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

COMMENTARY NUMBER 951

New Orders for Durable Goods, New- and Existing-Home Sales, Retail Sales Benchmarking

May 25, 2018

Retail Sales Benchmarking Was Unbelievably Negligible,
Shifting Growth Minimally from 2015 through 2017, into 2018

First-Quarter 2018 Real Retail Sales Annualized Contraction
Narrowed to 1.71% (-1.71%) from 2.05% (-2.05%),
Still the Deepest Drop Since the 2009 Depths of the Great Recession

Sharp Downside Benchmark Revisions to New Orders for Durable Goods
Left Real Orders Shy by 7.1% (-7.1%) of Recovering Their Pre-Recession Peak

New- and Existing-Home Sales Both Took Monthly Tumbles in April,
Down Respectively by 1.5% (-1.5%) and 2.5% (-2.5%), Still
Shy by 52.3% (-52.3%) and 24.9% (-24.9%) of Recovering Pre-Recession Peaks

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PLEASE NOTE: The next missive (Commentary No. 952), targeted for Wednesday, May 30th, will review the Retail Sales benchmark revisions of May 25th in greater detail, along with coverage of the first revision to First-Quarter 2018 GDP, and private surveying of May labor conditions. Commentary No. 953-A, planned for Friday, June 1st, will cover at least summary details of May 2018 employment and unemployment and April Construction Spending, most likely followed by a Commentary No. 953-B on June 4th, with full coverage.

Best wishes to all for a most enjoyable Memorial Day Weekend! — John Williams (707) 763-5786

Today's (May 25th) *Opening Comments and Executive Summary.* The ***Opening Comments*** provides a brief overview of this morning's (May 25th) just-relased annual benchmark revisions to the Retail Sales series, to be reviewed fully in the next *Commentary*. Further detail on the May 17th annual benchmark revisions to New Orders for Durable Goods and the annual revisions to New-Home Sales are covered in their respective sections of the *Reporting Detail*. The ***Executive Summary*** (page 4) highlights April 2018 New Orders for Durable Goods, along with details on April New- and Existing-Home Sales.

The ***Reporting Detail*** (page 18) reviews the headline, April New Orders for Durable Goods and related benchmarking in extended detail. New- and Existing-Home Sales also are covered in greater depth, including a review of the annual revisions to New-Home Sales activity.

The ***Consumer Liquidity Watch*** (page 30) has been updated for Sentier Research's estimate of April Real Median Household Income.

The ***Week, Month and Year Ahead*** (page 44) provides background on recent *Commentaries* and previews next week's releases of the second estimate of first-quarter 2018 GDP, May employment ang unemployment and April Construction Spending.

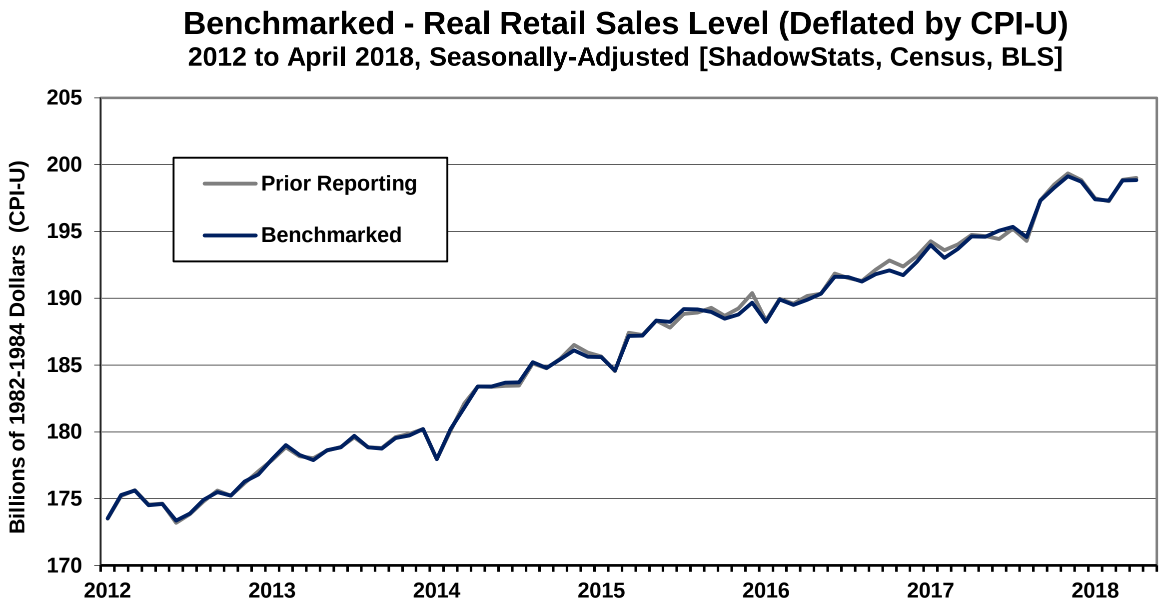
OPENING COMMENTS

Retail Sales Benchmark Revisions Back to 1992 Were Negligible. Released this morning (May 25th) by the Census Bureau (*Press Release*), restated estimates of the Retail Sales series were published back to 1992, in the context of a new sample, new seasonal factors, results of the 2016 Annual Retail Trade Survey and redefined component series, yet the benchmark revisions were so minor as to be not credible. Revisions were well below usual volatility seen with regular corrections to the series. The effect of the revisions was to shift growth minimally (reducing activity) from the 2015 to 2017 period into early-2018 (increasing relative activity). As a result, the previously headlined first-quarter 2018 annualized real contraction of 2.05% (-2.05%), revised to 1.76% (-1.76%), yet it remained the deepest quarterly contraction since the 2009 depths of the Great Contraction.

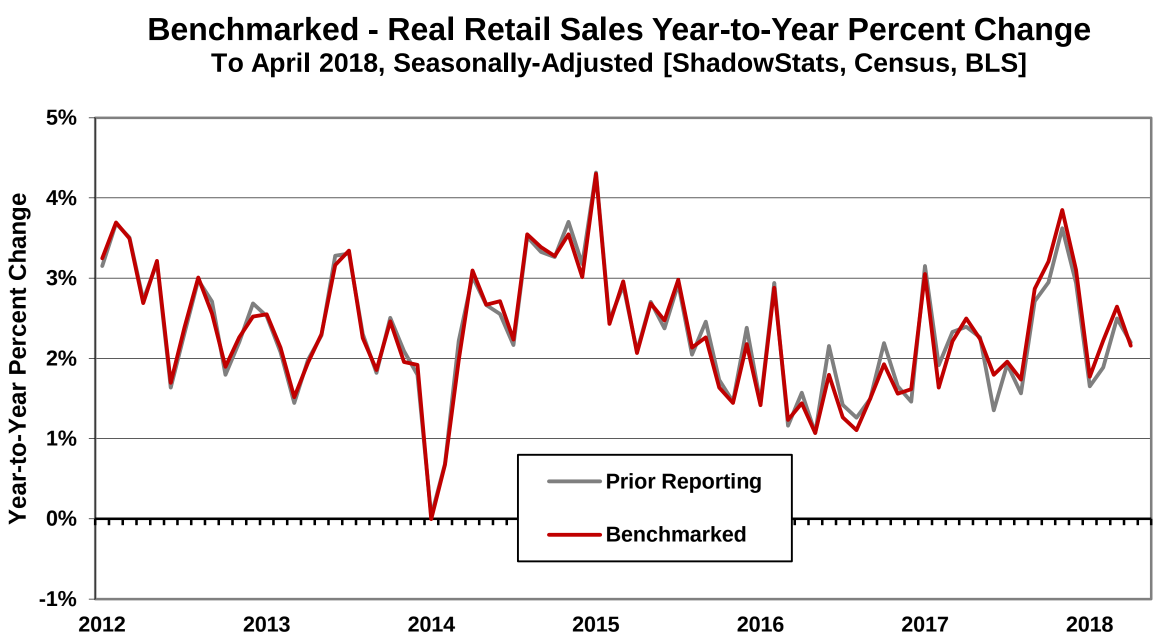
To the extent there might be any implications here for the July 27th comprehensive benchmark revision to Gross Domestic Product (GDP), back to 1929, the minimally-revised Retail Sales growth patterns would be consistent with a double-dip recession as a second-leg to the headline Great Recession. Such would have followed the fourth-quarter 2014 peak in Industrial Production (see *Commentary No. 942-B* and *Commentary No. 950*). Still-pending benchmark revisions that also will impact GDP revisions include the U.S. International Trade in Goods and Services (June 6th) and Construction Spending (July 2nd).

Where the Retail Sales series was just recast and revised back to its modern incarnation of 1992, the accompanying graphs *OC-1* and *OC-2* reflect the most-visible revisions to the aggregate numbers, post-2012, in its most meaningful form from an economic perspective, which is in real terms, net of CPI-U inflation. Based on the headline Census numbers, the Real Retail Sales series is calculated and published regularly by the Saint Louis Federal Reserve. The graphs and data here are based on identical calculations by ShadowStats. The detail will be more closely reviewed, including more-extensive graphs, which will follow in the next *Commentary No. 952*, planned for May 30th.

Graph OC-1: Benchmark-Revised Real Retail Sales, Showing 2012 to April 2018



Graph OC-2: Benchmark-Revised Real Retail Sales (Year-to-Year Change), 2012 to April 2018



EXECUTIVE SUMMARY: New Orders for Durable Goods—April 2018—Headline Monthly Data Were Mixed on Top of Sharp, Downside Benchmark Revisions. Headline April 2018 New Orders for Durable Goods begins fresh reporting for the series, in the context of annual benchmark revisions (through March 2018) published on May 17th and with today's (May 25th) initial estimate of April's activity. The revisions were discussed preliminarily in *Commentary No. 950* and graphed there, along with expanded coverage and new graphics in today's *Reporting Detail* (see *Graphs 21* to *28*).

Reflecting Volatile Aircraft Orders and Inflation, April Orders Contracted Month-to-Month, but Held in Positive Annual Growth Territory. Aggregate New Orders for Durable Goods declined month-to-month by 1.7% (-1.7%) in April 2018, hit by a 29.0% (-29.0%) plunge in Commercial Aircraft Orders and on top of a 0.4% monthly jump in related inflation. Net of inflation and the drop in commercial aircraft orders, however, orders rose by 0.7% April. Such followed a monthly gain in nominal total orders in March of 2.7%, boosted by a 60.7% jump in aircraft orders and reflecting a 0.4% jump in inflation. Net of commercial aircraft and inflation, real New Orders for Durable Goods declined by 1.3% (-1.3%) month-to-month in March.

Relative Annual Growth Boosted by Downside Revisions to Prior-Year Activity. Given the downside benchmark revisions to activity of recent years, current annual growth has received a relative boost, as reflected in *Graph 23* of the *Reporting Detail.* Real annual growth in aggregate New Orders for Durable Goods was 5.5% in April 2018, down from 9.0% in March 2018, net of inflation and commercial aircraft, orders were up by 4.6% in April 2018, still down from 4.7% in March 2018.

Despite the recent, disaster-recovery-induced, smoothed upside biases, the six-month moving averages of those series should begin to flatten out meaningfully in the months ahead, along with the continued unwinding of the natural-disaster impacts. Such should be reflected increasingly in *Graphs 1* and *2*, going forward.

Summary Headline Detail. Total nominal New Orders for Durable Goods declined month-to-month by 1.66% (-1.66%) in April 2018, versus gains of 2.70% in March and 4.47% in February, in the context of annual revisions. Nominal annual growth rose by 7.82% in April 2018, versus 11.15% in March 2018 and 11.34% in February 2018.

Net of inflation and the volatile commercial aircraft orders, new orders rose month-to-month by 0.65% in April 2018, having declined by 1.32% (-1.32%) in March 2018 and having gained 3.67% in February. Annual change was 4.60% in April 2018, versus 4.69% in March 2018 and 9.31% in February 2018.

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

Graphs of Inflation-Adjusted and Smoothed Durable Goods Orders. Updated for the headline April 2018 numbers, and in the context of the annual benchmark revisions reflected in the *Reporting Detail* and as discussed in *Commentary No. 950*, *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, but uptrending stagnation.

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 2017 and 2018, although softened by the downside benchmark revisions (see for example, *Graphs 25* and *26* in the *Reporting Detail*).

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

New Orders, Production and North American Freight Activity. ShadowStats concentrates on the inflation-adjusted real New Orders for Durable Goods series, ex-commercial aircraft, as a leading indicator to the dominant Manufacturing sector of Industrial Production, and in the context of activity reflected in the Cass Freight Index™. Comparative levels and annual growth patterns are plotted in *Graphs 3* to *8*, the related, extended discussion found in the *Opening Comments* of *Commentary No. 950*.

None of these series has recovered its pre-recession high of 2007; all continue in non-recovered, non-expanding, low-level stagnation, shy of recovering their pre-recessions peaks by 7.0% (-7.0%) for real new orders, ex-commercial aircraft, by 5.4% (-5.4%) for the manufacturing component of industrial production, and by 7.6% (7.6%) for the Cass Freight Index™, a reliable private indicator of real-world economic activity and shifting business patterns. Again, we thank Cass Information Systems for their permission to use the data.

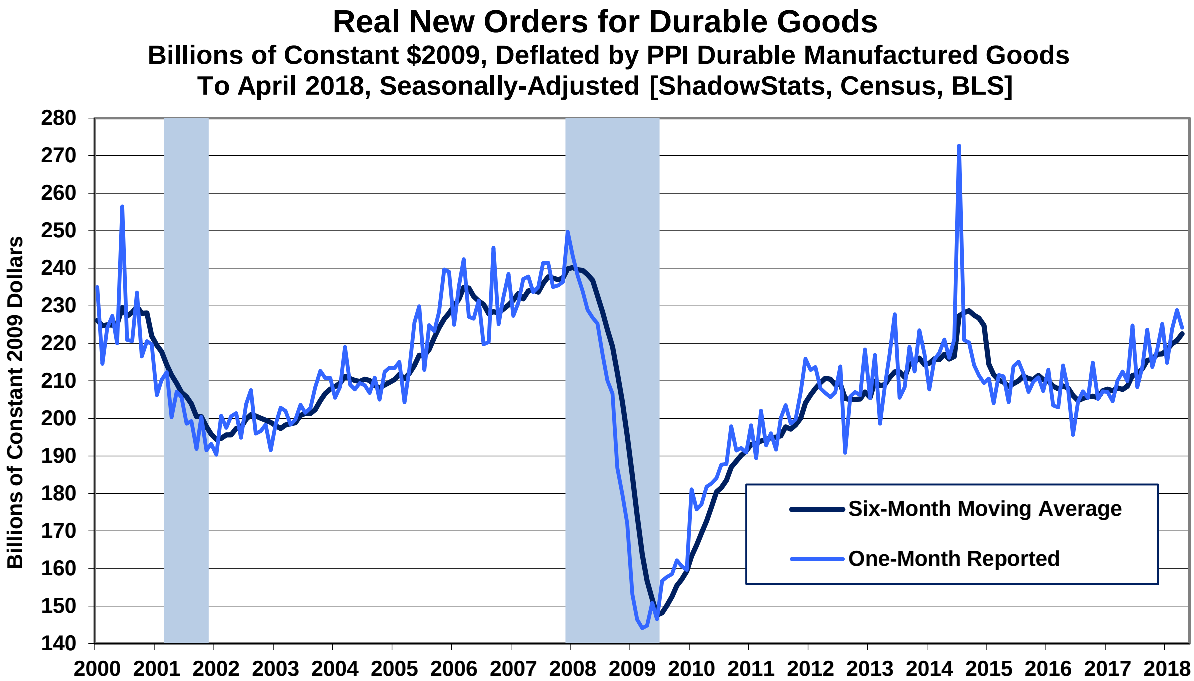
Where moving off the low-level of positive annual growth seen in *Graph 4* might suggest a near-term bottoming in orders (discussed in *General Commentary No. 867*), such partially is an artefact of roughly two-percentage-points understatement of the inflation used in deflating the headline durable goods series, an issue addressed later with *Graphs 9* to *12*.

Again, shown in *Graphs 3* to *8,* 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 Industrial Production coverage in *Commentary No. 950*).

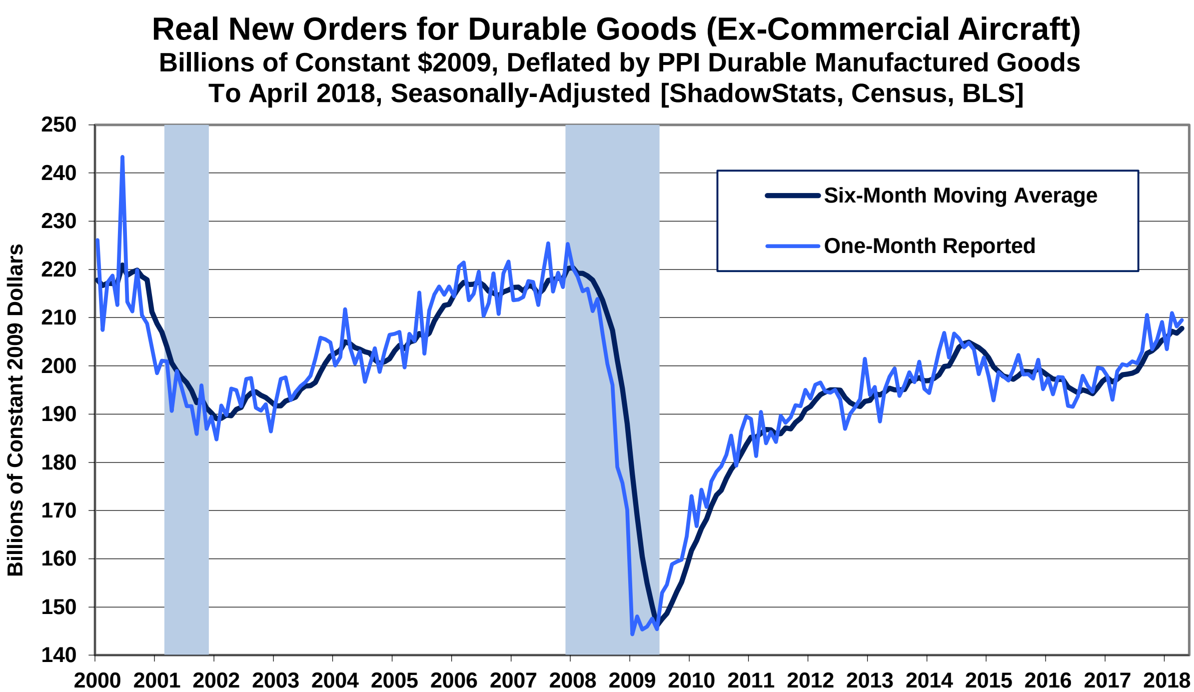
[Graphs 1 to 8 begin on the next page.]

Headline New Orders Detail, Aggregate and Ex-Commercial Aircraft
[All related graphs in the Executive Summary incorporate the 2018 benchmarking details, reviewed separately in the Reporting Detail and in Commentary No. 950.]

