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

COMMENTARY NUMBER 942-B

Industrial Production Benchmarking, February New Orders, Freight Index, Home Sales

March 27, 2018

Accompanying Graphs Show Basic Nature of
Upside Biases Regularly Built into Official Economic Reporting

Industrial Production of Recent Years Revised Meaningfully Lower,
Dominated by Much-Weaker Manufacturing, Including Weaker Auto Production

Production Now Shows a Formal Double-Dip Recession, from a December 2007 Peak and a Brief, Oil-Production-Driven Expansion to a Now, Non-Recovered November 2014 Peak

Manufacturing Now Is Shy by 5.5% (-5.5%) of Its Never-Recovered December 2007 Peak,
Still Holding in a Record 122 Months of Non-Expansion

Pending Negative Benchmarkings Implied for Retail Sales,
New Orders for Durable Goods and the Gross Domestic Product

Signals Continued for First-Quarter 2018 GDP Contraction, as the
Fourth-Quarter 2017 Disaster-Recovery Boom Turns to Bust

Real Durable Goods Orders and New- and Existing-Home Sales All Showed
Unfolding First-Quarter Contractions, versus Fourth-Quarter Booms,
Despite Monthly Gains in February

Real New Orders Activity and New- and Existing-Home Sales
All Remained Well Shy of Recovering Their Pre-2007 Recession Peaks

February 2018 Freight Index Hit a Post-2007 Recession High,
Still Shy by 11.2% (-11.2%) of Recovering its Pre-2007 Recession Peak

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PLEASE NOTE: The next Commentary, planned for tomorrow, Wednesday, March 28th, will review the third estimate of Fourth-Quarter 2017 GDP and the first and only regular estimates of the GNP and GDI.

Best wishes — John Williams (707) 763-5786

Today's (March 27th) *Opening Comments.* The ***Opening Comments*** reviews the latest regular reporting of economic detail in the context of what looks like an unfolding first-quarter GDP contraction. In the context of negative, annual benchmark revisions to Industrial Production, the nature of official U.S. economic reporting is discussed, along with implications for pending revisions to other major series.

The ***Industrial Production Benchmark Revision*** (page 4) reviews extended detail of the March 23rd annual benchmark revisions to Industrial Production, along with some historical perspective on the series.

The ***Executive Summary*** (page 18) highlights details of the regular reporting of February 2018 New Orders for Durable Goods, the Cass Freight Index™ and New- and Existing-Home Sales.

The ***Reporting Detail*** (page 30) reviews in greater depth February New Orders for Durable Goods, the Cass Freight Index™ of North American Freight Activity and New- and Existing-Home Sales, along with implications for revisions to these series from the revised production history.

The ***Consumer Liquidity Watch*** (page 45) has been updated for today's release of the Conference Board's March 2018 Consumer-Confidence Index®, along revised opening paragraphs and links.

The ***Week, Month and Year Ahead*** (page 59) provides background on recent *Commentaries* and previews the third-estimate of, second-revision to Fourth-Quarter 2017 GDP and the initial fourth-quarter estimates of Gross Domestic Income (GDI) and Gross National Product (GDP).

OPENING COMMENTS

THE ECONOMIC OUTLOOK DIMS MARKEDLY

Monthly Data Suggested Slowing First-Quarter GDP; Negative Production Benchmarking Intensified the Downside Benchmarking Outlooks for Other Series, Ranging from Retail Sales to the GDP. In the context of the latest headline detail, the main body of today's *Commentary* looks at current headline numbers tied to new orders, freight activity and home sales. Those numbers continue to show low-level stagnation in series that never recovered their pre-2007 recession peaks. None of these series has seen economic expansion (growth beyond its pre-2007 recession peak) in more than a decade.

Discussed in the *Executive Summary* and *Reporting Detail* sections, new- and existing-home sales, as well as new orders for durables goods suggest looming quarterly downturns in first-quarter 2018 activity, consistent with the continuing ShadowStats outlook for a likely, headline quarter-to-quarter contraction in inflation-adjusted or real First-Quarter 2018 GDP growth. While that circumstance appeared to be evolving prior to the natural disasters, in the latter part of 2017, the circumstance was exacerbated by disaster-recovery economic boosts to Fourth-Quarter 2017, which now are pulling back in First-Quarter 2018 activity (see *Commentary No. 936* and *Commentary No. 940*).

Separately, the *Consumer Liquidity Watch* touches upon the nature of faltering, albeit high-level Consumer Confidence, as reported today (March 27th) by the Conference Board.

Benchmark Revisions to Major Series Usually Are Negative, With Upwardly-Biased Headline Reporting Designed to Avoid the Political Embarrassment of Possible, False Reporting of Economic Weakness. Reporting experience of recent decades has shown that annual benchmark revisions to key economic series commonly are to the downside, as just seen with the 2018 Industrial Production benchmarking (for the fourth-straight year), as discussed in the next section. This circumstance largely is due to headline government reporting of recent decades being structured with upside biases or positive assumptions, so as to avoid the potential political circumstances of a government entity (or the Federal Reserve Board) falsely reporting an economic downturn.

Discussed in *Special Commentary No. 885*, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*:

> "During the Reagan Administration, the Bureau of Labor Statistics (BLS) underestimated employment growth, coming out of the 1983 recession. That 'political embarrassment' for the BLS resulted in the introduction of monthly, upside-bias factors to payroll-employment reporting. Those biases evolved into the current Birth-Death modeling for the payroll series ..."

As explained to me at the time by an involved person at the Department of Labor, it simply was politically unacceptable to understate economic activity, while overstatement was acceptable.

Benchmark Revisions to Industrial Production Have Negative Implications for Pending Durable Goods, Retail Sales, Housing and Constriction and the GDP Benchmarkings. Discussed in the following *Industrial Production Benchmarking* section, the nature of the meaningful downside revisions just published for Industrial Production for the last several years, has parallel, negative implications for pending annual benchmark revisions to New Orders for Durable Goods (May 17th), Retail Sales (May 25th), the "Comprehensive" benchmark revision (back to 1929) for the Gross Domestic Product or GDP (July 27th) and Construction Spending (presumably July 2nd).

Not only are those series usually bloated in their initial headline reporting, but also related activities reflected in the production series just were revised lower. Separately, a number of surveys and updated reporting of recent years used in benchmarking the Industrial Production series also are used in benchmarking elements of the other series. Consider reduced motor-vehicle and consumer nondurable goods manufacturing (retail sales); reduced durable goods manufacturing (new orders for durable goods), reduced production of construction supplies and materials, as well as in new-home furnishings (construction), all suggested broadly weaker economic growth (GDP).

["Industrial Production Benchmark Revisions of 2018" Begins on the Next Page.]

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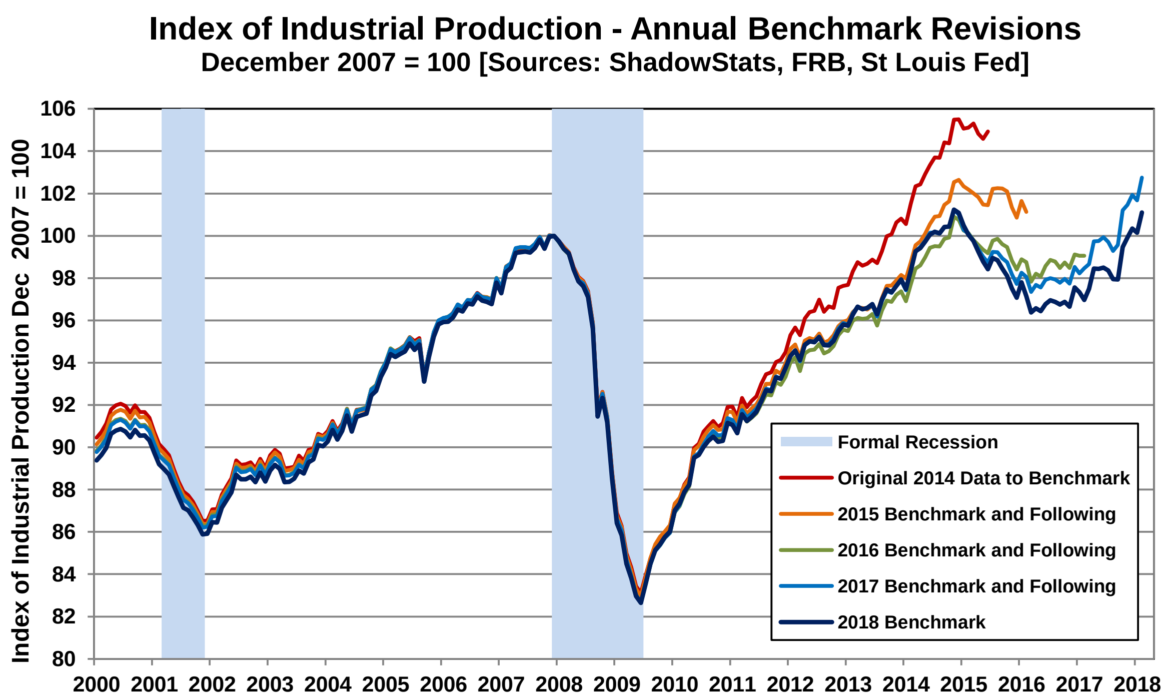
INDUSTRIAL PRODUCTION BENCHMARK REVISIONS OF 2018

Revisions Shifted 2016 Industrial Production from an Annual Gain to a Contraction, Leaving in Place a Non-Recovered, Double-Dip Recession in Industrial Production. The Federal Reserve published its *2018 Annual Revision* to the Industrial Production series on March 23rd. The benchmarking showed major downside revisions to the aggregate Industrial Production series since 2015, which largely reflected downside revisions in the Manufacturing sector, with minimal net changes from the Mining or Utilities sectors, which also were revised.

Graph Benchmark-1: Industrial Production (2000 to Date), Annual Benchmark Revisions of 2014 to 2018



Graph Benchmark-1 plots the benchmark Industrial Production revisions of the last four years, with each successive year revising lower. Such is the nature of annual revisions to series that regularly have upside biases built into them by the reporting entity, or by the reporting entities feeding information into broad data-gathering systems such as the Fed's (see the *Opening Comments*). The 2018 revision is reflected in the front, dark-blue line.

All comparative graphs here reflect the revised series at its new level, with the plot of the comparative prior series (single or multiple) set equal with the new series as of December 2007 (the pre-recession peak), for consistency purposes. Shapes of the plotted curves change minimally with the reweighting of component series of Industrial production over time. For example (with minimal rounding differences):

- The dominant Manufacturing sector reflected 75.5% of total production in 2017 (and at present), versus a revised 77.0% [previously 76.4%] in 2016.
- The Mining sector reflected 14.1% of total production in 2017, versus a revised 12.2% [previously 12.9%] in 2016.
- The Utilities sector reflected 10.4% of total production in 2017, versus a revised 10.8% [previously 10.6%] in 2016.

Headline Industrial Production No Longer Is in Expansion. Discussed in business cycle definitions (see *Commentary No. 876* and *Commentary No. 877*), Industrial Production, boosted by surging mining activity had recovered its pre-2007 recession high in third-quarter 2014, followed by one quarter's expansion until the series contracted again in first-quarter 2015, effectively in what would be considered a double-dip recession for the series. That recovery now has disappeared.

The 2018 benchmarking went through 2017, where, per the Fed, "For the 2015–17 period, the current estimates show rates of change [Industrial Production] that are 0.4 to 0.7 percentage point lower in each year." In recent pre-benchmark reporting, headline production recovered that 2014 prior-period peak in November 2017, having expanded by 1.51% from November 2014 in the pre-benchmarking of February 2018. Post-benchmarking February 2018, production no longer had recovered the November 2014 near-term peak. The "recovery" had disappeared in the benchmarking, now down by 0.14% (-0.14%).

Again, described by the Fed, "Manufacturing output is now estimated to have declined about 1 1/2 percent in 2015, to have been little changed in 2016, and then to have advanced about 2 percent in 2017. These rates of change are lower than their previously reported values, especially for 2015, which was revised down 1.0 percentage point. The cumulative effect of these revisions leaves manufacturing IP in February 2018 about 5 1/2 percent below its pre-recession peak."

As of the revamped February 2018 reporting, on a comparable basis, February 2018 Industrial production had revised lower by 1.58% (-1.58%) versus its prior reporting, Manufacturing had revised lower by 1.81% (-1.81%), versus its prior reporting. Mining had revised higher by 0.12% versus its prior reporting and Utilities had revised lower by 1.89% (-1.89%) versus its prior reporting.

Last Headline Industrial Production Detail on Related Graphs, Pre-Benchmarking. For comparison details and graphs, see prior full *Commentary No. 941*.

Based largely on late-reporting detail (month-to-month), the benchmark-revised February 2018 Industrial production showed markedly slower annual growth. The benchmarked February 2018 production gained month-to-month by a revised headline 0.95% [previously 1.06%], having declined in January by a revised 0.20% (-0.20%) [previously by 0.26% (-0.26%)] and gained in December 2017 by 0.43% [previously 0.46%]. Year-to-year, February 2018 Industrial Production rose by 4.26% [previously 4.35%], by 2.90% [previously 3.50%] in January 2018 and by 2.85% [previously 3.46%] in December 2017. Capacity Utilization revised lower, despite a reduction in estimated capacity.

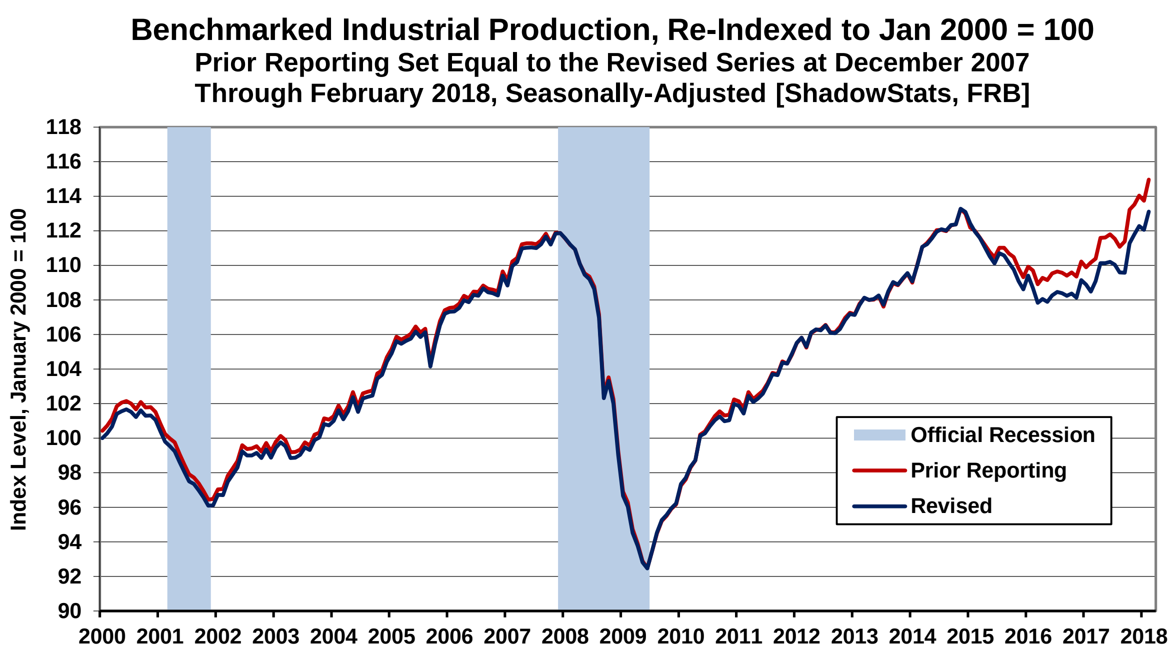
Background on the Graphs of Multiple Benchmark Revisions. Some of the graphs that follow (and the opening *Graph Benchmark -1*), sorted by the aggregate Production series, and the subsidiary Manufacturing and Utilities sectors, plot the results of the last four annual Industrial Production benchmark revisions, all net to the downside for production and manufacturing, beginning with the benchmarking of July 2015, against the data that existed from 2014 through June of 2015. Each year, ShadowStats reviewed those benchmarkings, as published: 2017 (*Commentary No. 877*), 2016 (*Commentary No. 796-A*) and 2015 (*Commentary No. 737*).

The benchmarking of March 2014 (not plotted) actually was net to the plus-side, because significant surveying of underlying economic reality did not take place or was not available for that benchmarking, due to the government shutdown in 2013. As noted in related *Commentary No. 737*, "... the 2014 benchmark revision to industrial production largely was incomplete, lacking detail from the regular Census of Manufactures (2012), which had been delayed in its release by the government shutdown of October 2013. As a result, what could have been major downside revisions to 2011 and 2012 industrial production activity (and broader GDP activity) never took place (see *Commentary No. 613*). This [2015] benchmarking at least partially corrected that, although 2011 will not face needed revisions in this year's [2015] GDP benchmarking, because of that delayed detail."

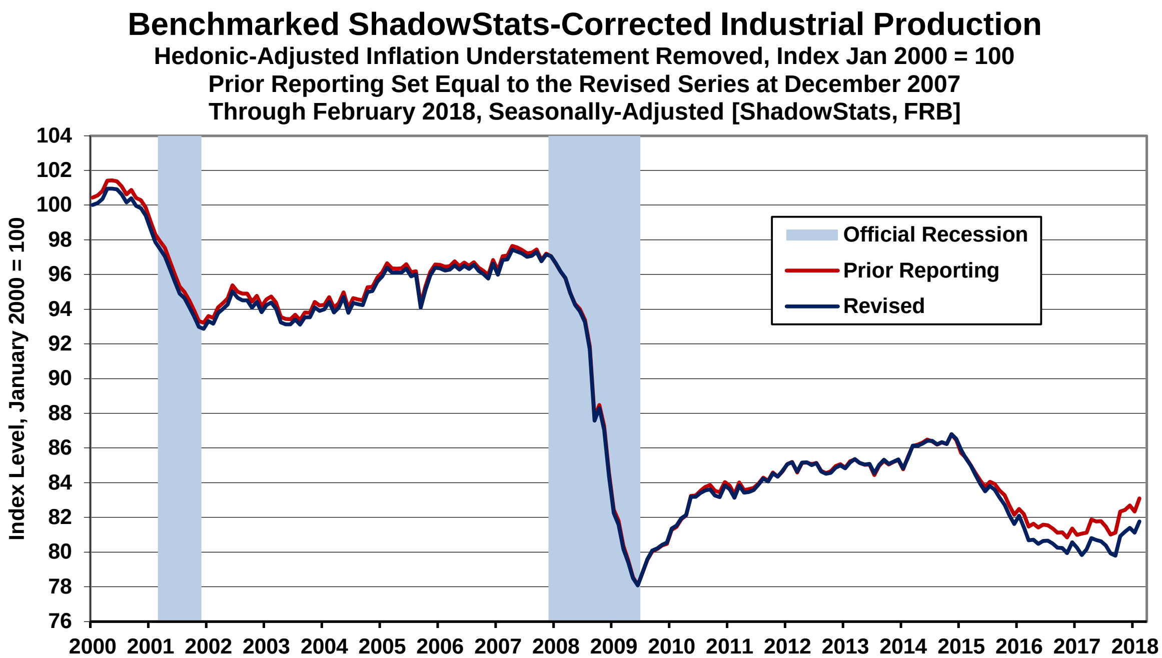
That missing downside GDP revision of 2011 should be picked up, in theory, among other major corrections, in the "comprehensive" GDP benchmarking pending for July 27, 2018. That benchmarking will update and revise details back to the initial GDP reporting of 1929. A separate missive will explore the potential of the series overhaul.

TOTAL INDUSTRIAL PRODUCTION

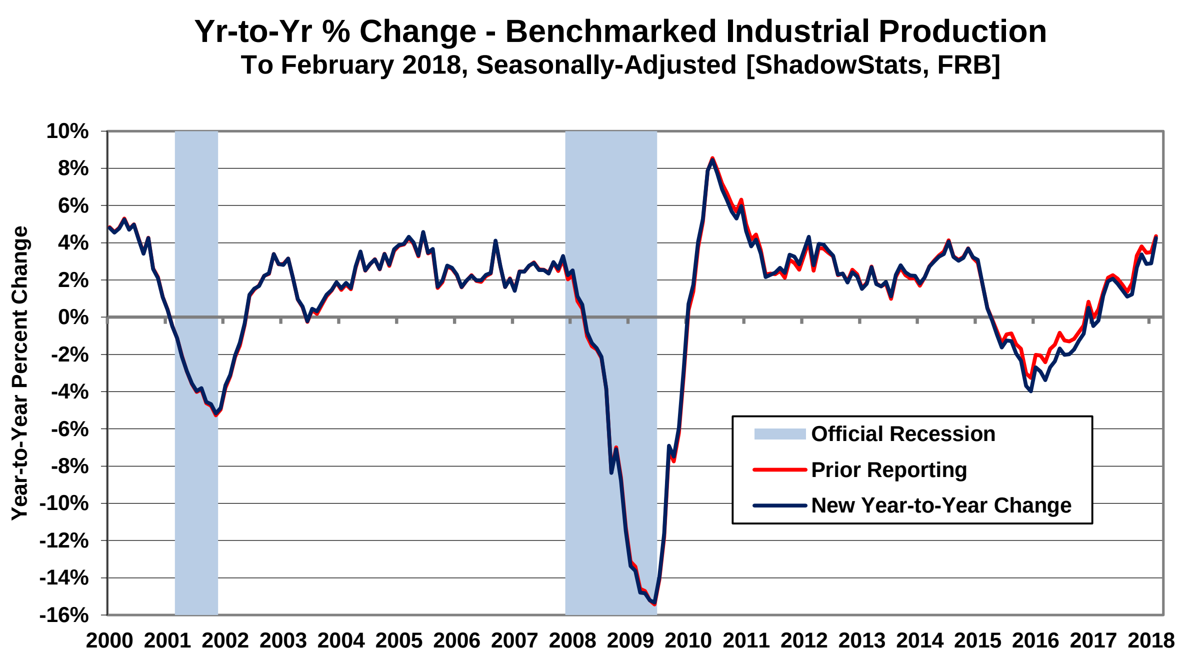
Graph Benchmark-2: Revised Industrial Production Indexed to January 2000 = 100



Graph Benchmark-3: Revised ShadowStats-Corrected Industrial Production Indexed to January 2000 = 100

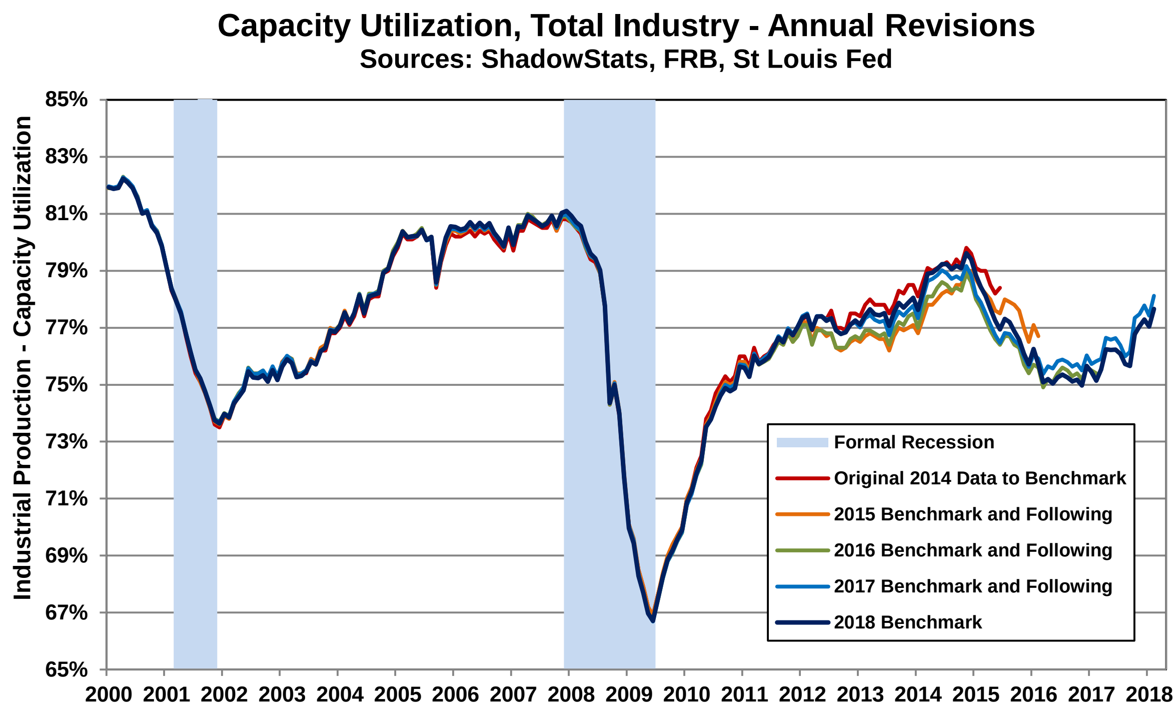


Graph Benchmark-4: Revised Industrial Production, Year-to-Year Percent Change

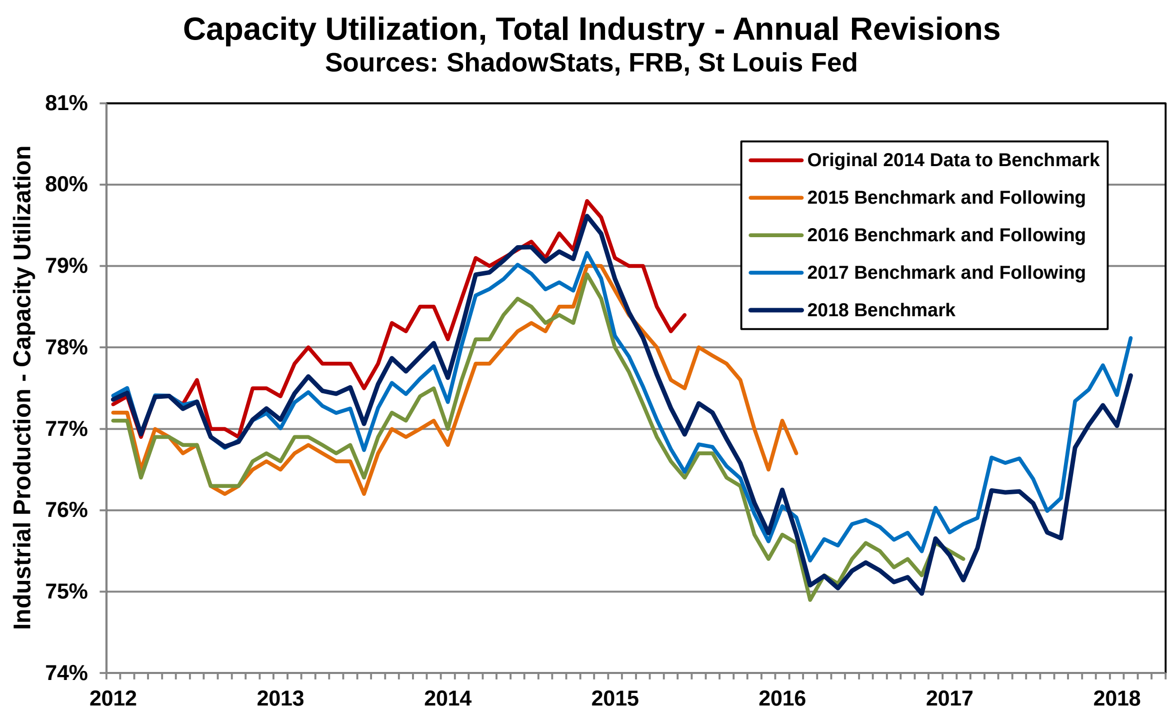


Graphs Benchmark 2 to *4* plot the benchmark-revised series usually graphed in the monthly analysis (see [*Commentary No. 941*]) of the headline Industrial Production release. Noted earlier, only the index levels are plotted to scale for the benchmark series, with the prior series set equal to the benchmark series at December 2007, which was the pre-recession peak of the series.

