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

COMMENTARY NUMBER 822
Durable Goods Orders, Home Sales, Freight Index, Household Income

July 27, 2016

Broad Economic Downtrend Continued,
Despite a Likely Positive, First Guesstimate of Second-Quarter GDP

Real Durable Goods Orders Tumbled in Second-Quarter 2016
Both Before (-0.8%) and After (-4.1%) Consideration for Commercial Aircraft

Year-to-Year New Orders Fell Sharply in June 2016,
Both Before and After Consideration of Inflation and Commercial Aircraft

Aggregate Real Durable Goods Orders Continued in Smoothed,
Down-Trending, Low-Level Stagnation and Non-Recovery

Absurd Surges in New-Home Sales Activity Were Not Significant, with the
Series in Continued Low-Level Stagnation and Non-Recovery,
Still Shy of its Pre-Recession Peak by 57.4% (-57.4%)

Despite Highest Existing-Home Sales Level Since 2007,
Activity Remained Shy of its Pre-Recession Peak by 23.4% (-23.4%),
Continuing in a Smoothed Pattern of Non-Recovering Stagnation

Freight Index Showed Deepening New Recession, No Recovery

After Tumbling in April and May,
Real Median Household Income Ticked Insignificantly Higher in June

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PLEASE NOTE: The next regular Commentary, *scheduled for Friday July 29th, will cover the "advance" or first-estimate of second-quarter 2016 GDP and the accompanying annual benchmark revisions to the GDP series.*

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Pending First Estimate of Second-Quarter 2016 GDP. Despite market expectations holding around 2.5% to 2.6% for headline, annualized real second-quarter 2016 GDP growth, initial headline detail should come in below 2.0%, perhaps well below 2.0%, in the Bureau of Economic Analysis's (BEA) initial guess at the latest broad measurement of U.S. economic activity, due for release on Friday, July 29th. That growth rate should revise lower in its second and third estimates, on August 26th and September 29th, especially if the first estimate comes in below consensus expectations.

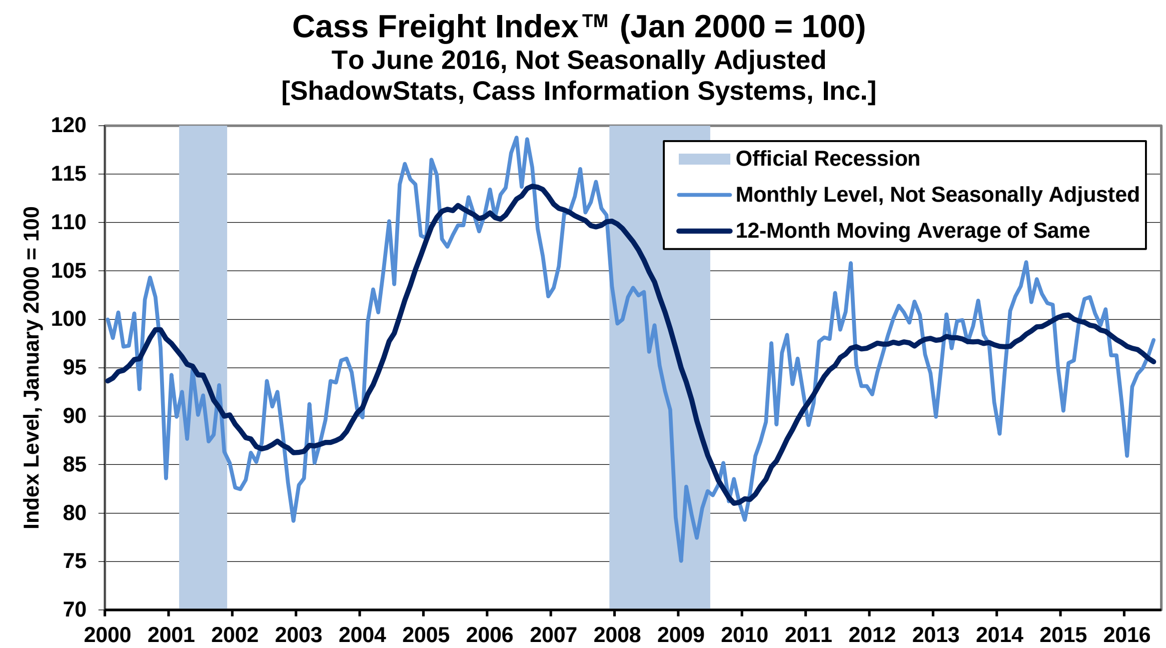
Before looking at some of the pending detail, consider that the second-quarter GDP release will be in the context of the annual benchmark revisions to the series, which will go back to first-quarter 2013. Where there should be meaningful downside revisions to recent history (see the benchmarking discussion in prior *Commentary No. 821*), those changes also can alter the nature of the dynamics driving the current headline GDP reporting, especially as tied to the production side of the economic activity, which has been hit so hard in recent revisions.

Still Subject to Late Government Estimates. The biggest plus for the second quarter, at the moment, is 3.30% annualized real growth in second-quarter real retail sales, heavily bloated by extremely poor-quality and volatile auto sales reporting. That likely will face downside revisions. Also, incomplete trade-deficit detail for the second-quarter showed some improvement, but the latest revisions to both these series were negative (see *No. 820* and *No. 818*). Wildcard trade and inventory numbers will be updated for June (second-quarter) activity, tomorrow, July 28th, in a new Census Bureau release, "Advance Economic Indicators Report," including estimates for the June trade and inventory details.

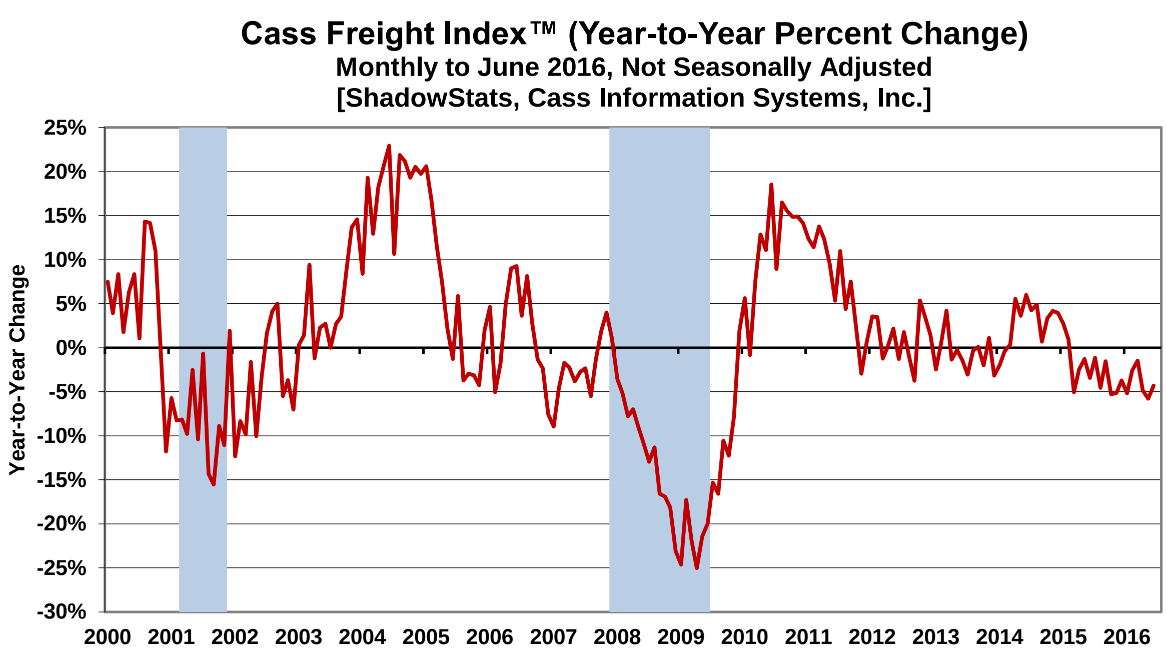
To the extent that the late reporting is honest or meaningful (the trade detail usually is revised heavily in the next week's full reporting), it should take a notch out of the bloated, current consensus estimate of second-quarter GDP growth. On the downside for headline second-quarter GDP are headline quarterly contractions in industrial production and manufacturing (*No. 820*), new orders for durable goods (covered later in these *Opening Comments* and the *Reporting Detail*), real average weekly earnings (*No. 820*), real construction spending—based on two months—(*No. 818*), and a number of high-quality, private (non-government) indicators which traditionally lead headline GDP reporting.

June Freight Index Confirmed Deepening Economic Contraction and Non-Recovery. Patterns of non-recovery in the general economy and renewed downturn in business activity were reconfirmed in the headline detail of the June 2016 Cass Freight Index™, published July 19th.

Graph 1: CASS Freight Index, Unadjusted Monthly and Trailing 12-Month Average, through June 2016



Graph 2: CASS Freight Index, Year-to-Year Percent Change, Monthly through June 2016



Beginning with *Commentary No. 782* (further background available there), ShadowStats published the graphic detail on the Cass Index, a measure of North American freight volume as calculated by, and used with the permission of Cass Information Systems, Inc. As background, freight activity is a basic, underlying indicator of commercial activity and broad GDP. Of the combined U.S. and Canadian (North American) GDP in 2014, roughly 91% was attributable to the United States.

The plot in *Graph 1* reflects the monthly numbers updated through June 2016. While adjusted for factors such as days in a month, the headline monthly detail is not adjusted for broad seasonality patterns, such as retailers stocking for the holiday shopping season. Accordingly, ShadowStats plots the series using a trailing twelve-month average, which tends to neutralize regular seasonal patterns over the period of a year, along with the unadjusted monthly detail plotted in the background. ShadowStats also has re-indexed the series to January 2000 = 100, so as to be consistent with other graphs used. The headline index published by Cass is based at January 1990 = 100. The patterns here somewhat resemble those seen in *Graph 8* of the smoothed, corrected real new orders for durable goods, ex-commercial aircraft.

In *Commentary No. 819* (see pages 6 to 10 there), a variation on *Graph 1* was compared with various U.S. unemployment and economic measures. Shown in *Graph 1*, the trailing twelve-month average peaked in January 2015 and has been slowing since, with the twelve-month average level through June 2016 down by 4.7% (-4.7%) from that peak, currently down 3.8% (-3.8%) year-to-year from the June 2015 average.

Another approach to assessing not-seasonally-adjusted monthly detail is to look at year-to-year change by individual month, as plotted in *Graph 2*. The unadjusted monthly detail has been in continual year-to-year decline since March of 2015, down by 4.3% (-4.3%) year-to-year as of June 2016, versus an annual drop of 5.8% (-5.8%) in May 2016.

In combination, *Graphs 1* and *2* are consistent with a pattern of economic collapse into 2009, low-level stagnation thereafter and renewed downturn effectively coincident with a "new" recession, which likely will be timed from December 2014.

Other Private Indicators Show an Unfolding Downturn. There is no evidence of an economic rebound or recovery in the works, quite to the contrary, based on this independent freight index (as in non-government) and broadly-based indicator of business activity, or on other independent indicators such as S&P 500 revenues (again, see *Commentary No. 819*).

Noted in *Commentary No. 820,* The Conference Board Help Wanted OnLine® Advertising through June was generating a signal for an economic downturn.

Today's *Commentary* (July 27th). The balance of these *Opening Comments* provides summary detail of June and second-quarter 2016 New Orders for Durable Goods, New- and Existing Home Sales and updated Consumer Conditions.

The most-recent *Hyperinflation Outlook Summary* is found in *Commentary No. 783*, with an updated outlook for Fed activity and the U.S. dollar in the *Hyperinflation Watch* of *Commentary No. 820*. The various background *Commentaries* will be updated and consolidated in a new *Special Report*. With first half-2016 economic detail in place, that publication is anticipated for August 19th.

The *Week and Month Ahead* section previews Friday's headline "advance" release of second-quarter 2016 GDP (see discussion in the opening paragraphs and in prior *Commentary No. 821*.)

New Orders for Durable Goods—June 2016—Second-Quarter Real Orders Contracted Both Before and After Consideration of Commercial Aircraft Orders. July 2016 new orders for durable goods declined year-to-year, irrespective of inflation-adjustment or exclusion of commercial aircraft orders. With the initial full three months of second-quarter 2016 in hand, second-quarter orders, ex-commercial aircraft, contracted quarter-to-quarter, irrespective of inflation considerations. Such was a solid, negative leading indicator for third-quarter 2016 industrial production, a series that has been in definitive recession since December 2014 (see *Commentary No. 820*).

Headline June 2016 New Orders for Durable Goods fell month-to-month by a nominal 4.04% (-4.04%) in aggregate, up by 0.16% ex-commercial aircraft, along with relatively small, negative prior-period revisions. Net of "unchanged" headline monthly inflation adjustment in June, those respective monthly changes remained a contraction of 4.04% (-4.04%) and a gain of 0.16%, respectively. Smoothed with six-month moving averages, both of those highly volatile inflation-adjusted real series remained in non-recovering, low-level, down-trending stagnation, patterns consistent with signaling an ongoing and deepening "new" recession.

Headline Nominal Detail. The regularly-volatile, seasonally-adjusted, nominal level of June 2016 new orders for durable goods declined in the month by 4.04% (-4.04%), following a revised, deeper contraction of 2.85% (-2.85%) in May, and a downwardly-revised 3.16% gain in April. Net of prior-period revisions, June 2016 orders fell by 4.07% (-4.07%), instead of the headline 4.04% (-4.04%).

Year-to-year, June 2016 durable goods orders fell by 6.37% (-6.37%), following downwardly-revised gains of 2.45% in May 2016 and 1.82% in April 2016. The headline June 2016 detail, again, was before consideration of the volatility in commercial-aircraft orders.