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

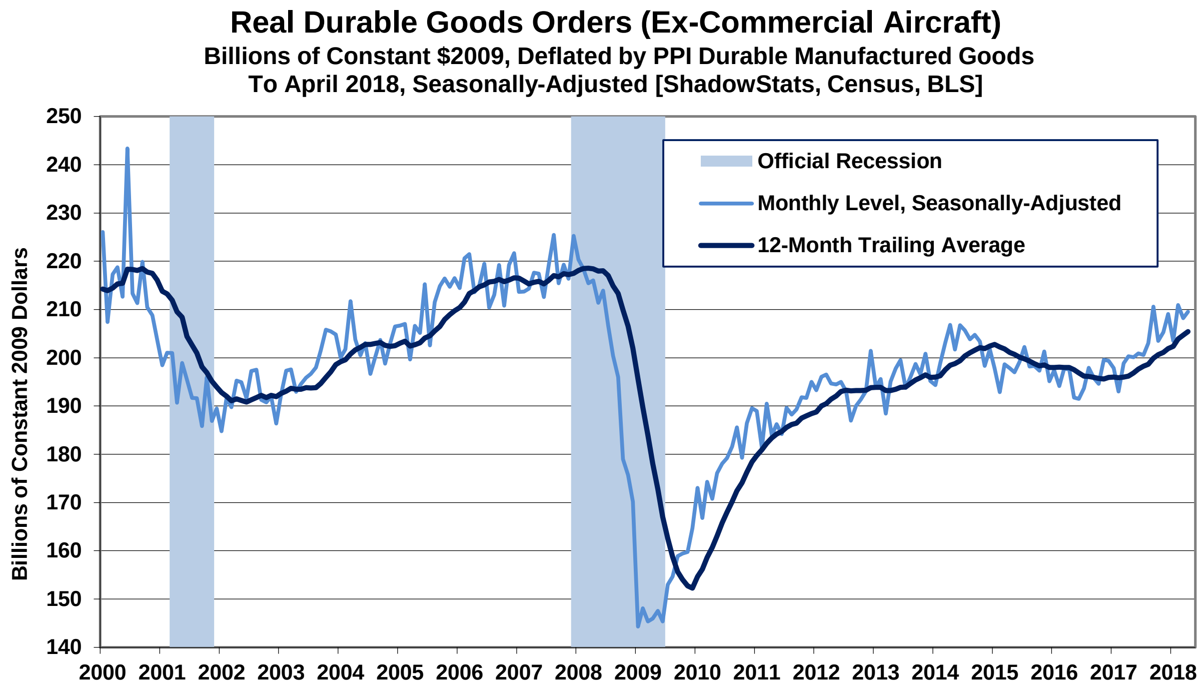


Graph 2: Real New Orders for Durable Goods – Ex-Commercial-Aircraft Orders to Date

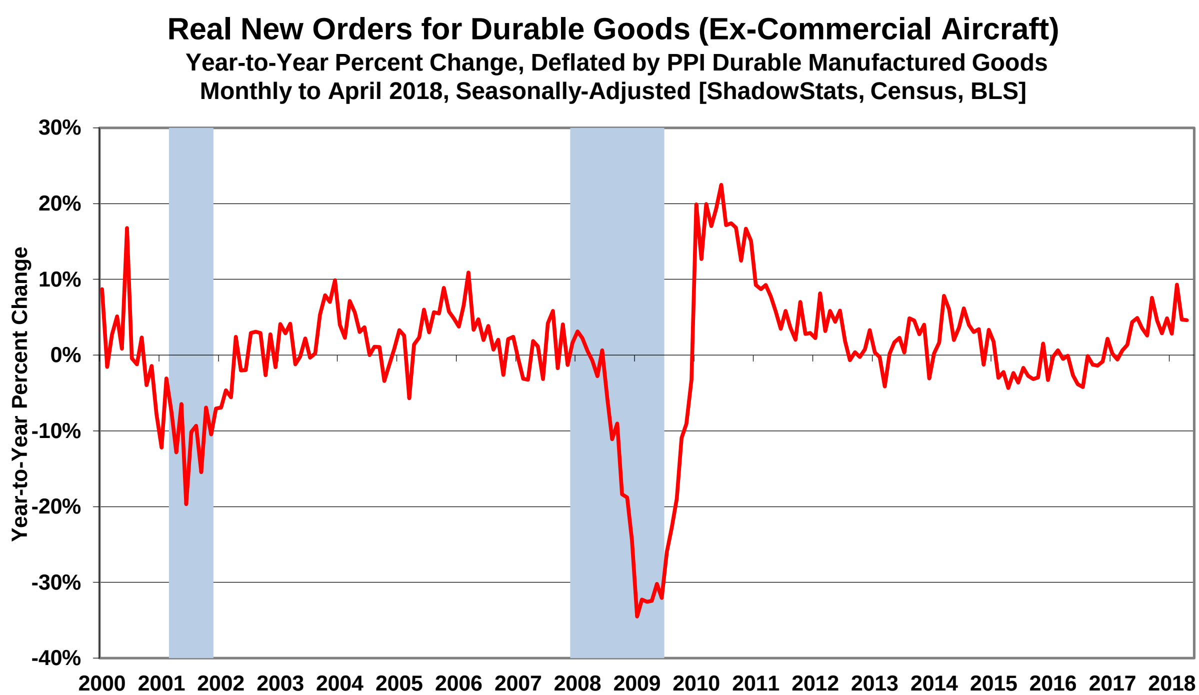


Comparative New Orders, Production and North American Freight Activity

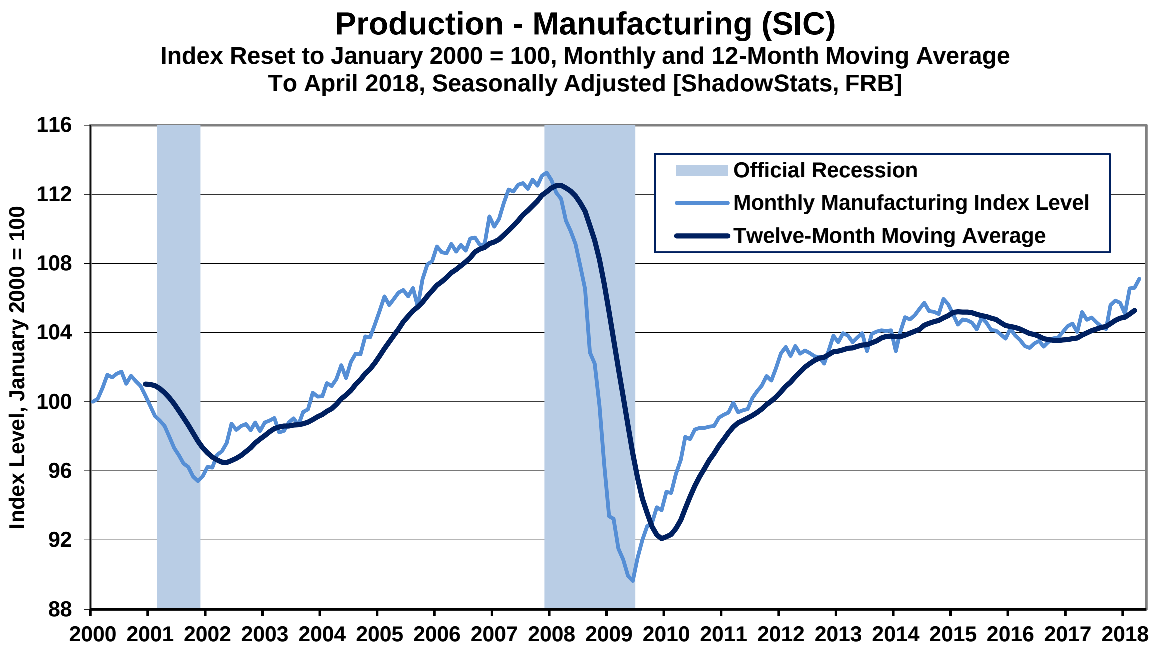
Graph 3: Real New Orders for Durable Goods – Ex-Commercial-Aircraft (2000 to April 2018)



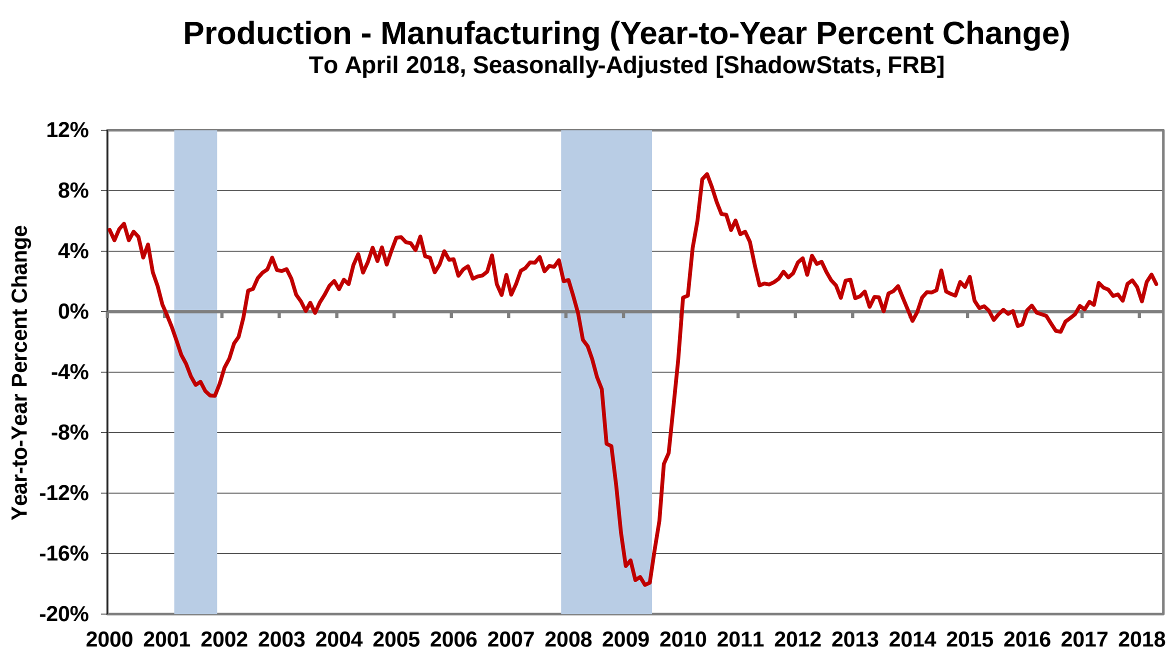
Graph 4: Yr-to-Yr % Change, Real New Orders for Durable Goods – Ex-Commercial Aircraft (2000 to April 2018)



Graph 5: Industrial Production-Manufacturing, 12-Month Moving-Average Level (2000 to April 2018)
(Same as Graph OC-10 in Commentary No. 950)

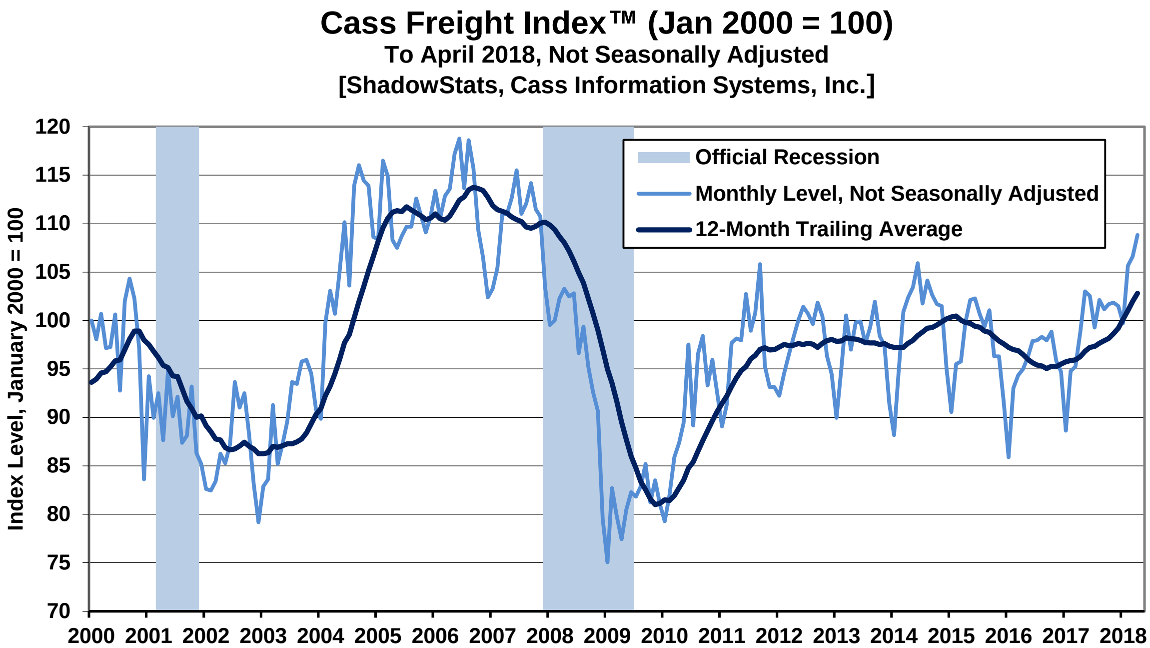


Graph 6: Manufacturing, Year-to-Year Percent Change (2000 to April 2018)
(Same as Graph OC-12 in Commentary No. 950)



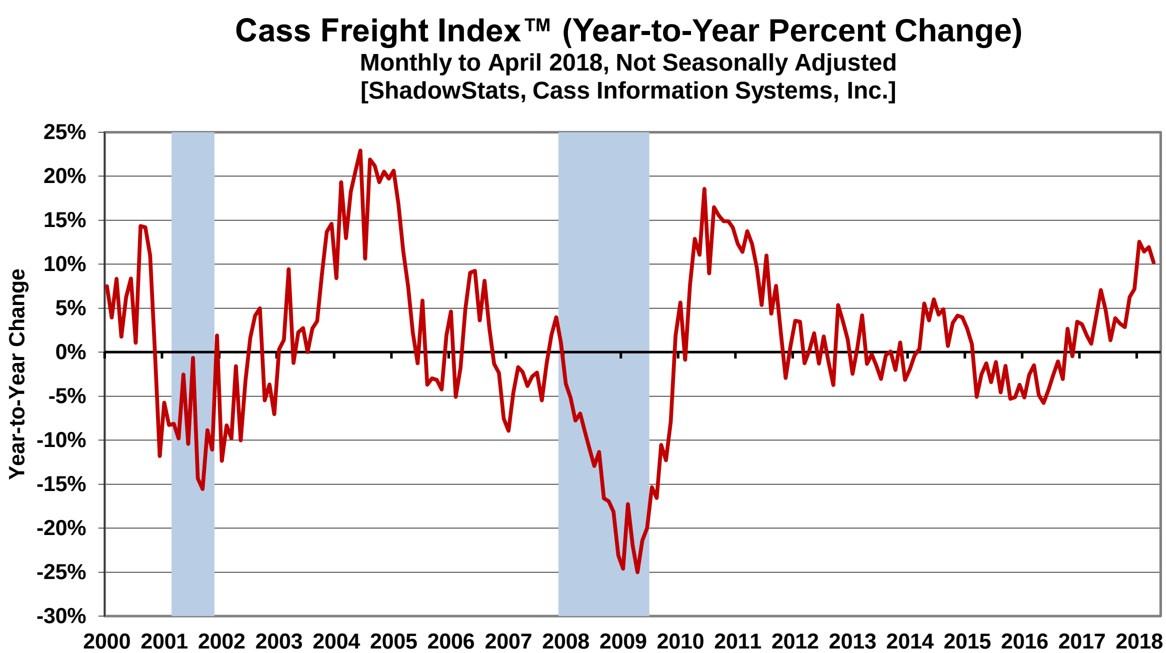
Graph 7: CASS Freight Index ™ Moving-Average Level (2000 to April 2018)

(Same as Graph OC-9 in Commentary No. 950)



Graph 8: CASS Freight Index, Monthly Year-to-Year Percent Change (2000 to April 2018)

(Same as Graph OC-11 in Commentary No. 950)



Broad Patterns of New Orders Activity. There has been a general pattern of stagnation or bottom-bouncing evident in the orders of recent years—clearly not the booming recovery seen in official GDP reporting. The real monthly and six-month moving-average levels of new orders in April 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. Among other issues, that understatement comes from the government's use of hedonic-quality adjustments—quality issues usually not perceived by the users or consumers of the involved products—in justifying a reduced pace of headline inflation used in deflating some series (see *Public Commentary on Inflation Measurement*).

As done for other series such as Industrial Production and Retail Sales (see the *Commentary No. 950*, and the GDP (see *Commentary No. 947*), 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*).

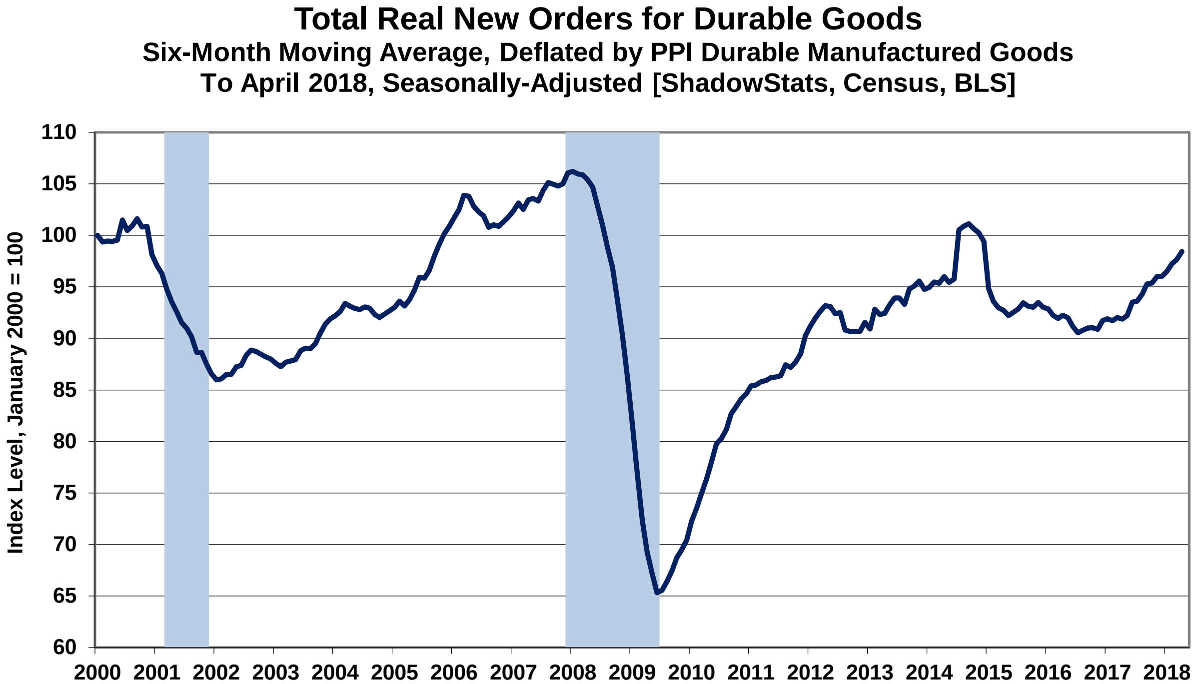
Two sets of graphs follow. The first set (*Graph 9* and *Graph 10*) shows the aggregate series or total durable goods orders; the second set (*Graph 11* and *Graph 12*) shows the ex-commercial aircraft series. The aggregate orders series in *Graphs 9* and *10* includes the monthly commercial aircraft 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 11* and *12* 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.

