19%		
- Prior			12.59%	11.21%	11.32%	10.09%	9.40%	12.19%		
Utilities	10.4%	106.218	107.792	108.502	102.604	98.426	108.842	106.610		
- Prior			106.903	105.782	102.491	98.426	108.842	106.610		
Mo/Mo		-1.46%	-0.65%	5.75%	4.24%	-9.57%	2.09%	3.19%		
- Prior			1.06%	3.21%	4.13%	-9.57%	2.09%	3.19%		
Yr/Yr		4.98%	4.89%	8.10%	2.02%	6.73%	9.53%	0.85%		
- Prior			4.03%	5.39%	1.91%	6.73%	9.53%	0.85%		
Sources: Federal Reserve Board, ShadowStats										

*Growth by Major Sector.* Detailed by major industry group (see *Graphs 12*, *14*, *21* and *23*), the June 2018 aggregate Industrial Production monthly gain of 0.62%, broke out by component sector as a gain of 0.80% in supply-disrupted Manufacturing, a gain of 1.20% in Mining (dominated by Oil and Gas production) and a decline of 1.46% (-1.46%) in Utilities.

In the wake of the July 27th Comprehensive Benchmark Revision to GDP (to be explored in pending *Commentary No. 964*), the ShadowStats estimate of the GDP Series Corrected for Understatement of Headline Inflation increasingly resembles patterns of activity seen the in Manufacturing Sector, as plotted and compared in today's *Opening Comments* section, along with the CASS Freight Index<sup>TM</sup> and Real New Orders for Durable Goods, Ex-Commercial Aircraft.

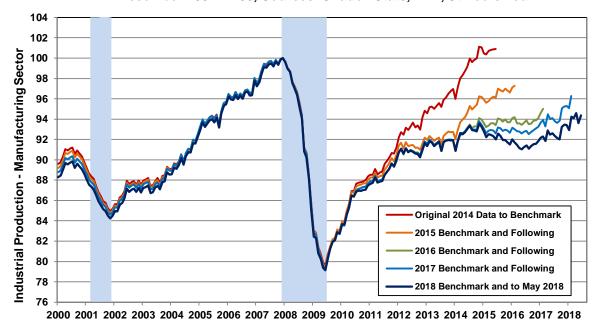
Separately, the GDP Benchmarking appeared to show no obvious impact to the aggregate historical GDP activity from recent downside benchmark revisions to Industrial Production, Manufacturers' Shipments

and New Orders for Durable Goods, etc., such as reflected here in *Graph* 7. Later detail to be published by the Bureau of Economic Analysis likely will provide some clarity as to the circumstance.

Graph 7: Annual Benchmark Revisions to the Dominant Manufacturing Sector of Industrial Production

Manufacturing Level - Annual Benchmark Revisions and to June 2018

December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed



**Production Activity and Graphs—Corrected and Otherwise.** Reflecting the broadly-negative, March 23rd annual benchmark revisions to Industrial Production, and subsequent monthly revisions through the headline June 2018 detail, index-level and annual-growth production details are found in and plotted in *Graphs 11* to *14*, along with the drill-down graphs of major subcomponents of the production series in *Graphs 15* to *30*.

The level of headline production showed a topping-out process in third- and fourth-quarter 2014, followed by deepening quarterly downturns into first- and second-quarter 2015, with the second-quarter 2015 also beginning a string of quarterly year-to-year contractions into second-quarter 2016, dropping sharply into negative quarter-to-quarter growth and continuing year-to-year decline. Third-quarter 2016 growth was positive on a quarter-to-quarter basis, but continued in annual contraction. That pattern repeated in fourth-quarter 2016. That seventh straight quarter of annual contraction was a circumstance never seen in industrial production reporting outside of periods that eventually were recognized formally as recessions. Looking at the accompanying post-benchmarking *Graph 8*, and the longer-term *Graphs 11* and *12* in the reporting detail, it looked like there was a missing recession call beginning at the end of 2014, but nothing like that was suggested in the July 27th GDP benchmark revisions.

With the reporting of quarterly details in 2017 and first- and second-quarter 2018, production showed both annual and quarterly gains, except for a hurricane-disrupted quarterly contraction in third-quarter 2017. The headline activity still remained below pre-recession highs seen in 2007, except for a brief

recovery in third-quarter 2014, and one-quarter's expansion in fourth-quarter 2014, below which first-quarter 2018 fell, although second-quarter 2018 has now recovered.

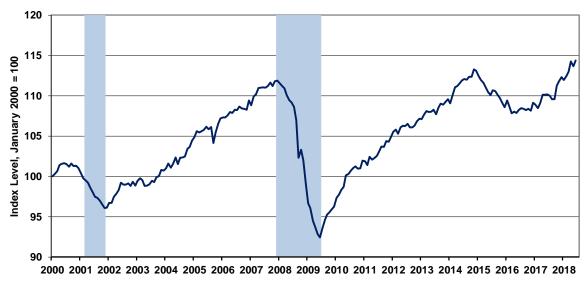
On a monthly basis, the pre-recession high of November 2007 was recovered briefly in June of 2014, with October and November 2014 a short-lived peak. October 2017 reporting recovered the monthly pre-recession high, for a second time, with a reset to December 2017, in the context of the recent benchmark revisions. Given that benchmarking and subsequent reporting, the initial first-quarter 2018 Industrial Production reporting, the series had regained the fourth-quarter 2014 recovery peak for second time, albeit only by 0.12%, having lost that status in the March 2018 benchmarking. Yet, first-quarter 2018 reporting lost that recovery, again with the headline April 2018 revisions, down by 0.43% (-0.43%) versus that fourth-quarter 2014 peak, and it still was holding at down by 0.39% (-0.39%) as of the first estimate of May 2018 detail. As of the June 2018 headline reporting, that level has been topped by 1.0%.

Graphs 8 and 9 address reporting-quality issues tied just to the overstatement of headline growth in the total Industrial Production 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; this overstates the resulting inflation-adjusted growth in the headline industrial production series (see <u>Public Comment on Inflation</u> and Chapter 9 of 2014 Hyperinflation Report—Great Economic Tumble).

[Graphs 8 and 9 follow on the next page]

Graph 8: Indexed Headline Level of Industrial Production (Jan 2000 = 100)





Graph 9: Headline ShadowStats-Corrected Level of Industrial Production (Jan 2000 = 100)

## ShadowStats-Corrected Industrial Production Hedonic-Adjusted Inflation Understatement Removed, Index Jan 2000 = 100 Through June 2018, Seasonally-Adjusted [ShadowStats, FRB]



*Graph 8* 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 *Graphs 1* and 2 in the prior *Retail Sales* section), and as discussed there in the *Graphs Reflecting Alternate Inflation*-

Adjustment section. The indexing does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of *Graph 8* here to later *Graph 14*, which has the standard, headline indexing).

*Graph 9* is a recast version of *Graph 8*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official Industrial Production deflators used for headline reporting.

This "corrected" *Graph 9* shows some growth in the period subsequent to the official June 2009 trough in production activity, but that upturn has been far shy of the short-lived full recovery and the renewed expansion reported in official GDP estimation (see *Commentary No. 869* and the *Economy* section of *Special Commentary No. 935*). Unlike the headline Industrial Production data and the headline GDP numbers, "corrected" Industrial Production levels never recovered their 2007 pre-recession highs, although, again, the headline aggregate Production index quickly backed off its official "recovery" in late-2014 in last month's benchmarking, only to recovery the 2014 highs again with the headline March 2018, and to lose them anew with the April and May 2018 detail, but regained in June 2018. That said, the dominant manufacturing sector of industrial production never has recovered its December 2007 pre-recession peak, a record period of 10-plus years of economic non-expansion in the 100-year history of the Industrial Production series.

As of June 2018, the now 42-straight quarters of economic non-expansion, indeed remains unprecedented in its duration within the 100-year history of the Industrial Production series. While the just-benchmarked GDP and its initial second-quarter 2018 real GDP reporting showed that series to have expanded by 17.4% above its pre-recession peak, the dominant Manufacturing Sector of Industrial Production still held shy of shy of recovering its pre-recession high by 5.5% (-5.5%) as of second-quarter 2018.

*Quarterly and Annual Production Changes*. In the context of March 23, 2018 benchmark revisions sharply to the downside for annual growth and annualized quarterly growth, and the initial second-quarter 2018 numbers, year-to-year growth rates in quarterly production had continued to slow and then decline, ranging from a positive 1.76% in first-quarter 2015, to year-to-year declines of 0.92% (-0.92%) in second-quarter 2015, 1.49% (-1.49%) in the third-quarter 2015 and 3.37% (-3.37%) in fourth-quarter 2015.

Annual declines continued, down by 2.99% (-2.99%) in first-quarter 2016, by 2.25% (-2.25%) in second-quarter 2016 and by 1.91% (-1.91%) in third-quarter 2016. Fourth-quarter 2016 production contracted year-to-year for the seventh-straight quarter by 0.55% (-0.55%).

First-quarter 2017 annual change rose by 0.16%, the first annual gain since first-quarter 2015. Second-quarter 2017 production gained year-to-year by 1.93%, with third-quarter 2017 showing a hurricane-impaired annual gain of 1.20%.