Graph Benchmark-5: Capacity Utilization – Total Industry (2000 to 2018), Annual Revisions 2014 to 2018



Benchmark-6: Capacity Utilization – Total Industry (2012 to 2018), Annual Benchmark Revisions 2014 to 2018



MANUFACTURING

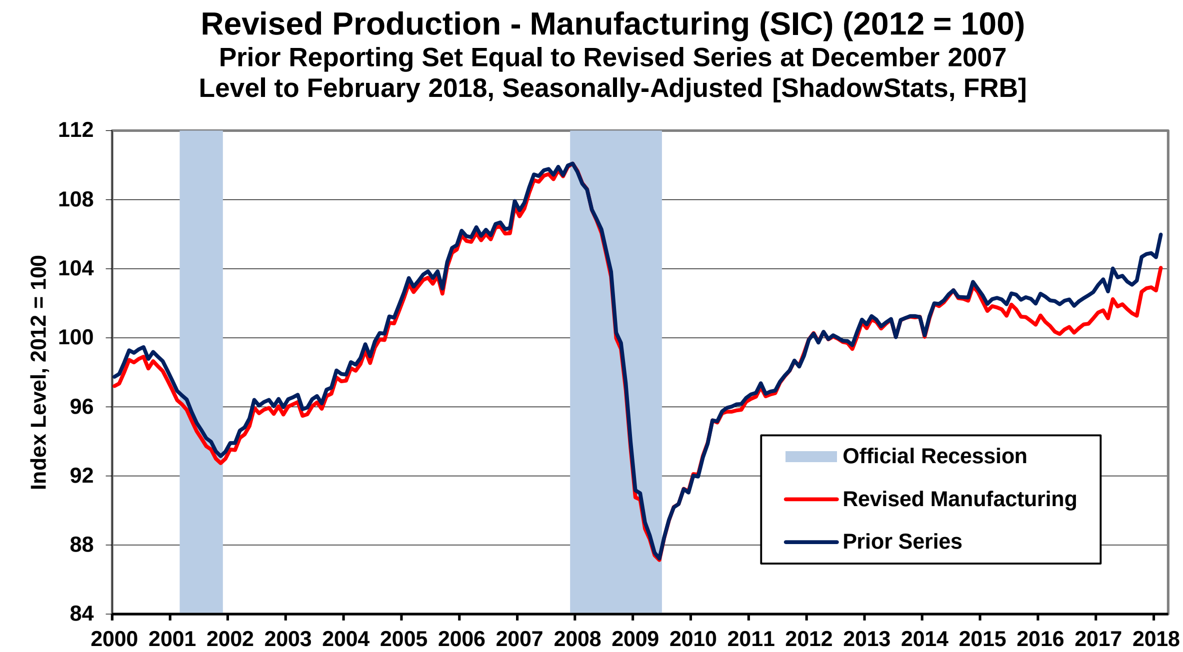
Benchmark Revisions to Manufacturing Largely Drove the Production Revisions, Dominated by Revised Activity in Consumer Non-Durable and Durable Goods, Including Motor Vehicles. Following *Graphs Benchmark 7* to *14* cover the standard monthly graphs (*Benchmark Graph 7* and *9*), as well as drill-down on manufacturing on the Consumer Goods side (*Graphs 10* to *14*), which heavily influenced the aggregate benchmarking. The broad downside revisions to the Consumer Goods manufacturing, including Motor Vehicles and Spare Parts (How could such a closely tracked domestic industry be so misread?) do not bode well for either the pending Retail Sales benchmarking or the New Orders for Durable Goods Manufacturing (much as was seen in *Special Commentary No. 888* for the latter circumstance).

Separately, reflecting the level of home-sales and construction activity, the weakened Industrial Production Manufacturing sector reduced production of construction supplies and materials (mixed sources not plotted), as well as in new-home furnishings (included in *Graph 12*), all of which suggest weaker than currently-estimated headline activity tied to the residential construction and home sales.

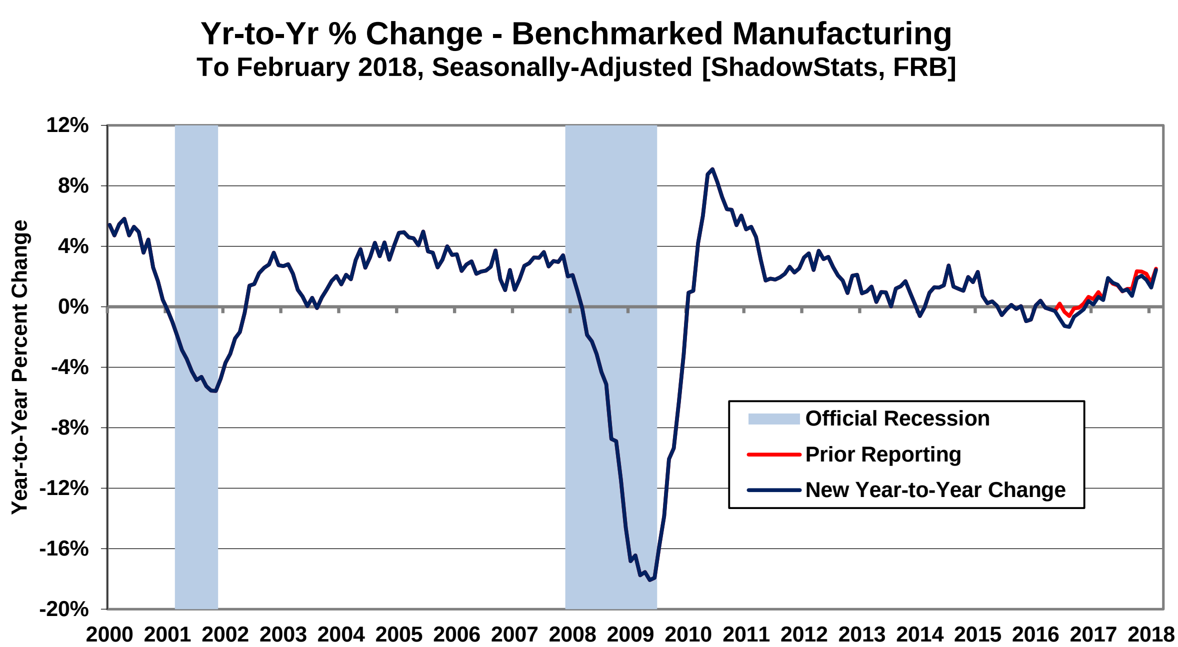
As to the aggregate Manufacturing series, what had previously shown the series to be in a record 122 months of economic non-expansion, with the level of Manufacturing shy by 3.7% (-3.7%) of recovering its pre-recession peak, has not changed, other than it is now by 5.5% (-5.5%) of recovering its pre-recession peak.

[Graphs Benchmark 7 to 14 begin on the next page]

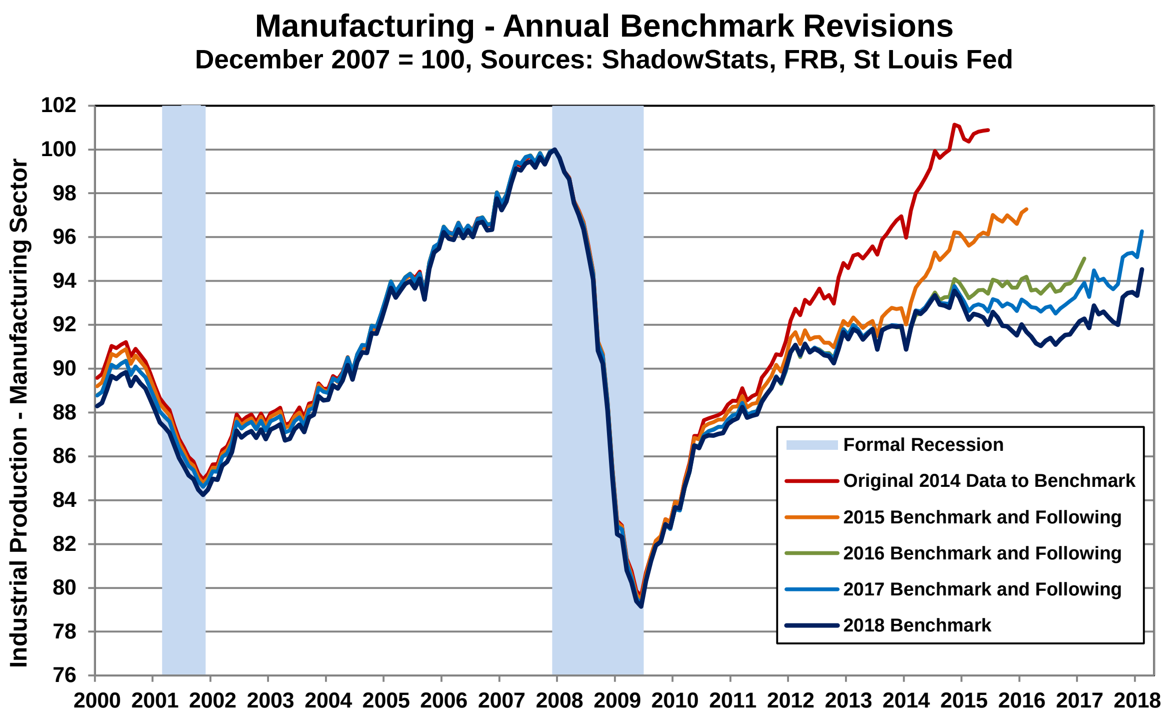
Graph Benchmark-7: Revised Manufacturing, Indexed to 2012 = 100



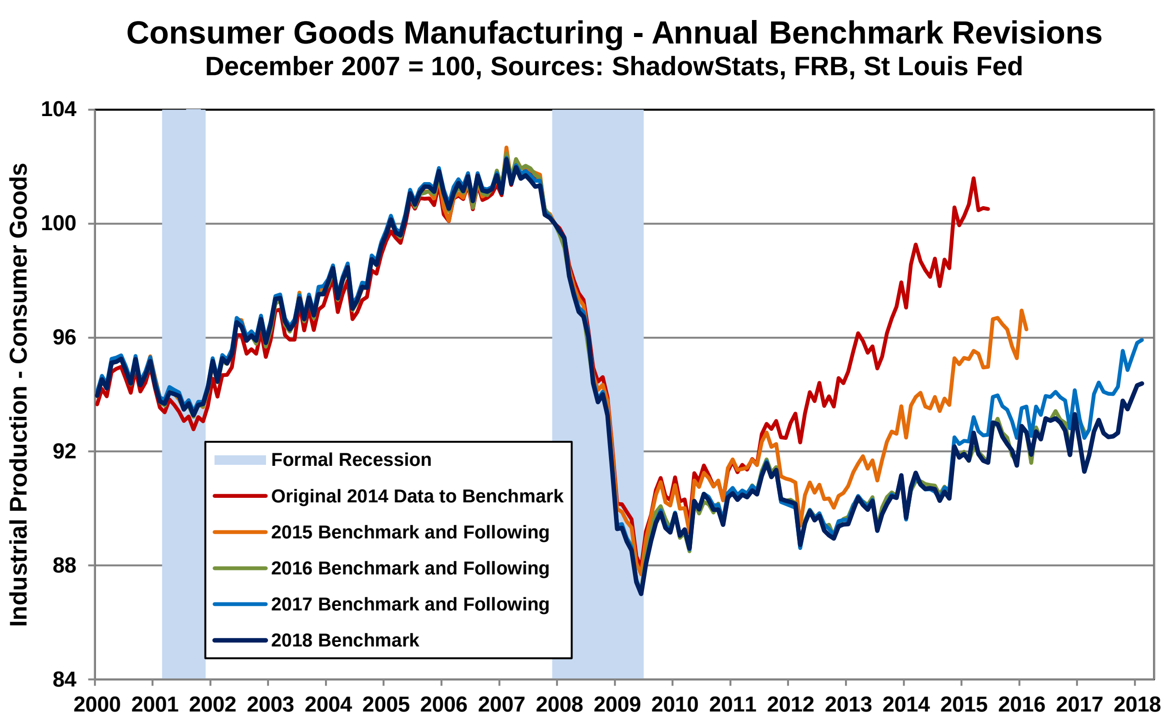
Graph Benchmark-8: Revised Manufacturing, Year-to-Year Percent Change



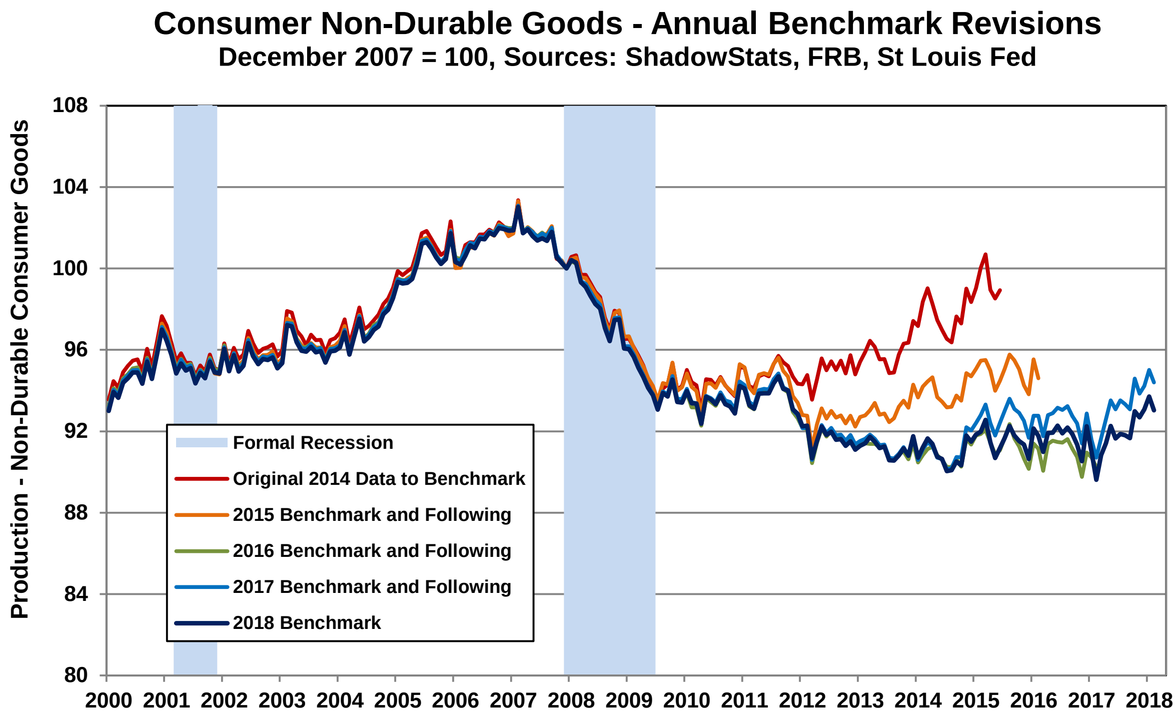
Graph Benchmark-9: Manufacturing (2000 to Date), Annual Benchmark Revisions 2014 to 2018



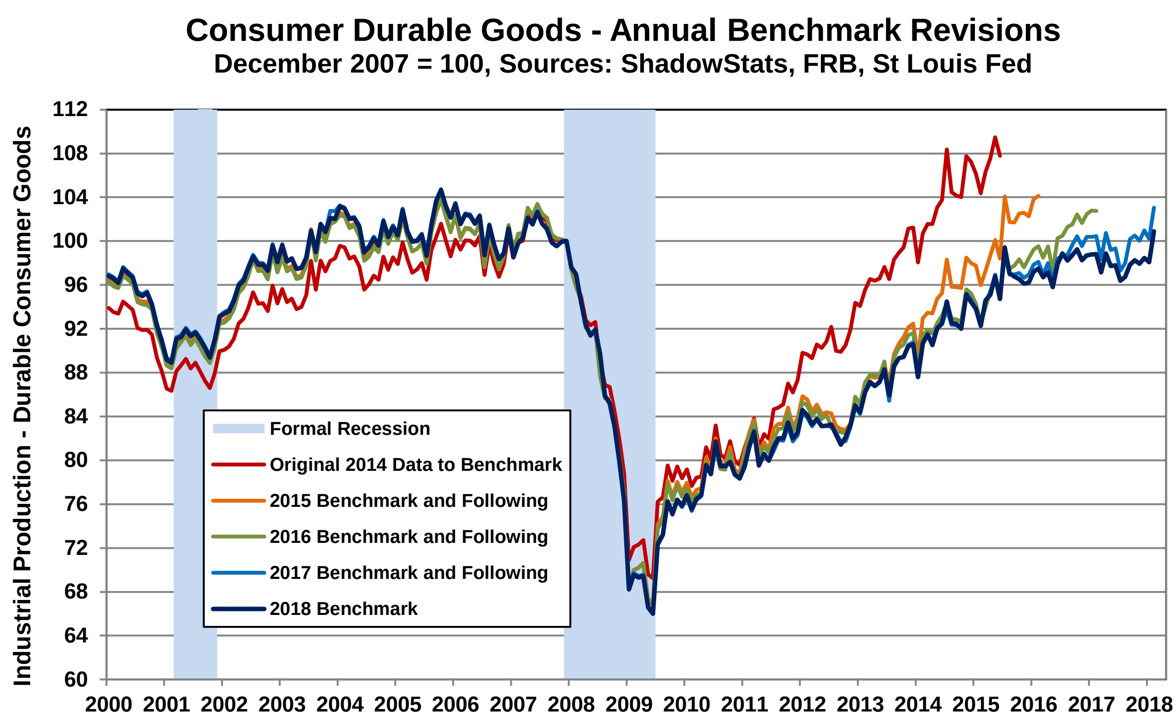
Graph Benchmark-10: Consumer Goods Manufacturing, Annual Benchmark Revisions 2014 to 2018



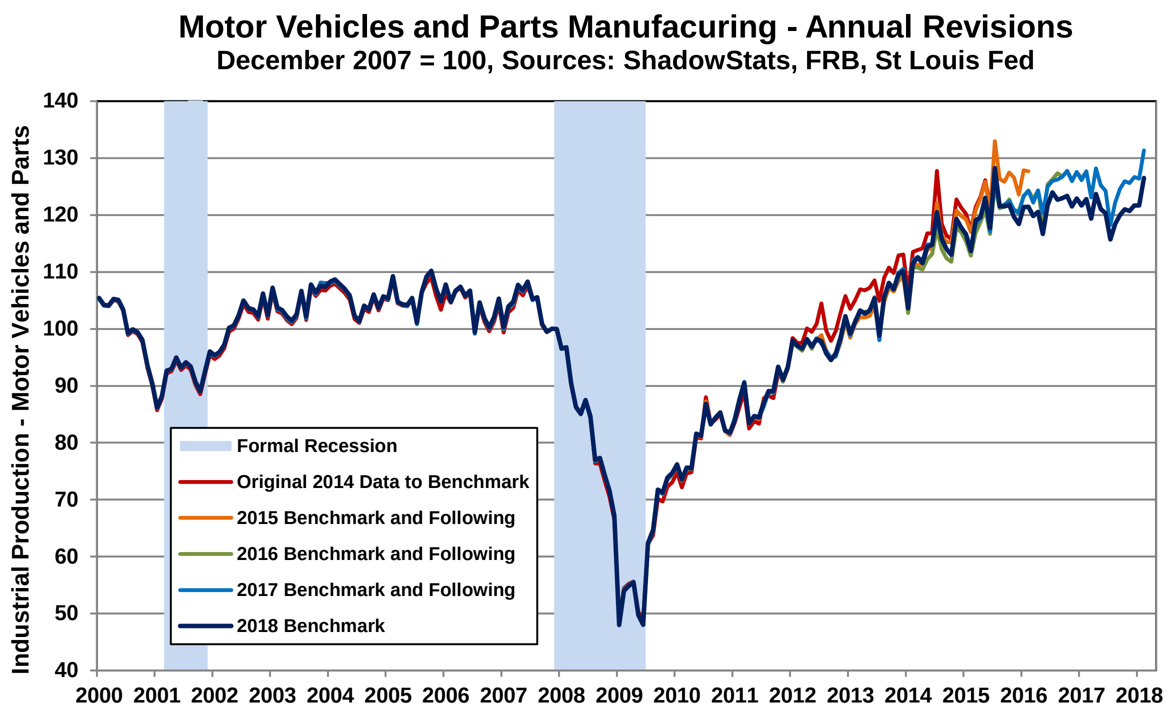
Graph Benchmark-11: Consumer Non-Durable Goods Manufacturing, Annual Benchmark Revisions 2014 to 2018



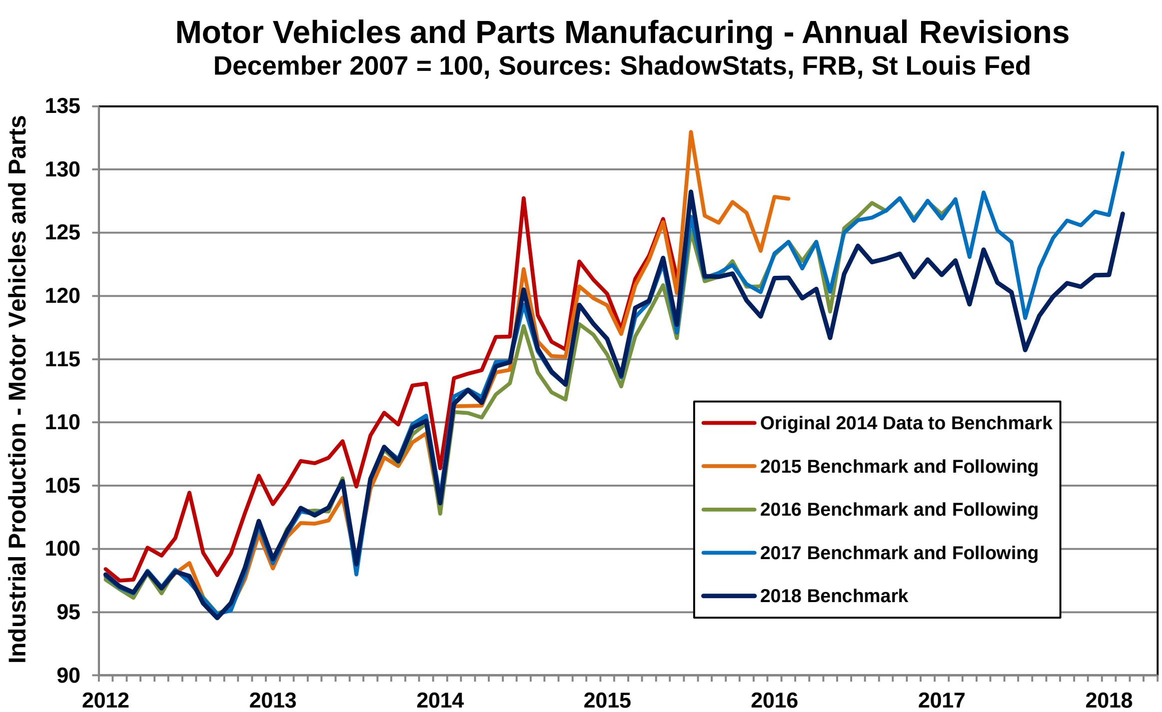
Graph Benchmark-12: Consumer Durable Goods Manufacturing Annual Benchmark Revisions 2014 to 2018



Graph Benchmark-13: Motor Vehicles and Parts (2000 to Date), Annual Benchmark Revisions 2014 to 2018



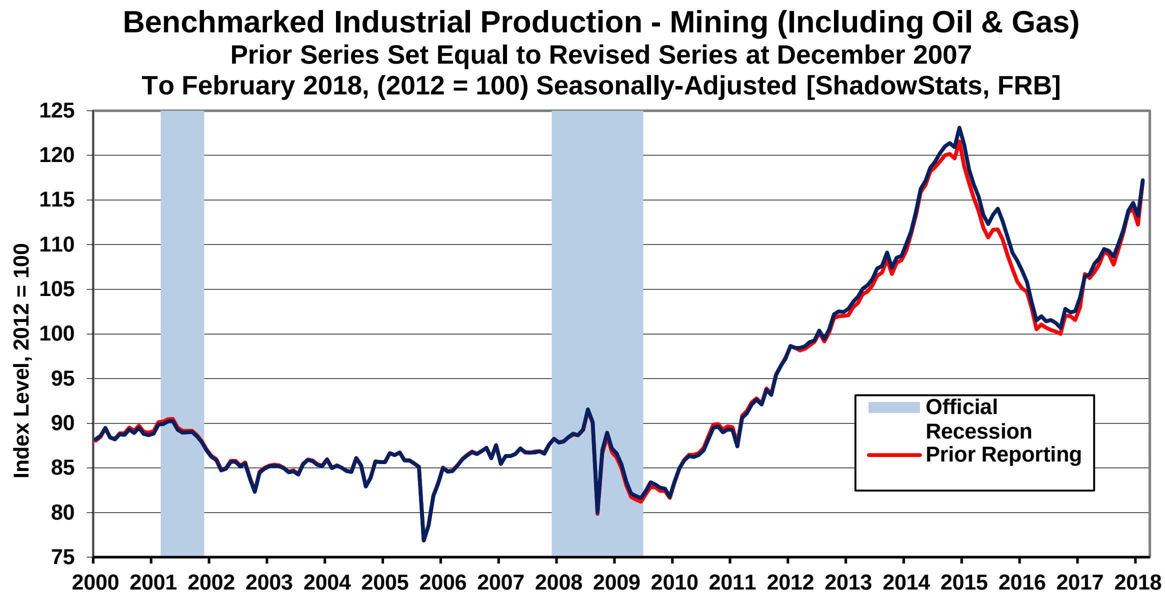
Graph Benchmark-14: Motor Vehicles and Parts (2012 to Date), Annual Benchmark Revisions 2014 to 2018



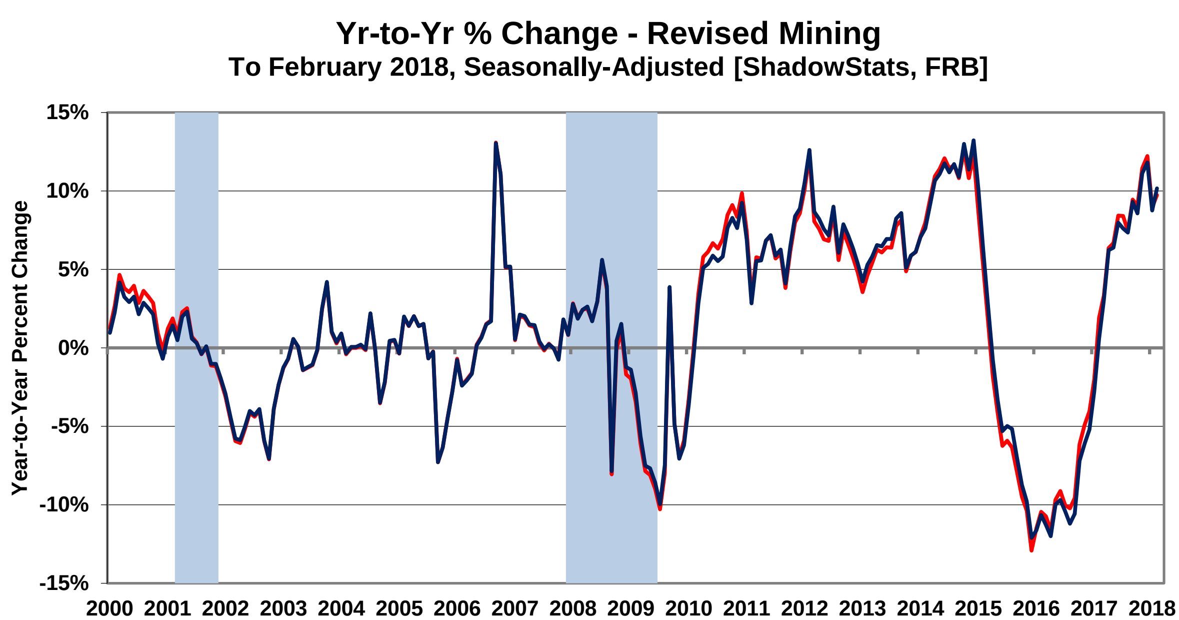
MINING

Mining-Sector Oil and Gas Production Generated the Aggregate Industrial Production "Recovery" Seen in Third-Quarter 2014. Minimally revised in current reporting, this series had negligible impact on the revisions to aggregate production series. As can be seen in *Graph Benchmark 15* (and others), however, Mining accounted for the headline "recovery" in Industrial Production in 2014.

