

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

COMMENTARY NUMBER 966

July 2018 Retail Sales, Industrial Production, Housing Starts, Building Permits, Freight

August 17, 2018

Recent Sizzle Has Fizzled

**Financial-Market and Economic Prospects Remain Far Shy of the Hype and Headlines,
Amidst Tanking Consumer Optimism and Negative Revisions to Recent Reporting**

July 2018 Real Retail Sales Unchanged Net of Downside Revisions to May and June

**July Housing Starts and Components Revised Lower, with
Deepening Downtrends and Quarterly Contractions**

**New Residential Construction Activity Held Shy of Recovering Pre-Recession Highs:
July Housing Starts by 49.1% (-49.1%), Single-Unit Starts by 53.2% (-53.2%),
Multiple-Unit Starts by 32.4% (-32.4%), Building Permits by 42.1% (-42.1%)**

**July Manufacturing Showed a Modest Increase on Top of Upside Revisions,
Still Holding Shy by 5.0% (-5.0%) of Recovering Its Pre-Recession Peak,
Setting a Record 127-Consecutive Months of Economic Non-Expansion**

**Common Experience and Realistic Estimates Show the Economy Is Not Exploding,
Holding Well Shy of Recovering Its 2007 Peak**

**Nonetheless, Real Aggregate Activity Remains Off Its 2009 Bottom,
Growing Both Quarter-to-Quarter and Year-to-Year, Since Second-Quarter 2017**

**Deteriorating Consumer and Systemic Liquidity, Intensify Economic Risks;
Federal Reserve Tightening Policies and Oil-Driven Inflation
Threaten a Fragile, Nascent Recovery**

PLEASE NOTE: The next regular *Commentary* on Friday, August 24th, will cover the initial announcement of the 2018 annual benchmark revisions to payroll employment, and headline details of July New Orders for Durable Goods and New- and Existing-Home Sales. It also will review the unstable outlook for, and current conditions in, the financial markets.

Discussed in prior [Commentary No. 965](#), the GDP benchmarking detail and the related *Special Commentary* on the economy all will be included in *Special Commentary No. 968* of August 31st, which also will cover the second-estimate of Second-Quarter 2018 GDP. Separately, the extended July labor coverage will be included in the August labor coverage of the September 7th *Commentary No. 969*.

Links: [Hyperinflation Watch – No. 3](#) (August 12th), [Consumer Liquidity Watch – No. 4](#) (August 10th).

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

Today's (August 17th) Opening Comments looks at unfolding economic trends in the context of the latest headline reporting of consumer liquidity and key monthly indicators, including the CASS Freight IndexTM.

The **Reporting Detail** reviews July 2018 Retail Sales, Industrial Production and New Residential Construction (Housing Starts and Building Permits).

The **Week, Month and Year Ahead** provides background on recent *Commentaries* and discusses/previews next week's releases of the July 2018 New Orders for Durable Goods, and New- and Existing-Home Sales. The advance estimate of the 2018 Payroll Employment Benchmark Revisions (August 22nd) is a wildcard, but with a fair shot of being to the downside.

Commentary No. 966 contents, including graphs and tables, are indexed and linked on following page.

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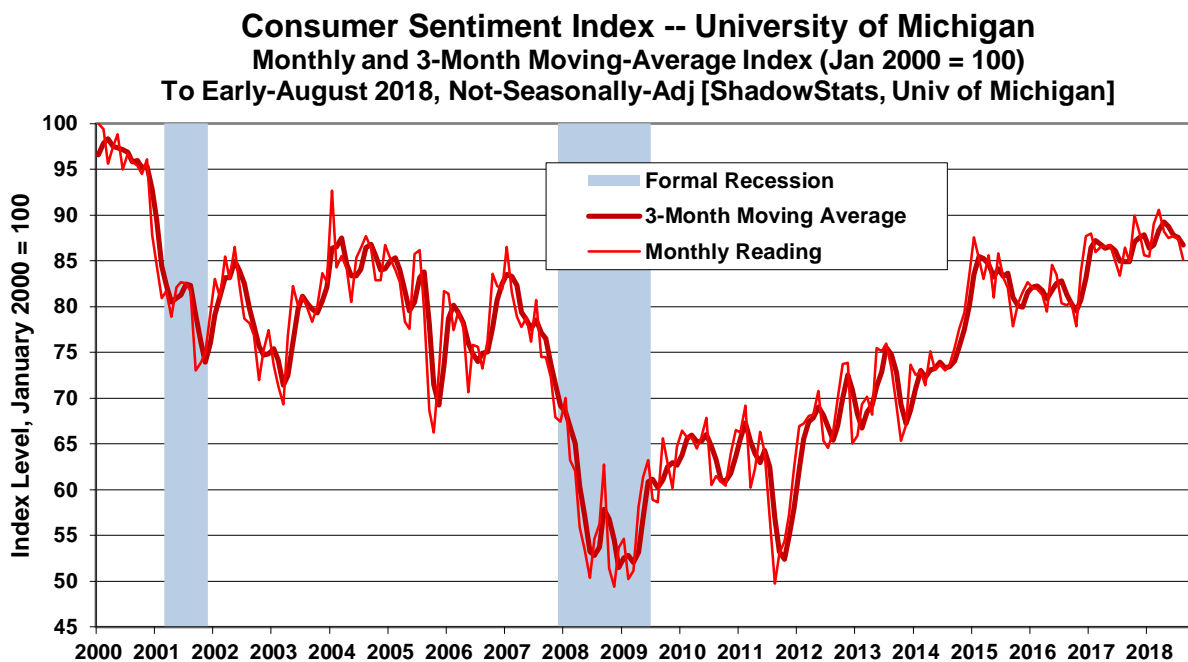
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OPENING COMMENTS

GDP versus Manufacturing and the Cass Freight Index™ (July 2018) **Nascent Recovery at Peril from Fed Rate Hikes and Consumer Liquidity Squeeze**

Better-Quality Numbers Show Business Activity in a Low-Level Upturn, Well Shy of the 2007 Economic Peak; Yet that Nascent “Recovery” Now Is Imperiled by Tightening Liquidity. Various economic measures, including the Manufacturing Sector of Industrial Production, New Orders for Durable Goods and the CASS Freight Index™, have confirmed a nascent economic recovery shown in the benchmarked Gross Domestic Product (GDP) series, as recalculated and corrected by ShadowStats for the understatement of headline inflation used in deflating the GDP series. Deflation by too low an inflation rate results in overstated real or inflation-adjusted economic activity. Detailed in the *Opening Comments* of [Commentary No. 963](#), that circumstance is updated here for this week’s headline reporting of July Manufacturing and the July CASS Freight Index™, which lag slightly in negative impact from tightening consumer liquidity.

Graph OC-1: Consumer Sentiment (University of Michigan), Early Estimate for August 2018



Prior [Commentary No. 965](#) reviewed how continuing deterioration in consumer liquidity conditions were threatening such a nascent recovery. Where both the GDP comparisons and latest consumer liquidity conditions are updated in these *Opening Comments*, consider particularly this morning's (August 17th) release of the early estimate of August Consumer Sentiment from the University of Michigan. Sentiment plunged month-to-month, to an eleven-month low (see the preceding *Graph OC-1*). Such tends to confirm the tightening consumer-liquidity conditions discussed in [Consumer Liquidity Watch – No. 4](#) (CLW) of August 10th. The latest Sentiment detail will be updated fully in the next CLW.

More-immediately sensitive to tightening consumer liquidity conditions than latest manufacturing and freight activity, this week's reporting of July Real Retail Sales and New Residential Construction took monthly hits in the context of downside revisions to headline activity of the last couple of months. As discussed in today's *Reporting Detail*, the net deterioration seen in both the July Retail Sales and Housing Starts numbers largely was consistent with the big hit just taken by the Consumer Sentiment number.

Deflated by Realistic Inflation, Not by the Understated Inflation Used to Spike Headline GDP, the U.S. Economy Is Off Bottom and Growing, but Never Has Come Close to Recovering Its 2007 Peak.

[Much of the following text is repeated from [Commentary No. 963](#).] Discussed in the [Public Commentary on Inflation Measurement](#), and as will be reviewed and detailed in pending *Special Commentary No. 968* planned for August 31st, headline inflation-adjusted estimates of U.S. 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 in the 2018 GDP benchmarking.

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 (see [Commentary No. 962](#)).

Peak-to-trough, benchmarked headline GDP collapsed by 4.0% (-4.0%) and expanded beyond its pre-recession high by 17.4% as of second-quarter 2018, by 16.3% 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 is in common experience. Allowing for former intermittent peak levels as early as first-quarter 2016, the benchmarked “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 is that patterns of early recovery now seen in the “Corrected” GDP, happen to be moving largely in tandem with some other the better-quality statistics than those seen along with the gimmicked Headline Real GDP.

Activity patterns shown in the accompanying “Corrected” GDP *Graph OC-2* and the just-updated July CASS Freight IndexTM *OC-3* 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 the just-updated *Graph OC-4* of Manufacturing and previously-shown *Graph OC-5* of June New Orders. Annual growth patterns are plotted in the related *Graphs OC-6* to *OC-9*.

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. 968*, 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 July 2018 reporting for each monthly series (June 2018 for New Orders for Durable Goods), versus its pre-recession peak, the CASS Freight IndexTM was down by 4.7% (-4.7%), the Manufacturing Sector of Industrial Production was down by 5.0% (-5.0%) and Real New Orders for Durable Goods, Ex-Commercial Aircraft was down by 5.9%. The new Manufacturing data are discussed in the *Reporting Detail*, the New Orders detail was discussed in [Commentary No. 963](#), and the latest Freight Activity discussion follows here.

July Freight Index Held Off Its Unadjusted Monthly Post-Recession Peak, With Rising Annual Growth, Still Non-Expanding; Shy by 4.4% (-4.4%) of Recovering Its Pre-Recession Peak. An independent, reliable private indicator of real-world economic activity and shifting business patterns, the July 2018 [Cass Freight Index](#)TM was published August 15th. Again, we thank Cass Information Systems for their permission to use the data.

Although uptrending, the improving series remains shy of full economic recovery, while showing some renewed bounce in its strong pace of annual growth. 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 [Commentary No. 942-B](#) and [Commentary No. 950](#)), let alone the extraordinarily heavy gimmicking of the headline GDP.

The July 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 had backed off to 7.2% in June 2018, from 11.9% in May, from near-term January 2018 peak of 12.5%, but then rebounded to 10.6% in July 2018. The unadjusted monthly level of July activity held close to June's level, which had 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 new 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 4.37% (-4.37%) from recovering its formal pre-recession high, down by 7.40% (-7.40%) from its precursor peak (see *Graph OC-3*).

For the twentieth consecutive month, the twenty-first month in the last twenty-two, year-over-year change in the unadjusted monthly index was positive. It rebounded to 10.57% in July 2018, up from 7.22% in June 2018, 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-7*). 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, 7.22% in June 2018 and again to 10.57% in July 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.

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-3 to OC-5* as to level and in *Graphs OC-7 to OC-9* as to year-to-year change. Again, the respective comparative graphs for the “Corrected” GDP are *OC-2* and *OC-6*.

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-3*, 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-3*) remained down by 8.22% (-8.22%) from “Recovering” its preliminary pre-recession peak of September 2006, down by 4.37% (-4.37%) 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.

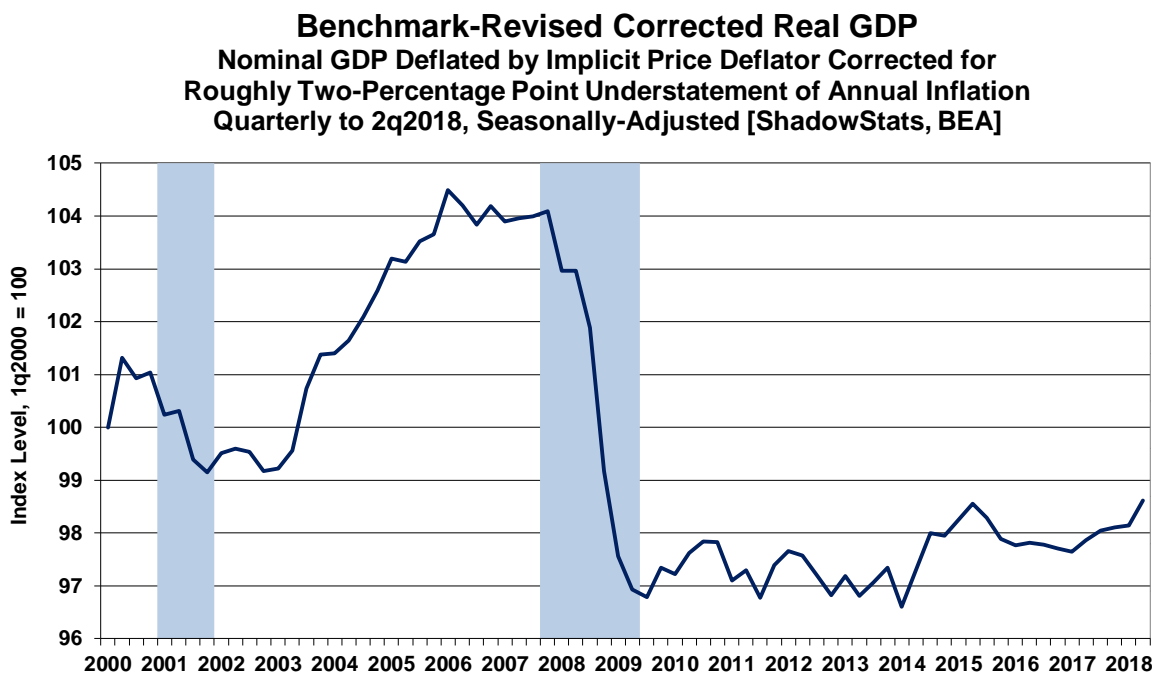
Economic downturns eventually hit bottom. The official collapse in aggregate economic activity (as measured by the headline, inflation-adjusted, real Gross Domestic Product or GDP), which formally has been recognized from peak activity in December 2007 to a trough in June 2009, appears to be accurate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

General Background to the Freight Index. [*This section largely is repeated from its prior version in [Commentary No. 963](#).*] 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.

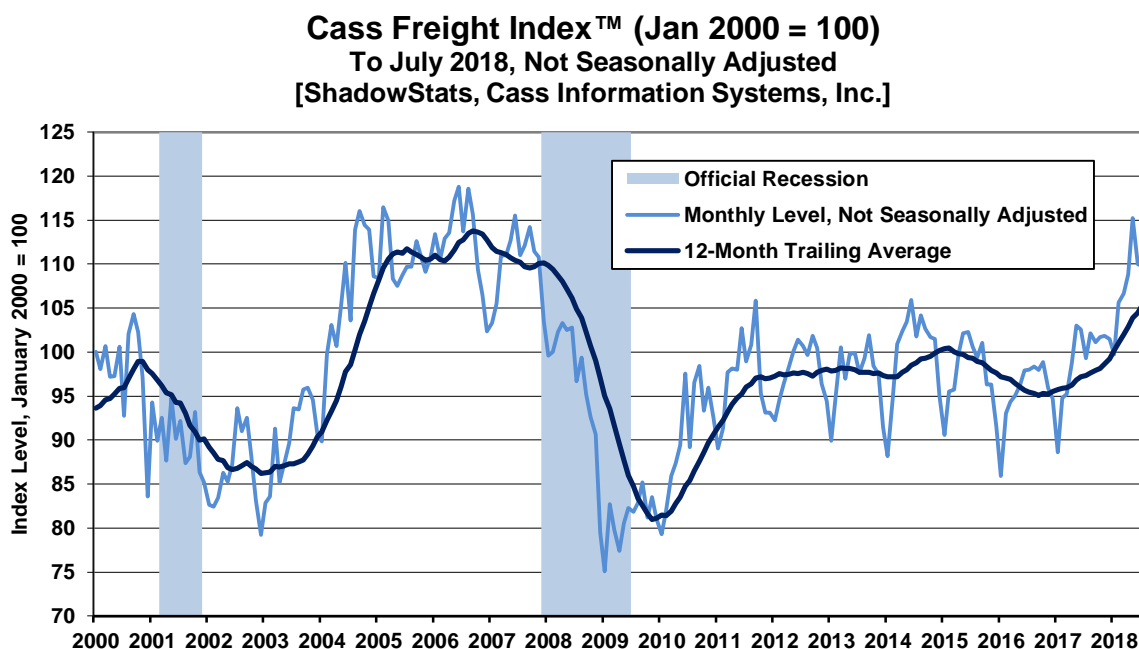
Graph OC-3 reflects the monthly freight numbers updated through July 2018. While adjusted for factors such as days in a month, the headline monthly detail is not adjusted for broad seasonality patterns, such as retailers stocking for the holiday shopping season. Accordingly, ShadowStats plots the series 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-3*).

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-7*. 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 to a high 12.54% in January 2018, with fluctuating activity to current 10.57% in July 2018. In combination, *Graphs OC-2* to *OC-9* remain consistent with a pattern of collapsing economic and business activity into 2009, low-level, non-recovering, albeit currently uptrending stagnation.

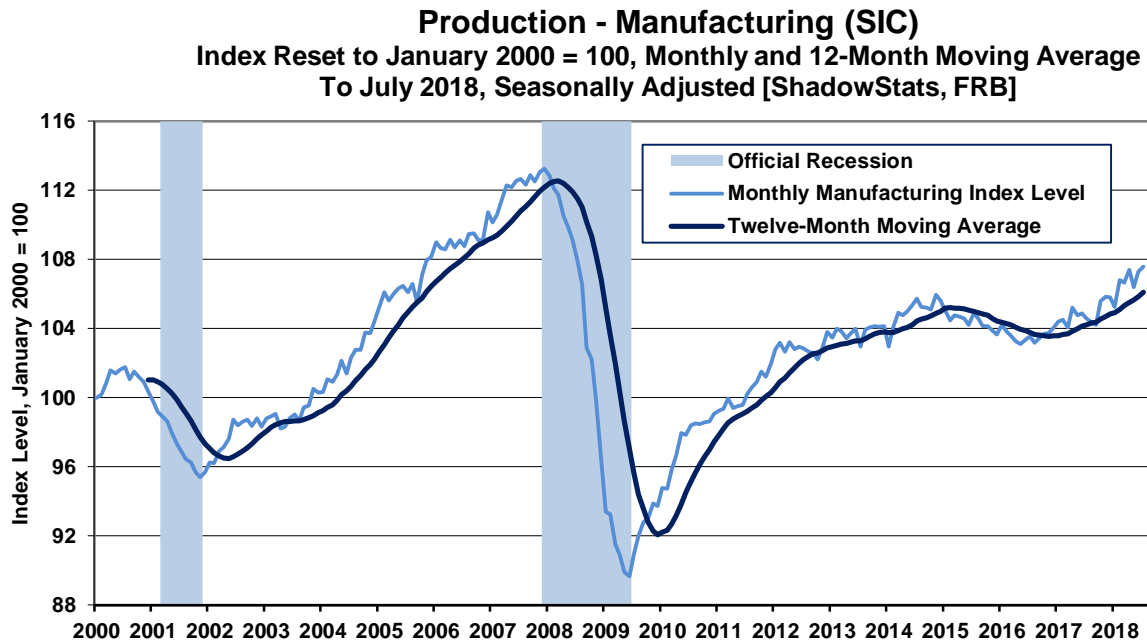
Graph OC-2: Benchmark-Revised, Real GDP, Corrected for Understated Headline Inflation Used in Deflation



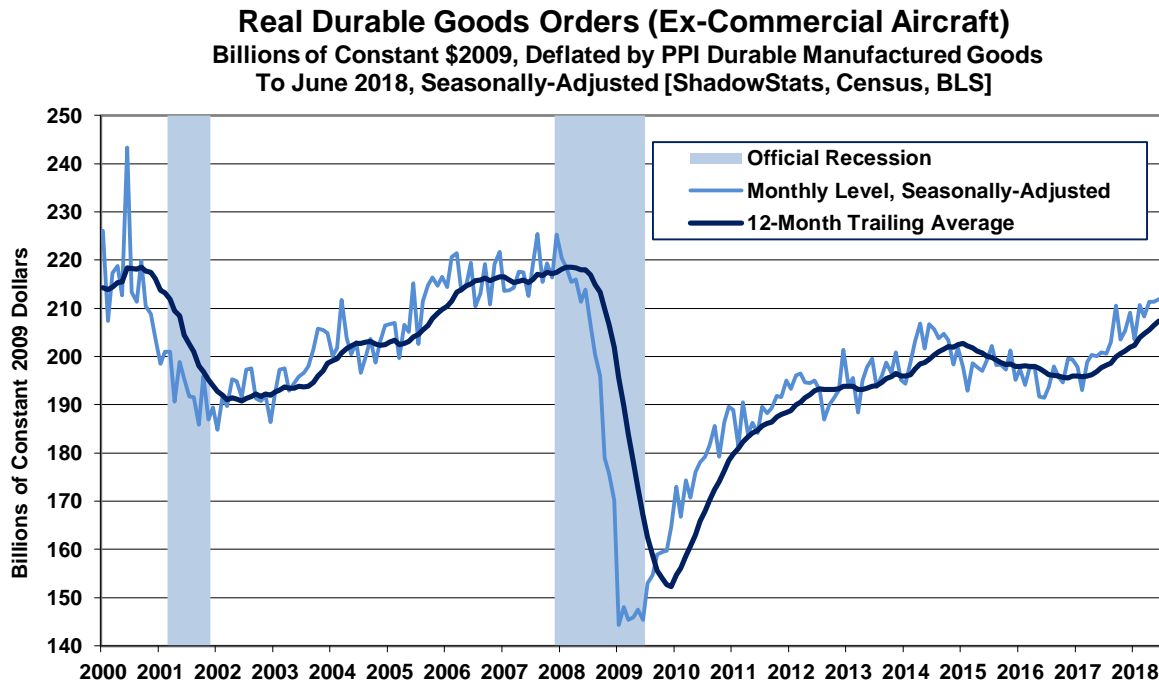
Graph OC-3: CASS Freight Index™ Moving-Average Level (2000 to July 2018)