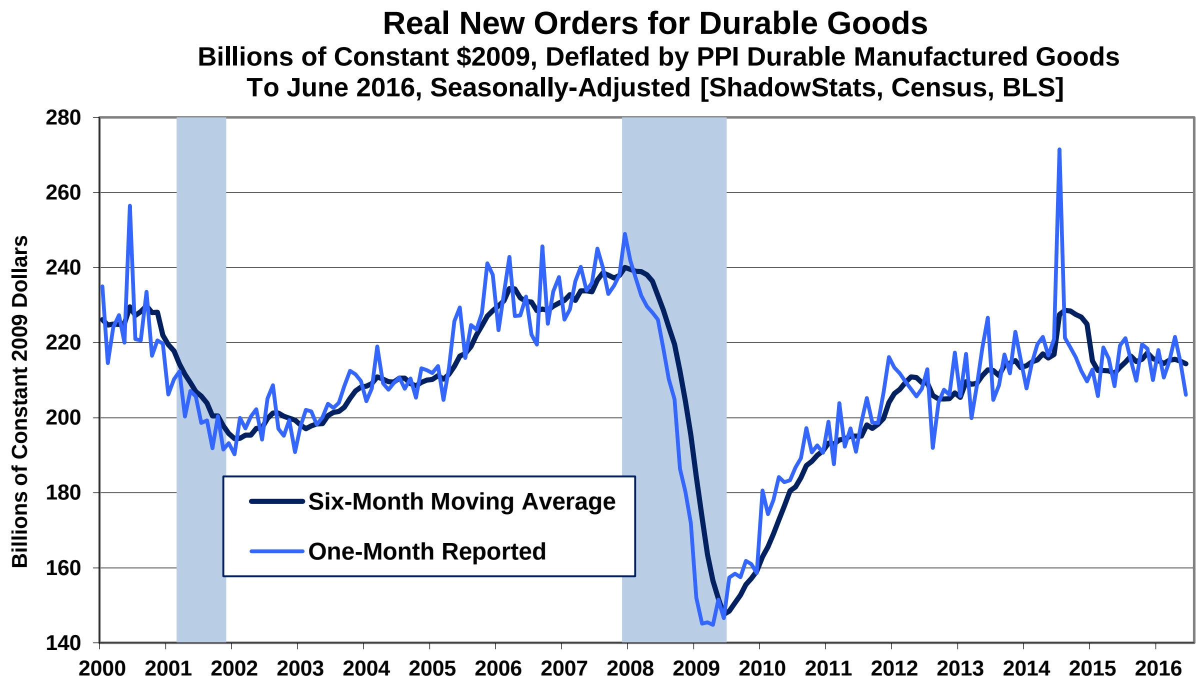
Before and after consideration of commercial-aircraft volatility and monthly irregularities in the headline reporting of new orders, the smoothed trends of activity continued to be down-trending, consistent with a downturn in what had been a continuing pattern of broad stagnation. The inflation-adjusted real series, and that same series corrected for the understatement of official inflation, are discussed and graphed later in this section. The corrected series—net of commercial aircraft orders—has remained relatively flat, at a low-level and down-trending pattern of stagnation, with the other plotted series still showing an unfolding downturn 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 the current circumstance, a relatively sharp monthly decline in June commercial aircraft orders pushed the aggregate orders into a monthly decline of 4.0% (-4.0%), from otherwise was a gain of 0.2%.

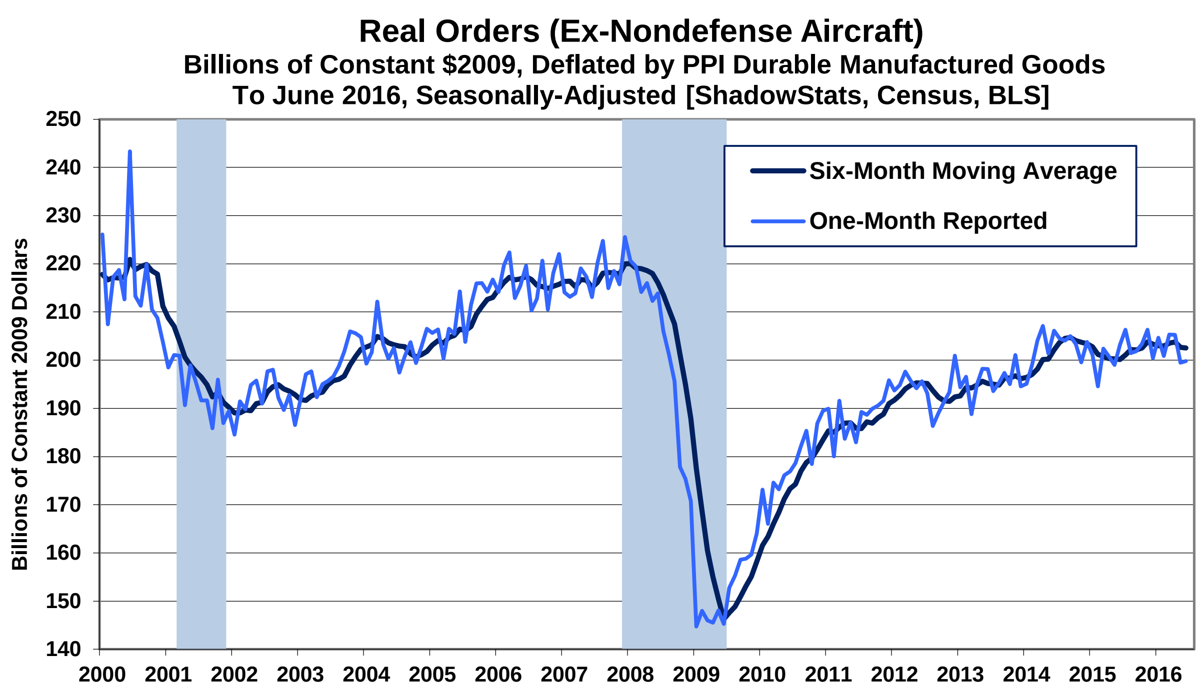
Net of a headline monthly decline of 58.76% (-58.76%) in June 2016 commercial aircraft orders, a revised decline of 5.52% (-5.52%) in May, and a minimally-revised gain of 69.26% in April, new orders gained 0.16% in June 2016, declined by a revised 2.64% (-2.64%) in May, and rose by a revised 0.07% in April.

Year-to-year and seasonally-adjusted, June 2016 new orders (net of commercial aircraft) declined by 2.09% (-2.09%), versus a revised decline of 0.37% (-0.37%) in May 2016, and a revised gain of 1.37% in April 2016.

Graph 3: Real Total New Orders for Durable Goods to Date



Graph 4: Real New Orders for Durable Goods – Ex Commercial-Aircraft Orders to Date



Real Durable Goods Orders—June 2016. ShadowStats uses the PPI component inflation measure "Durable Manufactured Goods" for deflating the new orders for durable goods series. Published only on a not-seasonally-adjusted basis, the related June 2016 PPI series showed a headline monthly "unchanged," following gains of 0.18% in May and 0.12% in April. Annual inflation fell by a narrower 0.42% (-0.42%) year-to-year in June 2016, versus annual declines of 0.60% (-0.60%) in May 2016 and 0.84% (-0.84%) in April 2016.

Adjusted for that "unchanged" monthly June 2016 inflation, and as reflected in the accompanying graphs, real month-to-month aggregate orders in June 2016 fell by 4.04% (-4.04%), fell by 3.02% (-3.02%) in May and rose by 3.04% in April. Ex-commercial aircraft, real month-to-month orders rose by 0.16% in June 2016, and fell by 2.81% (-2.81%) in May and by 0.05% (-0.05%) in April.

Real aggregate new orders fell year-to-year by 5.97% (-5.97%) in June 2016, having gained 3.07% in May 2016 and 2.68% in April 2016. Ex-commercial aircraft, real orders in June 2016 declined by 1.67% (-1.67%), having gained 0.23% in May 2016 and 2.22% in April 2016. Annual real gains here were boosted by the headline, negative year-to-year inflation.

Real Quarterly Growth, Ex-Commercial Aircraft. Where the inflation-adjusted series, ex-commercial aircraft, is the best leading economic indicator out of these data, following are the annualized real quarterly changes in that series. Beginning at the onset of what should become a formal recession, the real ex-commercial aircraft orders series showed annualized quarterly declines of 4.44% (-4.44%) in fourth-quarter 2014, and 5.54% (-5.54%) in first-quarter 2015. Annualized real change for second-quarter 2015 was a gain of 3.31%, a gain of 4.52% in third-quarter activity, a gain of 0.31% in fourth-quarter 2015 activity, and a softer, revised 0.48% gain in first-quarter 2016. With initial full reporting in hand for second-quarter 2016, the series showed an annualized real contraction of 4.11% (-4.11%).

Graphs of Inflation-Adjusted and "Corrected" Smoothed Durable Goods Orders. Preceding *Graphs 3* and *4* show 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 unstable commercial-aircraft orders. All graphs here reflect the latest headline detail and incorporate the significantly-negative, annual benchmark revisions to durable goods orders as reviewed in the May 20th *Supplemental Commentary No. 807-A*.

The moving-average levels in both series had turned lower into year-end 2014 and after some uptick in mid-2015—some smoothed bounce-back—the smoothed trend turned down anew into late fourth-quarter 2015 and into first- and second-quarter 2016.

Broadly, there has been a general pattern in recent years of stagnation or bottom-bouncing evident in the orders—clearly not the booming recovery seen in official GDP reporting. The real (inflation-adjusted) monthly and six-month moving-average level of new orders in June 2016 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 usually precedes and/or coincides with a recession, as is the current circumstance.

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

As done for other series such as the GDP, real retail sales and industrial production (see *Commentary No. 817* and *Commentary No. 820*), ShadowStats publishes an experimental corrected version of the inflation-adjusted graph of real new orders for durable goods, corrected for the understatement of the related headline PPI inflation.

Two sets of graphs follow. The first set (*Graph 5* and *Graph 6*) shows the aggregate series or total durable goods orders; the second set (*Graph 7* and *Graph 8*) shows the ex-commercial aircraft series.

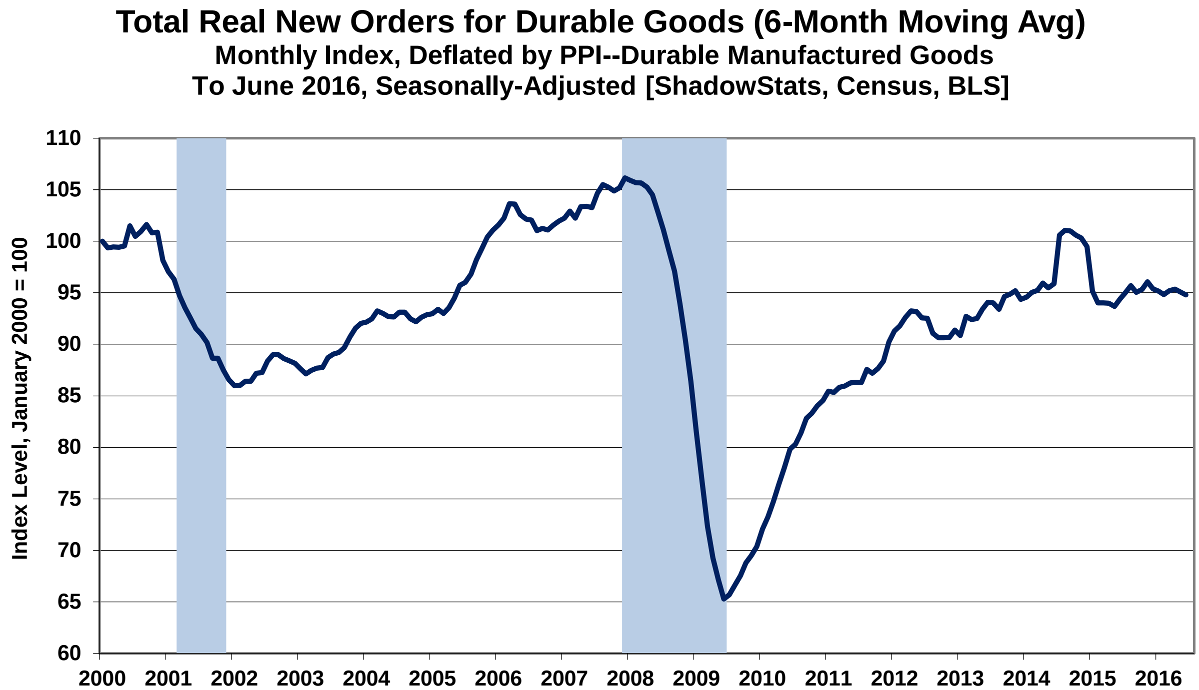
The aggregate orders series in *Graphs 5* and *6* includes the monthly commercial aircraft orders. Placed years in advance, aircraft orders are a better indicator of long-range production activity, than they are as a near-term leading indicator of production activity. Again, *Graphs 7* and *8* are shown net of the volatile commercial aircraft orders.

The first graph in each of the two series shows the official six-month moving average, the same heavy dark-blue line shown in *Graph 3* and *Graph 4*, 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 understatement of the PPI manufactured durable goods inflation measure used in the headline-deflation process. ShadowStats estimates that inflation understatement, with the "corrected" graphs indexed to January 2000 = 100.