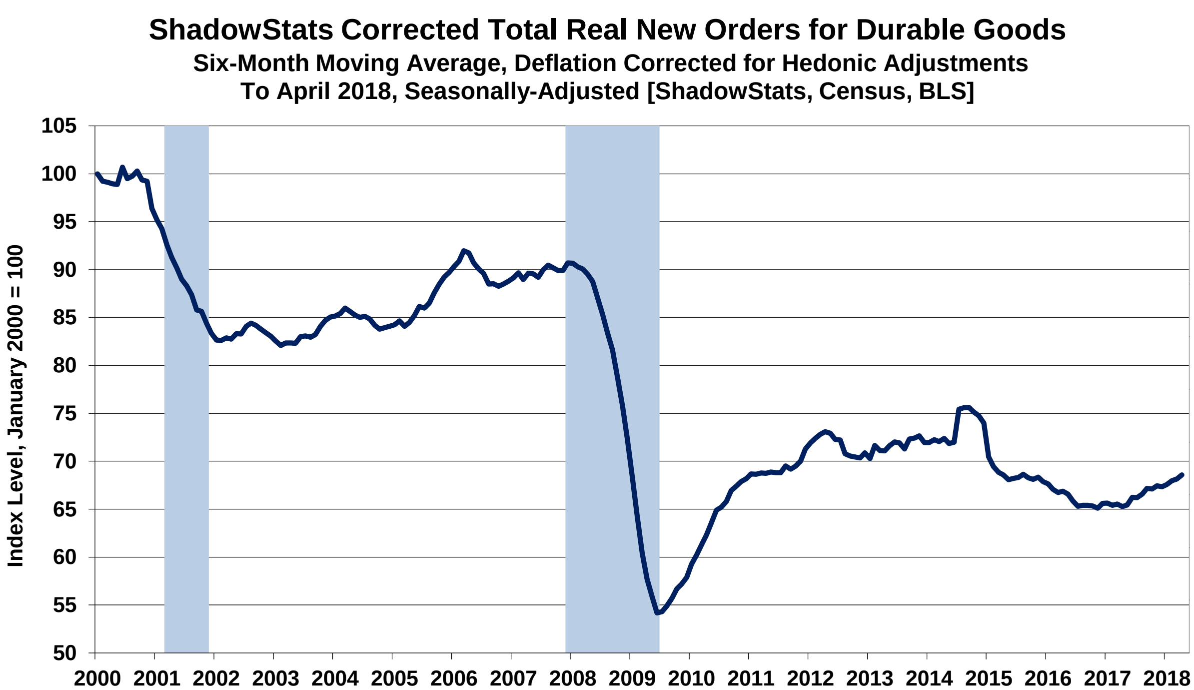
[Graphs 9 to 12 begin on the next page.]

Smoothed Real Series and Real Series Corrected for Inflation Understatement

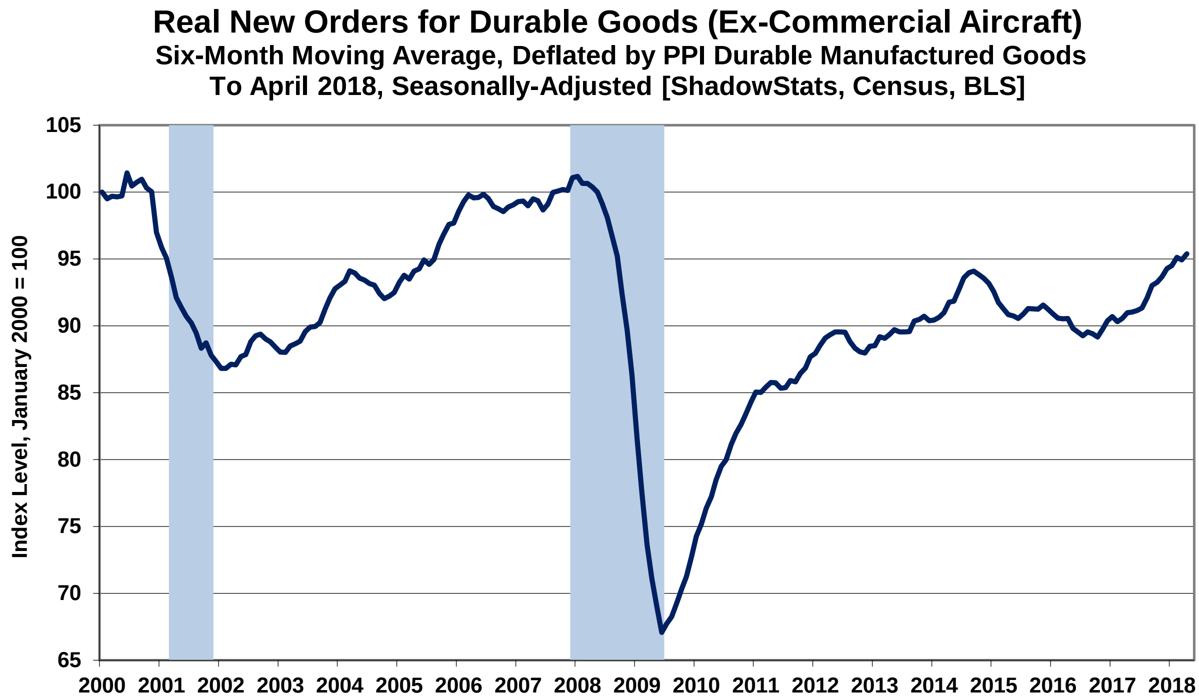
Graph 9: Index of Real Total New Orders for Durable Goods, 6-Month Moving Average



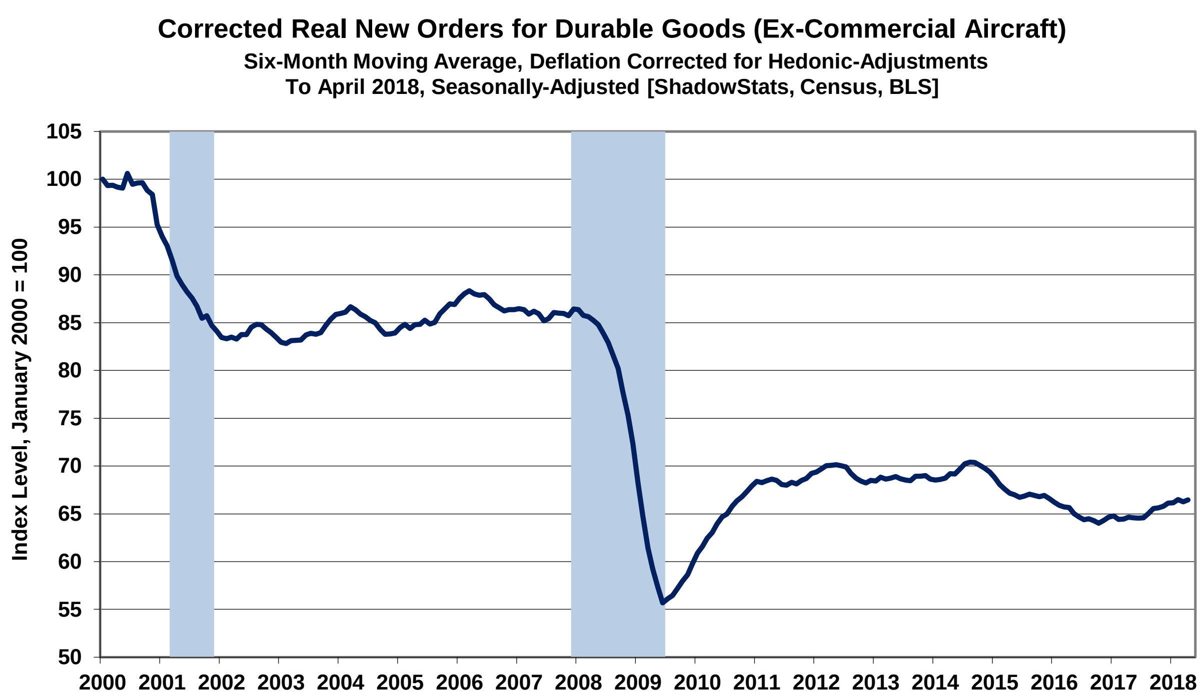
Graph 10: Corrected Index of Real Total New Orders for Durable Goods, 6-Month Moving Average



Graph 11: Index of Durable Goods Orders – Ex-Commercial Aircraft, 6-Month Moving Average



Graph 12: Corrected Index of Durable Goods Orders – Ex-Commercial Aircraft, 6-Month Moving Average



New- and Existing-Home Sales—April 2018—Existing Sales Continued in Quarterly and Annual Contractions, New Sales Continued in Nonsense Volatility Amidst Negligible Annual Revisions. In the context of annual revisions and continuing nonsense volatility, as discussed in the *Reporting Detail*, April 2018 New-Home Sales declined by 1.5% (-1.5%) in the month, but rallied 11.6% year-to-year, where neither of those changes was close to being meaningful. Although the annual revisions were negligible in earlier periods through 2017, activity in recent months did revise lower (see *Graph 28*). Against those downside revisions, March 2018 sales increased by 2.0% [4.0% pre-revisions] month-to-month, and by 4.5% [8.8% pre-revisions] year-to-year.

New-Homes Sales, published by the Census Bureau and HUD, reflects contract signing. In April 2018, the series remained shy of recovering its pre-recession peak by 52.3% (-52.3%).

Reflecting a somewhat different circumstance, the more-stable Existing-Home Sales series, published by the National Association of Realtors (NAR), reports actual closings of home sales. That series remained shy of recovering its pre-recession peak by 24.9% (-24.9%) in April 2018. In the context of no prior-period revisions, April sales declined by 2.50% (-2.50%) month-to-month and by 1.44% (-1.44%) year-to-year, versus March's monthly gain of 1.08% and annual decline of 1.23% (-1.23%). First-quarter 2018 activity was unrevised, contracting at an annualized pace of 6.06% (-6.06%), down by 1.67% (-1.67%) year-to-year, with an early trend on the downside for second-quarter activity.

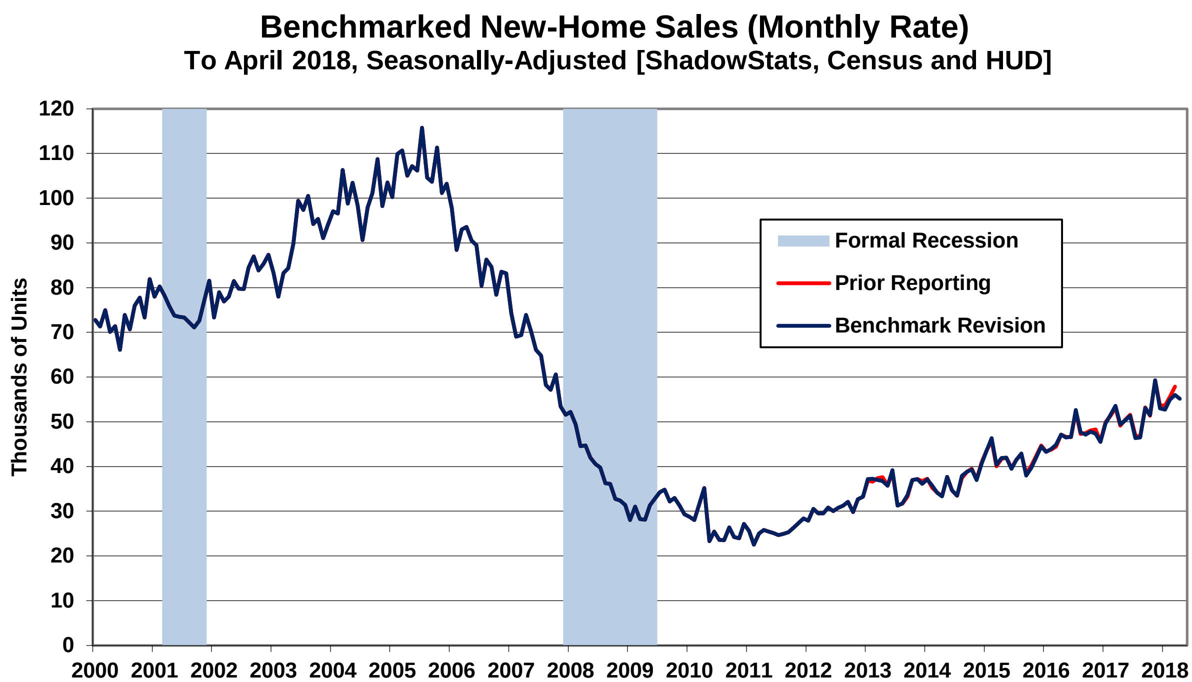
Graphs 13 to *20*, reflect the latest plots of New-Homes Sales and the related Single Unit Housing Starts series, as well as the latest plots of Existing-Home Sales and the related aggregate Housing Starts Series, where both those latter series include multiple-unit structures. See prior *Commentary No. 950* for the detail on the Housing Starts numbers and graphs.

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

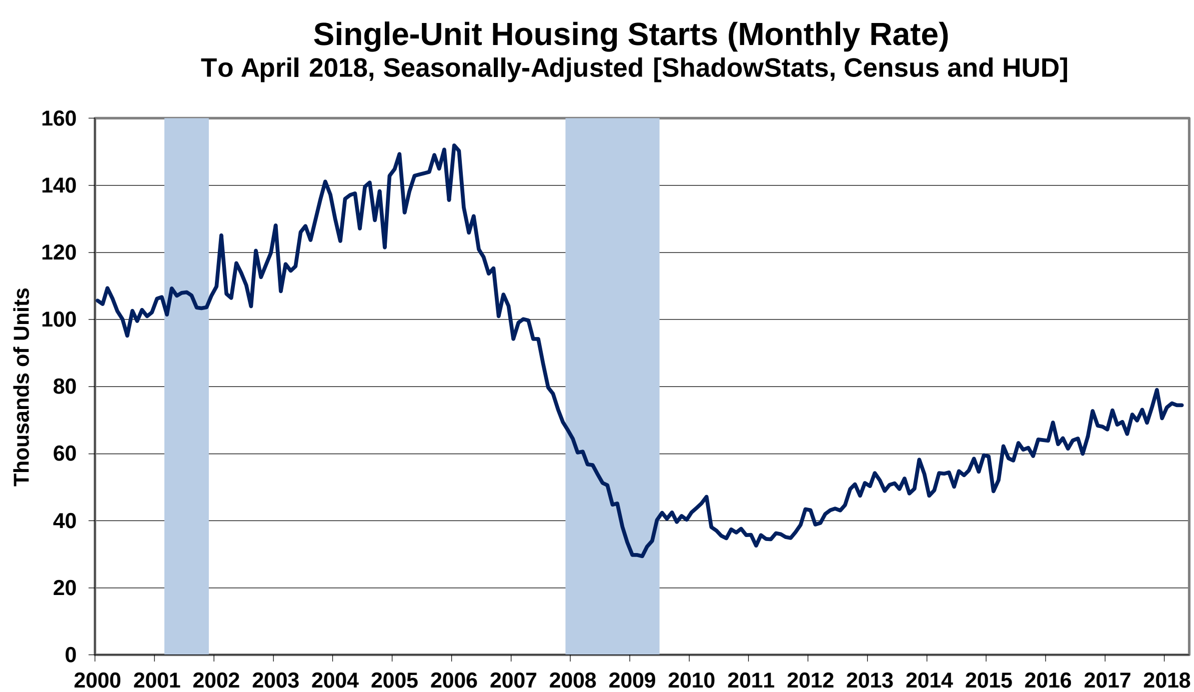
[Graphs 13 to 20 begin on the next page.]

Graphs of New- and Existing-Home Sales and Related Housing Starts Series
[Note: Annual revisions to New-Home Sales and Housing Starts are reviewed in the Reporting Detail, with Housing Starts covered more broadly in prior Commentary No. 950]

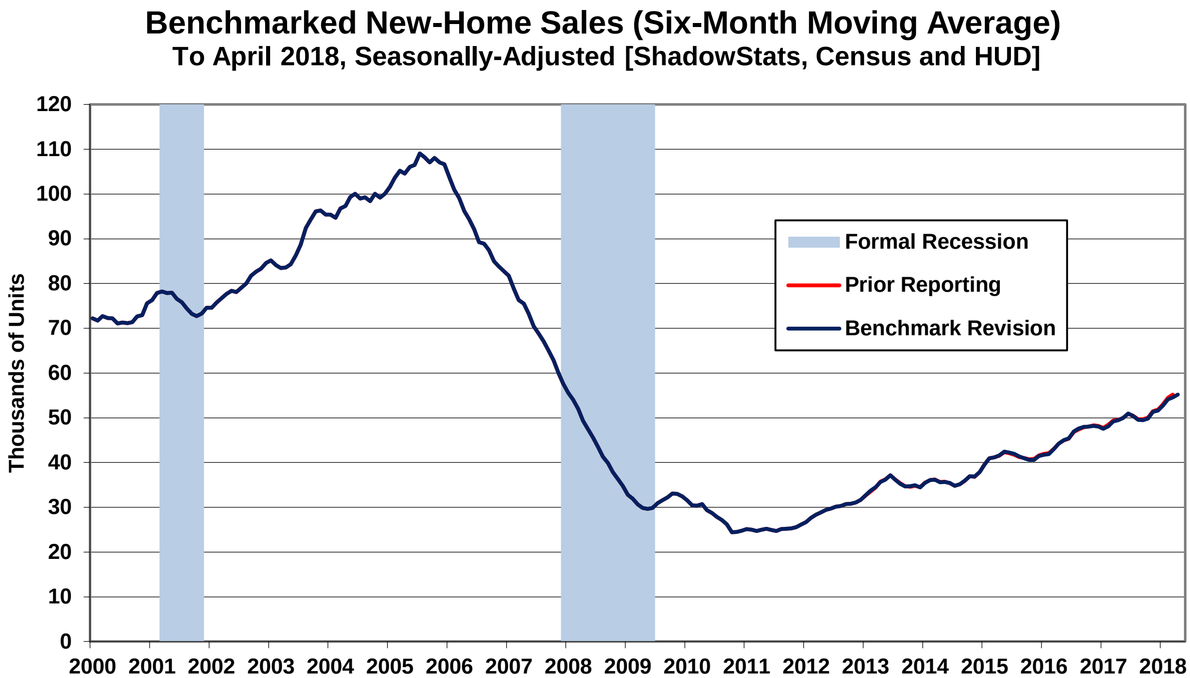
Graph 13: New-Home Sales (Monthly Rate of Activity) - Annual Revisions



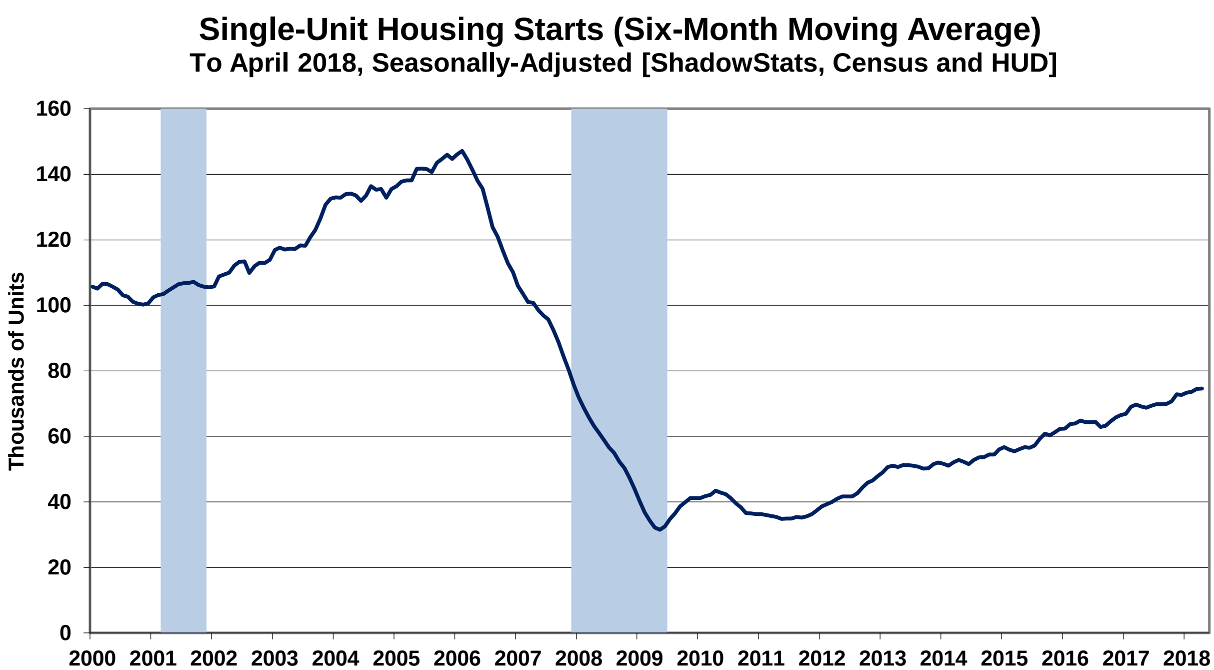
Graph 14: Single-Unit Housing Starts (Monthly Rate of Activity)



