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

COMMENTARY NUMBER 821 June Housing Starts, Preview of GDP Revisions

July 19, 2016

Housing Starts Continued to Hold in Smoothed, Low-Level Stagnation, Never Having Recovered Pre-Recession Highs

Second-Quarter Starts Growth Slowed Sharply Amidst Downside Revisions

Downside Benchmark Revisions to Key Series Underlying the GDP Indicate Pending Downside Benchmark Revisions to the GDP

First- and Fourth-Quarter 2015, and First-Quarter 2016 GDP Are Most Vulnerable to Negative Revisions

PLEASE NOTE: The next regular Commentary, scheduled for Wednesday July 27th, will cover June 2016 New Orders for Durable Goods, New- and Existing-Home Sales and updated Consumer Conditions.

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Pending GDP Revisions Should Confirm a Formal Recessionary Environment. Discussed in <u>Commentary No. 820</u>, a variety of key underlying economic measures contracted in second-quarter 2016, and today's headline second-quarter 2016 growth in housing starts came in below expectations, thanks to large downside revisions to April and May 2016 activity. While consensus forecasts for two-plus percent

annualized real quarterly growth in second-quarter 2015 GDP are not surprising, they are overly optimistic, heavily bloated and should soften in the week ahead. ShadowStats will provide a formal estimate for the "advance" headline second-quarter GDP detail in the next *Commentary No. 823* of July 27th. That should be well below 2.0%.

Headline second-quarter GDP growth will be released coincident with and in the context of the annual GDP benchmark revisions on July 29th. That benchmarking will cover the historical period only from first-quarter 2013 to date. More-complete revisions to the GDP await the comprehensive benchmarking of July 2018, including some likely, unfortunate series redefinitions.

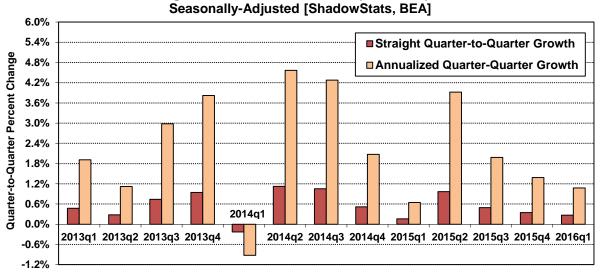
Plotted in *Graph 1* are the current real quarterly GDP growth rates that are subject to change. The pink bars are the headline annualized, real quarter-to-quarter growth rates raised and exaggerated to the fourth power. The red bars reflect actual, non-annualized quarter-to-quarter real change. Where the straight, actual quarterly change is below 0.5%, that quarter is vulnerable to downside revisions into negative territory and quarter-to-quarter contraction. Particularly vulnerable to revised contractions in the pending revisions are first-quarter 2015, fourth-quarter 2015 and first-quarter 2016. That pattern should be adequate, in the context of hard data from the industrial production and retail sales series, to support a formal-recession call for the period beginning at the end of fourth-quarter 2014. Indeed, the post-GDP benchmarking period now is the most-likely point at which the elements for a "formal" recession call will come into full play.

Graph 1: Headline Quarterly Real GDP Growth Subject to July 29th Benchmarking

Pre-Benchmark Real Gross Domestic Product (GDP)

Quarter-to-Quarter Percent Change

Straight Q/Q versus Annualized 1q2013 to 1q2016



In line with negative annual benchmark revisions to payroll employment as reflected in *Graphs 2* and 3 (<u>Commentary No. 784</u> and <u>No. 784-A</u>), and recent sharp downside revisions to industrial production as seen in *Graphs 4* to 5 (<u>No. 796-A</u>), durable goods orders and manufacturers' shipments as seen in *Graphs 6* to 8 (<u>No. 807-A</u>), and the real merchandise-trade deficit seen in *Graphs 9* to 11 (<u>No. 810</u>) the benchmarking should show a general downside revision to GDP levels, with certain quarters hit harder

than others. Indeed, the GDP benchmarking now appears to be the most-likely point at which the elements for a "formal" recession call will come into full play.

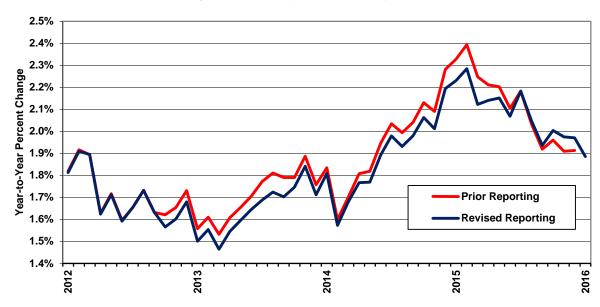
Such is consistent as well with the relatively neutral benchmark revisions to retail sales as seen in *Graph 12* (*No.* 804), and despite the positive benchmark revisions to construction spending as seen in *Graphs 13* to 14 (*No.* 818). As noted in the construction spending assessment, for example, despite higher levels of overall activity, "Implications for the pending July 29th GDP benchmark revisions to historical quarterly GDP growth rates, and the initial estimate of second-quarter 2016 GDP, generally were negative for first-and fourth-quarter 2015 and for second-quarter 2016, but positive for first-quarter 2016. Nonetheless those, four quarters likely will end up showing quarterly GDP contractions in what soon should gain recognition as a 'new' recession, timed from December 2014."