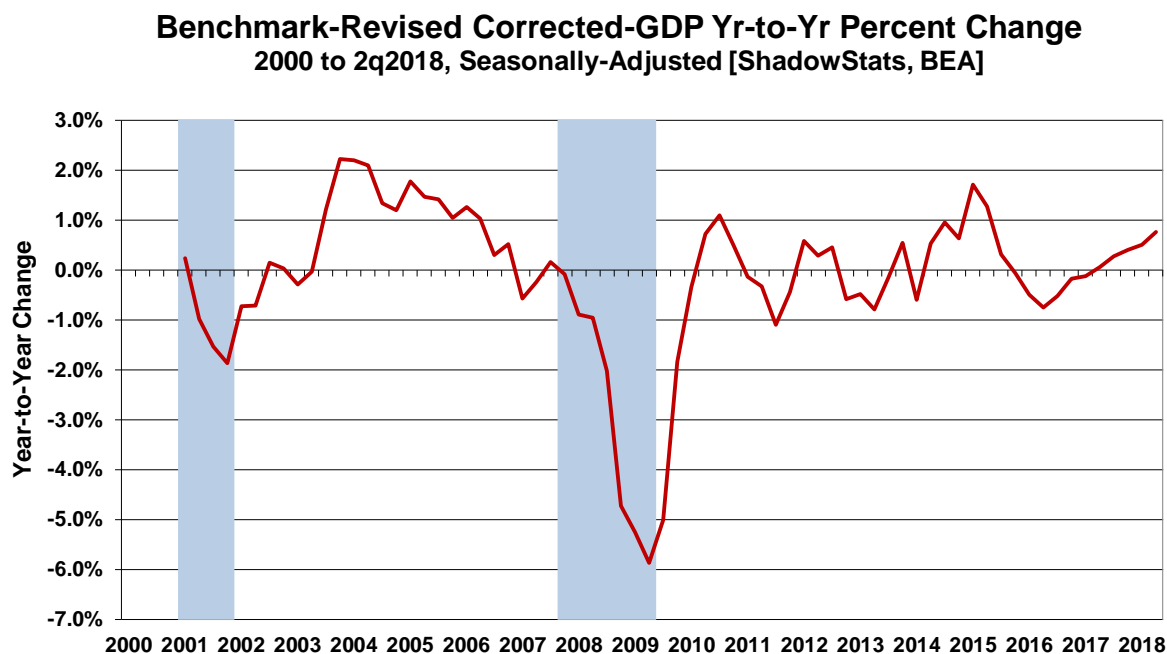
Graph OC-4: Industrial Production-Manufacturing, 12-Month Moving-Average Level (2000 to July 2018)



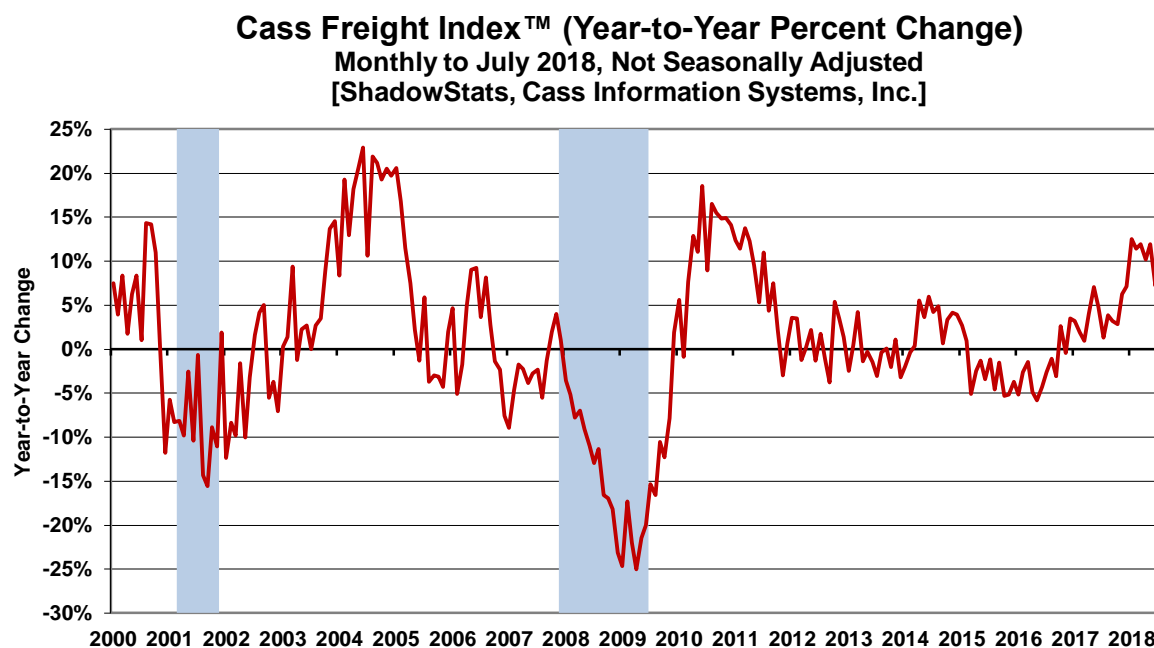
Graph OC-5: New Orders for Durable Goods, 12-Month Moving-Average Level (2000 to June 2018)
(See [Commentary No. 963](#))



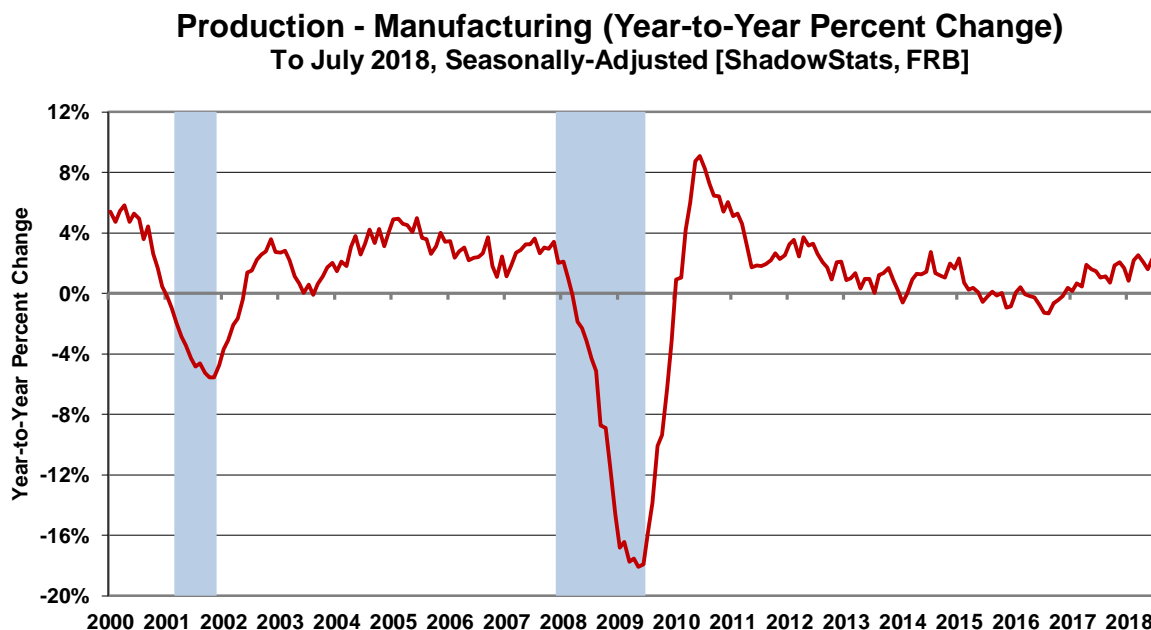
Graph OC-6: Benchmark-Revised Corrected-GDP, Year-to-Year Percent Change (2000 to Second-Quarter 2018)



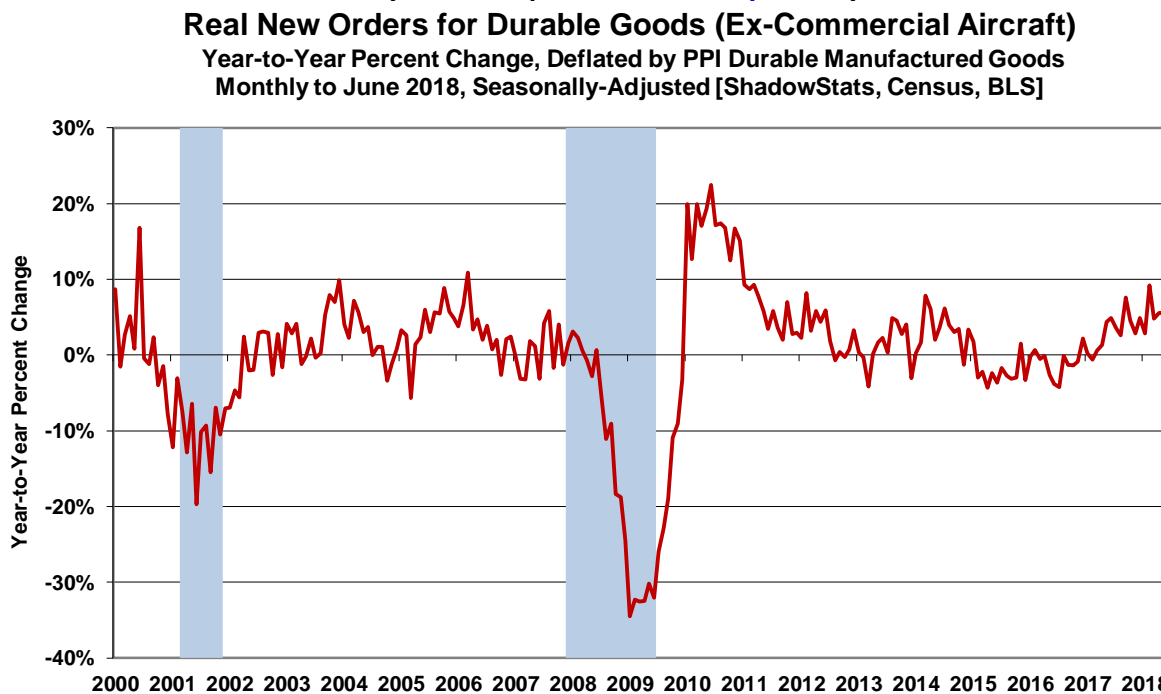
Graph OC-7: CASS Freight Index, Monthly Year-to-Year Percent Change (2000 to July 2018)



Graph OC-8 Manufacturing, Year-to-Year Percent Change (2000 to July 2018)
(Same as Graph 16 in the Reporting Detail)



Graph OC-9: New Orders for Durable Goods, Year-to-Year Percent Change (2000 to June 2018)
(Same as Graph 33 in [Commentary No. 963](#))



REPORTING DETAIL

Retail Sales (July 2018)

Amidst Downside Revisions to May and June, Headline Nominal July Retail Sales Growth of 0.5% Was Just 0.1% Net of Revisions, Headline Real Growth Was 0.3%, “Unchanged” Net of Revisions. The still heavily-bloated headline reporting of July 2018 retail sales showed some catch-up against underlying reality, but remained highly unstable, with the level of June 2018 nominal sales revised lower by 0.4% (-0.4%), versus prior reporting, with the level of nominal sales revised lower by 0.1% (-0.1%) for May 2018. Seasonal adjustments remained unstable, particularly tied to the volatile gasoline-station sales, where neither the Bureau of Labor Statistics (BLS) nor the Commerce Department (Commerce) seems able to come up with meaningful, consistent or stable seasonal adjustments tied to the erratic and not otherwise meaningfully-adjustable gasoline prices.

In the context of impaired and faltering consumer liquidity conditions, reviewed in today’s *Opening Comments*, [Consumer Liquidity Watch – No. 4](#) and [Commentary No. 965](#), the U.S. Consumer is in trouble, and that has negative implications, particularly for retail sales and the 73% of the aggregate U.S. GDP driven directly by consumer activity.

Headline Nominal Retail Sales—July 2018. The Census Bureau reported its “advance” estimate of July 2018 [Retail Sales](#) on Wednesday, August 15th. The headline, seasonally-adjusted monthly gain of 0.51% +/- 0.59% was statistically-significant (all confidence intervals are expressed at the 95% level), as was the downwardly revised June monthly gain of 0.20% [previously 0.49%] +/- 0.23%.

That June gain was on top of a revised monthly gain of 1.24% [previously 1.32%] in May, against an unrevised 0.34% in April, and 0.72% in March, 0.10% in February and a decline of 0.12% (-0.12%) in January. Again, net of the prior-month’s revision, the July 2018 nominal monthly sales gain was 0.15% (rounds to 0.1%) instead of the headline 0.51%.

Year-to-Year Annual Nominal Change. The July 2018 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 6.41% +/- 0.82%, versus revised annual gains of 6.07% [previously 6.60%] in June 2018, 6.38% [previously 6.46%, initially 5.87%] in May 2018 and unrevised annual gains of 4.76% in April 2018, 5.09% in March 2018, 4.53% in February 2018 and 3.95% in January 2018.

July 2018 “Core” Retail Sales, Net of Food and Gasoline. In theory, the nominal July 2018 retail sales environment should have been positive for grocery stores, with seasonally-adjusted food prices rising by 0.14%, and negative for gasoline stations, with seasonally-adjusted gasoline down by 0.62% (-0.62%), per the Bureau of Labor Statistics (BLS). That said, adjusted retail sales grocery-store sales rose by 0.80%, per the Census Bureau, with seasonally-adjusted gasoline-station sales up by 0.84% [unadjusted gasoline prices declined by 1.43% (-1.43%) in the month].

Given the extreme volatility in headline gasoline prices and sales volume, seasonally-adjusted and otherwise [June adjusted gasoline rose by 0.54%, unadjusted by 0.31% in the month, versus a revised sales gain of 0.30% (previously 1.02%)], one has to wonder as to the nature, consistency and significance 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 May, June and July.

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:

Version I: Nominal July versus June 2018 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—rose by 0.44%, versus the official headline aggregate sales gain of 0.51%.

Version II: Nominal July versus June 2018 seasonally-adjusted retail sales series—net of the monthly *change* in grocery store and gasoline-station revenues—rose by 0.35%, versus the official headline aggregate sales gain of 0.51%.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme and intensifying 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. 4](#)). Without sustainable growth in, and with intensifying 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 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 July 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 [Public Commentary on Inflation Measurement](#), 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 *Chapter 9* of [2014 Hyperinflation Report—Great Economic Tumble – Second Installment](#). These inflation-adjustment issues are separate from the adjustment issues mentioned in the opening paragraph of this section.

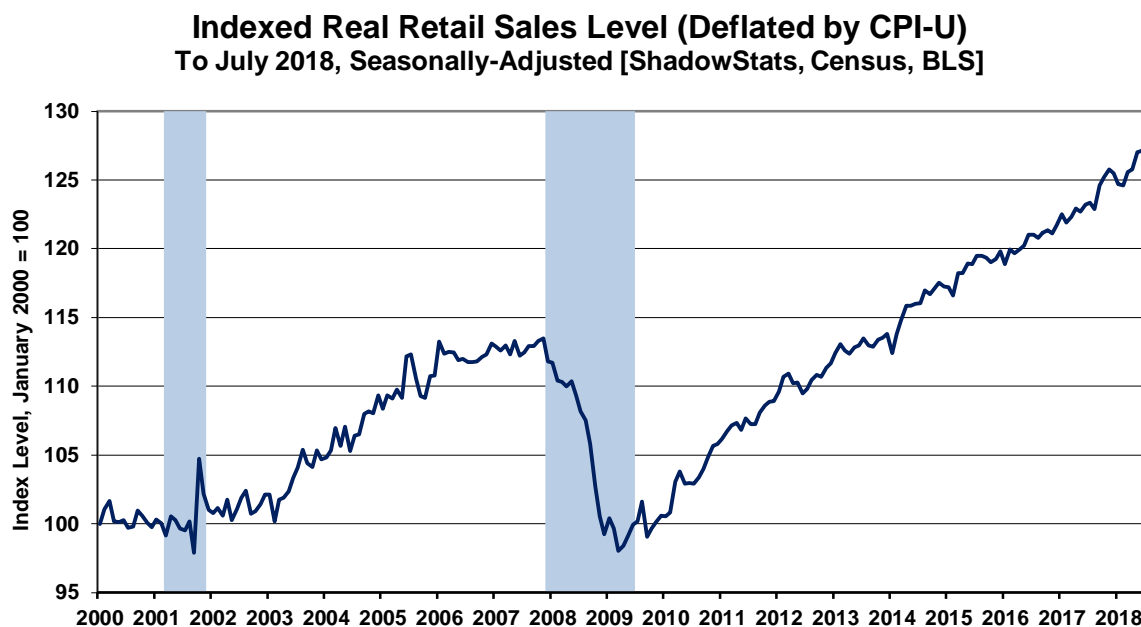
Graphs Reflecting Alternate Inflation-Adjustment. Both of the accompanying *Graphs 1 and 2* of Real Retail Sales are indexed to January 2000 = 100.0, so as to maintain consistency with the series of graphs related to corrected inflation-adjustment. Parallel, regular plots of the ShadowStats “corrected” Industrial Production Index are found in that section (see *Graphs 8 and 9* on page 25), *Graphs 34 to 37* (on page 46) of [Commentary No. 963](#) for the “corrected” New Orders for Durable Goods in that section, and *Graph OC-2* (on page 10) for the GDP series in today’s *Opening Comments*.

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.

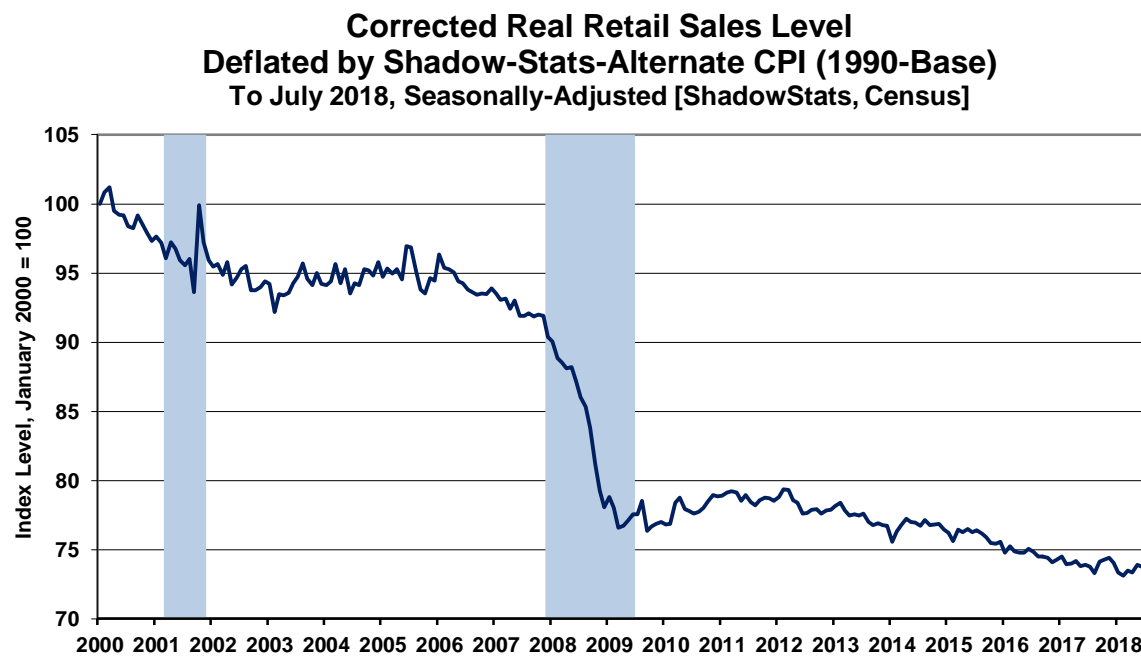
Instead of being deflated by the CPI-U, the “corrected” Real Retail Sales numbers—in *Graph 2*—use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation.

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 and other faltering consumer liquidity conditions, seen in [Consumer Liquidity Watch – No. 4](#) than is seen with headline Real Retail Sales detail.

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



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



Headline Real Retail Sales—July 2018—Net of CPI-U Inflation, Real Sales Gained by 0.34% in the Month [“Flat” at down 0.02% (-0.2%) Net of Revisions] with Annual Growth at 3.42%. 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 August 10th (see prior [Commentary No. 965](#)). The headline levels of, and year-to-year changes in, monthly Real Retail Sales are plotted in *Graphs 3 to 6*.

The July 2018 Consumer Price Index showed the seasonally-adjusted CPI-U up month-to-month by 0.17%, versus 0.13% June, 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. 965](#) for detail).

Deflated by the CPI-U, July 2018 Real Retail Sales gained by 0.34% month-to-month, following real monthly gains of 0.07% in June, 1.03% in May, 0.12% in April, 0.78% in March and monthly declines of 0.05% (-0.05%) in February and 0.66% (-0.66%) in January. That headline real monthly gain in July 2018 Retail Sales of 0.34%, again, was a contraction of 0.02% (-0.02%) net of prior-period revisions.

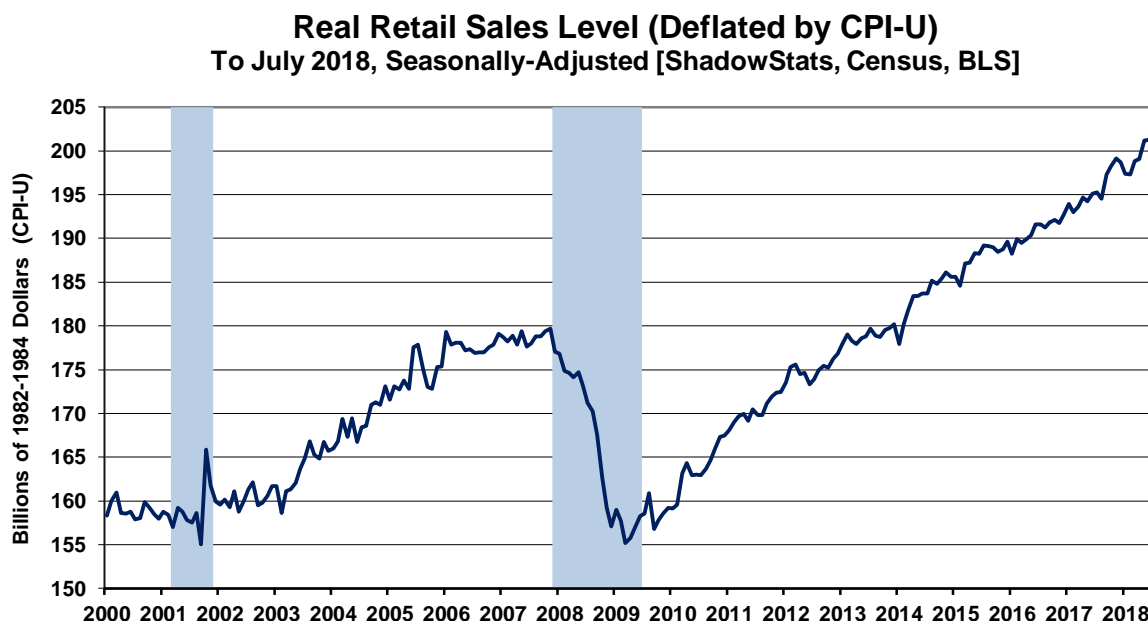
In the context of inconsistent headline reporting of year-ago revisions just for June 2017 (upside) and July 2017 (downside), year-to-year real growth was 3.42% in July 2018, versus 3.18% [previously 3.70%] in June 2018, 3.56% in May 2018, 2.28% in April 2018, 2.67% in March 2018, 2.22% in February 2018 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% (pre-benchmark 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% (now at 3.0% in revision). *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.