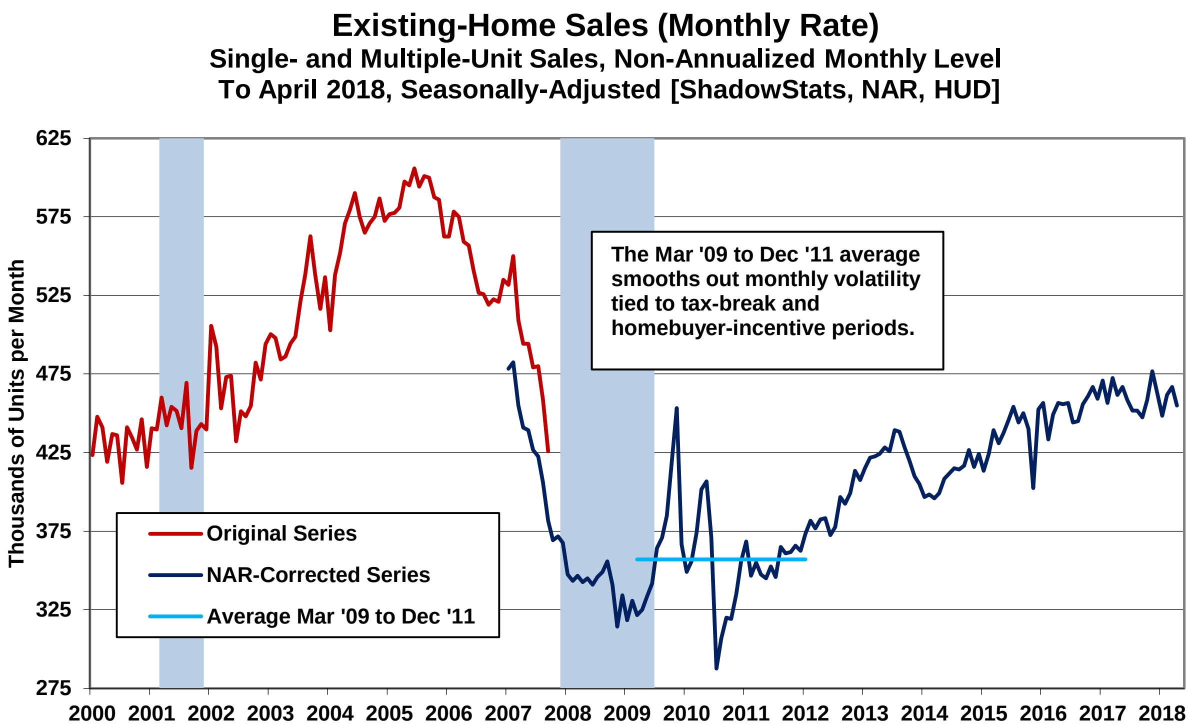
Graph 15: New-Home Sales (Six-Month Moving Average) - Annual Revisions



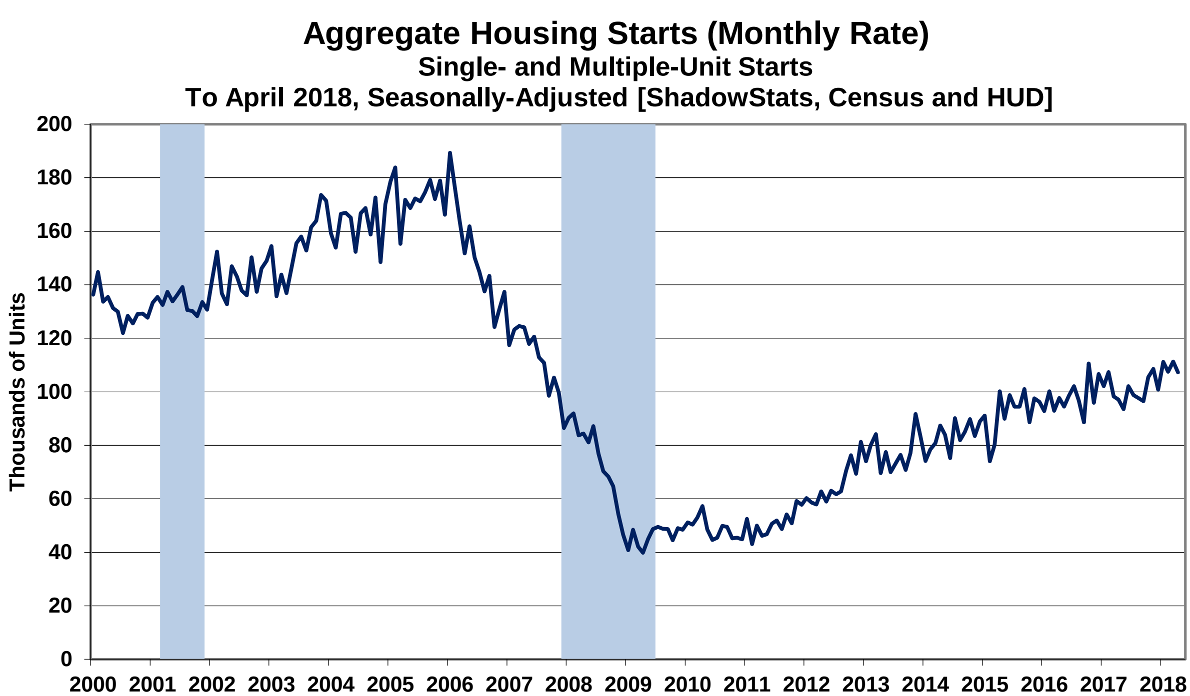
Graph 16: Single-Unit Housing Starts (Six-Month Moving Average)



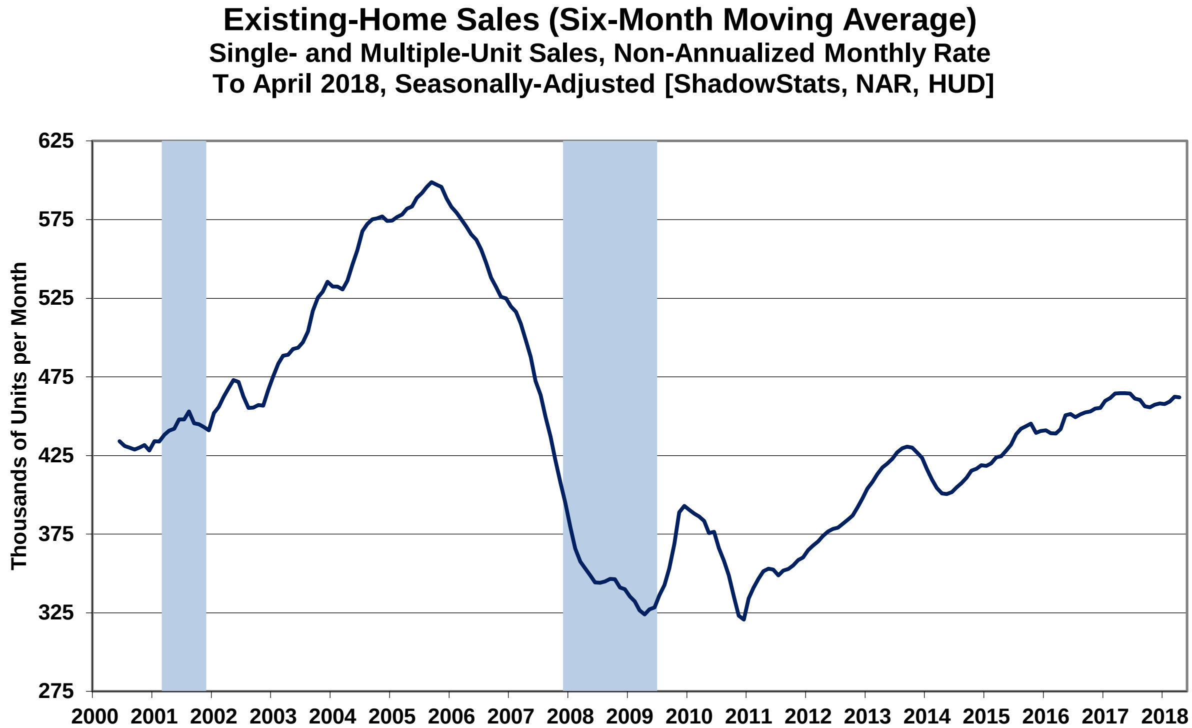
Graph 17: Existing-Home Sales (Monthly Rate of Activity)



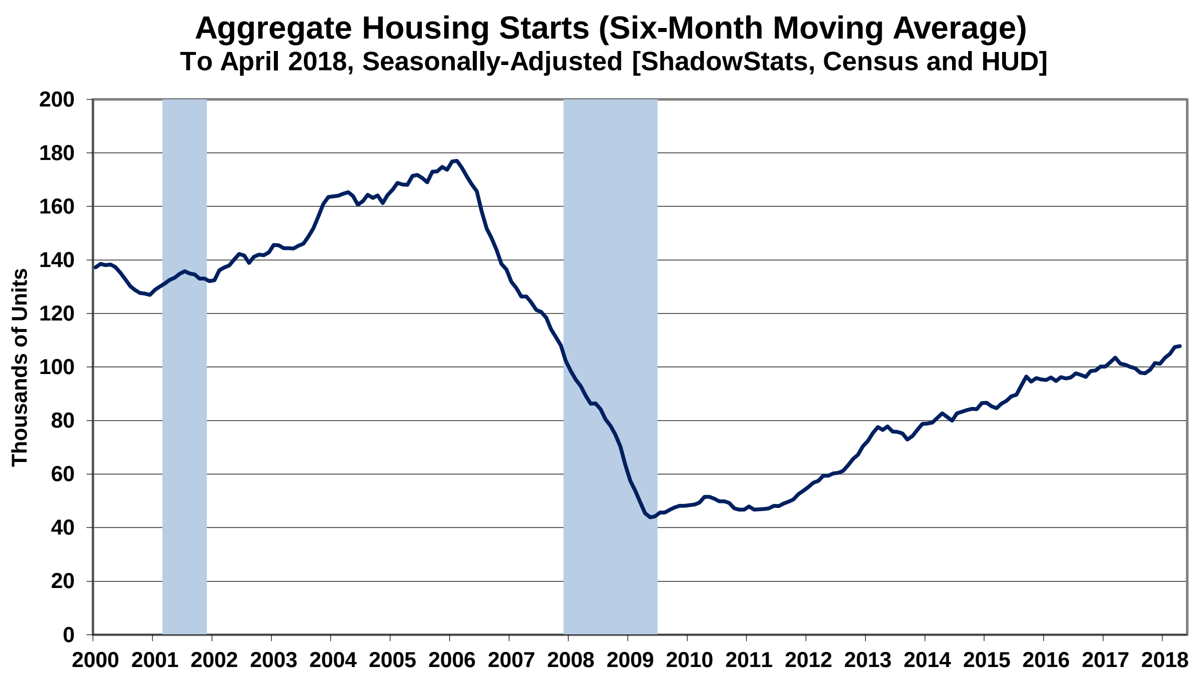
Graph 18: Aggregate Housing Starts (Monthly Rate of Activity)



Graph 19: Existing-Home Sales (Six-Month Moving Average)



Graph 20: Aggregate Housing Starts (Six-Month Moving Average)



[Extended analysis of the Durable Goods Orders and New- and Existing-Home Sales Series follows in the* Reporting Detail, *beginning on the next page.]

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REPORTING DETAIL

NEW ORDERS FOR DURABLE GOODS (April 2018)

Headline Benchmark Revisions Reflected a Weaker Economy in Recent Years than Previously Had Been Reported. The May 17th annual revisions to Manufacturers' Shipments, and the subsidiary series New Orders for Durable Goods, broadly were to the downside, as predicted. They also largely were consistent with major downside revisions to the Industrial Production series in its March 23rd benchmarking and in its unusual monthly revisions of May 16th (*Commentary No. 950* and *Commentary No. 942-B*).

Supplementing the New Orders material reviewed in the *Opening Comments* of *Commentary No. 950*, accompanying *Graphs 21* to *26*, provide some visual detail of the impact of the New Orders for Durable Goods benchmarking, both before and after adjustment for inflation. All the graphs reflect new orders, ex-commercial aircraft, due to extreme aircraft-orders volatility, except for *Graph 26*, which shows a six-month moving average of the series, which is comparable to *Graph 25* of the smoothed ex-aircraft series. *Graph 27* follows later with the usual benchmarking/reporting-consistency discussion.

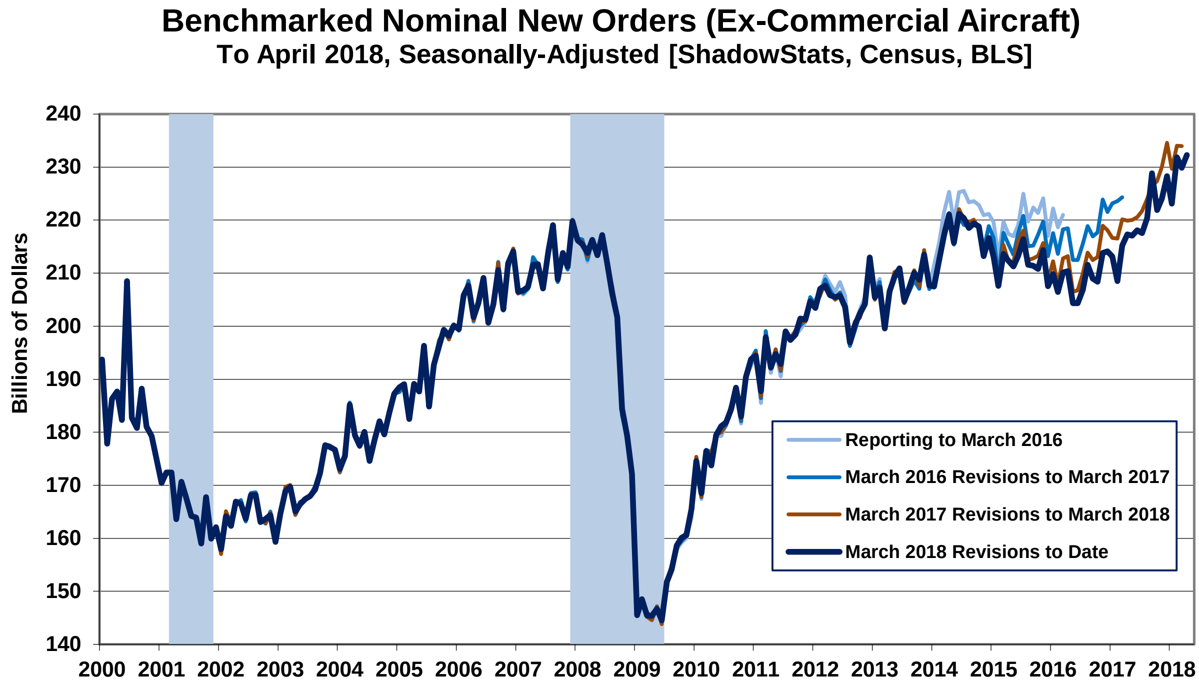
The following table from *Commentary No. 950* summarized the net annual growth revisions to Real New Orders for Durable Goods, Ex-Commercial Aircraft.

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

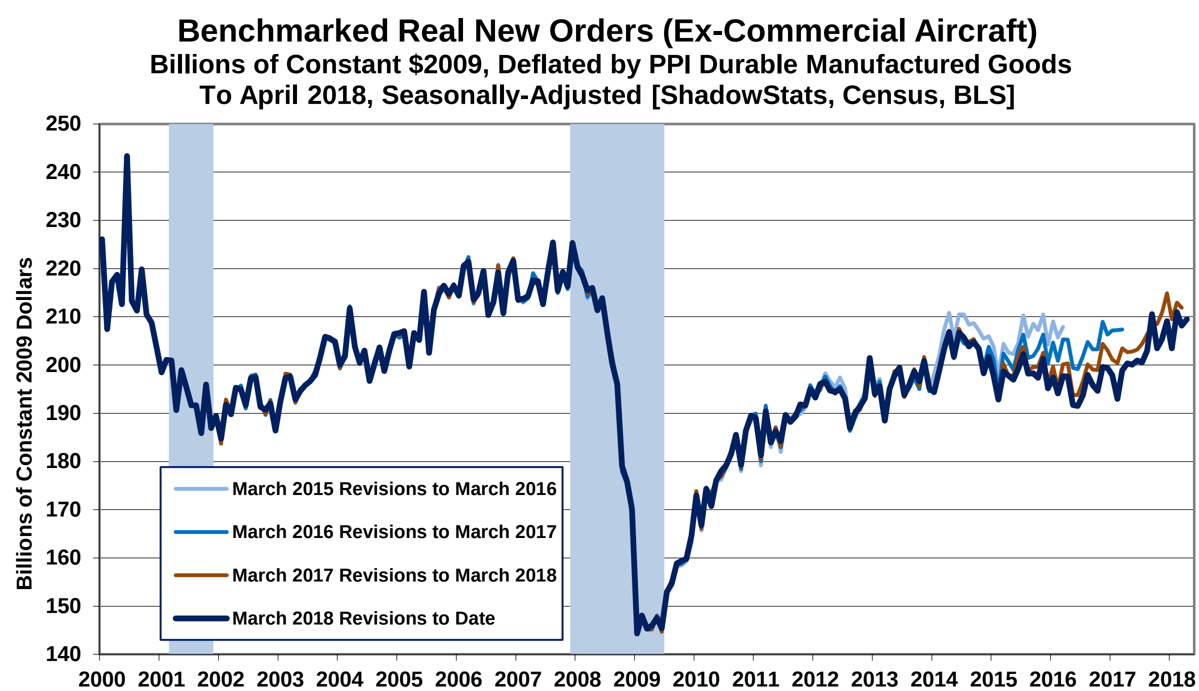
One issue that surfaces here is that against downwardly-revised real annual growth through 2017, real annual growth has revised higher in early-2018 (see *Graph 23*). Another issue is that *Graph 24* reflects an unusual circumstance, with revised 2017 activity overtaking 2016 activity, briefly, late in the year. That reflected the impact of the natural-disaster recovery orders, which proved a relatively strong but short-lived spike to economic activity. Near-term distortion from that circumstance on a number of economic series has continued to subside in recent headline detail.

[Graphs 21 to 26 begin on the next page.]