Separately, as discussed in (*No. 810*), the gimmicked redefinition of the trade surplus in services (see *Graph 11*) should bring some upside revisions into 2013 GDP, but with limited relative quarter-to-quarter impact thereafter.

[Graphs 2 to 14 begin on the next page.]

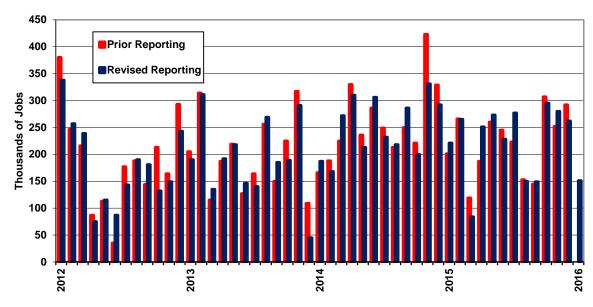
Graph 2: Payroll Benchmark Revision - Not-Seasonally-Adjusted , Year-to-Year Change in Payrolls

Payroll Employment Year-to-Year Change - 2015 Benchmark Yr-to-Yr % Change, NSA, January 2012 to January 2016 [ShadowStats, BLS]



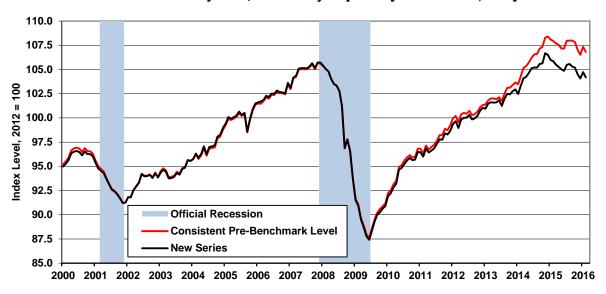
Graph 3: Payroll Benchmark Revision - Seasonally-Adjusted Month-to-Month Jobs Change

Payroll Employment Month-to-Month Change - 2015 Benchmark January 2012 to January 2016, Seasonally Adjusted [ShadowStats, BLS]



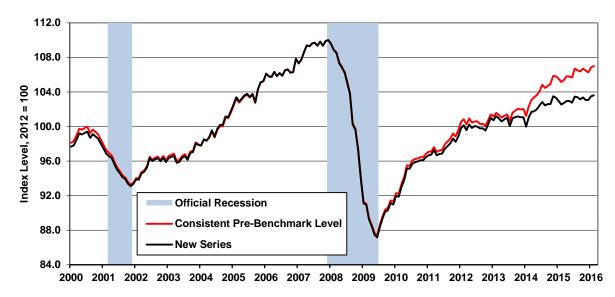
Graph 4: Benchmark-Revised Index of Industrial Production since 2000

Benchmarked Index of Industrial Production (2012 = 100) Level to February 2016, Seasonally-Adjusted [ShadowStats, FRB]



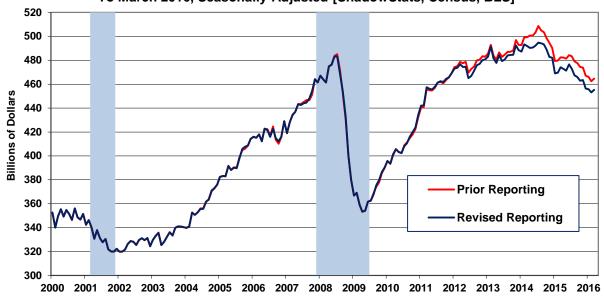
Graph 5: Benchmarked Industrial Production - Manufacturing (78.5% of the Aggregate in 2015)

Benchmarked Production - Manufacturing (SIC) (2012 = 100) Level to February 2016, Seasonally-Adjusted [ShadowStats, FRB]



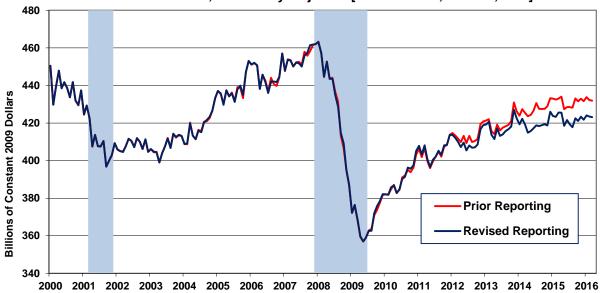
Graph 6: Benchmarked Manufacturers' Shipment – Nominal Terms

Benchmarked Manufacturers' Shipments, All Industries Billions of Nominal Dollars, Not Adjusted for Inflation To March 2016, Seasonally-Adjusted [ShadowStats, Census, BLS]



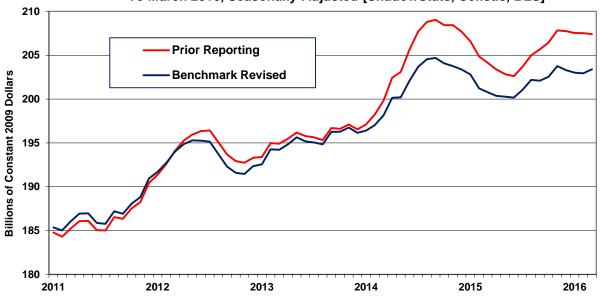
Graph 7: Benchmarked Manufacturers' Shipments - Constant 2009 Dollars