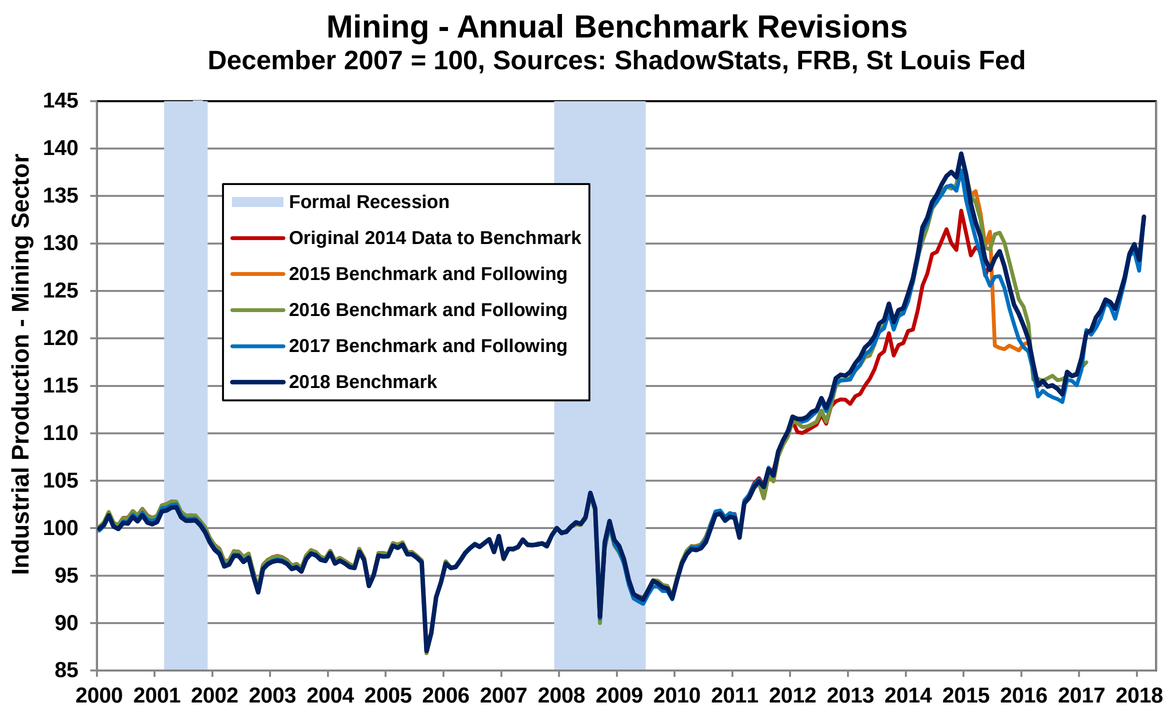
Graph Benchmark-15: Revised Mining, Indexed to 2012 = 100



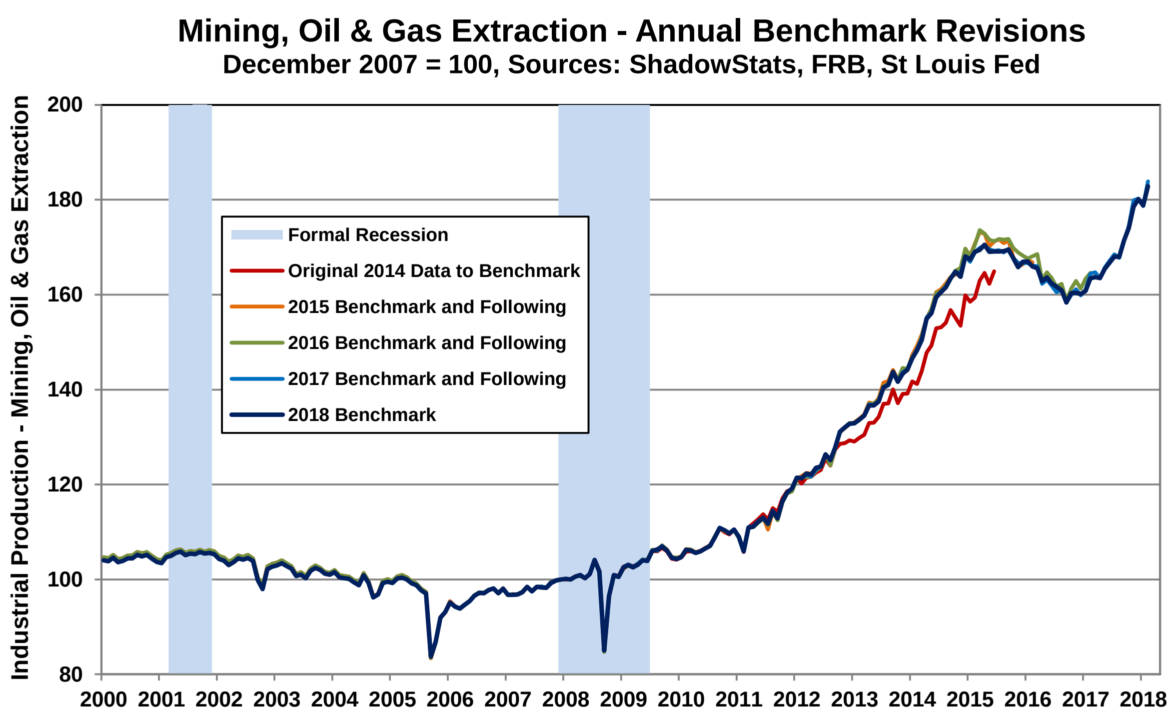
Graph Benchmark-16: Revised Mining, Year-to-Year Percent Change



Graph Benchmark-17: Mining, Annual Benchmark Revisions 2014 to 2018



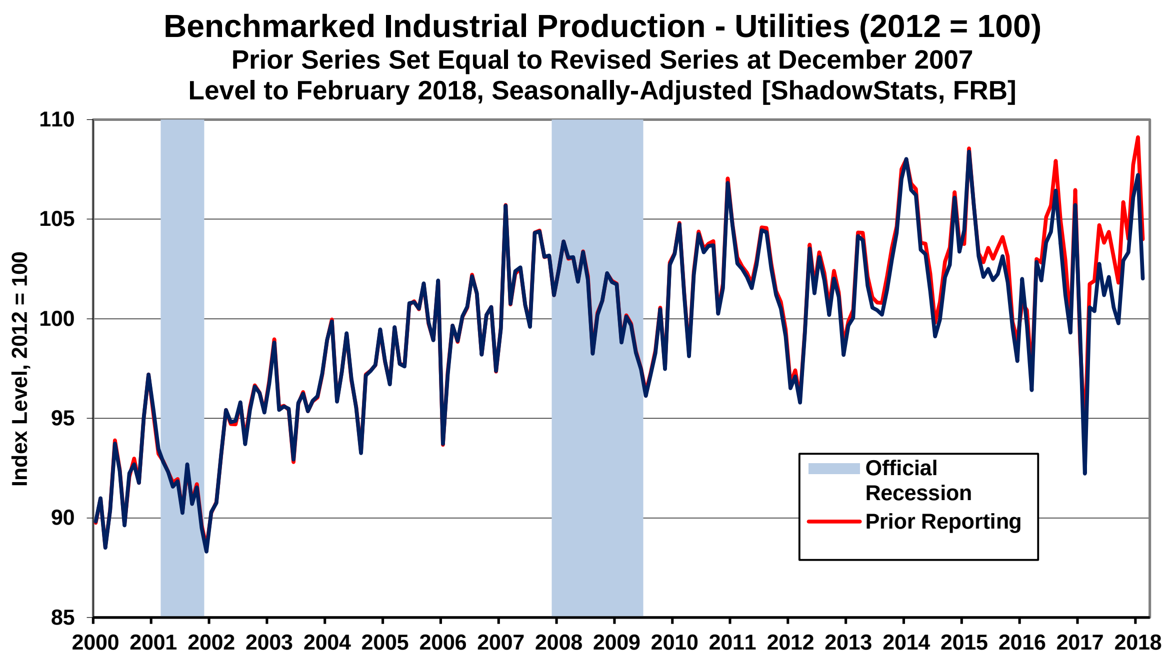
Graph Benchmark-18: Oil and Gas Extraction, Annual Benchmark Revisions 2014 to 2018



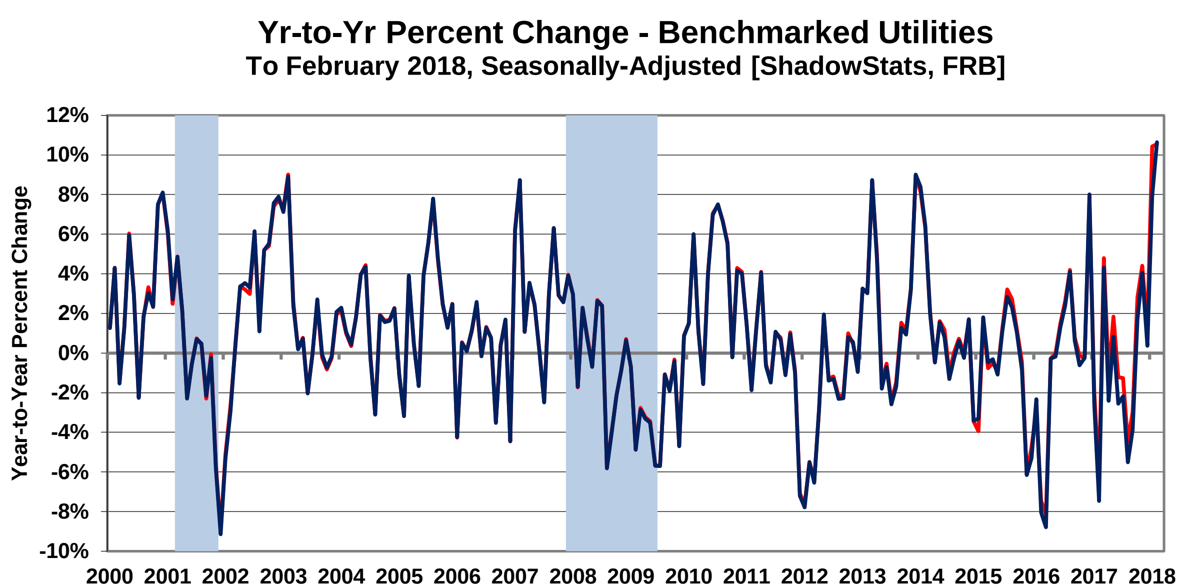
UTILITIES

Utilities Remain Minimally Altered Despite Revisions. Once a dominant component of Industrial Production, used in estimating such factors as production of computers, the current relevance of the series appears tied generally to increasingly- and unusually-disruptive summer heat or winter cold.

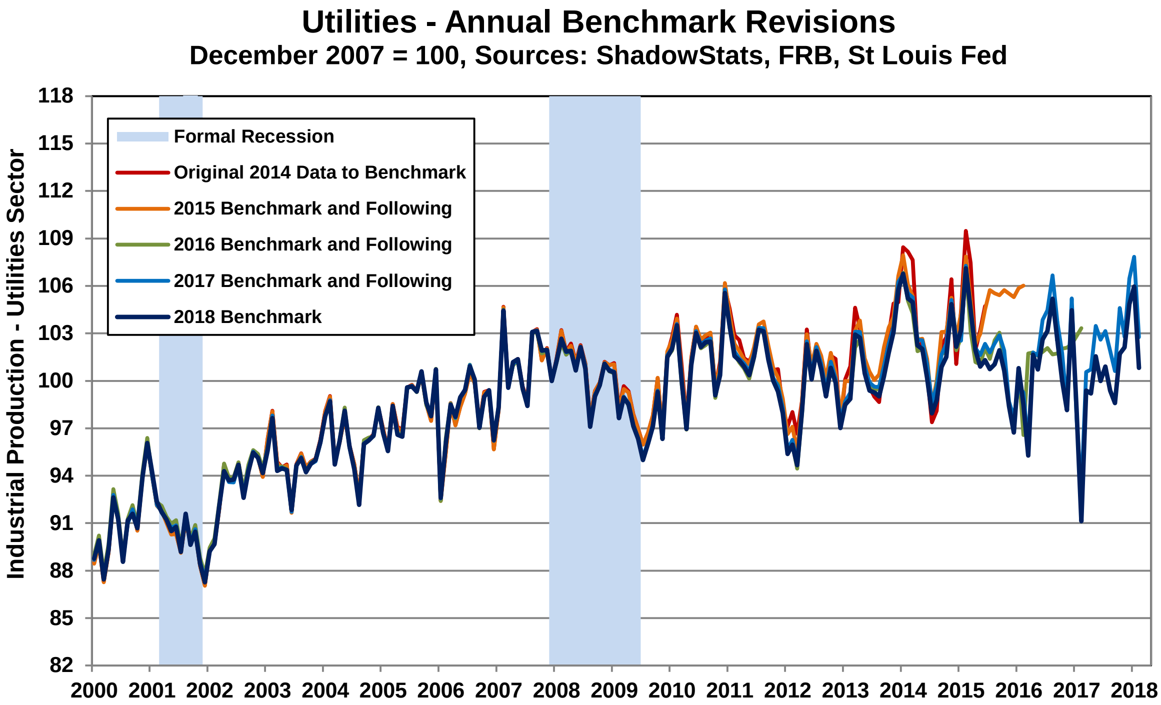
Graph Benchmark-19: Revised Utilities, Indexed to 2012 = 100



Graph Benchmark-20: Revised Utilities, Year-to-Year Percent Change



Graph Benchmark-21: Utilities, Annual Benchmark Revisions 2014 to 2018



Benchmark Revisions to Industrial Production Had Negative Implications for the Pending GDP Benchmarking. In theory, the nature of the meaningful downside revisions to Industrial Production of the last several years has parallel implications for pending the annual benchmark revisions to the "Comprehensive" benchmark revision (back to 1929) for the Gross Domestic Product (June 28th).

The Gross Domestic Product (GDP) is the official composite measure, the broadest measure of U.S. economic activity (at one time, the Index of Industrial Production held that honor). The GDP also is the most heavily gimmicked and politicized economic series. In inflation-adjusted terms, GDP is heavily bloated by the use of artificially-low inflation rates used in deflating the nominal series (see the *Executive Summary* of *Commentary No. 938*). What looms for the "comprehensive" GDP benchmarking, back to 1929 will be discussed in a future missive. "Smoothed" growth was introduced last time around as a method for eliminating downturns. Seasonally-adjusting seasonal adjustments is promised as an "improvement" in the upcoming revisions (again smoothing away downturns).

The general effects of recent changes and redefinitions have been to boost headline activity, while smoothing out any dips in economy. Such may become less practical as the new methods get used against the Greta Depression, for example. Again what lies ahead for the 2018 GDP benchmarking will be explored in a later *Commentary*.

[The Executive Summary Begins on the Next Page.]

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EXECUTIVE SUMMARY

New Orders for Durable Goods—February 2018—Orders Rose Month-to-Month, but Real Quarterly Activity Has Turned Flat-to-Minus. Despite monthly gains in February 2018 new orders, versus monthly declines in January 2018, both before and after consideration of the highly-irregular commercial aircraft orders, real First-Quarter 2018 New Orders for Durable Goods was on track for a sharp slowing versus the disaster-recovery-bloated fourth-quarter 2017 surge. Where headline, real fourth-quarter 2017 aggregate new orders showed an annualized quarterly jump of 14.4%, that is now on track (January and February detail) for an annualized first-quarter 2018 contraction of 1.1% (-1.1%). On a parallel basis, net of the large, irregular swings in commercial aircraft orders, the series showed an annualized quarterly jump of 10.0% in fourth-quarter 2017, versus a first-quarter 2018 trend for a minimal, annualized gain of 0.4%.

A recent factor here also has been extreme monthly volatility in defense orders for aircraft and other capital goods (a meaningful surge in December, plunge in January and surge in February), for which ShadowStats does not adjust separately the headline data, as it does for commercial-aircraft orders.

Real New Orders for Durable Goods rose month-to-month by 2.9%, by 1.8% ex-Commercial Aircraft, continuing a decade-long period of economic non-expansion. Respectively, those series remain shy of recovering their pre-2007 recession highs by 8.0% (-8.0%) and by 5.3% (-5.3%).

Despite the recent, disaster-recovery-induced, smoothed upside bias, the six-month moving average of those series should begin to flatten out meaningfully, along with an initial unwinding of the natural-disaster impacts, as increasingly should be seen in *Graphs 1* and *2*.

ShadowStats concentrates on the inflation-adjusted real New Orders for Durable Goods series, ex-commercial aircraft, as a leading indicator to the dominant Manufacturing sector of Industrial Production (plotted and revised in the prior *Industrial Production Benchmark* section), and in the context of activity reflected in the Cass Freight Index™, plotted and discussed in the *Reporting Detail*. None of those series has recovered its pre-recession high of 2007; all continue in non-recovered, non-expanding, low-level stagnation. See the comparative levels and annual growth patterns in *Graphs 18* to *23* in the *Reporting Detail*.

In terms of headline detail, total nominal New Orders for Durable Goods gained month-to-month by 3.1% in February 2018, having declined by 3.5% (-3.5%) in January 2018 and gained by 2.7% in December 2017, in the context of minimal revisions. Nominal annual growth rose by 8.9% in February 2018, versus 7.1% in January 2018 and 11.3% in December 2017.

Net of inflation and the volatile commercial aircraft orders, new orders rose month-to-month by 1.8% in February 2018, having declined by 2.4% (-2.4%) in January 2018 and having gained by 1.0% in December. Year-to-year change was 6.5% in February 2018, versus 4.2% in January 2018 and 5.8% in December 2017.

More-extensive coverage of these monthly numbers and related revisions follow in the *Reporting Detail*, while the related graphs follow here.

May 17th Benchmarking Likely Will Be Negative. Discussed both in the *Industrial Production Benchmark* and *Reporting Detail* sections, the pending May 17th benchmark revisions to the new orders series likely will be negative, given the close relationship between the production and orders series and the nature of a number of common, underlying benchmarking sources for both series.

Graphs of Inflation-Adjusted and Smoothed Durable Goods Orders. Updated for the headline February 2018 numbers, *Graphs 1* and *2* show the monthly detail, as well as the six-month moving-average activity for both the aggregate new orders series and the same series net of the irregularly-volatile commercial-aircraft orders. The broad pattern of smoothed, real activity generally remained at a low-level of non-recovered stagnation, albeit recently uptrending, given the now-passing natural-disaster distortions.

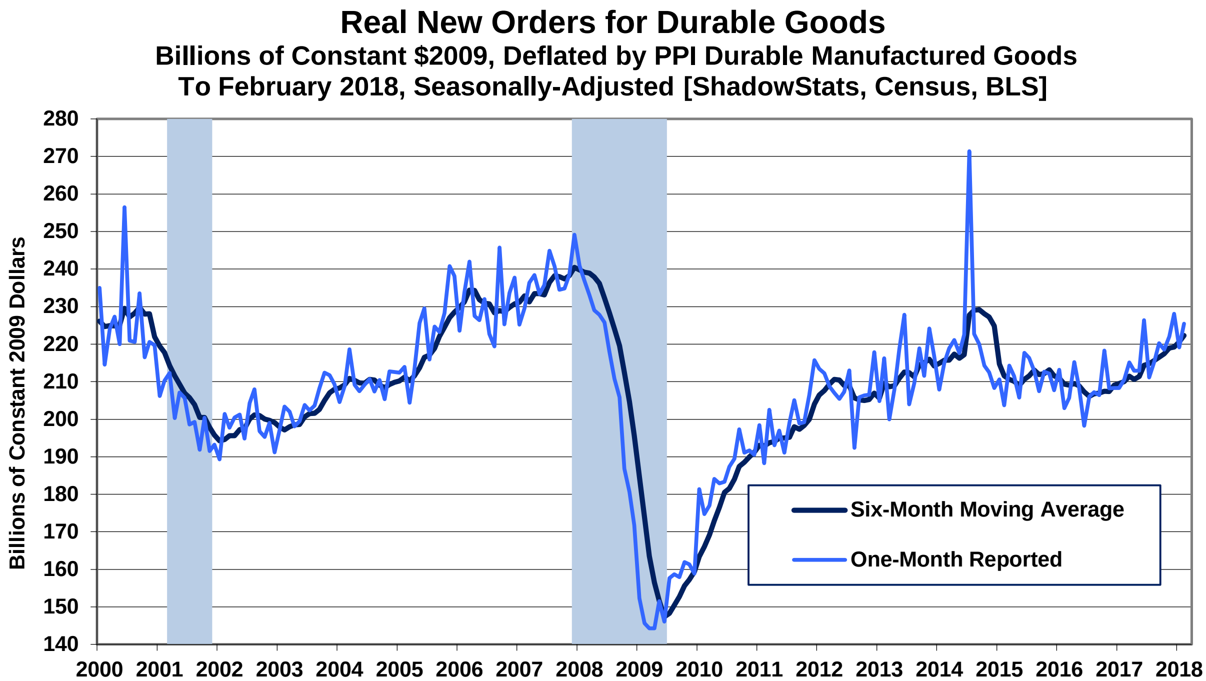
The moving-average levels in *Graphs 1* and *2* turned lower into year-end 2014, and after an uptick in mid-2015—some smoothed bounce-back—the trend turned down anew into late fourth-quarter 2015, with continued minor fluttering into third-quarter 2016, and initially a small uptick in fourth-quarter 2016 activity continuing on the upside into early-2017. That all was much reduced by the annual benchmarking of May 18, 2017. With subsequent softening headline monthly detail into May 2017 new orders, orders then were boosted by irregularly-surging commercial aircraft orders in June 2017, with reverse impact from a sharp decline in similar orders in July and a renewed surge in aircraft orders in August and a continued gain in September. The small pullback in October 2017 aircraft orders was offset by subsequent rebounds in November and December, followed by a decline in January 2018 largely offset by a gain in February.

Starting with August and September of 2017, however, orders activity was spiked by the natural-disaster-recovery as previously discussed, a pattern that appears now to have passed its peak.

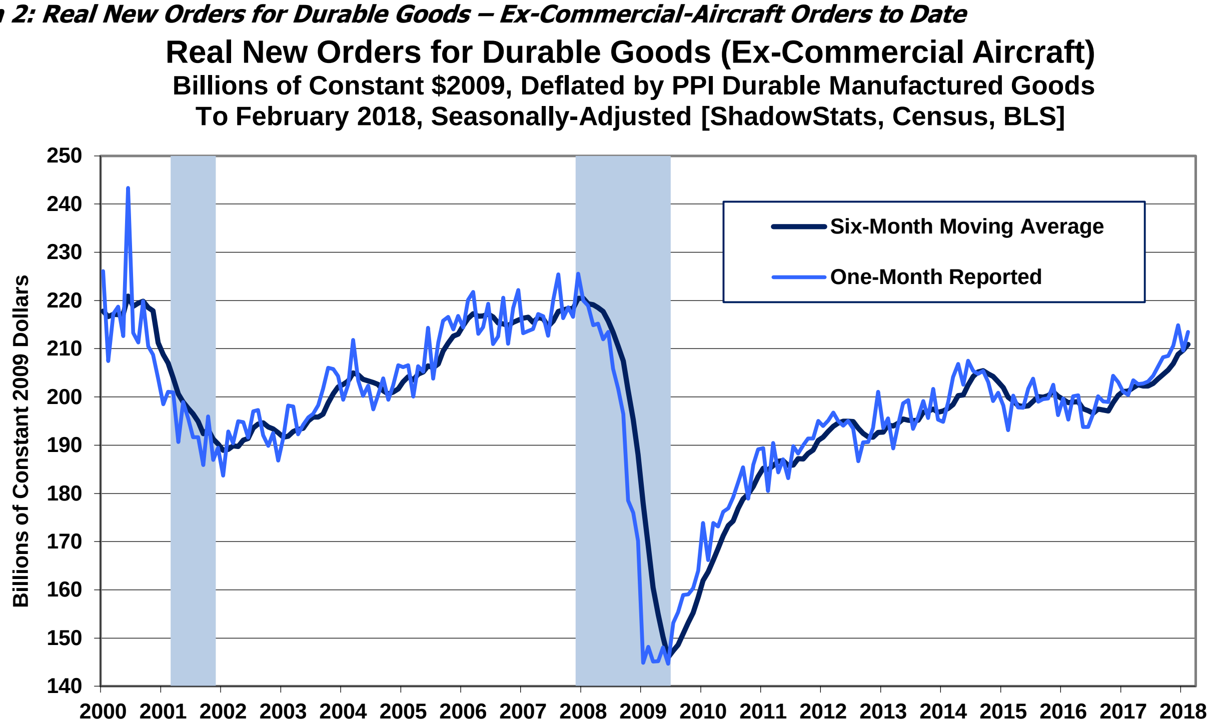
Graph 3 shows the annual year-to-year percent change in the real new orders series, net of commercial aircraft orders. Annual growth slowed for the inflation-adjusted October 2017 new orders for durable goods, ex-commercial aircraft and softened even further in November 2017, with a government-spending boost for irregular defense-aircraft and other capital goods orders helping to boost December 2017 monthly and annual growth, with defense slowing growth in January 2018, but boosting it again in February 2018.

Where the low-level of positive annual growth might suggest a near-term bottoming in orders (discussed in *General Commentary No. 867*), such partially is an artefact of roughly two-percentage-points understatement of the inflation used in deflating the headline durable goods series, an issue addressed later with *Graphs 4* to *7*. Again, shown in *Graphs 21* to *23* in the *Reporting Detail*, the year-to-year change in the ex-commercial aircraft durable goods orders series generally has led the broad pattern of annual growth reflected in the headline level of annual change in the manufacturing sector of industrial production, a series that also suffers inflation-reporting distortions (see the inflation discussion in the coverage of the Industrial Production benchmark revisions.

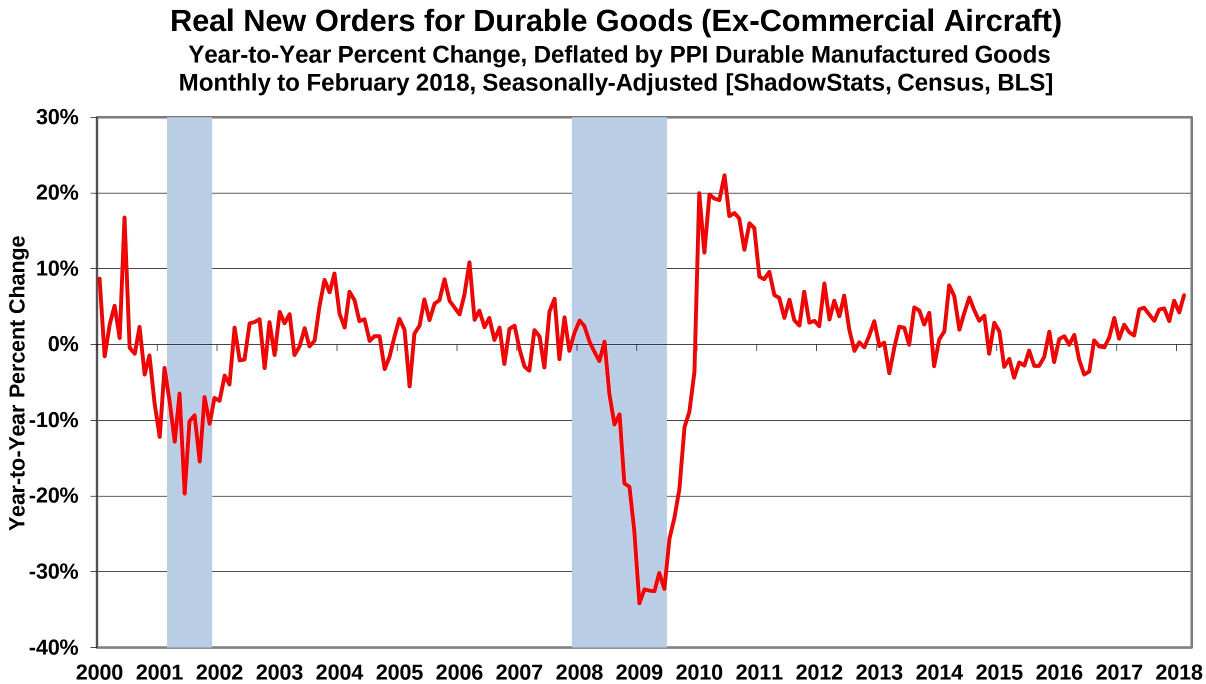
Graph 1: Real Total New Orders for Durable Goods to Date



Graph 2: Real New Orders for Durable Goods – Ex-Commercial-Aircraft Orders to Date



Graph 3: Year-to-Year Percent Change, Real New Orders for Durable Goods – Ex-Commercial Aircraft to Date
(Same as Graph 22 in the Cass Freight Index™ Section of the Reporting Detail)



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

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

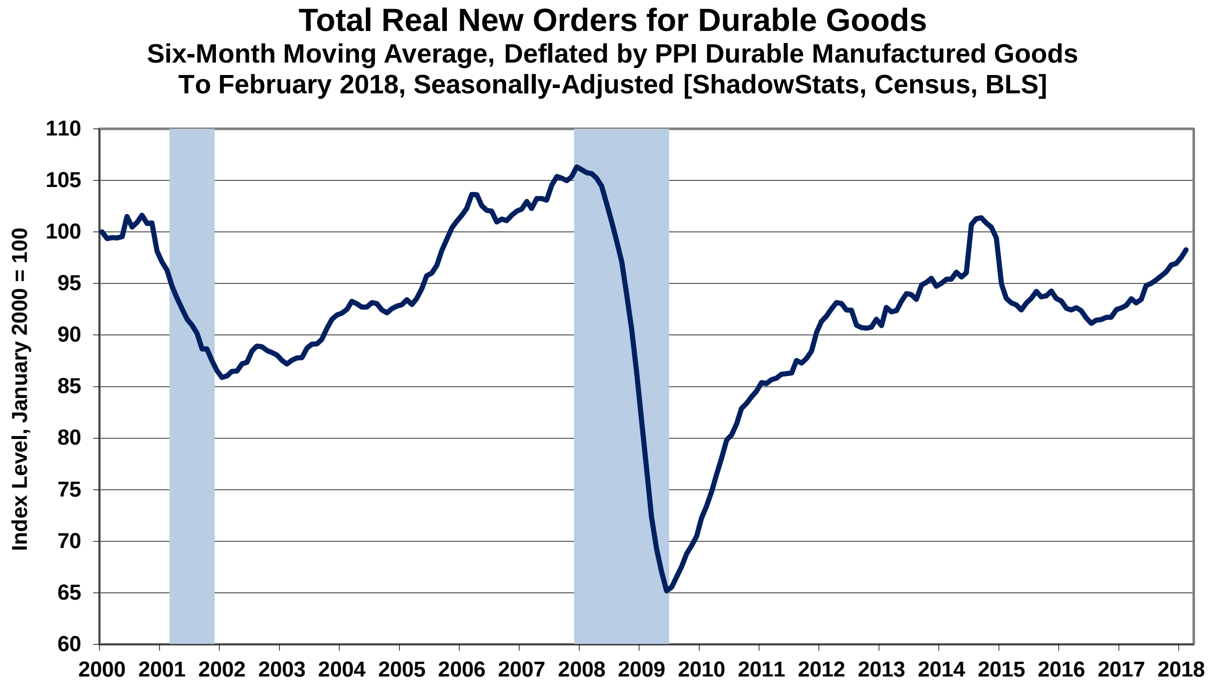
As done for other series such as Industrial Production (see the *Opening Comments* and *Commentary No. 941*), Real Retail Sales (see *Commentary No. 940*) and the GDP (*Commentary No. 938*), ShadowStats publishes an experimental, corrected-inflation version of the graph of real New Orders for Durable Goods. Real activity, in this case, is corrected for the understatement of the inflation used in deflating the new orders series with the headline PPI inflation for manufactured durable goods (see the *Reporting Detail*).

Two sets of graphs follow. The first set (*Graph 4* and *Graph 5*) shows the aggregate series or total durable goods orders; the second set (*Graph 6* and *Graph 7*) shows the ex-commercial aircraft series. The aggregate orders series in *Graphs 4* and *5* includes the monthly commercial aircraft orders. Placed years in advance, aircraft orders are a better indicator of long-range production activity, than they are as a near-term leading indicator of production activity. Again, *Graphs 6* and *7* are shown net of those volatile commercial aircraft orders.