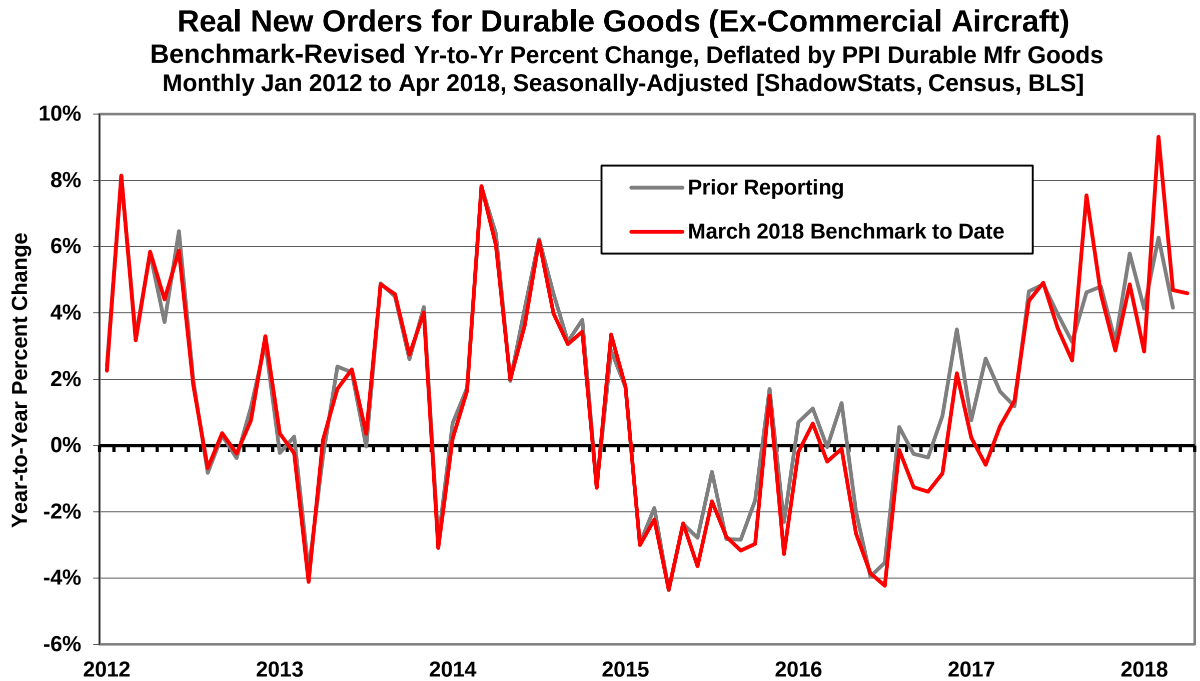
Graph 21: Benchmark Revisions to Nominal New Orders for Durable Goods, Ex-Commercial Aircraft



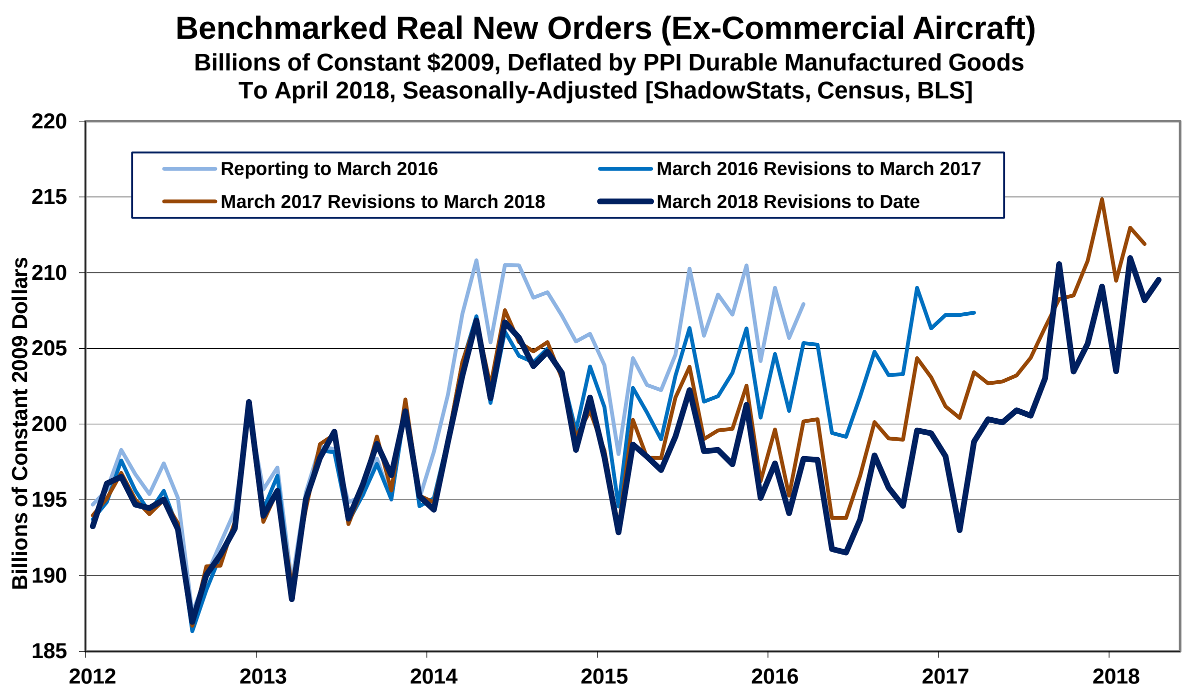
Graph 22: Benchmark Revisions to Real New Orders for Durable Goods, Ex-Commercial Aircraft



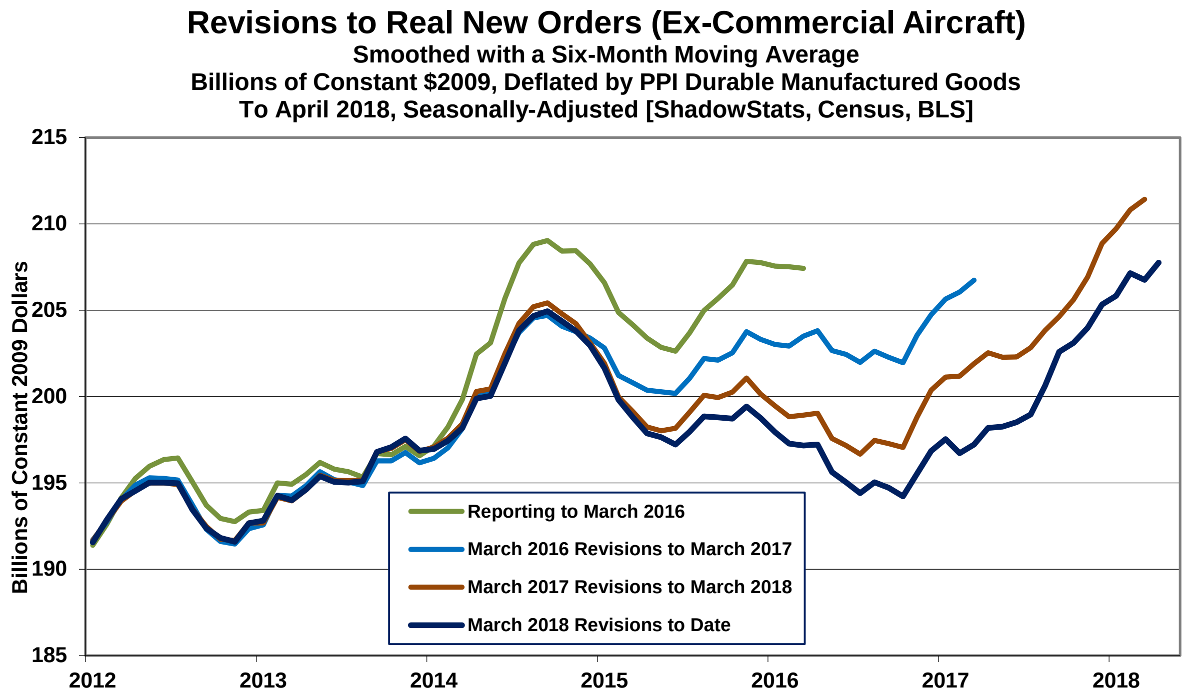
Graph 23: Benchmark Revisions to Year-to-Year, Real New Orders for Durable Goods, Ex-Commercial Aircraft



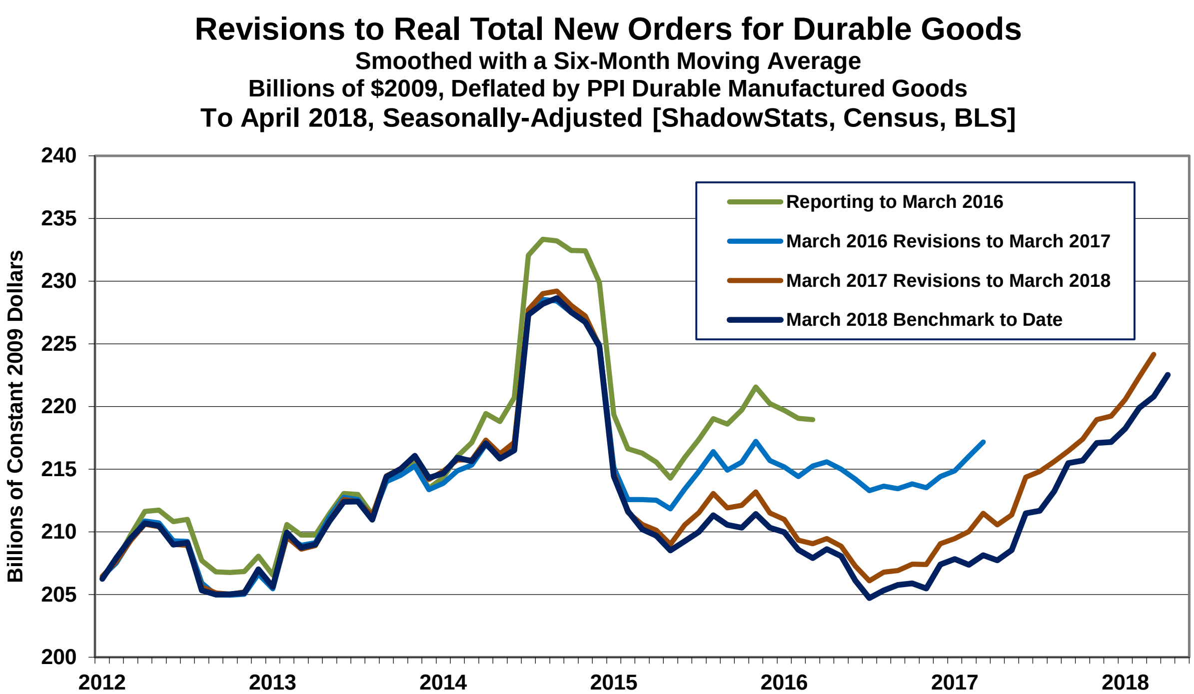
Graph 24: Benchmark Revisions to Real Total New Orders for Durable Goods, Ex-Commercial Aircraft



Graph 25: Benchmark Revisions to Real Total New Orders for Durable Goods, Ex-Commercial Aircraft



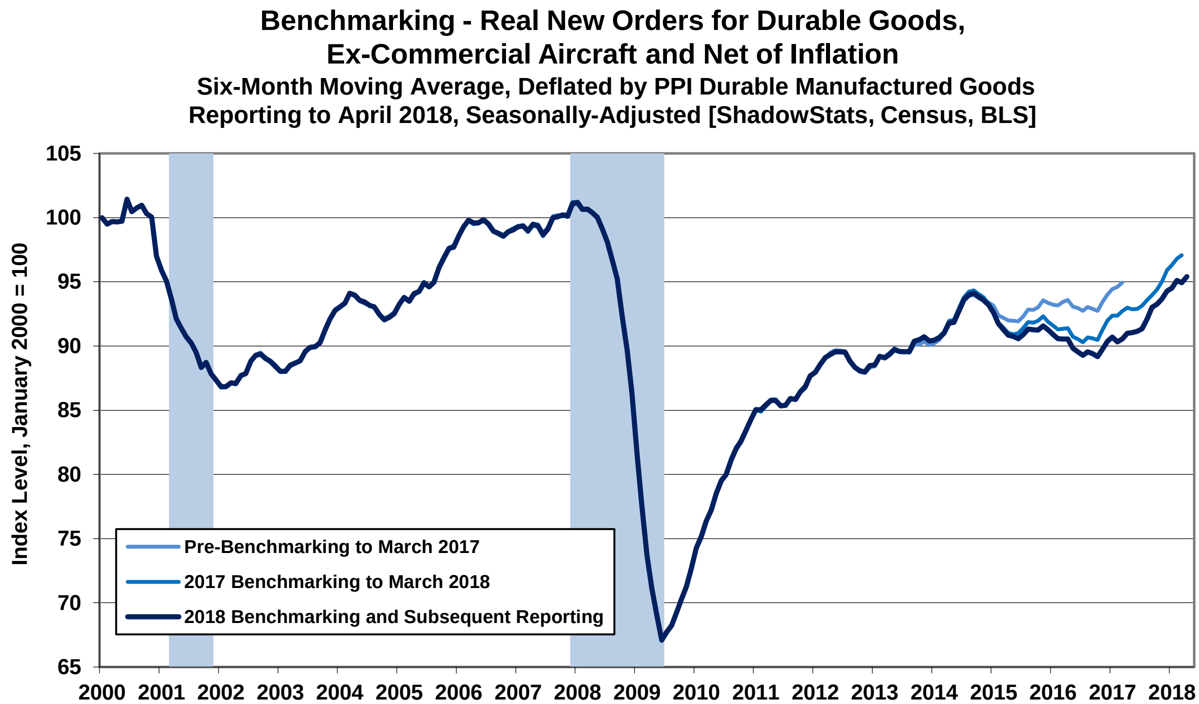
Graph 26: Benchmark Revisions to Real Total New Orders for Durable Goods, Smoothed for 6-Month Moving Avg



Caution: As of Today's April 2018 Headline Detail, Month-to-Month Data are No Longer Comparable. The Census Bureau published its annual benchmark revisions to New Orders for Durable Goods data on

May 17th (see the *Press Release*). As an example of the regular, annual downside restatement of recent activity in this series, consider accompanying *Graph 27*. It shows the net revisions to the six-month moving average of real New Orders for Durable Goods (ex-commercial aircraft) both from last year's and this year's benchmark revisions and subsequent reporting through the April 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 *Commentary No. 950* and *Special Commentary No. 888*.

Graph 27: Benchmark Revisions to Real Total New Orders for Durable Goods, Ex-Commercial Aircraft



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 series such as retail sales, and payroll and unemployment reporting. Unusual seasonal-factor volatility raises issues as to the significance of reported seasonally-adjusted monthly and annual changes. While those issues were brought into balance, for a period of eight days, with the annual benchmark revision to durable goods orders through March 2018 on May 17, 2018 (again see *No. 950*), that consistency ceased with today's release (May 25th) of headline April 2018 detail.

For all monthly reporting from the April 2018 detail until the next annual benchmarking in May 2019, unpublished, monthly historical seasonal-adjustment revisions, calculated along with each new current headline month's detail, and with each month to follow, make the latest detail (April 2018) inconsistent with all the headline historical numbers.

New Orders for Durable Goods Were Mixed Month-to-Month, Up Year-to-Year. Nominal April 2018 aggregate New Orders for Durable Goods declined by 1.66% (-1.66%), reflecting a monthly drop of 28.96% (-28.96%) in Commercial Aircraft Orders, where a monthly gain of 2.70% in March had included a 60.73% jump in the aircraft orders. Net of aircraft orders and inflation of 0.41% in both months, Real

New Orders for Durable Goods, Ex-Commercial Aircraft rose by 0.65% in April, but declined in March by 1.32% (-1.32%).

In context of the benchmark revisions, the passing of recent natural-disaster-recovery boosts , which had resulted in a "boom" to headline fourth-quarter 2017 aggregate real new orders at annualized real quarterly growth rate of 7.23%, slowed to 6.48% in first-quarter 2018 and is on early-track for a 2.98% real annualized growth rate for second-quarter 2018. One effect of the benchmarking was that although current headline numbers were revised markedly lower from earlier reporting, the pace of relative, recent monthly change shifted, actually accelerating some in the near-term. Fourth-quarter activity is not quite the boom it was, and first-quarter activity is not quite the bust it was. This will be explored further in the next *Commentary*.

Net of inflation, aggregate real New Orders for Durable Goods declined month-to-month in April by 2.05% (-2.05%), and was up, again, by 0.65% ex-Commercial Aircraft, continuing a decade-long period of economic non-expansion. Respectively, those series remained shy of recovering their pre-2007 recession highs by 7.12% (-7.12%) [down by 5.71% (-5.71%) in March, pre-benchmarking] and by 6.99% (-6.99%) [down by 6.05% (-6.05%) in March, pre-benchmarking].

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™. 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 annual growth patterns in *Graphs 3* to *8* and discussion in the *Executive Summary.*

There is no underlying economic expansion underway in new orders and related series, 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 (first-quarter 2018) at 16.0%. That said, underlying fundamental economic activity, such as seen in the April 2018 real New Orders for Durable goods series, again, was down by 7.1% (-7.1%) from recovering its pre-recession high, while the same series, ex-commercial aircraft, was down by 7.0% (-7.1%) from recovering its pre-recession peak.

In the context of the May 17, 2018 annual benchmark revisions to the new orders series, which lowered the general level of headline activity in recent years (see the *Opening Comments* of prior *Commentary No. 950*, *Special Commentary No. 888* and the updated *Graph 21* to *27* here), April 2018 headline detail, again, showed the broad economy in ongoing non-expansion. That also was the case for the Manufacturing sector in Industrial Production (see *Commentary No. 950*). 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 9* to *12* in the *Executive Summary*).

Headline Nominal Detail—April 2018. The Census Bureau reported this morning, May 25th, that the regularly-volatile, seasonally-adjusted, nominal level of aggregate New Orders for Durable Goods declined by 1.66% (-1.66%) in April 2018, having gained 2.70% in March and 4.47% in February.

Year-to-year, April 2018 nominal durable goods rose by 7.82%, following benchmark-revised gains of 11.15% in March 2018 and 11.34% in February 2018. 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 a somewhat fluttering uptrend, still boosted recently by disaster-recovery effects. The headline-inflation-adjusted real New Orders 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 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 April 2018, a monthly decline of 28.96% (-28.96) in aircraft orders contributed to pushing headline aggregate orders to a monthly decline of 1.66% (-1.66%), from what otherwise would have been a monthly gain of 1.06%. That followed benchmark-revised monthly aircraft order gains of 60.73% in March and 14.47% in February.

Net of commercial-aircraft orders, month-to-month and seasonally-adjusted, April 2018 nominal new orders gained by 1.06%, declined by 0.86% (-0.86%) in March and gained 3.92% in February.

Real Durable Goods Orders—April 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 April 2018 PPI series showed headline month-to-month inflation of 0.41%, versus 0.41% in March, 0.23% in February and 0.41% in January, having been "unchanged" at 0.00% in December 2017 from November. Related year-to-year annual inflation was 2.13% in April 2018, versus 1.96% in March 2018, 1.72% in February 2018, 1.79% in January 2018 and 1.67% in December 2017 (see *Commentary No. 949*).

Adjusted for that 0.41% month-to-month inflation reading in April 2018 and the respective inflation rates in earlier months, and as reflected in the graphs in the *Executive Summary* section, real aggregate durable goods orders in April 2018 declined by 2.05% (-2.05%), having gained 2.22% in March and 4.23% in February. Ex-commercial aircraft, real month-to-month orders gained by 0.65% in April 2018, having declined by 1.32% (-1.32%) in March and having gained by 3.67% in February.

Real total new orders gained year-to-year by 5.51% in April 2018, by 8.95% in March 2018 and 9.46% in February 2018. Ex-commercial aircraft, April 2018 real orders rose year-to-year by 4.60%, versus 4.69% in March 2018 and 9.13% in February 2018.