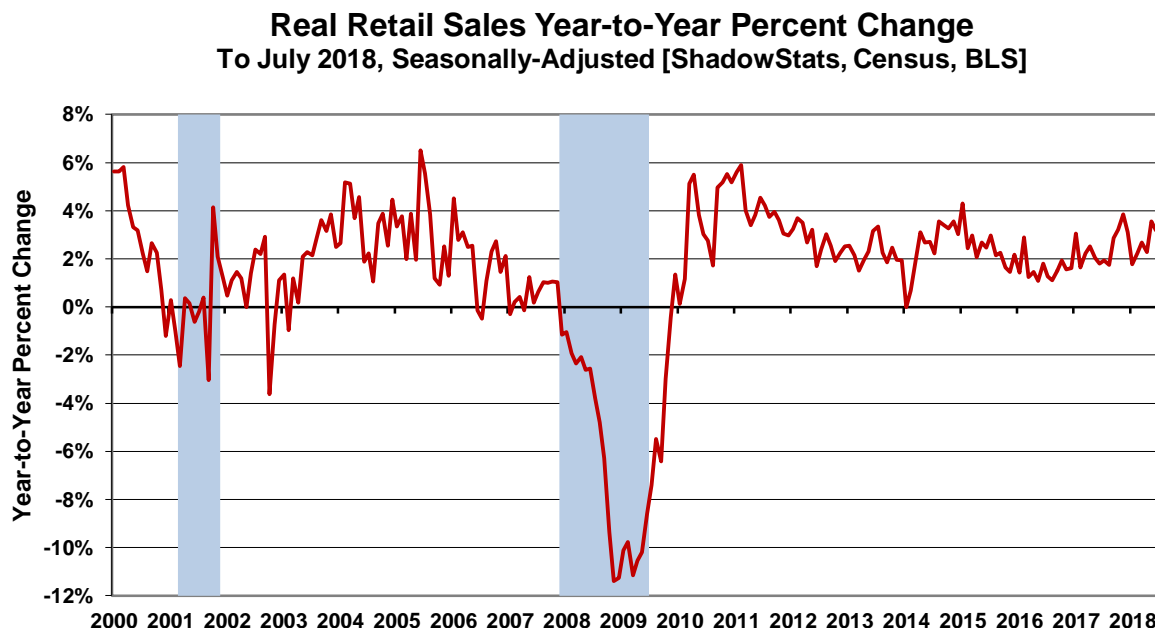
Inflation-Adjusted Series Showed a Somewhat Less-Intense Second-Quarter Quarterly Gain, Off a Sharp First-Quarter Quarterly Contraction, with an Early Slowing in the Third Quarter. As reported by the Saint Louis Federal Reserve in its regular deflation of nominal retail sales using the CPI-U, the headline, 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 second estimate of second-quarter 2018 reporting in hand, June real annualized second-quarter 2018 real growth backed off to a

revised 5.47% [previously 6.10%]. Based solely on the initial estimate of July 2018 activity, third-quarter 2018 annualized real growth is off on an early track for annualized quarterly real growth of 2.95%.

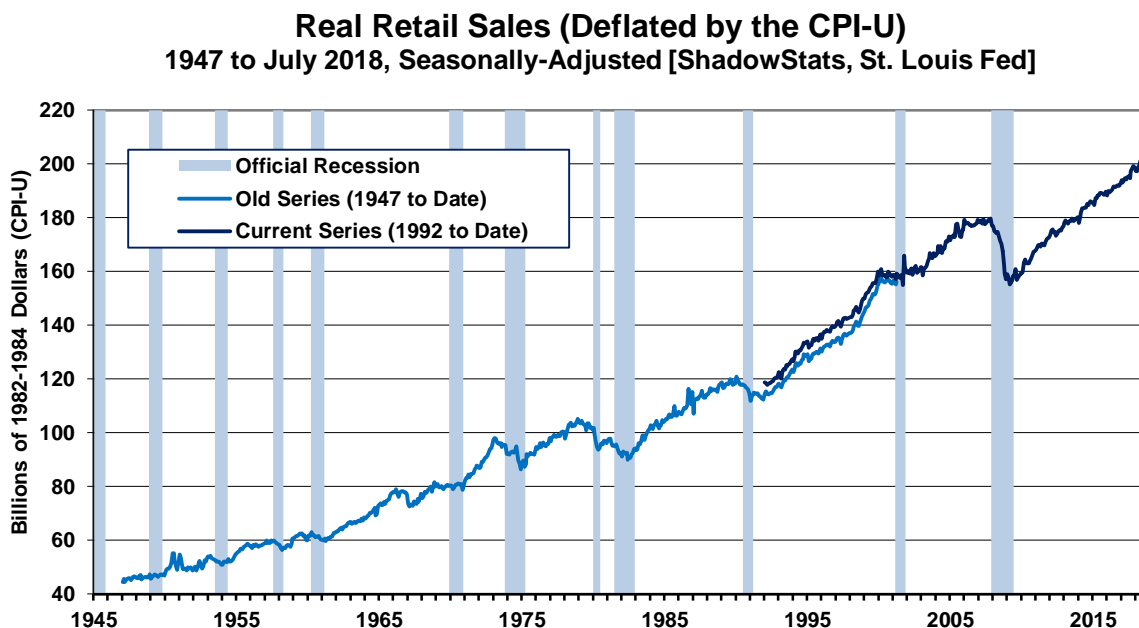
Graph 3: Level of Real Retail Sales (2000 to Date)



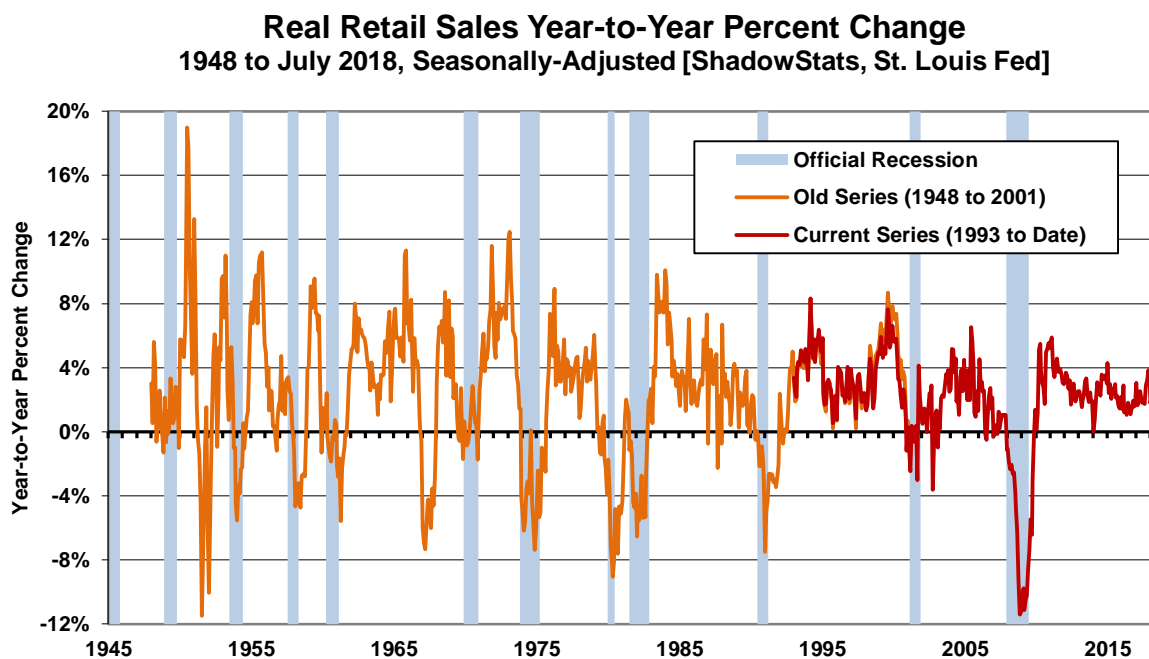
Graph 4: Real Retail Sales (2000 to Date), Year-to-Year Percent Change



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



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



Industrial Production (July 2018)

“Slow” 0.1% Growth in July Production Was on Top of an Upside Revision to June Activity, Reflecting a Gain in Manufacturing and Declines in Mining and Utilities. Industrial Production gained 0.1% in July 2018, but that would have been a gain of 0.3% net of upside revisions to the level of June 2018 activity.

Manufacturing Sector Completed a Record 127th Straight Month of Economic Non-Expansion. The 0.3% monthly gain in July Manufacturing would have been 0.6% net of upside revisions to June activity. Nonetheless, July Manufacturing held shy by 5.0% (-5.0%) and 5.2% (-5.2%), 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.

Accordingly, the Manufacturing series now has logged a record string of 127 straight months or 42 straight quarters of economic non-expansion, a circumstance never seen before in the 100-year history of Industrial Production reporting.

Mining and Utilities Sectors Were in Decline. On the downside for aggregate monthly production in July, the Mining Sector contracted in the month by 0.3% (-0.3%), both before and after revisions to June activity, reflecting a gain in Oil and Gas Extraction being more than offset by contractions in Oil and Gas Exploration and in Coal and Gold Mining.

Separately, weather-dominated Utility usage declined in the month by 0.5% (-0.5%), which would have been a drop of 1.6% (-1.6%) net of revisions to the level of June activity.

Headline Monthly and Annual Details. The August 15th publication of July 2018 Industrial Production activity by the [Federal Reserve Board](https://www.federalreserve.gov/) included a largely offsetting upside revision to June activity versus a downside revision to May activity, with smaller upside revisions back to February 2018, all as reflected in *Table 1*. Those revisions also affected headline aggregate production activity for first-quarter and second-quarter 2018.

The July 2018 aggregate Industrial Production headline monthly gain of 0.11%, followed a revised gain of 0.97% [previously 0.62%] in June, versus a revised May contraction of 0.83% (-0.83%) [previously 0.50% (-0.50%), initially 0.09% (-0.09%)] and a revised monthly gain of 1.19% [previously 1.10%, initially 0.91%] in April. Net of prior-period revisions, July production rose by 0.26%, instead of the headline 0.11%, while net of prior-period revisions, June activity gained by 0.97%, instead of the headline 0.62%.

Year-to-year, July 2018 Industrial Production gained 4.23%, versus an upwardly revised 3.96% [previously 3.80%] in June 2018, a downwardly-revised 3.02% [3.22%, initially 3.46%] in May 2018 and 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 July 2018 by Month, 2012 = 100.000 for All Indices								
Measure	Weight	Jul '18	Jun	May	Apr	Mar	Feb	Jan
IIP Index	100.0%	107.999	107.878	106.843	107.734	106.463	105.917	105.437
- Prior	--	--	107.714	107.052	107.587	106.413	105.870	105.437
Mo/Mo		0.11%	0.97%	-0.83%	1.19%	0.52%	0.45%	-0.31%
- Prior	--	--	0.62%	-0.50%	1.10%	0.51%	0.41%	-0.31%
Yr/Yr		4.23%	3.96%	3.02%	3.88%	3.64%	3.68%	2.83%
- Prior	--	--	3.80%	3.22%	3.73%	3.59%	3.63%	2.83%
Manufacturing	75.5%	104.557	104.257	103.422	104.365	103.678	103.804	102.304
- Prior	--	--	103.885	103.066	104.152	103.595	103.747	102.304
Mo/Mo		0.29%	0.81%	-0.90%	0.66%	-0.12%	1.47%	-0.52%
- Prior	--	--	0.80%	-1.04%	0.54%	-0.15%	1.41%	-0.52%
Yr/Yr		2.85%	2.27%	1.58%	2.07%	2.52%	2.18%	0.84%
- Prior	--	--	1.91%	1.23%	1.86%	2.44%	2.12%	0.84%
Mining	14.1%	123.362	123.747	120.316	119.413	118.568	117.087	113.877
- Prior	--	--	123.678	122.213	119.536	118.650	117.068	113.877
Mo/Mo		-0.31%	2.85%	0.76%	0.71%	1.27%	2.82%	-1.04%
- Prior	--	--	1.20%	2.24%	0.75%	1.35%	2.80%	-1.04%
Yr/Yr		12.86%	12.99%	10.90%	10.71%	11.13%	10.01%	9.38%
- Prior	--	--	12.92%	12.65%	10.83%	11.21%	9.99%	9.38%
Utilities	10.4%	104.470	104.975	105.726	108.511	102.573	98.426	108.842
- Prior	--	--	106.218	107.792	108.502	102.604	98.426	108.842
Mo/Mo		-0.48%	-0.71%	-2.57%	5.79%	4.21%	-9.57%	2.09%
- Prior	--	--	-1.46%	-0.65%	5.75%	4.24%	-9.57%	2.09%
Yr/Yr		2.33%	3.75%	2.88%	8.10%	1.99%	6.73%	9.53%
- Prior	--	--	4.98%	4.89%	8.10%	2.02%	6.73%	9.53%
Sources: Federal Reserve Board, ShadowStats								

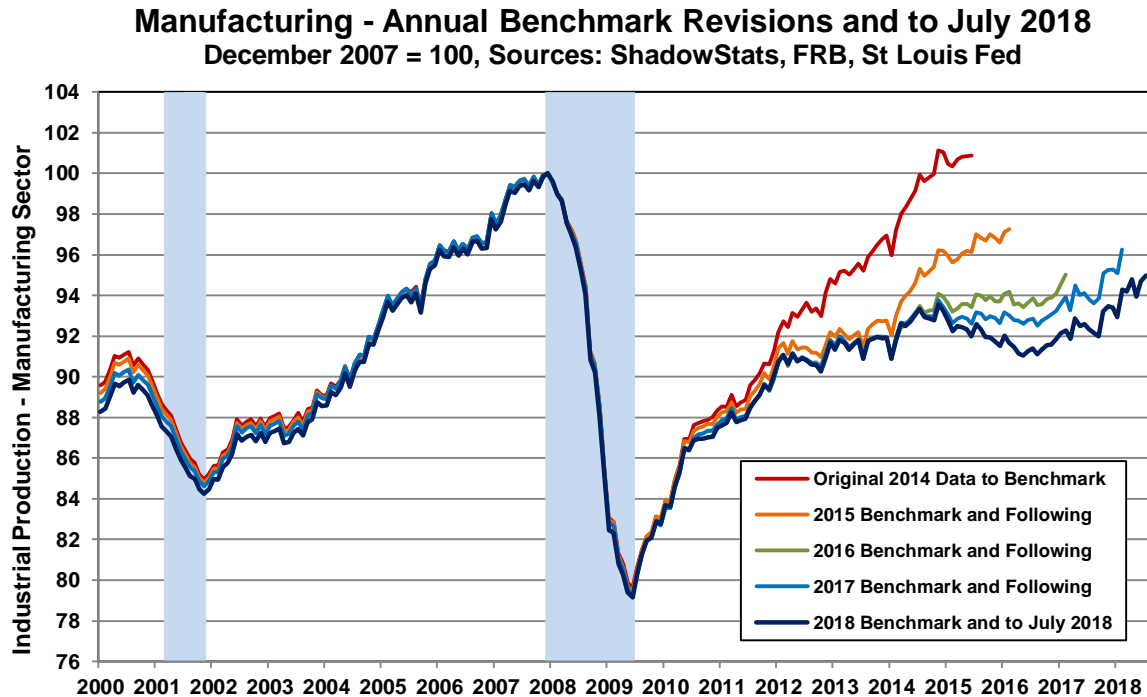
Growth by Major Sector. Detailed by major industry group (see *Graphs 13, 15, 22 and 24*), the July 2018 aggregate Industrial Production monthly gain of 0.11%, broke out by component sector as a gain of 0.29% in Manufacturing, a decline of gain of 0.31% (-0.31%) in Mining, with Oil and Gas production more than offset by declines in Exploration and Coal and Gold Mining, and a decline of 0.48% (-0.48%) in Utilities.

In the wake of the July 27th Comprehensive Benchmark Revision to GDP, 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 IndexTM and Real New Orders for Durable Goods, Ex-Commercial Aircraft.

Separately, the recent GDP Benchmarking showed 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 might provide some clarity as to the circumstance.

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



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 July 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 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 had been topped by 1.0%, as of July 2018, topped by 1.1%

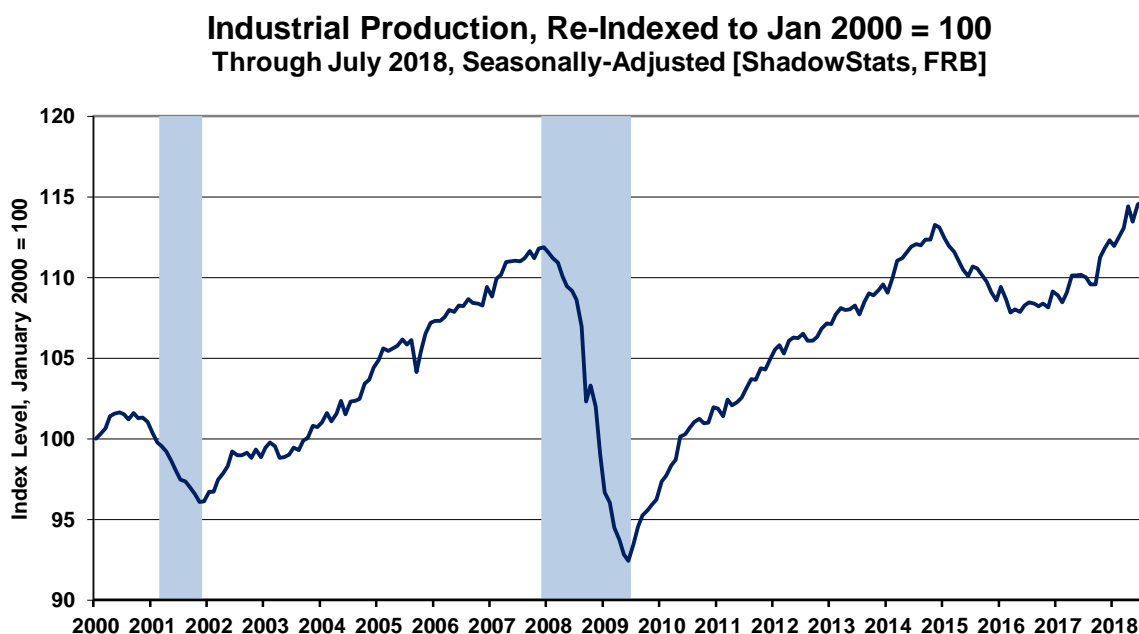
Graphs 8 and 9 address reporting-quality issues tied just to the overstatement of headline growth in the total Industrial Production series that results directly from the Federal Reserve Board using too-low an estimate of inflation in deflating some components of its production estimates into real-dollar 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 [Public Comment on Inflation](#) and *Chapter 9* of [2014 Hyperinflation Report—Great Economic Tumble](#)).

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* on page 16), 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).

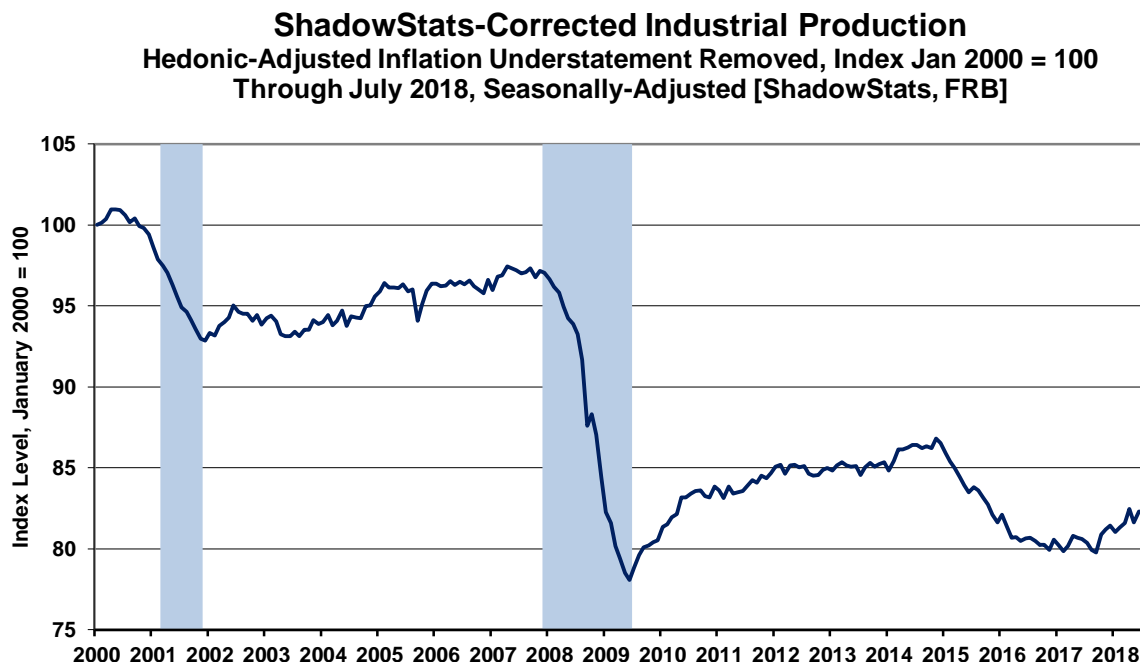
Graph 9 is a recast version of *Graph 8*, corrected for the estimated understatement of the inflation used in deflating certain components of the production index. Estimated hedonic-inflation adjustments have been backed-out of the official Industrial Production deflators used for headline reporting.

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.

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



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



As of July 2018, the now 42-straight quarters of Manufacturing 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 recovering its pre-recession high by 5.2% (-5.2%) 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 second estimate of 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 July 2018 numbers, fourth-quarter 2017 growth was an unrevised hurricane-boosted 2.99%, with first-quarter 2018 reporting showing revised annual growth of 3.38% [previously 3.35%, 3.36%, initially 3.31%] and second-quarter 2018 showing second estimate of 3.62% [previously 3.58%]. Based solely on July 2018 activity, third-quarter 2018 on early track for annual growth of 4.52%.