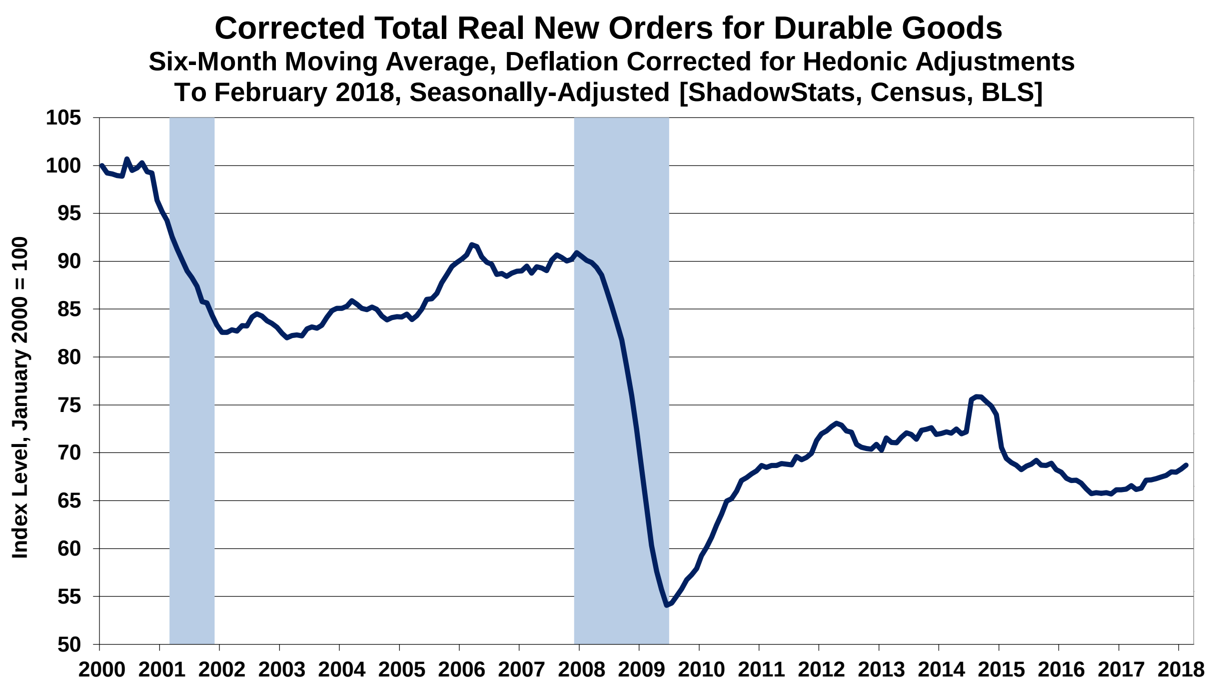
The first graph in each of the two sets shows the official six-month moving average, the same heavy dark-blue line shown in *Graph 1* and *Graph 2*, along with the light-blue thin line of monthly detail. The second graph in each set is the same six-month, moving-average series shown in the first graph, but it has been re-deflated to correct for the ShadowStats estimate of the understatement of the PPI manufactured durable goods inflation measure used in the headline-deflation process. The “corrected” graphs all are indexed to January 2000 = 100.

[Graphs 4 to 7 begin on the next page.]

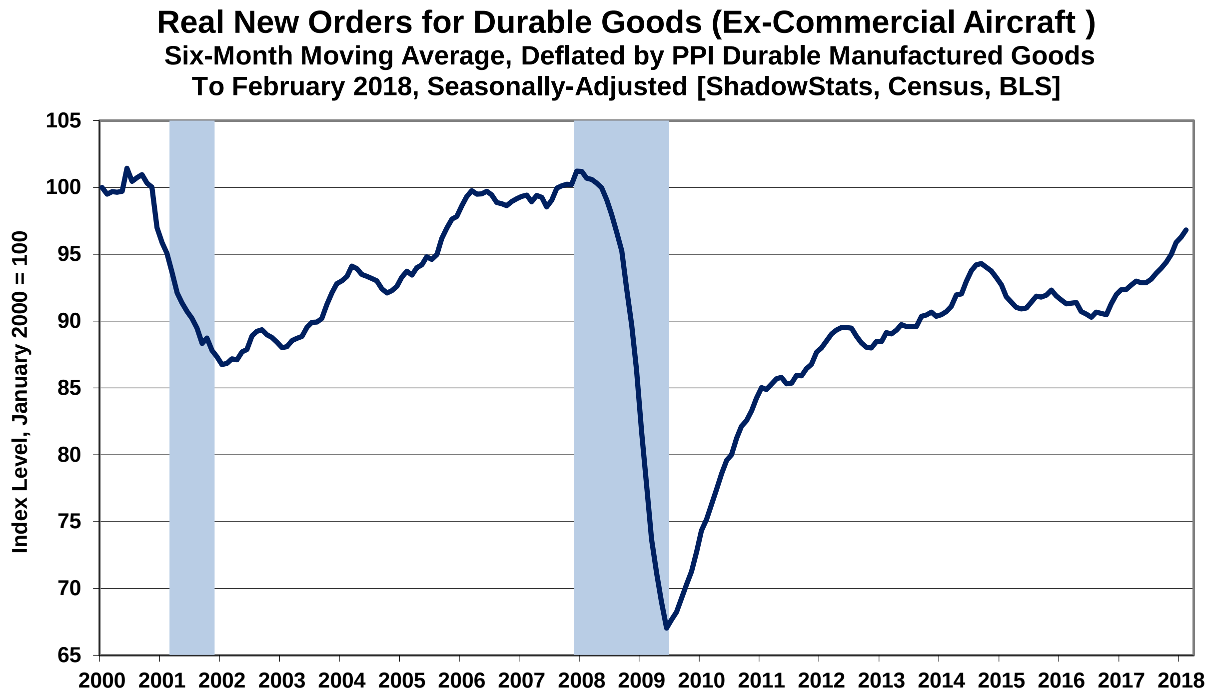
Graph 4: Index of Real Total New Orders for Durable Goods, 6-Month Moving Average



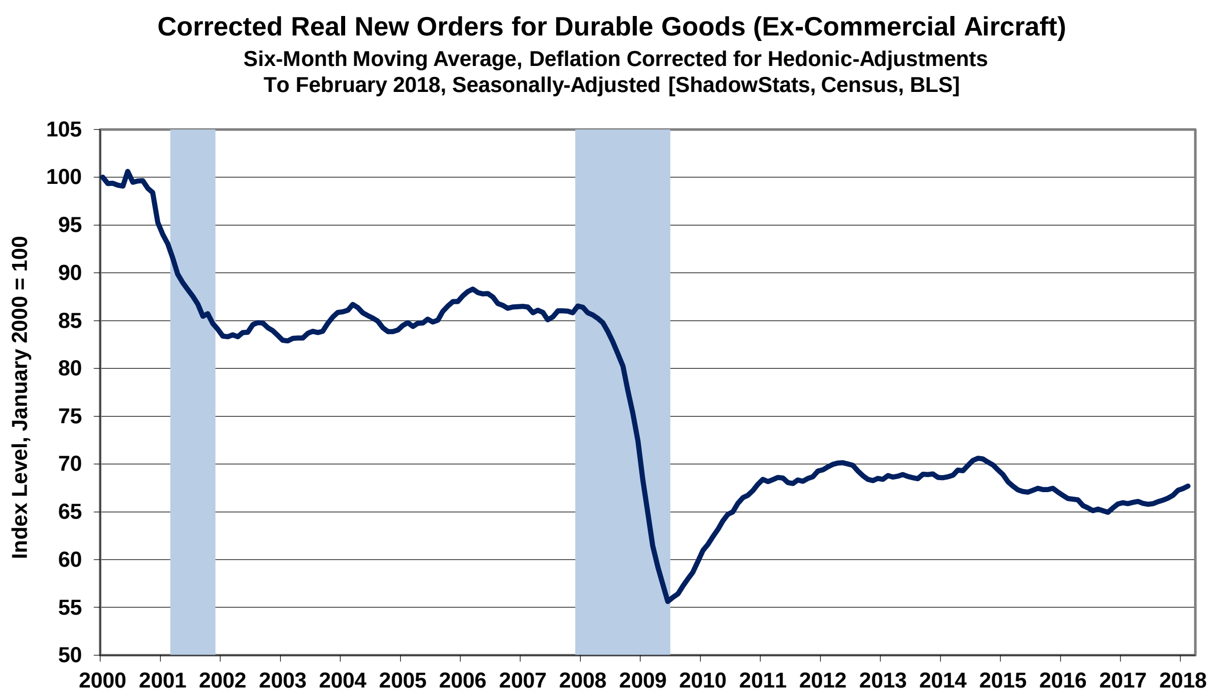
Graph 5: Corrected Index of Real Total New Orders for Durable Goods, 6-Month Moving Average



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



Graph 7: Corrected Index of Durable Goods Orders – Ex-Commercial Aircraft, 6-Month Moving Average

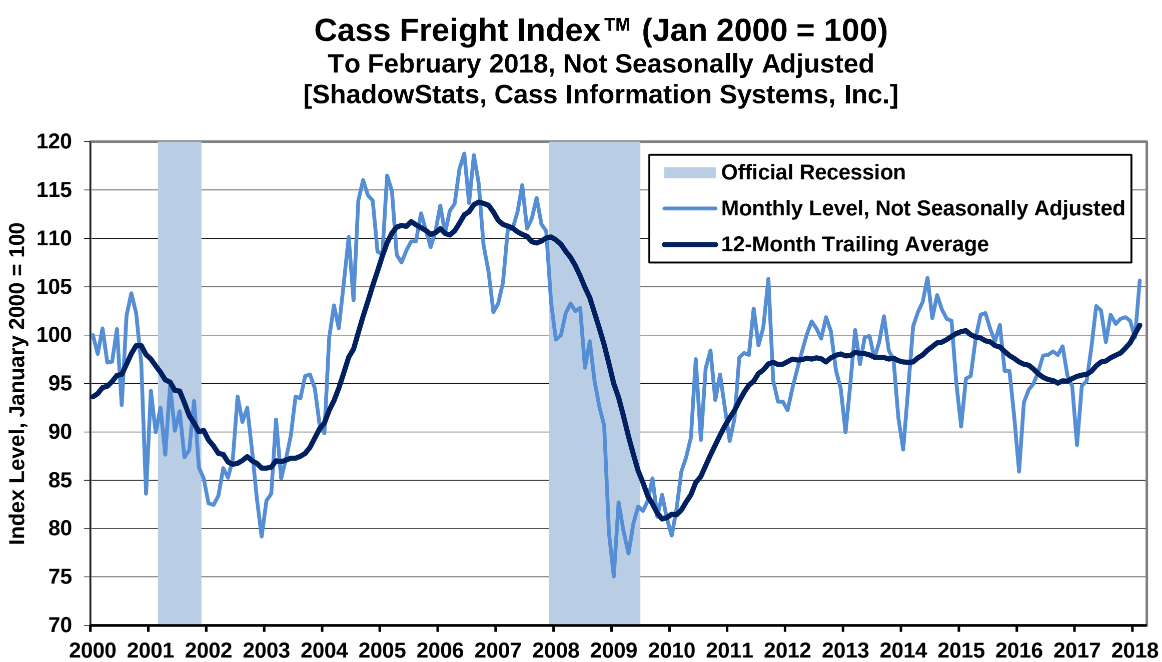


North American Freight Activity—February 2018—Annual Growth Backed Off January's High Pace; Still in Non-Expanding, Yet Uptrending Activity, Shy by 11.2% (-11.2%) of Recovering Its Pre-Recession Peak. The Cass Freight Index™ is an independent, reliable private indicator of real-world economic activity and shifting business patterns.

Continued low-level non-expansion in the broad economy and general business activity were reflected, once again, in the new headline, February 2018 numbers. The pace of monthly year-to-year growth at 11.4% in February, however, remained strong albeit slightly weaker than January's 12.5%, still broadly rising at an increasing pace, reversing sharply recent patterns of slowing year-to-year gain.

While the 12-month trailing average of activity hit a post-recession high, 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* in the *Reporting Detail*)—remained in low-level, albeit minimally-uptrending stagnation, down by 8.3% (-8.3%) from recovering its formal pre-recession high, and down by 11.2% (-11.2%) from its precursor peak (see *Graph 8*, and *Graph 18* in the *Reporting Detail*).

Graph 8: CASS Freight Index™ Moving-Average Level (2000 to February 2018)
(Same as Graph 18 in the Reporting Detail)



New- and Existing-Home Sales—February 2018—Unfolding First-Quarter 2018 Contractions Follow Natural-Disaster Boosted Fourth-Quarter 2017 Boom. In the context of unstable revisions, an annualized fourth-quarter 2017 boom of 59.5% in New Home Sales is on track for an annualized first-quarter 2018 annualized contraction of 22.1% (-22.1%). In like manner, the annualized fourth-quarter 2017 boom of 14.8% in Existing-Home Sales is on track for an annualized first-quarter 2018 annualized contraction of 9.2% (-9.2%).

Monthly New-Home Sales Declined by 0.6% (-0.6%), Amidst Upside Revisions, While Existing-Sales Rose by 3.0%. In the context of highly volatile and irregular revisions to the New-Home Sales series and unrevised Existing-Home Sales series, February 2018 headline reporting saw stronger monthly and annual sales levels in both series than in January. Both series were on track for first-quarter 2018 quarterly contractions, following fourth-quarter quarterly booms.

Amidst the Latest Revisions and Reporting Volatility, New- and Existing-Home Sales Remained Shy of Recovering Their Respective Pre-Recession Peaks by 55.5% (-55.5%) and 23.8% (-23.8%). Despite ongoing volatility in both series and unstable revisions to new-home sales activity, neither of the home-sales series is close to recovering its pre-recession high. Headline February 2018 New-Home Sales activity remained shy of recovering its pre-recession high by 55.5% (-55.5%), with February Existing-Home Sales activity still shy by 23.8% (-23.8%) of recovering its pre-recession peak activity. Smoothed over six months, both series remained in low-level, non-recovered stagnation, as seen in the accompanying graphs.

Industrial Production Revisions Suggest Weaker Home-Sales and Construction Activity. Discussed in the *Industrial Production Benchmarking* section, the broadly negative revisions to production activity included downside revisions to construction materials and supplies, as well as durable goods commonly purchased along with home sales, such as household appliances. The updated data there suggest that housing/construction has not been quite as strong as advertised. The key numbers to watch here would be in the benchmark revisions to construction spending, likely due on July 2, 2018.

New-Home Sales February 2018 Monthly "Decline" Followed a Large Upside Revision to January Activity. Published by the Census Bureau and the Department of Housing and Urban Development, the New-Home Sales series, which counts new-home sales contracts signed, declined month-to-month in February 2018 by a statistically-insignificant 0.6% (-0.6%). Net of upside revisions to January 2018, that February decline was a monthly gain of 4.2%.

In the context of upside revisions to headline monthly activity since November 2017, the February 2018 monthly decline of 0.6% (-0.6%) followed revised declines of 4.7% (-4.7%) in January, 8.2% (-8.2%) in December 2017 and a revised gain of 15.4% in November.

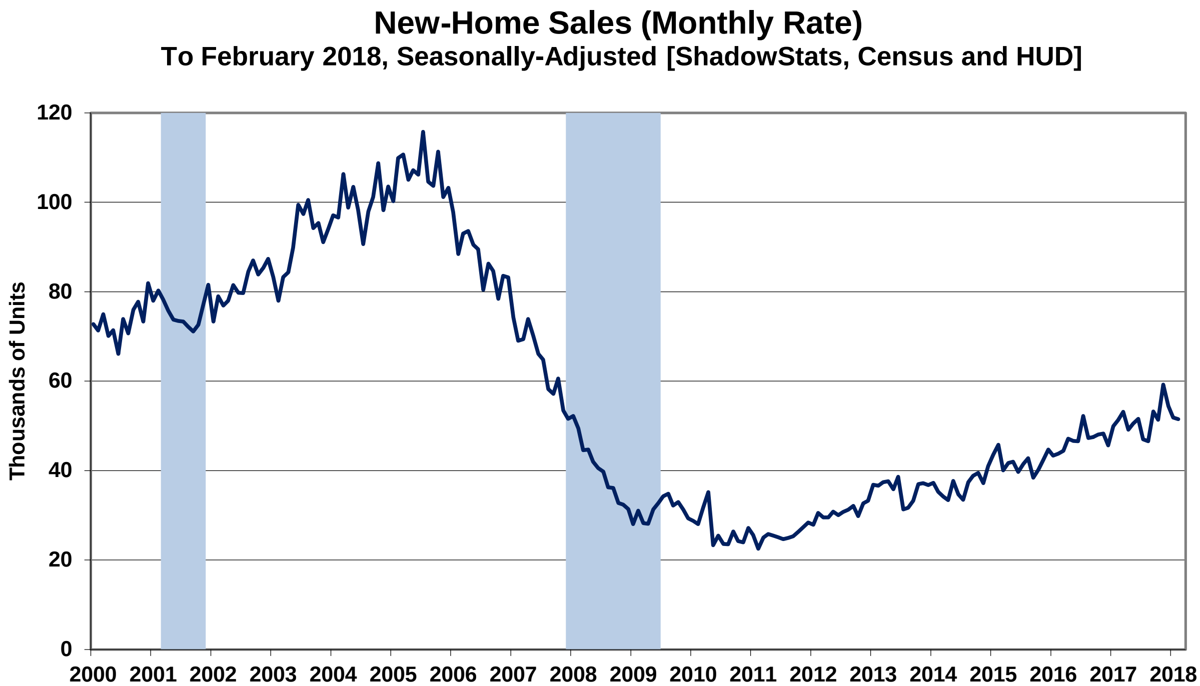
Year-to-year change in February 2018 sales was a statistically-insignificant gain of 0.5%, following a revised annual gain of 3.8% [previously a decline of 1.0% (-1.0%)] in January 2018, and revised annual gains of 19.2% in December 2017 and 22.8% in November 2017.

Existing-Home Sales, Monthly and Annual Headline Changes. Published by the National Association of Realtors (NAR), Existing-Home Sales (closings of home sales) rose monthly by 2.97% in February, having dropped by 3.24% (-3.24%) in January 2018 and by 2.80% (-2.80%) in December 2017. February 2018 year-to-year change gained 1.09%, having dropped by 4.78% (-4.78%) in January 2018 versus an annual gain of 0.91% in December 2017. The annual decline in the January 2018 reporting had been the steepest since August 2014.

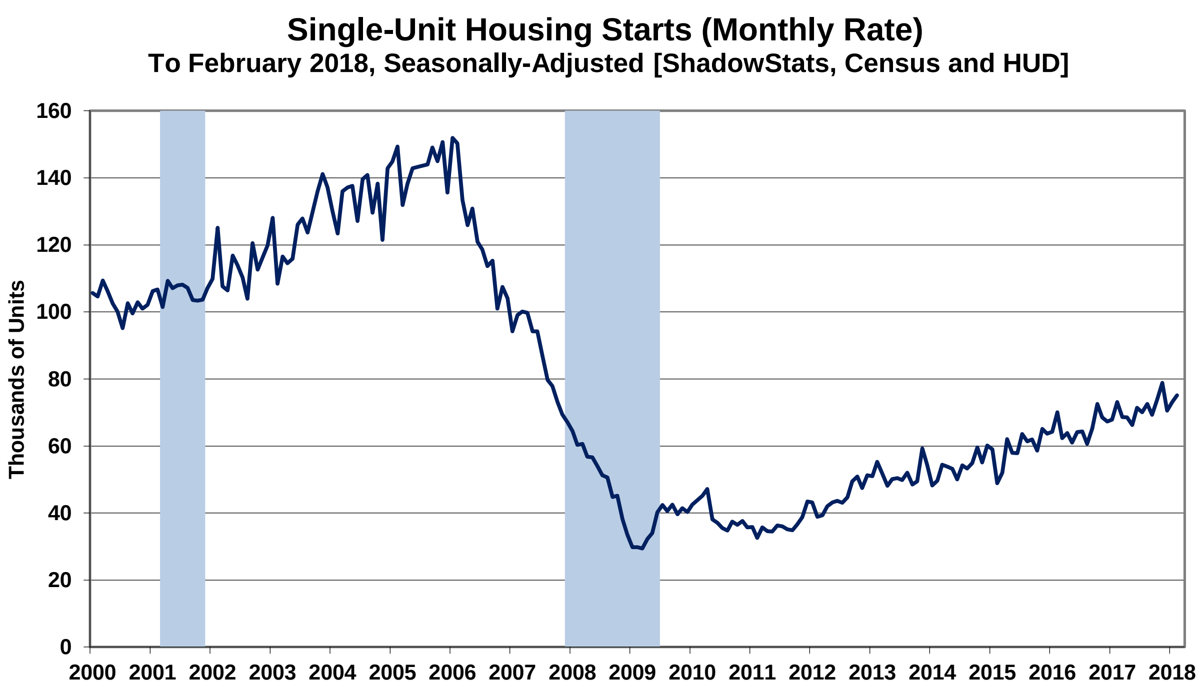
See the Reporting Detail *for expanded coverage on both the New-Home Sales and Existing Home Sales numbers and related survey details.*

Graphs 9 to *16*, reflect the latest plots of New-Homes Sales and the related Single Unit Housing Starts series, as well as the latest plots of Existing-Home Sales and the related aggregate Housing Starts Series, where both those latter series include multiple-unit structures. See prior *Commentary No. 941* for the detail on the Housing Starts numbers and graphs.

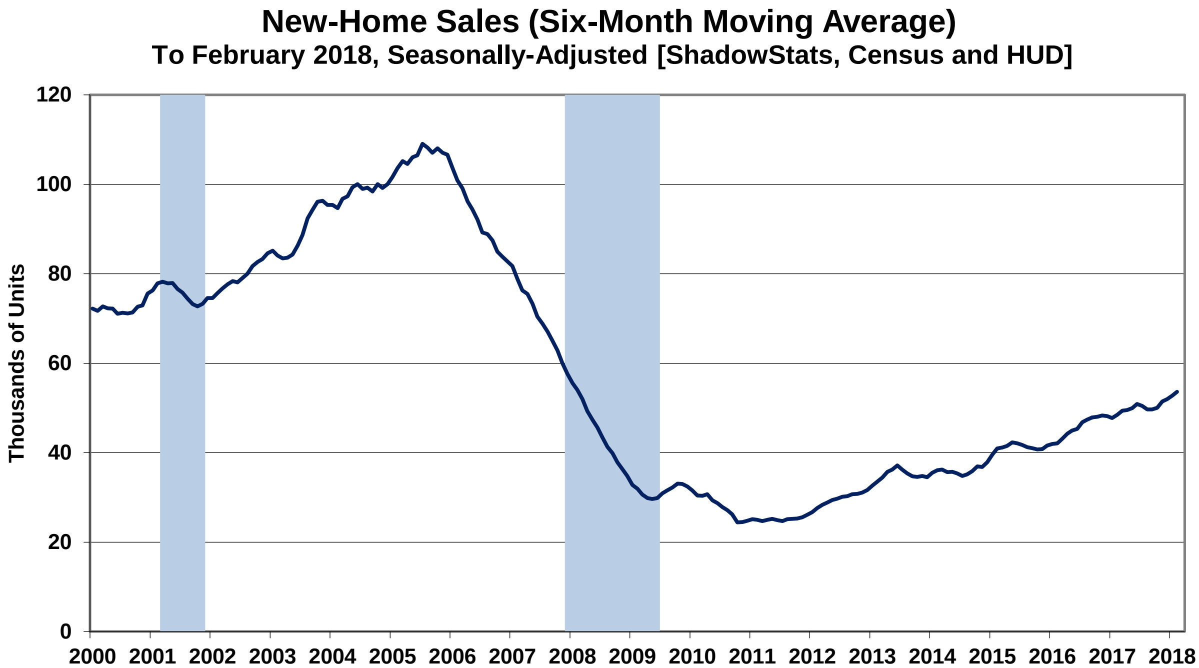
Graph 9: New-Home Sales – Monthly Level



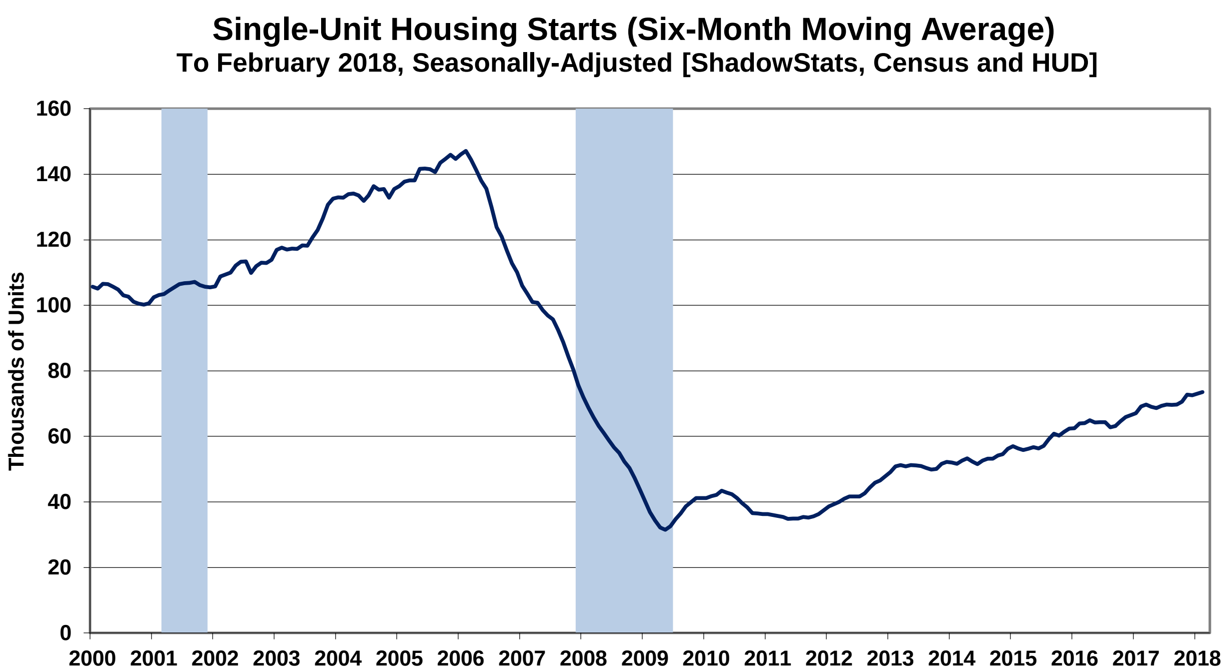
Graph 10: Single-Unit Housing Starts (Monthly Rate of Activity)



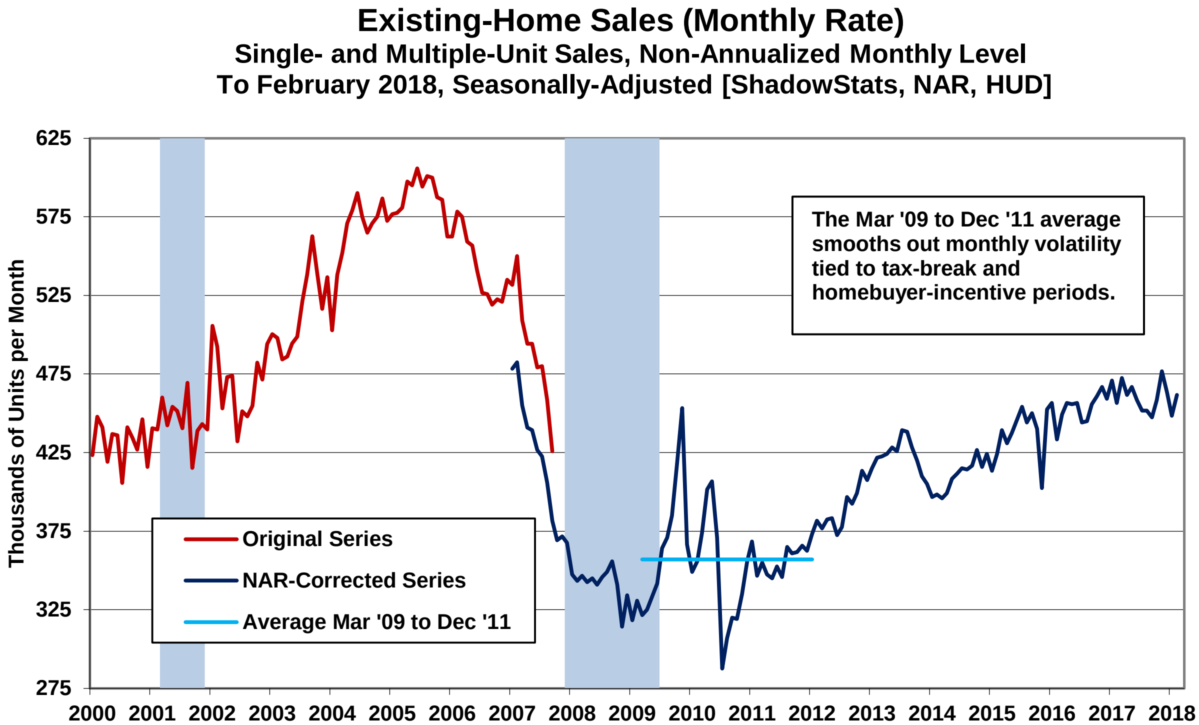
Graph 11: New-Home Sales (Six-Month Moving Average)