Reflecting detail published with the headline June 2018 numbers, fourth-quarter 2017 growth was an unrevised hurricane-boosted 2.99%, with first-quarter 2018 reporting showing revised annual growth of 3.35% [previously 3.36%, initially 3.31%] and second-quarter 2018 showing an initial estimate of 3.58%.

<u>Annualized Quarter-to-Quarter.</u> Going back to first-quarter 2015 industrial production contracted at an annualized quarterly pace of 3.22% (-3.22%), having gained by 2.74% in fourth-quarter 2014. That was followed by a quarterly contraction of 5.04% (-5.04%) in second-quarter 2015, with a third-quarter 2015

contraction of 0.27% (-0.27%) [previously a gain], followed by a fourth-quarter 2015 contraction of 4.71% (-4.71%).

The first-quarter 2016 annualized quarterly contraction was 1.86% (-1.86%), with second-quarter 2016 down at an annualized 2.09% (-2.09%). Third-quarter 2016 gained at an annualized pace of 1.11%, the first quarterly gain in seven quarters, followed by a gain of 0.70% in fourth-quarter 2016.

The first-quarter 2017 annualized quarterly gain was 0.98%. The second-quarter 2017 gain was 5.01%, with hurricane-disrupted third-quarter 2017 growth now showing an annualized quarterly contraction of 1.54% (-1.54%).

Reflecting detail published with the headline June 2018 numbers, the fourth-quarter activity was up by an unrevised, disaster-recovery-boosted 7.75%, with the first-quarter 2018 at a revised 2.42% [previously 2.44%, initially 2.33%] and with initial reporting for second-quarter 2018 at 5.96%.

**Production Graphs.** The regular two sets of long- and short-term plots of 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 *30*).

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. Post annual benchmarking revisions of recent years, annual growth has slowed consistently as seen in Graphs Benchmark-1 to 4 in Commentary No. 942-B.

Graph 11 here shows the monthly level of the production index since its inception, post-World War I, with a topping-out and renewed downturn—deepening quarterly contractions in first- and second-quarter 2015 and now, benchmark-revised into second-quarter 2016, turning to the plus-side in second-half 2016 into second-quarter 2017 and the recent third-quarter 2017 hurricane disruptions and accompanying near-term volatility, with mixed reporting into June 2018. Such patterns of monthly and quarterly year-to-year declines post late-2014 to the onset of 2017 (see Graph 12) were seen last in the economic collapse into 2009, and historically never seen outside of what would be recognized as formal recessions. Graphs 13 and 14 show the same series in near-term detail, beginning in January 2000. Such remains in the context of a hurricane-impaired third-quarter reading and a hurricane-boosted fourth-quarter 2017 into slowing first-quarter and mixed second-quarter 2018 activity.

Seen most clearly in *Graph 14*, year-to-year activity dipped anew in 2013, to levels usually seen at the onset of recent recessions, bounced higher into mid-2014, fluctuated thereafter, turning negative, again, into 2015 and through 2016 as seen previously only in formal recessions. Such suggests a "missing recession call" with a pre-recession peak of fourth-quarter 2014, but that did not surface in the current GDP benchmarking. In the context of the 2018 production benchmark revisions, year-to-year growth remained well off the recent relative peak for the series, which was 8.46% 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 15.33% (-15.33%) was the steepest annual decline in production since the shutdown of wartime production following World War II.

*Still Fighting the Great Recession.* Headline June 2018 Industrial Production currently is stagnant at a minimally-recovered level, versus its pre-Great Recession peak. June 2018 activity was up by 2.29%

versus its December 2007 pre-recession peak, while second quarter 2018 GDP now stands at 17.42% above its fourth-quarter 2007 pre-recession peak

Second-quarter 2018 production activity stood 2.21% above its fourth-quarter 2007 pre-recession peak. Following the fourth-quarter 2007 peak, the quarterly production series declined through its cycle trough of second-quarter 2009. That was down by 16.68% (-16.68%) from its pre-recession high. The just-benchmarked GDP quarterly trough had the same timing, down by 3.98% (-3.98%) from its pre-recession high.

*Production and Underestimated Headline Inflation.* Versus the pre-Great Recession peak, official headline production levels have moved higher since their June 2009 trough, showing a pattern of stagnation in 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, moved minimally higher into 2016 through mid-2017, with hurricane hit quarterly contraction, then generally boosted into late-year, by hurricane-recovery boosted activity, with a slowing uptrend into May and June 2018

Yet, corrected for the understatement of inflation used in deflating portions of the industrial production index, as shown earlier in *Graphs 8* and 9, that series contracted quarter-to-quarter throughout 2016 and with some bottoming, leveling off and minimal uptick in 2017, with an upturn/uptrend in the post-disaster recovery into 2018, but still well shy of recovery or expansion.

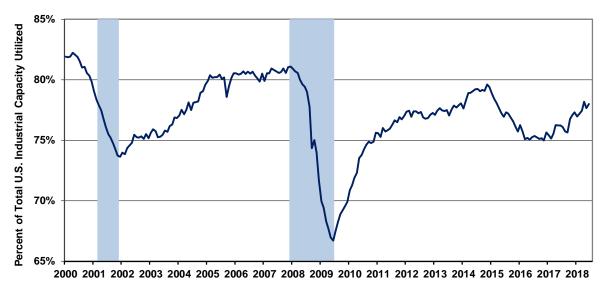
Having Improved in April, Revised Total U.S. Industrial Capacity Utilization Took a Relative Hit in May and Rose in June, June Remained below April. The Federal Reserve's measure of Capacity Utilization is an estimate of total Industrial Production versus total Productive Capacity of the United States. ShadowStats has reservations as to the Fed's ability to measure or estimate productive capacity accurately, as reinforced recently by the nature of the revised plots of Capacity Utilization in the benchmark revisions of Commentary No. 942-B. Accompanying Graph 10 of the series has been updated for the June 2018 Capacity Utilization Rate of 77.99%, which was up from a revised 77.65% [previously 77.86%] in May, with moth May and June 2018 below a revised 78.18% [previously 78.06%, initially [previously 77.99%] in April.

Against its December 2007 pre-recession peak level of 81.10%, the June 2018 Capacity Utilization reading held shy of recovering that peak *level* by 3.83% (-3.83%), or by 311 (-311) basis points in terms of the peak *percentage number*. That is despite June 2018 Industrial Production holding at 2.21% above its re-recession peak, and with the Manufacturing Sector holding shy of recovering its December 2007 pre-recession peak by 5.63% (-5.63%).

Sharp Downturns in Capacity Utilization Usually Signal the Onset of a Recession. Where sharp downturns in Utilization historically usually mark onsets of formal recessions, such would support the concept of a renewed "headline" recession, a double-dip downturn that began at the end of 2014, as indicated by the Industrial Production series. That remains ShadowStats' estimate of the timing of a likely "headline" double-dip recession, which formally began at the end of 2007, bottomed in 2009, peaked in late in 2014 and then bottomed anew in 2016, although nothing confirming showed up in the current GDP benchmarking. Contrary to consensus hype of fully recovered and expanding economic activity, as seen in the Manufacturing Sector, much of the headline U.S. economy never has recovered fully from the 2007 downturn.

Graph 10: Utilization of Total U.S. Industrial Production and Manufacturing Capacity (2000 to Date)

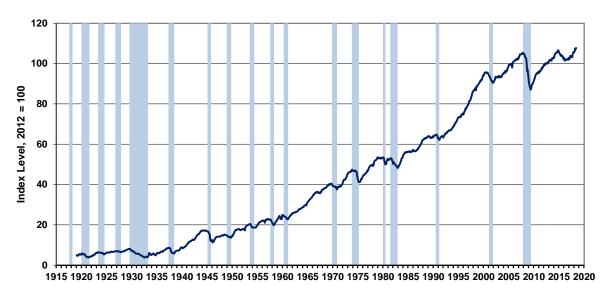




[Graphs 11 to 14 begin on the next page.]

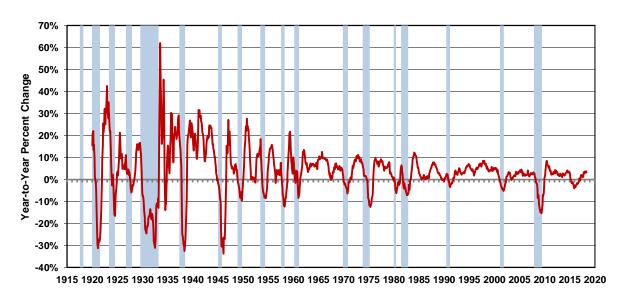
Graph 11: Index of Industrial Production, Full Historical Series 1919 to Date

## Index of Industrial Production (2012 = 100) 1919 to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph 12: Industrial Production, Year-to-Year Percent Change, Full Historical Series Since 1920

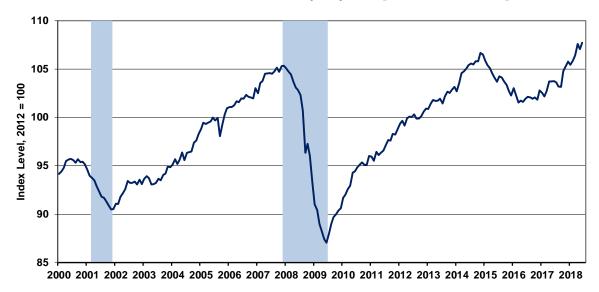
## Industrial Production (Year-to-Year Percent Change) 1920 to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



*Drilling Down into the June 2018 U.S. Industrial Production Detail. Graphs 13, 15, 21* and 24 show headline reporting of industrial production and its major components January 2000 through June 2018.