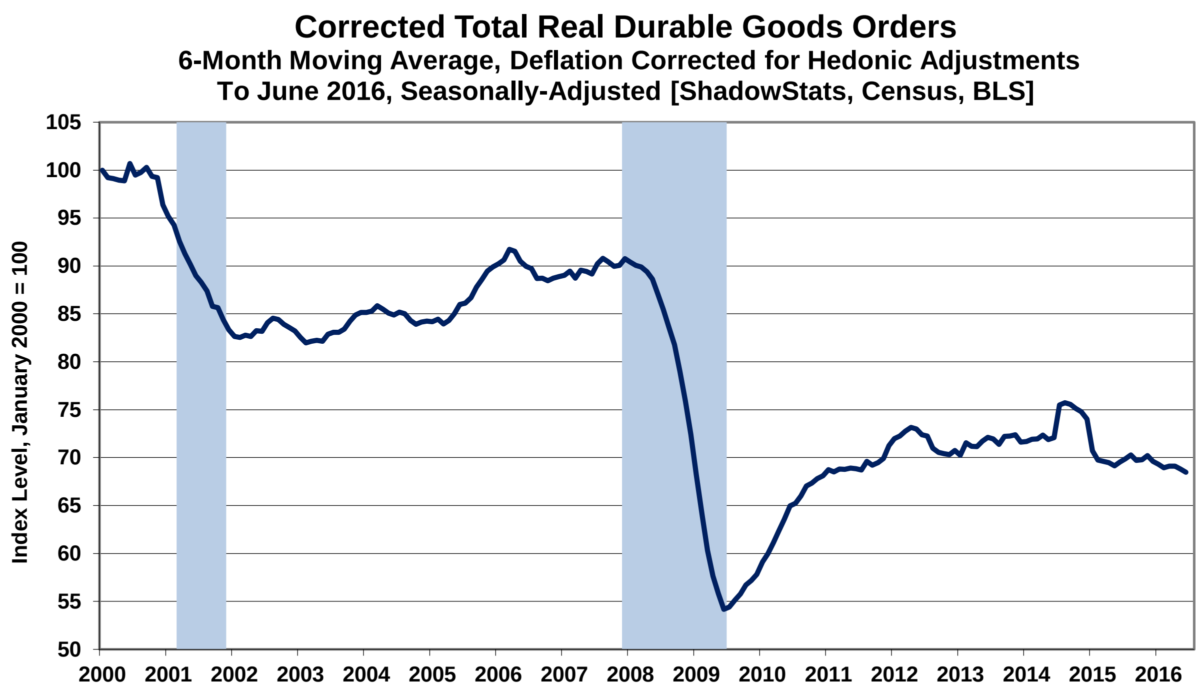
Graph 8, entitled "Corrected Real Orders—Ex-Commercial Aircraft" (a six-month trailing average) is perhaps the best indicator of broad underlying order activity in the durable goods sector, in the context of signaling in advance actual near-term production and economic activity. The signal here remains one of ongoing economic deterioration.

[Graphs 5 to 8 begin on the following page.]

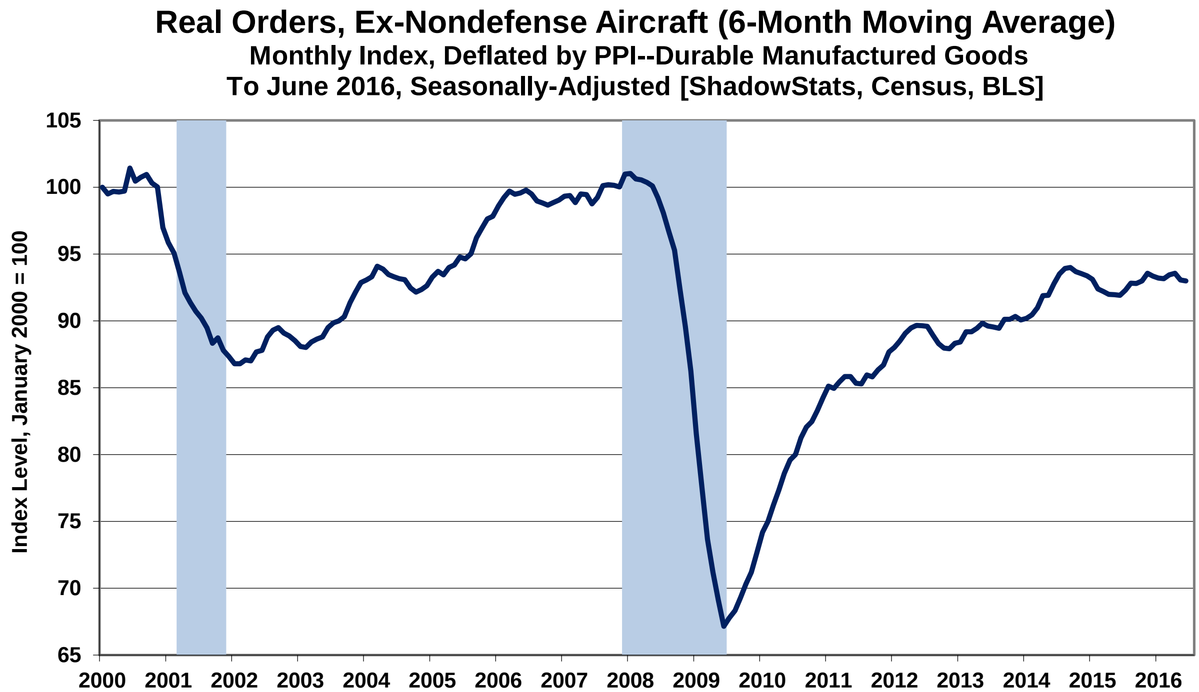
Graph 5: Index of Real Total New Orders for Durable Goods, 6-Month Moving Average



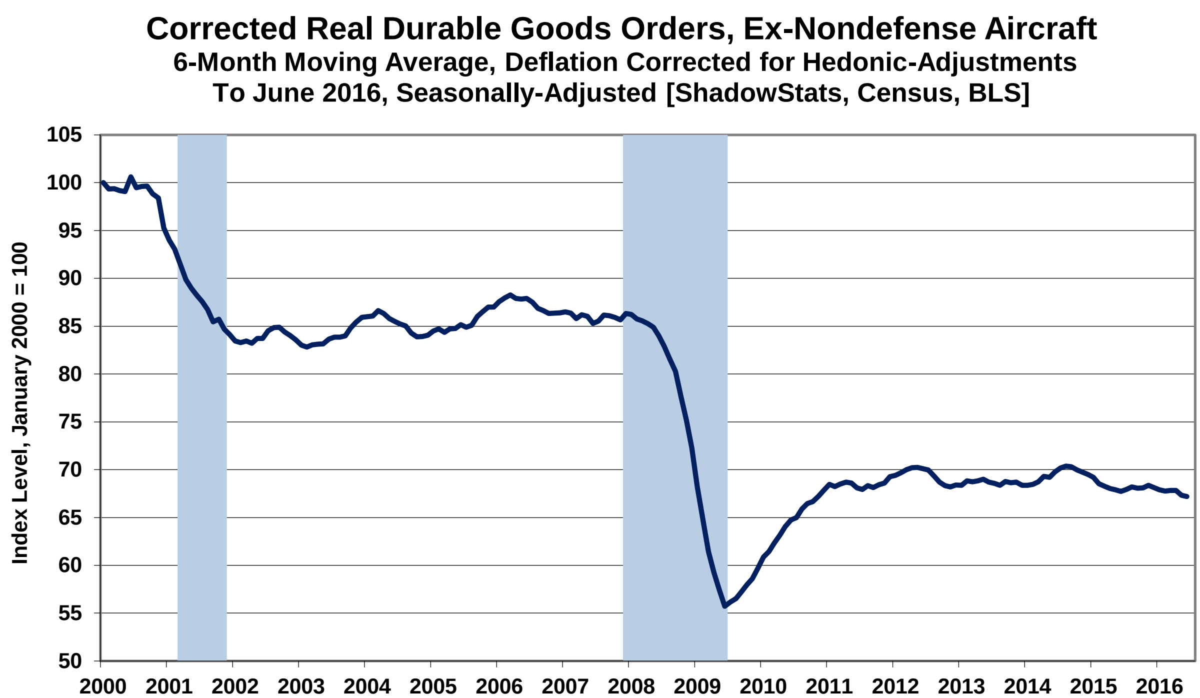
Graph 6: Corrected Index of Real Total New Orders for Durable Goods, 6-Month Moving Average



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



Graph 8: Corrected Index of Durable Goods Orders – Ex Commercial Aircraft, 6-Month Moving Average



New- and Existing-Home Sales—June 2016—Continued Low-Level Stagnation and No Recovery, Despite Respective Monthly Gains. June 2016 New- and Existing-Home Sales series both remained in depression territory (see *Commentary No. 754*), down respectively by 57% (-57%) and by 23% (-23%) from pre-recession peaks.

Holding in low-level stagnation, with statistically-insignificant changes in volatile headline activity for New-Home Sales, smoothed activity has been relatively flat (*Graph 11*) in the latter part of 2015 and through June 2016, although now minimally up-trending. Despite recently-unstable headline detail in Existing-Home Sales, and in the context of shifting patterns in smoothed, low-level stagnation, Existing-Home Sales activity turned to the downside (*Graph 1*5) in the latter part of 2015, but now also is up-trending into June 2016. These series never have recovered from the economic collapse into 2009. After going through a period of protracted, low-level stagnation, general housing construction and sales activity broadly have been stagnant.

Updated fully in the *Consumer Conditions* section that follows, the primary underlying issues restraining current residential real estate activity remain intense, structural-liquidity woes and conditions besetting the consumer.

New-Home Sales—June 2016—Unstable Reporting Continued; Gyrating in the Context of Upside Prior-Period Revisions, with Smoothed Data Still Holding in Non-Recovering, Low-Level Stagnation. Headline monthly reporting of this series is of no substance, as seen frequently with massive, unstable and continuously shifting revisions to recent history. June was no exception, where the headline sales gain of 3.5% could have been a month-to-month gain of 20% or a month-to-month decline of 20%, and it still would have lacked statistical significance.

On a monthly basis, the unstable June 2016 headline reporting of 502,000 units in annualized sales (a 49,333 monthly rate as used in the graphs) rose by 3.5% for the month, with a revised "unchanged" May sales level that previously had been down for the month by 6.0% (-6.0%). Such was in the context of other large revisions to monthly activity back through March 2016. As usual, neither the headline 3.5% monthly nor annual 25.4% annual headline gains in June 2016 were statistically significant.

ShadowStats assesses such unstable series by considering the gyrations in monthly activity in the context of a six-month moving-average of the headline numbers. With the otherwise meaningless monthly swings in these numbers smoothed out, new-home sales activity continued in a broad pattern of low-level, albeit minimally up-trending stagnation (see *Graph 11*).

Graphed either way, smoothed or not, the various housing series generally have continued to show a pattern of economic activity plunging from 2005 or 2006 into 2009, and then stagnation, with the stagnation continuing at a low level of activity to date. Beyond new-home sales, related housing activity never has recovered with the purported GDP recovery. For example, from the series' pre-recession peak of July 2005, headline June 2016 New-Home Sales still were down by 57.4% (-57.4%), while June 2016 Single-Unit Housing Starts were down by 57.3% (-57.3%) from the January 2006 pre-recession high of that series (see *Commentary No. 821*).

Headline June 2016 Reporting. In the context of an unstable upside revisions to May 2016 activity and before, June 2016 New-Home Sales (counted based on contract signings, Census Bureau) rose month-to-month by a headline, seasonally-adjusted, statistically-insignificant 3.5%. That was against a revised monthly “unchanged” reading of 0.0% in May, a downwardly-revised monthly gain of 6.5% in April and a revised monthly gain of 2.3% in March. Net of prior-period revisions, the monthly gain in June was 7.4%, instead of the headline gain of 3.5%, still well shy of being statistically significant.

Year-to-year, June 2016 sales rose by a statistically-insignificant 25.4%. That followed an upwardly-revised May 2016 sales gain of 12.8%, a downwardly-revised April 2016 annual sales gain of 14.4% and an upwardly-revised annual gain of 9.6% in March 2016. Despite the “benchmarking” to the unstable seasonal-adjustment factors with the April 2016 data releases, this series remains extraordinarily unstable and consistently unreliable on a near-term, month-to-month basis as to whether headline sales increased or decreased.

In the arena of continued extreme volatility, consider that the annualized quarterly pace of sales change 2015 gyrated from a sales gain in first-quarter 2015 of 50.1%, to a second-quarter 2015 annualized quarterly sales decline of 19.8% (-19.8%). Third-quarter 2015 new-home sales declined by 5.0% (-5.0%), with the fourth-quarter sales gain estimated at 18.7%.

With the headline June 2016 reporting, first-quarter 2016 activity showed an upwardly-revised annualized gain of 17.9%. Second-quarter 2016 showed an initial annualized quarterly gain of 42.8%.

Existing-Home Sales—June 2016—Despite Hitting Highest Level Since 2007, Activity Remained Down by 23.4% (-23.4%) from the Series’ Pre-Recession High. With a headline gain in June 2016 Existing-Home Sales, and despite a downside revision to May 2016 sales, the series rose to its highest reading since 2007. Yet, the series remained in depression (see *Commentary No. 754*), never recovering its pre-recession high. Smoothed with a six-month moving average, Existing-Home sales activity held in low-level stagnation, albeit it up-trending.

This series—along with the broader real estate and construction measures and new-home sales—never recovered from the economic collapse into 2009, a common issue in the residential real estate industry. After going through a period of protracted, low-level stagnation and non-recovery, general housing construction and related smoothed sales activity continue broadly with minimal variation around flat trends, again, well below any formal recovery in economic activity.

Indeed, Existing-Home Sales activity in June 2016 still was down by a headline 23.4% (-23.4%) from its June 2005 pre-recession peak, a high that has not been matched since the ensuing economic collapse into 2009. In like manner, June 2016 headline monthly Housing Starts remained down by 47.7% (-47.7%) from their January 2006 pre-recession high (see prior *Commentary No. 821*).

Headline June 2016 Detail for Existing-Home Sales. Based on actual closings of home sales, the National Association of Realtors® (NAR) reported a seasonally-adjusted, headline monthly gain of 1.1% in June 2016 Existing-Home Sales, against a downwardly-revised 1.5% gain in May, and an unrevised 1.3% gain in April. On a year-to-year basis, June 2016 sales were up by 3.0%, versus a downwardly revised 3.0% gain in May 2016 and an unrevised annual gain of 5.6% in April 2016. Net of prior-period revisions, the month-to-month June 2016 gain was a gain of 0.7%, versus the headline 1.1% uptick.

Going back a year, first-quarter 2015 Existing-Home Sales showed an annualized quarterly sales decline of 2.6% (-2.6%), with the second-quarter 2015 pace of annualized growth at 19.5%. Third-quarter 2015 growth slowed to an annualized pace of 9.7%, with fourth-quarter 2015 activity contracting at an annualized pace of 14.2% (-14.2%).

First-quarter 2016 expanding at an annualized pace of 7.9%, followed by an initially reporting of 16.3% for second-quarter 2016. Based on April and May 2016 detail, the second-quarter had been on track for annualized quarterly growth of 14.3%. Previously, based solely on initial April 2016 reporting, second-quarter 2016 was on early track for an annualized quarterly gain of 11.8% in this highly volatile series.