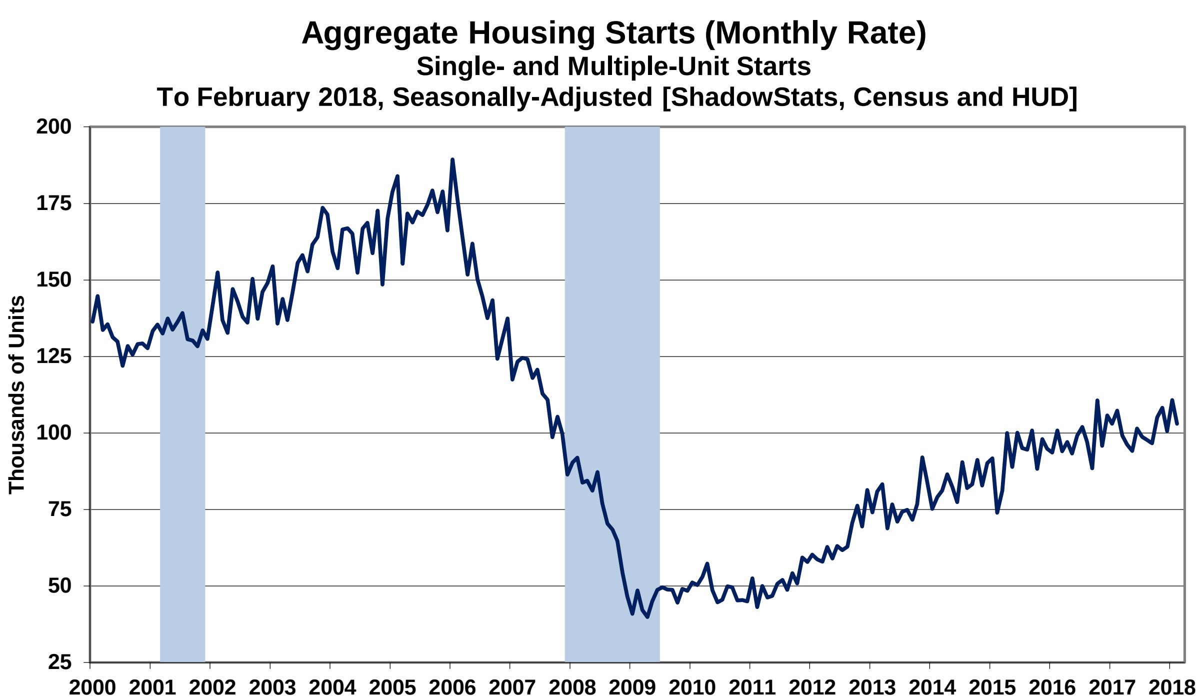
Graph 12: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



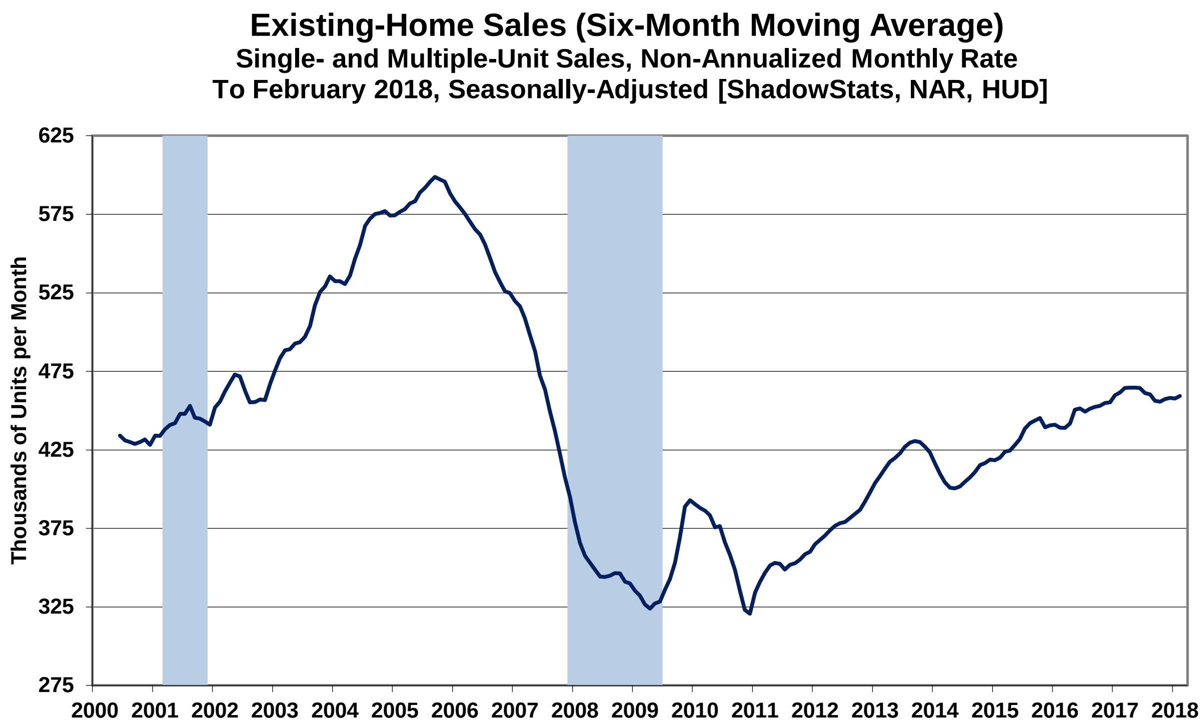
Graph 13: Existing-Home Sales – Monthly Level



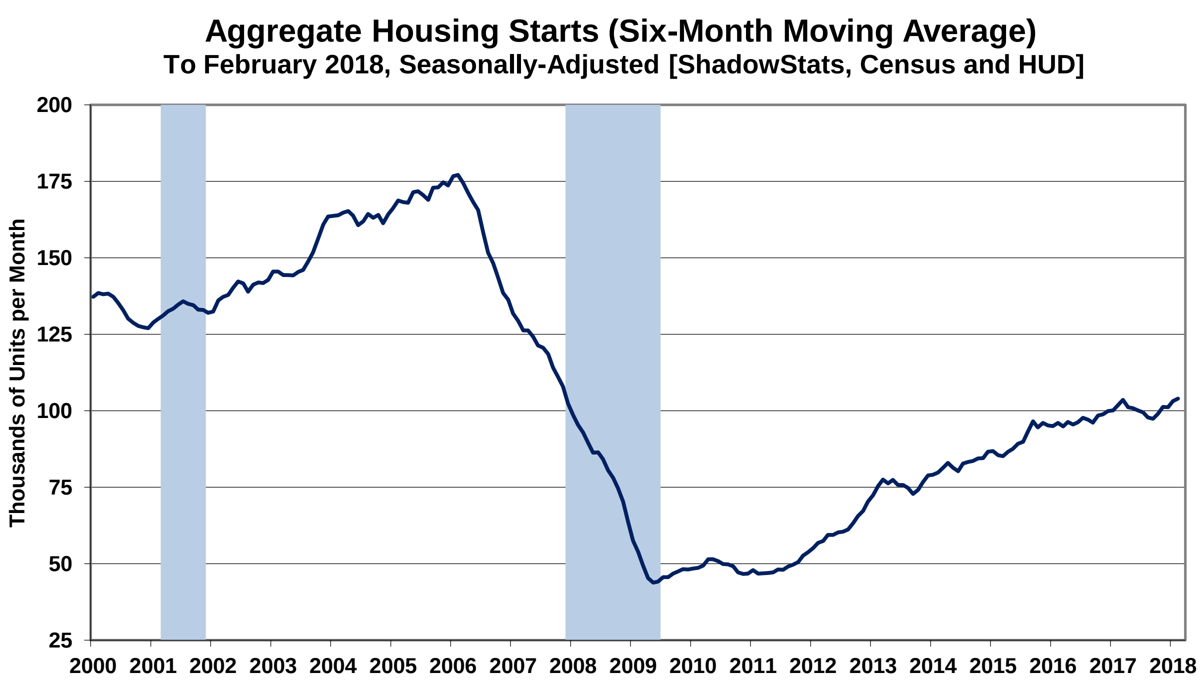
Graph 14: Aggregate Housing Starts (Monthly Rate of Activity)



Graph 15: Existing-Home Sales (Six-Month Moving Average)



Graph 16: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)



[Extended analysis of the New Orders and Home Sales follow in the* Reporting Detail.*]

REPORTING DETAIL

NEW ORDERS FOR DURABLE GOODS (February 2018)

Orders Rose Month-to-Month, Both Before and After Consideration of Rising Inflation and Aircraft Orders, but Real Quarterly Activity Has Turned Flat-to-Minus. In the context of natural-disaster-recovery boosts and a resulting "boom" to headline Fourth-Quarter 2017 activity, quarterly change in First-Quarter 2018 New Orders for Durable Goods is trending flat-to-negative, as the disaster-distortions to late-2017 economic data increasingly unwind.

Net of an increase of 0.2% month-to-month in related inflation and a monthly surge of 25.5% in the highly-irregular commercial aircraft orders, real new orders for durable goods rose month-to-month by 2.1%, continuing to hold in fluctuating, non-recovering, low-level stagnation in February 2018. Real New Orders for Durable Goods, Ex-Commercial Aircraft remained 5.3% (-5.3%) shy of recovering its pre-recession high. Total Real New Orders for Durable Goods remained 8.0% (-8.0%) shy of recovering its pre-recession high.

What had been a disaster-recovery induced, smoothed upside bias in the six-month moving average of that series continued, but the quarter-to-quarter activity slowed markedly. The disaster-recovery gyrations help to boost annualized real growth in fourth-quarter 2017 to 14.4% for total new orders, and to 10.0% for new orders ex-commercial aircraft. With two of three months of First-Quarter 2018 in place, however, annualized quarterly change for total new orders was on track for a contraction of 1.1% (-1.1%), with new orders ex-commercial aircraft having slowed to an annualized pace of just 0.42%.

Where real annual growth, ex-commercial aircraft had begun to slow markedly, dropping from 4.8% in October 2017 to 3.1% in November 2017, it rebounded to an upwardly-revised 5.8% in December 2017 and fell back to 4.2% in January 2018 and rose again to 6.5% in February (see *Graphs 2* and *3* in the *Executive Summary*). The December and February boosts reflected increased defense spending.

In the initial reporting of August 2017 new orders for durable goods, meaningful impact from late-August Hurricane Harvey was not obvious, but that changed with the headline September 2017 detail. September new orders included not only impact from mid-September's Hurricane Irene, but also late changes to August detail, which included upside revisions to new orders for motor vehicles (likely Houston-area flood losses), with those orders holding at a continued high level in September. October 2017 motor vehicle orders continued to rise, and the November 2017 detail showed a further uptick, but orders flattened out thereafter into December and January. Motor vehicle orders jumped, however, in February 2018, possibly reflecting a refilling of inventories that were drained by the surging demand for disaster-related replacement vehicles.

Again, a recent factor of note here also has been extreme monthly volatility in defense orders for aircraft and other capital goods (a meaningful surge in December, plunge in January and surge in February), for which ShadowStats does not adjust the headline data.

Separately, of some note, the underlying benchmarking detail just-published for the related Industrial Production series reflected a significant reduction in motor vehicle manufacturing since 2015, a pattern that likely will be repeated in the pending benchmarking of the new orders series (see *Graphs Benchmark-13* and *14* and the benchmarking discussion later in this section).

That said, total nominal New Orders for Durable Goods gained month-to-month by 3.1% in February 2018, having declined by a somewhat narrowed 3.5% (-3.5%) in January 2018 having gained an upwardly revised 2.7% in December. Other than for the recent, but now waning hurricane-related disruptions to the monthly data, the month-to-month changes have been dominated by large swings in the irregularly-volatile, commercial-aircraft orders. Orders for commercial aircraft rose by 25.5% in February 2018, having dropped by a minimally revised 27.9% (-27.9%) in January 2018 and having gained an unrevised 16.1% in December 2017. Ex-commercial aircraft, nominal new orders rose 2.1% in February 2018, having declined by 2.0% (-2.0%) in January 2018, versus a gain of 2.0% in December. Again, with related month-to-month February inflation of 0.2%, a component of the Producer Price Index (PPI), the inflation-adjusted real monthly changes, ex-commercial aircraft, reflected a gain of 1.8% in February 2018, a drop of 2.4% (-2.4%) in January, versus a gain of 2.0% in December 2017.

Discussed later, the extremely volatile, commercial aircraft orders are booked years into the future and are indicative more of longer-term, rather than shorter-term prospects for manufacturing activity. Accordingly, ShadowStats concentrates on the inflation-adjusted real New Orders for Durable Goods series, Ex-Commercial Aircraft (see *Graph 2* in the *Executive Summary*), as a leading indicator to broad economic activity reflected in the dominant Manufacturing sector of Industrial Production, and in the context of activity reflected in the Cass Freight Index™, plotted and discussed later in this *Reporting Detail*. None of those series has recovered its pre-recession high of 2007; all continue in non-recovered, non-expanding, low-level stagnation. Again, see the comparative annual growth patterns in *Graphs 21* to *23* in the following Cass Freight Index™ section.

Discussed in the *Industrial Production Benchmark* section, there is no underlying economic expansion underway, despite heavy touting to the contrary in the popular media. Expansion reflects growth beyond the pre-recession peak of an economic series. The happy hype in the press and on Wall Street primarily reflects a purported expansion in headline Gross Domestic Product (GDP) currently (fourth-quarter 2017) at 15.2% above its precession high (see the *GDP* coverage in *Commentary No. 938 Executive Summary*). That said, underlying fundamental economic activity, such as seen in February 2018 real new orders for durable goods series, was down by 8.0% (-8.0%) from recovering its pre-recession high, while real new orders for durable goods, ex-commercial aircraft, was down by 5.3% (-5.3%) from recovering its pre-recession peak.

In the context of the May 18, 2017 annual benchmark revisions to the new orders series, which lowered the general level of headline activity in recent years (see *Special Commentary No. 888* and the accompanying *Graph 20* there, updated *Graph 17* here), February 2018 headline detail, again, showed the broad economy in ongoing non-expansion. That also as has been the case for the manufacturing sector in industrial production, discussed the *Industrial Production Benchmarking* section. Real new orders, ex-commercial aircraft, generally remains the best coincident/leading indicator to industrial production (*i.e.,* manufacturing) and to the general economy.

Smoothed with six-month moving averages, and adjusted for inflation, both of the highly volatile new orders series (total and ex-commercial aircraft) generally have remained in long-term, non-recovering, low-level, downtrending stagnation, which recently had started to show some minimal uptrend, then downtrend—some fluttering—flattening-out, particularly when viewed with the alternate-inflation detail. Even before allowing for the now-waning, near-term boosts from disaster recovery, those patterns have remained consistent in signaling an ongoing or non-recovering recession (see *Graphs 4* to *7* in the *Executive Summary*).

Headline Nominal Detail—February 2018. The Census Bureau reported March 23rd, that the regularly-volatile, seasonally-adjusted, nominal level of aggregate New Orders for Durable Goods rose by 3.10% for the month of February 2018, having declined in January by a revised 3.53% (-3.53%) [previously 3.68% (-3.68%)] and having gained by a revised 2.72% [previously 2.65%, initially 2.89%] in December 2017. Unrevised nominal orders gained by 1.74% in November, having declined by 0.41% (-0.41%) in October and having gained 2.40% in September.

Year-to-year, February 2018 nominal durable goods rose by 8.91%, following revised gains of 7.07% [previously 6.83%] in January 2018, 11.35% [previously 11.27%, initially 11.52%] in December 2017 and unrevised annual gains of 8.70% in November 2017, 1.96% in October 2017 and 8.61% in September 2017. All those preceding headline details, however, were before consideration of the irregular volatility in commercial-aircraft orders, let alone inflation.

Before and after consideration of irregular and unstable month-to-month commercial-aircraft orders in the headline reporting of real new orders, the smoothed trends of broad activity generally continued to show an uptrending, albeit non-recovered pattern of stagnation, with that somewhat fluttering uptrend, boosted recently by disaster-recovery effects. The headline-inflation-adjusted real series, and that same series corrected for the understatement of official inflation, again, are discussed and graphed in the *Executive Summary*.

The corrected-inflation-adjusted series—net of commercial aircraft orders—has remained relatively flat, in a pattern of low-level stagnation, albeit uptrending (again exacerbated by now-waning disaster-recovery effects). In parallel with the other plotted series, the corrected series still shows an unfolding economic contraction of a nature that usually precedes or coincides with a recession or deepening business downturn.

Detail Net of Volatility in Commercial-Aircraft Orders. The reporting of extreme contractions and surges in commercial-aircraft orders is seen in an irregularly-repeating process throughout the year, and that often dominates changes in headline monthly durable goods orders. These extremely volatile aircraft orders are booked years into the future and are indicative more of longer-term, rather than shorter-term prospects for manufacturing activity.

In February 2018, a monthly gain of 25.51% in aircraft orders contributed to pushing headline aggregate orders to a monthly gain of 3.10%, from what otherwise would have been a monthly gain of 2.04% (otherwise boosted by defense orders). That followed a revised monthly decline of 27.88% (-27.88%) [previously 28.38% (-28.38%)] in January , a revised gain of 16.12% [previously 16.13%, initially

15.88%] in December 2017, following an unrevised gain of 14.07% in November, a contraction of 15.79% (-15.79%) in October, monthly gains of 33.90% in September and 33.47% in August, a July monthly decline of 71.07% (-71.07%), a monthly aircraft-order surge of 129.20% in June and a monthly decline in May of 1.37% (-1.37%).

Net of commercial-aircraft orders, month-to-month and seasonally-adjusted, February 2018 nominal new orders increased by 2.08%, versus a decline of 2.03% (-2.03%) in January, versus gains of 1.99% in December 2017, 1.13% in November, 0.47% in October 2017, 1.03% in September, 1.04% in August, 0.51% in July, 0.26% in June and 0.65% in May. Year-to-year and seasonally-adjusted, February 2018 new orders ex-aircraft rose by 8.37%, having gained a revised 6.07% in January 2018, a revised 7.36% in December 2017, and unrevised annual gains of 5.05% in November, 6.74% in October 2017, 6.51% in September 2017, 4.74% in August 2017, 5.59% in July 2017, 6.70% in June 2017 and 6.55% in May 2017.

Real Durable Goods Orders—February 2018. ShadowStats uses the PPI component inflation measure “Durable Manufactured Goods” for deflating the new orders for durable goods series. Published only on a not-seasonally-adjusted basis, the related February 2018 PPI series showed headline month-to-month inflation of 0.23%, against 0.41% in January 2018 and having been “unchanged” at 0.00% in December 2017 from November. Related year-to-year annual inflation was 1.72% in February 2018, versus 1.79% in January 2018 and 1.67% in December 2017 (see *Commentary No. 940*).

Adjusted for that 0.23% month-to-month inflation reading in February 2018 and the respective inflation rates in earlier months, and as reflected in the graphs in the *Executive Summary* section, real aggregate orders in February 2018 rose by 2.86%, having declined by 3.93% (-3.93%) in January and having gained by 2.72% in December. Ex-commercial aircraft, real month-to-month orders rose by 1.84% in February 2018, having declined by 2.43% (-2.43%) in January and having gained by 1.99% in December.

Real total new orders gained by 7.06% year-to-year in February 2018, versus annual gains of 5.19% in January 2018 and by 9.52% in December 2017. Ex-commercial aircraft, February 2018 real orders rose year-to-year by 6.53%, versus by 4.21% in January 2018 and by 5.79% in December 2017.

Real Quarterly Change, Ex-Commercial Aircraft. Where the inflation-adjusted series (ex-commercial aircraft) is the best leading economic indicator out of these data, following are the annualized real quarterly changes in that series. Beginning at the onset of eventually what still should become recognized as a formal recession or renewed downturn, the real ex-commercial aircraft orders series showed annualized quarterly declines of 7.92% (-7.92%) in fourth-quarter 2014 and 7.36% (-7.36%) in first-quarter 2015. Annualized real change was a gain of 3.87% for second-quarter 2015, a gain of 3.46% in third-quarter 2015 and an annualized contraction of 2.59% (-2.59%) in fourth-quarter 2015 activity.

First-quarter 2016 orders showed an annualized real contraction of 2.22% (-2.22%), with the series declining at an annualized real pace of 4.74% (-4.74%) in second-quarter 2016. For third-quarter 2016, the annualized real series (ex-commercial aircraft) showed an annualized quarterly gain of 5.46%, fourth-quarter 2016 activity showed an annualized quarterly gain of 7.35%.

First-quarter 2017 showed an annualized contraction of 0.94% (-0.94%). Year-to-year, first-quarter 2017 orders rose by 1.67%. Second-quarter 2017 activity rose at a revised annualized quarterly pace of 2.49%, up by 3.54% year-to-year. Third-quarter 2017 annualized quarterly growth was a revised 6.94%, with year-to-year growth at a revised 3.90%.

Based on the third, full fourth-quarter 2017 reporting, annualized real quarterly growth was 10.03% [previously 9.92%, initially 10.18%], with year-to-year growth of 4.56% [previously 4.52%, initially 4.60%]. Relative quarterly activity was distorted by the natural-disaster impact and recovery for both third- and fourth-quarter 2017.

Based solely on the initial reporting of January and February 2018 orders, the early first-quarter 2018 trend was for an annualized real quarter-to-quarter gain of 0.42%, with annual growth of 4.90%. Based solely on the initial January 2018, detail, that initial trend had been for an annualized real quarterly contraction of 3.89% (-3.89%), with year-to-year growth of 3.73%.

In terms of annualized real growth in total new orders, fourth-quarter activity boomed at an annualized pace of 14.39%, which now currently is on early-track for a first-quarter contraction of 1.11% (-1.11%).

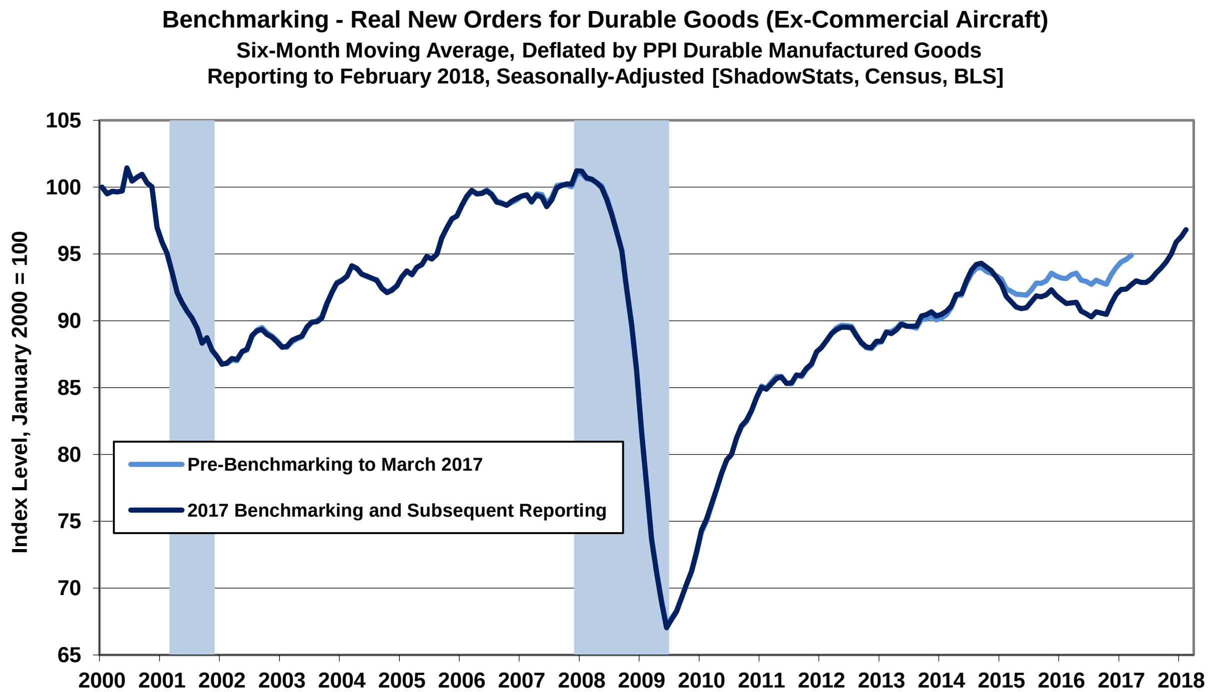
Graphs of Inflation-Adjusted and "Corrected" Smoothed Durable Goods Orders. Three sets of inflation-adjusted graphs (*Graphs 1* to *7*) are displayed in the *Executive Summary*. The first set (*Graphs 1* to *3*) shows the headline monthly detail, as well as the six-month moving-average activity for both the aggregate new orders series and the series net of the irregular commercial-aircraft orders. It also shows annual growth for the real series (net of commercial aircraft). The moving-average levels in both the durable goods series (*Graphs 1* and *2*) had turned lower into year-end 2014 and the first two quarters of 2015, with some smoothed bounce-back into third-quarter 2015, followed by renewed downturn into 2016 with a late-year uptick continuing into March 2017, which largely was revised away with the May 2017 benchmarking and now in uptrending stagnation, boosted by disaster recovery.

The second set of graphs (*Graphs 4* and *5*) shows the patterns of six-month moving averages of historical, headline real new orders for durable goods (net of official inflation), as well as that pattern "corrected" for understatement of that inflation (and for the corresponding overstatement of official, inflation-adjusted growth). The third set of graphs (*Graphs 6* and *7*) shows largely the same patterns, although they are for the aggregate durable goods orders series, net of commercial aircraft orders.

Caution: Benchmarking Scheduled for May 17, 2018; Non-Comparability of the Regular Headline Month-to-Month Data, 2017. The Census Bureau plans its annual benchmark revision to 2017 New Orders for Durable Goods data for release on May 17, 2018 (see the *Press Release*). As an example of the regular, annual downside restatement of recent activity in this series, consider accompanying *Graph 17*. It shows the net revisions to the six-month moving average of real New Orders for Durable Goods (ex-commercial aircraft) from last year's May 18, 2017 benchmark revisions and subsequent reporting through the February 2018 headline detail, versus the pre-benchmarking detail. For a more-substantive review of the last two years of benchmark revisions to New Orders for Durable Goods, and the parent Manufacturers' Shipments series, see *Special Commentary No. 888*, also see today's *Opening Comments* and *Industrial Production Benchmarking* sections for discussion on the negative implications for the New Orders for Durable Goods series, based on the just-released, downside revisions to the production series. Both series rely on related-background detail and related-underlying surveys for their results.

Current durable goods reporting remains subject to many of the same upwardly-biased sampling assumptions and concurrent-seasonal-adjustment problems commonly seen in the pre-revision reporting as well as with retail sales, and payroll and unemployment reporting. Unusual seasonal-factor volatility raises issues as to the significance of reported seasonally-adjusted monthly and annual changes. While those issues were brought into balance, for a period of eight days, with the annual benchmark revision to durable goods orders through March 2017 on May 18, 2017 (again see [*No. 888*]), that consistency ceased with the May 26th release of headline April 2017 detail.

Graph 17: Benchmark Revisions to Real Total New Orders for Durable Goods, Ex-Commercial Aircraft.



For all monthly reporting from the April 2017 detail until the benchmarking pending on May 17, 2018, unpublished historical revisions calculated along with current headline month's seasonal adjustments, and with each month to follow, make all historical reporting prior to the current headline month (February 2018) inconsistent with the currently-published headline historical numbers.

NORTH AMERICAN FREIGHT ACTIVITY – CASS FREIGHT INDEX™ (February 2018)

February 2018 Freight Index Annual Growth Backed Off January's High Pace; Still in Non-Expanding, Yet Uptrending Activity, Shy by 11.2% (-11.2%) of Recovering Its Pre-Recession High. The Cass Freight Index™ is an independent, reliable private indicator of real-world economic activity and shifting business patterns. February 2018 Index detail was published March 21st. Unlike series such as Industrial Production and New Orders for Durable Goods, the headline detail remains as published, not seasonally adjusted and not subject to annual benchmark revisions

Continued low-level non-expansion in the broad economy and general business activity were reflected, once again, in the headline, February 2018 Cass Freight Index numbers (see the following *No Economic Expansion* section). The pace of year-to-year growth, however, remained strong albeit slightly weaker than in January, still broadly rising at an increasing pace, reversing sharply the recent patterns of slowing year-to-year gain.

While the 12-month trailing average of activity hit a post-recession high, 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, albeit minimally-uptrending stagnation, down by 8.27% (-8.27%) from recovering its formal pre-recession high, and down by 11.18% (-11.18%) from its precursor peak (see *Graph 18*).

For the fifteenth consecutive month, the sixteenth month in the last seventeen, year-over-year change in the unadjusted monthly index was positive, having notched minimally lower in February 2018 versus 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 21*). 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. Then it began rebounding to 6.26% in November 2017, 7.17% in December 2017, to 12.54% in January 2018 and then easing back to 11.44% in February 2018.

A consecutive string of nineteen months of annual contraction in the Freight Index began in March 2015 and was consistent with the "new" recession signal following the still intact, albeit lower, Industrial Production peak in November 2014. Headline industrial production showed a string of twenty consecutive months of year-to-year contraction beginning April 2015, a pattern never seen outside of formal economic recession in the 100-year history of the Industrial Production series. Comparative growth patterns of the Freight Index versus the related New Orders for Durable Goods and Industrial Production are shown here in *Graphs 18* to *20* as to level and in *Graphs 21* to *23* as to year-to-year change.

The recent, repeating pattern of year-to-year monthly gains in the Cass Index has excited trucking industry speculation that the recession in freight activity had hit bottom, and that appears to be the case. Even with the high level of annual gain in February 2018 activity, though, the current patterns of smoothed levels of activity and year-to-year gains have yet to break out of the non-recovery pattern of the last ten-plus years and to enter a period of new expansion, once breaking above its pre-recession peak activity. Again, as shown in *Graphs 18* to *20* monthly activity, although not recovered, is uptrending.