Benchmarked Manufacturers' Real Shipments, All Industries Billions of Constant 2009 Dollars, Deflated by PPI Manufactured Goods To March 2016, Seasonally-Adjusted [ShadowStats, Census, BLS]



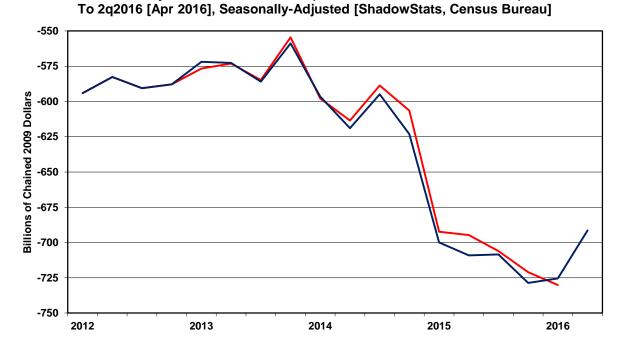
Graph 8: Durable Goods, Ex-Commercial Aircraft, 6-Month Moving Average – Constant 2009 Dollars

Revisions to Real New Orders, Ex-Commercial Aircraft 6-Month Moving Avg, Deflated by PPI--Durable Manufactured Goods (\$2009) To March 2016, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 9: Quarterly Revisions to the Real Merchandise Trade Balance (2013 to 2015, April 2016 Reporting)

Real U.S. Merchandise Trade Deficit (Census Basis) Annual Benchmark Revisions 2013 to 2015 Quarterly Deficit at Annual Rate (Billions of Chained 2009 Dollars)



Graph 10: Revisions to Monthly U.S. Trade Deficit in Goods (2013 to 2015)

Nominal U.S. Trade Deficit in Goods

Benchmark Revisions for January 2013 to December 2015
Monthly Deficit - Billions of Current Dollars on a Balance of Payments Basis
Reporting to April 2016, Seasonally-Adjusted [ShadowStats, Census/BEA]

-58

—Prior Reporting
—Revised Detail

Graph 11: Revisions to Monthly U.S. Trade Surplus in Goods and Services (2013 to 2015)

2013

2012

Nominal U.S. Trade Surplus in Services

2015

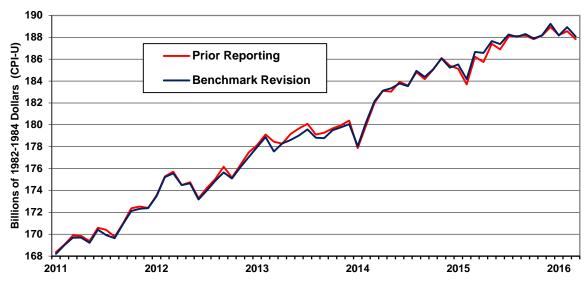
2016

2014

Benchmark Revisions for January 2013 to December 2015 Monthly Surplus - Billions of Current Dollars on a Balance of Payments Basis Reporting to April 2016, Seasonally-Adjusted [ShadowStats, Census/BEA] 25 Billions of Current Dollars - Surplus 20 15 **Prior Reporting** 10 **Revised Detail** 5 2012 2013 2014 2015 2016

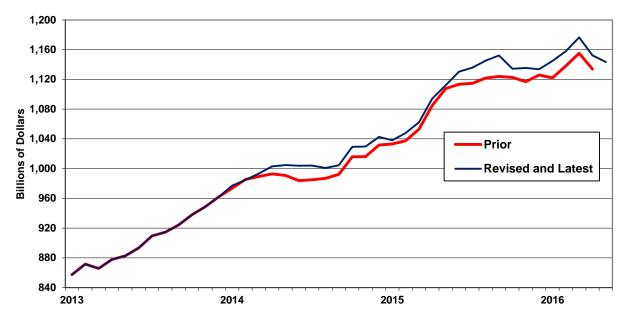
Graph 12: Benchmark-Revised Real Retail Sales, Level





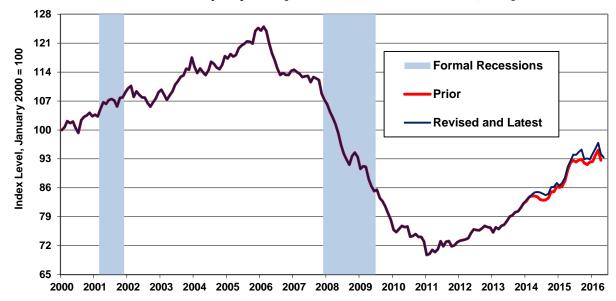
Graph 13: Revisions to Total Nominal Construction Spending

Revisions to Nominal Total-Construction Spending To May 2016 Seasonally-Adjusted Annual Rate [ShadowStats, Census]



Graph 14: Revisions to the Index of Total Real Construction Spending

Revisions to the Real Total Value of Construction Put in Place Indexed to January 2000 = 100, through May 2016 Seasonally-Adjusted [ShadowStats, Census Bureau, BLS]



Today's *Commentary* (**July 19th**). The balance of these *Opening Comments* provides summary detail of June and second-quarter 2016 Housing Starts detail.