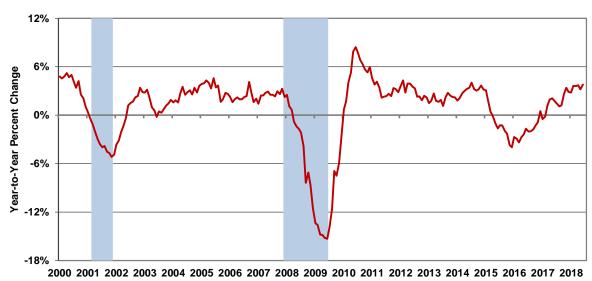
Graph 13: Index of Aggregate Industrial Production, Since 2000

## Index of Industrial Production (2012 = 100) Level to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



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

## Industrial Production (Year-to-Year Percent Change) To June 2018, Seasonally-Adjusted [ShadowStats, FRB]



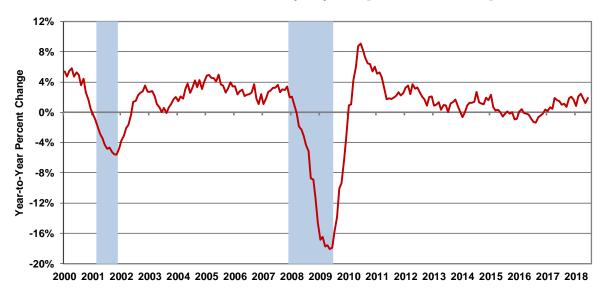
Graph 15: Industrial Production - Manufacturing (75.5% of the IIP in 2017), Since 2000

## Production - Manufacturing (SIC) (2012 = 100) Level to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



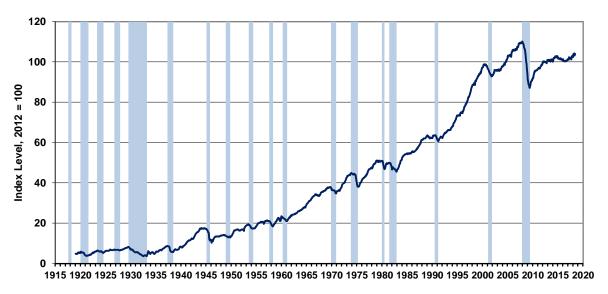
Graph 16: Industrial Production - Manufacturing, Year-to-Year Percent Change, Since 2000 (Same as Graph OC-4 in the Opening Comments)

## Production - Manufacturing (Year-to-Year Percent Change) To June 2018, Seasonally-Adjusted [ShadowStats, FRB]



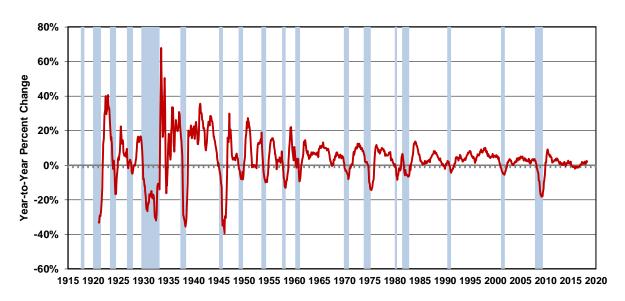
Graph 17: Industrial Production, Manufacturing, Full Historical Series 1919 to Date

#### Industrial Production - Manufacturing Sector (2012 = 100) 1919 to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph 18: Manufacturing Year-to-Year Percent Change, Full Historical Series Since 1920

### Manufacturing Sector (Year-to-Year Percent Change) 1920 to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph 19: Consumer Goods (28.0% of the Aggregate in 2017), Since 2000

### Production - Consumer Goods (2012 = 100) Level to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph 20: Durable Consumer Goods (6.3% of the Aggregate in 2017), Since 2000

#### Production - Consumer Durable Goods (2012 = 100) Index Level to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph 21: Nondurable Consumer Goods (21.7% of the Aggregate in 2017), Since 2000





The aggregate production index (*Graph 13*) contracted quarter-to-quarter for six consecutive quarters, from first-quarter 2015 through second-quarter 2016. Year-to-year declines by quarter were seen for seven consecutive quarters, from second-quarter 2015 through fourth-quarter 2016, with first-quarter 2017 activity positive on both a quarterly and annual basis, flipped to fluctuating monthly and quarterly volatility and gains by lingering and varied hurricane disruptions and the now-waning recovery from same. Nonetheless, the headline monthly downturn in May 2018 reflected no more than an upside revision to April activity, with June gaining on top up a downside-revised May number

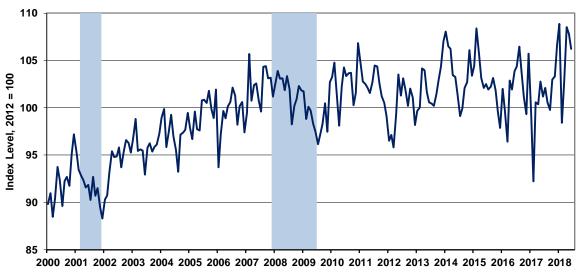
Shown in *Graphs 15*, 22 and 25 are the levels of activity in the three major industry sectors, Manufacturing, Utilities and Mining, where only Manufacturing received a boost from a downside revisions to May activity (see *Table 1*), where the monthly gain of 0.80% was 0.34% net of revisions.

The Manufacturing graphs precede this, while the graphs of Utilities and Mining follow, all updated for the latest detail. *Graphs 16*, 23 and 25, show the respective plots of year-to-year change for those series. The preceding Manufacturing *Graphs 15* to 31 include various levels of consumer goods production (*Graphs 19* to 31). The next two *Graphs 22* and 23 reflect Utilities activity, massively volatile as a result of regularly unstable weather patterns.

#### [Graphs 22 to 25 begin on the next page.]

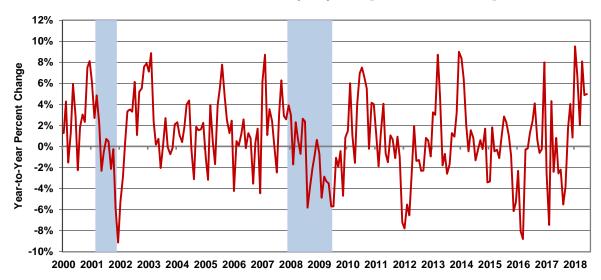
Graph 22: Industrial Production - Utilities (10.4% of the Aggregate in 2017), Since 2000





Graph 23: Industrial Production - Utilities, Year-to-Year Percent Change, Since 2000

## Production - Utilities (Year-to-Year Percent Change) To June 2018, Seasonally-Adjusted [ShadowStats, FRB]



The final set of Mining *Graphs 24* to *30*, encompasses plots of related mining/oil production or exploration activity. Gold and Silver mining increased by 1.80% in June, but down by 10.67% (-10.67%) year-to-year, that was in the context of a series of downside revisions (last month it was upside beginning in January 2018. May 2018 activity was down by 7.10% (-7.10%) [previously up by 0.03%] month-to-month, down by 16.61% (-16.61%) [previously 10.03% (-10.03%)] year-to-year. The FRB has gone to back to reporting Coal Mining activity (*Graph 26*), on coincident basis, with month-to-month activity in

June 2018 down by 2.28% (-2.28%) versus a 2.07% monthly increase in May activity. Respective rates of annual change were down by 3.51% (-3.51%) in June 2018, up by 0.26% in May 2018.

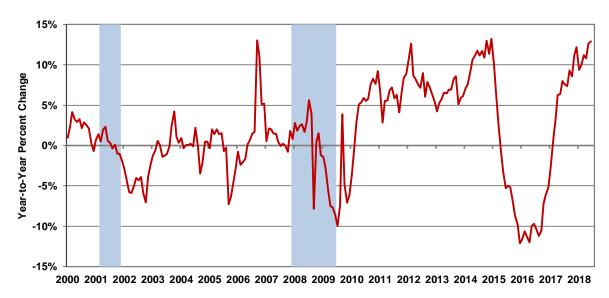
Graph 24: Industrial Production - Mining, Including Oil and Gas (14.1% of the Aggregate in 2017), Since 2000

## Industrial Production - Mining (Including Oil & Gas) To June 2018, (2012 = 100) Seasonally-Adjusted [ShadowStats, FRB]



Graph 25: Industrial Production - Mining, Year-to-Year Percent Change, Since 2000

## Production - Mining (Year-to-Year Percent Change) To June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph 26: Mining – Gold and Silver Mining (0.2% of the Aggregate in 2017), Since 2000

# Mining - Gold and Silver (2012 = 100) Level to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph 27: Mining - Coal Mining (0.8% of the Aggregate in 2017), Since 2000

The FRB resumed reporting Coal Mining in the current month, where it had been delayed by one month.