No Economic Expansion. Discussed in *Commentary No. 875* and expanded upon in *Commentary No. 876* on the nature of the business cycle, when economic activity recovers, such happy growth is not clocked formally as new economic expansion, until the level of the series breaks above its pre-recession high.

Noted earlier, the ShadowStats smoothed (12-month trailing average) headline reading on the Cass Freight Index, through February 2018 (*Graph 18*) remained down by 11.18% (-11.18%) from recovering its preliminary pre-recession peak of September 2006, down by 8.27% (-8.27%) from recovering its formal pre-recession peak of December 2007. While the "Recovery" receives the benefit of growth off low levels of activity, the deficit in activity versus the prior peak has to be overcome before formal, economic "Expansion" begins.

Economic downturns eventually hit bottom, and the current circumstance will not be an exception. The official economic collapse that 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.

The official contention remains, though, that the headline economy (the real Gross Domestic Product or GDP) fully recovered thereafter, entering a period of new and ever-expanding economic growth in second- or third-quarter 2011. ShadowStats contends that the economy never recovered fully, moving instead into a period of protracted, low-level stagnation, which began to turn down anew in December 2014, as reflected still in the current *Industrial Production Benchmarking* (see today's related coverage) and the last benchmarking of durable goods (*Special Commentary No. 888*). This also is seen in *Graph 18* in comparison with *Graphs 19* and *20* of Real Durable Goods Orders (ex-Commercial Aircraft) and Manufacturing.

General Background to the Freight Index. *[This section largely is repeated from its prior version in* Commentary No. 937.*]* 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.

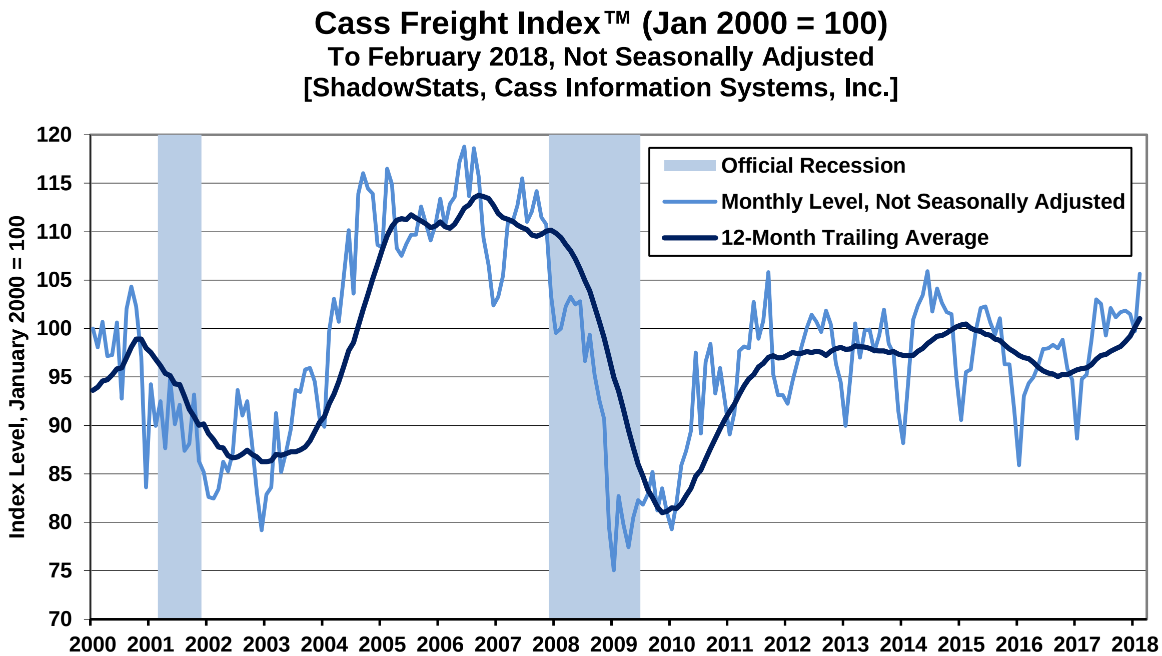
Graph 18 reflects the monthly freight numbers updated through February 2018. While adjusted for factors such as days in a month, the headline monthly detail is not adjusted for broad seasonality patterns, such as retailers stocking for the holiday shopping season. Accordingly, ShadowStats plots the series 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 that it hit a near-term peak in February 2015, consistent with the onset of a "new recession" in December 2014, slowing since, through September 2016, then flattening out and turning back to the upside through February 2018, just broaching that February 2015 interim peak (again, see *Graph 18*).

Another approach to assessing not-seasonally-adjusted monthly detail is to look at year-to-year change by individual month, as plotted in *Graph 21*. 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, fluctuating in direction until rebounding to 6.26% in November 2017, 7.17% in December 2017, 12.54% in January 2018 with a notch backwards to 11.44% in February 2018.

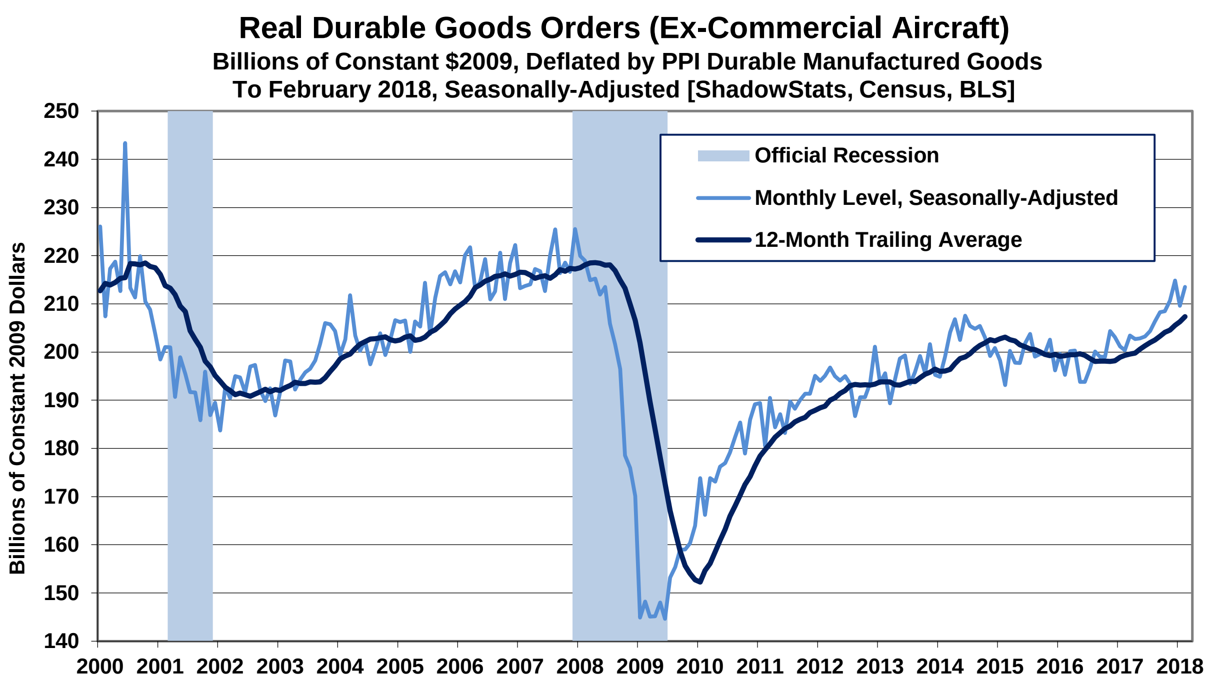
Again, consider for comparison purposes *Graphs 18* to *20* of freight, new orders and manufacturing activity all smoothed with twelve-month moving averages and the comparative *Graphs 21* to *23* of the year-to-year changes in freight, new orders and manufacturing. Once again, with the headline, smoothed freight numbers through February 2018 down by 8.3% (-8.3%) versus the December 2007 pre-recession high, that is the growth deficit that has to be overcome before formal economic "Expansion" begins. In terms of the seasonally-adjusted February 2018 detail, real new orders (ex-commercial aircraft) was down by 7.2% (-7.2 %), while the just-benchmark-revised manufacturing activity was down by 5.5% (-5.5%).

In happy, incredulous conflict, the headline fourth-quarter 2017 real GDP detail was up by 15.2%, over the same period, against its fourth-quarter 2007 pre-recession peak.

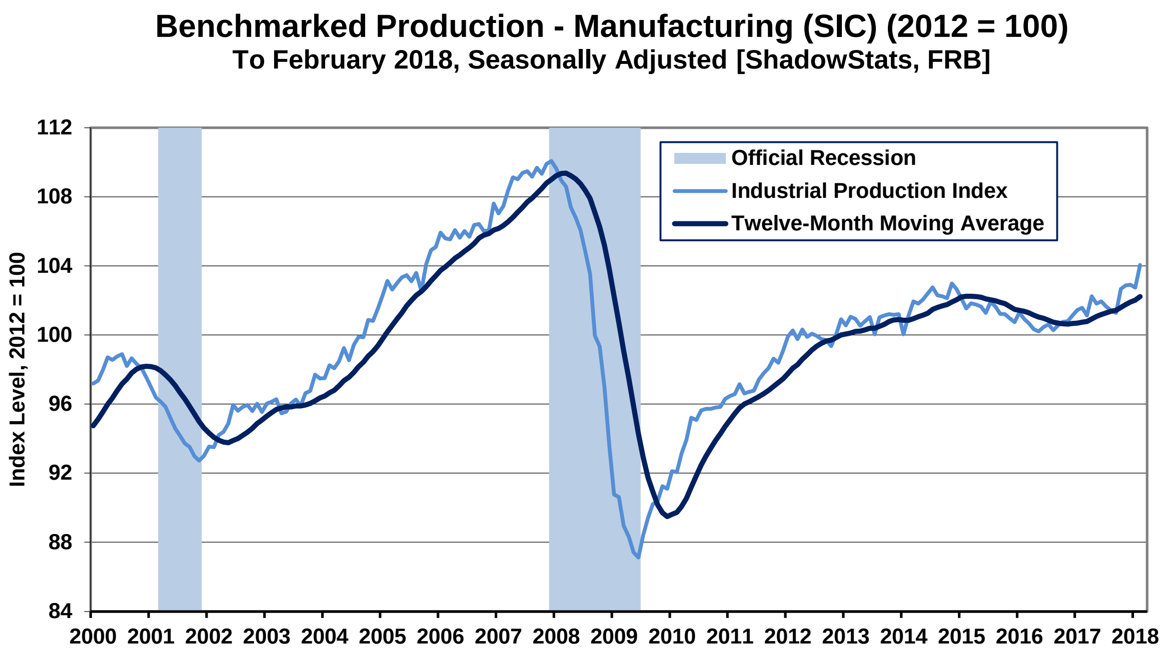
Graph 18: CASS Freight Index™ Moving-Average Level (2000 to February 2018)
(Same as Graph 8 in the Executive Summary)



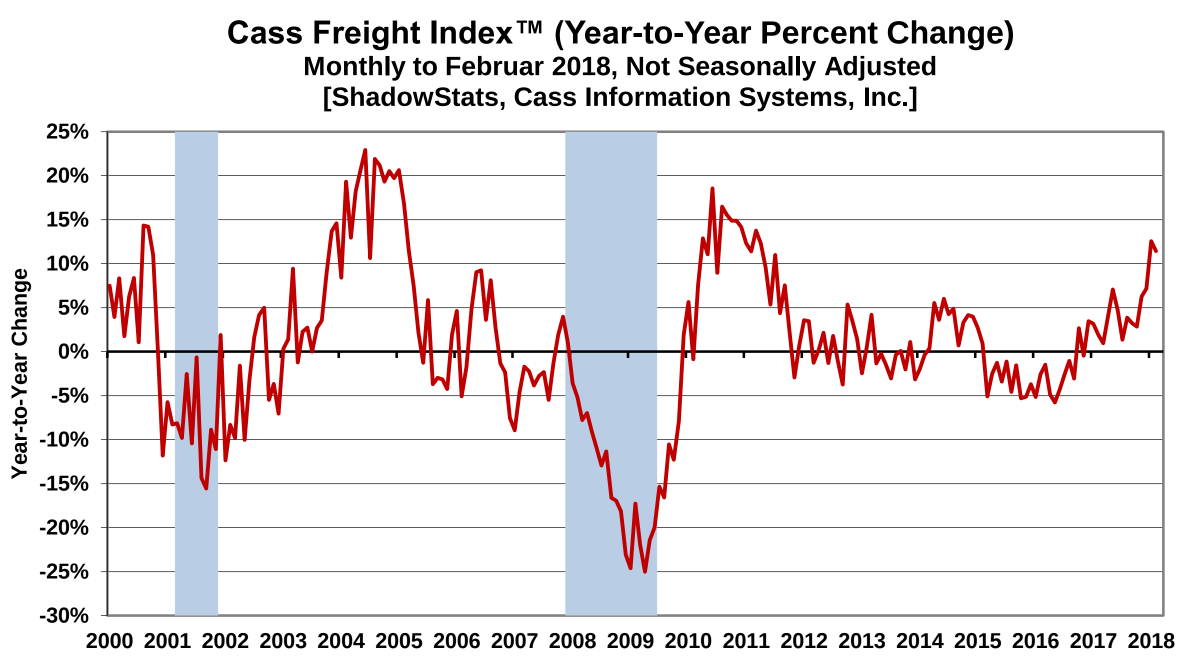
Graph 19: Real Durable Goods Orders, 12-Month Moving-Average Level (2000 to February 2018)



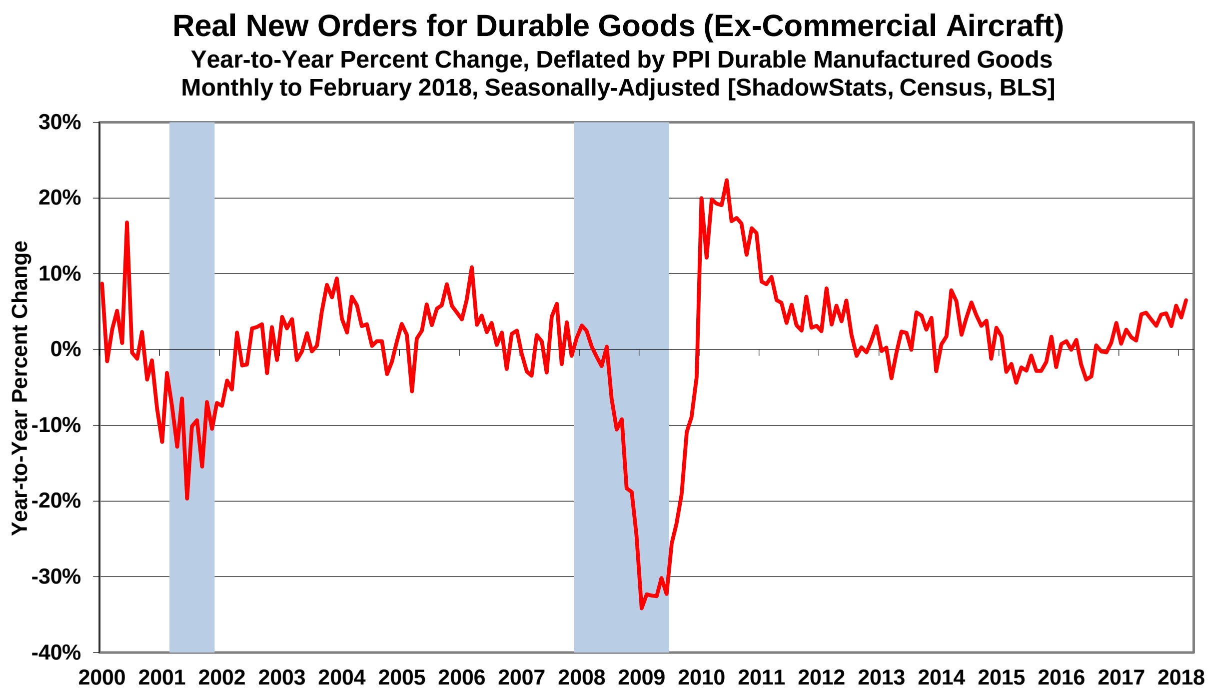
Graph 20: Industrial Production, 12-Month Moving-Average Level (2000 to February 2018)



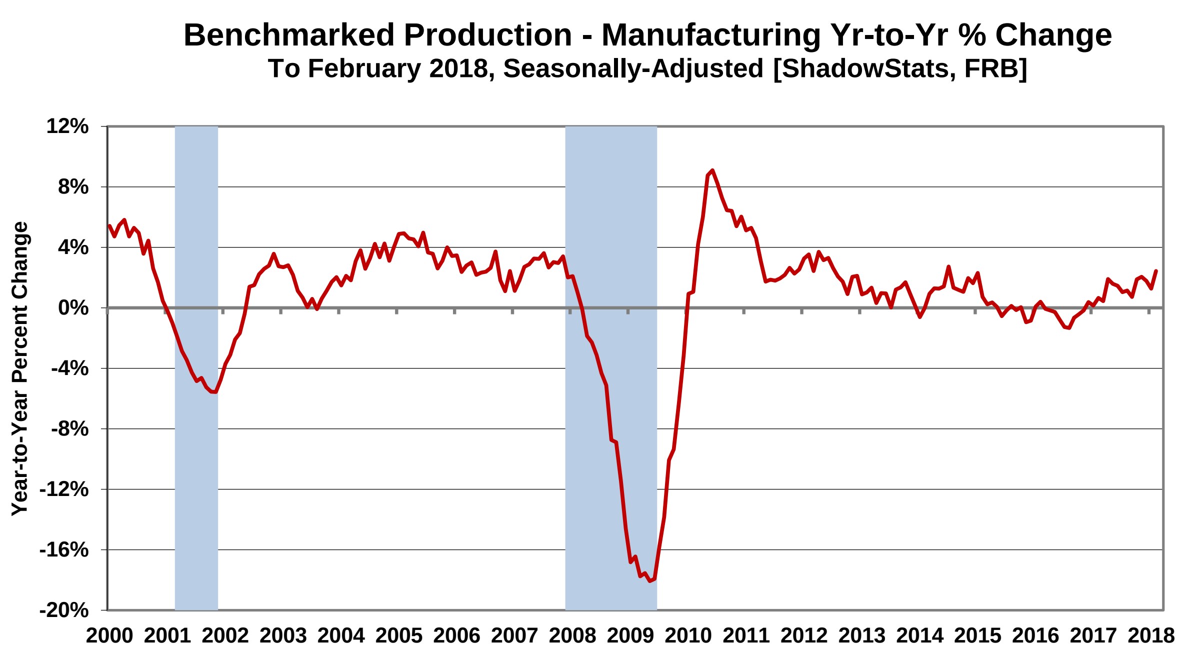
Graph 21: CASS Freight Index, Monthly Year-to-Year Percent Change (2000 to February 2018)



Graph 22: Real Durable Goods Orders, Year-to-Year Percent Change (2000 to February 2018)
(Same as Graph 3 in the Executive Summary)



Graph 23: Manufacturing, Year-to-Year Percent Change (2000 to February 2018)



In combination, *Graphs 18* to *23* remain consistent with a pattern of collapsing economic and business activity into 2009, low-level, non-recovering stagnation thereafter and a renewed downturn effectively coincident with a "new" recession, which, again, likely will be timed from December 2014, whether or not it has bottomed. There is nothing in just-published benchmark revisions to the manufacturing-sector in industrial production that alters that story, other than perhaps to intensify it.

NEW HOME SALES (February 2018)

New-Home Sales Notched Lower by 0.6% (-0.6%) on Top of Unstable Upside Revisions Since November 2017, Still Shy by 55.5% (-55.5%) of Recovering Its Pre-Recession Peak. In the context of the regularly-extreme, unstable month-to-month volatility, which almost never is statistically significant at the 95% level, and which regularly sees massive prior-period revisions, the headline February 2018 New-Home Sales series declined by 0.6% (-0.6%) in the month, with year-to-year sales up by 0.5%. The headline February 2018 activity remained shy of recovering its pre-recession high by 55.5% (-55.5%). Smoothed over six months, the series remained in low-level, non-recovered stagnation.

Census Bureau Promises More Stable Reporting After April's Revisions on May 23rd. As with its reporting of February Housing Starts and Building Permits (see *Commentary No. 941*), the Census Bureau has announced methodological changes that should improve the reporting stability of this series, to be published coincident with the annual seasonal-adjustment revisions and headline April 2017 reporting on May 23, 2018. From the March 23rd *Press Release*, page 2:

> **NOTICE:** With the April 2018 release, seasonally adjusted estimates of housing units sold, housing units for sale, and the months' supply of new housing will be revised back to January 2013. With each April release, seasonally adjusted data will now be revised for the current year and the previous five years. ***Research has shown that this revision span should produce more reliable seasonally adjusted time series*** [ShadowStats emphasis].

Headline February Decline Was a Gain, Net of Upside January Revision. Released March 23rd, by the Census Bureau and the Department of Housing and Urban Development, the highly volatile and unstable New-Home Sales series, which counts new-home sales contracts signed (as opposed to the count of sales closed in the Existing-Home Sales series), declined month-to-month in February 2018 by a statistically-insignificant 0.6% (-0.6%) +/- 15.6% at the 95% confidence interval [all confidence intervals used here are at the 95% confidence interval]. Net of the upside revision to January 2018, that "decline" was a monthly gain of 4.2%.

In the context of upside revisions to headline monthly activity since November 2017, the February 2018 monthly decline of 0.6% (-0.6%) followed revised declines of 4.7% (-4.7%) [previously 7.8% (-7.8%)] in January, 8.2% (-8.2%) [previously 7.6% (-7.6%), initially 9.3% (-9.3%)] in December 2017, a revised gain of 15.4% [previously 13.0%, 15.0%, initially 17.5%] in November and an unrevised decline of 3.6% (-3.6%) in October.

Year-to-year change in February 2018 sales was a statistically-insignificant gain of 0.5% +/- 19.4%, which followed a revised annual gain of 3.8% [previously a decline of 1.0% (-1.0%)] in January 2018, and revised annual gains of 19.2% [previously 17.3%, initially 14.1%] in December 2017, 22.8% [previously 20.2%, 19.0%, initially 26.5%] in November 2017 and an unrevised 6.8% in October 2017.

First-Quarter 2018 Growth on an Early Trend for Quarterly Contraction. Reflecting unstable and broadly meaningless monthly swings, Third-Quarter 2017 annualized quarterly change declined by an unrevised 11.2% (-11.2%). The third estimate of Fourth-Quarter 2017 activity surged at a revised annualized pace of 59.5% [previously 51.6%, initially 38.9%], but the early trend for First-Quarter 2018, based on January and February detail was an annualized contraction of 22.1% (-22.1%). The usual extreme volatility in this series has been exacerbated by disaster-recovery effects.

Smoothed with a six-month moving average, this series, again, remained in low-level, non-recovering stagnation, which recently had turned to a downtrend and flattened out, but now is showing a slight uptrend, given the latest data machinations (see *Graph 11* in the *Executive Summary*).

Consumer Liquidity Constraints. The extreme liquidity bind besetting consumers continues to constrain residential real estate activity (see the *Consumer Liquidity Watch*). Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including real-estate activity. 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 2005 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, despite any short-lived, near-term boosts to activity from disaster recovery.

Graphs 9 to *12* in the *Executive Summary* plot the New-Home Sales series (single-unit sales) along with comparative graphs of the related Single-Unit Housing Starts series (see *Commentary No. 941*). *Graphs 13* to *16* there also plot the Existing-Home Sales series, along with comparative graphs of the related Housing Starts series (both those series reflect multiple- as well as single-unit sales activity).

EXISTING HOME SALES (February 2018)

February Existing-Sales Bounced by 3.0% in the Month, Having Dropped by 3.2% (-3.2%) in January; Shy of Recovering Its Pre-Recession Peak by 23.8% (-23.8%). Monthly Existing-Home Sales increased by 3.0% in February 2018, but that was not enough to offset the recent monthly sales decline of 3.2% (-3.2%) in January, let alone the monthly decline of 2.8% (-2.8%) in December. Annual growth rose anew, once again into positive territory, up by 1.1% in February 2018, having dropped year-to-year by 4.8% (-4.8%) in January. That January 2018 annual decline was the steepest since August 2014.

Nonetheless, as shown in *Graph 14* in the *Executive Summary,* the November 2017 Existing Home Sales was at the highest level of the post-2006 revamped series (blue line), but still well below the pre-recession peak in the original series (red line). That said, smoothed for six-month moving averages, the existing-sales series had been in uptrending stagnation into 2017, which recently shifted to fluttering, relatively-flat stagnation, reflected in *Graph 15* (see also *Graphs 14* and *16* of the Housing Starts series, where both series reflect activity in terms of single- and multiple-housing units).

Existing-Home Sales Continued in Smoothed, Flat Stagnation. Released by the National Association of Realtors (NAR) on March 21st, Existing-Home Sales (closings of home sales, as opposed to the count of contract signings for New-Home Sales, reported by the Census Bureau) rose month-to-month by 2.97%, having declined month-to-month by 3.24% (-3.24%) in January and by 2.80% (-2.80%) in December 2017, following monthly gains of 4.00% in November and 2.42% in October.

February 2018 year-to-year change was a gain of 1.09%, following an annual plunge of 4.78% (-4.78%) in January 2018 and annual gains of 0.91% in December 2017, 2.14% in November 2017 and an annual decline of 0.54% (-0.54%) in October 2017.

In the context of natural disasters, seasonal-factor distortions and last month's annual revisions, fourth-quarter 2017 detail showed an annualized quarterly gain of 14.82%, following third-quarter 2017 activity, which contracted for the second straight quarter, at an annualized pace of 9.94% (-9.94%), versus an annualized second-quarter 2017 decline of 3.97% (-3.97%).

Based solely on January and February 2018 detail, first-quarter 2018 activity is in an early trend for an annualized quarterly contraction of 9.20% (-9.20%) [previously on track for 14.41% (-14.41%) decline, based solely on January reporting]. Again, as with other series tied to housing and construction, natural disasters and disaster-recovery since late-August 2017 have impacted these annualized changes heavily.

Distressed Sales Eased to 4% as a Proportion of Total Sales, Although February All-Cash Sales Rose to 24%. In the context of consumer liquidity constraints discussed in the *New-Home Sales* section, the NAR estimated the portion of February 2018 sales in "distress" at 4% (3% in foreclosure, 1% short sales), versus 5% (4% in foreclosure, 1% short sales) in January 2018 and 7% (6% in foreclosure, 1% short sales) in February 2017. The NAR began surveying such detail in October 2008. Consider, though, that October 2008 conditions already were more than three years into the housing-market collapse.

Consistent with mounting consumer liquidity constraints and faltering optimism discussed in today's *Consumer Liquidity Watch*, sales in foreclosure at 3% still is roughly 50% higher than the pace of the recent survey low of 2%. Industry numbers show foreclosure prospects still to be a meaningful problem, and ShadowStats has new material in that area nearing publication.

Reflecting ongoing lending problems and continuing stresses within the financial system, including related banking-industry and consumer-solvency issues, as well as the ongoing influx of speculative investment money into the existing-housing market, the NAR estimated all-cash sales rose to 24% in February 2018, versus 22% in January 2018, the highest level since 27% seen in last year's February 2017 detail.

Graphs 13 to *16* in the *Executive Summary* plot the Existing-Home Sales series, along with comparative graphs of the related Housing Starts series. *Graphs 9* to *12* plot the New-Home Sales series along with comparative graphs of the related Single-Unit Housing Starts series.

[The* Consumer Liquidity Watch *begins on the next page.]

CONSUMER LIQUIDITY WATCH

CONSUMER LIQUIDITY, INCOME, CREDIT AND RELATIVE OPTIMISM. *[Updated for the Conference Board's March 2018 Consumer-Confidence Index®, revised opening paragraphs and links.]*

Mounting Consumer Liquidity Stresses Constrain Broad Economic Activity. The U.S. consumer faces increasing financial stress, which had been mirrored in softening fundamental headline economic activity coming into the series of major natural disasters that disrupted the economy, beginning in August 2017. Intensifying weakness had included Payroll-Employment, Real Retail Sales, Housing and Construction, and the Manufacturing/Production sector, generally pre-natural disaster activity.

Net of what have been mixed, but significant, hurricane and later-wildfire distortions, initial hits to activity were followed by related and transient economic boosts from recovery, replacement and restoration activity, particular in fourth-quarter 2017. Funded by insurance payments and savings liquidation, those distortions increasingly have passed in the latest headline economic data. Indeed, as early first-quarter economic activity continues to turn down (see the *Opening Comments* and *Commentary No. 940*). Such effects are discussed in the separate analyses of relevant series in covered in the regular *ShadowStats Commentaries*. Where there have been recent signals of faltering consumer liquidity (see Consumer Credit Outstanding and Real Earnings), headline consumer optimism had remained at record highs, despite softening underlying economic reality, until this morning's (March 27th) initial release of the Conference Board's March 2018 Consumer-Confidence Index®, which took a hit the context of a downside revision to February's prior reading.

Monthly series that have faced the most severe, disaster-triggered reporting disruptions, where headline details have yet to stabilize or correct, still include in Household Survey Employment and Unemployment (see *Commentary No. 939*). Retail Sales and Industrial Production (see the *Benchmark Revisions* section) appear to have stabilized, and are beginning to turn down anew, but they still need to subside to levels stable with normal consumption activity and inventories. Despite the slowing in Fourth-Quarter 2017 GDP growth, the series remains heavily bloated from the disaster-distortions. Odds for an outright quarterly contraction in real First-Quarter 2018 GDP continue strengthen (see the *Opening Comments*).