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

The *Week and Month Ahead* section previews next week's releases of the June New Orders for Durable Goods, New- and Existing-Home Sales and the first estimate of second-quarter 2016 GDP.

Residential Construction—June 2016—Holding in Smoothed, Low-Level Stagnation and Non-Recovery, Headline Starts Jumped for the Month, but Negative Revisions Slowed Quarterly Growth. National activity rose across-the-board for total housing starts and the single- and multiple-unit subsidiary categories in June 2016. As usual, though the monthly changes were statistically-insignificant. They also were in the context of prior-period downside revisions, and in the circumstance where the sixmonth moving average in the highly-volatile aggregate series held in low-level stagnation—never having recovered its pre-recession high—as flat as ever seen in the series (see *Graph 18*).

Second-Quarter 2016 Starts Growth Slowed Sharply. In terms of annualized quarter-to-quarter change, the regularly-unstable aggregate housing-starts count fell at annualized pace of 24.1% (-24.1%) in first-

quarter 2015, rose at an annualized 96.3% pace in second-quarter 2015, flattened out to 0.0% in third-quarter 2015, and contracted at an annualized 7.2% (-7.2%) in fourth-quarter 2015.

First-quarter 2016 activity, which had turned down in pre-benchmark (April) reporting, had revised into positive territory, thanks largely to upside benchmark revisions to multiple-structure starts in the May 2016 detail, but it did not revise with headline June 2016 reporting, holding at 6.0%.

Second-quarter 2016 activity slowed to an annualized pace of 2.9% growth in its initial full reporting, down from the 5.0% trend, based just on April and May detail. Based solely on the volatile headline April detail, housing starts had been on an early track for an annualized 9.1% gain in second-quarter 2016.

Smoothed Numbers. Despite the regular volatility and instabilities in the Housing Starts series, the general pattern of low-level stagnation continued. The six-month moving-average pattern for the aggregate series continued to flatten—as flat as one ever sees in such a series—in low-level stagnation, reflecting the most-recent headline detail. That general pattern is viewed best in the context of the headline activity—smoothed by a six-month moving average—in *Graph 18*, and in terms of the longer-range historical graph of aggregate activity (*Graph 24*) in the *Reporting Detail*. Given the broad pattern of stagnation in the aggregate series, total June 2016 housing-starts remained well below any recovery level, down from its January 2006 pre-recession high by 48% (-48%).

Separately, in June 2016, the dominant, single-unit housing starts component of the series (*Graphs 19* and 20) remained down by 57% (-57%) from its January 2006 pre-recession peak.

Reflected in the smoothed graphs, the various housing-starts series generally were flat, at a low level of stagnation (again, *Graph 18* for the aggregate), with recent up-trending, low-level stagnation in the sixmonth-smoothed single-unit activity (*Graph 20*) turning lower in June. That was offset by down-trending, smoothed multiple-unit starts (*Graph 22*), which continued to fall back from recent pre-recession levels, although it up-ticked in June.

June 2016 Housing Starts, Headline Reporting. The broadly unstable and highly volatile aggregate Housing Starts series rose month-to-month, in the context of meaningful downside revisions to the two prior months. For June 2016, it was up by a statistically-insignificant, seasonally-adjusted, headline monthly gain of 4.8%. Such followed a revised, deeper decline of 1.7% (-1.7%) in May, and a downwardly-revised 3.8% monthly gain in April 2016. Net of prior-period revisions, June 2016 housing starts rose by 2.1%, instead of the headline gain of 4.8%. Level-of-activity aggregate detail is plotted in *Graphs 15* to 18 and in *Graphs 23* and 24 in the *Reporting Detail*.

Year-to-year change in the seasonally-adjusted, June 2016 aggregate housing-starts measure was a statistically-insignificant decline of 2.0% (-2.0%), versus a downwardly-revised gain of 6.8% in May 2016 and a deeper annual decline of 3.1% (-3.1%) in April 2016.

The June 2016 headline gain of 4.8% in total housing starts encompassed headline monthly gains of 4.4% in the "one unit" category and 1.6% in the "five units or more" category; the missing balance was in the "two to four units" category discussed later in the broader, aggregate "multiple unit" category. As most commonly is the case with this extraordinarily volatile series, not one of the monthly headline changes was statistically meaningful, while only the single-unit category showed a barely-minimal, statistically-significant annual increase.

By-Unit Category. Where the irregular housing starts series can show varying patterns, that partially is due to a reporting mix of residential construction products, with the largest physical-count category of one-unit structure housing starts—generally for individual consumption, resulting in new home sales—versus multi-unit structure starts that generally reflect the building of rental and apartment units.

Housing starts for single-unit structures in June 2016 rose month-to-month by a statistically-insignificant 4.4%, following a revised monthly decline of 2.5% (-2.5%) in May, and an upwardly-revised monthly gain of 1.7% in April. Net of prior-period revisions, single-unit starts rose by 1.8% in June 2016, instead of the headline 4.4%% monthly gain. June 2016 single-unit starts showed a statistically-significant annual gain of 13.4%, versus a downwardly-revised 7.3% gain in May, and an upwardly-revised annual gain of 2.4% in April 2016 (see *Graphs 15, 16, 19* and *20*).