# Mining - Coal (2012 = 100) FRB Now Lags Coal Production Reporting by One Month Level to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



The June 2018 mining sector jumped by 1.20% month-to-month and 12.92% year-to-year, dominated by Oil and Gas Extraction and Exploration. Likely boosted by rising oil prices, the dominant oil and gas mining sector rose across-the-board in June activity (see *Graphs 28* to *30*), with Oil and Gas Extraction

up by 1.89% for the month 16.71% year-to-year, while Oil and Gas Drilling was up by 2.88% for the month, 11.41% year-to-year.

Graph 28: Mining – U.S. Oil & Gas Extraction (10.3% of the Aggregate in 2017), Since 2000





Graph 29: U.S. Drilling for Oil & Gas - Exploration (0.5% of the Aggregate in 2017), Since 2000

## Mining - Drilling for Oil & Gas (2012 = 100) Level to June 2018, Seasonally-Adjusted [ShadowStats, FRB]



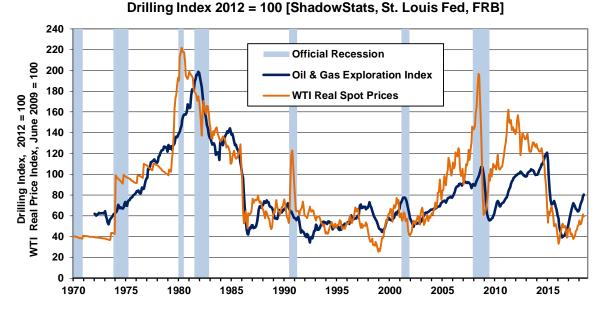
With some lag following sharp movements in oil prices (*Graph 30*), oil and gas exploration tends to move in tandem, and an upswing in exploration had been in place with what was at least a short-term bottoming

in oil prices in early-2016. Prices rallied into mid-2016, but moved lower into 2017, with oil and gas exploration easing in July 2017 versus June 2017, the first month without a sharp month-to-month gain, since the boost from the 2016 upturn in oil prices. Yet, oil prices have risen strongly in recent months and are in an uptrend, at present. Nonetheless, hurricanes and their after effects disrupted exploration in August through November 2017. That turned with an uptick in exploration in December 2017, with surging monthly growth into June 2018. The oil price index used here is for the West Texas Intermediate (WTI) monthly average spot price, deflated using the ShadowStats Alternate CPI measure (1990 Base).

Graph 30: Mining – U.S. Drilling for Oil & Gas versus Real Oil Prices (WTI ShadowStats 1990 Base), Since 1970

Index of Oil & Gas Drilling versus Real Oil Prices to June 2018

WTI Spot Real Price Index (ShadowStats 1990) Jun 2009 = 100



Indeed, rising oil prices tend to increase oil and gas exploration. When the dollar weakens, dollar-denominated oil prices also begin to strengthen, as had been seen recently, even in circumstances with excess supply conditions. With the U.S. dollar currently off a recent bottom, oil prices still have been firming, now more heavily impacted by intensified global political tensions, particularly in the Middle East. At such time as the U.S. dollar meaningfully resumes its decline—ShadowStats looks for a massive sell-off in the dollar in the year ahead—U.S. dollar-denominated oil prices should rally sharply in response (see the *Hyperinflation Watch – No. 2*). Yet, again, beyond the dollar, recent movement in oil prices appears most-heavily impacted by, and reflective of political developments at home and abroad. Oil prices have risen sharply at the moment, on top of having rallied enough and for a long-enough period to induce continuing increases in domestic exploration and extraction activity, in the near future, as also has been seen at present.

### **New Orders for Durable Goods (June 2018)**

New Orders for Durable Goods Rose Month-to-Month, Irrespective of Considerations for Inflation and/or Commercial Aircraft Orders. Reported by the Census Bureau on July 26th, total New Orders for Durable Goods gained month-to-month by 1.00% in June 2018, following a revised decline of 0.28% (-0.28%) [previously 0.57% (-0.57%)] in May 2018 and a revised 1.05% (-1.05%) [previously down by 1.03% (-1.03%), initially down by 1.66% (-1.66%)] in April 2016.

In the context of a monthly gain of 4.28% in June for the highly volatile Commercial Aircraft Orders, orders shifted from a revised monthly decline of 11.64% (-11.64%) [previously 7.04% (-7.04%)] in May, and a revised decline of 30.27% (-30.27%) [previously 30.28% (-30.28%), initially down by 28.96% (-28.96%)] in April, New Orders for Durable Goods Ex-Commercial Aircraft were up by 0.80% in the month, up by 0.49% in May and by 1.85% in April.

*Real Durable Goods Orders—June 2018.* ShadowStats uses the PPI component inflation measure "Durable Manufactured Goods" for deflating the new orders for durable goods series. Published only on a not-seasonally-adjusted basis, the related June 2018 PPI series (2009 = 100) showed headline month-to-month inflation of 0.35%, versus 0.52% in June, 0.41% in April, a revised 0.29% [previously 0.41%] in March, a revised 0.35% [previously 0.23%] in February and a 0.41% gain in January. Related year-to-year annual inflation was 2.96% in June 2018, versus 2.66% in May 2018, 2.13% in April 2018, 1.96% in March 2018, a revised 1.84% [previously 1.72%] in February 2018 and 1.79% in January 2018 (see *Commentary No. 960*).

Adjusted for that 0.35% month-to-month inflation reading in June 2018 and the respective inflation rates in earlier months, and as reflected in the accompany graphs, real aggregate durable goods orders in June 2018 gained by 0.47%, having declined by 0.80% (-0.80%) in May and by 1.45% (-1.4%) in April. Excommercial aircraft, real month-to-month orders rose 0.20% in June, having declined by 0.03% (-0.03%) in May and having gained 1.44% in April.

Real total new orders gained year-to-year by 0.09% in June 2018, 6.67% in May 2018 and by 6.26% in April 2018. Ex-commercial aircraft, June 2018 real orders rose year-to-year by 5.46%, in May 2018 by 5.59% and by 5.52% in April 2018.

*Table 2* on the next page, summarizes the just presented monthly numbers by category and inflation – adjusted or not-inflation-adjusted status.

Table 2: Summary Detail of June 2018 New Orders for Durable Goods

Month	Nominal Millions of Current			Real Millions of Constant		
		Dollars		2009 Dollars		
	Total		Ex-	Total	Ex-	
	New	Commercial	Commercial	New	Commercia	
-	Orders	Aircraft	Aircraft	Orders	Aircraft	
Apr 18	250.109	15.930	234.179	225.751	211.372	
May 18	249.402	14.076	235.326	223.944	211.305	
Jun 18	251.884	14.678	237.206	224.999	211.887	
	Percent Change			Percent Change		
	Mo/Mo	Mo/Mo	Mo/Mo	Mo/Mo	Mo/Mo	
Apr 18	-1.05%	-30.27%	1.85%	-1.45%	1.44%	
May 18	-0.28%	-11.64%	0.49%	-0.80%	-0.03%	
Jun 18	1.00%	4.28%	0.80%	0.47%	0.28%	
Prior M/M						
Apr 18	-1.03%	-30.28%	1.88%	-1.43%	1.47%	
May 18	-0.57%	-7.04%	-0.13%	-1.08%	-0.64%	
	Yr/Yr		Yr/Yr			
Apr 18	8.52%		7.77%	6.25%	5.52%	
May 18	9.51%		8.41%	6.67%	5.59%	
Jun 18	3.23%		8.77%	0.09%	5.46%	
Prior Y/Y						
Apr 18	8.54%		7.80%	6.22%	5.48%	
May 18	9.22%		7.77%	6.33%	4.92%	

*Graphs of Inflation-Adjusted and Smoothed Durable Goods Orders and Recent Benchmark Revisions.* The headline June 2018 New Orders for Durable Goods of July 26th and accompanying revisions all were in the in the context of annual benchmark revisions (through March 2018) published on May 17th. Those

revisions were discussed in <u>Commentary No. 951</u> and <u>Commentary No. 950</u>, and are reviewed in summary detail in the next "Benchmarked Orders ..." section on page 48, along with updated <u>Graphs 38</u> to 40. Those graphs are shown here, primarily because the current GDP benchmarking back to 1929 showed little obvious impact from those revisions, although later detail from the Bureau of Economic Analysis may shed some light on that issue.

In the context of those benchmark revisions, *Graphs 31* and *32* show the monthly detail, as well as the six-month moving-average activity for both the aggregate new orders series and the same series net of the irregularly-volatile commercial-aircraft orders. The broad pattern of smoothed, real activity generally remained at a low-level of non-recovered, but uptrending stagnation.

The moving-average levels in *Graphs 31* and *32* turned lower into year-end 2014, and after an uptick in mid-2015—some smoothed bounce-back—the trend turned down anew into late fourth-quarter 2015, with continued minor fluttering into third-quarter 2016, and initially a small uptick in fourth-quarter 2016 activity continuing on the upside into 2017 and 2018, although softened by the downside benchmark revisions (again see *Graphs 38* to *40*). Starting with August and September of 2017, however, broad orders activity also was spiked by natural-disaster recovery, a pattern that now to has passed its peak.