Annualized Quarter-to-Quarter. 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 July 2018 numbers, the fourth-quarter activity was up by an unrevised, disaster-recovery-boosted 7.75%, with the first-quarter 2018 at a revised 2.53% [previously 2.42%, 2.44%, initially 2.33%] and with second reporting of second-quarter 2018 at 5.97% [previously 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 I. 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 July 2018 Industrial Production currently is relatively stagnant at a minimally-recovered level, versus its pre-Great Recession peak. July 2018 activity was up by 2.56% 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 2.4% 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 recently-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

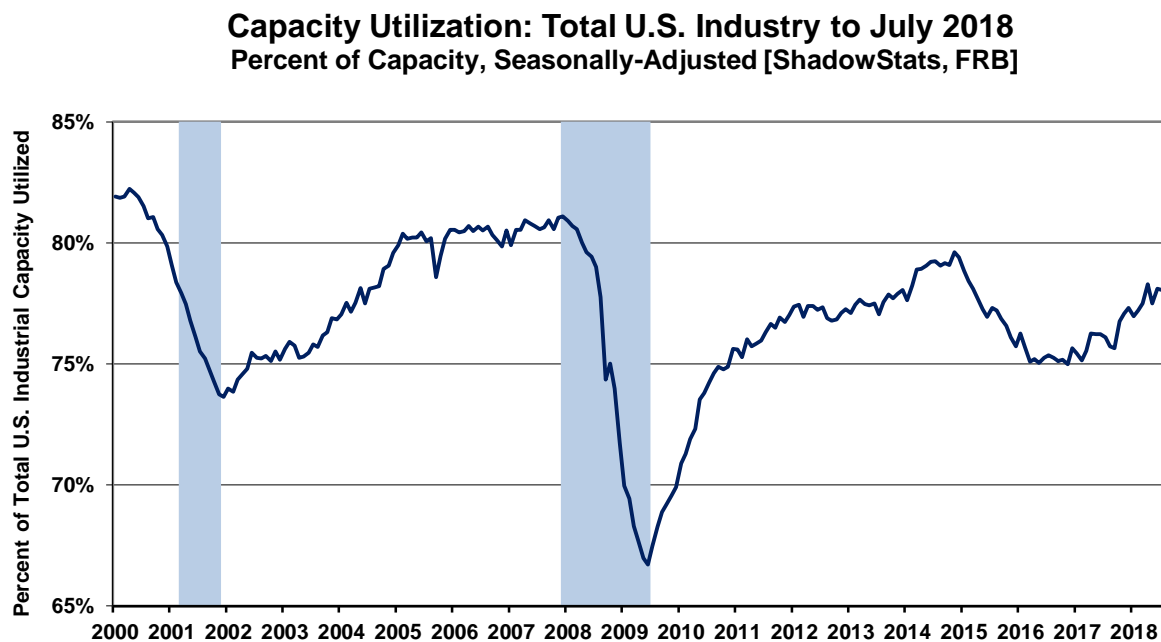
Yet, corrected for the understatement of inflation used in deflating portions of the industrial production index, as shown earlier in *Graphs 8 and 9*, that series contracted quarter-to-quarter throughout 2016 and

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 Hit a Near-Term Peak in April 2018, Total U.S. Industrial Capacity Utilization Took a Relative Hit in May and Rose in June and Eased in July, with April Still the Peak. 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 July 2018 Capacity Utilization Rate of 78.05%, down from 78.11% [previously 77.99%] in June, versus 77.50% [previously 77.65%, initially 77.86%] in May, with all later reporting below the revised April 2018 near-term peak of 78.29% [previously 78.18%, 78.06%, initially 77.99%].

Against its December 2007 pre-recession peak level of 81.10%, the July 2018 Capacity Utilization reading held shy of recovering that peak *level* by 3.76% (-3.76%), or by 305 (-305) basis points in terms of the peak *percentage number*. That is despite July 2018 Industrial Production holding at 2.56% above its re-recession peak, and with the Manufacturing Sector holding shy of recovering its December 2007 pre-recession peak by 5.02% (-5.02%).

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

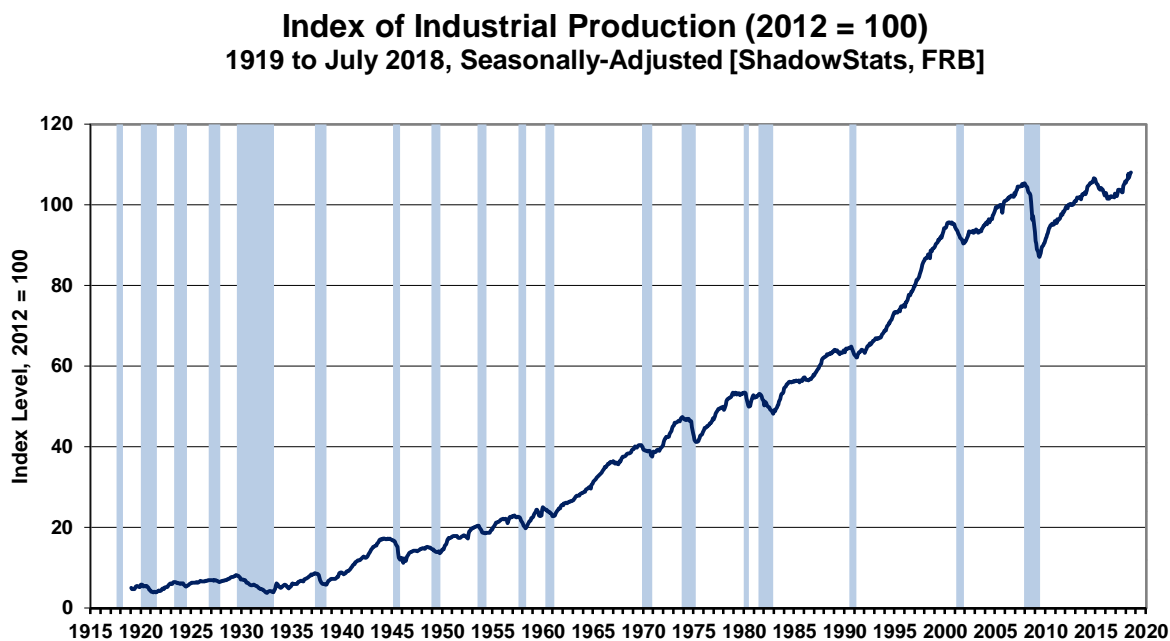


Sharp Downturns in Capacity Utilization Usually Signal the Onset of a Recession. Where sharp downturns in Utilization historically usually mark onsets of formal recessions, such would support the concept of a renewed “headline” recession, a double-dip downturn that began at the end of 2014, as indicated by the Industrial Production series. That remains ShadowStats’ estimate of the timing of a

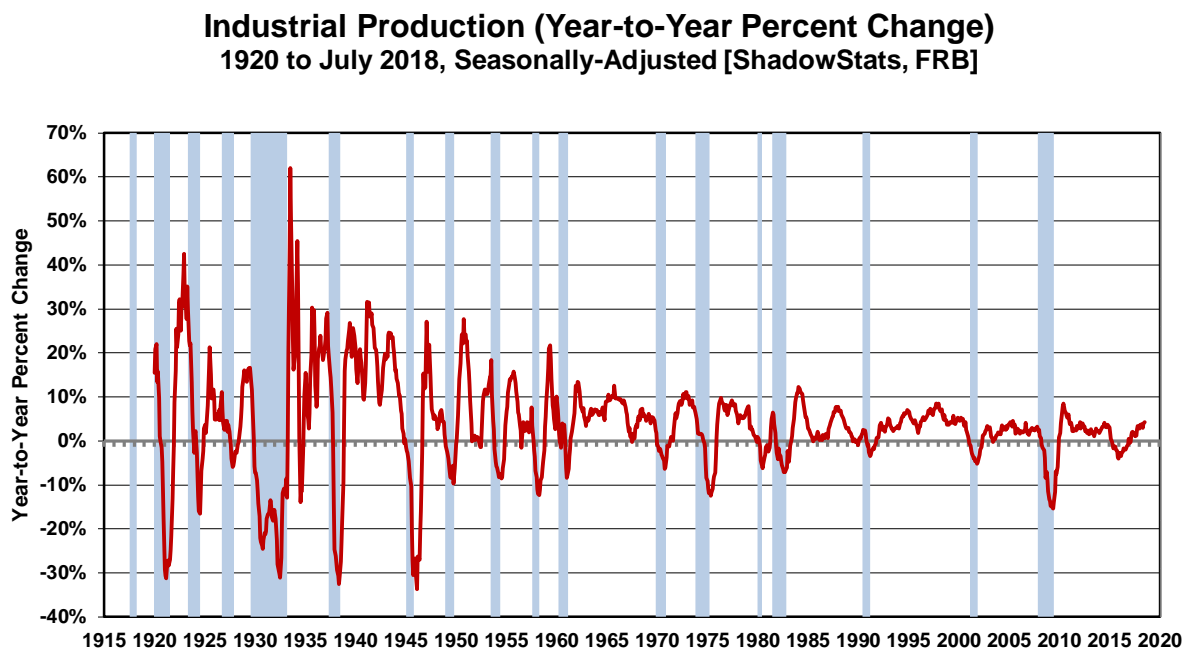
likely “headline” double-dip recession, which formally began at the end of 2007, bottomed in 2009, peaked in late in 2014 and then bottomed anew in 2016, although nothing confirming that showed up in the recent GDP benchmarking. Contrary to consensus hype of fully recovered and expanding economic activity, as seen in the Manufacturing Sector, much of the headline U.S. economy never has recovered fully from the 2007 downturn.

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

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

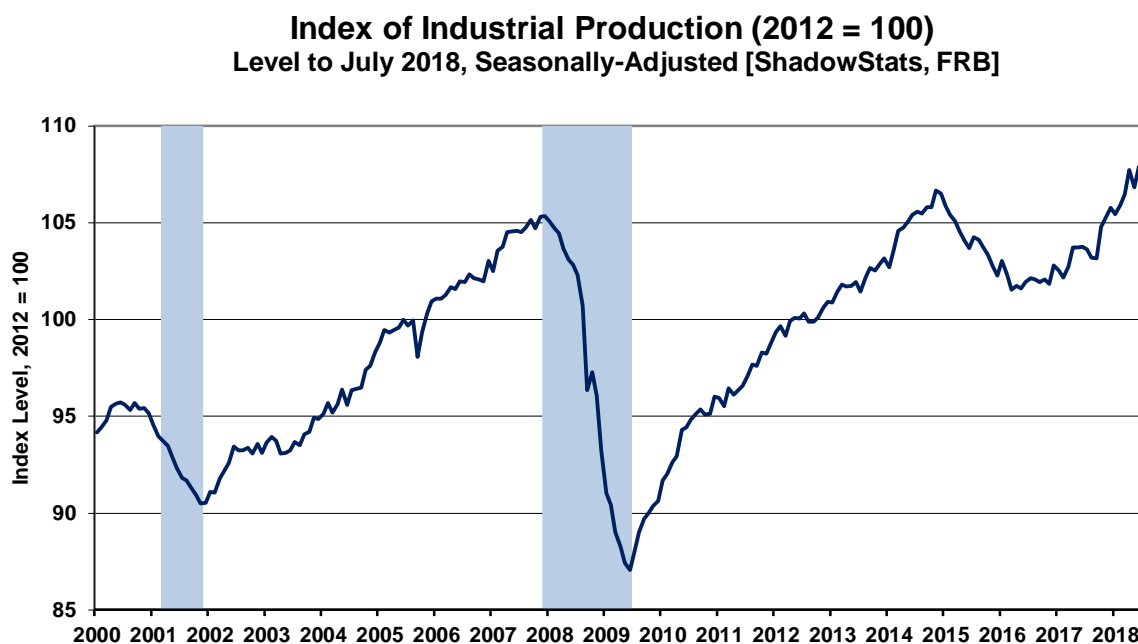


Graph 12: Industrial Production, Year-to-Year Percent Change, Full Historical Series Since 1920

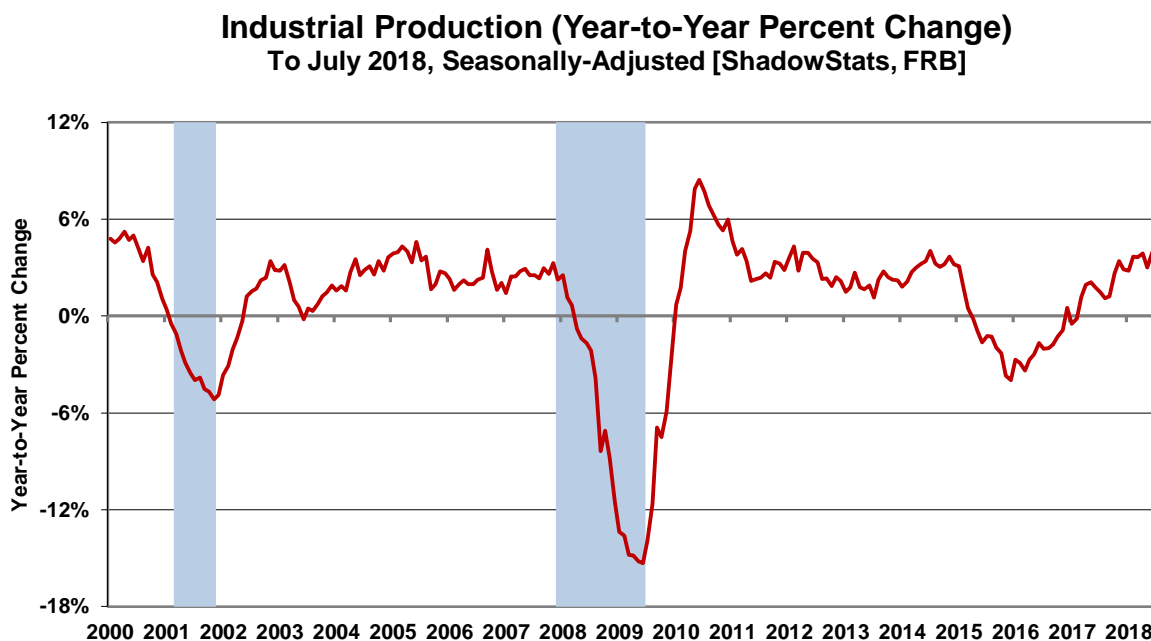


Drilling Down into the June 2018 U.S. Industrial Production Detail. *Graphs 13, 15, 21 and 24 show headline reporting of industrial production and its major components January 2000 through July 2018.*

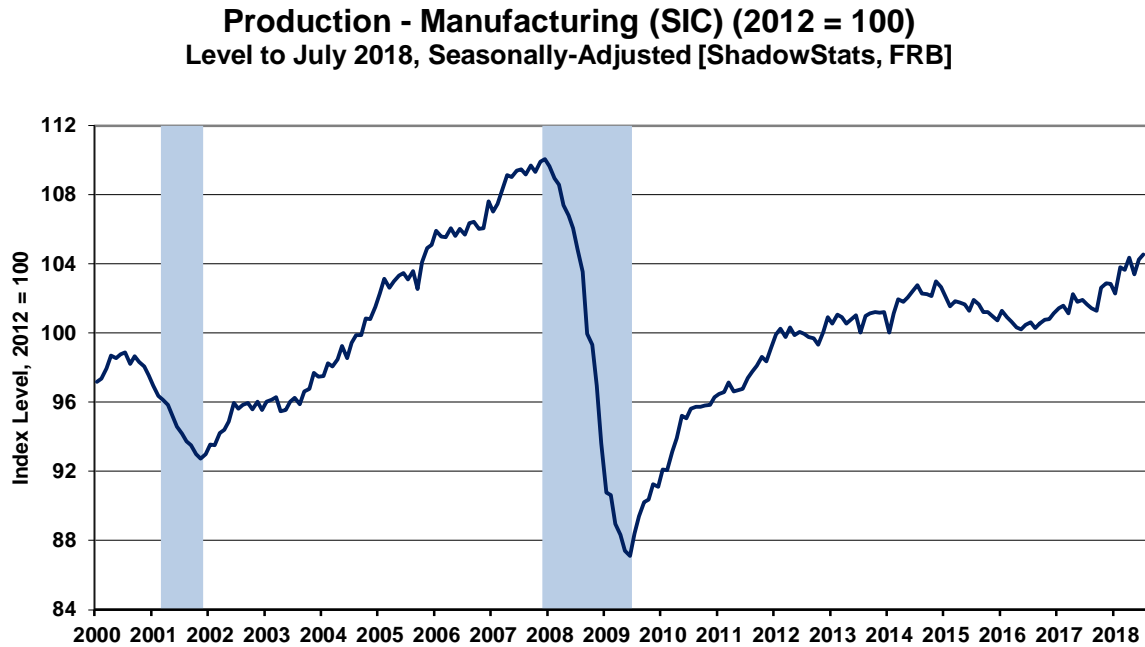
Graph 13: Index of Aggregate Industrial Production, Since 2000



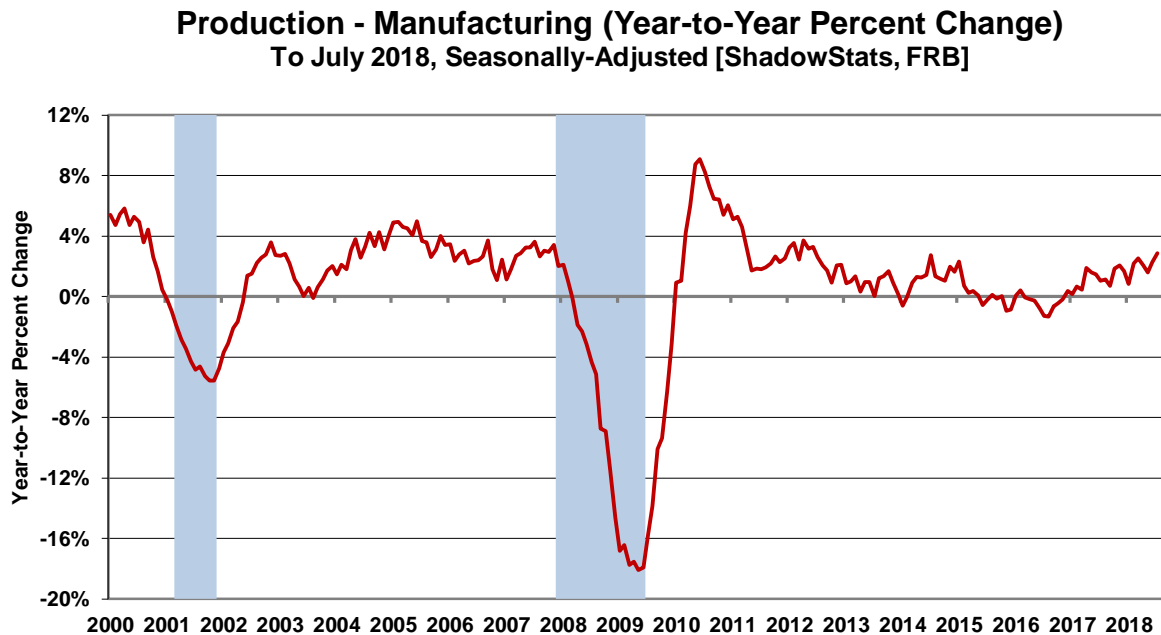
Graph 14: Aggregate Industrial Production, Year-to-Year Percent Change, Since 2000



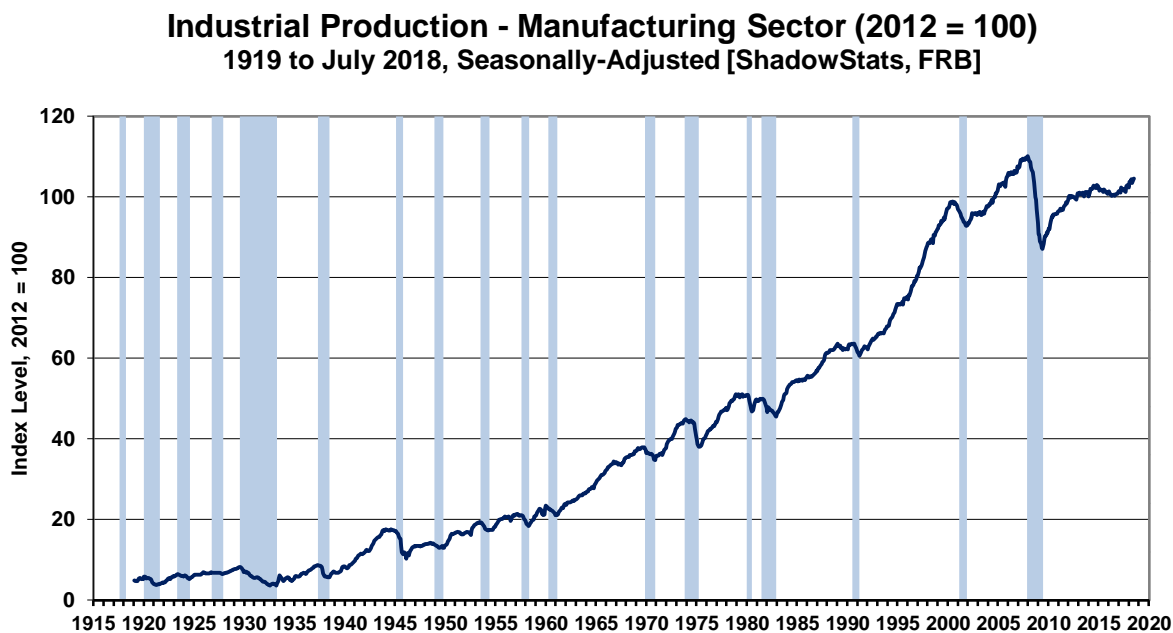
Graph 15: Industrial Production - Manufacturing (75.5% of the IIP in 2017), Since 2000



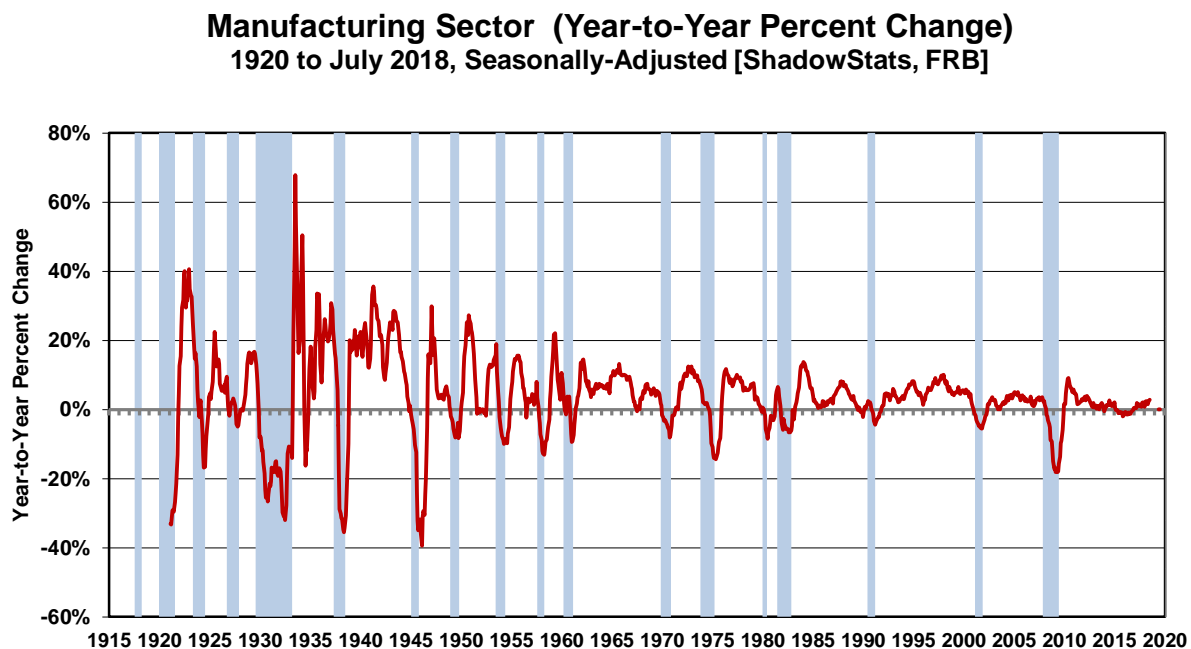
Graph 16: Industrial Production - Manufacturing, Year-to-Year Percent Change, Since 2000
(Same as Graph OC-5 in the Opening Comments)