The quality of data underlying this series remains questionable, as seen in erratic reporting over the years. All that said, smoothed for irregular distortions, the reporting remained statistically consistent with a period of low-level broad stagnation, albeit now up-trending, as can be seen in *Graph 15*.

Proportion of Distressed Sales Held at 6% in June, with All Cash Sales Holding at 22%. The NAR estimated the portion of June 2016 sales in "distress" held in the month at 6% (4% foreclosures, 2% short sales), versus 6% (5% foreclosures, 1% short sales) in May 2016, and down from 8% (6% foreclosures, 2% short sales) in June 2015.

Reflecting continued lending problems and 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 that all-cash sales were 22% of June 2016 activity, the same as in May 2016 and in June 2015.

Graphs of New- and Existing-Home Sales. These series and comparative numbers are plotted in the accompanying *Graphs 9* to *16.*

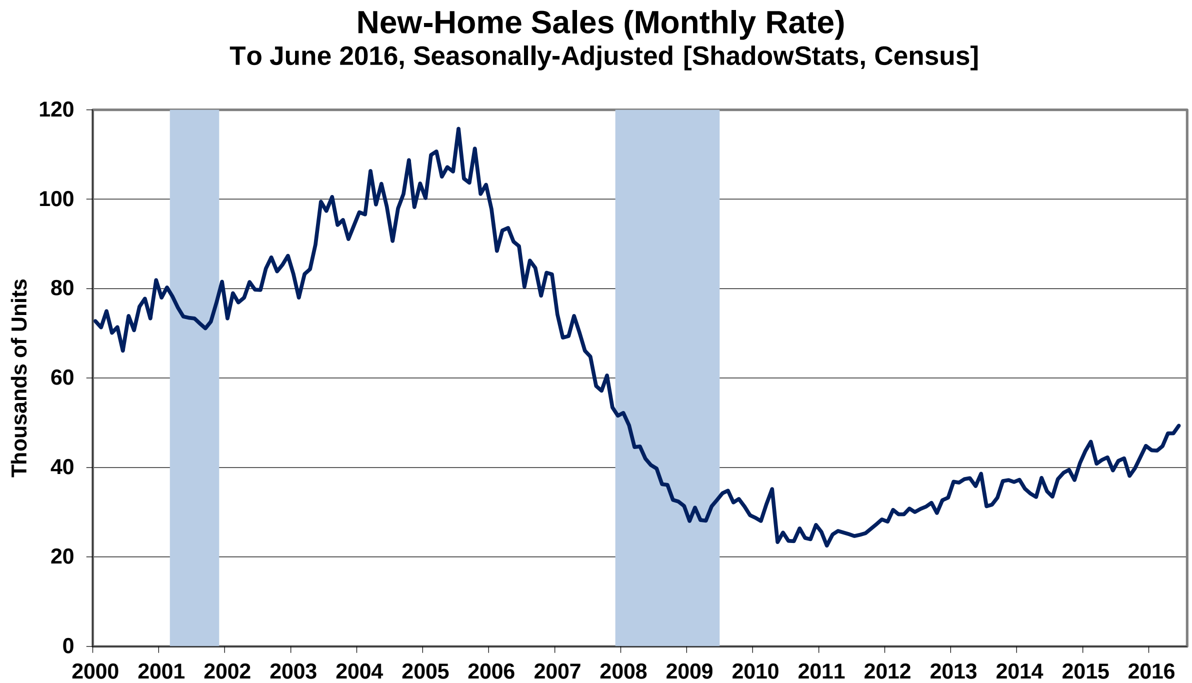
New-Home Sales***.*** *Graphs 9* and *11* show the regular monthly and six-month moving-average versions of New-Home Sales activity. Added for comparison purposes are parallel graphs of the headline and monthly and six-month moving-average versions of June 2016 Housing Starts for single-unit construction (*Graphs 10* and *12*) from prior *Commentary No. 821*.

Existing-Home Sales. *Graph 13* shows the traditional headline Existing-Home Sales monthly detail, supplemented by *Graph 15* of the Six-Month Moving Average of Existing-Home Sales. Unlike the levels shown in *Graph 13* of the monthly series, there are no special averages to smooth the effects of government programs to create buyer incentives *Graph 15*. The series is smoothed only by a six-month moving average, and a related transitional averaging joining the old and new series plotted separately in *Graph 13*.

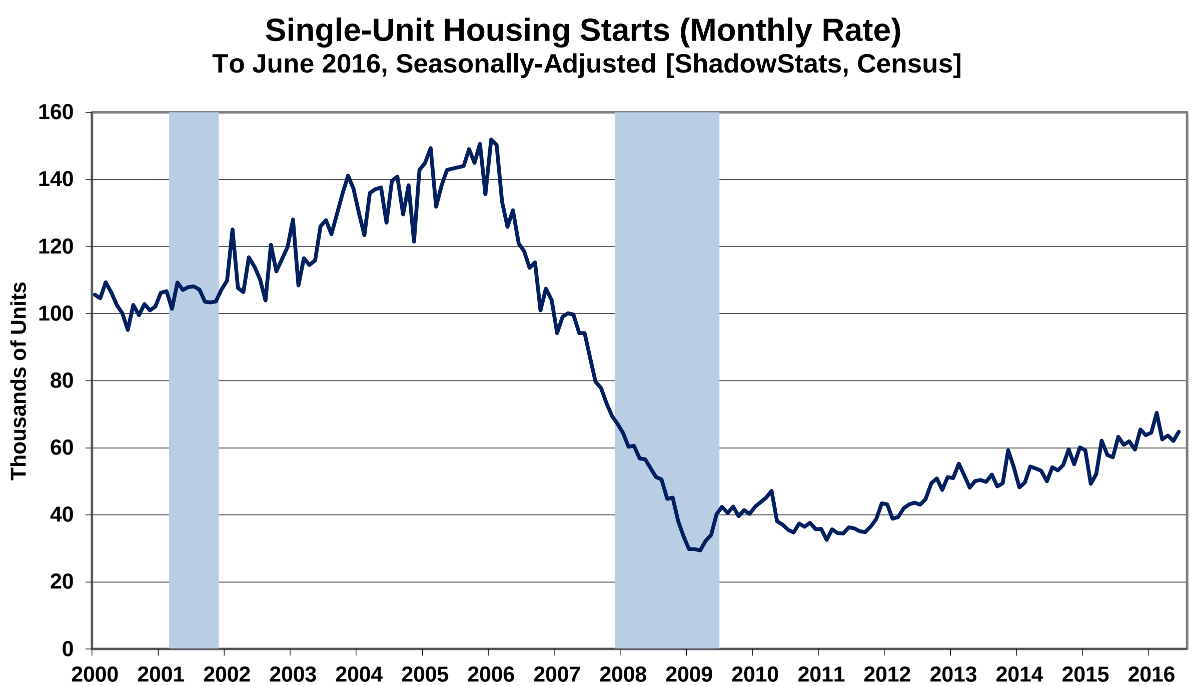
Accompanying the Existing-Home Sales plots are comparative graphs of June 2016 aggregate Housing Starts activity, from *Commentary No. 821*, where both series reflect activity in terms of single- and multiple-housing units (see *Graphs 14* and *16*).

[Graphs 9 to 16 follow, beginning on the next page]

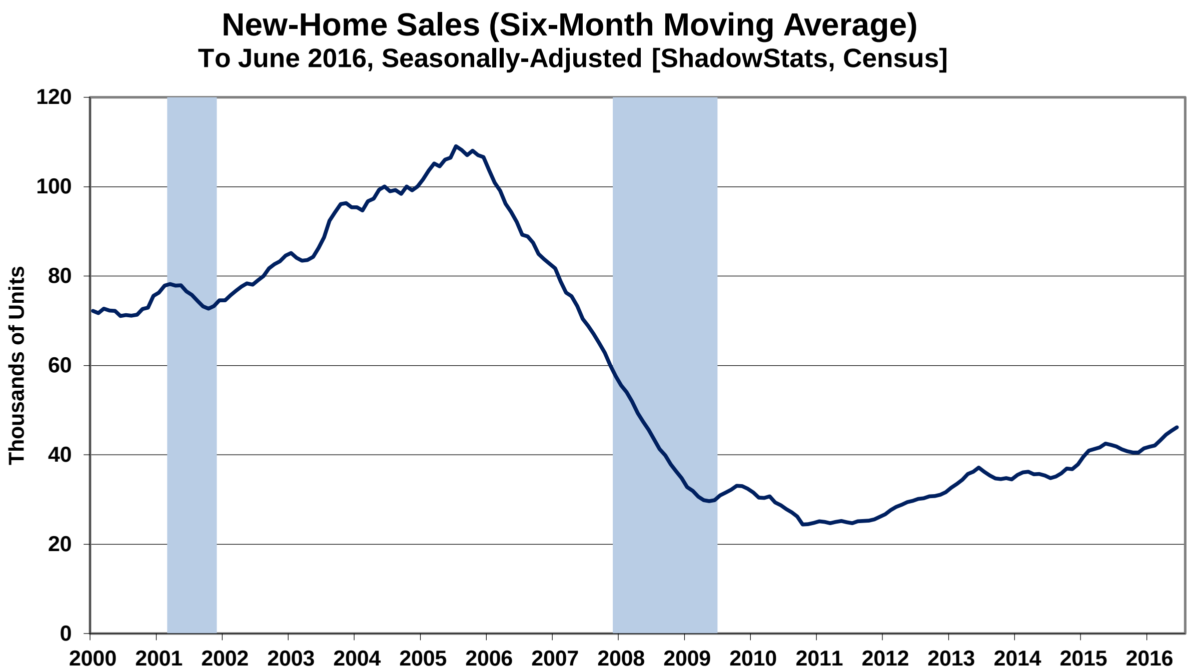
Graph 9: New-Homes Sales – Monthly Rate of Activity



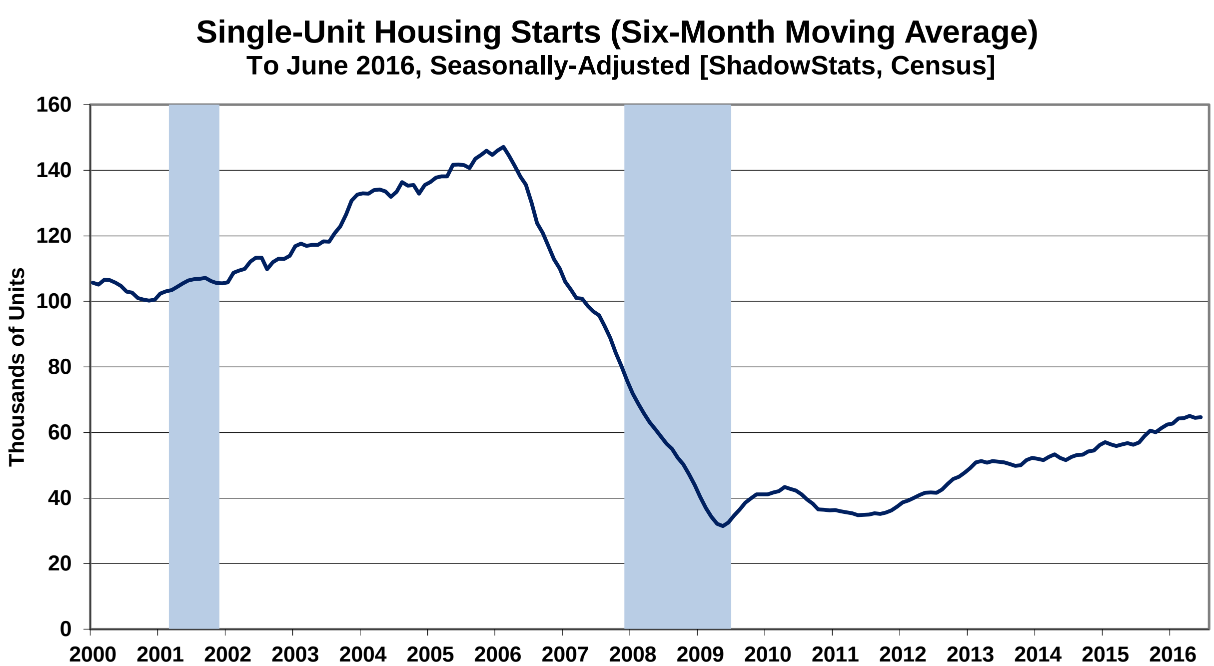
Graph 10: Single-Unit Housing Starts, Monthly Rate of Activity



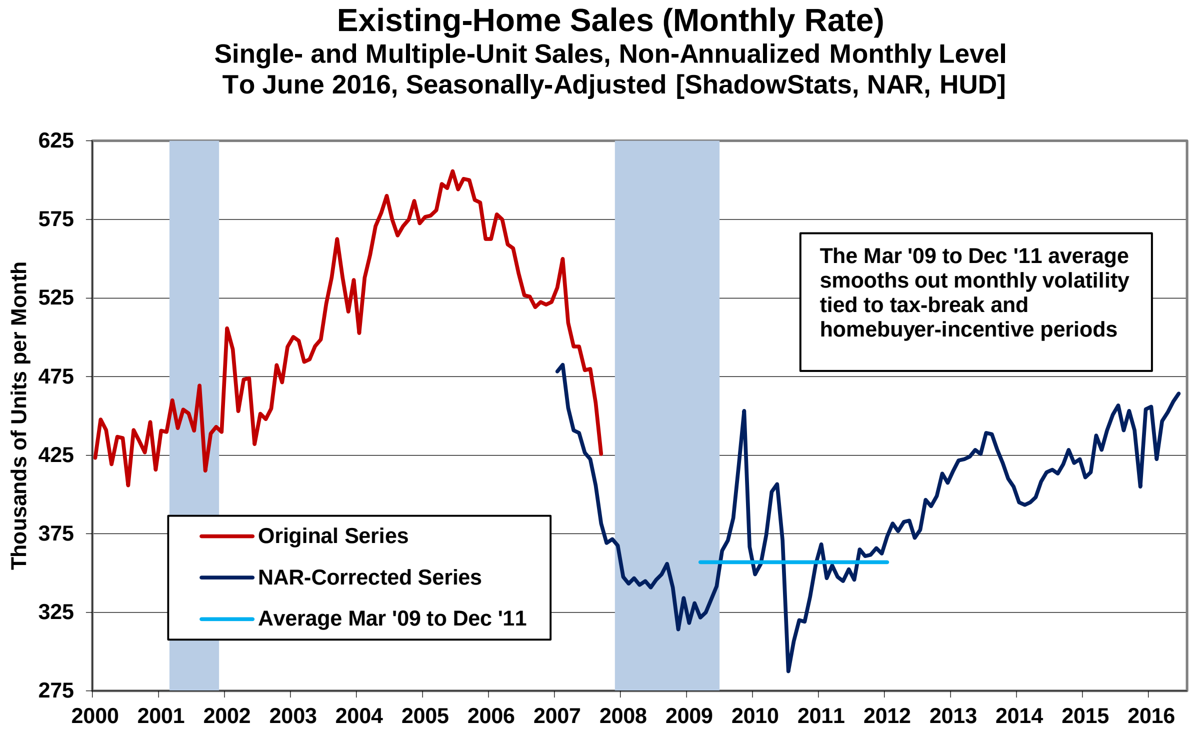
Graph 11: New-Homes Sales – Six-Month Moving Average, Monthly Rate of Activity