*New Orders, Production and North American Freight Activity.* ShadowStats concentrates on the inflation-adjusted real New Orders for Durable Goods series, ex-commercial aircraft, as a leading indicator to the dominant Manufacturing sector of Industrial Production, and in the context of activity reflected in the Cass Freight Index<sup>TM</sup> and the just-benchmarked GDP. Comparative levels and annual growth patterns are plotted in *Graphs OC-1* to *OC-8*, with related, extended discussion found in today's *Opening Comments* 

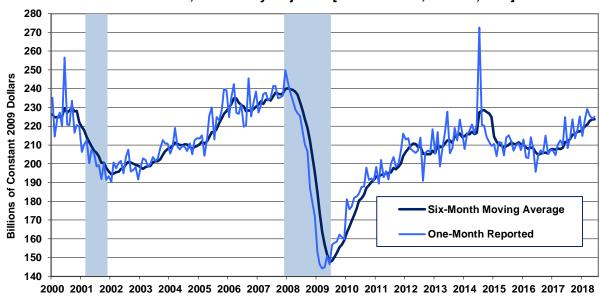
Graphs of Inflation-Adjusted and "Corrected" Smoothed Durable Goods Orders. Three sets of inflation-adjusted graphs (Graphs 31 to 33, Graphs 34 and 35, and Graphs 36 and 37) follow. The first set shows the headline monthly detail, as well as the six-month moving-average activity for both the aggregate new orders series and the series net of the irregular commercial-aircraft orders. It also shows annual growth for the real series (net of commercial aircraft). The moving-average levels in both the durable goods series (Graphs 31 and 32) had turned lower into year-end 2014 and the first two quarters of 2015, with some smoothed bounce-back into third-quarter 2015, followed by renewed downturn into 2016 with a late-year uptick continuing into March 2017, which largely was revised away with the May 2017 benchmarking and now in uptrending stagnation, boosted by disaster recovery.

The second set of graphs (*Graphs 34* and *35*) shows the patterns of six-month moving averages of historical, headline real new orders for durable goods (net of official inflation), as well as that pattern "corrected" for understatement of that inflation (and for the corresponding overstatement of official, inflation-adjusted growth). The third set of graphs (*Graphs 36* and *37*) shows largely the same patterns, although they are for the aggregate durable goods orders series, net of commercial aircraft orders.

### **Headline New Orders Detail, Aggregate and Ex-Commercial Aircraft**

Graph 31: Real Total New Orders for Durable Goods to Date

# Real New Orders for Durable Goods Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]

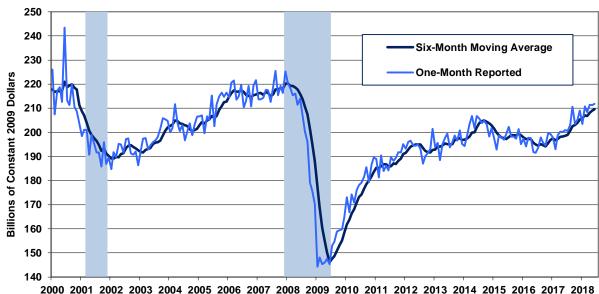


Graph 32: Real New Orders for Durable Goods – Ex-Commercial-Aircraft Orders to Date

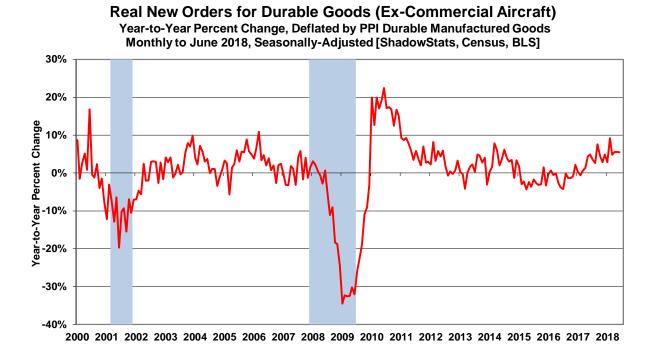
Real New Orders for Durable Goods (Ex-Commercial Aircraft)

Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods

To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 33: Yr-to-Yr % Change, Real New Orders for Durable Goods – Ex-Commercial Aircraft (2000 to Date)



Broad Patterns of New Orders Activity. There has been a general pattern of stagnation or bottom-bouncing evident in the orders of recent years—clearly not the booming recovery seen in official GDP reporting. The real monthly and six-month moving-average levels of new orders in June 2018 remained below both the pre-2007 recession high, as well as the pre-2000 recession high for the series. The pattern of low-level stagnation and fluctuating trend in the annual inflation-adjusted series since mid-2014—net of the irregular aircraft-order effects—again is one that most commonly precedes and/or coincides with a recession, as is the current circumstance. Again, the series remains in non-recovered, non-expanding, low-level, albeit uptrending stagnation (see the *Opening Comments*).

The Real New Orders Series "Corrected" for Inflation Understatement. As with other economic series distorted by deflation using official government inflation measures, headline estimates of inflationadjusted growth in new orders for durable goods generally are overstated, due to the understatement of official inflation. Among other issues, that understatement comes from the government's use of hedonic-quality adjustments—quality issues usually not perceived by the users or consumers of the involved products—in justifying a reduced pace of headline inflation used in deflating some series (see <u>Public Commentary on Inflation Measurement</u>).

As done for other series such as Industrial Production and Retail Sales (see the related two prior sections) and the GDP (see *Graph OC-1* in the *Opening Comments*), ShadowStats publishes an experimental, corrected-inflation version of the graph of real New Orders for Durable Goods. Real activity, in this case, is corrected for the understatement of the inflation used in deflating the new orders series with the headline PPI inflation for manufactured durable goods.

Two sets of graphs follow. The first set (*Graph 34* and *Graph 35*) shows the aggregate series or total durable goods orders; the second set (*Graph 36* and *Graph 37*) shows the ex-commercial aircraft series.

The aggregate orders series in *Graphs 34* and *35* includes the monthly commercial aircraft orders. Placed years in advance, aircraft orders are a better indicator of long-range production activity, than they are as a near-term leading indicator of production activity. Again, *Graphs 35* and *36* are shown net of those volatile commercial aircraft orders.

The first graph in each of the two sets shows the official six-month moving average, the same heavy dark-blue line shown in  $Graph\ 31$  and  $Graph\ 32$ , along with the light-blue thin line of monthly detail. The second graph in each set is the same six-month, moving-average series shown in the first graph, but it has been re-deflated to correct for the ShadowStats estimate of the understatement of the PPI manufactured durable goods inflation measure used in the headline-deflation process. The "corrected" graphs all are indexed to January 2000 = 100.

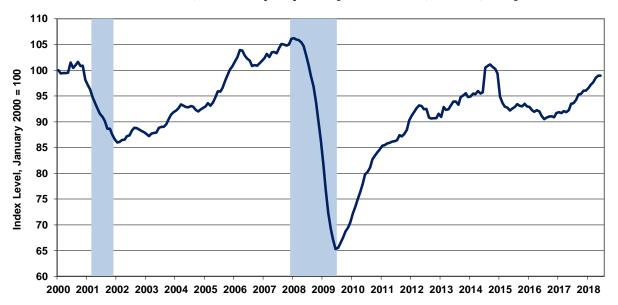
The 2000 indexing simply provides for some consistency in the series of revamped "corrected" graphics including, Real Retail sales (see *Graphs 1* and 2 in the prior *Retail Sales* section), and as discussed there in the *Graphs Reflecting Alternate Inflation-Adjustment* section. The indexing does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of *Graph 31* here to later *Graph 36*, which has the standard, headline indexing).

[Graphs 34 to 37 begin on the next page.]

#### Smoothed Real Series and Real Series Corrected for Inflation-Understatement

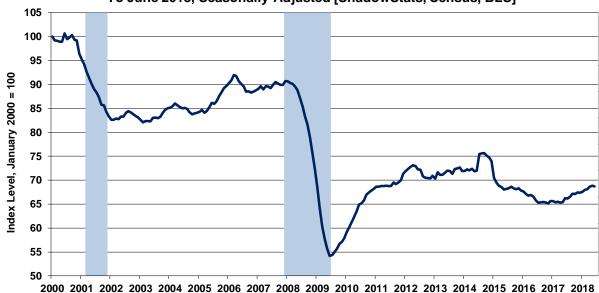
Graph 34: Index of Real Total New Orders for Durable Goods, 6-Month Moving Average

# Total Real New Orders for Durable Goods Six-Month Moving Average, Deflated by PPI Durable Manufactured Goods To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 35: Corrected Index of Real Total New Orders for Durable Goods, 6-Month Moving Average

### ShadowStats Corrected Total Real New Orders for Durable Goods Six-Month Moving Average, Deflation Corrected for Hedonic Adjustments To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 36: Index of Durable Goods Orders – Ex-Commercial Aircraft, 6-Month Moving Average

# Real New Orders for Durable Goods (Ex-Commercial Aircraft) Six-Month Moving Average, Deflated by PPI Durable Manufactured Goods To May 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 37: Corrected Index of Durable Goods Orders – Ex-Commercial Aircraft, 6-Month Moving Average

### Corrected Real New Orders for Durable Goods (Ex-Commercial Aircraft)

Six-Month Moving Average, Deflation Corrected for Hedonic-Adjustments To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



### Benchmarked Orders Signaled Weaker Economy, But Impact on GDP Benchmarking Was Not Obvious

In the wake of the July 27th Comprehensive Benchmark Revision to GDP, again, there appeared to be no obvious effect on revised GDP activity from recent downside benchmark revisions to Industrial Production, Manufacturers' Shipments and New Orders for Durable Goods, such as reflected here in *Graphs 38* to *40*. Later detail out of the Bureau of Economic Analysis (BEA) likely will clarify the circumstances.