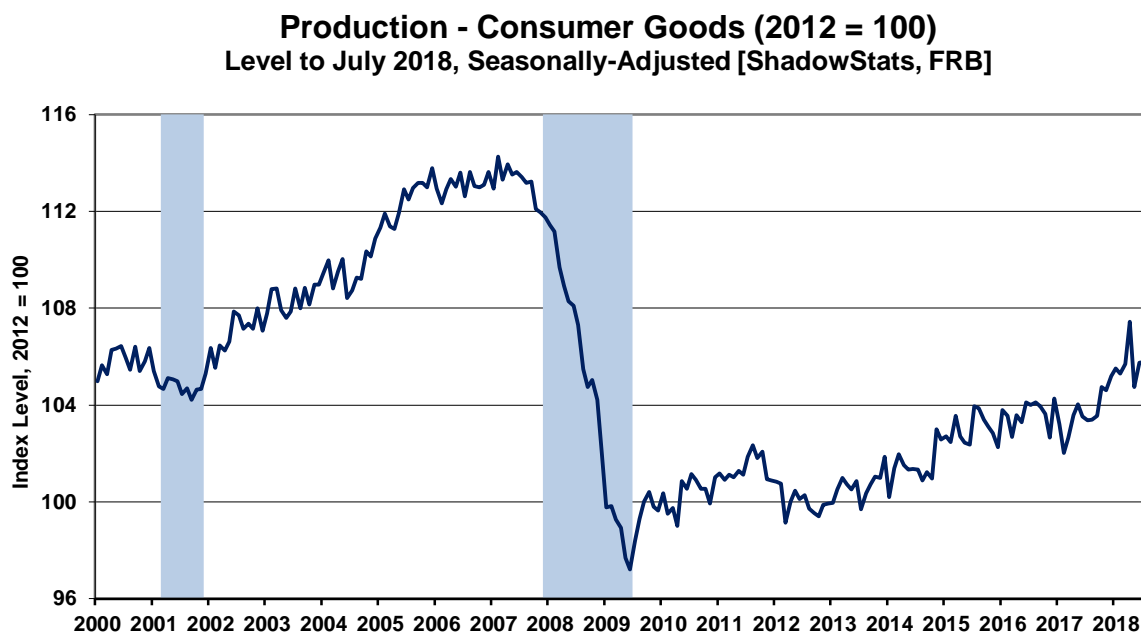
Graph 17: Industrial Production, Manufacturing, Full Historical Series 1919 to Date



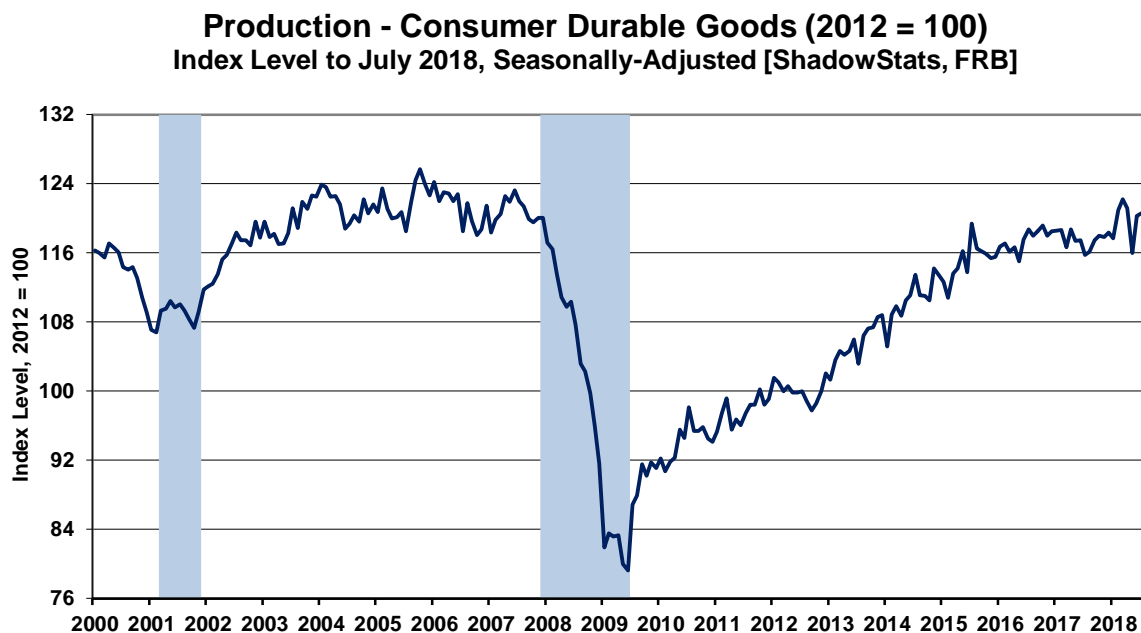
Graph 18: Manufacturing Year-to-Year Percent Change, Full Historical Series Since 1920

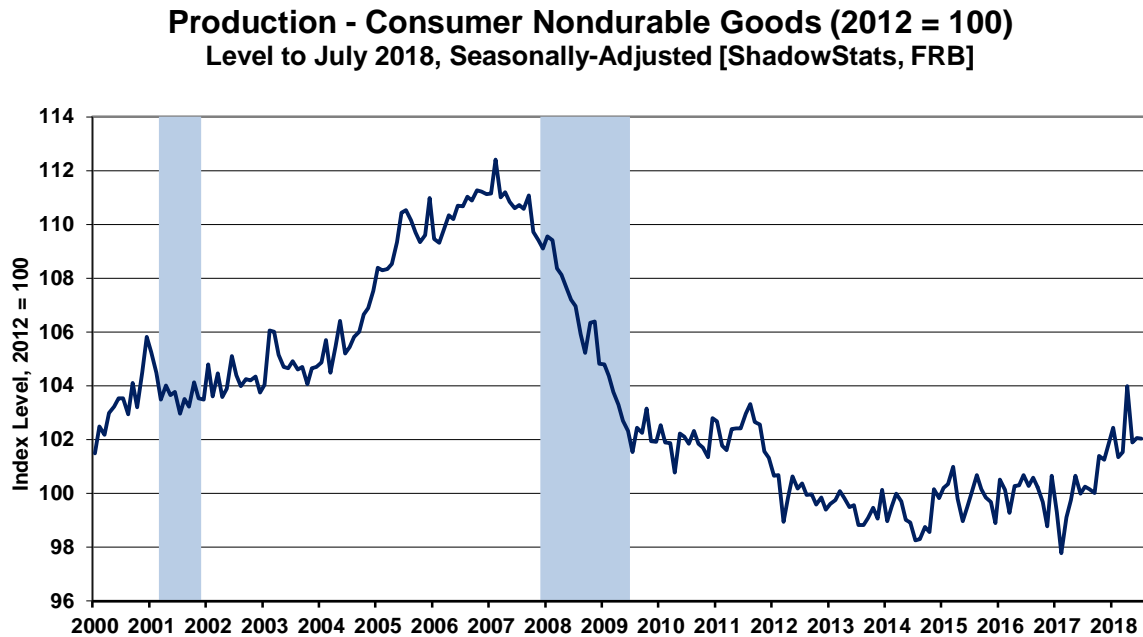


Graph 19: Consumer Goods (28.0% of the Aggregate in 2017), Since 2000



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



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

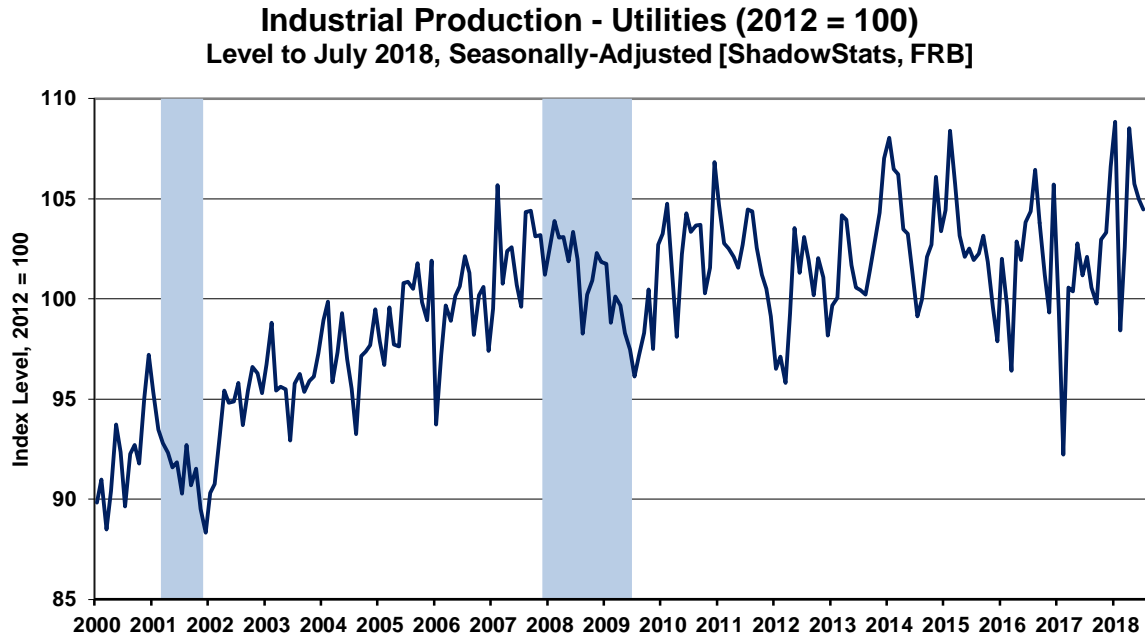
The aggregate production index (*Graph 13*) contracted quarter-to-quarter for six consecutive quarters, from first-quarter 2015 through second-quarter 2016. Year-to-year declines by quarter were seen for seven consecutive quarters, from second-quarter 2015 through fourth-quarter 2016, with first-quarter 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 then waning recovery from same in first-half 2018. Nonetheless, activity generally has continued to pick up coming into July 2018.

Shown in *Graphs 15, 22 and 24* are the levels of activity in the three major industry sectors, Manufacturing, Utilities and Mining, where only Manufacturing gained month-to-month in July (see *Table 1*).

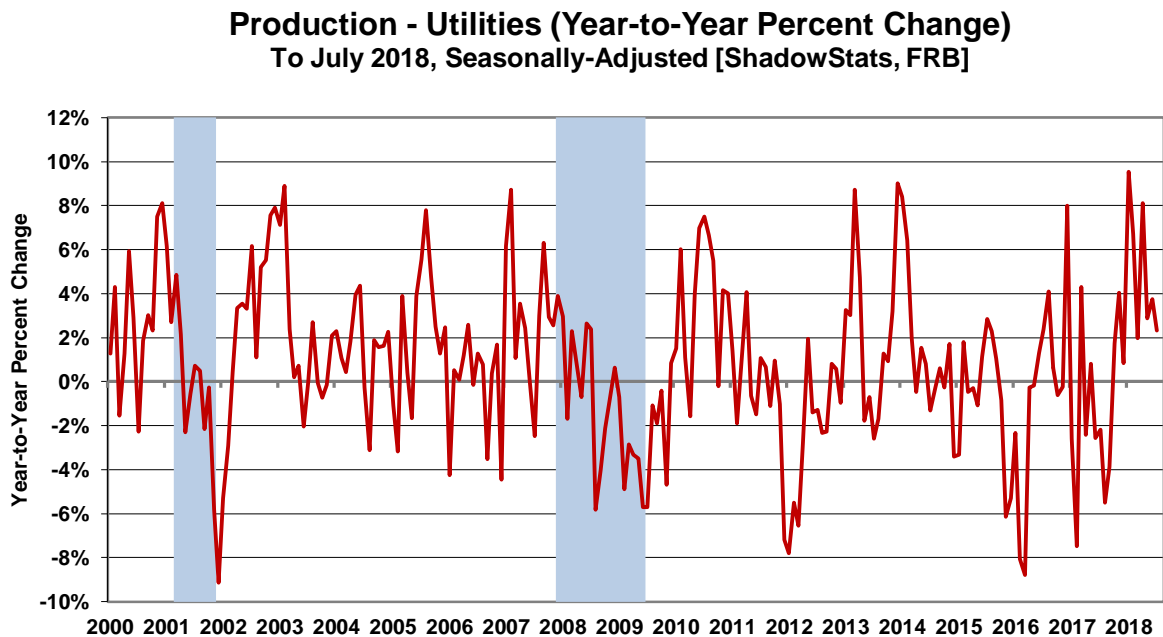
The Manufacturing graphs precede this, while the graphs of Utilities and Mining follow, all updated for the latest detail. *Graphs 16, 23 and 25*, show the respective plots of year-to-year change for those series. The preceding Manufacturing *Graphs 15 to 30* include various levels of consumer goods production (*Graphs 19 to 30*). 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



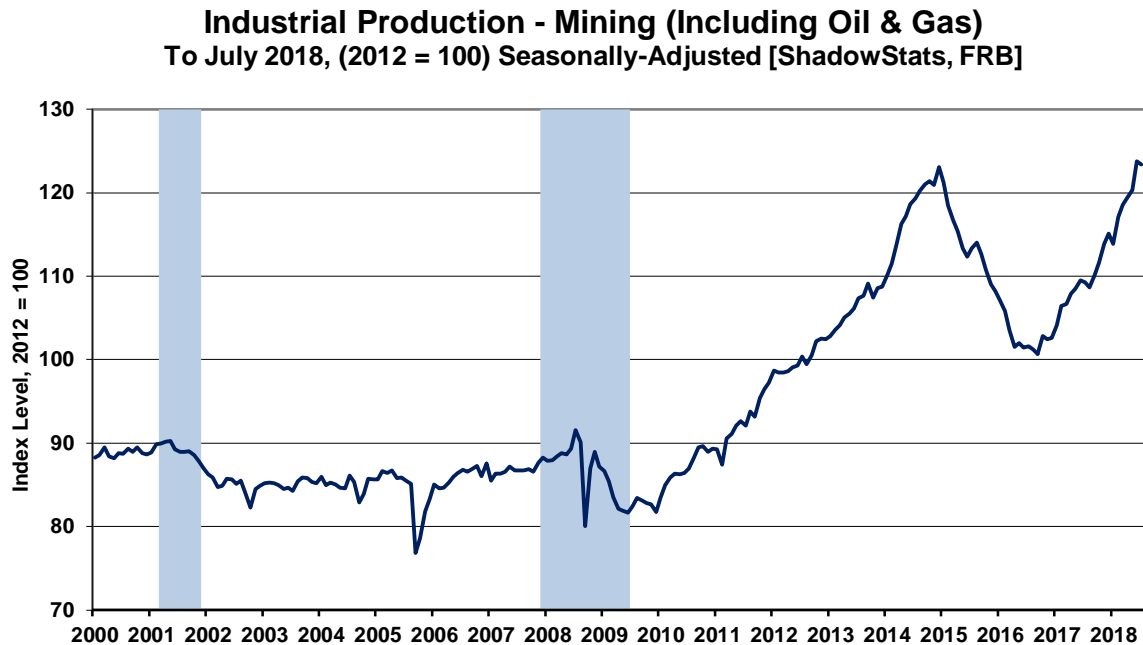
Graph 23: Industrial Production - Utilities, Year-to-Year Percent Change, Since 2000



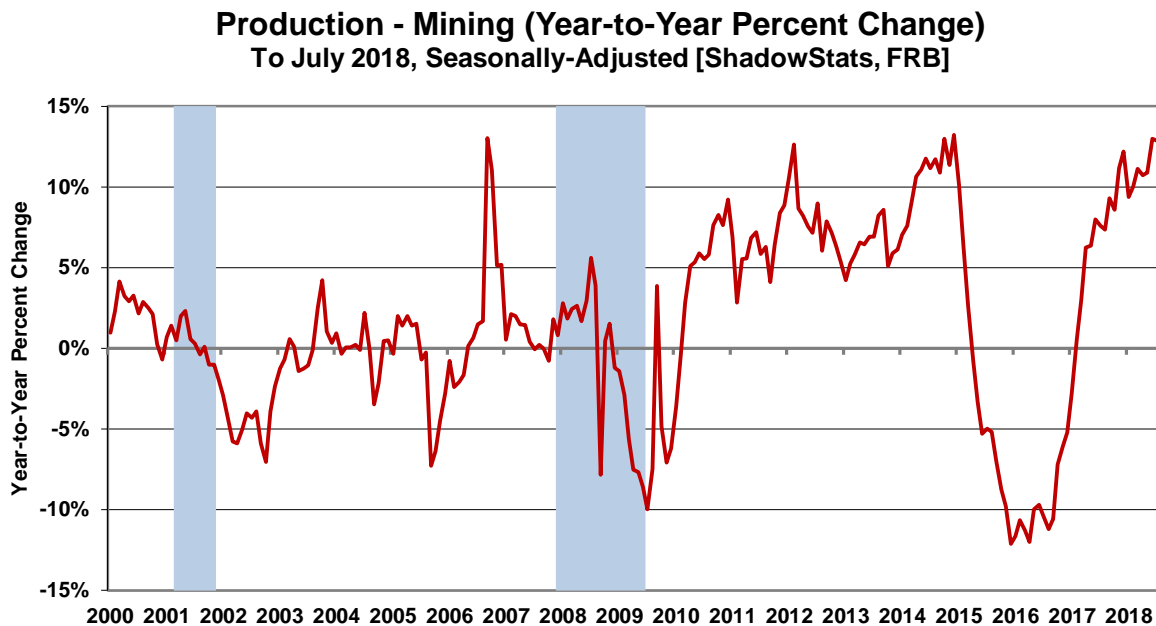
The final set of Mining *Graphs 24 to 30*, encompasses plots of related mining/oil production or exploration activity. Gold and Silver mining (*Graph 26*) increased by 1.72% in July, versus 2.05% in June, but was down year-to-year by 5.29% (-5.29%) in July 2018, picking up from a trough in annual growth of down by 21.76% (-21.76%) in April 2018. Coal Mining activity (*Graph 27*) was down in July

for the second month, having declined in June 2018 by 2.28% (-2.28%) versus a 2.07% monthly increase in May activity. Respective rates of annual change were down by 0.14% (-0.14%) in July 2018, versus 3.51% (-3.51%) in June 2018, up by 0.26% in May 2018.

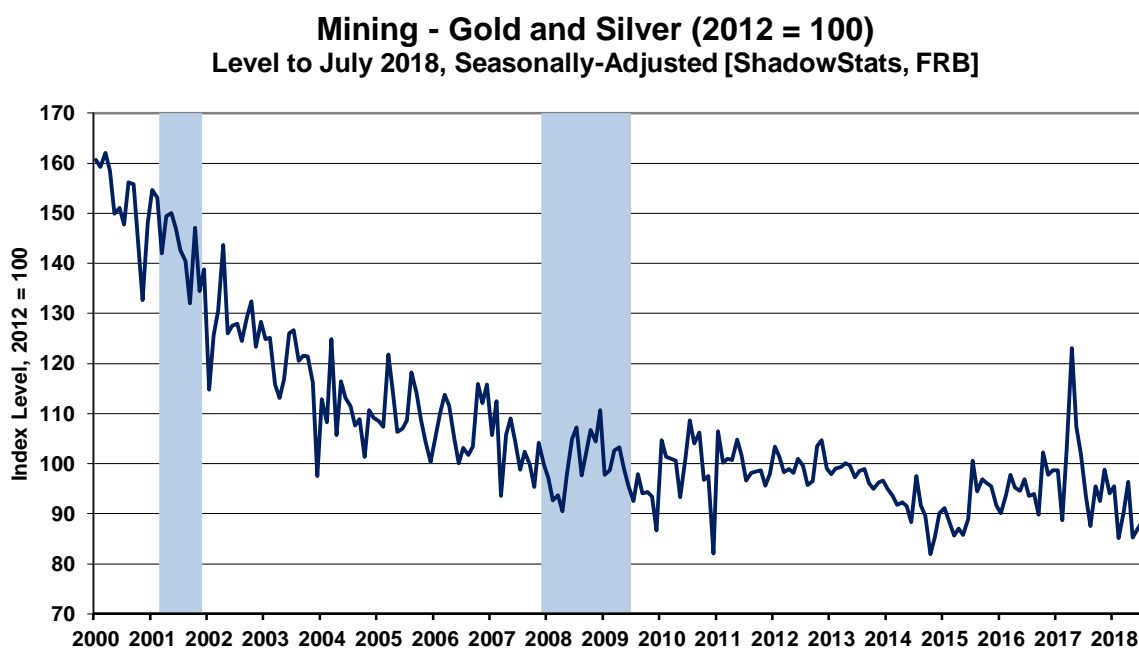
Graph 24: Industrial Production - Mining, Including Oil and Gas (14.1% of the Aggregate in 2017), Since 2000



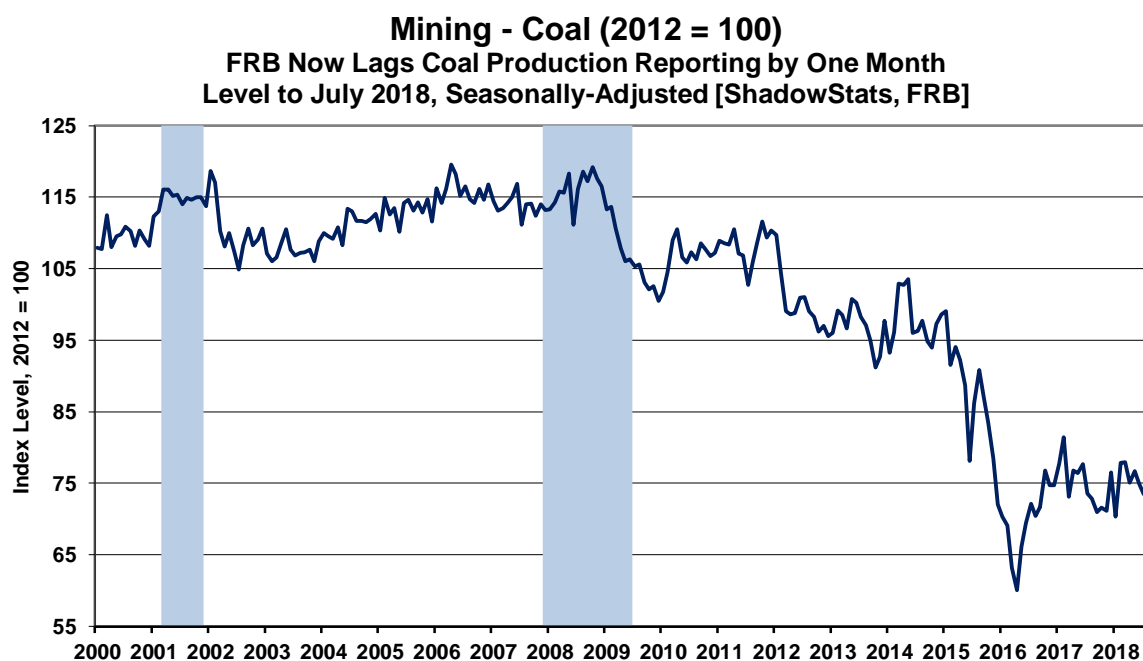
Graph 25: Industrial Production - Mining, Year-to-Year Percent Change, Since 2000