Graphs of Inflation-Adjusted and "Corrected" Smoothed Durable Goods Orders. Three sets of inflation-adjusted graphs (*Graphs 1* to *2* and *4*, *Graphs 9* and *10*, and *Graphs 11* and *12*) are displayed in the *Executive Summary*. The first set shows the headline monthly detail, as well as the six-month moving-average activity for both the aggregate new orders series and the series net of the irregular commercial-aircraft orders. It also shows annual growth for the real series (net of commercial aircraft). The moving-average levels in both the durable goods series (*Graphs 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 9* and *10*) 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 11* and *12*) shows largely the same patterns, although they are for the aggregate durable goods orders series, net of commercial aircraft orders.

NEW HOME SALES (April 2018)

New-Home Sales Dropped 1.5% (-1.5%), on Top of Downside Revisions, Amidst Continued Meaningless Changes, and Still Shy by 52.3% (-52.3%) of Recovering Its Pre-Recession Peak. Miserable reporting quality continued in both monthly- and annual-headline change estimates for the New-Home Sales and the Housing Starts series, in the context of broadly, minimal annual revisions. The Census Bureau had indicated in its monthly releases coming into the revisions that research had indicated an extended five-year period of seasonal-adjustment revisions, "...should produce more reliable seasonally adjusted time series." There was no apparent improvement in the reliability of newly-published estimates, as will be seen shortly (see also *Commentary No. 950*). Negligible annual revisions, other than for sharp downside revisions or movement in the last couple of months of New-Home Sales, are reflected in *Graphs 28* and *29* at the end of this section, along with the note on "annual revisions."

Monthly Changes in This Series Rarely Are Meaningful. The regularly-extreme, headline month-to-month volatility usually reported for New Home Sales, whether the headline change is a gain or a contraction, most frequently includes a 95% confidence that stretches noticeably beyond zero in the opposite direction of the headline change. For example, the April 2018 monthly decline of 1.5% (-1.5%) had a 95% confidence interval of +/- 13.8% [all confidence intervals here are at the 95% level].

That means the Census Bureau's sampling and analysis indicated with 95% confidence that the actual monthly change in the New Home Sales fell somewhere between a monthly decline of 15.3% (-15.3%)

and a monthly gain of 12.8%, with the most likely change a decline of 1.5% (-1.5%). On a year-to-year basis, the annual sales gain was estimate 11.6% with a 95% confidence interval of +/- 27.7%.

As headlined, April 2018 activity remained shy of recovering its pre-recession high by 52.3% (-52.3%). With the month-to-month volatility smoothed over six months, the series remained in low-level, albeit a flattening uptrend, non-recovered stagnation (see *Graph 16* in the *Executive Summary*.

Headline April Activity Started with a New History. Released May 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 home sales closed in the Existing-Home Sales series), declined month-to-month in April 2018 by 1.5% (-1.5%). That was in the context of the earlier-mentioned confidence interval. Net of revamped, unstable and volatile historical reporting, that was against monthly gains of 2.0% in March and 4.1% in February (see *Graph 28*). Year-to-year change in April 2018 sales was 11.6% (see earlier discussion on confidence intervals), versus annual gains of 4.5% in March 2018 and 6.6% in February 2018.

Reflecting unstable and broadly meaningless monthly and quarterly swings, Fourth-Quarter 2017 activity surged at an annualized pace of 58.9%, with First-Quarter 2018 showing an annualized contraction of 0.4% (-0.4%). Disaster-recovery effects may have exacerbated the usual extreme volatility in this series.

Smoothed with a six-month moving average, however, this series, continued in low-level, non-recovering stagnation, which recently had turned to a downtrend and flattened out, but now is showing a slight uptrend/flattening with the latest data machinations (see *Graph 24* in the *Executive Summary*).

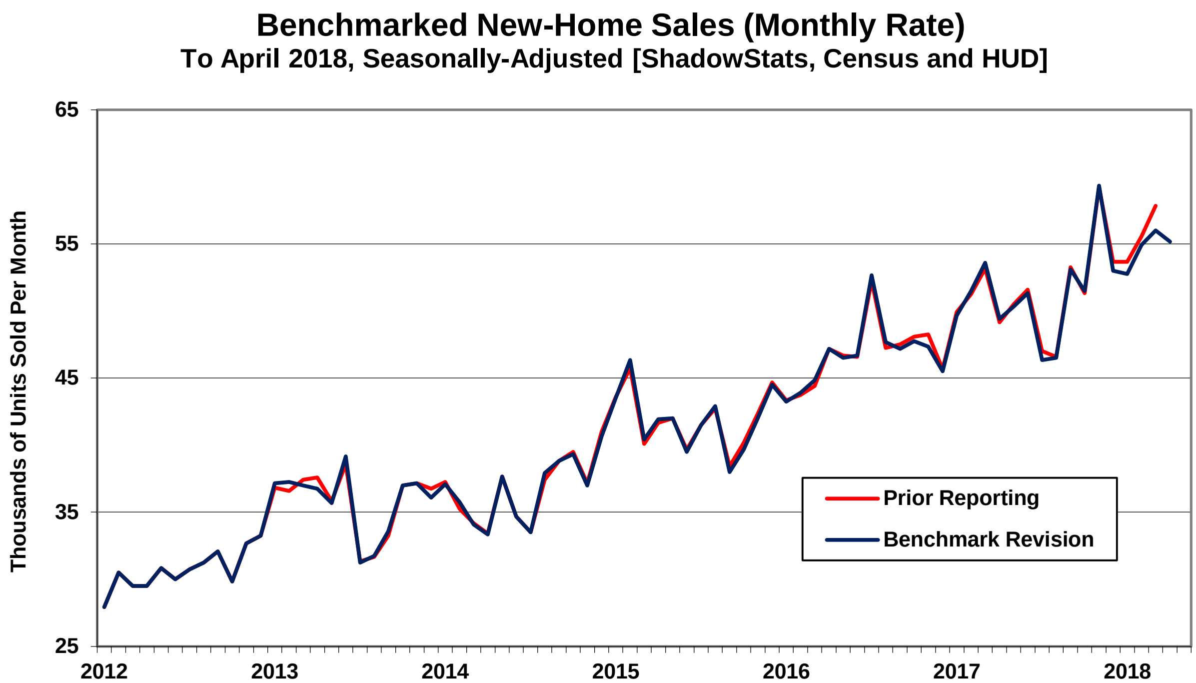
Annual Revisions Discussed in *Commentary No. 950*, the annual revisions to the Housing Starts series were minimal, and there was no apparent improvement in terms of the reporting quality of the series. ShadowStats suggested those circumstances likely also would apply to the annual revisions to the New-Home Sales series, and they did, as reflected in the comparative *Graphs 28* and *29* of New-Home Sales revisions and Housing Starts, and as discussed in the latest headline reporting details.

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, on average, 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 normal recovery in broad U.S. economic activity.

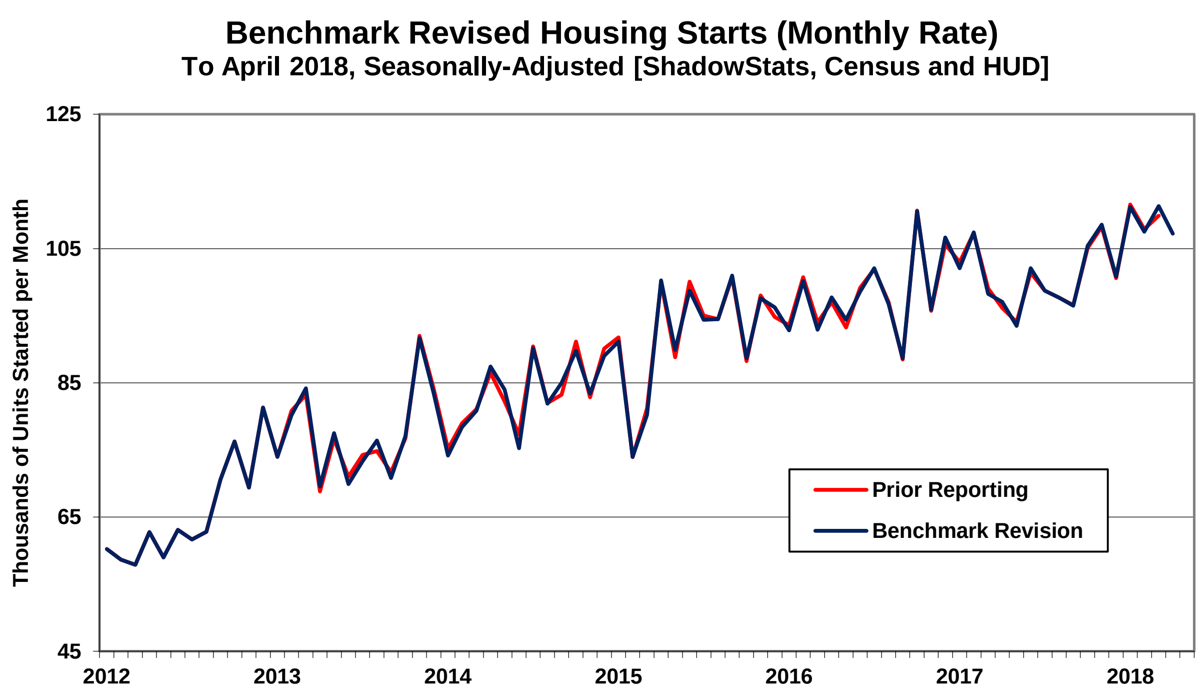
Where the private housing sector never recovered from the business collapse of 2005 into 2009, there remains no chance of a near-term, sustainable turnaround in home-sales activity, without a fundamental upturn in consumer- and banking-liquidity conditions. That does not appear to be in the offing, despite the short-lived, near-term boosts to activity from disaster recovery, or the ongoing inability of the Census Bureau to report its headline monthly data with any meaningful stability.

Graphs 13 to *16* 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. 950*). *Graphs 17* to *20* 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).

Graph 28: New-Home Sales (Monthly Rate of Activity) - Annual Revisions



Graph 29: Housing Starts (Monthly Rate of Activity) - Annual Revisions (see [Commentary No. 950](#))



EXISTING HOME SALES (April 2018)

April Existing-Sales Declined 2.5% (-2.5%) in the Month, by 1.4% (-1.4%) Year-to-Year, on Track for Its Fourth Contraction in Five Quarters, Still Shy of Its Pre-Recession Peak by 24.9% (-24.9%). Monthly Existing-Home Sales declined by 2.5% (-2.5%) in April 2018, following an unrevised 1.1% gain in March 2018, on top of 3.0% in February 2018, but the gains never offset the recent sales decline of 3.2% (-3.2%) in January 2018 and 2.8% (-2.8%) in December 2017. Annual change contracted in April 2018 by 1.4% (-1.4%), having declined by 1.2% (-1.2%) in March, having gained 1.1% in February 2018, having dropped year-to-year by 4.8% (-4.8%) in January 2018 and gained by 0.9% in December 2017. That January 2018 annual decline remained the steepest since August 2014.

Nonetheless, as shown in *Graph 17* in the *Executive Summary*, November 2017 Existing Home Sales was close to 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-home sales series had been in uptrending stagnation into 2017, which recently shifted to fluttering, relatively-flat stagnation, reflected in *Graph 19* (see also *Graphs 18* and *20* 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 May 24th, Existing-Home Sales (closings of home sales, as opposed to the count of contract signings for New-Home Sales, reported by the Census Bureau) declined month-to-month by 2.50% (-2.50%), having gained 1.08% in March, 2.97% in February, and 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.

April 2018 year-to-year change was a contraction of 1.44% (-1.44%), following a drop in March 2018 of 1.23% (-1.23%), following an annual gain of 1.09% in February 2018, an annual plunge in January 2018 of 4.78% (-4.78%), 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.

Based on the second full reporting of the quarter, first-quarter 2018 Existing Homes Sales contracted at an annualized pace of 6.06% (-6.06%), which followed an annualized quarterly gain of 14.82% in fourth-quarter 2017 and unrevised consecutive quarterly contractions of 9.94% (-9.94%) and 3.97% (-3.97%) respectively in third-quarter 2017 and second-quarter 2017. Based just on April 2018 reporting, second-quarter 2018 activity was on early trend for an annualized quarterly contraction of 3.3% (-3.3%) in this more meaningful (monthly) series.

Distressed Sales Dropped to 3.5% (NAR Introduces a Decimal Point Here), as a Proportion of Total Sales, With March All-Cash Sales Rose to 21%. In the context of continuing consumer liquidity constraints discussed in the *New-Home Sales* section, the NAR estimated the portion of April 2018 sales in “distress” at 3.5% (3% in foreclosure, 0.5% short sales), versus 4% (3% in foreclosure, 1% short sales), in March 2018, down from 5% (3% in foreclosure, 2% short sales) in April 2017. The NAR began surveying such detail in October 2008. Where the “distressed” sales were the lowest since 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-to-mixed 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.

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 21% of transactions in April 2018, from 20% in March 2018 and against 21% in April 2017 detail.

Graphs 17 to *20* in the *Executive Summary* plot the Existing-Home Sales series, along with comparative graphs of the related Housing Starts series. *Graphs 13* to *16* 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 Sentier Research's reporting of April 2018 Real Median Household Income.]*

Consumer Liquidity Constraints Have Intensified, Given Tightening Real Growth in Consumer Earnings and Credit along with Weakening Employment and Consumer Optimism. Today's *Consumer Liquidity Watch* incorporates by reference the *Opening Comments* of the May 9th *Commentary No. 948*, which reviewed a various economic signals ranging from tightening systemic liquidity tied to sinking, inflation-adjusted real annual growth in M3 money supply, to Sentier Research's reintroduction of monthly Real Median Household Income, incorporated later in this text.

Mounting financial stress on the U.S. consumer bodes poorly for pending domestic economic growth. Noted in the *Executive Summary* of *Commentary No. 947*, mounting liquidity issues likely already have taken some hit on real first-quarter 2018 GDP activity, where consumer real consumption of goods actually declined and real investment growth in residential real estate was nil. See also the *Opening Comments* in *Commentary No. 948* and *Commentary No. 949*.

Liquidity conditions have been tightening for consumers, with Real Consumer Credit Outstanding having continued to falter in March 2018, with headline Real Average Weekly Earnings contracting quarter-to-quarter in first-quarter 2018 and with monthly Real Median Household Income in March 2018 up by only 1.8% from what appears to have been be a near-term series peak eighteen-plus years ago, in January of 2000. These factors are among the likely elements driving the early signs of a downturn in consumer optimism and consumer consumption and residential investment (a shrinking 72.9% of First-Quarter 2018 GDP). In combination, these various factors should exacerbate financial-market, policy-maker and FOMC concerns as to any ongoing, positive direction in broad U.S. economic activity.

Weakening consumer liquidity conditions previously had been mirrored in weakening, 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 had passed into the recent headline economic data and now begun to recede. Against artificially bloated third- and fourth-quarter 2017 activity of 3.2% and 2.9%, first-quarter 2018 economic activity slowed to 2.3% and likely will revise sharply lower as better-quality numbers become available. Such effects are discussed in the separate analyses of relevant series in covered in the regular *ShadowStats Commentaries*. Where there are current signals of faltering consumer liquidity (again see Consumer Credit Outstanding and Real Earnings), headline consumer optimism has begun to move off recent highs, along with softening underlying economic reality. The April 2018 releases of the Conference Board's Consumer-Confidence Index® and the advance-estimate of the University of Michigan Consumer Sentiment for May 2018 both were off recent peak activity.

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.

The temporary liquidity boost fueled by recent disaster effects, such as insurance payments or savings drawdowns to fund replacement of storm-damaged assets, was 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 Have Backed Off Recent Peak. Having hit peak activity in February 2018 the Conference Board's Consumer-Confidence Index® (Confidence) measure pulled back in March and remained lower in its initial April 2018 (released April 24th). The University of Michigan's Consumer Sentiment Index (Sentiment) peaked in March 2018 turning down in its full reporting for April 2018. Though revised slightly higher in its final April estimate, on April 27th, Sentiment remained down sharply month-to-month and did not revise in its early May 2018 estimate.

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 peak by 11.1% (-11.1%).

On a monthly basis the final April 2018 Sentiment measure has backed off sharply and held in early-May. Although still at a high level, it is below a number of monthly levels seen back over the last year, currently down from what once was its comparative prior peak of January 2004 by 4.8% (-4.8%).

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 along with the softening detail and related headline consumer activity.

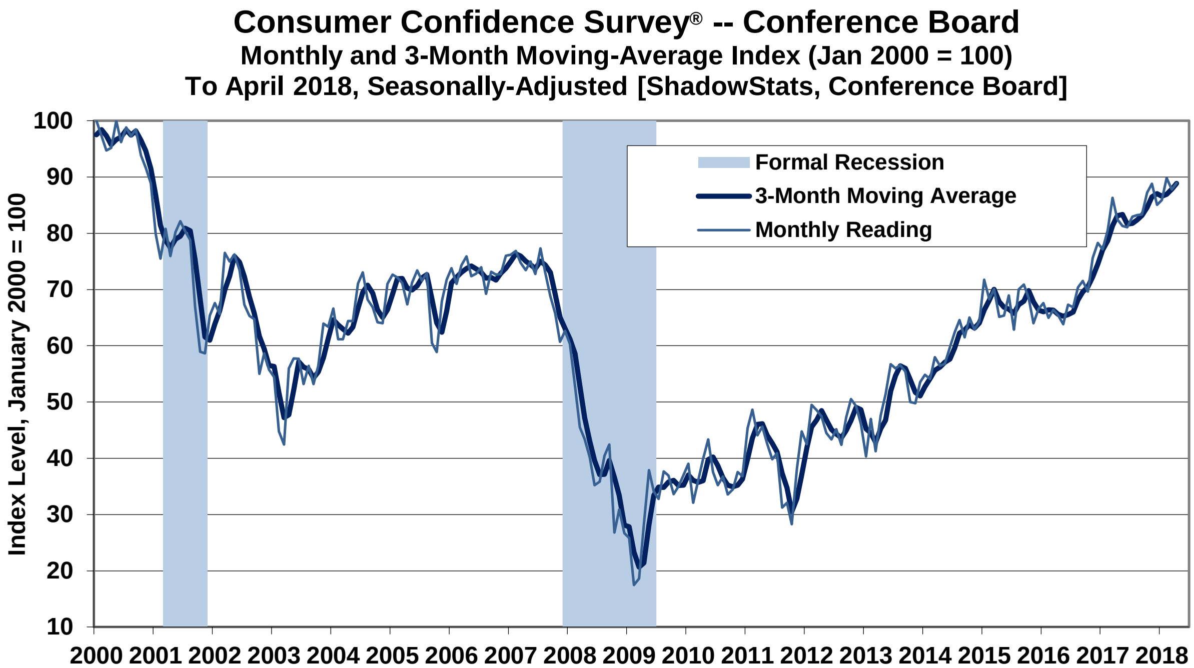
Pre-election, September 2016 Confidence and Sentiment jumped and then plunged in October 2016, likely reflecting concerns as to the direction of the presidential race. Post-election, both measures rallied sharply, reflecting surges in consumer optimism into early-2017. Both series then topped and pulled 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.