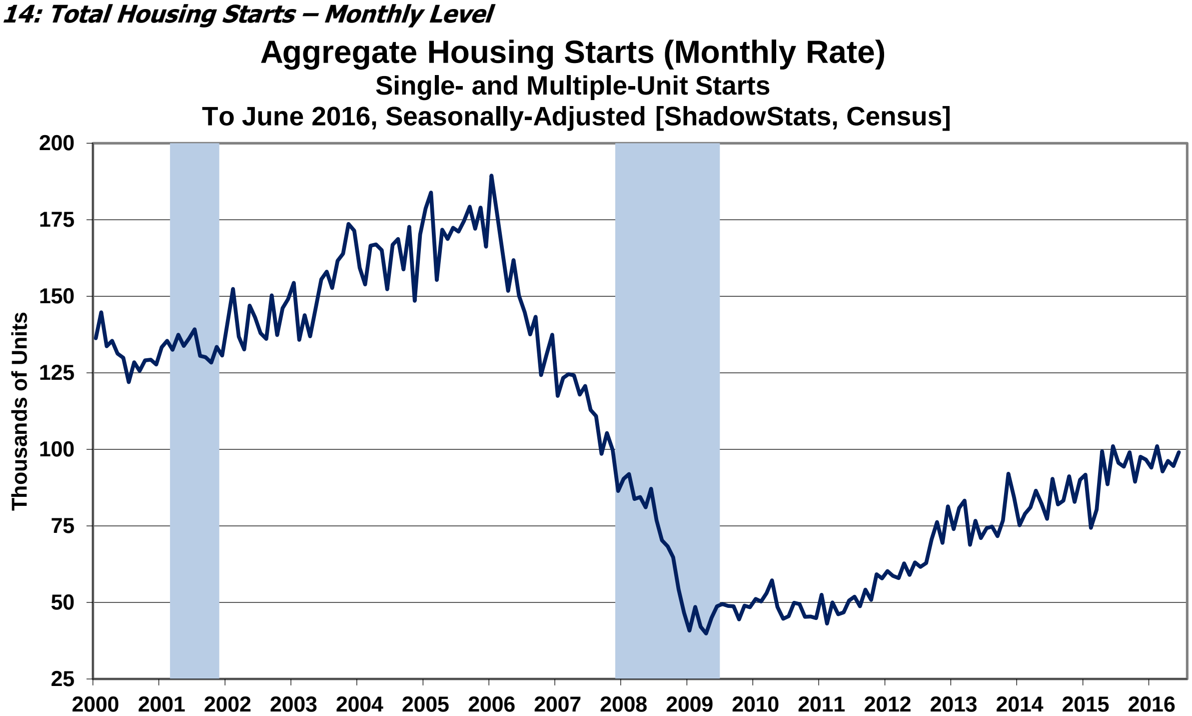
Graph 12: Single-Unit Housing Starts, Six-Month Moving Average, Monthly Rate of Activity



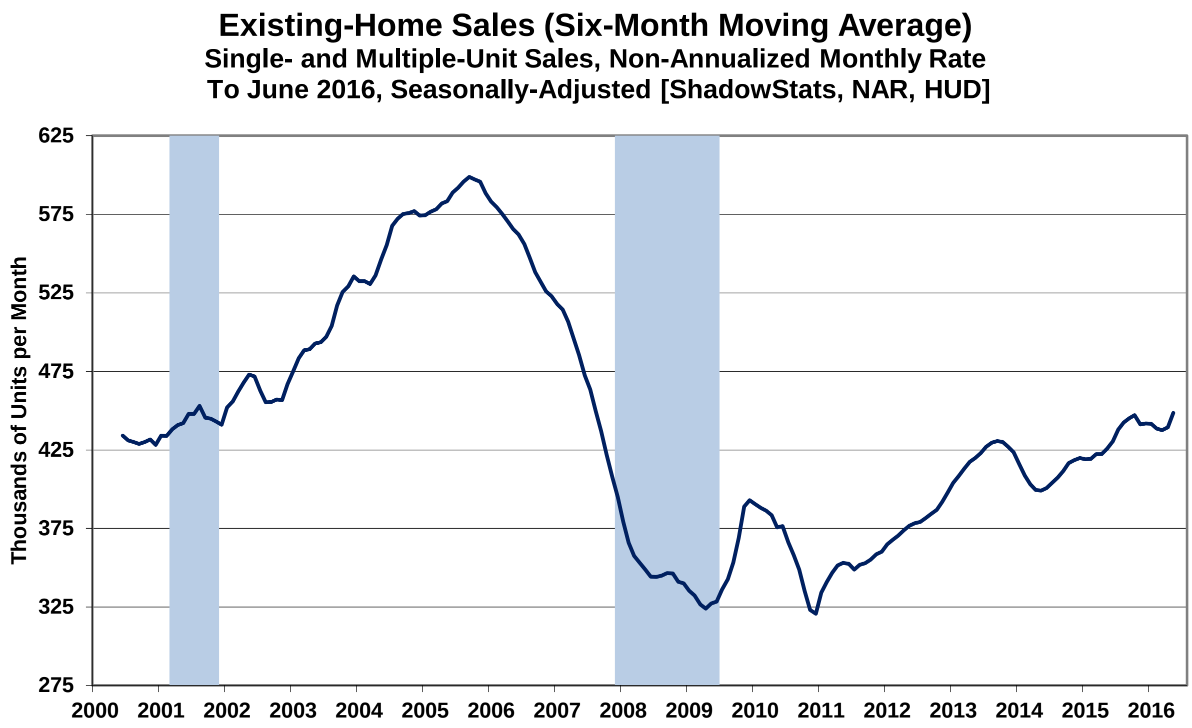
Graph 13: Existing-Home Sales – Monthly Level



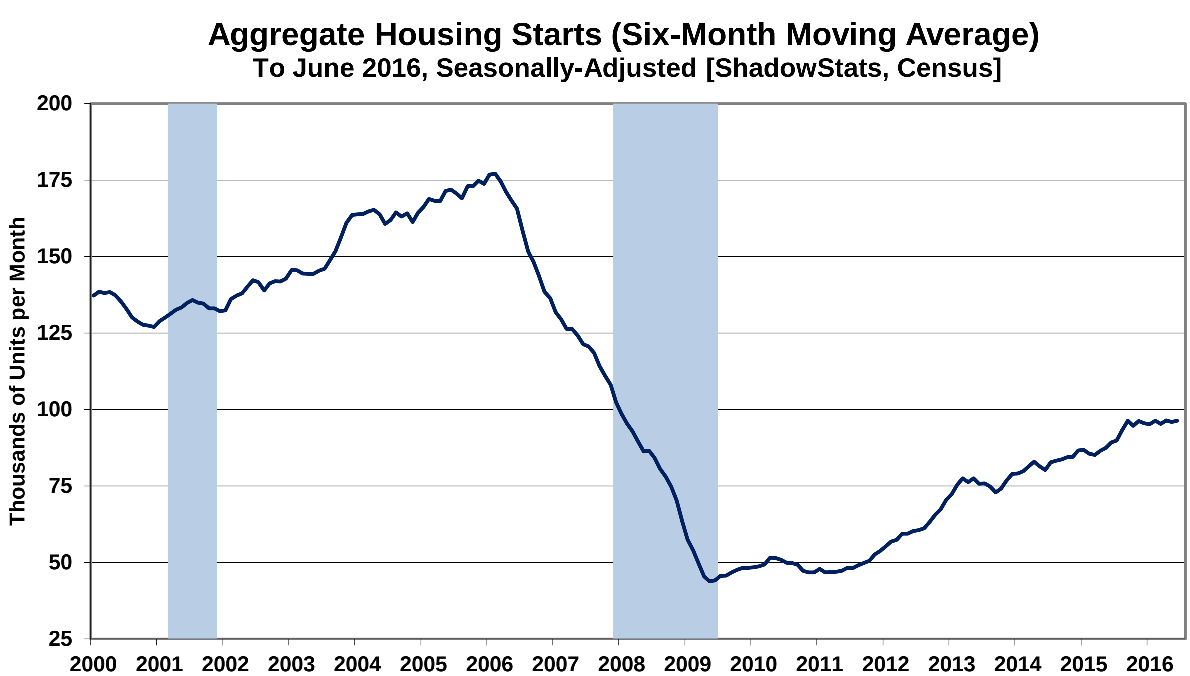
Graph 14: Total Housing Starts – Monthly Level



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



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



Consumer Liquidity Conditions Still Constrain Sustainable Economic Recovery. Consumer liquidity conditions are updated fully here, with plots of the latest June 2016 Real Monthly Median Household Income (www.SentierResearch.com) the University of Michigan's early-month July 2016 Consumer Sentiment measure, the Conference Board's full-month July 2016 Consumer Confidence, and the Federal Reserve's estimate of May 2016 Consumer Credit Outstanding. More extensive general background detail is available in *No. 777 Year-End Special Commentary*.

Underlying fundamentals to consumer economic activity, such as liquidity, have been severely impaired in the last decade or so, driving economic activity into collapse and preventing meaningful or sustainable economic rebound, recovery or ongoing growth. The level of and growth in sustainable real income, and the ability and willingness of the consumer to take on new debt remain at the root of the liquidity issues.

Generally, the higher and stronger those measures are, the healthier is consumer spending. Most measures of consumer liquidity and attitudes remain off their lows, and one—real monthly median household income—actually had spiked recently to pre-recession levels, reflecting the temporary collapse in gasoline prices and deflation by the otherwise underestimated headline CPI-U inflation. Real monthly median income, however, generally has begun to move lower, again, in recent months, along with a pickup in consumer inflation (see *Graph 17*).

Still, these underlying economic fundamentals simply have not supported, and do not support a turnaround in broad economic activity. Never truly recovering in the post-Panic era, limited growth in household income and credit, and a still generally, faltering consumer outlook, have eviscerated and continue to impair broad, domestic U.S. business activity, which feeds off the financial health and liquidity of consumers.

Such has driven the housing-market collapse and ongoing stagnation in consumer-related real estate sales and construction activity, as well as constraining both nominal and real retail sales activity and the related, personal-consumption-expenditures and residential-construction categories of the Gross Domestic Product (GDP). Together, those sectors account for more than 70% of total GDP activity in the United States.

Now, with the economy never having recovered fully from the collapse into 2009, consumers again are pulling back on consumption, as evidenced by a renewed slowdown in broad economic activity. There has been no economic recovery, and there remains no chance of meaningful, broad economic growth, without a meaningful, fundamental upturn in consumer- and banking-liquidity conditions.

Household Income Measures Continue to Signal Broad-Based Economic Difficulties. Discussed and graphed in *Commentary No. 752* are the Census Bureau's most-recent (2014) annual measures of household income. Unexpected weakness in some of the headline annual income data, though partially masked by changes in survey questions, signaled increasing liquidity difficulties for U.S. households. The headline 2015 detail is planned for release in September 2016.

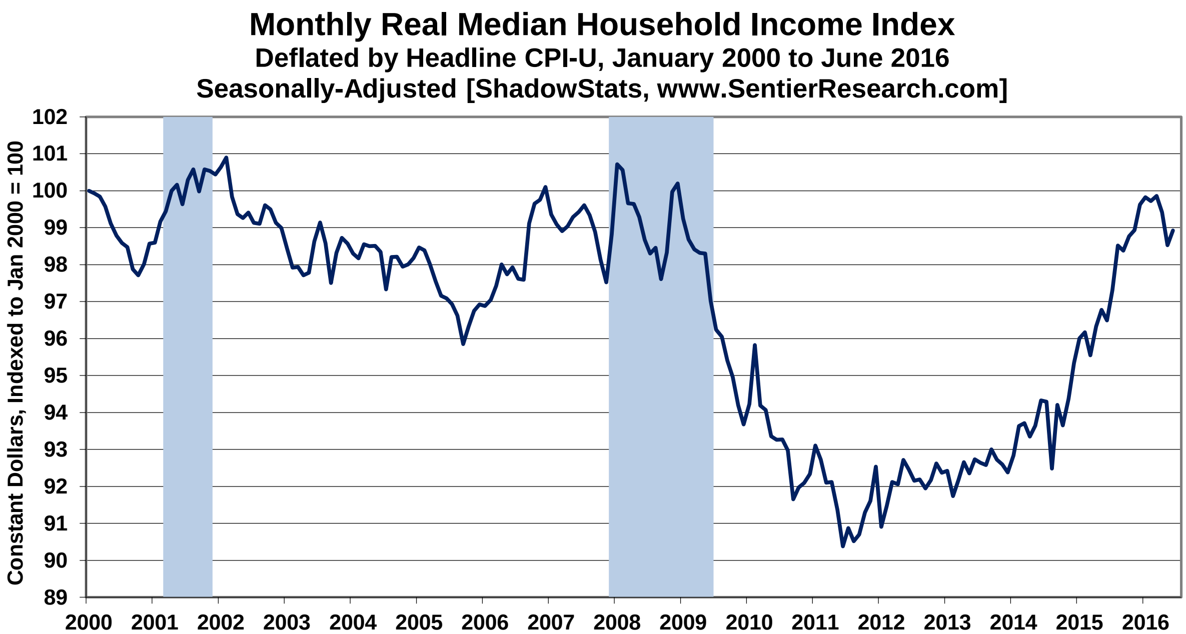
Shown first in *Graph 17* is the latest monthly real median household income detail through June 2016, as reported by www.SentierResearch.com. The headline reporting had turned down anew, with a statistically-significant monthly decline in May 2016, after several months of statistically-insignificant flutterings around its near-term January 2016 peak, and with a statistically-insignificant monthly uptick in June 2016.