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

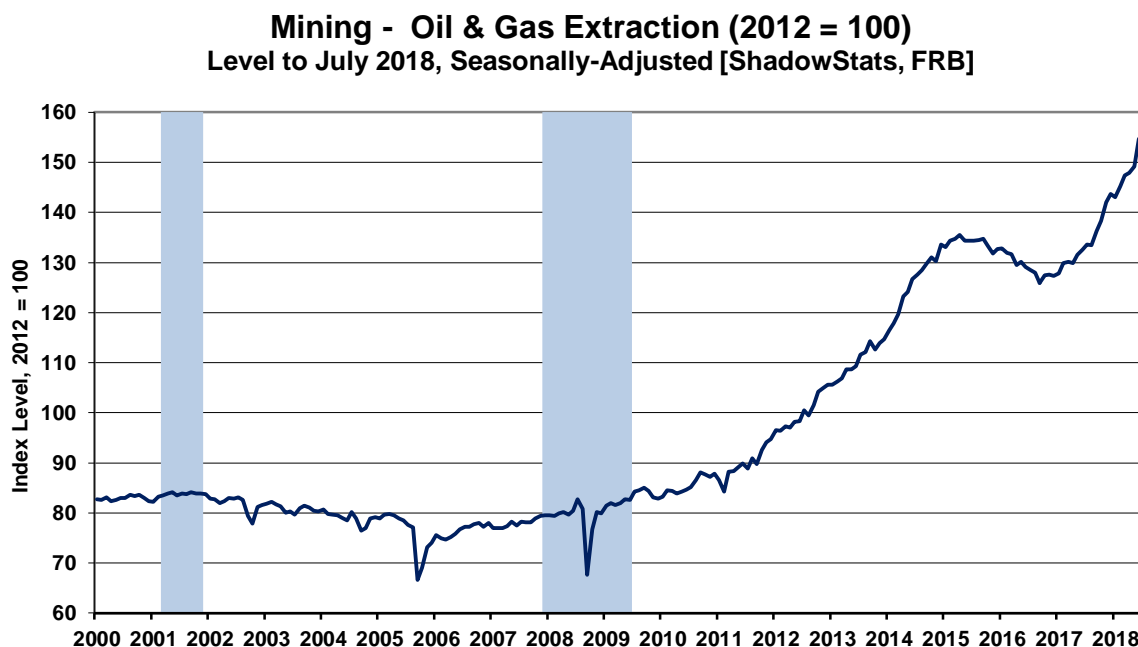


Graph 27: Mining - Coal Mining (0.8% of the Aggregate in 2017), Since 2000

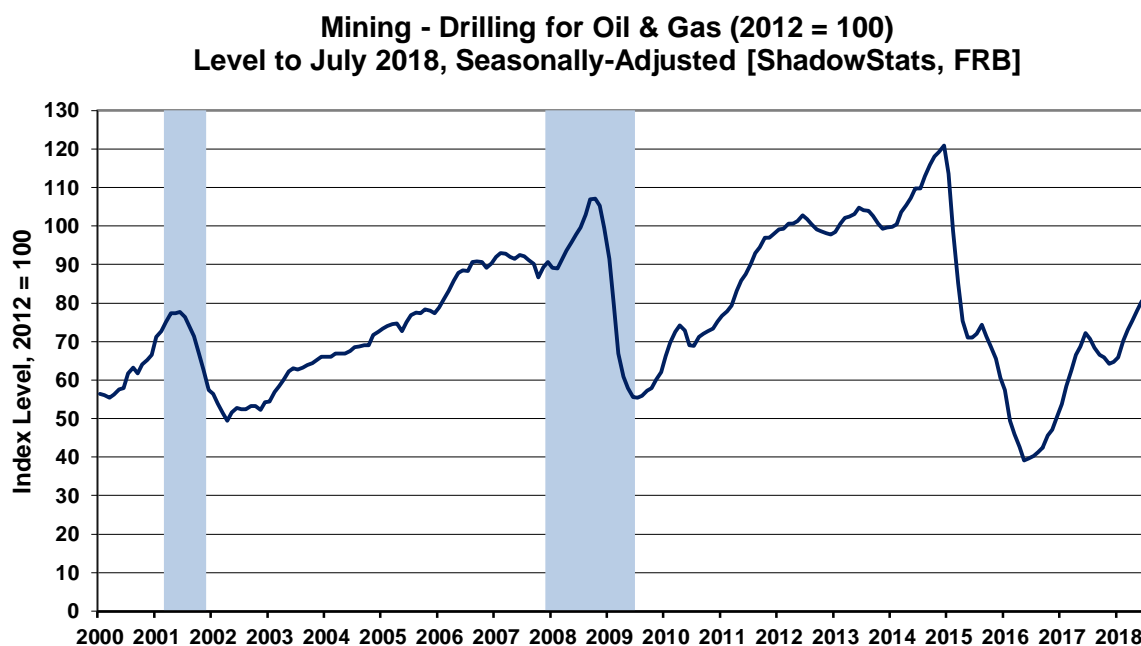


Nonetheless, despite positive monthly and annual growth from oil and gas production, the aggregate July 2018 mining sector decline by 0.31% (-0.31%) month-to-month, having jumped by 2.85% in June, with Mining activity up year-to-year by 12.86% in July 2018, versus 12.99% in June 2018, dominated by Oil and Gas Extraction and Exploration.

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

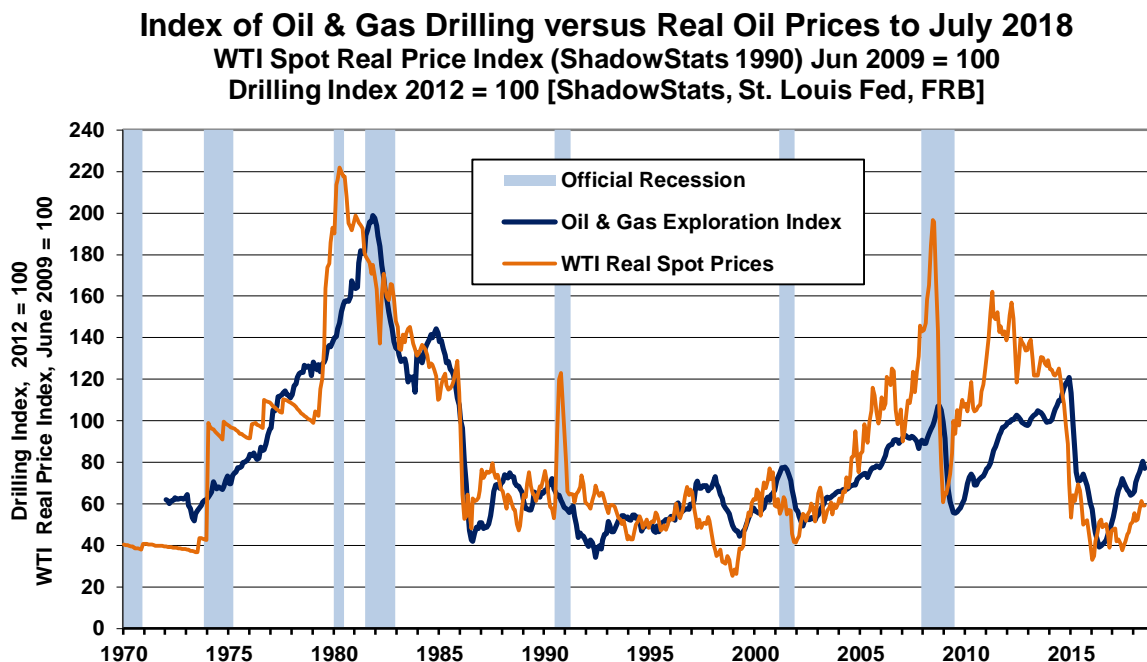


Likely boosted by rising oil prices, the dominant oil and gas mining sector rose for extraction, but declined for drilling and exploration (see *Graphs 28 to 30*), with Oil and Gas Extraction up by 0.55% for the month and 16.45% year-to-year, while Oil and Gas Drilling declined by 4.34% (-4.34%) for the

month, still up 8.89% year-to-year. Year ago activity shortly should begin to reflect impact from last year's Gulf Coast hurricane activity.

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. 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



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 in an upswing, currently off its 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. 3](#)). 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 recently have risen sharply, 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 Residential Construction (July 2018)

July Housing Starts and Building Permits Held In Intensifying Deterioration, Downtrends and Quarterly Contractions. Despite consensus expectations for some rebound in headline July 2018 Housing Starts, following June's "unexpected" and statistically-meaningful plunge, the July numbers were even worse. Where both the June and May headline details deteriorated markedly in revision, any small headline monthly gains in July never recovered what had been the pre-revision levels of June activity.

The usually more-stable, but not always historically-consistent Building Permits series gained by a marginally significant 1.5% in July, on top of a small upside revision to June activity, but that followed three consecutive monthly declines, with the series holding well below its recent peak in March 2018, and still was down by 42.1% (-42.1%) from recovering its pre-recession peak. Both series also contracted in second-quarter 2018, with Housing Starts falling at a deepened annualized pace of 17.7% (-17.7%) and Building Permits falling at a somewhat narrowed annualized pace of 10.0% (-10.0%).

Consumer Liquidity Problems Continue to Impair Residential Construction Activity. The liquidity bind besetting consumers continues to constrain consumer activity, including in residential real estate. Headline investment in residential real estate showed an unusual, outright quarterly contraction in first quarter 2018 GDP ([Commentary No. 962](#) and [Consumer Liquidity Watch – No. 4](#)). Without sustainable growth in real income, and without the ability or willingness to take on meaningful new debt in order to make up for an income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including residential real estate sales and related demand for residential construction. That circumstance—in the last twelve-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity.

July 2018 Housing Starts, Headline Detail. The Census Bureau and Department of Housing and Urban Development (HUD) reported August 16th, a statistically-insignificant, seasonally-adjusted, headline monthly gain in July 2018 Housing Starts of 0.9% +/-13.5% (all confidence intervals are expressed at the 95% level). That followed a revised monthly decline of 12.9% (-12.9%) [previously 12.3% (-12.3%)] in June, a revised gain of 2.2% [previously 4.8%, initially 5.0%] in May, and an unrevised decline in April of 3.8% (-3.8%). Level-of-activity aggregate detail is plotted in *Graphs 31 to 34*, and in *Graphs 40, 42, 43 and 44*.

Year-to-year change in the seasonally-adjusted, July 2018 aggregate Housing Starts measure was a statistically-insignificant decline of 1.4% (-1.4%) +/- 12.9%, versus a revised 5.5% (-5.5%) [previously

4.2% (-4.2%)] drop in June 2018, a revised gain of 18.4% [previously 19.2%, initially 20.3%] in May 2018, and an unrevised 9.5% in April 2018.

Sampling Statistics Showed No Significant Monthly Change in July 2018 Housing Starts. Unlike June's statistically significant monthly decline, the headline monthly changes in July Housing Starts were not statistically-significant in July. The indicated confidence intervals account only for sampling error. As defined by the Census Bureau, "If a range does not contain zero, the change is statistically significant. If it does contain zero, the change is not statistically significant; that is, it is uncertain whether there was an increase or a decrease [within the probability estimate of the confidence interval]." The Census Bureau uses a 90% confidence interval by choice (outside the prescribed range on average 1-in-10 months), ShadowStats uses a 95% confidence interval by choice (outside the prescribed range on average 1-in-20 months).

With the indicated confidence interval (ShadowStats always uses a 95% confidence interval, for purposes of consistency, unless otherwise indicated), such allows for the potential of an actual gain or a loss, being weighted in favor of the indicated direction of change, when the confidence includes zero, as seen in the current circumstance for monthly Housing Starts.

Such means that the actual monthly change for headline July 2018 Housing Starts, indicated at a gain of 0.9% +/-13.5%, was within a range from a contraction of 12.6% (-12.6%) to a gain of 14.4% with 95% confidence, with the headline gain of 0.9% the most likely change. The recently revised and benchmarked system has not done much, yet, to narrow those confidence intervals,

Housing Starts by Unit Category. The July 2018 headline monthly gain of 0.9% in total Housing Starts encompassed a monthly gain of 0.9% in Single-Unit starts and a gain of 3.1% in the Multiple-Unit "Five Units or More" starts category. There is a missing balance in the "Two to Four Units" category, which declined by 70.0% (-70.0%) in July. Where that latter category is considered too small to be meaningful and is not reported directly, it did affect the aggregates to the extent that total multiple units actually declined by 0.7%, as discussed later in the broadest, aggregate "multiple unit" category. None of the headline monthly or annual changes in the various Housing Starts series was statistically significant. These numbers all are reflected in *Graphs 31 to 38*.

Where the irregular housing starts series can show varying patterns, that partially is due to a reporting mix of residential construction products, with the largest physical-count category of one-unit structure housing starts—generally for individual consumption, resulting in New-Home Sales—versus multiple-unit structure starts that generally reflect the building of condominiums, rental and apartment units.

Housing starts for single-unit structures in July 2018 gained month-to-month by a statistically-insignificant 0.9% +/- 11.2%, following revised decline of 9.0% (-9.0%) [previously 9.1% (-9.1%)] in June, a revised gain of 4.5% [previously 5.1%, initially 3.9%] in May and an unrevised gain of 1.8% in April. June 2018 single-unit starts showed a statistically-insignificant annual gain of 2.7% +/- 9.7%, versus a revised annual decline of 0.7% (-0.7%) [previously 0.2% (-0.2%)] in June 2018, a revised annual gain of 18.6% [previously 19.3%, 18.3%] in May 2018 and an unrevised 7.7% in April 2018 (see *Graphs 31, 32, 35 and 36*).

Housing starts for apartment buildings, condominiums, etc. (generally 5-units-or-more) gained month-to-month in July 2018, by a statistically-insignificant 3.1% +/- 48.9%, versus a revised monthly decline of

22.4% (-22.4%) [previously 20.2% (-20.2%)] in June, a revised gain of 6.2% [previously 6.7%, initially 11.3%] in May and an unrevised decline in April of 17.2% (-17.2%). A statistically-insignificant annual decline of 9.6% (-9.6%) +/- 37.0%, followed a revised decline of 18.1% (-18.1%) [previously 15.3% (-15.3%)] in June 2018, following a revised annual gain of 19.6% [previously 20.2%, initially 27.4% in May 2018 and an unrevised gain of 21.3% in April 2018.

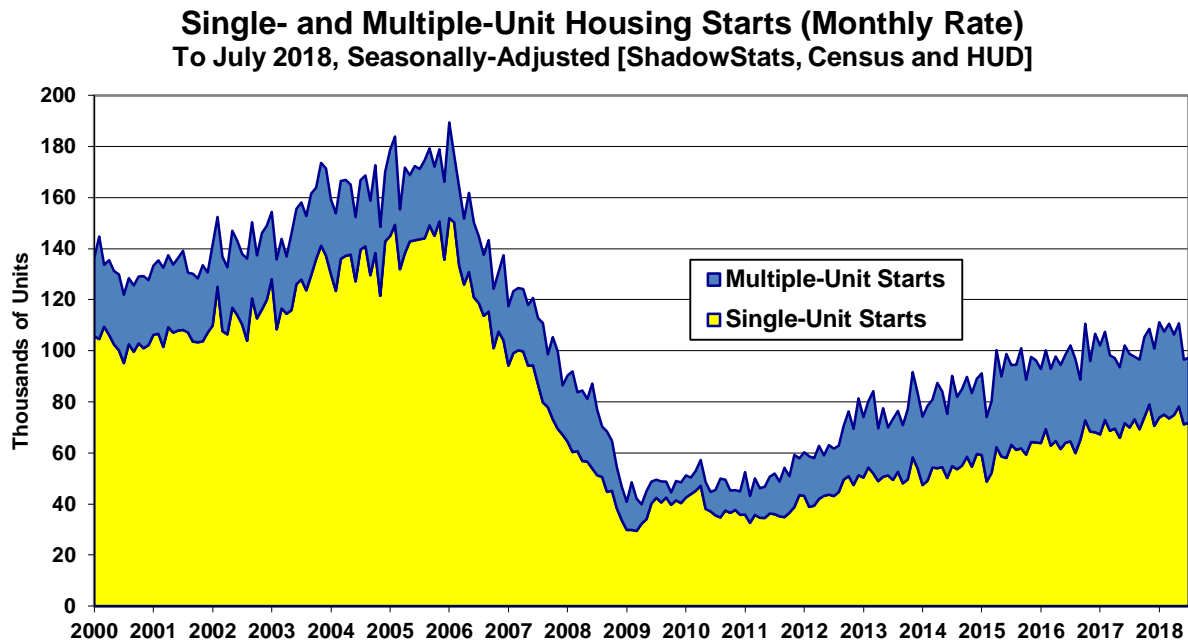
Expanding the multiple-unit housing starts category to include 2-to-4-units plus 5-units-or-more usually reflects the bulk of rental- and apartment-unit activity. The Census Bureau does not publish monthly estimates of the 2-to-4-units category, due to statistical significance problems (a general issue for the aggregate series). Nonetheless, the total multiple-unit category can be estimated by subtracting the single-unit category from the total category (see *Graphs 31, 32, 37 and 38*).

Accordingly, the statistically-insignificant July 2018 monthly gain of 0.9% in aggregate starts was composed of a statistically-insignificant gain of 0.9% in one-unit structures and a statistically-insignificant gain of 0.7% in the multiple-unit structures category (two-units-or-more, including the five-units-or-more category). In contrast, ex-two-units-or-more, the multiple-unit category gained by 3.2%.

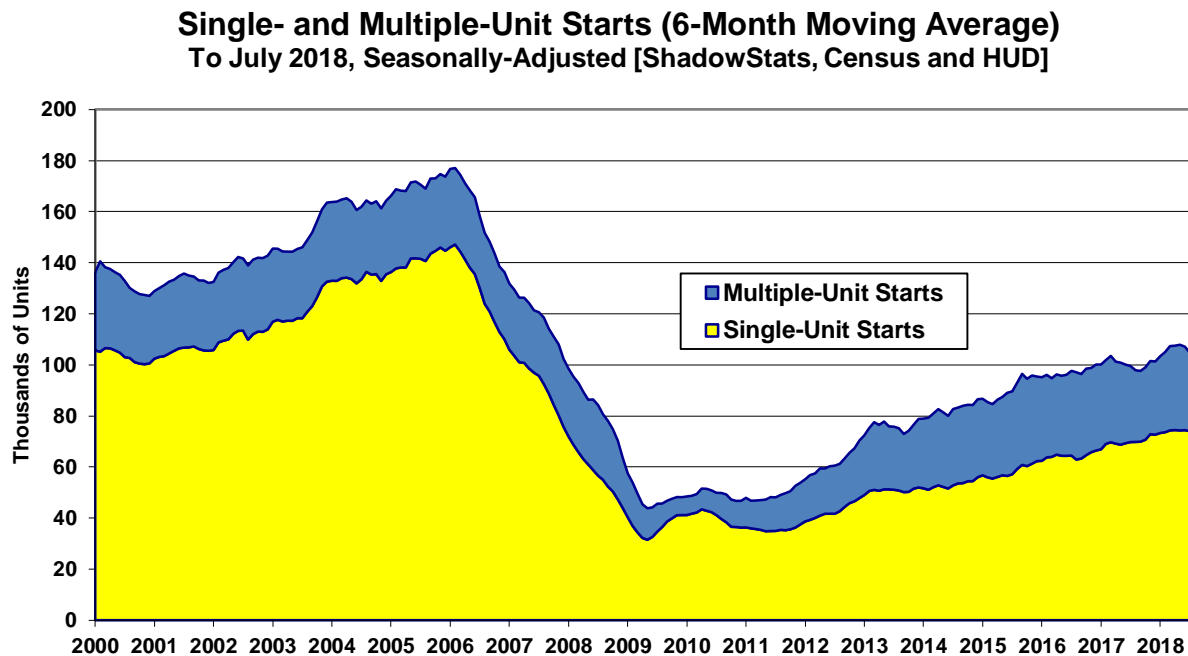
[Graphs 31 to 38 begin on the next page.]