**Downside, Benchmark Revisions to New Orders and Manufacturers' Shipments Two Months Ago,** Confirmed Regular Upside Biases Built into Headline Monthly Reporting. The May 17th annual revisions to Manufacturers' Shipments, and the subsidiary series New Orders for Durable Goods, broadly were to the downside. They also largely were consistent with major downside revisions to the Industrial Production series in its March 23rd benchmarking and in its unusual monthly revisions of May 16th (see *Commentary No. 951*, *Commentary No. 950* and *Commentary No. 942-B*), and suggestive of some parallel hits in the GDP revisions, which do not appear to have surfaced.

This circumstance has been the common experience in economic reporting of recent years and decades (see *Graphs 38* to 40). Discussed in <u>Special Commentary No. 888</u>, there is a broad upside bias often built into the underlying assumptions that drive the headline reporting of many, widely-followed and politically-sensitive economic series.

The following table from <u>Commentary No. 950</u> summarized the net annual growth revisions to Real New Orders for Durable Goods, Ex-Commercial Aircraft in the March 17th benchmarling, which should have been of enough substance to impact the GDP revisions.

Table 3: Net Benchmark Revisions to New Orders for Durable Goods

	Revised Change in			
May 17, 2018 Annual Benchmark Revisions	Real Level	Year-to-Year Real Growth		
	2017	2015	2016	2017
Manufacturer's Shipments	-2.1%	-0.5%	-1.2%	-0.4%
New Orders for Durable Goods, Ex-Commercial Aircraft	-1.8%	-0.4%	-0.9%	-0.4%

Caution: Beyond Regular Upside Biases Built Into Headline Reporting, Seasonally-Adjusted Month-to-Month Data Simply Are Not Comparable. The Census Bureau published its 2018 annual benchmark revisions to New Orders for Durable Goods data on May 17th. As an example of the regular, annual downside restatement of recent activity in this series, consider accompanying Graphs 38 to 40 of both aggregate (Graph 38) and ex-commercial aircraft (Graphs 39 and 40, with Graph 40 showing the longer-term historical perspective). The plots reflect the net revisions to the six-month moving averages of real New Orders for Durable Goods for the 2018 benchmarking, as well as for recent years, along with subsequent headline reporting through the June 2018 headline detail.

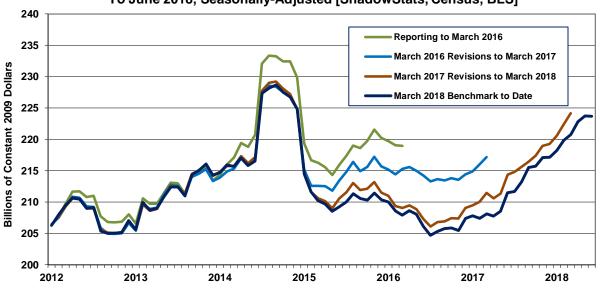
For a more-substantive review of the last two years of benchmark revisions to New Orders for Durable Goods, and the parent Manufacturers' Shipments series, see <u>Commentary No. 951</u>, <u>Commentary No. 950</u> and <u>Special Commentary No. 888</u>. This section is repeated largely from prior renditions as an example of recent subsidiary benchmarking that did not have clear, parallel impact on the just-published GDP

benchmark revisions. Again, further benchmark background detail out of the Bureau of Economic Analysis may provide some clarity.

Graph 38: Benchmark Revisions to Real Total New Orders for Durable Goods, Smoothed for 6-Month Moving Avg

### **Revisions to Real New Orders for Durable Goods**

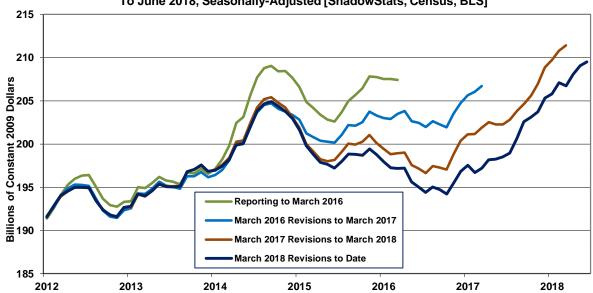
Smoothed with a Six-Month Moving Average
Billions of \$2009, Deflated by PPI Durable Manufactured Goods
To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



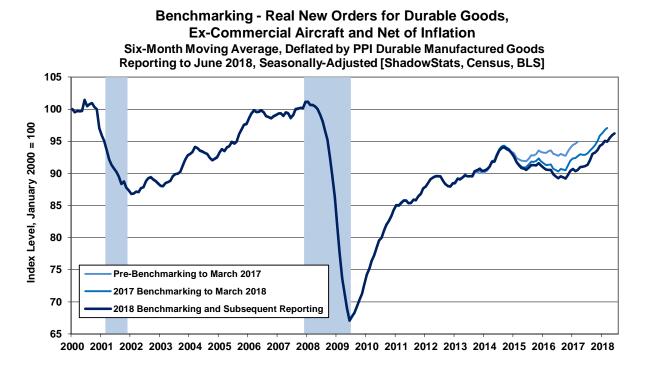
Graph 39: Benchmark Revisions to Real Total New Orders for Durable Goods, Ex-Commercial Aircraft

### Revisions to Real New Orders (Ex-Commercial Aircraft)

Smoothed with a Six-Month Moving Average
Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods
To June 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 40: Benchmark Revisions to Real Total New Orders for Durable Goods, Ex-Commercial Aircraft



Current headline durable-goods reporting remains subject to not only the upwardly-biased sampling assumptions seen in the pre-benchmarking reporting, but also to the concurrent-seasonal-adjustment problems commonly seen in with series such as retail sales, and payroll and unemployment reporting. Unusual seasonal-factor volatility raises issues as to the significance of reported seasonally-adjusted monthly and annual changes. While those issues were brought into balance, for a period of eight days, with the annual benchmark revision to durable goods orders through March 2018 on May 17, 2018 (again see *No. 950*), that consistency ceased with May 25th release of the headline April 2018 detail.

For all monthly reporting from the April 2018 detail until the next annual benchmarking in May 2019, unpublished, monthly historical seasonal-adjustment revisions, calculated along with each new current headline month's detail, and with each month to follow, make the latest detail (June 2018) inconsistent with all the headline historical numbers. (See the related discussion in *Supplemental Labor-Detail Background* on page 22 of *Commentary No. 959-B*).

[The Week, Month and Year Ahead Section follows on the next page.]

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### WEEK, MONTH AND YEAR AHEAD

**The U.S. Dollar and Financial-Market Turmoil Remain at Intensified High Risk, Amidst Mounting Fiscal Concerns and Consumer-Liquidity Issues.** Discussed in today's *Opening Comments*, net of the gimmicked understatement of headline inflation, which standardly is used to boost headline, inflation-adjusted or real economic activity in government statistics (see *Public Commentary on Inflation Measurement*), underlying economy appears to be off bottom and growing. The economy, however, is neither booming nor overheating as the Federal Reserve Board's Federal Open Market Committee (FOMC) might suggest in its ongoing moves to boost interest rates. Headline economic reporting in the next month still remains at high risk of disappointing bubbling economic expectations. That is a circumstance fraught with issues as to FOMC policy, and as to the stability of the U.S. dollar and the domestic financial markets.

After the expanded ShadowStats assessment of the GDP benchmark revisions is published shortly in *Commentary No. 964*, updates to the current *Hyperinflation Watch – No. 2* and *Consumer Liquidity Watch – No. 3* will follow in the week ahead. Given a continued weakening of consumer-liquidity trends and continued efforts by the FOMC to tighten domestic liquidity, what could be the early stages of an economic recovery remain fragile and are vulnerable to negative liquidity pressures. This circumstance will be reviewed fully in the updated *Commentaries* and *Watches* in the next week or two.

Accordingly, the fundamental outlook for U.S. dollar and related market circumstances broadly has not changed from the related vulnerabilities discussed in earlier missives and the current *Hyperinflation Watch – No. 2*. The U.S. dollar and financial markets remain at extraordinarily-high risk of intense, panicked declines, possible at any time. Holdings of physical gold and silver remain the ultimate hedges—stores of wealth—for preserving the purchasing power of one's U.S. dollar assets, during times of high inflation and currency debasement, and/or political- and financial-system upheaval. Please call (707) 763-5786, if you would like to discuss current circumstances, or otherwise.

Best wishes - John Williams

#### PENDING ECONOMIC RELEASES:

Construction Spending (June 2018). The Commerce Department will release its estimate of June 2018 Construction Spending tomorrow, Wednesday, August 1st, with coverage planned for *Commentary No.* 965 on Friday, August 3rd. Given the extreme, regular volatility of this series, almost anything is possible in the near-term, headline monthly detail. Where consensus expectations appear to be for a small monthly gain, such likely would be more than offset by rising construction inflation.