This measure of real monthly median household income generally can be considered as a monthly version of the annual detail shown in *Graph 18*, but the monthly specifics are generated from separate surveying and questioning by the Census Bureau.

On a monthly basis, when headline GDP purportedly started its solid economic recovery in mid-2009, the monthly household income number nonetheless plunged to new lows. Generally, the income series had been in low-level stagnation, with the recent uptrend in the monthly index boosted specifically by collapsing gasoline prices and the related, negative headline CPI-U consumer inflation. The index reached pre-recession levels in the December 2015 reporting, but it remains minimally below the pre-recession highs for both the formal 2007 and 2001 recessions. It should continue to turn down anew, as headline monthly consumer inflation continues to pick-up in the months ahead.

Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash generally has been used to pay down unsustainable debt or other obligations, not to fuel new consumption. Again, the effects of lower gasoline prices have begun to reverse with prices increasing anew, an effect muted by negative seasonal-adjustment impact on rising gasoline prices rising into June 2016. Those seasonal patterns reverse in July, boosting the inflation impact of gasoline going forward.

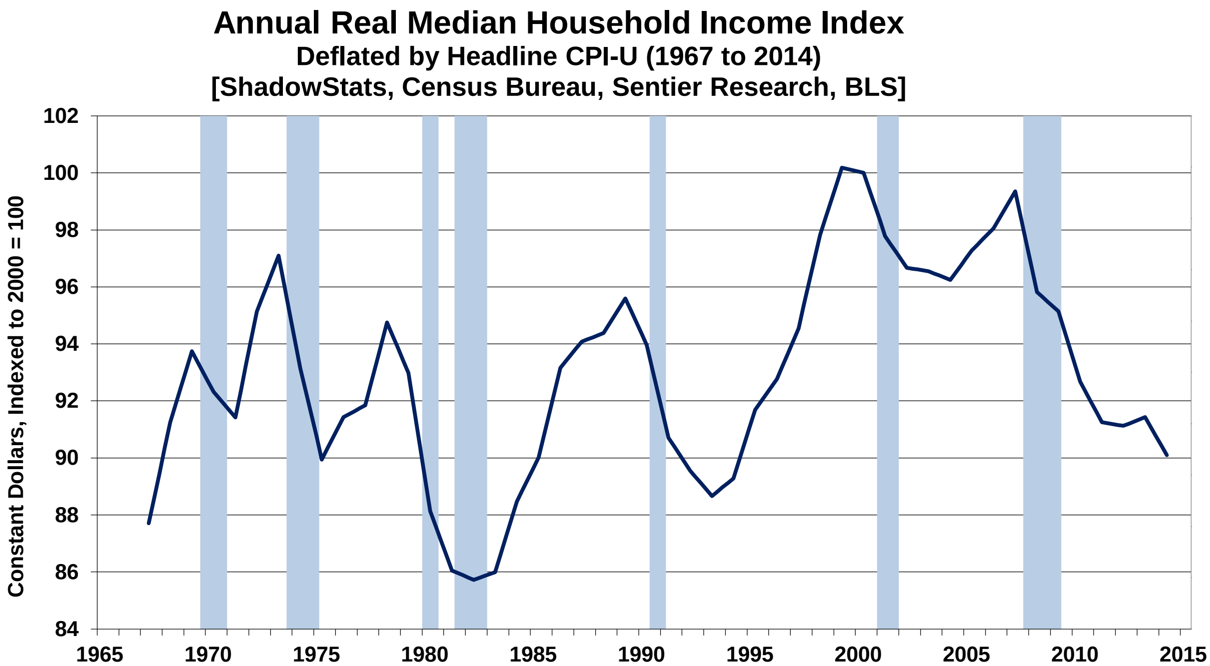
Graph 17: Monthly Real Median U.S. Household Income through June 2016



Differences in the Monthly versus Annual Median Household Income. The general pattern of relative historical weakness also has been seen in the headline reporting of the annual Census numbers, shown in *Graph 18*, with the latest 2014 real annual median household income at a ten-year low. The Sentier numbers had suggested a small increase in 2014 versus 2013 levels. Still, the monthly and annual series remain broadly consistent, although based on separate questions within the monthly Consumer Population Series (CPS), as conducted by the Census Bureau. Where Sentier uses monthly questions surveying current annual household income, the headline annual Census detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income.

Again, discussed in [Commentary No. 752](), the Census Bureau changed its annual income questionnaire for 2014, with the effect of boosting income levels reported in 2014. The details on changes between 2013 and 2014, however, also were available on a consistent and comparable basis, and the consistent aggregate annual percentage change of median household income in 2014, versus 2013, was applied to the otherwise consistent historical series to generate *Graph 18*.

Graph 18: Annual Real Median U.S. Household Income through 2014



In historical perspective from *Graph 18*, 2011, 2012 and 2013 income levels were below levels seen in the late-1960s and early-1970s, with the 2014 income level below the readings through most of the 1970s, aside from being at a ten-year low. Such indicates the long-term nature of the evolution of the major structural changes squeezing consumer liquidity and impairing the current economy (see related discussions in *2014 Hyperinflation Report—The End Game Begins* and particularly *2014 Hyperinflation Report—Great Economic Tumble*).

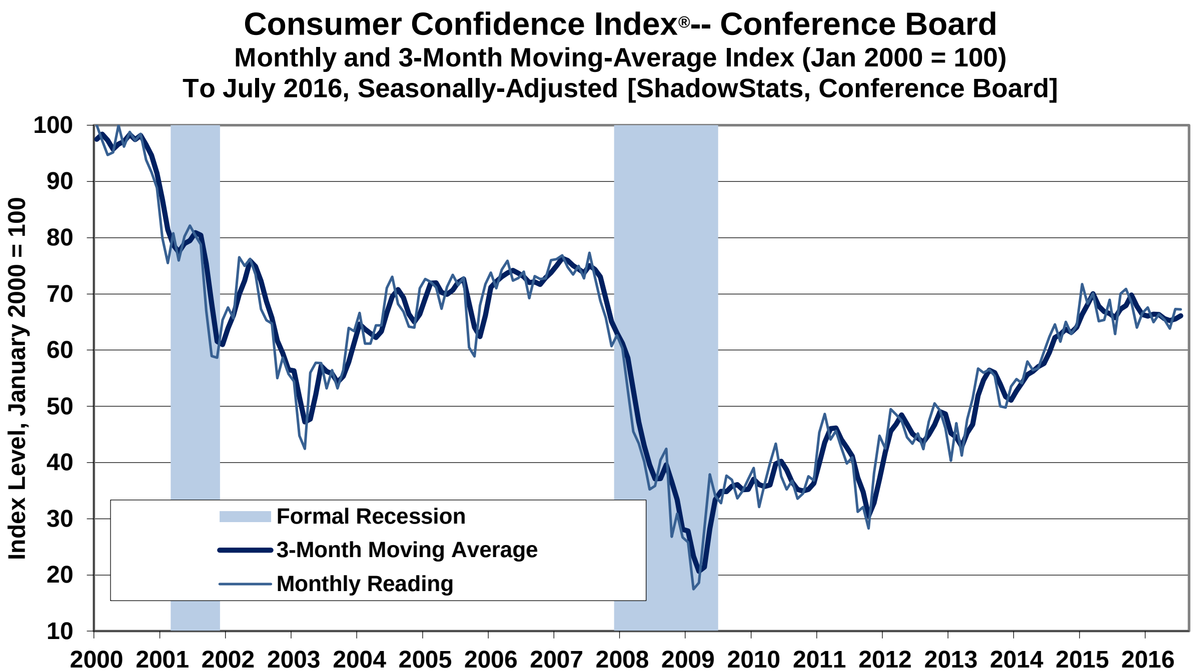
Consumer Confidence, Sentiment and Credit. The respective July and early-July 2016 readings for the Conference Board's Consumer-Confidence and University of Michigan's Consumer-Sentiment measures are reflected in *Graphs 19* to *21*, where both series pulled back from prior readings (the June Conference Board reading was revised lower in conjunction with the headline July release).

The Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph 19*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph 20*) jumped in their respective June/May 2016 readings, they eased some in July, with the three-month moving averages in both series below their respective March/February 2015 near-term peaks.

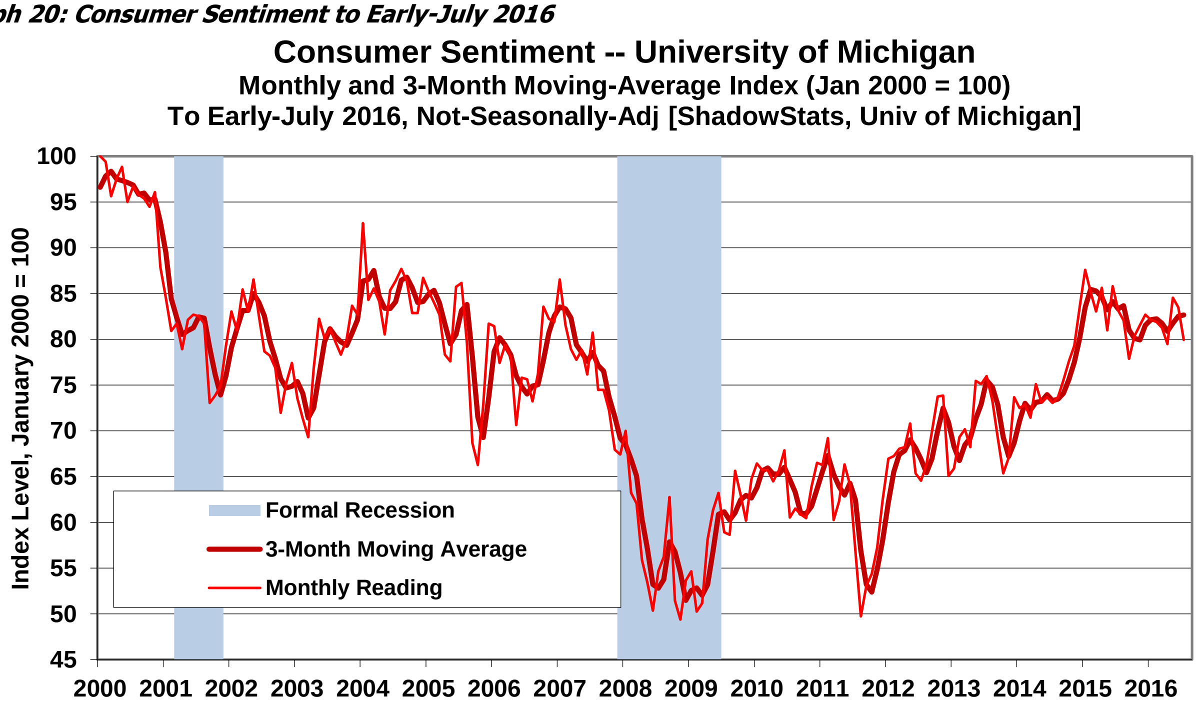
Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs 19* to *21* reflect both measures re-indexed to January 2000 = 100 for the monthly reading.

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.

Graph 19: Consumer Confidence to July 2016



Graph 20: Consumer Sentiment to Early-July 2016

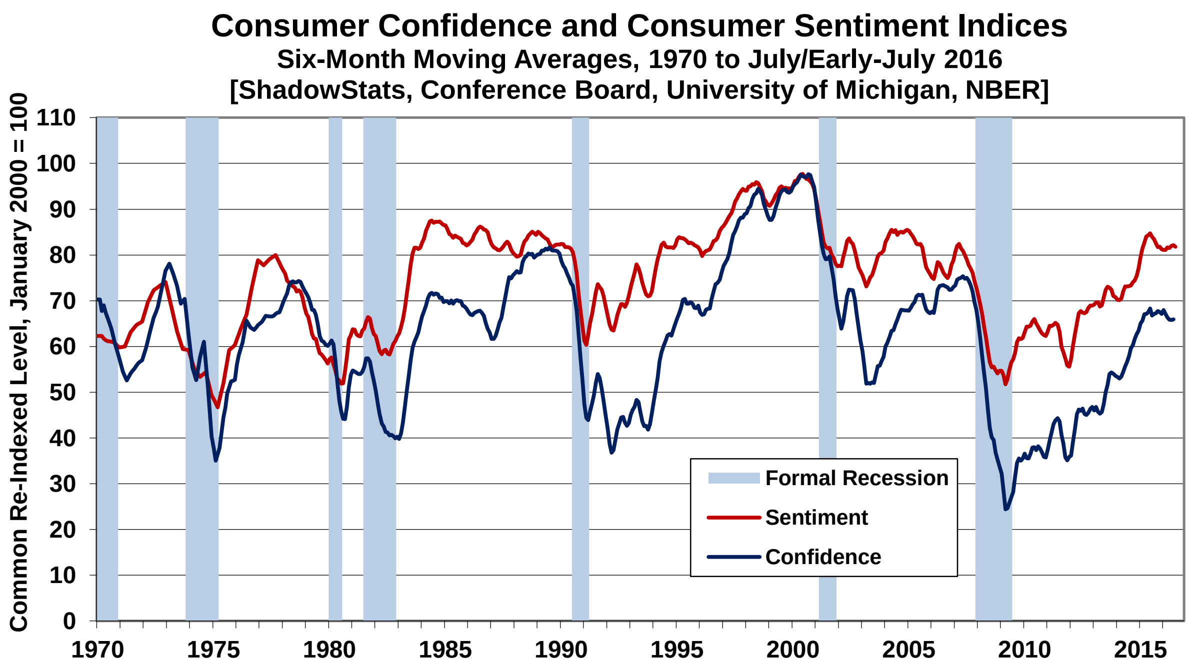


Both series also continued to hold off near-term peaks, as smoothed for six-month moving-average readings (*Graph 21*), with both measures down from June 2015 near-term highs.