Liquidity Issues Limit Economic Activity. Severe and persistent constraints on consumer liquidity of the last decade or so drove economic activity into collapse through 2009, and those conditions have prevented meaningful or sustainable economic rebound, recovery or ongoing growth since. The limited level of, and growth in, sustainable real income, and the inability and/or unwillingness of the consumer to take on new debt have remained at the root of the liquidity crisis and ongoing economic woes.

These underlying pocketbook issues contributed to the anti-incumbent electoral pressures in the 2016 presidential race. The post-election environment showed a near-term surge in both the consumer confidence and sentiment measures to levels generally not seen since before the formal onset of the recession in 2001, let alone 2007. Yet, underlying liquidity conditions, economic reality and lack of positive actions out of the government to turn the economy meaningfully, so far, all have continued to remain shy of consumer hopes, and those numbers have begun to stumble in recent detail.

A temporary liquidity boost fueled by recent disaster effects, such as insurance payments or savings drawdowns to fund replacement of storm-damaged assets, are of a one-time nature and short-lived in terms of ongoing economic impact. The underlying, fundamental longer-term liquidity issues remain in place. Nonetheless, mirroring the disaster-fueled economic hype in the popular press, consumer optimism had rallied strongly, albeit, again, now faltering or mixed, as discussed shortly.

Including the various consumer-income stresses discussed in *Special Commentary No. 888*, broad, underlying consumer-liquidity fundamentals simply have not supported, and still do not support a fundamental turnaround in general economic activity—a post "Great Recession" expansion—and broadly are consistent with a "renewed" downturn in that non-recovered economic activity. Indeed, never truly recovering post-Panic of 2008, limited growth in household income and credit have eviscerated and continue to impair broad, domestic U.S. business activity, which is driven by the relative financial health and liquidity of consumers. These underlying liquidity conditions and reality—particularly income and credit—remain well shy of average consumer hopes and needs, irrespective of the new tax laws.

The combined issues here have driven the housing-market collapse and ongoing, long-term stagnation in consumer-related real estate sales and construction activity, and have constrained both nominal and real retail sales. Related, personal-consumption-expenditure and residential-construction categories accounted for 73.1% of the headline real, fourth-quarter 2017 U.S. GDP.

Net of short-lived disaster distortions (insurance payments, savings liquidations), with the better-quality economic indicators and underlying economic reality never having recovered fully from the collapse into 2009, consumers increasingly should pull back on consumption in the months ahead. Underlying reality is evident in more-meaningful economic indicators—not the GDP—irrespective of the transient boosts from disasters or political gimmicks, discussed recently in *General Commentary No. 929* and the *Executive Summary* of *Commentary No. 928*.

Anecdotal Evidence of Business and Consumer Uncertainty Continue to Indicate a Seriously-Troubled Economy and Very Dangerous Financial Markets. Against what appears to be a headline economic consensus that all is right again, with the U.S. economy and financial markets, underlying real-world common experience suggests a much different outlook. Regularly discussed here, ongoing non-recovery, low-level stagnation and signs of renewed downturn remain patterns common to key elements of headline U.S. economic activity. Consider factors ranging from housing sales and broad construction activity, to headline reporting of domestic manufacturing (and revisions), as well as those series that are heavily gimmicked, such as the Gross Domestic Product (GDP), also regularly discussed and dissected here.

Similar signals of such economic stress are seen in patterns of activity that move along with the real-world broad economy. They range from indicators such as freight volume and domestic consumption of petroleum to factors such as levels of real consumer debt outstanding, real average weekly earnings and measures of employment stress in the broad economy. Those stresses are reflected in historically-low levels of the employment-population ratio and the labor-force participation rate. With the liquidity-starved U.S. consumer driving three-quarters of the GDP, there is no way for the broad economy to boom—happy Retail Sales headlines aside—without some meaningful shift in underlying consumer circumstances. Links to background discussions in these various areas are found in the *Recent Commentaries* section of the *Week, Month and Year Ahead*, along with links to background discussions on the quality of the more-politicized GDP (*Commentary No. 938*) and employment/unemployment details discussed in the *Supplemental Labor-Detail Background* of *Commentary No. 939*.

Beyond assessing headline economic numbers, ShadowStats also looks at anecdotal evidence, including comments by subscribers and clients, who live in the real world. Two broad observations have come from a number of recent conversations. First, real estate activity appears to be slowing in recently strong areas. Second, a number of major companies are "sitting on their hands," holding back on issuing new contracts to third-party vendors in areas such as upgrading computer systems and other consulting. The companies cite the slowdown in contracts as "due to uncertainty," an issue, as well with the U.S. consumer, where that uncertainty encompasses:

- Unfolding circumstances in the Washington, D.C. political arena.
- Where the manic financial markets are headed.
- Ultimately, what is, or will be, happening to near-term business activity?

Economic reporting, and business and financial-market stories sometimes receive happy year-end spikes in the press. That circumstance was supplemented in late-2017 by near-term hurricane boosts to, and distortions of, some current economic activity, such as the November Retail Sales reporting. The latter circumstance should prove fleeting. The underlying, broadly-faltering U.S. economy should be dominating headline economic reporting, once again, and all too soon, most likely in the next couple of months. That said, albeit reflecting some of the headline economic hype in the popular press, headline consumer optimism remains strong.

Consumer Optimism: Consumer Sentiment and Confidence Continue turn Mixed. On top of the December 2017 readings pulling back sharply for both The Conference Board's Consumer-Confidence Index® (Confidence), and the University of Michigan's Consumer Sentiment Index (Sentiment), January 2018 Confidence and Sentiment readings were minimally-positive and down, with the February numbers rising anew, and with a renewed surge in the "advance" March 2018 Sentiment reading of March 16th. Today's (March 27th) release of the March 2018 Confidence number, however, fell back from a downwardly revised estimate for February 2018.

Reflected in *Graphs CLW-1* and *CLW-2*, Confidence and Sentiment monthly readings had jumped sharply to multi-year highs in February 2018, despite mounting financial-market and economic uncertainties, with early-March Sentiment jumping anew. Following a downside revision to the February 2018 reading, which still remained at its strongest reading since 2000, the March 2018 reading fell back below its level of November 2017. The still-strong numbers here for both Confidence and Sentiment remain above their, pre-2007 recession peaks. Other than for the recent months of stronger Confidence readings, Confidence is at its highest level since May 2000, but remain down from that May 2000 peaks by 11.8% (-11.8%).

On a monthly basis the "advance" March 2018 Sentiment measure is at its highest level since January 2004, currently down by 1.1% (-1.1%) from that interim January 2004 peak.

Again, for both the Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph CLW-1*), and the University of Michigan's not-seasonally-adjusted

Consumer-Sentiment Index (*Graph CLW-2*), the three-month moving averages also remain above pre-2007 recession highs, yet the still-high moving averages have slowed in their gains, having begun to falter in September 2017, before the storm-distorted, unusual headline surges in October and November activity and related headline economic activity.

Pre-election, September 2016 Confidence and Sentiment jumped and then plunged in October 2016, likely reflecting concerns as to the direction of the presidential race. Post-election, both measures rallied sharply, reflecting surges in consumer optimism into early-2017. Both series then topped and pulled back, with mixed numbers into August and September 2017, but with the October 2017 Sentiment measure showing a large jump, purportedly because consumers were willing to accept diminished prospects for their living standards (see *Commentary No. 916*)? Nonetheless, the Sentiment measure retrenched in November and December. The Conference Board blamed hurricane impact in Texas and Florida for its downturn in September 2017 Confidence, but those numbers exploded into October and November 2017, again reversing largely with December's headline downturn.

Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs CLW-1* to *CLW-3* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while the University of Michigan's Consumer Sentiment Index is set with January 1966 = 100.

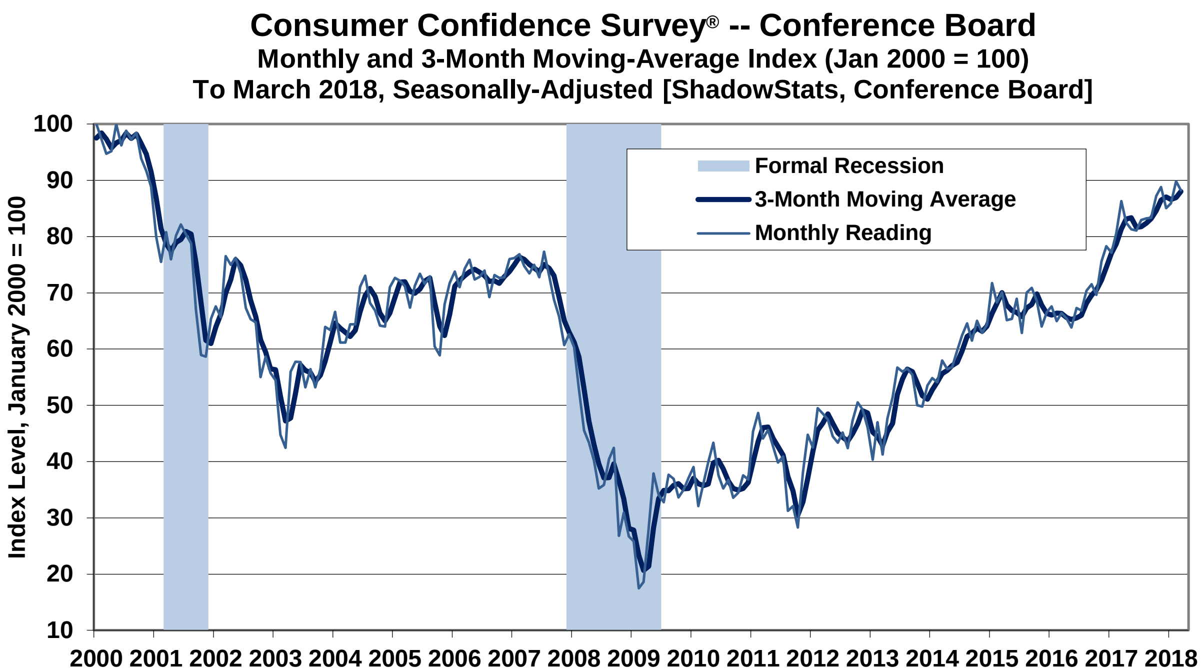
The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in *Commentary No. 764*), and often are highly volatile month-to-month, as a result. Recent press has been highly positive on the headline economic and employment news, reflecting short-lived hurricane boosts to activity particularly on unemployment (not payroll employment), retail sales and industrial production. As headline financial and economic reporting in the next month or two turn increasingly-negative and unstable, so too should the surging "optimism." Increasingly, a downturn in consumer outlook should take hold, despite any euphoric headlines, reflecting some deep-seated consumer liquidity issues.

Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and for third-quarter 2016 and into third-quarter 2017. In current environment of surging optimism, beyond having happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

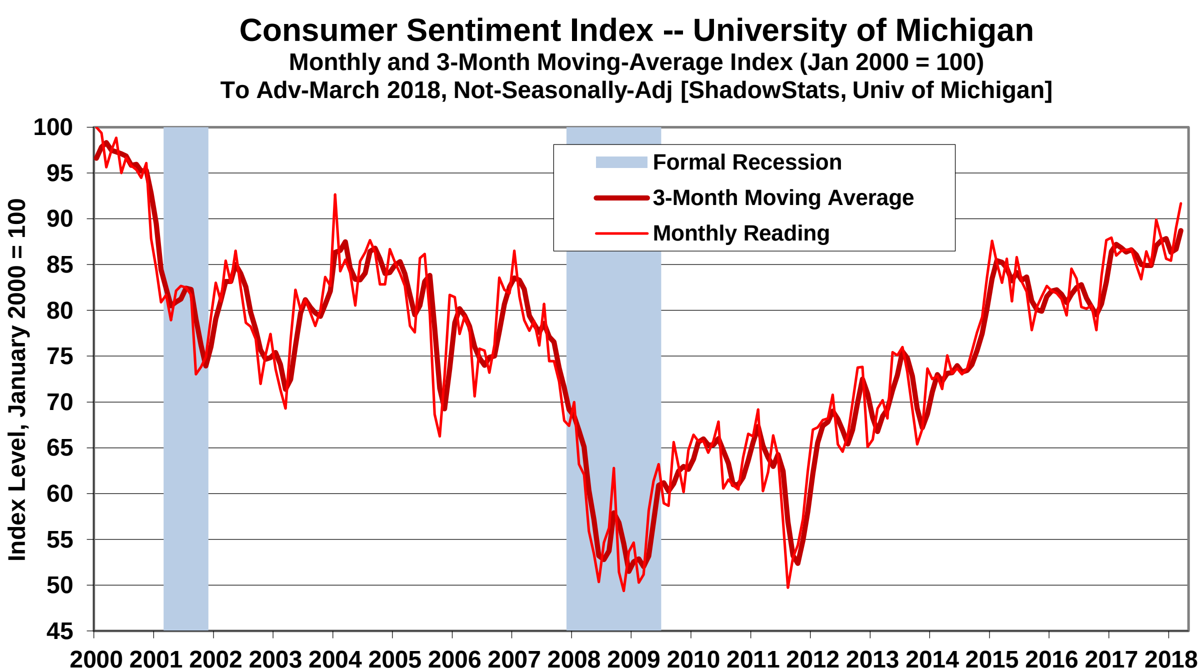
Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CLW-3*—plotted for the last 48 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods of normal, positive economic activity of the last four decades, with their six-month moving averages at levels last seen going into the 2001 recession, although increasingly, they appear to be topping out.

[Graphs CLW-1 to CLW-3 begin on the next page.]

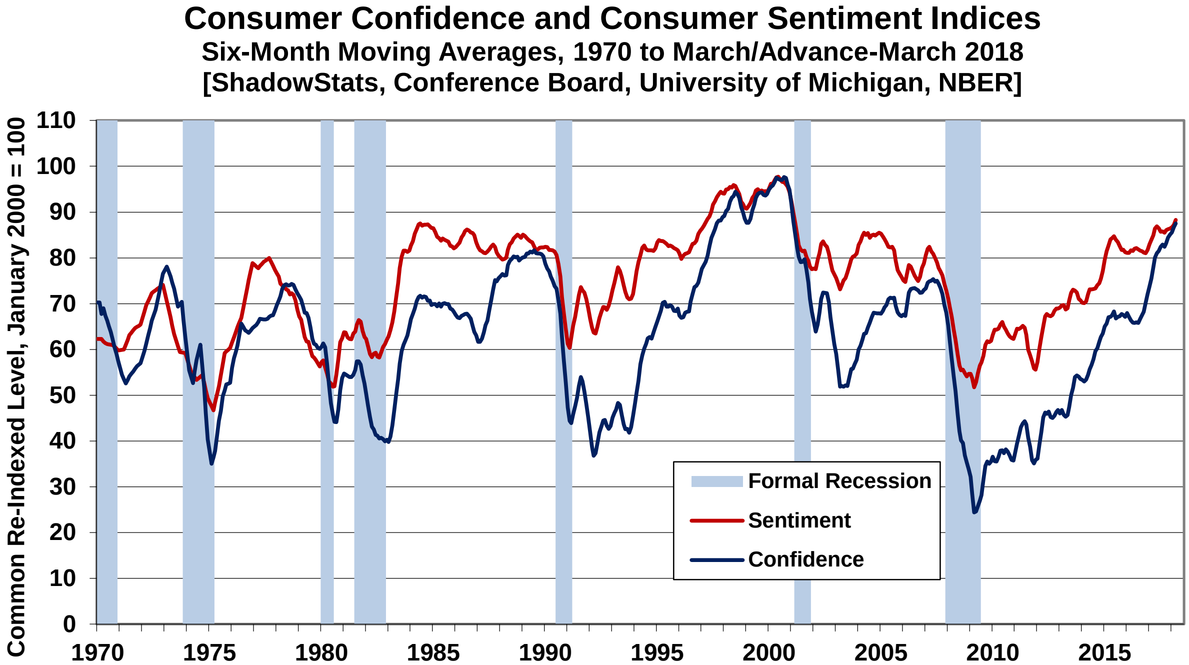
Graph CLW-1: Consumer Confidence (2000 to 2018)



Graph CLW-2: Consumer Sentiment (2000 to 2018)

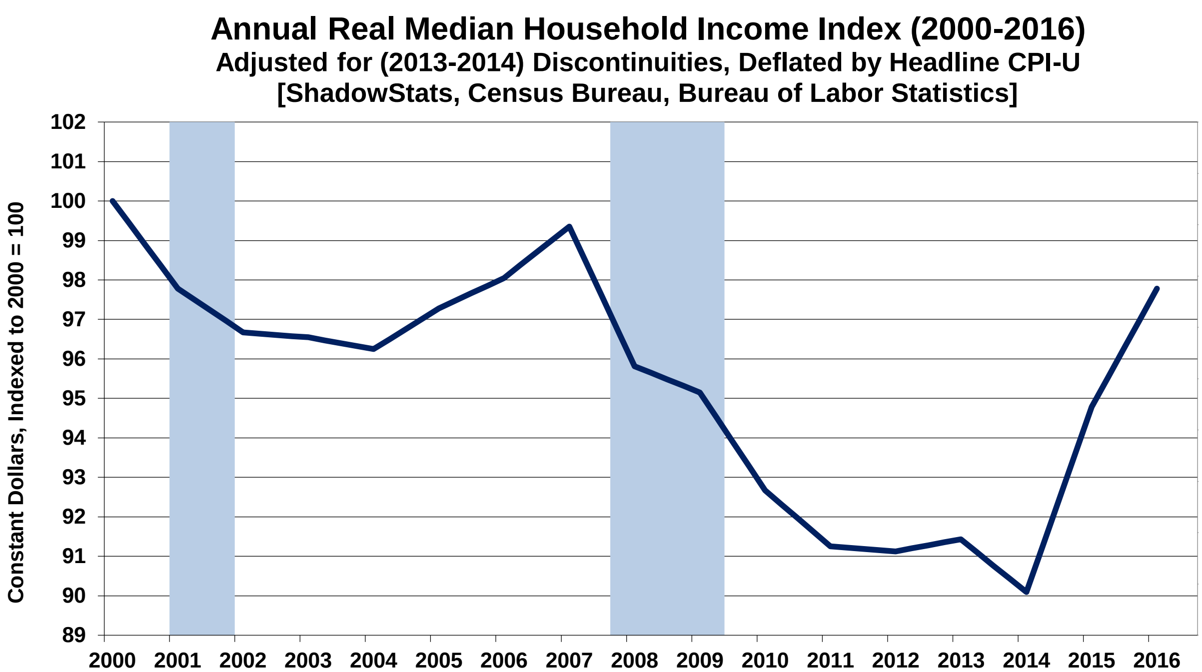


Graph CLW-3: Comparative Confidence and Sentiment (6-Month Moving Averages, 1970 to 2018)



2016 Annual Real Median Household Income Still Was Below Its 2007 Pre-Recession High, Below Activity in the Late-1990s, About Even with the Mid-1970s. The measure of real monthly median household income, which was provided by www.SentierResearch.com, generally can be considered as a monthly version of the annual detail shown in *Graph CLW-4,* based on the most-recent annual detail released by the Census Bureau and as discussed the *Opening Comments* of *Commentary No. 909*.

Graph CLW-4: Annual Real Median U.S. Household Income (1967 to 2016)



Last Monthly Estimate Showed Stagnating Monthly Real Growth. Last reported by Sentier Research, in what appears to have been the final estimate for the series, May 2017 Real Median Household Income was statistically unchanged, despite a boost from falling gasoline prices. Discussed in *General Commentary No. 894*, and in the contexts of then-faltering gains in post-election consumer optimism, and inflation-adjusted activity boosted by declining headline Consumer Price Index (CPI-U) inflation (weakened by seasonally-adjusted gasoline price declines), May 2017 Real Median Monthly Household Income was "statistically unchanged" (a statistically-insignificant monthly gain of 0.10%). That followed a statistically-significant monthly gain of 1.00% in April 2017. Shown in *Graph CLW-4,* such enabled May 2017 real monthly median household income to hold a level regained in April and otherwise last seen in February 2002. Year-to-year real median household income rose to 2.44% in May 2017, the highest level since June 2016, following an annual gain of 1.57% in April 2017 (see *Graph CLW-5*).

Where real monthly median income plunged into the headline trough of the economic collapse in 2009, it did not then rebound in tandem with the headline GDP activity. When the GDP purportedly started its solid economic recovery in mid-2009, the monthly household income numbers nonetheless plunged to new lows, hitting bottom in 2011. The income series then held in low-level stagnation, until collapsing gasoline prices and the resulting negative CPI-U inflation drove a post-2014 uptrend in the inflation-adjusted monthly income index. The index approached pre-recession levels in the December 2015 reporting, but it remained minimally below the pre-recession highs for both the formal 2007 and 2001 recessions until recent months. Real median household income had the potential to resume turning down anew, as the headline pace of monthly consumer inflation picked up anew, with the August 2017 CPI.

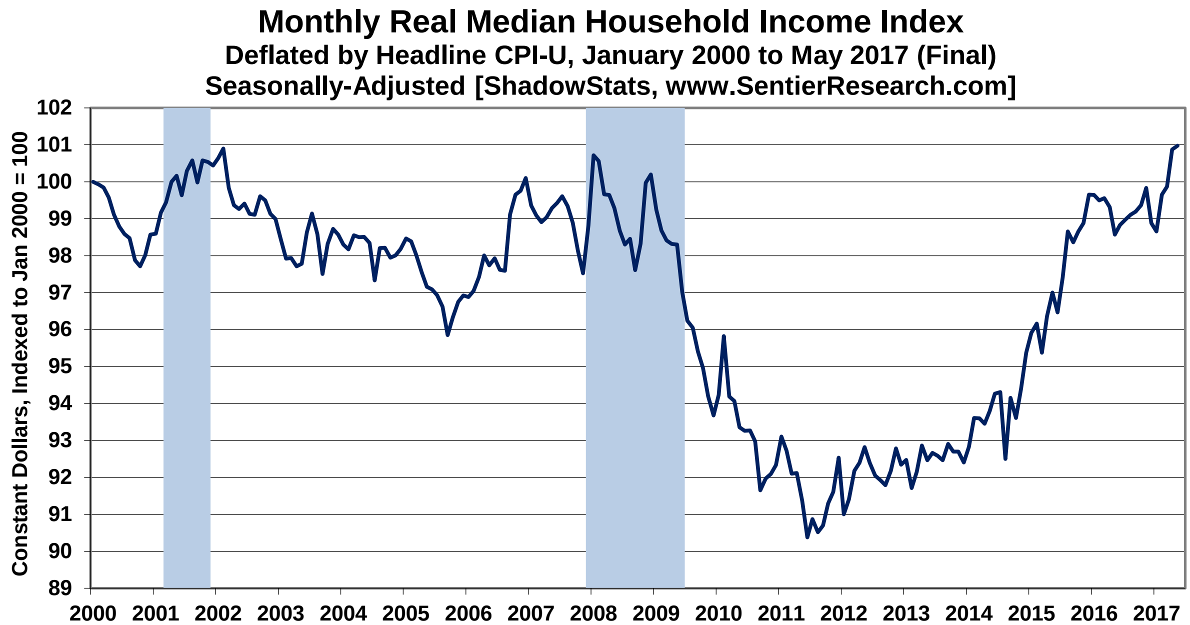
Nonetheless, the most-recent recent "rebound" reported in the series still left consumers financially strapped. Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash largely was used to help pay down unsustainable debt or other obligations, not to fuel new consumption. Except for mixed gyrations in first-half 2017, the effects of changing gasoline prices in the headline CPI-U generally had reversed, pushing headline consumer inflation higher and beginning to push real income lower.

Differences in the Monthly versus Annual Median Household Income**.** The general pattern of relative monthly historical weakness has been seen in the headline reporting of the annual Census Bureau numbers, again, shown in *Graph CLW-4,* with 2014 real annual median household income having hit a ten-year low, and, again, with the historically-consistent 2015 and 2016 annual number still holding below the 2007 pre-recession high.

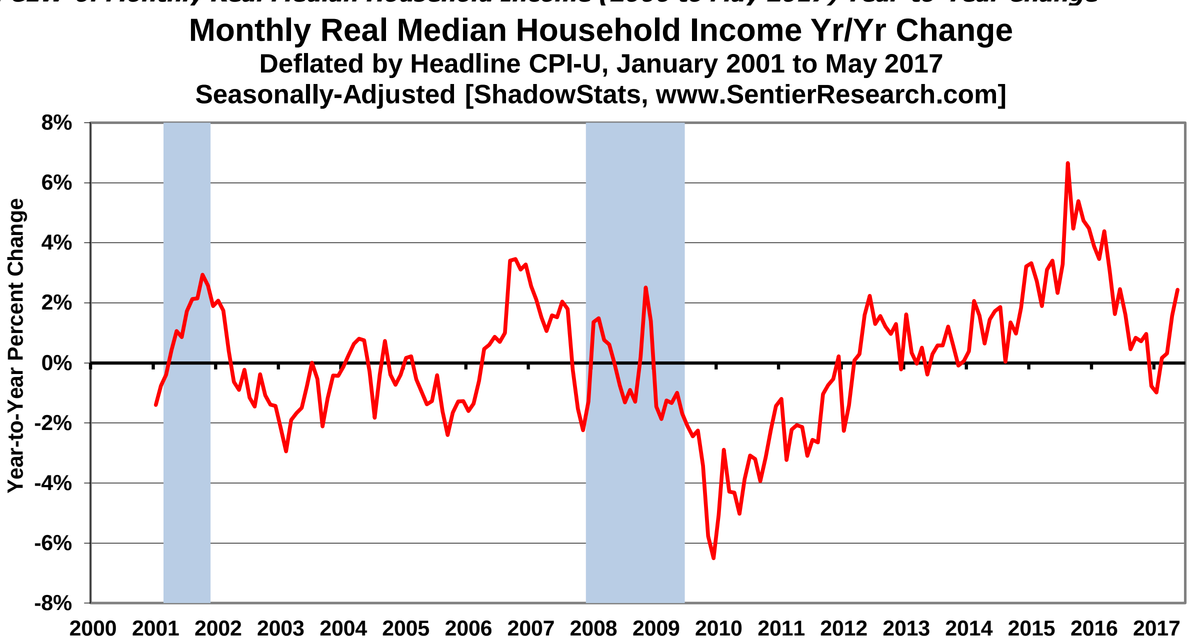
The Sentier numbers had suggested a small increase in 2014 versus 2013 levels, low-inflation induced real increases in 2015 and 2016. Allowing for the direction difference in 2014, and continual redefinitions and gimmicks in the annual series (again, see the *Opening Comments* of *Commentary No. 909*) the monthly and annual series had remained broadly consistent, although based on separate questions within the Consumer Population Series (CPS), as conducted by the Census Bureau.

Where Sentier used monthly questions surveying current annual household income, the headline annual Census Bureau detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent with Real Average Weekly Earnings.

Graph CLW-5: Monthly Real Median Household Income (2000 to May 2017) Index, January 2000 = 100



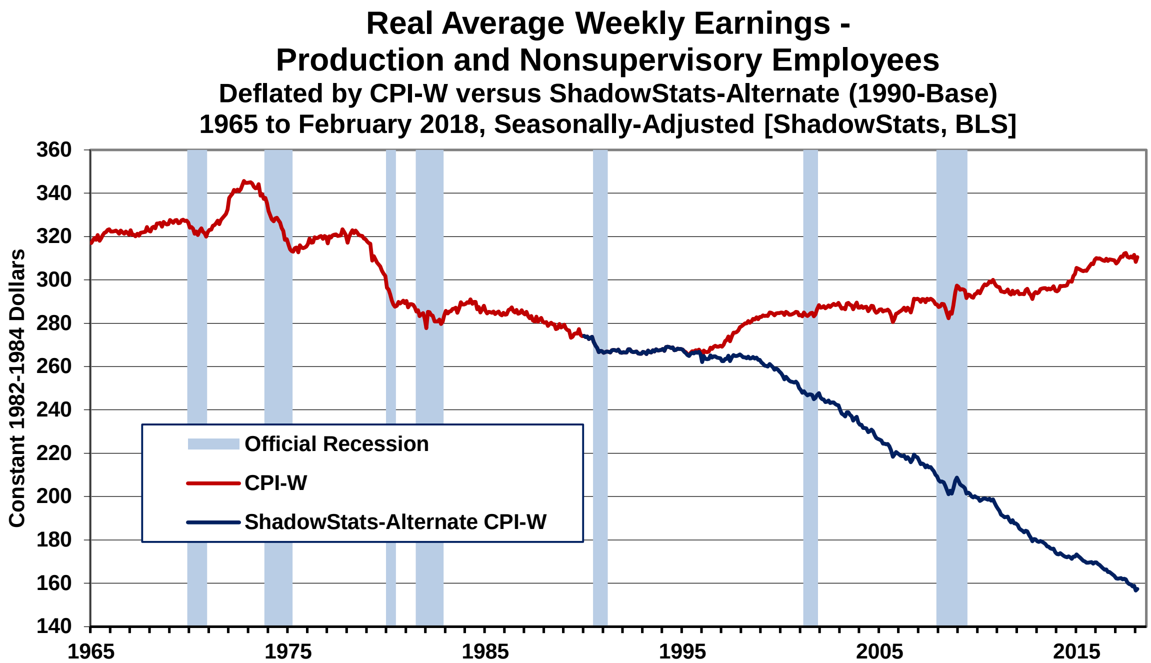
Graph CLW-6: Monthly Real Median Household Income (2000 to May 2017) Year-to-Year Change



Real Average Weekly Earnings—February 2018—Headed for a Third-Consecutive, Quarterly Contraction. For the production and nonsupervisory employees category—the only series for which there is a meaningful history (see the *Executive Summary* of *Commentary No. 940*), real average weekly earnings gained 0.8% in February 2018, but declined in January 2018 by a deeper 1.1% (-1.1%), setting up first-quarter 2018 as a likely, third-consecutive quarter of contraction in real earnings. Based on the latest detail, the early trend for first-quarter 2018 is for an annualized contraction pace of 1.8% (-1.8%).