**Trade Deficit (June 2018).** Details for the headline June 2018 Trade Deficit will be released on Friday, August 3rd, with coverage at least of the related headlines in *Commentary No. 965-A* of that date, with extended coverage possible in a *Commentary No. 965-B* over the weekend. Expectations are for some widening of the monthly trade shortfall, based on a widening in the "advance" goods deficit reported on July 26th. Recent volatility in these numbers leaves the results wide open, although the odds do favor some deterioration.

**Employment and Unemployment (July 2018).** The Bureau of Labor Statistics (BLS) will publish headline July labor data on Friday, August 3rd, with at least summary coverage of the detail in *Commentary No. 965-A* of that date, with extended coverage likely in *Commentary No. 959-B*, over the weekend. The consensus outlook purportedly is for some narrowing of the payroll gain from June's headline gain of 213,000 into the 190,000 plus-or-minus range, with headline U.3 unemployment expected to narrow to 3.9% from 4.0% in June.

Some negative surprises remain a fair bet, however, with a possible greater-than-expected weakening in payroll growth and with the headline U.3 unemployment rate holding steady or backing up, again, given the ongoing, faltering activity of the Conference Board's Help-Wanted Advertising (HWOL) in June 2018. The July HWOL is due for release tomorrow, August 1st.

Both the heavily-stressed Household Survey measures (Employment-Population Ratio and Participation Rate) and Payroll Survey year-to-year gain likely will continue under negative pressure.

#### LINKS TO PRIOR COMMENTARIES, SPECIAL REPORTS AND OTHER WRITINGS

### **Most Recent Watches:**

The Consumer Liquidity Watch of July 18th: Consumer Liquidity Watch - No. 3.

The *Hyperinflation Watch* of July 20th: *Hyperinflation Watch – No.* 2.

The latest Watches always are available on <a href="www.ShadowStats.com">www.ShadowStats.com</a> and by link from the current <a href="commentary">Commentary</a>, with updates advised by e-mail.

Prior Writings Underlying the Regular and Special Commentaries: Underlying the recent Special Commentary No. 935 (Part One) and the pending Special Commentaries (Part Two) on Inflation, and (Part III) on the Federal Reserve and U.S. banking system, are Commentary No. 899 and General Commentary No. 894, along with general background from regular Commentaries throughout 2017.

These missives also are built upon writings of prior years, including <u>No. 777 Year-End Special</u> <u>Commentary</u> (December 2015), <u>No. 742 Special Commentary: A World Increasingly Out of Balance</u> (August 2015) and <u>No. 692 Special Commentary: 2015 - A World Out of Balance</u> (February 2015). In turn, they updated the long-standing hyperinflation and economic outlooks published in <u>2014</u> <u>Hyperinflation Report—The End Game Begins</u> – First Installment Revised (April 2014) and <u>2014</u> <u>Hyperinflation Report—Great Economic Tumble</u> – Second Installment (April 2014).

The two *Hyperinflation* installments remain the primary background material for the hyperinflation circumstance. Other references on underlying economic reality are the <u>Public Commentary on Inflation</u> <u>Measurement</u> and the <u>Public Commentary on Unemployment Measurement</u>.

**Recent Regular Commentaries:** [Listed here are Commentaries of the last several months or so, plus recent Special Commentaries and a sampling of others covering a variety of non-monthly issues, including annual benchmark revisions, dating back to the beginning of 2017. Please Note: Complete ShadowStats archives back to 2004 are found at <a href="https://www.ShadowStats.com">www.ShadowStats.com</a> (left-hand column of home page).]

These regular *Commentaries* usually are published at least weekly, with *Consumer Liquidity* and *Hyperinflation Watches* updated about every two weeks, updating general economic, consumer-liquidity and financial-market circumstances as they develop.

<u>Commentary No. 962</u> (July 27th) provided initial coverage of the first or "advance" estimate of Second-Quarter 2018 Gross Domestic Product (GDP) and the Comprehensive Benchmark Revisions to the series back to 1929. A full update and extended coverage follow in pending *Commentary No. 964*.

<u>Commentary No. 961</u> (July 26th) provided full coverage on New Residential Investment (Housing Starts, Building Permits and New- and Existing-Home Sales. Preliminary coverage was provided on June Retail Sales, Industrial Production, New Orders for Durable Goods and the Cass Freight Index<sup>TM</sup>, all of which are expanded upon in today's *Commentary No. 963*.

<u>Commentary No. 960</u> (July 15th) reviewed the June Consumer and Producer Price Indices (CPI and PPI), Real Earnings and related implications for consumer and systemic liquidity

<u>Commentary No. 959-B</u> (July 11th) provided extended detail on June 2018 Employment and Unemployment, the May 2018 Trade Deficit and updated economic outlook, along with expanded discussion on issues affecting the credibility of the headline employment and unemployment data.

<u>Commentary No. 959-A</u> (July 6th) provided flash headlines and summary details of the June 2018 Employment and Unemployment and the May 2018 Trade Deficit, expanded upon in *Commentary No. 959-B* and headline coverage of June 2018 Conference Board Help Wanted OnLine<sup>®</sup> Advertising.

<u>Commentary No. 958</u> (July 3rd) covered May 2018 Construction Spending and the accompanying annual benchmarking to that series.

<u>Commentary No. 957</u> (July 1st) covered May 2018 New Orders for Durable Goods and the third estimate of First-Quarter 2018 Gross Domestic Product (GDP) and the coincident second estimates of Gross National Product (GNP) and Gross Domestic Income (GDI).

<u>Commentary No. 956</u> (June 27th) reviewed May 2018 Retail Sales, Industrial Production, New Residential Construction (Housing Starts and Building Permits), New- and Existing-Home Sales, along

with detail on the May 2018 Cass Freight Index $^{TM}$  and some potential twists to the pending July 27th Comprehensive Benchmark Revision to the GDP.

<u>Commentary No. 955</u> (June 18th) analyzed May 2018 inflation as reported with the May 2018 Consumer and Producer Price Indices (CPI and PPI), Real Average Weekly Earnings, along with the latest *Hyperinflation Watch* covering FOMC policy, the U.S. dollar and financial markets. Summary headline details also were provided for May Retail Sales, Industrial Production and the Cass Freight Index<sup>TM</sup>.

<u>Commentary No. 954</u> (June 8th) reviewed the comprehensive annual benchmark revisions to the Trade Deficit, in the context of recent benchmark revisions to other major economic series and implications for the pending GDP benchmark revisions. Such also covered the headline reporting of the April 2018 headline Trade Deficit detail and an updated Consumer Liquidity Watch.

<u>Commentary No. 953-B</u> (June 5th) analyzed the discrepancies between the record-low headline unemployment rate and near-record-high readings of labor-market stress, in the context of extended coverage the May 2018 Employment and Unemployment and April 2018 Construction Spending, previously headlined in *No. 953-A*.

<u>Commentary No. 953-A</u> (June 1st) provided flash headlines and summary details of the May 2018 Employment and Unemployment and April 2018 Construction Spending, expanded upon in the supplemental coverage of *Commentary No. 953-B*. Current monetary conditions were reviewed, along with the initial estimate of annual growth in the May 2018 ShadowStats Ongoing Estimate of Money Supply M3.

<u>Commentary No. 952</u> (May 30th) reviewed the second estimate of First-Quarter 2018 GDP, initial estimates of first-quarter GNP and GDI, extended detail on the annual benchmarking of the Retail Sales series, and headline coverage of the May 2018 Conference Board Help Wanted OnLine<sup>®</sup> Advertising.

<u>Commentary No. 951</u> (May 25th) reviewed April 2018 New Orders of Durable Goods, in the context of the annual revisions (see prior *No. 950*), New- and Existing-Home Sales and brief coverage of the annual benchmarking of the Retail Sales series.

<u>Commentary No. 950</u> (May 20th) reviewed April Retail Sales, Industrial Production, New Residential Construction (Housing Starts, Building Permits and annual revisions), the Cass Freight Index<sup>TM</sup> and annual benchmark revisions to Manufacturers' Shipments, including New Orders for Durable Goods.

<u>Commentary No. 949</u> (May 11th) reviewed inflation as reported with the April 2018 Consumer and Producer Price Indices (CPI and PPI), Real Average Weekly Earnings, along with the latest *Hyperinflation Watch* on the U.S. dollar and financial markets.

<u>Commentary No. 948</u> (May 9th) explored unusual circumstances with April 2018 Employment and Unemployment numbers, along with the April Conference Board Help Wanted OnLine<sup>®</sup> Advertising, April Monetary Conditions, the March Trade Deficit and Construction Spending, along with the reintroduction of Sentier Research's monthly Real Median Household Income to March 2018.

<u>Commentary No. 947</u> (April 27th) detailed the first estimate of First-Quarter 2018 GDP and the related Velocity of Money, March New Orders for Durable Goods, New- and Existing-Home Sales and the "advance" estimate of the March 2018 merchandise goods deficit.

<u>Commentary No. 946</u> (April 22nd) covered March 2018 Retail Sales, Industrial Production, New Residential Construction (Housing Starts and Building Permits), the Cass Freight Index<sup>TM</sup> and a review of the current state of the GDP reporting and an outlook for first-quarter 2018 activity.