Housing starts for apartment buildings (generally 5-units-or-more) in June 2016 rose month-to-month by a statistically-insignificant 1.6%, versus a downwardly-revised 2.1% gain in May, and a minimally-revised 10.7% gain in April. Net of prior-period revisions, May 2016 starts here declined by 1.0%, instead of increasing by the headline 1.6%.

The statistically-insignificant year-to-year plunge of 23.6% (-23.6%) in June 2016, followed a downwardly-revised 7.2% gain in May 2016, and a deepened annual decline of 11.7% (-11.7%) in April 2016.

Expanding the multi-unit housing starts category to include 2-to-4-units plus 5-units-or-more usually reflects the bulk of rental- and apartment-unit activity. The Census Bureau does not publish estimates of the 2-to-4-units category, due to statistical significance problems (a general issue for the aggregate series). Nonetheless, the total multi-unit category can be estimated by subtracting the single-unit category from the total category (see *Graphs 15*, *16*, *21* and *22*).

Accordingly, the statistically-insignificant June 2016 monthly gain of 4.8% in aggregate starts was composed of statistically-insignificant gains of 4.4% in one-unit structures and 5.4% in the multiple-unit structures categories (2-units-or-more, including the 5-units-or-more category).

Regular Housing Starts Graphs. Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,189,000 in June 2016, versus a downwardly-revised 1,135,000 (previously 1,164,000) in May 2016. The scaling detail in the aggregate *Graphs 23* and 24 at the end of the *Reporting Detail* reflects those annualized numbers.

Nonetheless, given the nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the headline 228,000 month-to-month gain reported in the annualized April 2015 housing starts was larger than any actual total (non-annualized) level of monthly starts ever, for a single month. That is since related starts detail first was published after World War II.

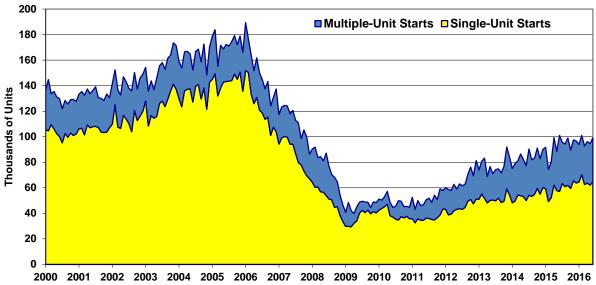
Accordingly, the monthly rate of 99,083 units in June 2016, instead of the annualized 1,189,000-headline number, is used in the scaling of the *Graphs 15* to 22 in these *Opening Comments*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as can be seen in a comparison of *Graph 17* versus *Graph 23* in the *Reporting Detail*.

The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 prerecession peak. Against that downside-spiked low in April 2009, the June 2016 headline number was up by 149%, but it still was down by 48% (-48%) from the January 2006 pre-recession high for the series. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in stagnation at low levels that otherwise have been at or near the historical troughs of other recession activity of the last 70 years, as reflected in *Graph 24* of the *Reporting Detail*.

[Graphs 15 to 22 begin on the next page.]

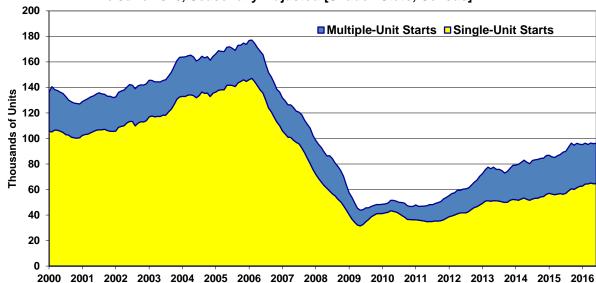
Graph 15: Single- and Multiple-Unit Housing Starts (Monthly Rate of Activity)





Graph 16: Single- and Multiple-Unit Starts (Six-Month Moving Average, Monthly Rate of Activity)

Single- and Multiple-Unit Starts (6-Mo Moving Avg) To June 2016, Seasonally-Adjusted [ShadowStats, Census]



Graph 17: Aggregate Housing Starts (Monthly Rate of Activity)

Aggregate Housing Starts (Monthly Rate)

Single- and Multiple-Unit Starts
To June 2016, Seasonally-Adjusted [ShadowStats, Census]



Graph 18: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)

Aggregate Housing Starts (Six-Month Moving Average) To June 2016, Seasonally-Adjusted [ShadowStats, Census]



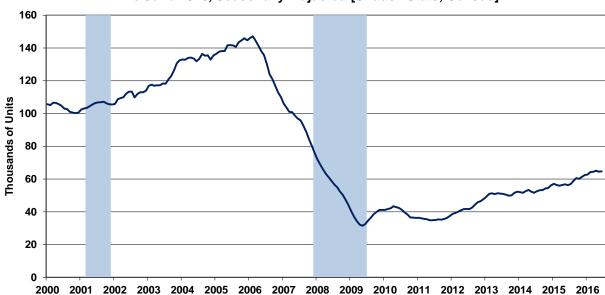
Graph 19: Single-Unit Housing Starts (Monthly Rate of Activity)

Single-Unit Housing Starts (Monthly Rate) To June 2016, Seasonally-Adjusted [ShadowStats, Census]