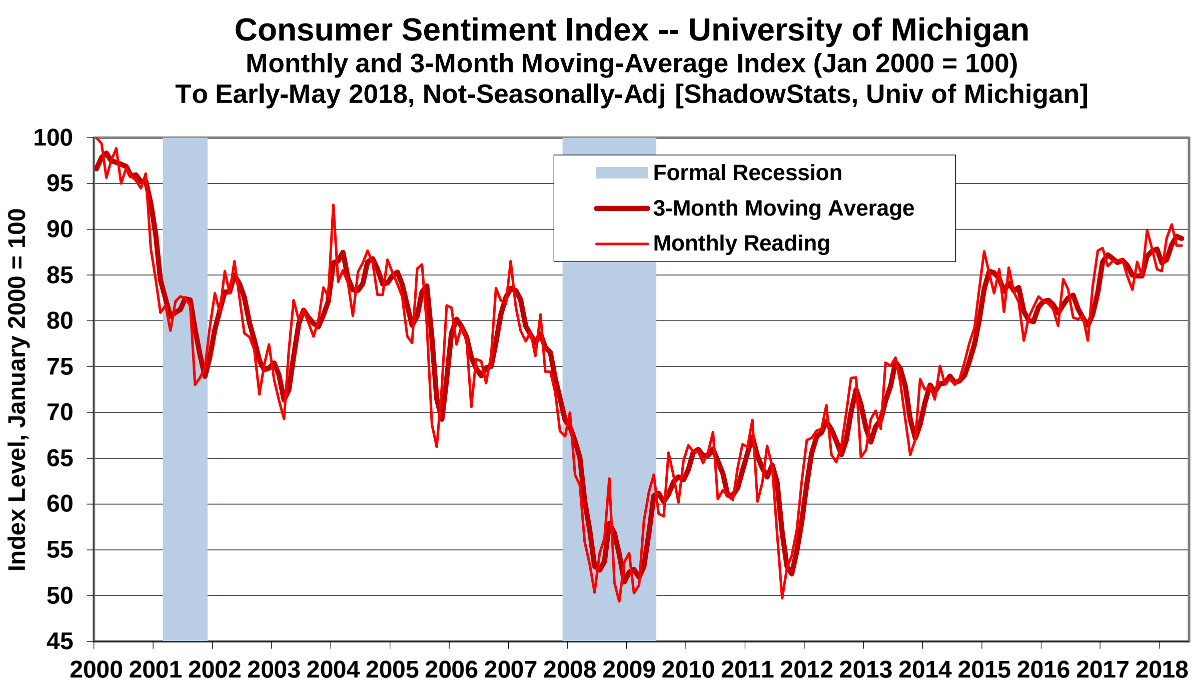
The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in *Commentary No. 764*), and often are highly volatile month-to-month, as a result. Recent press has been highly positive on the headline economic and employment news, reflecting short-lived 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 into fourth-quarter 2017, although various consumer measures to hits in the initial first-quarter 2018 GDP. In the current environment of what had been 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.

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

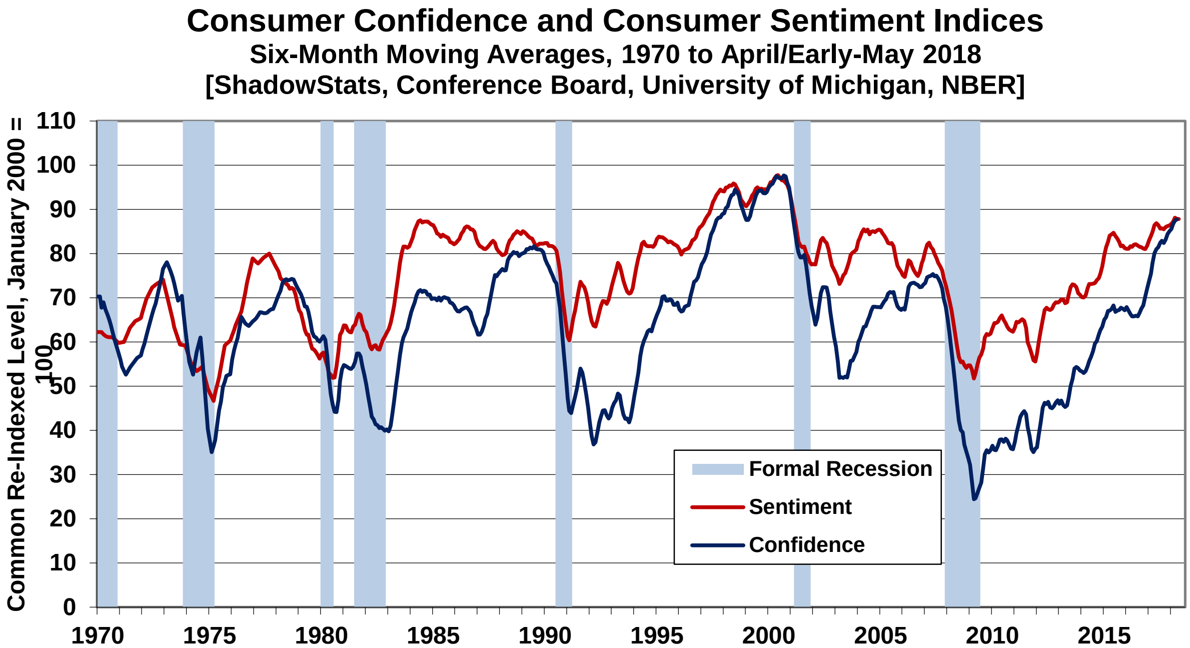


Graph CLW-2: Consumer Sentiment (2000 to 2018)



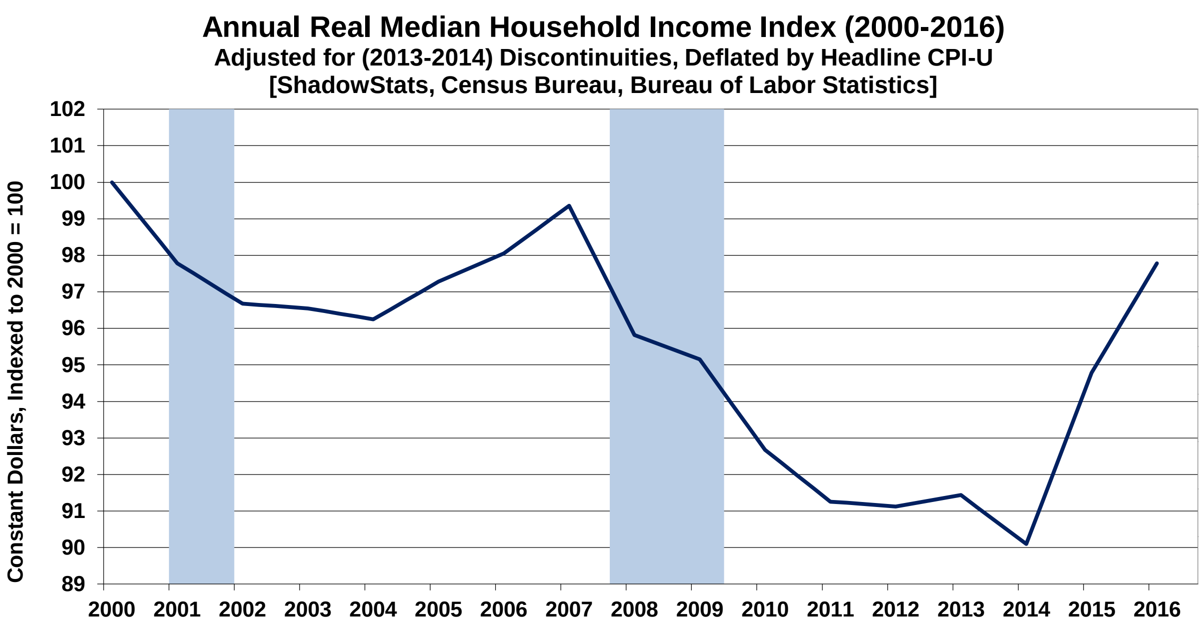
Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CLW-3*—plotted for the last 48 years—the latest readings of Confidence and Sentiment recently have recovered levels 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.

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



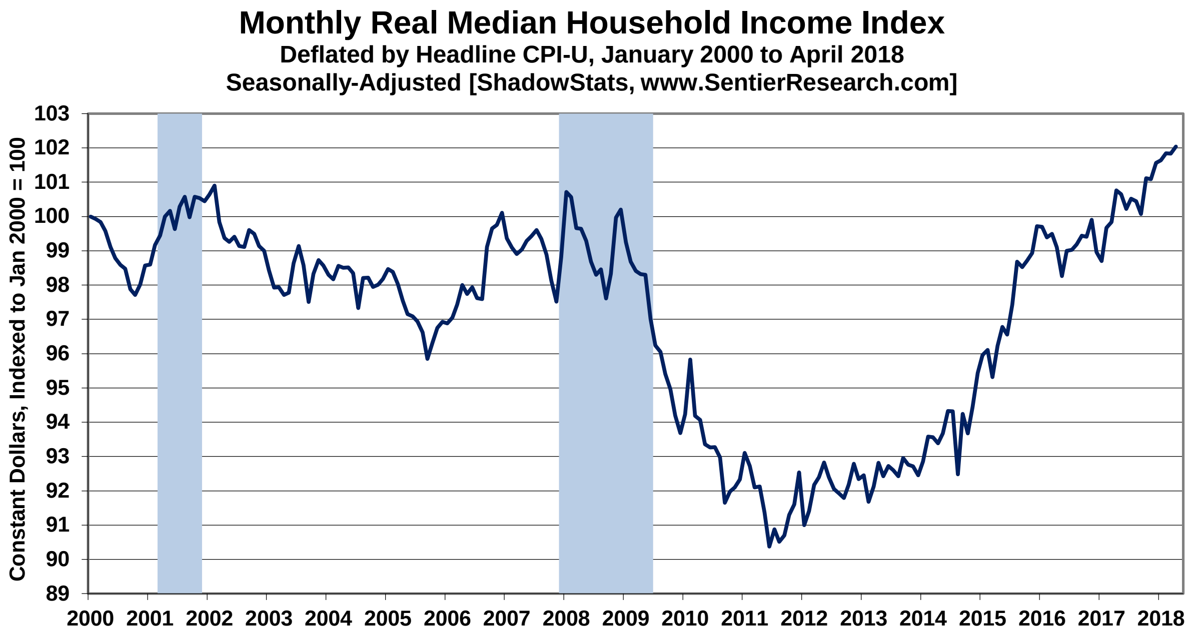
Annual Real Median Household Income in 2016 Held Below Its 2007 Pre-Recession Peak, Below Late-1990s Activity and About Even with the Mid-1970s, Monthly Activity Has Been Broadly Stagnant. *Graphs CLW-4* and *CLW-5* show the latest plots of annual and monthly Real Median Household Income.

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



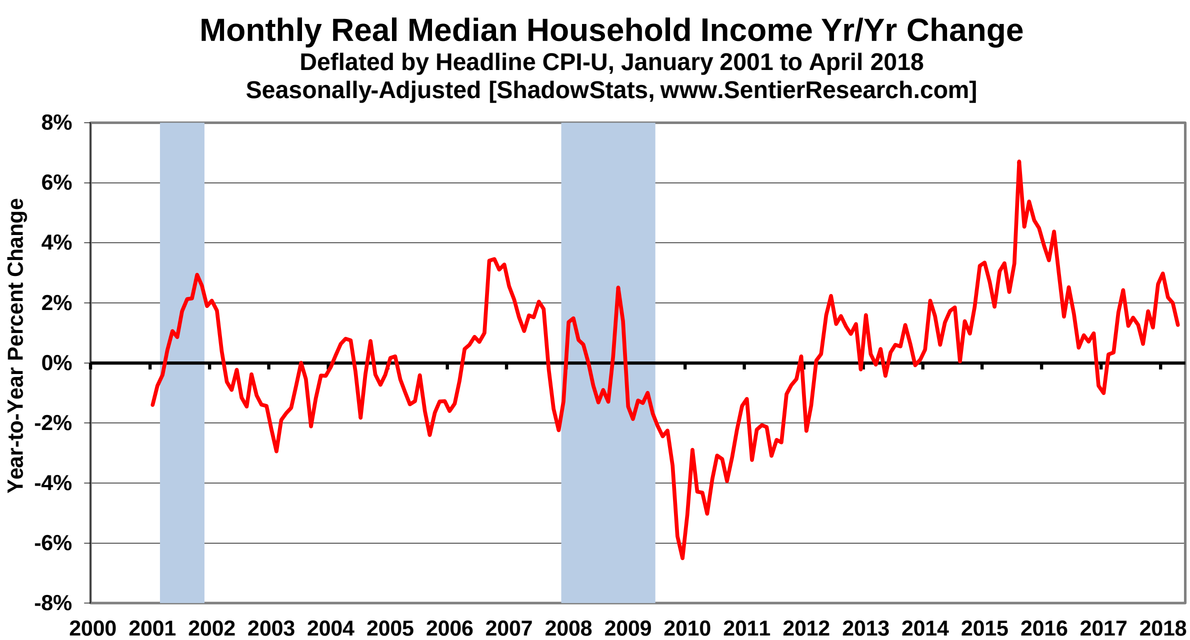
The Sentier Research Series of Monthly Real Median Household Income, Notched Higher in April, With Slowing Annual Growth, Broadly Showing Stagnant Activity. Discussed in the Opening Comments of *Commentary No. 948*, Sentier Research (www.SentierResearch.com) reinstituted its monthly reporting of Real Median Household Income (the Household Income Index or HII), where publication had been suspended, temporarily, following the release of May 2017 detail.

Graph CLW-5: Monthly Real Median Household Income (2000 to March 2018) Index, January 2000 = 100



The series was updated for the April 2018 detail on May 21st, showing a small monthly gain, along with sharply-slowing annual growth, and a continuing long-range pattern of stagnation in median household income, adjusted for CPI-U inflation. The current monthly series is plotted here, both as to level (*Graph CLW-5*) and as to year-to-year change (*Graph CLW-6*).

Graph CLW-6: Monthly Real Median Household Income (2000 to March 2018) Year-to-Year Change



Monthly Real Median Household Income, provided by Sentier Research generally can be considered a monthly version of the annual detail shown in preceding *Graph CLW-4*, based on the most-recent (2016) release by the Census Bureau in September 2017, and, again as discussed in the *Opening Comments* of *Commentary No. 948* (see also *Commentary No. 909*).

Methodological understatement of the CPI-U by the Bureau of Labor Statistics broadly has had the effect of overstating the growth in headline real or inflation-adjusted income series (see the *Public Commentary on Inflation Measurement*). In a related area, recent extreme volatility in monthly gasoline prices has had varying impact on the headline data. Details were reviewed the *Opening Comments* of *Commentary No. 948*, where annual average growth in the series since its January 2000 onset has been roughly 0.1% per year. Given the independence and quality of the Sentier research, and the known definitional biases and gimmicks used by Bureau of Economic Analysis (BEA) in its income and economic measures, the Sentier numbers suggest that actual domestic economic activity is not and has not been as robust as suggested by the BEA's headline reporting of Gross Domestic Product (GDP), for example.

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.

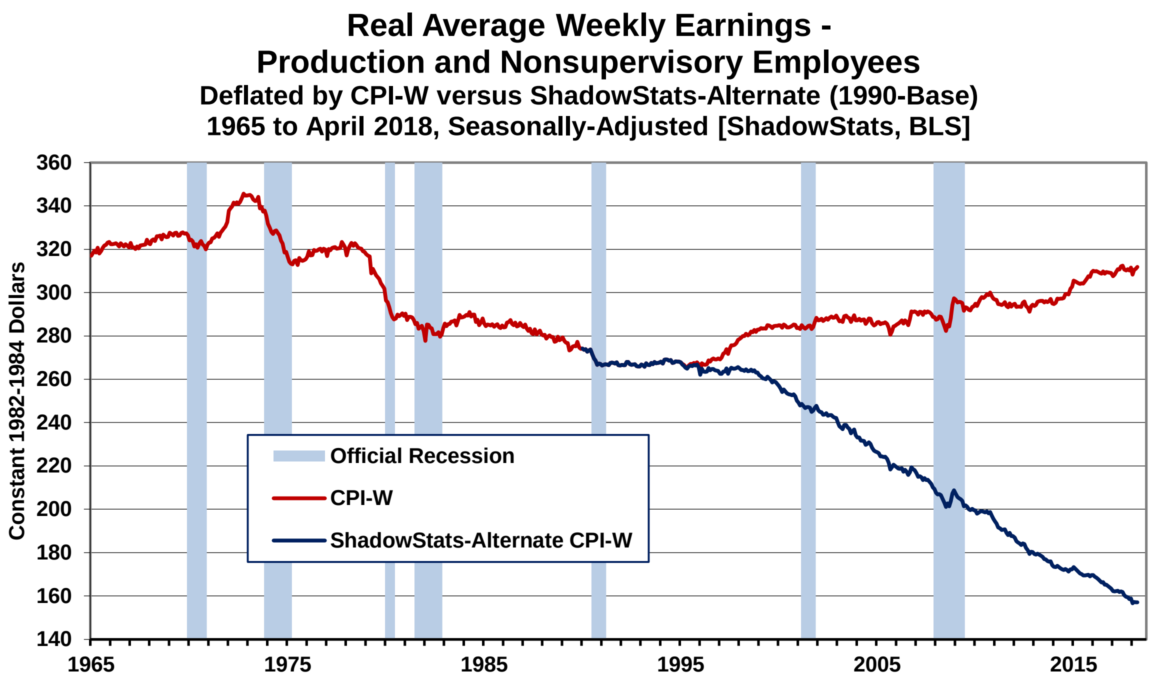
The Sentier numbers have suggested a small increase in 2014 versus 2013 levels, low-inflation induced real increases in 2015 and 2016. Allowing for the direction difference in 2014, and continual redefinitions and gimmicks in the annual series (again, see the *Opening Comments* of *Commentary No. 909*) 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 uses 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.

Real Average Weekly Earnings—April 2018—Third-Consecutive Quarterly Contraction Held in Place. For the production and nonsupervisory employees category—the only series for which there is a meaningful history (discussed in *Commentary No. 949* and plotted here in *Graph CLW-7*), real average weekly earnings rose in April. Despite near-term monthly volatility, often triggered by unstable monthly inflation numbers, real earnings contracted quarter-to-quarter in first-quarter 2018 for the third-consecutive quarterly decline in real earnings for the production and nonsupervisory employees category, the fifth real quarterly contraction of the last six quarters. Separately, real quarterly earnings for the broader all-employees category had contracted in first-quarter 2018, for the second consecutive quarterly contraction, but it also was down in April 2018

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.