<u>Commentary No. 945</u> (April 11th) reviewed the March 2018 Consumer and Producer Prices Indices (CPI and PPI), Real Average Weekly Earnings, along with the latest *Hyperinflation Watch* on the U.S. dollar and financial markets.

<u>Commentary No. 944</u> (April 8th) covered March 2018 Employment and Unemployment, the March Conference Board Help Wanted OnLine<sup>®</sup> Advertising, March Monetary Conditions and the full February Trade Deficit and Construction Spending.

<u>Commentary No. 943</u> (March 29th) covered the third-estimate of, second-revision to Fourth-Quarter 2017 GDP and the only estimates to be made in current reporting of the GDI and GDP, as well as the "advance" estimate of the February merchandise trade deficit.

<u>Commentary No. 942-B</u> (March 27th) reviewed the Industrial Production annual benchmark revisions, general reporting-quality issues, February 2018 New Orders for Durable Good, New- and Existing-Home Sales and the Cass Freight Index<sup>TM</sup>.

<u>Commentary No. 942-A</u> (March 23rd) provided a very brief summary of the much more extensive details covered in *Commentary 942-B*.

<u>Commentary No. 941</u> (March 19th) covered February Industrial Production and New Construction Spending (Housing Starts and Building Permits), along with a general discussion in the *Opening Comments* on economic conditions and a preview of the Industrial Production benchmark revisions.

<u>Commentary No. 940</u> (March 15th) covered February 2018 Retail Sales, CPI, PPI and related Real Average Weekly Earnings, real Annual Growth in M3 and updated financial market prospects.

<u>Commentary No. 939</u> (March 9th) covered the February 2018 Employment and Unemployment details, the full reporting of the January 2018 Trade Deficit, February Conference Board Help Wanted OnLine<sup>®</sup> Advertising and February Monetary Conditions.

<u>Commentary No. 938</u> (March 1st) reviewed January 2018 Construction Spending and the second estimate of Fourth-Quarter 2017 GDP.

<u>Commentary No. 937</u> (February 27th) covered January 2018, New Orders for Durable, New- and Existing-Home Sales, the "advance" estimate of the January 2018 Merchandise Trade Deficit and the Cass Freight Index<sup>TM</sup>.

<u>Commentary No. 936</u> (February 19th) covered the January 2018 CPI and PPI, Retail Sales, Industrial Production and New Residential Construction (Housing Starts and Building Permits).

<u>Special Commentary No. 935</u> (February 12th) was the first part of a three part-series reviewing economic and financial conditions of 2017 and the year-ahead, inflation and the U.S. government's balance sheet and conditions in the U.S. banking system and Federal Reserve options.

<u>Commentary No. 934-B</u> (February 6, 2018) provided extended coverage on the January 2018 Employment and Unemployment details, the 2017 benchmark revisions to Payroll Employment and the January annual recasting of population, along with coverage of the December 2017 Trade Deficit.

<u>Commentary No. 934-A</u> (February 2, 2018) provided initial detail on the January 2018 Employment and Unemployment details and the 2017 benchmark revisions to Payroll Employment, along with coverage of January Conference Board Help Wanted OnLine<sup>®</sup> Advertising, January Monetary Conditions and December 2017 Construction Spending.

<u>Commentary No. 933</u> (January 26, 2018) covered December New Orders for Durable Goods, the Cass Freight Index<sup>TM</sup> and the first estimate of Fourth-Quarter 2017 GDP.

<u>Commentary No. 932</u> (January 18, 2018) covered December Industrial Production and New Residential Construction (Housing Starts and Building Permits).

<u>Commentary No. 931</u> (January 15, 2018) reviewed December 2017 Retail Sales and the CPI and PPI, along with an update on the U.S. dollar, the financial markets and gold graphs.

<u>Commentary No. 930-B</u> (January 8th) expanded upon the December 2017 Employment and Unemployment numbers and Household Survey benchmarking, Conference Board Help Wanted OnLine<sup>®</sup> Advertising, December Monetary Conditions and the November 2017 Trade Deficit and Construction Spending, otherwise headlined in *No. 930-A*.

Advance Commentary No. 930-A (January 5, 2018) provided a brief summary and/or comments (all expanded in Commentary No. 930-B) on December 2017 Employment and Unemployment numbers, Household Survey benchmarking, Conference Board Help Wanted OnLine Advertising, December Monetary Conditions and the November 2017 Trade Deficit and Construction Spending.

<u>General Commentary No. 929</u> (December 28, 2017) reviewed current economic and market conditions at year-end 2017.

<u>Commentary No. 926</u> (December 15, 2017) reviewed the headline November 2017 numbers for Retail Sales (both real and nominal), and Industrial Production, along a discussion on the dampening economic impact of business and consumer "uncertainty."

<u>Commentary No. 909</u> (September 14, 2017) assessed the annual release of 2016 Real Median Household Income, along with a review of August Consumer Price Index (CPI) and the Producer Price Index (PPI) and an updated *Alert* on the financial markets.

<u>Special Commentary No. 904</u> (August 14, 2017) issued an "Alert" on the financial markets (including U.S. equities, the U.S. dollar gold and silver, as well as FOMC policy), in the context of historical activity and unfolding circumstances of deteriorating economic and political conditions. Separately, headline details were reviewed for the July Consumer Price Index (CPI) and the Producer Price Index (PPI).

<u>Commentary No. 902-B</u> (July 31, 2017) reviewed the 2017 annual benchmark revisions of GDP and related series, along with the "advance" estimate of second-quarter 2017 GDP.

<u>Commentary No. 900</u> (July 19, 2017) reviewed June 2017 New Residential Investment (Housing Starts and Building Permits), and previewed the upcoming annual GDP benchmark revisions and the coincident "advance" estimate of second-quarter 2017 GDP.

<u>Commentary No. 897</u> (July 6, 2017) reviewed the headline May 2017 Construction Spending and the annual revisions to same, along the May Trade Deficit, and June The Conference Board Help Wanted OnLine<sup>®</sup> Advertising and the May Cass Freight Index<sup>TM</sup>.

<u>General Commentary No. 894</u> (June 23, 2017) reviewed unfolding economic, financial and political circumstances in the context of market expectations shifting towards an "unexpected" headline downturn in broad economic activity, along with headline details on May 2017 Real Median Household Income (Sentier Research) and New- and Existing-Home Sales.

<u>Commentary No. 890</u> (June 5, 2017) covered the negative-downside annual benchmark revisions to the trade deficit, the May 2017 estimates of labor conditions, ShadowStats Ongoing Money Supply M3, The

Conference Board Help Wanted OnLine® Advertising and April 2017 estimates of the Cass Freight Index<sup>TM</sup>, and the monthly trade deficit and construction spending.

<u>Special Commentary No. 888</u> (May 22, 2017) discussed evolving political circumstances that could impact the markets and the economy, reviewed the annual benchmark revisions to Manufacturers' Shipments and New Orders for Durable Goods and updated Consumer Liquidity Conditions.

<u>Commentary No. 887</u> (May 18, 2017) reported on the April 2017 detail for Industrial Production and Residential Construction (Housing Starts), with some particular attention to historic, protracted periods of economic non-expansion, of which the current non-recovery is the most severe.

<u>Special Commentary No. 885</u>, entitled *Numbers Games that Statistical Bureaus*, *Central Banks and Politicians Play*, (May 8, 2017) reviewed the unusual nature of the headline reporting of the April 2017 employment and unemployment details.

<u>Commentary No. 882</u> (April 27, 2017) summarized the annual benchmark revisions to Retail Sales and reviewed the March 2017 releases of New Orders for Durable Goods and New- and Existing-Home Sales.

<u>Commentary No. 877</u> (April 2, 2017) outlined the nature of the downside annual benchmark revisions to industrial production, along with implications for pending annual revisions to Retail Sales, Durable Goods Orders and the GDP.

<u>Commentary No. 876</u> (March 30, 2017) current headline economic activity in the context of formal definitions of the business cycle (no other major series come close to the booming GDP, which is covered in its third revision to fourth-quarter activity). Also the February 2017 SentierResearch reading on real median household income was highlighted.

<u>Commentary No. 875</u> (March 24, 2017) assessed and clarified formal definitions of the U.S. business cycle, which were expanded upon significantly, subsequently, in *No. 876*. It also provided the standard review of the headline February 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the Cass Freight Index<sup>TM</sup>.

<u>General Commentary No. 867</u> (February 24, 2017) assessed mixed signals for a second bottoming of the economic collapse into 2009, which otherwise never recovered its level of pre-recession activity. Such was in the context of contracting and faltering industrial production that now rivals the economic collapse in the Great Depression as to duration. Also covered were the prior January 2017 New- and Existing Home Sales.

<u>Commentary No. 864</u> (February 8, 2017) analyzed January 2017 Employment and Unemployment detail, including benchmark and population revisions, and estimates of December Construction Spending, Household Income, along with the prior update to Consumer Liquidity.

<u>Commentary No. 861</u> (January 13, 2017) covered the December 2016 nominal Retail Sales, the PPI, with a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations.

*No.* 859 *Special Commentary* (January 8, 2017) reviewed and previewed economic, financial and systemic developments of the year passed and the post-election year ahead.