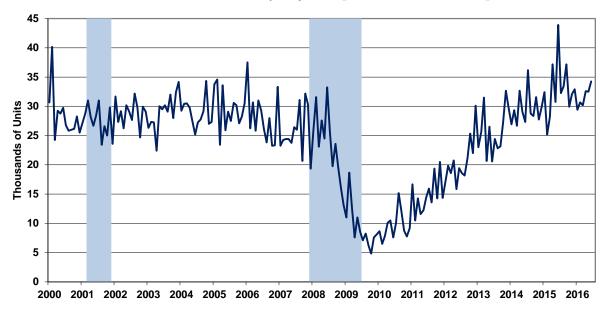
Graph 20: Single-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)

Single-Unit Housing Starts (Six-Month Moving Average) To June 2016, Seasonally-Adjusted [ShadowStats, Census]



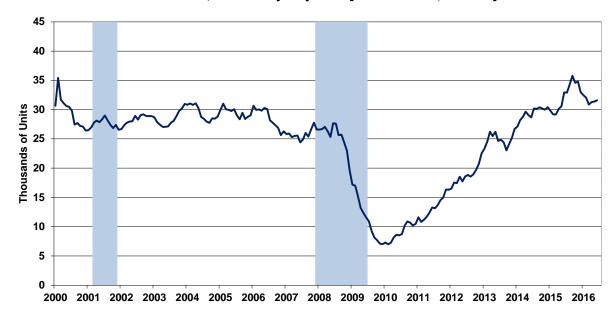
Graph 21: Multiple-Unit Housing Starts (Monthly Rate of Activity)

Multiple-Unit Housing Starts (Monthly Rate) To June 2016, Seasonally-Adjusted [ShadowStats, Census]



Graph 22: Multiple-Unit Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)

Multiple-Unit Housing Starts (Six-Mo Moving Avg) To June 2016, Seasonally-Adjusted [ShadowStats, Census]



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

REPORTING DETAIL

NEW RESIDENTIAL CONSTRUCTION (June 2016)

Holding in Smoothed, Low-Level Stagnation and Non-Recovery, Headline June 2016 Housing Starts Jumped for the Month, but Negative Revisions Slowed Quarterly Growth. National activity in June 2016 rose across-the-board for total housing starts and the single- and multiple-unit subsidiary categories. As usual, though the monthly changes were statistically-insignificant. They also were in the context of prior-period downside revisions, and in the circumstance where the six-month moving average in the highly-volatile aggregate series held in low-level stagnation—never having recovered its pre-recession high—as flat as ever seen in the series (see *Graph 18* in the *Opening Comments* section).

Growth in Second-Quarter 2016 Starts Slowed Sharply. In terms of annualized quarter-to-quarter change, the regularly-unstable aggregate housing-starts count fell at annualized pace of 24.1% (-24.1%) in first-quarter 2015, rose at an annualized 96.3% pace in second-quarter 2015, flattened out to 0.0% in third-quarter 2015, and contracted at an annualized 7.2% (-7.2%) in fourth-quarter 2015.

First-quarter 2016 activity, which had turned down in pre-benchmark (April) reporting, had revised into positive territory, thanks largely to upside benchmark revisions to multiple-structure starts in the May 2016 detail, but it did not revise with headline June 2016 reporting, holding at 6.0%.

Second-quarter 2016 activity slowed to an annualized pace of 2.9% growth in its initial full reporting, down from the 5.0% trend, based just on April and May detail. Based solely on the volatile headline April detail, housing starts had been on an early track for an annualized 9.1% gain in second-quarter 2016.

Smoothed Numbers. Despite the regular volatility and instabilities in the Housing Starts series, the general pattern of low-level stagnation continued. The six-month moving-average pattern for the aggregate series continued to flatten—as flat as one ever sees in such a series—in low-level stagnation, reflecting the most-recent headline detail. That general pattern is viewed best in terms of the longer-range historical graph of aggregate activity (*Graph 24*) at the end of this section, and particularly in the context of the headline activity—smoothed by a six-month moving average—again, as shown in *Graph 18* in the *Opening Comments*. Given the broad pattern of stagnation in the aggregate series, total June 2016 housing-starts remained well below any recovery level, down from its January 2006 pre-recession high by 48% (-48%).

Separately, in June 2016, the dominant, single-unit housing starts component of the series (*Graphs 19* and 20 in the *Opening Comments*) remained down by 57% (-57%) from its January 2006 pre-recession peak.

Reflected in the smoothed graphs in the *Opening Comments*, the various housing-starts series generally were flat, at a low level of stagnation (*Graph 18* for the aggregate), with recent up-trending, low-level

stagnation in the six-month-smoothed single-unit activity (*Graph 20*) turning lower in June. That was offset by down-trending, smoothed multiple-unit starts (*Graph 22*), which continued to fall back from recent pre-recession levels, although it up-ticked in June.

Consumer Liquidity Problems Continue to Impair Housing Activity. An extreme consumer-liquidity bind continues to constrain residential real estate activity, including sales and construction, as last fully reviewed in <u>General Commentary No. 811</u> of June 10th. 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 the income shortfall, the U.S. consumer is unable to sustain positive growth in domestic personal consumption, including aggregate real estate activity. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending, including real estate.