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. With increasingly-negative, unstable and uncertain headline financial and economic reporting and shifting political developments at hand and ahead, successive negative hits to both the confidence and sentiment readings remain increasingly likely in the months ahead, primarily from the faltering economy. Public perception of a potential shift in the political environment may have been a factor fueling the respective jumps in the June/May 2016 monthly readings.

Smoothed for irregular, short-term volatility, the two series remain at levels seen typically in recessions. Suggested in *Graph 21*—plotted for the last 45 years—the latest readings of Confidence and Sentiment generally have not recovered levels preceding most formal recessions of the last four decades. Broadly, the consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth seen in 2014 and as indicated for second-and third-quarter 2015 GDP growth.

Graph 21: Comparative Confidence and Sentiment (6-Month Moving Averages) since 1970



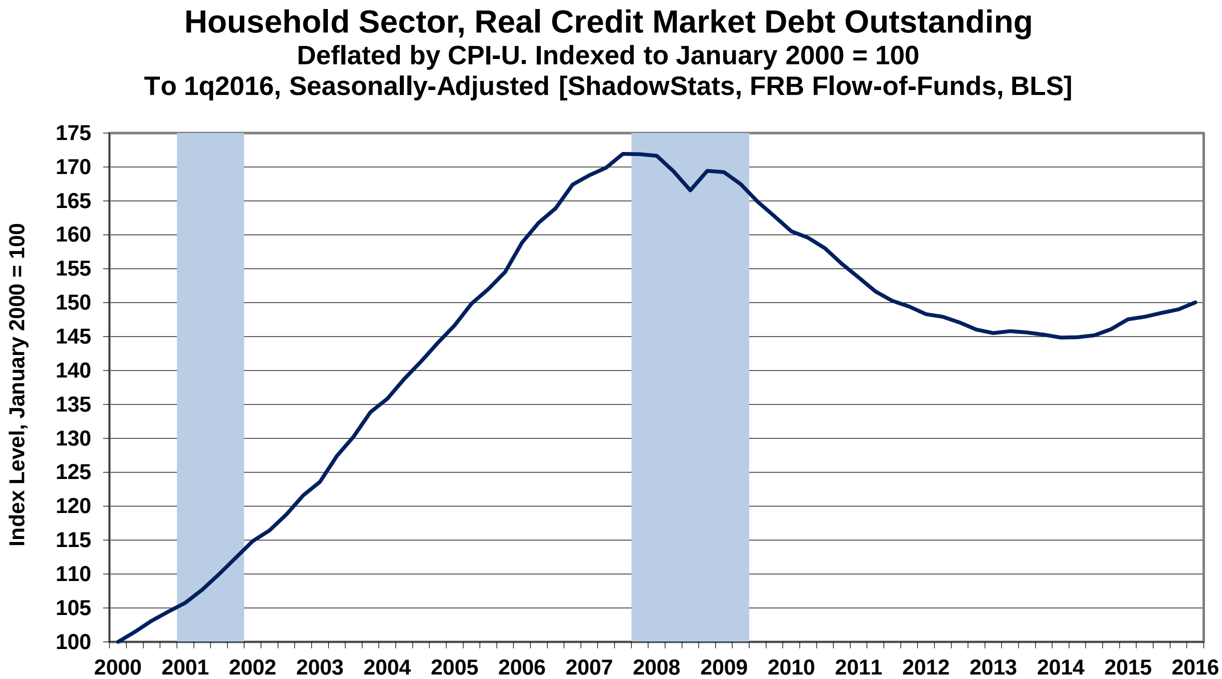
The final two graphs in this section address consumer borrowing. Debt expansion can help make up for a shortfall in income growth. Shown in *Graph 22* of *Household Sector, Real Credit Market Debt Outstanding*, household debt declined in the period following the Panic of 2008, and it has not recovered, based on the Federal Reserve's flow-of-funds accounting for first-quarter 2016.

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.

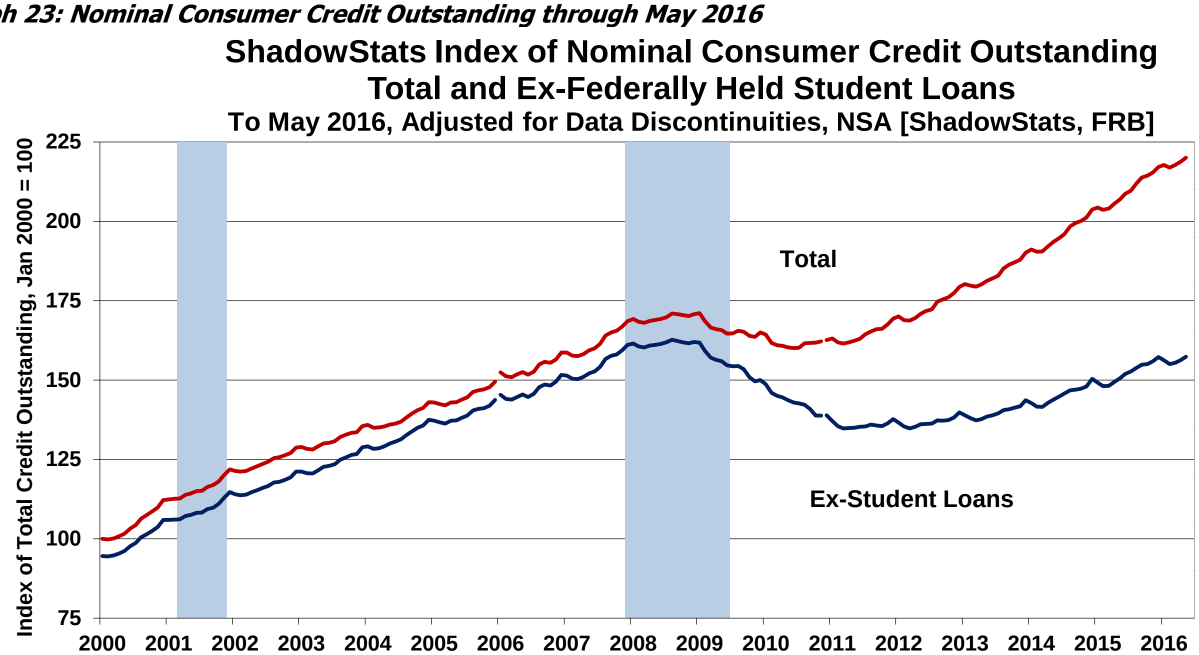
The slight upturn seen in the series through 2015 and into first-quarter 2106, as also seen in the patterns of the real monthly median household income survey, was due primarily to gasoline-price-driven, negative

CPI inflation, which had continued impact on the system through the first quarter (see discussion on *Median Household Income*). Current activity has also reflected surging student loans, as shown in the *Graph 23*.

Graph 22: Household Sector, Real Credit Market Debt Outstanding through First-Quarter 2016



Graph 23: Nominal Consumer Credit Outstanding through May 2016



Shown through May 2016 reporting, *Graph 23* of monthly Consumer Credit Outstanding is a subcomponent of *Graph 22* on real Household Sector debt, but *Graph 23* is not adjusted for inflation.

Post-2008 Panic, outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel 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 May 2016 and other recent monthly levels reflecting some irregular, unadjusted seasonal dips or jumps. The series is unstable enough that the Federal Reserve has the apparent inability to post consistent, unadjusted monthly data without revising the last couple of years of monthly data, each month.

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

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REPORTING DETAIL

NEW ORDERS FOR DURABLE GOODS (June 2016)

Second-Quarter Real Durable Goods Orders Contracted, Both Before and After Consideration of Commercial Aircraft Orders. In the context of meaningfully-negative benchmark revisions (*Supplemental Commentary No. 807-A*), subsequent reporting of headline April and May 2016 detail, and today's headline June numbers, new orders for durable goods declined year-to-year, irrespective of inflation-adjustment or exclusion of commercial aircraft orders. With the initial full three months of second-quarter 2016 in hand, second-quarter orders, ex-commercial aircraft, contracted quarter-to-quarter, irrespective of inflation considerations. That was a solid, negative leading indicator for third-quarter 2016 industrial production, a series that has been in definitive recession since December 2014 (see *Commentary No. 820*).

Headline June 2016 New Orders for Durable Goods fell month-to-month by a nominal 4.04% (-4.04%) in aggregate, up by 0.16% ex-commercial aircraft, along with relatively small, negative prior-period revisions. Net of "unchanged" headline monthly inflation adjustment, those respective monthly June changes remained a contraction of 4.04% (-4.04%) and a gain of 0.16%, respectively. Smoothed with six-month moving averages, both of those highly volatile inflation-adjusted real series remained in non-recovering, low-level, down-trending stagnation. Those patterns remained consistent in signaling an ongoing and deepening "new" recession.

Headline Nominal Detail. The Census Bureau reported this morning, July 27th, that the regularly-volatile, seasonally-adjusted, nominal level of June 2016 new orders for durable goods declined by 4.04%

(-4.04%), following a revised, deeper contraction of 2.85% (-2.85%) [previously 2.23% (-2.23%)] in May, and a downwardly-revised 3.16% [previously 3.27%, initially 3.36%] gain in April. Net of prior-period revisions, June 2016 orders fell by 4.07% (-4.07%), instead of the headline 4.04% (-4.04%).

Year-to-year, June 2016 durable goods orders fell by 6.37% (-6.37%), following downwardly-revised gains of 2.45% [previously up by 3.20%] in May 2016 and 1.82% [previously up by 1.92%, initially up 1.91%] in April 2016. The headline June 2016 detail, again, was before consideration of the volatility in commercial-aircraft orders.

Before and after consideration of commercial-aircraft volatility and monthly irregularities in the headline reporting of new orders, the smoothed trends of activity continued to be down-trending, consistent with a downturn in what had been a continuing pattern of broad stagnation. The inflation-adjusted real series, and that same series corrected for the understatement of official inflation, are discussed and graphed in the *Opening Comments* section. The corrected series—net of commercial aircraft orders—has remained relatively flat, at a low-level and down-trending pattern of stagnation, with the other plotted series still showing an unfolding downturn 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 the current circumstance, a relatively sharp monthly decline in June commercial aircraft orders pushed the aggregate orders into a monthly decline of 4.0% (-4.0%), from otherwise was a gain of 0.2%.

Net of a headline monthly decline of 58.76% (-58.76%) in June 2016 commercial aircraft orders, a revised decline of 5.52% (-5.52%) [previously a gain of 0.96%] in May, and a minimally-revised gain of 69.26% [previously 69.35%, initially 64.92%] in April, new orders gained 0.16% in June 2016, declined by a revised 2.64% (-2.64%) [previously down by 2.49% (-2.49%)] in May, and rose by a revised 0.07% [previously up by 0.17%, initially up by 0.47%] in April.

Year-to-year and seasonally-adjusted, June 2016 new orders (net of commercial aircraft) declined by 2.09% (-2.09%), versus a revised decline of 0.37% (-0.37%) [previously down by 0.11% (-0.11%)] in May 2016, and a revised gain of 1.37% [previously up by 1.47% initially up by 1.67%] in April 2016.

Real Durable Goods Orders—June 2016. ShadowStats uses the PPI component inflation measure "Durable Manufactured Goods" for deflating the new orders for durable goods series. Published only on a not-seasonally-adjusted basis, the related June 2016 PPI series showed a headline monthly "unchanged," following gains of 0.18% in May and 0.12% in April.

Headline annual inflation fell by a narrower 0.42% (-0.42%) year-to-year in June 2016, versus annual declines of 0.60% (-0.60%) in May 2016 and 0.84% (-0.84%) in April 2016.

Adjusted for that "unchanged" monthly June 2016 inflation, and as reflected in the graphs in the *Opening Comments* section, real month-to-month aggregate orders in June 2016 fell by 4.04% (-4.04%), fell by 3.02% (-3.02%) in May and rose by 3.04% in April. Ex-commercial aircraft, real month-to-month orders rose by 0.16% in June 2016, and fell by 2.81% (-2.81%) in May and by 0.05% (-0.05%) in April.

Real aggregate new orders fell year-to-year by 5.97% (-5.97%) in June 2016, having gained 3.07% in May 2016 and 2.68% in April 2016. Ex-commercial aircraft, real orders in June 2016 declined by 1.67% (-1.67%), having gained 0.23% in May 2016 and 2.22% in April 2016. Annual real gains here were boosted by the headline, negative year-to-year inflation.

Real Quarterly Growth, Ex-Commercial Aircraft. Where the inflation-adjusted series, ex-commercial aircraft, is the best leading economic indicator out of these data, following are the annualized real quarterly changes in that series. Beginning at the onset of what should become a formal recession, the real ex-commercial aircraft orders series showed annualized quarterly declines of 4.44% (-4.44%) in fourth-quarter 2014, and 5.54% (-5.54%) in first-quarter 2015. Annualized real change for second-quarter 2015 was a gain of 3.31%, a gain of 4.52% in third-quarter activity, a gain of 0.31% in fourth-quarter 2015 activity, and a revised 0.48% [previously 0.56%, initially 0.42%] gain in first-quarter 2016.

With initial full reporting in hand for second-quarter 2016, the series showed an annualized real contraction of 4.11% (-4.11%).

Graphs of Inflation-Adjusted and "Corrected" Smoothed Durable Goods Orders. Three sets of inflation-adjusted graphs (*Graphs 3* to *8*) are displayed in the *Opening Comments* section. The first set (*Graphs 3* and *4*) 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 unstable commercial-aircraft orders. The moving-average levels in both series had turned lower into year-end 2014 and into the first two quarters of 2015, with some smoothed bounce-back into third-quarter 2015, followed by renewed downturn into second-quarter 2016.