Housing Starts Graphs by Sector, Scale in Thousands of Units per Month
(See Following Notes on the Housing Starts Graphs)

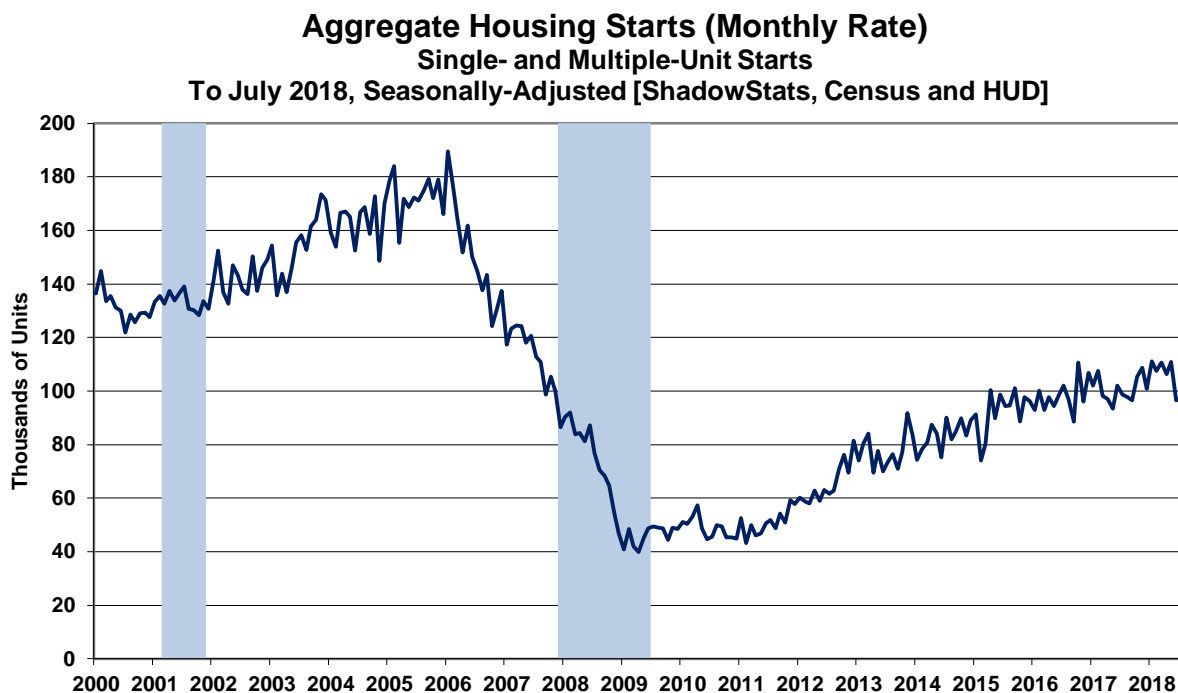
Graph 31: Single- and Multiple-Unit Housing Starts (Monthly Rate of Activity, 2000 to July 2018)



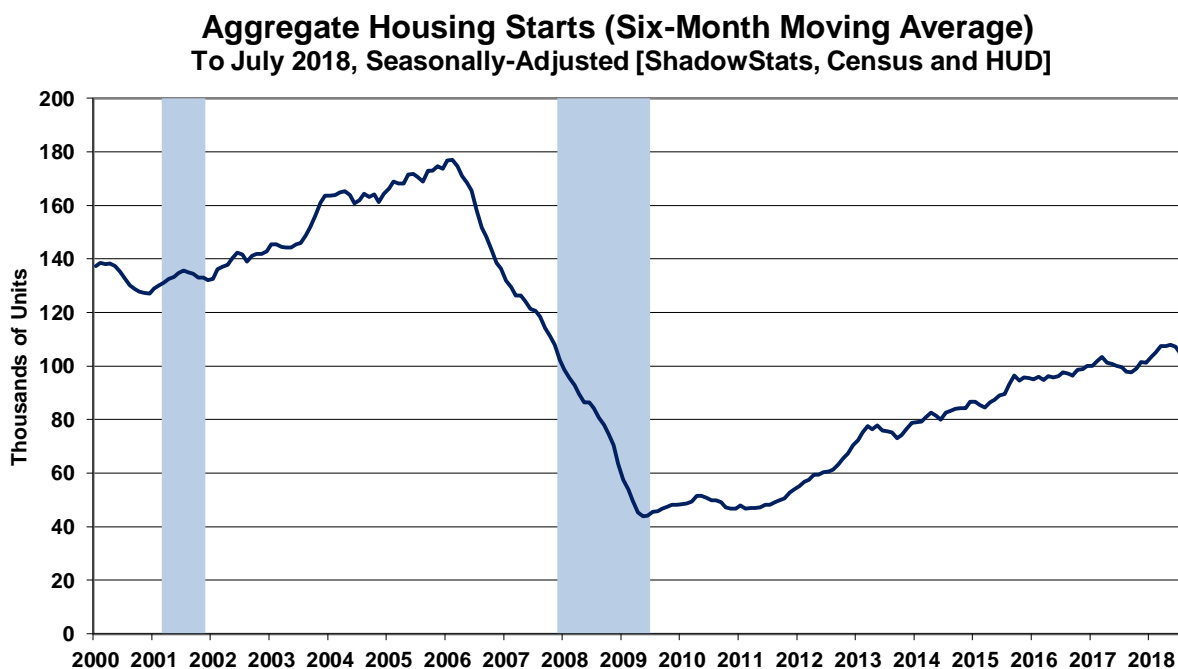
Graph 32: Single- and Multiple-Unit Starts (Six-Month Moving Average, Monthly Rate of Activity)



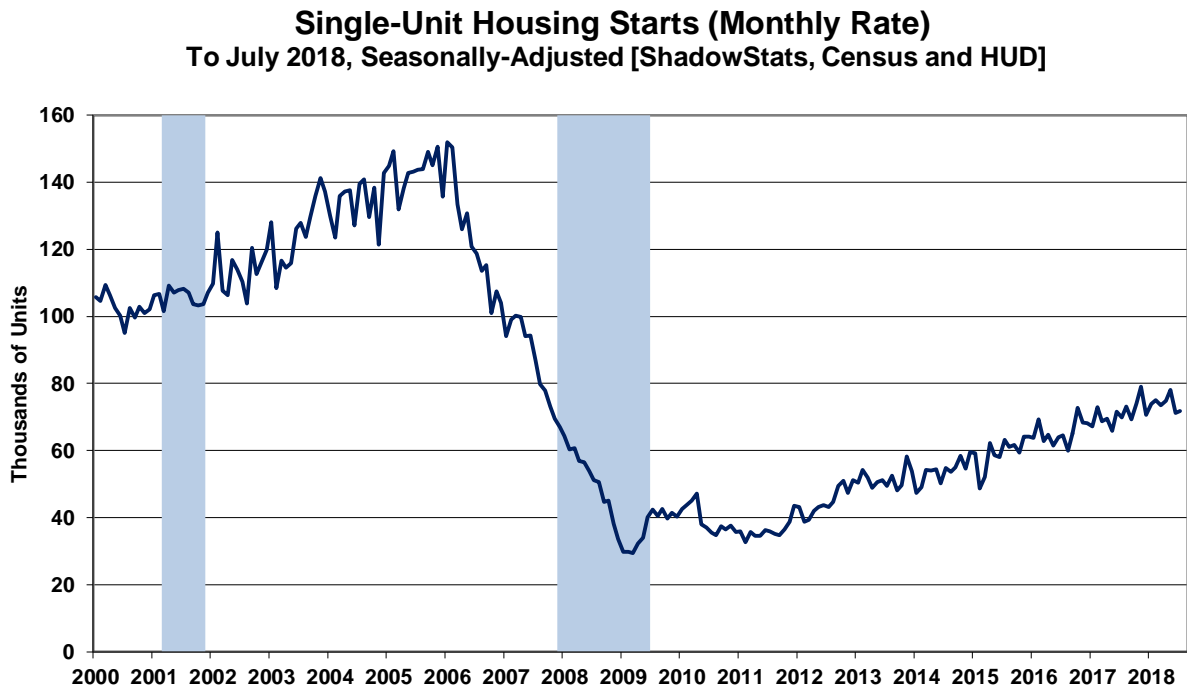
Graph 33: Aggregate Housing Starts (Monthly Rate of Activity, 2000 to July 2018)



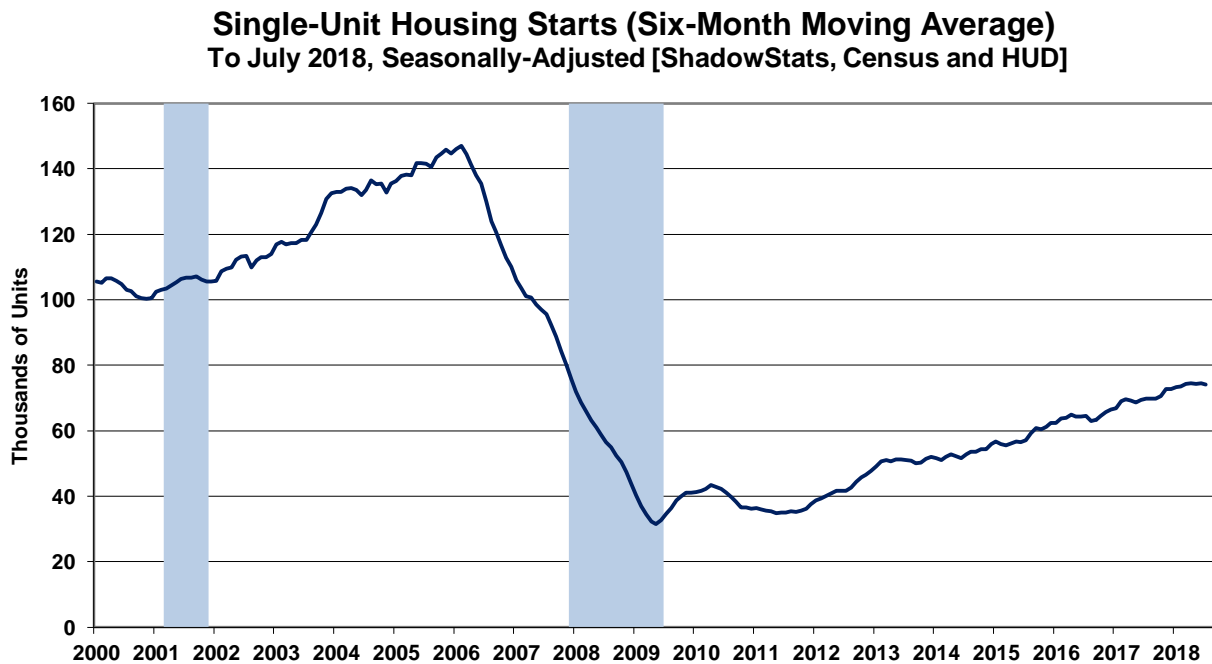
Graph 34: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



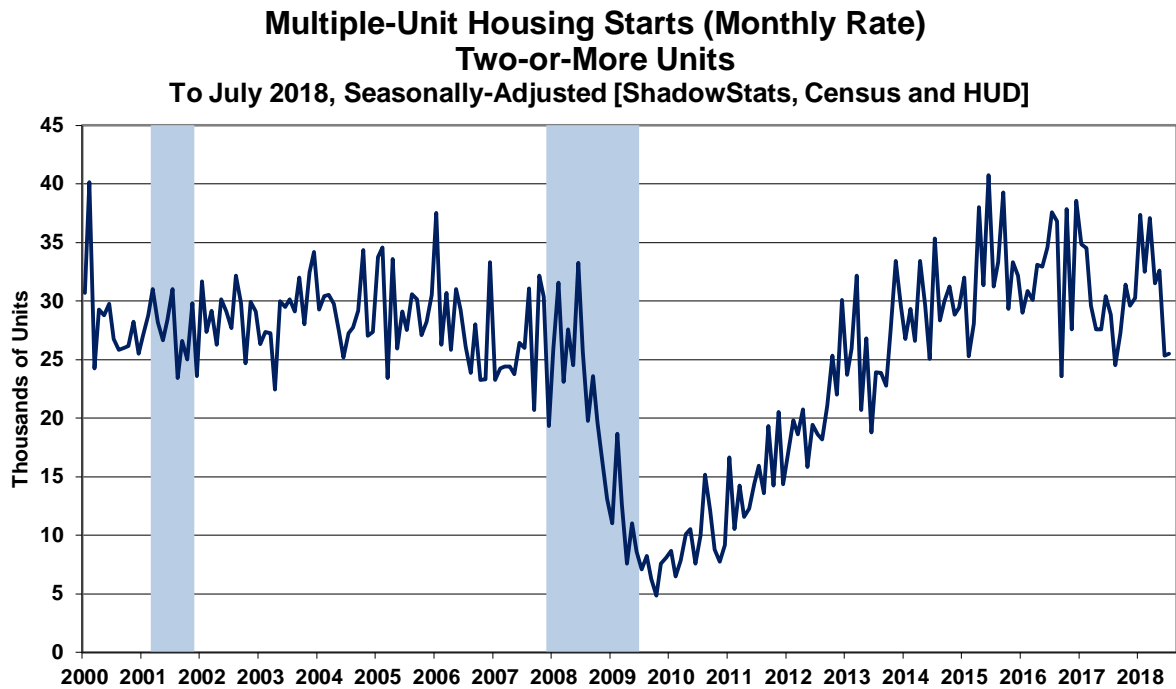
Graph 35: Single-Unit Housing Starts (Monthly Rate of Activity, 2000 to July 2018)



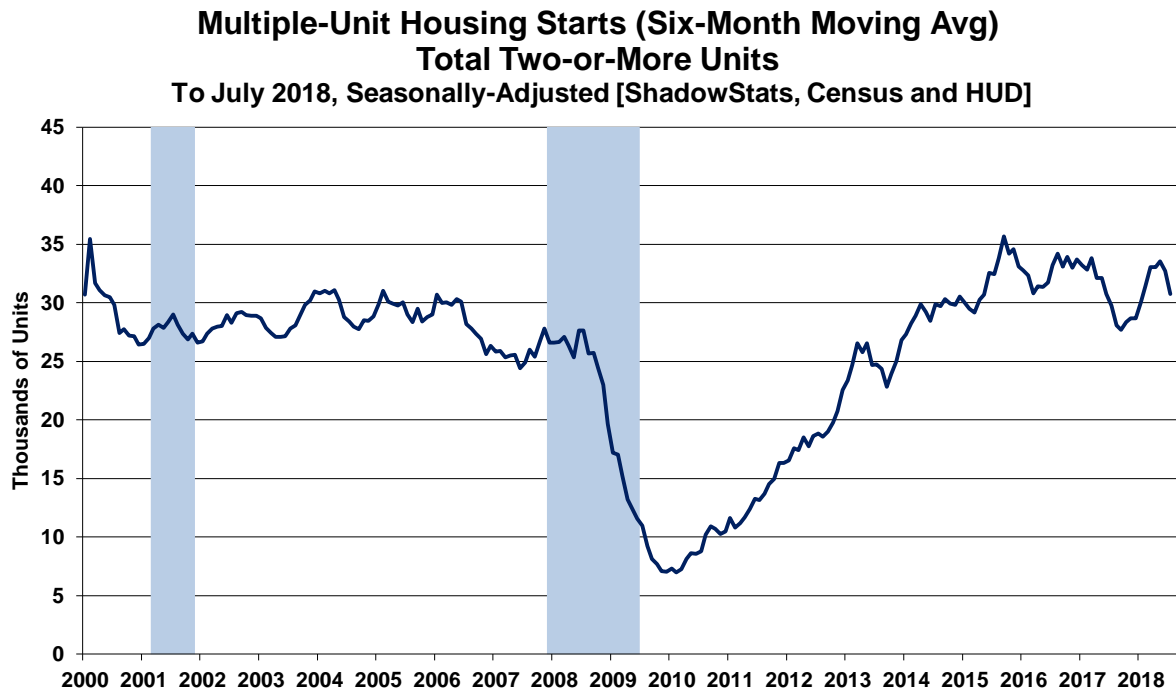
Graph 36: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



Graph 37: Multiple-Unit Housing Starts, Two-or-More Units (Monthly Rate of Activity, 2000 to July 2018)



Graph 38: Multiple-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



A Note on the Housing Starts Graphs. Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,168,000 in July 2018, down from a downwardly revised 1,158,000 [previously 1,173,000] in June 2018. The scaling used in the aggregate historical Housing Starts and Building Permits *Graphs 39 to 44* (following) reflects those annualized numbers in millions.

Nonetheless, given the frequent nonsensical monthly volatility in reporting, and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the headline, month-to-month gain at an annualized rate of 266,000 in October 2016 was larger than any actual level of (not change in) monthly starts, ever (in units per month, not annualized), for a single month. That is since related starts detail first was published after World War II.

Accordingly, the monthly rate of 97,333 units in July 2018, instead of the annualized headline level of 1,168,000 units, is used in the scaling (monthly units in thousands) of the preceding *Graphs 31 to 38*, which plot the detail by the aggregate and major-sector series, on both a monthly and six-month smoothed basis. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as seen in a comparison of *Graph 33* and *Graph 40*.

The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 pre-recession peak for the series. Against that downside-spiked low in April 2009, the July 2018 headline monthly number was up by 142%, but it still was down by 49% (-49%) from the January 2006 pre-recession high.

Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in downtrending stagnation, still at low levels that otherwise have been seen at or near the historical troughs of other recession activity of the last 70-plus years, as reflected in *Graphs 43* and *44* at the end of the *Reporting Detail*. In fact, as can be seen there in *Graph 44*, current housing starts activity not only has failed to recover the current pre-recession (pre-collapse into 2009) peak, but also has yet to recover to the level of any pre-recession peak activity seen in the entire post-World War II era.

Headline Activity Has Not Recovered, Starts and Permits Have Yet to Enter a Period of Economic Expansion. Broadly, the various series (including the often, statistically-significant Building Permits) remain in low-level, down-trending stagnation, non-recovery and non-expansion.

While the headline July 2018 the six-month smoothed trends are relatively flat, they all are downtrending across-the-board for Housing Starts (both Single- and Multiple-Unit Starts) and Building Permits.

Separately, those downtrending New Construction activity series, showed July 2018 Building Permits activity down by 42.1% (-42.1%) from recovering its pre-recession peak (see *Graphs 39* and *41*). Aggregate Housing Starts activity (see *Graphs 33* and *34*) is down similarly by 49.1% (-49.1%), with Single-Unit Starts (*Graphs 35* and *36*) down by 53.2% (-53.2%).

Multiple-Unit Starts (*Graphs 37* and *38*) had fallen back sharply, after first having recovered its 2005 pre-recession peak in early-2015. A temporary jump in January 2018 monthly activity wiped out virtually all of the most-recent deficit, but activity has fallen off sharply, again, with July 2018 total multiple-unit

starts now down 32.4% (-32.4%) from its pre-recession peak on a monthly basis. As seen in *Graph 38*, however, on a smoothed six-month moving average basis, multiple-unit starts are operating at a level above its pre-recession peak.

In the context of continuing headline monthly weakness in the aggregate July 2018 housing-starts detail (in both single-unit and multiple-unit starts), on top of downside revisions to June 2018 details, the six-month smoothed, moving averages of these series, as seen in *Graphs 32, 34, 36 and 38*, have tended to turn from flat to now being in some downtrend. Again, current levels of headline monthly activity still hold well below pre-recession peaks for the various series.

Indeed, the broad pattern of collapsing residential construction activity from its 2006 pre-recession peak, to a trough in 2009, was followed by a protracted period of generally up-trending but non-recovering, low-level activity. Again, that largely has remained flat in the last several years, in ongoing, low-level stagnation, with intensifying downtrends now unfolding (see accompanying *Graphs 39 to 44* of the Building Permits and Housing Starts series). Again, also see *Graphs 31 to 38*, covering the Housing Starts component series.

Specifically, the generally more-stable but sometimes inconsistent Building Permits activity also has seen a broad pattern of non-recovery. The headline, monthly gain of 1.5% +/- 1.5% in July 2018 followed three consecutive monthly declines, was down by 4.8% (-4.8%) from March's recent post-recession peak, and again was still shy by 42.1% (-42.1%) of recovering its pre-recession high. All confidence intervals expressed here are at the 95% level. While the *Building Permits series remains more stable in its reporting month-to-month than the Housing Starts series, the problem with Building Permits remains that the data are not reported on a consistent basis over time.*

The size and nature of the permits sampling base is revised frequently, without offsetting adjustments to the historical data, as discussed in [Commentary No. 950](#). That is why ShadowStats concentrates on the more-consistent Housing Starts series, despite its extreme month-to-month volatility and frequent, massive monthly revisions. The recent headline monthly declines in Permits has intensified the downtrend in the otherwise the broadly stagnant six-month moving average of this series (see *Graph 41*).

Annualized Second-Quarter 2018 Contraction in Housing Starts Deepened to an Annualized Pace of 17.7% (-17.7%), on Early Track for a 24.8% (-24.8%) Tumble in Third-Quarter 2018. In this highly volatile and unstable series of recent years, the Housing-Starts count fell at an annualized quarterly pace of 23.2% (-23.2%) in first-quarter 2015, rose at a 92.1% pace in second-quarter 2015, by 1.4% in third-quarter 2015 and contracted at an annualized pace of 9.8% (-9.8%) in fourth-quarter 2015.

First-quarter 2016 activity showed to an annualized quarterly gain of 4.9%, while second-quarter 2016 rose by 6.9%. Third-quarter 2016 activity contracted on both an annual and quarterly basis, down year-to-year by 0.8% (-0.8%), the first annual decline since first-quarter 2014, and down at an annualized quarterly pace of 4.4% (-4.4%). Fourth-quarter 2016 housing starts showed annualized quarterly growth of 40.8%, up by 10.9% year-to-year.

First-quarter 2017 annualized quarterly change was a contraction of 6.7% (-6.7%), with year-to-year change slowing to 7.6%. Second-quarter 2017 showed an annualized quarter-to-quarter contraction of 18.2% (-18.2%), with year-to-year change slowing further to 0.7%. Third-quarter 2017 Housing Starts

activity reflected an annualized gain of 0.3%, with annual growth of 1.9%. Fourth-quarter 2017 activity surged with an annualized gain of 33.5%, with a year-to-year gain of 0.5%.

First quarter 2018, annualized quarterly growth slowed to 19.6%, with annual growth up to 7.2%. Second reporting of second-quarter activity showed a revised annualized quarterly contraction of 17.7% (-17.7%) [previously 15.7% (-15.7%)] with revised year-to-growth of 7.1% [previously 7.8%]. Based just on the headline monthly detail for July 2018, third-quarter activity was on early track for an annualized quarterly contraction of 24.8% (-24.8%), down year-to-year by 3.1% (-3.1%).

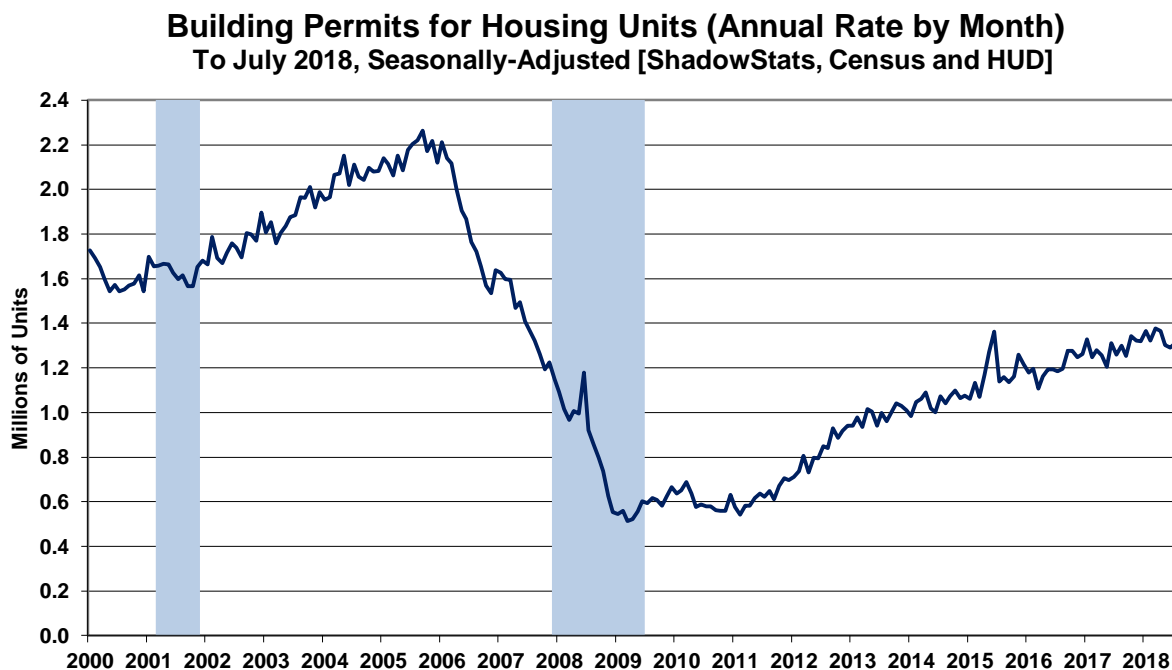
Building Permits. In comparison/contrast, Building Permits (the theoretically-leading series to Housing Starts) showed an annualized quarterly gain of 7.4% in first-quarter 2017 (earlier numbers are not consistent, as discussed in [Commentary No. 950](#)), with year-to-year change of 10.8%. Second-quarter 2017 showed an annualized contraction of 8.4% (-8.4%), with year-to-year growth of 6.3%. Third-quarter 2017 showed an annualized gain of 4.3%, with a year-to-year gain of 4.3%. Fourth-quarter 2017 showed an annualized gain of 19.5%, with annual gain of 5.4%.