June 2016 Housing Starts, Headline Reporting. The broadly unstable and highly volatile aggregate Housing Starts series rose month-to-month, in the context of meaningful downside revisions to the two prior months. The Census Bureau reported this morning, July 19th, a statistically-insignificant, seasonally-adjusted, headline monthly gain of 4.8% +/- 15.8% (all confidence intervals are expressed at the 95% level) in June 2016 housing starts. Such followed a revised decline of 1.7% (-1.7%) [previously down by 0.3% (-0.3%)] in May, and a downwardly-revised 3.8% [previously 4.9%, initially 6.6%] monthly gain in April 2016. Net of prior-period revisions, June 2016 housing starts rose by 2.1%, instead of the headline gain of 4.8%. Level-of-activity aggregate detail is plotted in *Graphs 15* to 18 of the *Opening Comments*, and in *Graphs 23* and 24 at the end of this section.

Year-to-year change in the seasonally-adjusted, June 2016 aggregate housing-starts measure was a statistically-insignificant decline of 2.0% (-2.0%) +/- 15.1%, versus a downwardly-revised gain of 6.8% [previously up by 9.5%] in May 2016, and a deeper annual decline of 3.1% (-3.1%) [previously down by 2.1% (-2.1%), initially down by 1.7% (-1.7%)] in April 2016.

The June 2016 headline gain of 4.8% in total housing starts encompassed headline monthly gains of 4.4% in the "one unit" category and 1.6% in the "five units or more" category; the missing balance was in the "two to four units" category discussed later in the broader, aggregate "multiple unit" category. As most commonly is the case with this extraordinarily volatile series, not one of the monthly headline changes was statistically meaningful, while only the single-unit category showed a barely-minimal, statistically-significant annual increase.

By-Unit Category (See Graphs in the Opening Comments). Where the irregular housing starts series can show varying patterns, that partially is due to a reporting mix of residential construction products, with the largest physical-count category of one-unit structure housing starts—generally for individual consumption, resulting in new home sales—versus multi-unit structure starts that generally reflect the building of rental and apartment units.

Housing starts for single-unit structures in June 2016 rose month-to-month by a statistically-insignificant 4.4% +/- 18.5%, following a revised monthly decline of 2.5% (-2.5%) [previously a gain of 0.3%] in May, and an upwardly-revised monthly gain of 1.7% [previously up by 1.5%, initially up by 3.3%] in April. Net of prior-period revisions, single-unit starts rose by 1.8% in June 2016, instead of the headline 4.4%% monthly gain. June 2016 single-unit starts showed a statistically-significant annual gain of 13.4% +/- 12.8%, versus a downwardly-revised 7.3% [previously 10.1%] gain in May, and an upwardly-revised

annual gain of 2.4% [previously 2.1%, initially 4.3%] in April 2016 (see *Graphs 15, 16, 19* and 20 in the *Opening Comments*).

Housing starts for apartment buildings (generally 5-units-or-more) in June 2016 rose month-to-month by a statistically-insignificant 1.6% +/- 25.0%, versus a downwardly-revised 2.1% [previously 1.3%] gain in May, and a minimally-revised 10.7% [previously 10.8%, initially 10.7%] gain in April. Net of priorperiod revisions, May 2016 starts here declined by 1.0%, instead of increasing by the headline 1.6%.

The statistically-insignificant year-to-year plunge of 23.6% (-23.6%) +/- 55.9% in June 2016, followed a downwardly-revised 7.2% gain [previously up by 10.0%] in May 2016, and a deepened annual decline of 11.7% (-11.7%) [previously down by 8.6% (-8.6%), initially down by 12.9% (-12.9%)] in April 2016.

Expanding the multi-unit housing starts category to include 2-to-4-units plus 5-units-or-more usually reflects the bulk of rental- and apartment-unit activity. The Census Bureau does not publish estimates of the 2-to-4-units category, due to statistical significance problems (a general issue for the aggregate series). Nonetheless, the total multi-unit category can be estimated by subtracting the single-unit category from the total category (see *Graphs 15*, *16*, *21* and *22* in the *Opening Comments*).

Accordingly, the statistically-insignificant June 2016 monthly gain of 4.8% in aggregate starts was composed of a statistically-insignificant gain of 4.4% in one-unit structures and a statistically-insignificant gain of 5.4% in the multiple-unit structures categories (2-units-or-more, including the 5-units-or-more category). Again, these series all are graphed in the *Opening Comments*.

Regular Housing Starts Graphs. Headline reporting of Housing Starts activity is expressed by the Census Bureau as an annualized monthly pace of starts, which was 1,189,000 in June 2016, versus a downwardly-revised 1,135,000 (previously 1,164,000) in May 2016. The scaling detail in the aggregate *Graphs 23* and 24 at the end of this section reflects those annualized numbers.

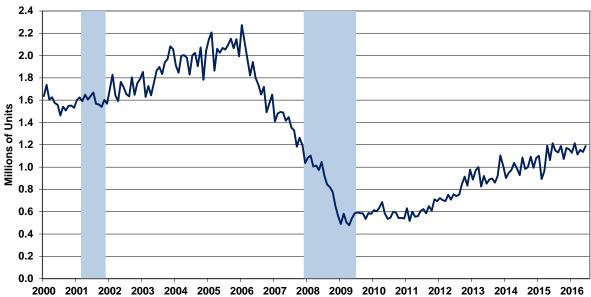
Nonetheless, given the nonsensical monthly volatility in reporting and the exaggerated effect of annualizing the monthly numbers in this unstable series, the magnitude of monthly activity and the changes in same, more realistically are reflected at the non-annualized monthly rate. Consider that the headline 228,000 month-to-month gain reported in the annualized April 2015 housing starts was larger than any actual total (non-annualized) level of monthly starts ever, for a single month. That is since related starts detail first was published after World War II.