That also would be the fifth real quarterly contraction of the last six quarters. See the *Reporting Detail* for further information.

Graph CLW-7: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date

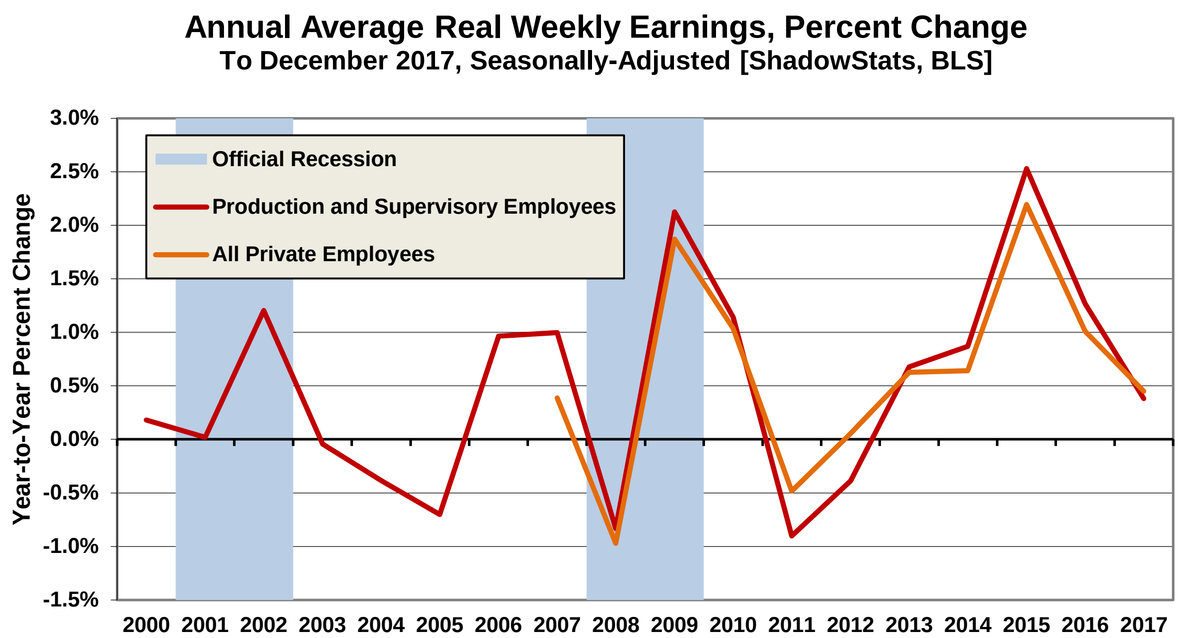


Graph CLW-7 plots the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much closer to common experience than the pattern suggested by the CPI-W. See the *Public Commentary on Inflation Measurement* for further detail.

Shown in *Graph CLW-8*, and as discussed in *Commentary No. 931*, both the "all-employees" and "production and nonsupervisory employees" categories showed a sharply slowing pace in annual growth in 2017. Presumably coming off more-positive economic circumstances, the patterns there are consistent with a renewed economic downturn, not with a new economic boom, and the current pace of decline is greater than the average tax reduction to be seen by consumers in the year ahead.

Not all economic downturns are reflected in the headline economic data. For example, industrial production indicated the U.S. economic downturn intensified in fourth-quarter 2014, enough to qualify as a new recession, which is consistent with the plot in *Graph CLW-8*. See the related discussions in *Commentary No. 928* and *Commentary No. 936*.

Graph CLW-8: Annual Average of Weekly Earnings, Annual Percent Change (2000 to 2017)



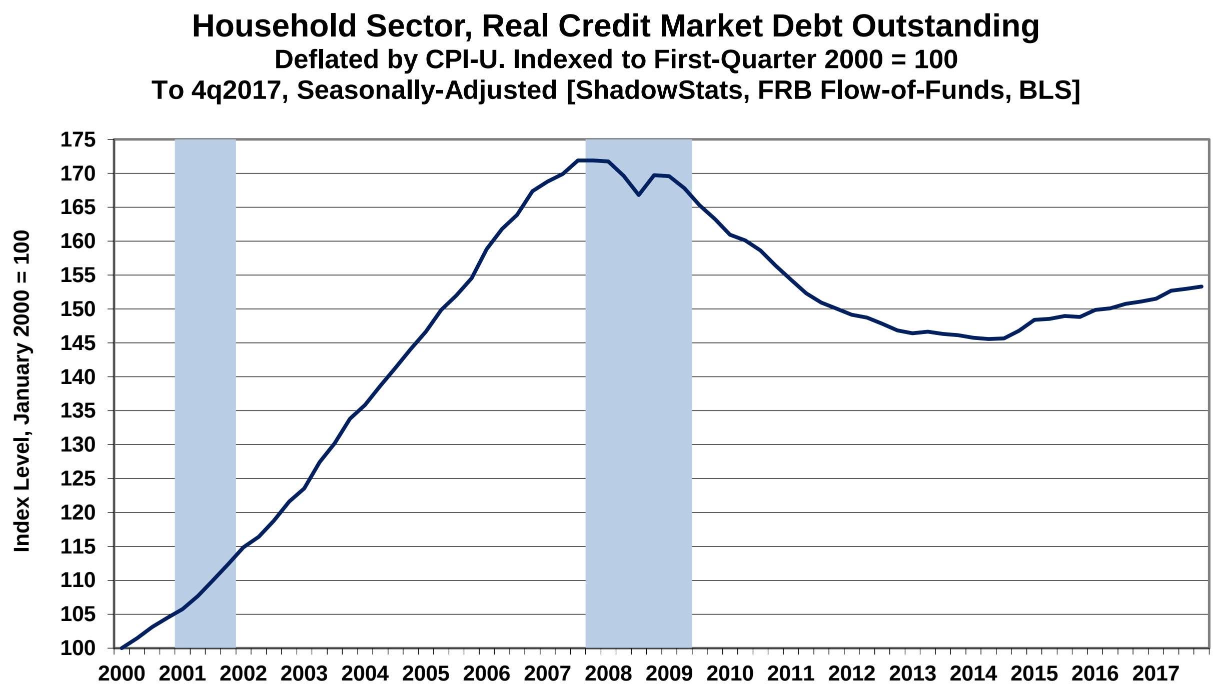
When income growth is inadequate to support consumption growth, consumers often make up the difference in debt expansion. Yet, real Consumer Credit Outstanding has shown a patterns of declining annual real growth for the last several quarters, irrespective of the specific series, as reflected in the plots of real monthly year-to-year change in *Graph CLW-13*.

Consumer Credit: Lack of Expansion in Real Consumer Credit Constrains Economic Growth. The final five graphs on consumer conditions address consumer borrowing. Where debt expansion can help make up for a shortfall in income growth, expansion of consumer debt, which would help fuel expansion in personal consumption, has been nonexistent.

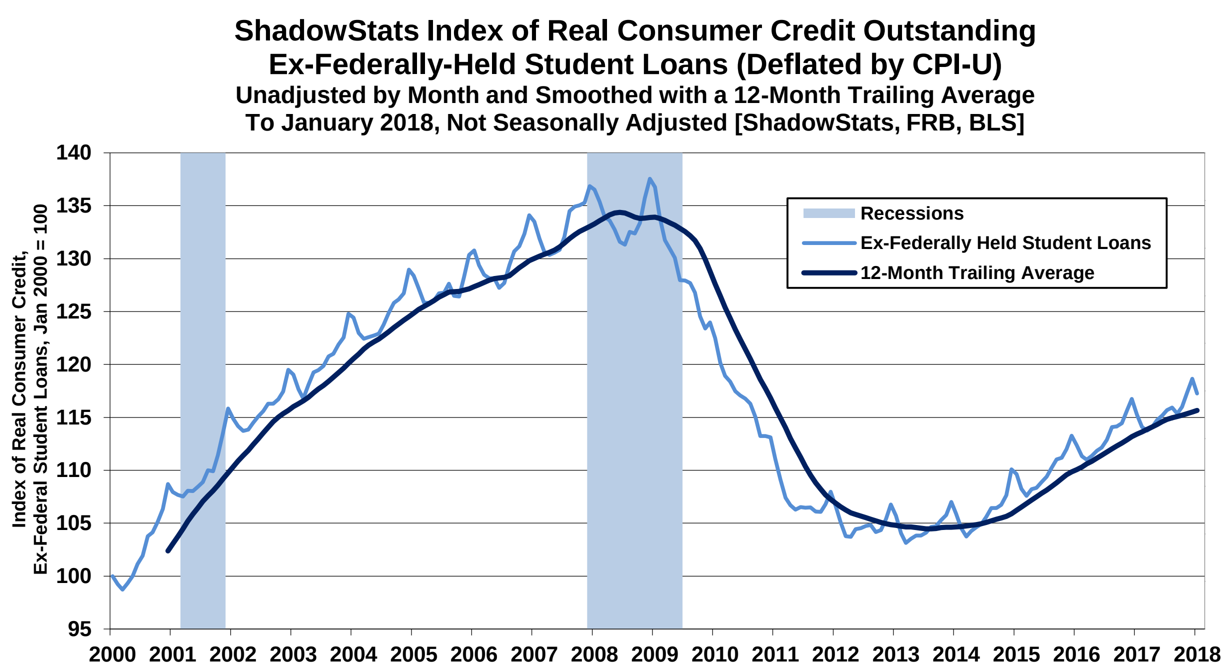
Quarterly Series. Consider *Graph CLW-9* of *Household Sector, Real Credit Market Debt Outstanding*. The level of real household debt declined in the period following the Panic of 2008, reflecting loan defaults and reduced banking lending, and it has not recovered fully, based on the Federal Reserve's flow-of-funds accounting through fourth-quarter 2017, released on March 8th. Household Sector, Real Credit Market Debt Outstanding in fourth-quarter 2017 still was down by 10.8% (-10.8%) from its pre-recession peak of third-quarter 2007. That was against a revised third-quarter 2017 decline of 11.0% (-11.0%) [previously 10.9% (-10.9%)]. The flattened visual uptick at the latest point in *Graph CLW-9* reflected a slowing in real year-to-year change from 1.72% [previously 1.70%] in second-quarter 2017, to 1.48% [previously 1.55%] in third-quarter 2017 and to 1.47% in fourth-quarter 2017. Such completes 41 straight quarters—a full decade-plus—of credit non-expansion, versus its pre-recession peak.

The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce. The slight upturn seen in the series through 2015 and into 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016 and intermittently into fourth-quarter 2017. Current activity also has reflected continuing relative strength from student loans, as shown in the *Graphs CLW-10* to *CLW-13*.

Graph CLW-9: Household Sector, Real Credit Market Debt Outstanding (2000 through Fourth-Quarter 2017)



Graph CLW-10: Real Consumer Credit Outstanding, Ex-Federal Student Loans (2000 to 2018)



Shown for comparative purposes is *Graph CLW-10,* real, not-seasonally-adjusted Consumer Credit Outstanding, Ex-Federally-Held Student Loans, has not recovered on a monthly, let alone the 12-month trailing-average basis used as a surrogate for seasonal adjustment. Discussed in the next section, this measure of consumer credit now has been through 121 months 40-plus quarters of non-expansion. That is reflected on a parallel basis through fourth-quarter 2017 reporting shown in *CLW-9*. Please note that the scale in *Graph 10* is indexed to Consumer Credit Outstanding Ex-Federal Student Loans equal to 100 in January 2000. In *Graphs 11* to *13*, that indexing is applied to the total Consumer Credit Outstanding number, which is greater in amount than its dominant Ex-Federal Student Loans subcomponent.

Monthly Series. Indeed, the ShadowStats analysis usually focuses on the particular current and continuing weakness in monthly levels of consumer credit, net of what has been rapidly expanding government-sponsored student loans. Where detail on that series only is available not-seasonally-adjusted, the following three related graphs and the preceding *Graph CLW-10* are so plotted.

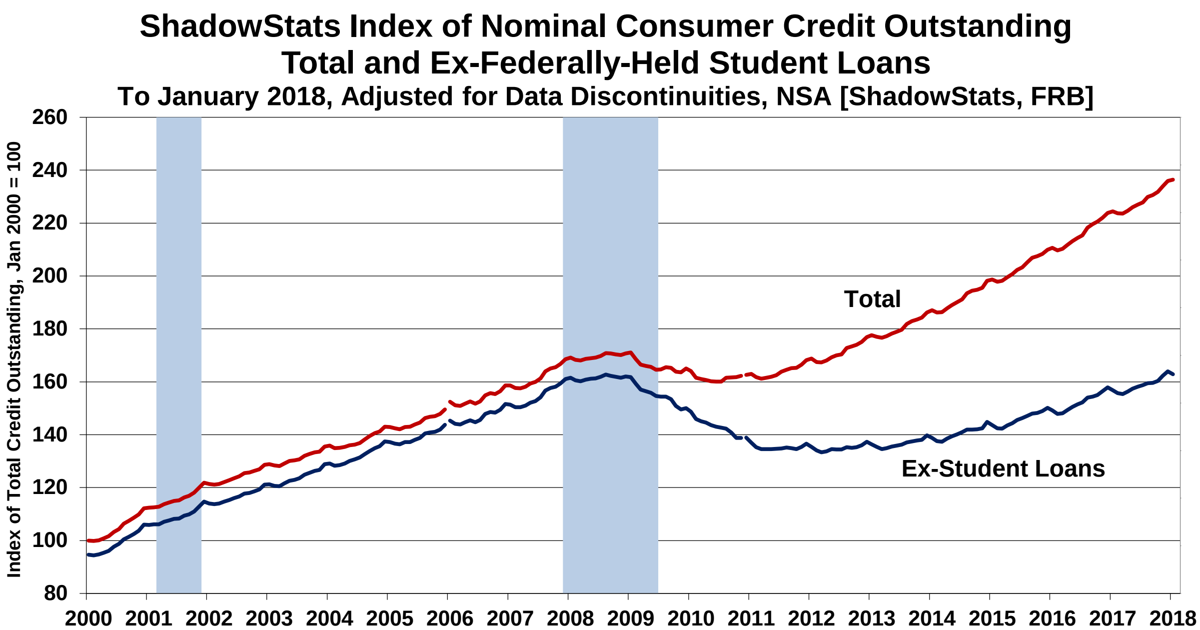
Shown through the January 2018 reading (released March 7th), the headline nominal monthly Consumer Credit Outstanding (*CLW-11*) is a subcomponent of the nominal Household Sector debt. Where *Graph CLW-12* reflects the real or inflation-adjusted activity for monthly Consumer Credit Outstanding terms of both level (*Graph CLW-12*) and year-to-year change (*Graph CLW-13*). *Graphs CLW-12* and *CLW-10* are comparable to the inflation-adjusted Household Sector plot in *Graph CLW-9*.

Post-2008 Panic, growth in outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would have fueled broad consumption or housing growth. Although in slow uptrend, the nominal level of Consumer Credit Outstanding (ex-student loans) has not recovered since the onset of the recession. These disaggregated data are available and plotted only on a not-seasonally-adjusted basis, with the pattern of monthly levels during one year reflecting some regular, unadjusted seasonal dips or jumps.

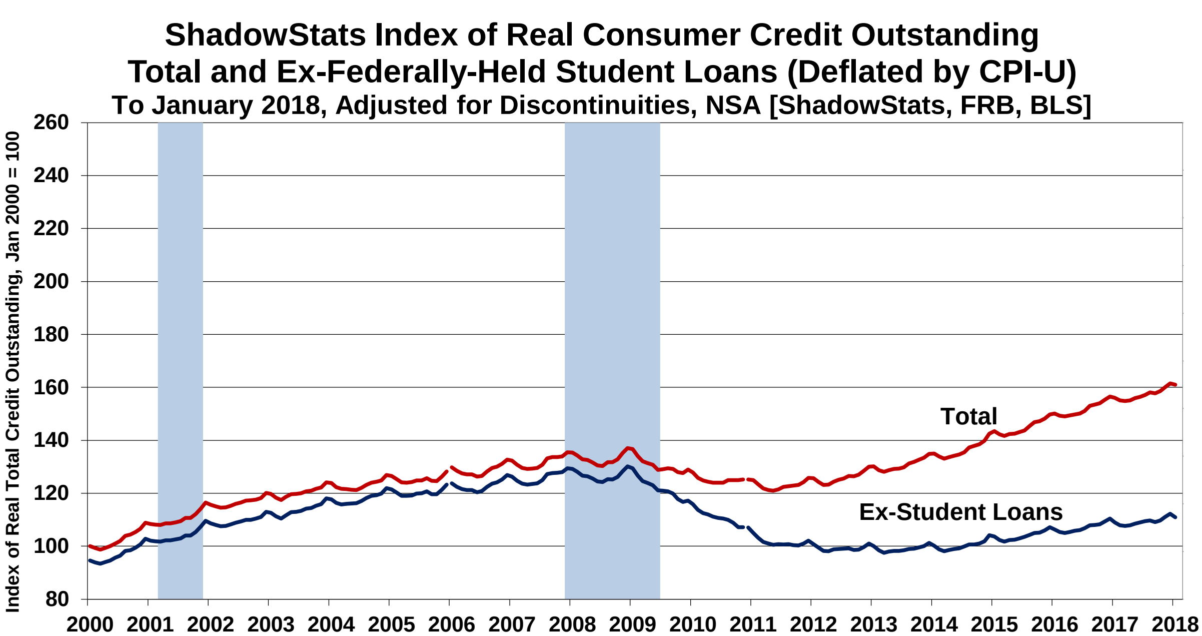
Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Where the recent monthly downside move in the not-seasonally-adjusted real consumer credit reflected a seasonal pattern, the pattern of year-to-year growth has been in downtrend, suggesting some tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in January 2018 was down from recovering its December 2007 pre-recession peak by 14.3% (-14.3%). That is 121 months or a full, ten-plus years of non-expansion of credit. Year-to-year real growth shown in *Graph CLW-13* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

[Graphs CLW-11 to CLW-13 begin on the next page.]

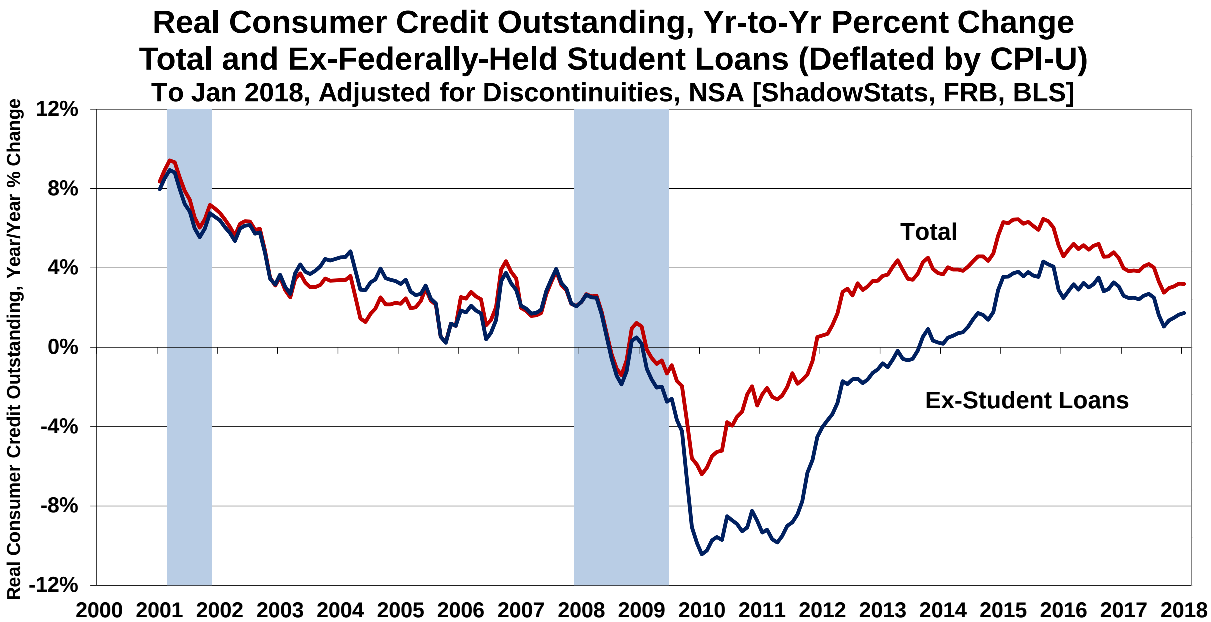
Graph CLW-11: Nominal Consumer Credit Outstanding (2000 to 2018)



Graph CLW-12: Real Consumer Credit Outstanding (2000 to 2018)



Graph CLW-13: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2018)



[The **Week, Month and Year Ahead** *begins on the next page.]*

WEEK, MONTH AND YEAR AHEAD

Instabilities and Turmoil in the U.S. Dollar and the Financial-Markets Remain at High Risk, in the Context of an Increasingly-Faltering, Non-Expanding Real-World Broad Economic Activity. Updated outlooks for the U.S. economy, the U.S. dollar, gold, silver and the financial markets were reviewed in *Special Commentary No. 935*, covered there in the *Executive Summary* beginning on page 2, with *Contents* and links to *Major Sections* and *Graphs* beginning on page 6. The faltering outlook also was reviewed in today's *Opening Comments* and *Industrial Production Benchmark Revisions* sections. Related financial market vulnerabilities will be explored in the next *Commentary No. 943*, including in the context of deteriorating fiscal circumstances in Washington, D.C. These matters were reviewed in the *Opening Comments*, *Reporting Detail* and *Hyperinflation Watch* of *Commentary No. 940*.

Conditions Continue to Darken. Natural-disaster-impact from late-2017 continued to unwind in most headline monthly economic reporting of January and February. These elements have suggested not only some downside revision for the third estimate of Fourth-Quarter 2017 GDP (see the following *Pending Economic Releases* section), but also intensifying risk for an outright quarterly contraction in the initial estimate of First-Quarter 2018 GDP on April 27th, particularly with the deteriorating trade deficit discussed in *Commentary No. 937*. Increasingly, headline economic details and pending benchmark revisions are likely to disappoint market expectations (see today's *Opening Comments*).

The real-world economy is not recovering or booming as advertised, despite heavy hype in the press of a booming, full-employment economy, and in the context recent FOMC tightening actions.

If not already there, reporting in most series should be back to normal (allowing for hurricane disruptions and recovery) with the headline reporting of February 2018 economic activity, as discussed in *General Commentary No. 929*. Most series increasingly should reflect "unexpected" downtrending economic activity. Where misleading, recent headline details had contributed to a manic stock market, that mania is vulnerable to rapid unwinding, a process should accelerate as market perceptions increasingly shift towards renewed economic downturn.

An unhappy period of market readjustment to underlying real-world circumstances looms, where Wall Street's proponents of a never-ending stock-market rally have parlayed temporary, nonrecurring economic boosts from natural disasters into a year-end 2017 economic boom. Negative economic "surprises" increasingly should shock the markets and the U.S. dollar on the downside. As the reported economic downturn intensifies in the months ahead, the FOMC—under its new Chairman Jerome H. Powell—eventually should face an "unexpected" policy retrenchment, moving back towards quantitative easing.

In these circumstances, the U.S. dollar and financial markets remain at extraordinarily-high risk of intensified panicked declines, likely in the very near term (see the *Opening Comments* and *Hyperinflation*

Watch of *Commentary No. 940*). Holding 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: Gross Domestic Product—GDP (Fourth-Quarter 2017, Third Estimate, Second Revision). The Bureau of Economic Analysis (BEA) will release its second-revision to, third estimate of Fourth-Quarter 2017 GDP on Wednesday, March 28th, which will be covered in *Commentary No. 943* of that date. Initial estimates of Fourth-Quarter 2017 Gross Domestic Income (GDI) and Gross National Product (GNP) also will be published at that time.

Where the GDI is the theoretical income-side equivalent to the GDP's consumption-side, and where the GNP is the broadest measure of the economy, the GDP net of the trade balance in international factor-income flows (interest and dividend payments), both series can offer unexpected signals.

Expectations are for an upside revision to 2.7% or 2.8%, from annualized real growth of 2.5% [2.54%] in the second estimate and 2.6% [2.55%] in initial reporting, and versus an annualized real gain of 3.2% [3.16%] in third-quarter 2017. The markets are looking for some inventories-related boosts (weaker sales), but there remains some downside-revision risk, based on deteriorating trade-deficit reporting and weaker consumption.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. In the context of historical background provided in *Special Commentary No. 885*: *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, and as reviewed in today's *Opening Comments*, significant reporting-quality problems remain with most major economic series. Beyond pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended both to understate inflation and to overstate economic activity meaningfully—as generally viewed in the common experience of Main Street, U.S.A.—ongoing, near-term headline reporting issues often reflect systemic distortions of monthly seasonal adjustments.

Data instabilities—induced partially by the still-evolving economic turmoil of the last eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn have provided particularly unstable headline economic results, with the use of concurrent seasonal adjustments (as seen with retail sales, durable goods orders, employment and unemployment data). While historical seasonal-factor adjustments are revised every month, based on the latest, headline monthly data, the consistent, revamped historical data are not released or reported at the same time. That issue is discussed and explored in the labor-numbers related *Supplemental Commentary No. 784-A* and *Commentary No. 695*.

Further, discussed in *Commentary No. 778*, a heretofore unheard of spate of "processing errors" surfaced in 2016 surveys of earnings (Bureau of Labor Statistics) and construction spending (Census Bureau). This is suggestive of deteriorating internal oversight and control of the U.S. government's headline economic reporting. That construction-spending issue now appears to have been structured as a gimmick to help boost the July 2016 GDP benchmark revisions, aimed at smoothing the headline reporting of the GDP business cycle, instead of detailing the business cycle and reflecting broad economic trends accurately, as discussed in *Commentary No. 823*.

Combined with ongoing allegations in the last several years of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular - economic series (see *Commentary No. 669*). Investigative-financial/business reporter John Crudele of the *New York Post* has written extensively on such reporting irregularities: *Crudele Investigation*, *Crudele on Census Bureau Fraud* and *John Crudele on Retail Sales*.

LINKS TO PRIOR COMMENTARIES AND SPECIAL REPORTS

Prior Writings Underlying the Current *Special Commentaries* and a Sampling of Recent *Regular 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 missive 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 Commentaries. *[Listed here are* Commentaries *of the last several months or so, plus recent* Special Commentaries *and others covering a variety of non-monthly issues, including annual benchmark revisions, dating back through 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 weekly *Commentaries* are published at least weekly and update the general outlook, as circumstances develop.

Commentary No. 942-A (March 23rd) provided a brief summary of the much more extensive details covered in today's *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. 928 (December 22, 2017) covered November 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the third estimate of Third-Quarter 2017 GDP.

Commentary No. 927 (December 19, 2017) reviewed November 2017 New Residential Construction (Housing Starts and Building Permits) and Cass Freight Index™, along with an expanded discussion on underlying economic reality and the financial markets.

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. 925 (December 13th) reviewed November 2017 headline detail on the CPI and PPI, along with an update on the FOMC actions and the regular U.S. dollar, gold graphs.

Commentary No. 924 (December 8, 2017) discussed the November 2017 Employment and Unemployment details and Conference Board Help Wanted OnLine® Advertising, the October Trade Deficit and Construction Spending and updated Monetary Conditions in November.

Commentary No. 923 (November 29, 2017) covered the second estimate of Third-Quarter 2017 GDP, including initial estimates for Third-Quarter GNP, GDI and Per Capita Real Disposable Income, the October Trade Deficit, Cass Freight Index and New-Home Sales.

Commentary No. 919-B (November 6, 2017) provided more in-depth detail on the October 2017 labor detail.

Commentary No. 919-A (November 3, 2017) provided initial detail and background on October labor data, and reviewed the October 2017 Conference Board Help Wanted OnLine® Advertising, the September Cass Freight Index™, Trade Deficit and Construction Spending, and updated Monetary Conditions.

Special Commentary No. 918-B (October 30, 2017) provided a more comprehensive review of the initial third-quarter 2017 GDP detail, along with update versions of the *Hyperinflation Watch* and *Consumer Liquidity Watch*.

Commentary No. 917 (October 26/27, 2017) reviewed September Industrial Production, New Orders for Durable Goods, New Residential Construction (Housing Starts and Building Permits) and New- and Existing-Home Sales.

Commentary No. 916 (October 20th) reviewed the September 2017 Retail Sales details along with the headline Consumer and Producer Price Indices for September.

Commentary No. 915 (October 6, 3017) reviewed the September 2017 Employment and Unemployment details, along with September 2017 monetary conditions.

Commentary No. 913 (September 28, 2017) reviewed the third-estimate of second-quarter 2017 GDP, with a further consideration of some unusual economic reporting in the near future.

Commentary No. 910 (September 15, 2017) reviewed the August 2017 releases of Industrial Production and nominal and real Retail Sales.

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

Commentary No. 908-B (September 6, 2017) provided extended detail of the August 2017 Labor and Monetary conditions and July 2017 Construction Spending, along with coverage of the July 2017 Trade Deficit and the initial estimate of the 2017 Payroll Employment benchmarking.

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. 903 (August 7, 2017) discussed new signals of economic deterioration in terms of political and FOMC considerations, along with headline coverage of the July labor data, M3 and The Conference Board Help Wanted OnLine®, and June trade deficit and construction spending.

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.