The second set of graphs (*Graphs 5* to *6*) 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 the understatement of that inflation (and for the related overstatement of official, inflation-adjusted growth). The third set of graphs (*Graphs 7* to *8*) shows the same patterns, but for the aggregate durable goods orders series, net of commercial aircraft orders.

Caution: Current durable goods reporting remains subject to many of the same sampling and concurrent-seasonal-adjustment problems seen with retail sales, 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 ten days, with annual benchmark revision to durable goods orders on May 18, 2016, three subsequent months of reporting up through today's reporting and revisions for June have made all historical reporting prior to April 2016 inconsistent with the current headline numbers. All the historical data will be briefly consistent, once again, come next year's May 2017 benchmark revisions.

NEW-HOME SALES (June 2016)

Unstable Reporting Continued for June New-Home Sales; Gyrating in the Context of Upside Prior-Period Revisions, the Smoothed Data Still Held in Non-Recovering, Low-Level Stagnation. Headline monthly reporting of this series is of no substance, as seen frequently with massive, unstable and continuously shifting revisions to recent history. There was no exception for June, where the headline sales gain of 3.5% could have been a month-to-month gain of 20% or a decline of 20%, and it still would have lacked statistical significance.

On a monthly basis, the unstable June 2016 headline reporting of 502,000 units in annualized sales (a 49,333 monthly rate as used in the graphs) rose by 3.5% for the month, with a revised "unchanged" May sales level that previously had been down for the month by 6.0% (-6.0%). Such was in the context of other large revisions to monthly activity back through March 2016. As usual, neither the headline 3.5% monthly nor annual 25.4% annual headline gains in June 2016 were statistically significant, with headline June activity still below its never-recovered 2005 pre-recession peak by 57% (-57%).

ShadowStats assesses such unstable series by considering the gyrations in monthly activity in the context of a six-month moving-average of the headline numbers. With the otherwise meaningless monthly swings in these numbers smoothed out, new-home sales activity continued in a broad pattern of low-level, albeit minimally up-trending stagnation (see *Graph 11* in the *Opening Comments*).

Graphed either way, smoothed or not, the various housing series generally have continued to show a pattern of economic activity plunging from 2005 or 2006 into 2009, and then stagnation, with the stagnation continuing at a low level of activity to date. Beyond new-home sales, related housing activity never has recovered with the purported GDP recovery. For example, from the series' pre-recession peak of July 2005, headline June 2016 New-Home Sales still were down by 57.4% (-57.4%), while June 2016 Single-Unit Housing Starts were down by 57.3% (-57.3%) from the January 2006 pre-recession high of that series (see *Commentary No. 821*).

Discussed in the *Opening Comments* section, there has been no improvement in underlying consumer liquidity conditions. Correspondingly, with no fundamental growth in liquidity and other conditions to fuel increasing activity, there is no basis for a current or imminent recovery in the housing market.

Headline June 2016 Reporting. Reported July 26th by the Census Bureau, in the context of an unstable upside revisions to May 2016 activity and before, June 2016 New-Home Sales (counted based on contract signings) rose month-to-month by a headline, seasonally-adjusted, statistically-insignificant 3.5% +/- 28.0% (all confidence intervals are at the 95% level). That was against a revised monthly "unchanged" reading of 0.0% [previously down by 6.0% (-6.0%)] in May, a downwardly-revised monthly gain of 6.5% [previously up by 12.3%, initially up by 16.6%] in April, and revised monthly gain of 2.3% [previously a decline of 0.6% (-0.6%), initially down by 1.3% (-1.3%)] in March. Net of prior-period revisions, the monthly gain in June was 7.4%, instead of the headline gain of 3.5%, still well shy of being statistically significant.

Year-to-year, June 2016 sales rose by a statistically-insignificant 25.4% +/- 32.6%. That followed an upwardly-revised May 2016 sales gain of 12.8% [previously up by 8.7%], a downwardly-revised April 2016 annual sales gain of 14.4% [previously up by 17.2%, initially up by a 23.8%] and an upwardly-revised annual gain of 9.6% [previously up by 6.5%, initially up by 8.4%] in March 2016. Despite the "benchmarking" to the unstable seasonal-adjustment factors with the April 2016 data releases, this series remains extraordinarily unstable and consistently unreliable on a near-term, month-to-month basis as to whether headline sales increased or decreased.

In the arena of continued extreme volatility, consider that the annualized quarterly pace of sales change 2015 gyrated from a sales gain in first-quarter 2015 of 50.1%, to a second-quarter 2015 annualized quarterly sales decline of 19.8% (-19.8%). Third-quarter 2015 new-home sales declined by 5.0% (-5.0%), with the fourth-quarter sales gain estimated at 18.7%.

With the headline June 2016 reporting, first-quarter 2016 activity showed an upwardly-revised annualized gain of 17.9% [previously up by 13.5%, initially up by 29.0%]. Second-quarter 2016 showed an initial annualized quarterly gain of 42.8%, versus an early trend for 38.2%, based just on April and May reporting, and an initial growth trend of 83.7%, based just on the headline April 2016 detail.

New-Home Sales Graphs. The regular monthly graph of New-Home Sales is included in the *Opening Comments* section, along with a six-month moving-average version of the series. Added for comparison purposes are parallel graphs of the headline and six-month moving-average versions of June 2016 Housing Starts for single-unit construction, from prior *Commentary No. 821*, along with comparative graphs of Existing-Home Sales and aggregate Housing Starts (see *Graphs 9* to *16*).

EXISTING-HOME SALES (June 2016)

Despite June Existing-Home Sales Hitting Highest Level Since 2007, Activity Remained Down by 23.4% (-23.4%) from the Series' Pre-Recession High. Despite a headline gain in June 2016 Existing-Home Sales, in the context of a downside revision to May 2016 sales, the series rose to its highest reading since 2007, the series remained in depression (see *Commentary No. 754*), still down by 23% (-23%) from its pre-recession peak. Smoothed with a six-month moving average, Existing-Home sales activity held in low-level stagnation, albeit it up-trending.

Indeed, this series—along with the broader real estate and construction measures and new-home sales—never recovered from the economic collapse into 2009, a common issue in the residential real estate industry. After going through a period of protracted, low-level stagnation and non-recovery, general housing construction and related smoothed sales activity continue broadly with minimal variation around flat trends, again, well below any formal recovery in economic activity.

Updated in the *Opening Comments*, the U.S. consumer remains in an extreme liquidity bind, which prevents a meaningful recovery in national home-sales growth. Without sustained growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the consumer has been unable to sustain positive growth in broad U.S. economic activity, particularly as tied to residential real estate and personal consumption.

Indeed, Existing-Home Sales activity in June 2016 still was down by a headline 23.4% (-23.4%) from its June 2005 pre-recession peak, a high that has not been matched since the ensuing economic collapse into 2009. In like manner, June 2016 headline monthly Housing Starts remained down by 47.7% (-47.7%) from their January 2006 pre-recession high (see prior *Commentary No. 821*).

Headline June 2016 Detail for Existing-Home Sales. Based on actual closings of home sales, the National Association of Realtors® (NAR) reported July 21st a seasonally-adjusted, headline monthly gain of 1.1% in June 2016 Existing-Home Sales, against a downwardly-revised 1.5% [previously 1.8%] in May, and an unrevised 1.3% gain in April. On a year-to-year basis, June 2016 sales were up by 3.0%, versus a downwardly revised 3.0% [previously 4.5%] gain in May 2016 and an unrevised annual gain of

5.6% in April 2016. Net of prior-period revisions, the month-to-month June 2016 gain was a gain of 0.7%, versus the headline 1.1% uptick.

Going back a year, first-quarter 2015 Existing-Home Sales showed an annualized quarterly sales decline of 2.6% (-2.6%), with the second-quarter 2015 pace of annualized growth at 19.5%. Third-quarter 2015 growth slowed to an annualized pace of 9.7%, with fourth-quarter 2015 activity contracting at an annualized pace of 14.2% (-14.2%).

First-quarter 2016 expanding at an annualized pace of 7.9%, followed by an initially reporting of 16.3% for second-quarter 2016. Based on April and May 2016 detail, the second-quarter had been on track for annualized quarterly growth of 14.3%. Previously, based solely on initial April 2016 reporting, second-quarter 2016 was on early track for an annualized quarterly gain of 11.8% in this highly volatile series.

The quality of data underlying this series remains questionable, as seen in erratic reporting over the years. All that said, smoothed for irregular distortions, the reporting remained statistically consistent with a period of low-level broad stagnation, albeit now up-trending, as can be seen in *Graph 15* of the *Opening Comments*.

Proportion of Distressed Sales Held at 6% in June, with All Cash Sales Holding at 22%. The NAR estimated the portion of June 2016 sales in "distress" held in the month at 6% (4% foreclosures, 2% short sales), versus 6% (5% foreclosures, 1% short sales) in May 2016, and down from 8% (6% foreclosures, 2% short sales) in June 2015.

Reflecting continued lending problems and 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 that all-cash sales were 22% of June 2016 activity, the same as in May 2016 and in June 2015.

Existing-Home Sales Graphs. Shown in the *Opening Comments*, *Graph 13* plots the traditional headline Existing-Home Sales monthly detail. Such is supplemented by *Graph 15* of the six-month moving average of Existing-Home Sales. Accompanying the Existing-Home Sales plots are comparative graphs of June 2016 aggregate Housing Starts activity, from *Commentary No. 821*, where both series reflect activity in terms of single- and multiple-housing units (see *Graphs 14* and *16*).

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WEEK AND MONTH AHEAD

Economic Deterioration Should Intensify in the Weeks and Month Ahead, Increasingly Pummeling the U.S. Dollar and Boosting Gold, Silver and Eventually Oil Prices. Market expectations for business activity should continue to deteriorate at an accelerating pace, amidst intensifying, negative headline economic reporting and continued Fed-policy retrenchment, with likely movement towards renewed quantitative easing in the months ahead. The general trend in weakening expectations for business activity and movement towards looming recession recognition, reflect a broad spectrum of market-disappointing headline data. Those unfolding circumstances are discussed in the *Opening Comments*, *Commentary No. 821*, *Commentary No. 820*, *Commentary No. 819*, *Commentary No. 818*, *Commentary No. 817*, *Commentary No. 816*, *Commentary No. 815*, *General Commentary No. 811*, *Supplemental Commentary No. 807-A*, *Commentary No. 800*, *Commentary No. 799*, *Commentary No. 796-A*, *Commentary No. 796* and *No. 777 Year-End Special Commentary*.

Negative market reactions have surfaced in trading of the U.S. dollar and in related financial markets, with some upside pressure on gold, silver and oil prices. Such reflects waning systemic gyrations related to Brexit, a likely evolving re-organization of the EU and the euro, as well perpetual U.S. economic non-recovery and a renewed, intensifying downturn. Market activity in oil has been mixed, due partially to some continuing U.S. dollar strength, as discussed in the *Opening Comments* of *No. 818*. These market reactions reflect an intensifying sense of Federal Reserve impotence, with bleak longer term implications for the U.S. dollar. Further tightening by the Fed prior to the election is unlikely, while renewed quantitative easing could become a target of intensified market speculation, as the deepening recession unfolds and becomes increasingly obvious in the next month or so (see *No. 820*).

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

Reviewed in *Commentary No. 821*, meaningful downside revisions to GDP history since 2013 (including likely headline quarterly contractions for first-quarter 2015, fourth-quarter 2015 and first-quarter 2016) should be pending with Friday's (July 29th) annual GDP benchmark revisions.

Consistent with the relatively neutral benchmark revisions to retail sales (*No. 804*) and housing starts (*No. 807*) and in line with recent sharp downside revisions to industrial production (*No. 796-A*), durable goods orders (*No. 807-A*), and the real merchandise-trade deficit (*No. 810*), and despite the positive benchmark revisions to construction spending (see *No. 818*), expectations for the GDP benchmarking should have weakened. The post-GDP benchmarking period is the most-likely point at which the elements for a "formal" recession call will come into full play.

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

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

Data instabilities—induced partially by the still-evolving economic turmoil of the last nine-to-eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn provide particularly unstable headline economic results, when concurrent seasonal adjustments are used (as with retail sales, durable goods orders, employment and unemployment data). That was discussed and explored in the labor-numbers related *Supplemental Commentary No. 784-A* and *Commentary No. 695*.

Further, discussed in *Commentary No. 778*, a heretofore unheard of spate of "processing errors" surfaced in recent surveys of earnings (Bureau of Labor Statistics) and construction spending (Census Bureau). This is suggestive of deteriorating internal oversight and control of the U.S. government's headline economic reporting. At the same time, it indicates an increasing openness of the involved statistical agencies in revealing the reporting-quality issues.

Combined with ongoing allegations in the last year or two of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series (see *Commentary No. 669*). John Crudele of the *New York Post* continues his investigations in reporting irregularities: *Crudele Investigation*.

PENDING RELEASE:

Gross Domestic Product (GDP)—Second-Quarter 2016, "Advance" or First Estimate. The Bureau of Economic Analysis (BEA) will publish its first or "advance" estimate of second-quarter 2016 Gross Domestic Product (GDP) on Friday, July 29th, in the context of accompanying annual benchmark revisions to the series back to 2013 (see benchmarking discussion in prior *Commentary No. 821*).

Discussed more fully in today's *Opening Comments*, despite market expectations holding around 2.5% to 2.6% for the headline, annualized real second-quarter 2016 GDP growth, initial headline detail should come in below 2.0%, perhaps well below 2.0%, with the BEA's initial guesstimate. Such should revise even lower in the second and third estimates of August 26th and September 29th, especially if the first estimate comes in below expectations.

Initial second-quarter estimates of the broader Gross National Product (GNP) and the GDP theoretical-equivalent Gross Domestic Income (GDI) are delayed until August 26th, due to statistical-significance and data-quality issues. These issues also are common to the GDP.

Formal recession recognition (timed from December 2014) remains likely to follow in the wake of the headline reporting and benchmarking detail published on July 29th.