First-Quarter 2018, annualized quarterly growth was an unrevised 8.3%, up by 5.4% year-to-year. Second reporting of second-quarter 2018 was an annualized contraction of 10.3% (-10.3%) [previously 12.0% (-12.0%)], up year-to-year by 4.9% [previously 4.4%]. Third-quarter activity is on early-track for an annualized contraction of 2.4% (-2.4%), with an annual gain of 3.2%.

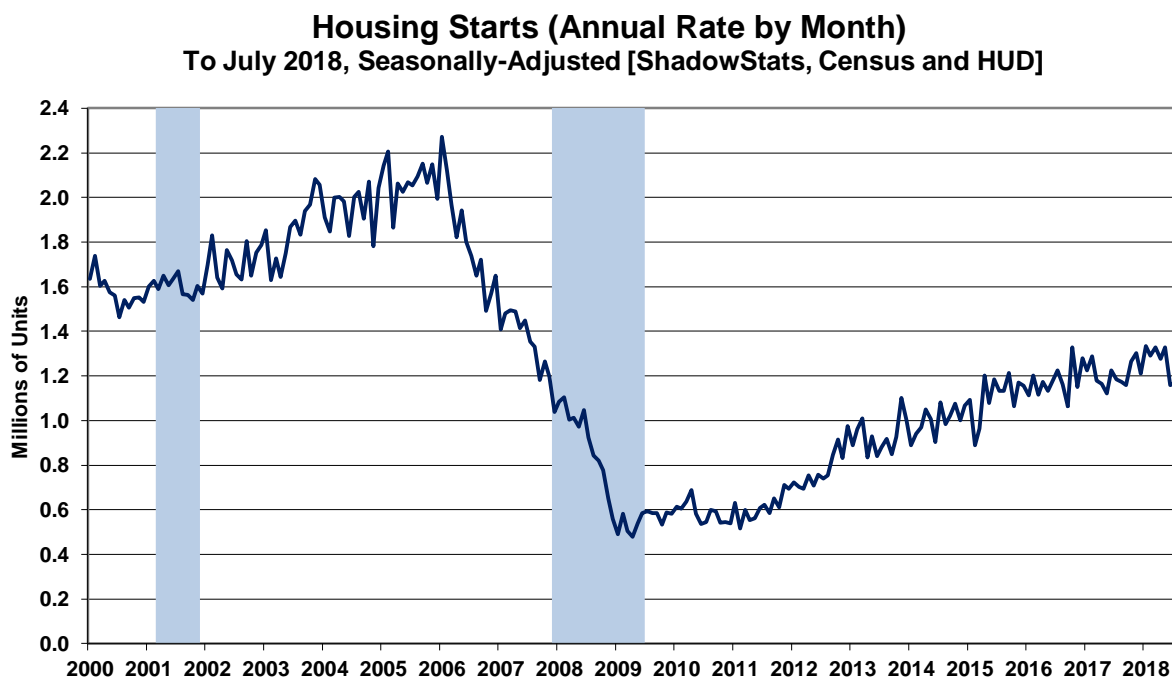
[Graphs 39 to 44 begin on the next page.]

**Housing Starts and Building Permits, Historical Plots,
Scale Reflects Annualized Monthly Rate in Millions of Units**
(See Preceding Notes on the Housing Starts Graphs)

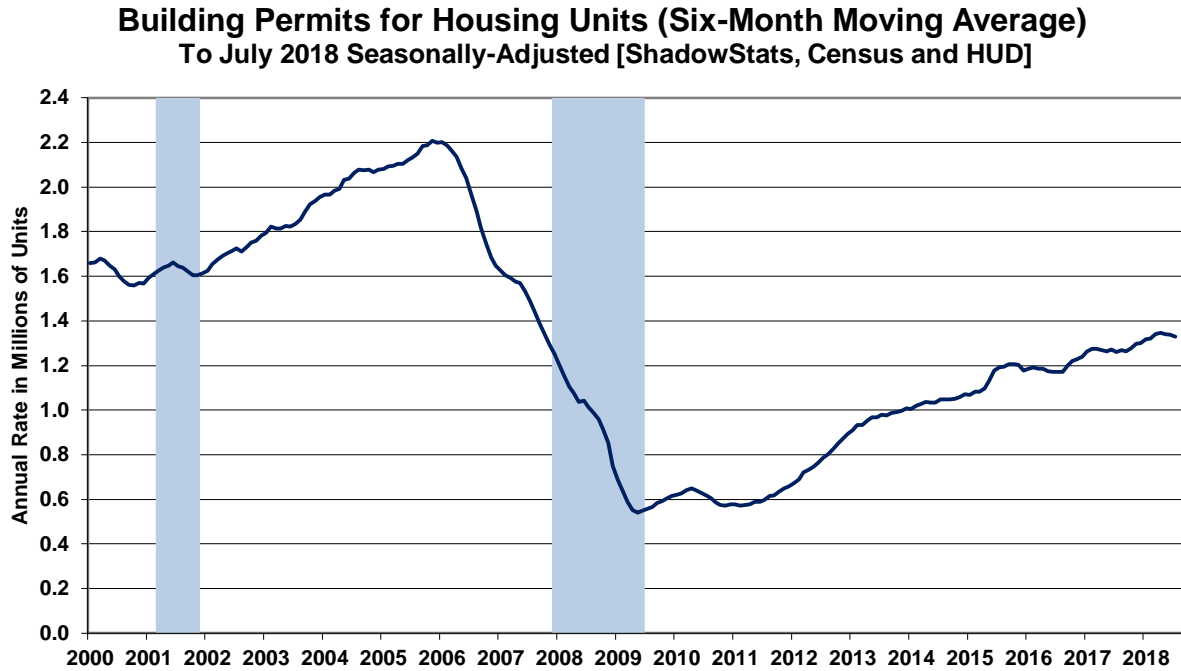
Graph 39: Building Permits (Annualized Monthly Rate of Activity), 2000 to Date



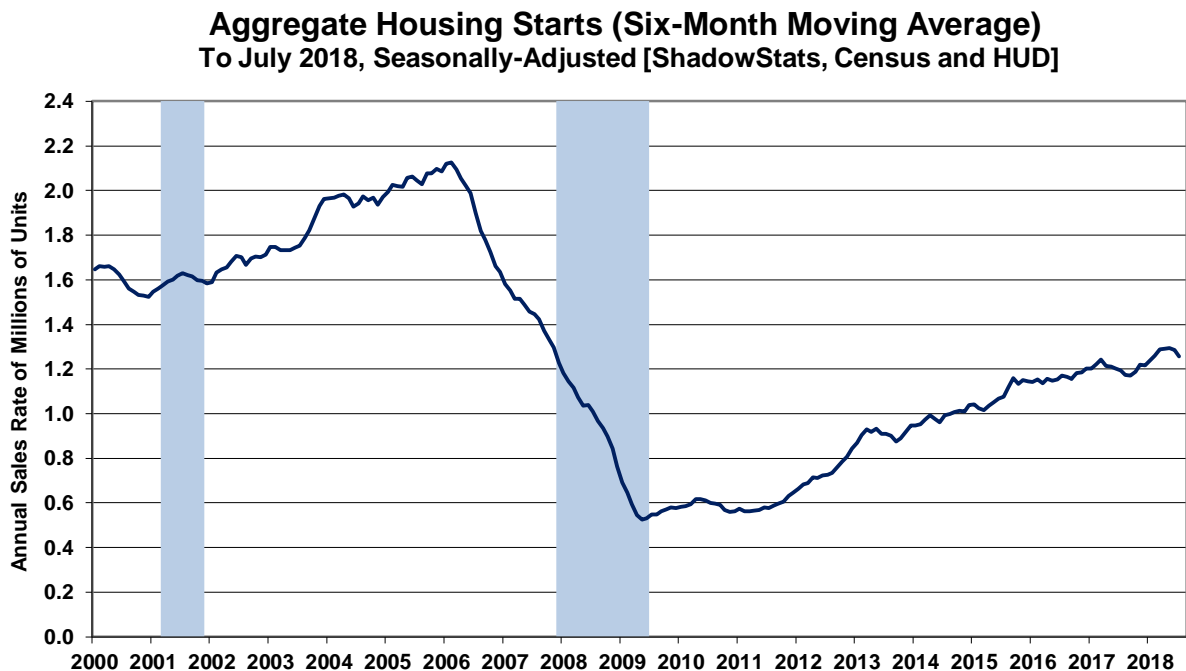
Graph 40: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date



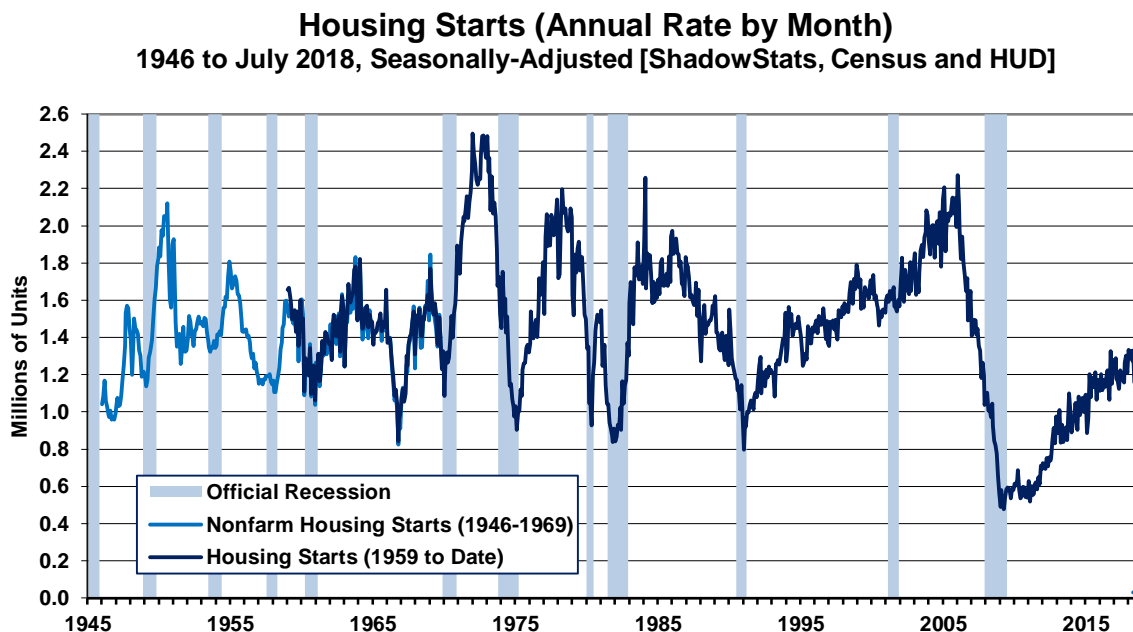
Graph 41: Building Permits (Six-Month Moving Average), 2000 to Date



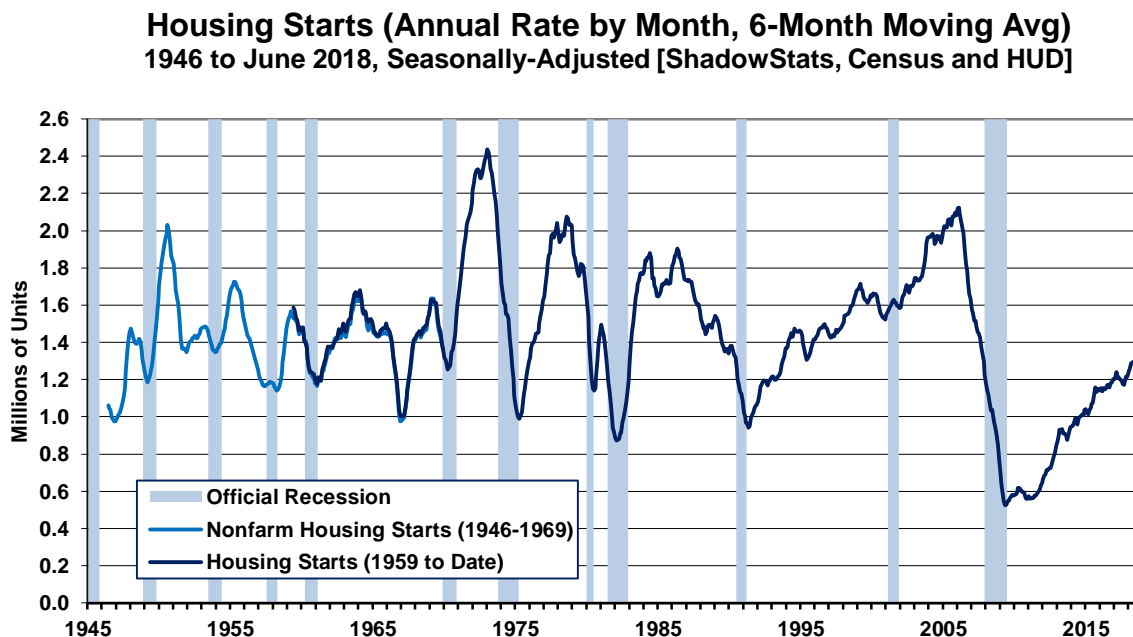
Graph 42: Housing Starts (Six-Month Moving Average), 2000 to Date



Graph 43: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date



Graph 44: Housing Starts (Annualized Monthly Rate of Activity, 6-Mo Moving Avg), 1946 to Date



WEEK, MONTH AND YEAR AHEAD

U.S. Dollar and Financial-Market Turmoil Remain at Intensified High Risk, Amidst Mounting Fiscal Concerns, Consumer Liquidity Issues and Non-Expanding, Real-World Economic Activity.

In the context of weakening consumer-liquidity trends (see today's *Opening Comments*, [Hyperinflation Watch – No. 3](#), [Consumer Liquidity Watch – No. 4](#) and [Commentary No. 959-B](#)), the headline economic outlook should continue to dim rapidly, despite the big initial headline jump in second-quarter GDP.

[Hyperinflation Watch – No. 3](#) reviews the broad outlooks for the U.S. economy, the U.S. dollar, gold, silver and the financial markets. Such expands upon the annual review in [Special Commentary No. 935](#). The broad outlook on the economy has not changed. Weaker economic growth and renewed, faltering economic headlines should follow. The fundamental outlook for U.S. dollar and related market circumstances also broadly have not changed from the related vulnerabilities discussed in earlier missives.

Pending *Commentary No. 967*, planned for August 24th will update and review the outlook for the U.S. dollar, gold and silver and the domestic financial markets.

Indeed, the 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 are covered on the next page.]

PENDING ECONOMIC RELEASES

Existing- and New-Home Sales (July 2018). Reporting of July 2018 Existing-Home Sales is due for release on Wednesday, August 22nd, from the National Association of Realtors (NAR), while July 2018 New-Home Sales from the Census Bureau is scheduled for release on Thursday, August 23rd. Both series will be covered in *Commentary No. 967* of August 24th.

In the context of intensifying consumer weakness and an intensifying downtrend in the housing market (see today’s *Reporting Detail on Housing Starts*), the extreme reporting volatility seen in recent months for both these series, and reflecting unusually-unstable, seasonal-factor distortions and prior-period revisions, reporting detail likely will continue on the downside for both series. Where anything is possible here, the reporting trends should turn increasingly negative.

Indeed, with a deteriorating liquidity bind besetting consumers and generally continuing to constrain residential real estate activity (see the [Consumer Liquidity Watch – No. 4](#) and [Special Commentary No. 935](#)), odds generally favor weaker-than-expected numbers for both series. With softening growth in real income and real credit, the latter reflecting the inability and/or unwillingness to take on meaningful new debt in to make up for an income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including residential real estate activity and related demand for residential construction. That circumstance—in the last ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity.

Where the private housing sector never recovered from the business collapse of 2006 into 2009, there remains no chance of a near-term, sustainable turnaround in home-sales activity, without a fundamental upturn in consumer and banking-liquidity conditions. That does not appear to be in the offing. Smoothed for month-to-month variability, patterns of low-level downtrending stagnation should continue in play for both the Home Sales series, with reporting risks on the downside of consensus for both series.

New Orders for Durable Goods (July 2018). The Census Bureau will report July 2018 New Orders for Durable Goods on Friday, August 24th, to be covered in *Commentary No. 967* of that date. Where expectations usually are reasonably positive for this series, net of the volatile commercial aircraft orders, chances for a downside “surprise” remain strong.

Net of the irregular activity in commercial aircraft orders, aggregate orders likely continued in a pattern of intensifying, downtrending real stagnation, weaker than expected.

Where commercial aircraft orders are booked for the long-term—years in advance—they have only limited impact on near-term production. Further, by their nature, these types of orders do not lend themselves to seasonal adjustment. As a result, the durable goods measure that best serves as a leading indicator to broad production—a near-term leading indicator of broad economic activity and the GDP—is the activity in new orders, ex-commercial aircraft, adjusted for inflation. Again, with expectations likely on the plus-side, ex-aircraft, the headline change in month-to-month activity remains a fair bet to be in unexpected contraction, particularly in real terms, net of rapidly-spiking headline inflation.

In inflation-adjusted or real terms, reflecting PPI-related inflation for “manufactured durable goods,” relative month-to-month and year-to-year New Orders activity will be dampened sharply, particularly on an annual basis. Month-to-month related inflation for July 2018 was a gain of 0.17%, following gain of 0.35% in June and 0.52% in May. Year-to-year annual inflation rose to 3.20% in July 2018, versus 2.96% in June 2018 and 2.66% in May 2018 (see prior [Commentary No. 965](#)).

LINKS TO PRIOR COMMENTARIES, SPECIAL REPORTS AND OTHER WRITINGS

Most Recent Watches:

The *Consumer Liquidity Watch* of August 10th: [*Consumer Liquidity Watch – No. 4.*](#)

The *Hyperinflation Watch* of August 12th: [*Hyperinflation Watch – No. 3.*](#)

The latest Watches always are available on www.ShadowStats.com and by link from the current *Commentary*, 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 [*No. 777 Year-End Special Commentary*](#) (December 2015), [*No. 742 Special Commentary: A World Increasingly Out of Balance*](#) (August 2015) and [*No. 692 Special Commentary: 2015 - A World Out of Balance*](#) (February 2015). In turn, they updated the long-standing hyperinflation and economic outlooks published in [*2014 Hyperinflation Report—The End Game Begins – First Installment Revised*](#) (April 2014) and [*2014 Hyperinflation Report—Great Economic Tumble – 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 [*Public Commentary on Inflation Measurement*](#) and the [*Public Commentary on Unemployment Measurement*](#).

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 www.ShadowStats.com (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 or so, updating general economic, consumer-liquidity and financial-market circumstances as they develop.

[*Commentary No. 965*](#) (August 12th) covered the July 2018 Consumer and Producer Price Indices (CPI and PPI), and Real Average Weekly Earnings and deteriorating consumer liquidity conditions.

[*Commentary No. 964-A*](#) (August 3rd) preliminary coverage of July 2018 Employment/Unemployment, Conference Board Help Wanted OnLine[®] Advertising, M3 and the June Trade Deficit and Construction Spending.

[*Commentary No. 963*](#) (July 31st) reviewed June Retail Sales, Industrial Production, New Orders for Durable Goods and the Cass Freight Index, all in the context of the GDP revisions and unfolding, underlying economic reality.

[Commentary No. 962](#) (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 late August in a pending *Special Commentary*.

[Commentary No. 961](#) (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 IndexTM, all of which were expanded upon in *Commentary No. 963*.

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

[Commentary No. 959-B](#) (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.

[Commentary No. 959-A](#) (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[®] Advertising.

[Commentary No. 958](#) (July 3rd) covered May 2018 Construction Spending and the accompanying annual benchmarking to that series.

[Commentary No. 957](#) (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).

[Commentary No. 956](#) (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 IndexTM and some potential twists to the pending July 27th Comprehensive Benchmark Revision to the GDP.

[Commentary No. 955](#) (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 IndexTM.

[Commentary No. 954](#) (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.

[Commentary No. 953-B](#) (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*.

[Commentary No. 953-A](#) (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.

[Commentary No. 952](#) (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[®] Advertising.

[Commentary No. 951](#) (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.

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

[Commentary No. 949](#) (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.

[Commentary No. 948](#) (May 9th) explored unusual circumstances with April 2018 Employment and Unemployment numbers, along with the April Conference Board Help Wanted OnLine[®] 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.

[Commentary No. 947](#) (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.

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

[Commentary No. 945](#) (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.

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

[Commentary No. 943](#) (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.

[Commentary No. 942-B](#) (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[™].

[Commentary No. 942-A](#) (March 23rd) provided a very brief summary of the much more extensive details covered in *Commentary 942-B*.

[Commentary No. 941](#) (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.

[Commentary No. 940](#) (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.

[Commentary No. 939](#) (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[®] Advertising and February Monetary Conditions.

[Commentary No. 938](#) (March 1st) reviewed January 2018 Construction Spending and the second estimate of Fourth-Quarter 2017 GDP.

[Commentary No. 937](#) (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[™].

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

[Special Commentary No. 935](#) (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.

[Commentary No. 934-B](#) (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.

[Commentary No. 934-A](#) (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[®] Advertising, January Monetary Conditions and December 2017 Construction Spending.

[Commentary No. 933](#) (January 26, 2018) covered December New Orders for Durable Goods, the Cass Freight Index[™] and the first estimate of Fourth-Quarter 2017 GDP.

[Commentary No. 932](#) (January 18, 2018) covered December Industrial Production and New Residential Construction (Housing Starts and Building Permits).

[Commentary No. 931](#) (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.

[Commentary No. 930-B](#) (January 8th) expanded upon the December 2017 Employment and Unemployment numbers and Household Survey benchmarking, Conference Board Help Wanted OnLine[®] 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.

[General Commentary No. 929](#) (December 28, 2017) reviewed current economic and market conditions at year-end 2017.

[Commentary No. 926](#) (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.”

[Commentary No. 909](#) (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.

[Special Commentary No. 904](#) (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).

[Commentary No. 902-B](#) (July 31, 2017) reviewed the 2017 annual benchmark revisions of GDP and related series, along with the “advance” estimate of second-quarter 2017 GDP.

[Commentary No. 900](#) (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.

[Commentary No. 897](#) (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[®] Advertising and the May Cass Freight Index[™].

[General Commentary No. 894](#) (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.

[Commentary No. 890](#) (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[™], and the monthly trade deficit and construction spending.

[Special Commentary No. 888](#) (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.

[Commentary No. 887](#) (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.

[Special Commentary No. 885](#), 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.

[Commentary No. 882](#) (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.

[Commentary No. 877](#) (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.

[Commentary No. 876](#) (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.

[Commentary No. 875](#) (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™.

[General Commentary No. 867](#) (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.

[Commentary No. 864](#) (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.

[Commentary No. 861](#) (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.