Graph CLW-7: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date
(Same as Graph 1 in Commentary No. 949)



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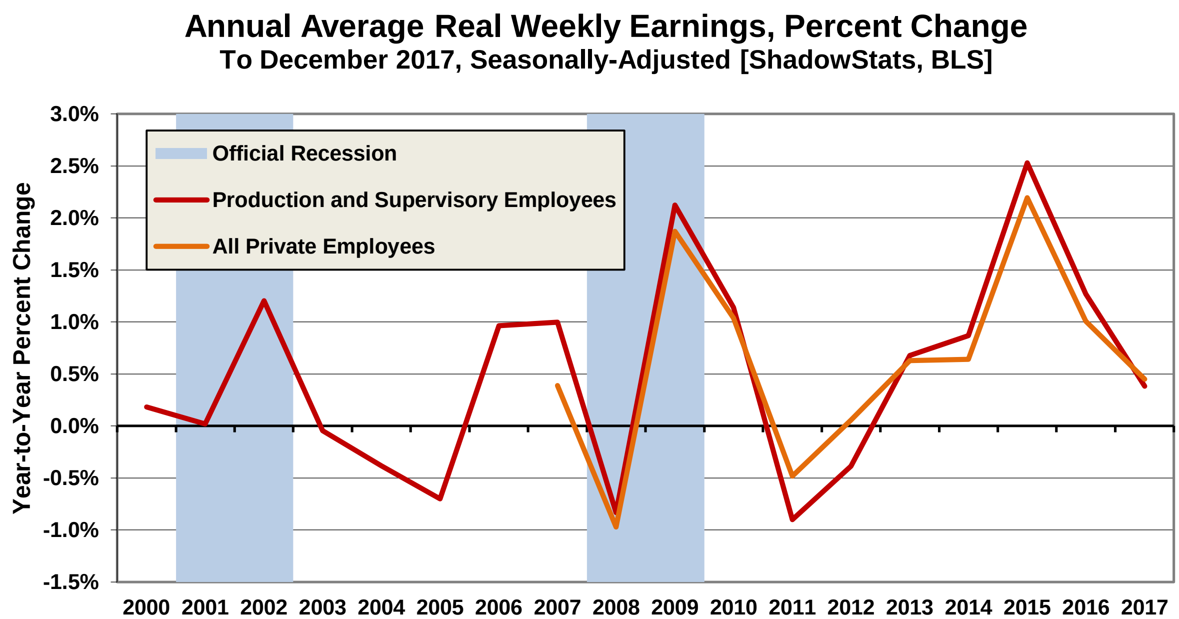
Shown in *Graph CLW-8*, and as discussed in *Commentary No. 931*, both the “all-employees” and “production and nonsupervisory employees” categories showed a sharply slowing pace in annual growth in 2017. Presumably coming off more-positive economic circumstances, the patterns there are consistent with 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)



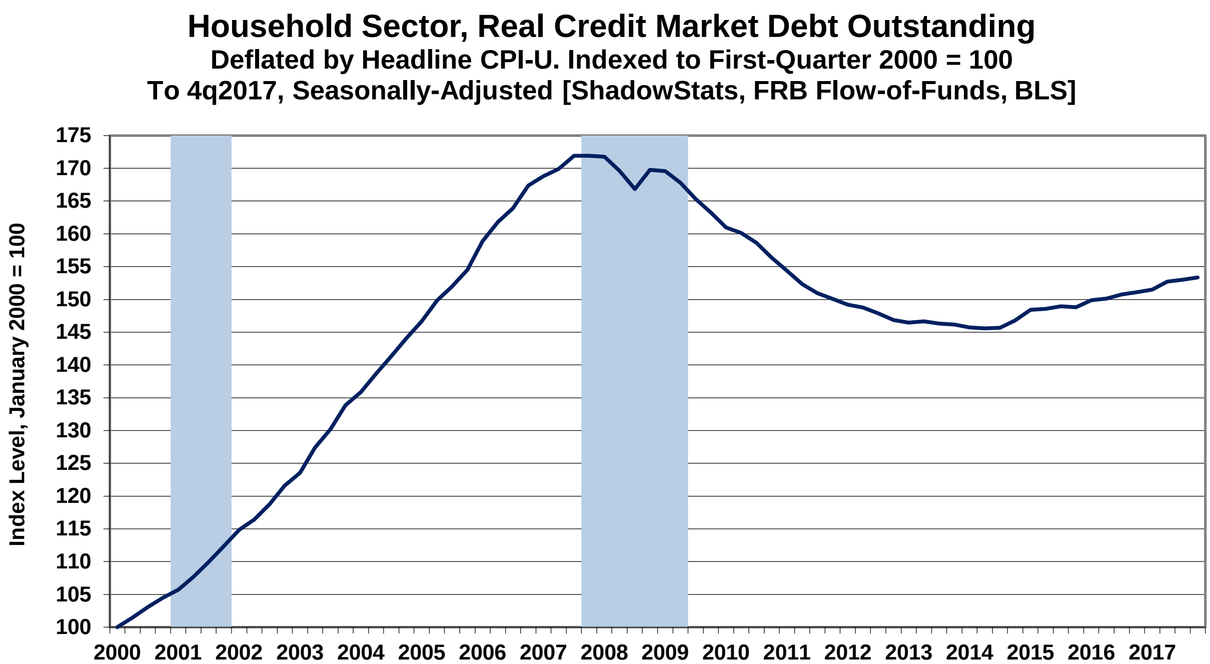
When income growth is inadequate to support consumption growth, consumers often make up the difference in debt expansion. Yet, real Consumer Credit Outstanding has shown a patterns of declining annual real growth for the last several quarters, irrespective of the specific series, as reflected in the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

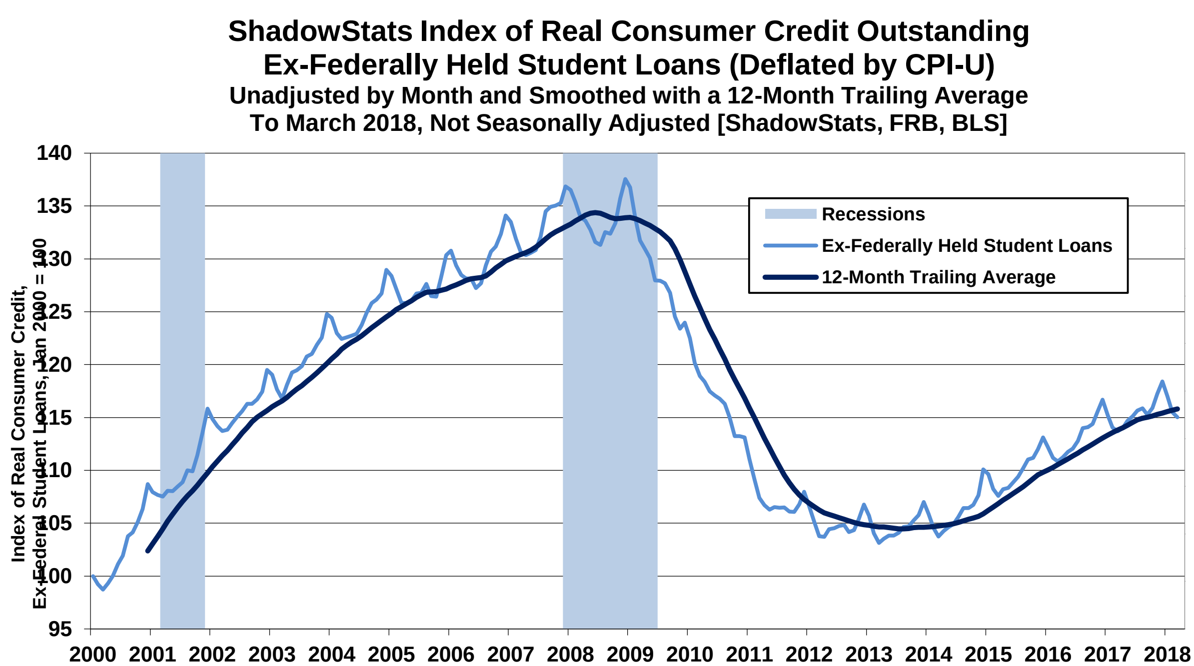
Quarterly Series. Consider *Graph CLW-9* of *Household Sector*, *Real Credit Market Debt Outstanding*. The level of real household debt declined in the period following the Panic of 2008, reflecting loan defaults and reduced banking lending, and it has not recovered fully, based on the Federal Reserve's 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 123 months 41 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 CLW-10* is indexed to Consumer Credit Outstanding Ex-Federal Student Loans equal to 100 in January 2000. In *Graphs CLW-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.

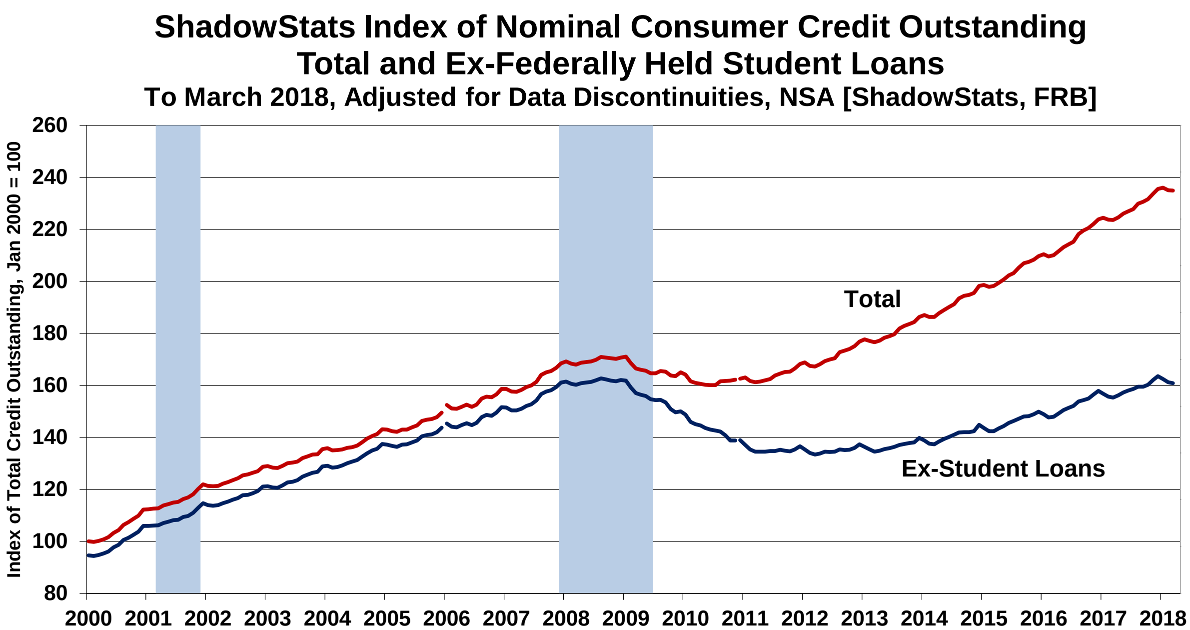
Shown through the March 2018 reading (released May 7th), the headline nominal monthly Consumer Credit Outstanding (*CLW-11*) is a subcomponent of the nominal Household Sector debt. Where *Graph CLW-12* reflects the real or inflation-adjusted activity for monthly Consumer Credit Outstanding terms of both 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.

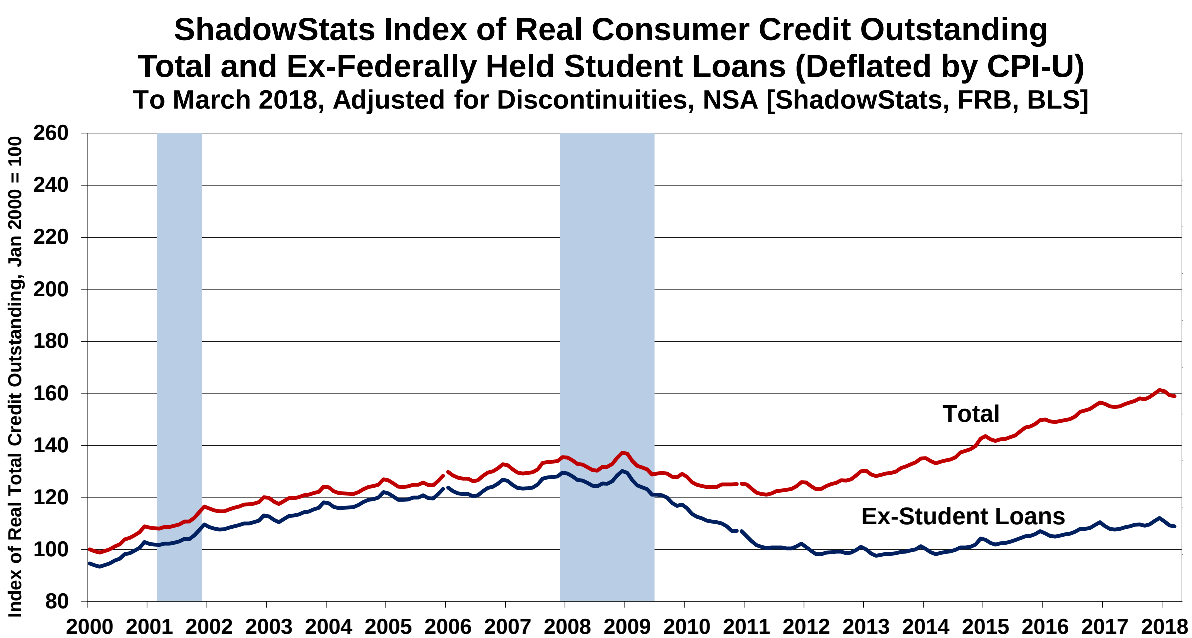
Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Where the recent monthly downside move in the not-seasonally-adjusted real consumer credit reflected something of a seasonal pattern, the pattern of year-to-year growth has been in downtrend, suggesting some tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in March 2018 was down from recovering its pre-recession peak of December 2007 by 16.0% (-16.0%). That is 123 months, 41 quarters or ten-plus years of non-expansion of credit. Year-to-year real growth shown in *Graph CLW-13* tends to resolve most monthly seasonal distortions in the not-seasonally-adjusted data.

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

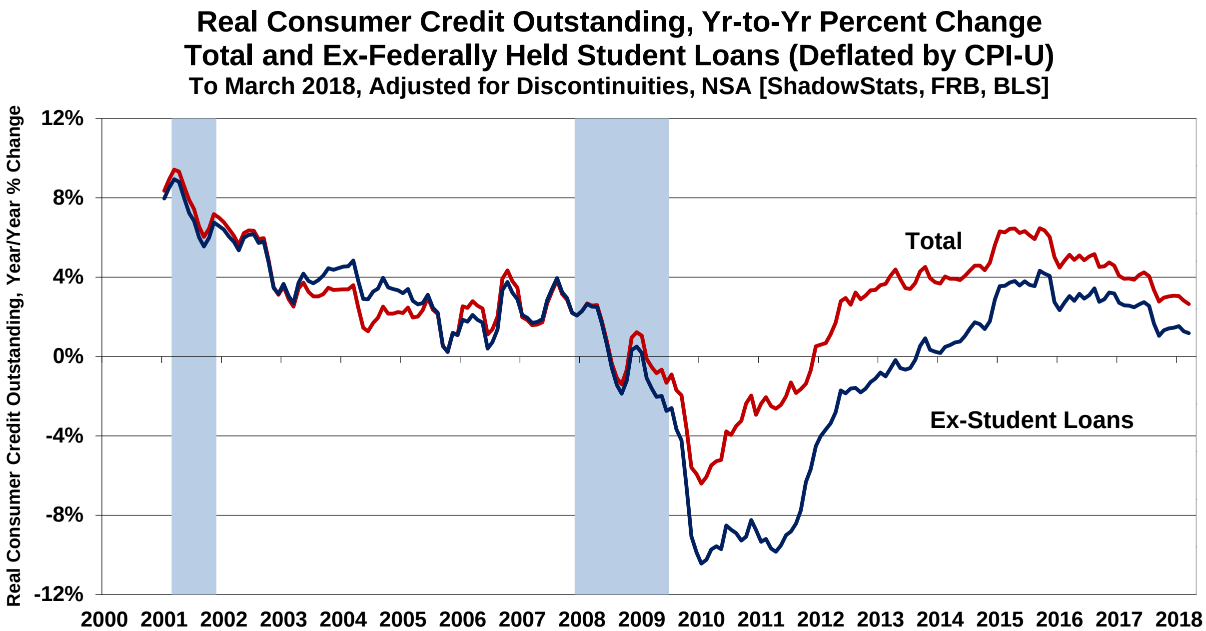
Graph CLW-11: Nominal Consumer Credit Outstanding (2000 to 2018)



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

U.S. Dollar and Financial-Market Turmoil Continue at High Risk, Amidst Mounting Fiscal Concerns, Consumer Liquidity Issues and Non-Expanding, Real-World Economic Activity. *[Other than for links or references, the text in these opening paragraphs has not changed from prior* Commentary No. 950*.]* In the context of intensified weakening of underlying fundamental drivers of broad economic activity and negative stresses on basic consumer-liquidity conditions, discussed respectively in the *Opening Comments* and *Consumer Liquidity Watch* of *No. 950* (see today's sections, too), the recent headline first-quarter GDP (*Commentary No. 947*) reflected difficult economic times beginning to hit U.S. consumer activity, where the U.S. consumer remains the fundamental driving force behind domestic business conditions. Continuing negative surprises likely will follow in the regular economic reporting and annual benchmark revisions of key economic series in the next couple of weeks and months. The broad outlook has not changed. Weaker economic growth and renewed, faltering economic headlines should follow.

Broad 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 there on page 6. The faltering economic outlook also was reviewed in the *Opening Comments* and *Industrial Production Benchmark Revisions* sections of *Commentary No. 942-B.* The circumstances broadly have not changed from the related financial market vulnerabilities discussed in the *Hyperinflation Watch* of *Commentary No. 945*, incorporated here by reference. U.S. dollar and related market conditions were updated in the *Opening Comments* and *Hyperinflation Watch* of *Commentary No. 949*.

The U.S. dollar and financial markets remain at extraordinarily-high risk of intense, panicked declines, still likely in the very near term. 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 (First-Quarter 2018, Second Estimate, First Revision). The Bureau of Economic Analysis (BEA) will release its second estimate of, first revision to First-Quarter 2018 GDP on Wednesday, May 30th, which will be covered in *Commentary No. 952* of that date.

Initial reporting of First-Quarter 2018 Gross Domestic Income (GDI) and Gross National Product (GNP) also will follow on May 30th. Initial reporting of those series standardly is lagged by one month (two months with fourth-quarter detail), due to the lack of significance of available detail. That general problem remains a major issue with broad GDP reporting, which faces a pending "comprehensive" benchmarking and redefinition of the GDP series—back to 1929—on July 27th. Nonetheless, these related series often offer some surprises in this heavily gimmicked and often inconsistent reporting.

Against the initial reporting of headline annualized growth 2.3% in First-Quarter 2018 GDP, expectations should be relatively neutral as to an upside or downside revision, given positive monthly revisions from retail sales, but with offsetting negative ones from industrial production. Impact from the various benchmark revisions most likely will be seen in the GDP benchmarking scheduled for July 27th, as discussed in today's *Opening Comments*.

Employment and Unemployment (May 2018). The Bureau of Labor Statistics (BLS) will publish headline May labor data on Friday, June 1st, to be covered in at least summary detail in *Commentary No. 953-A* of the date, with extended coverage, as needed, in *Commentary No. 953-B* of June 4th. In the context of inconsistent, effectively nonsensical headline details in the April Household Survey (see the discussion in *Commentary No. 948*), some negative shocks (catch-up from last year's storm distortions) easily could be in the works. Both the heavily-stressed household survey and payroll survey numbers likely will continue under negative pressure. Annual growth in the April payrolls held at recession-signal levels, a pattern that not only should continue but also intensify.

Headline details remain open to some continued, sharp negative catch-up, with both payroll growth and unemployment levels a fair bet for seeing negative surprises, again, against likely, positive consensus expectations.

Construction Spending (April 2018). The Commerce Department will release its estimate of April 2018 Construction Spending on Friday, June 1st. At least summary headline detail will be covered in *Commentary No. 953-A* of the date, with extended coverage, as needed, in *Commentary No. 953-B* of June 4th. The April release should continue to show unchanged or year-to-year contractions in inflation-adjusted real activity. The onset of such an annual downturn in real activity was seen last in the housing collapse of 2006, and it is indicative of the beginnings of a new recession. Where that should remain the ongoing trend, recovery and rebuilding efforts from the spate of recent natural disasters still could offer limited, near-term moderation to an increasingly-negative economic outlook. Due on July 2nd, annual benchmark revisions to this series likely will exacerbate negative signals already in place for broader economic activity.

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 *Commentaries* usually are published at least weekly and update the general economic and financial o-market outlook, as circumstances develop.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Commentary No. 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.