Accordingly, the monthly rate of 99,083 units in June 2016, instead of the annualized 1,189,000-headline number, is used in the scaling of the *Graphs 15* to 22 in the *Opening Comments*. With the use of either scale of units, though, appearances of the graphs and the relative monthly, quarterly and annual percentage changes are otherwise identical, as can be seen in a comparison of *Graph 23* versus *Graph 17* in the *Opening Comments*.

The record monthly low level of activity seen for the present aggregate series was in April 2009, where the annualized monthly pace of housing starts then was down by 79% (-79%) from the January 2006 prerecession peak. Against that downside-spiked low in April 2009, the June 2016 headline number was up by 149%, but it still was down by 48% (-48%) from the January 2006 pre-recession high for the series. Shown in the historical perspective of the post-World War II era, current aggregate-starts activity is in stagnation at low levels that otherwise have been at or near the historical troughs of other recession periods of the last 70 years, as reflected in accompanying *Graph 24*.

Graph 23: Housing Starts (Annualized Monthly Rate of Activity), 2000 to Date





Graph 24: Housing Starts (Annualized Monthly Rate of Activity), 1946 to Date

Housing Starts (Annual Rate by Month) 1946 to June 2016, Seasonally-Adjusted [ShadowStats, Census]



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 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.

In the context of continued systemic gyrations related to Brexit and a likely evolving re-organization of the EU and the euro, as well as in response to perpetual U.S. economic non-recovery and a renewed, intensifying downturn, negative market reactions have surfaced in trading of the U.S. dollar and in related financial markets, with upside pressures on gold, silver and oil prices. Market activity in oil has been mixed, due partially still to some relative 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 <u>No. 809</u>, which revised minimally into positive territory with inflation gimmicks (see the *Opening Comments* of <u>Commentary No. 817</u>).

Reviewed in today's *Opening Comments*, meaningful downside revisions to GDP history since 2013 (including likely headline quarterly contractions for first-quarter 2015, fourth-quarter 2015 and first-quarter 2016) likely are pending with the July 29, 2016 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 also should fall sharply. The post-GDP benchmarking period now appears to be 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 <u>Supplemental Commentary No. 784-A</u> and <u>Commentary No. 695</u>.

Further, discussed in <u>Commentary No. 778</u>, 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 RELEASES:

Existing- and New-Home Sales (June 2016). June 2016 Existing-Home Sales are due for release on Thursday, July 21st, from the National Association of Realtors (NAR), with the June 2016 New-Home Sales report due from the Census Bureau on Tuesday, July 26th. Both Existing- and New-Home Sales will be covered in the *Commentary No.* 822 of July 27th.

The extreme liquidity bind besetting consumers continues to constrain personal-consumption expenditures, and residential real estate sales and related construction activity. Discussed in today's New Residential Construction section, 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 an income shortfall, the U.S. consumer is unable to sustain growth in broad economic activity.

Where the private housing sector never recovered from the business collapse of 2006 into 2009, there remains no chance of a near-term, sustainable turnaround in home-sales activity, without a fundamental upturn in consumer and banking-liquidity conditions. That has not happened and does not appear to be in the offing.

Headline Existing-Home Sales should continue their current general pattern of down-trending, low-level stagnation.

Smoothed for regular extreme and nonsensical monthly gyrations, a pattern of stagnation or downturn in New-Home Sales also is likely to continue. The pattern of low-level stagnation in new sales generally turned from up-trending to down-trending or flat in September 2015. Monthly changes in activity here rarely are statistically-significant, amidst the otherwise unstable headline reporting and revisions; nonetheless, further downside catch-up is likely in the June 2016 detail.

New Orders for Durable Goods (June 2016). The Census Bureau will report June 2016 New Orders for Durable Goods on Thursday, July 27th, which will be covered in *Commentary No. 822* of that date. Net of irregular activity in commercial aircraft orders, aggregate orders likely continued a pattern of downtrending real stagnation.

Commercial aircraft orders are booked for the long-term—years in advance—so they have only limited impact on near-term production. Further, by their nature, these types of orders do not lend themselves to seasonal adjustment. As a result, the durable goods measure that best serves as a leading indicator to broad production—a near-term leading indicator of economic activity and the GDP—is the activity in new orders, ex-commercial aircraft.

Noted in <u>Commentary No. 820</u>, unadjusted manufactured-durable goods inflation in the Producer Price Index (PPI) was unchanged at 0.00% for the month of June 2016, having gained 0.18% in May. Yet, the decline in annual inflation continued to narrow, to a contraction in June 2016 of 0.42% (-0.42%), versus an annual decline of 0.60% (-0.60%) in May 2016, with related implications for inflation-adjusted real monthly and annual changes reported for the new orders.

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. Those circumstances are discussed in today's *Opening Comments*. A formal estimate of headline second-quarter GDP growth will follow in *Commentary No.* 822 of July 27th. It should be well below what appears to be a current consensus estimate above two-percent.

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