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

#### COMMENTARY NUMBER 902-B Second-Ouarter GDP, 2017 Annual Benchmark Revisions

July 31, 2017

Positive Variance (Nonsense Reporting) in Revamped GDP Detail Intensified versus Softening, Non-Expanding Underlying Economic Reality

Advance Estimate of Second-Quarter 2017 Real GDP Came in at a Near-Consensus 2.57% versus a Revised First-Quarter 1.24% (Previously 1.42%)

Despite Rapidly-Faltering Activity in Key Underlying Economic Series, Second-Quarter GDP Gained both Quarter-to-Quarter and Year-to-Year

With Headline Real GDP Growth Approaching, but Still Below Historical Averages, Slowing Quarterly Inflation and Relatively Stronger Inventory Changes More than Accounted for the Increase in Real Second-Quarter Growth

**Benchmark Revisions Lowered 2016 Annual Real Growth to Its Lowest Reading Since the 2009 Depths of the Recession** 

With Advance Second-Quarter Activity Yet to Be Reported, Real First-Quarter Gross National Product (GNP) Revised Lower to 0.94% (Previously 1.07%)

The Theoretical GDP Equivalent, Real Gross Domestic Income (GDI), Revised Higher to 2.23% (Previously 1.01%) in the First-Quarter, Thanks to Massive Downside Revisions to Second-, Third- and Fourth-Quarter 2016

Better-Quality Series Continue Showing Protracted-Economic Collapse, with No Recovery of Pre-Recession Highs, No Economic Expansion

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PLEASE NOTE: The next regular Commentary, scheduled for Friday, August 4th, will cover the July Employment and Unemployment detail, the June Trade Deficit and Construction Spending.

Best wishes to all — John Williams (707) 763-5786

Today's *Opening Comments and Executive Summary* (July 31st). The *Opening Comments* reviews the annual benchmark revisions to the GDP. The *Executive Summary* (page 9) highlights headline details and provides background on the headline reporting of the "advance" estimate of second-quarter 2017 GDP.

The *Reporting Detail* (page 19) provides extended analysis of the second-quarter GDP 2007 reporting, in the context of the annual revisions.

The *Hyperinflation Watch* (page 27) updates the quarterly estimation of the Velocity of Money for M1, M2 and M3 for second-quarter 2017 GDP, and in the context of the annual GDP and Money Supply benchmark revisions.

The *Consumer Liquidity Watch* (30) has been updated for the University of Michigan's advance estimate of July 2017 Consumer Sentiment.

The *Week, Month and Year Ahead* (40) provides links to recent *Commentaries* and previews releases of July employment and unemployment, and the June trade deficit and construction spending to in the week ahead.

#### OPENING COMMENTS AND EXECUTIVE COMMENTS

#### SECOND-QUARTER GDP, ANNUAL GDP BENCHMARK REVISIONS - 2017

Contravening Earlier Revisions to Related Series, GDP Activity Revised Higher Since 2014, With Slower Growth from 2016 to the Present. [Today's material encompasses and expands upon the analysis and graphs found in Advance Commentary No. 902-A of July 28th, covering the headline economic releases of that date].

Opposite to my predictions and to indications from a variety of related, underlying economic series, the annual benchmark revisions to Gross Domestic Product—revamping activity from first-quarter 2014 through first-quarter 2017—showed stronger than previously-reported annual growth in 2014 and 2015, with weaker than previously-reported annual and quarterly growth slowing into 2016 and 2017. (These annual GDP and National Income Account revisions were previewed in *Commentary No. 900*, in the context of benchmark revisions to related series such as Industrial Production, Retail Sales and International Trade.)

Coincident with the benchmarking, the Bureau of Economic Analysis (BEA) also published its "advance," or first-estimate of second–quarter 2017 GDP, showing headline annualized quarter-to-quarter real growth of 2.57% (effectively at the level of consensus expectations), with year-to-year growth of 2.00%. That was against downwardly-revised quarterly and annual real growth rates in first-quarter 2017,

respectively of 1.24% (previously 1.42%) and 2.00% (previously 2.10%). The stronger second-quarter growth was despite a wide variety of related, better-quality series indicating renewed, faltering or stagnant activity, never having recovered their pre-recession peaks of activity, continuing in protracted economic non-expansion (see the *Executive Summary*).

Consider that in aggregate, the headline real GDP in first-quarter 2017, pre-benchmarking, stood 12.55% above its pre-recession high of fourth-quarter 2007. Post-benchmarking, first-quarter 2017 GDP stood at 12.75% above its pre-recession high, a negligible revision, in aggregate. As of second-quarter 2017, headline GDP was 13.48% above its pre-recession peak, moving contrary, again, to the reporting of most better-quality economic series. Revisions to GDP inflation, the Implicit Price Deflator were nil (a graph comparing the IPD with the CPI is found in the *Reporting Detail*, along with further discussion of the benchmarking).

ShadowStats Position on Underlying Economic Reality. My contentions as to the regular and deliberately orchestrated understatement of GDP reporting were not affected by these revisions, and are reviewed in the Executive Summary (see also Special Commentary No. 885, entitled Numbers Games that Statistical Bureaus, Central Banks and Politicians Play, of May 8, 2017 for further background).

The GDP (or the broader GNP detail headlined in earlier decades) simply remains the most worthless of the popular government economic series, in terms of determining what really is happening to U.S. business activity. The series is the most-heavily-modeled, politically-massaged and gimmicked government indicator of the economy. It has been so since at least the 1960s, and that reporting quality deteriorated anew, sharply in 2016 benchmarking (see the *Opening Comments* of *Commentary No. 823*). That reporting quality did not improve with the headline 2017 benchmarking published today.

**Benchmark Revisions in Graphic Form.** Copied from the prior <u>Advance Commentary No. 902-A</u>, with a correction to *Graph 6*, three sets of graphs follow, showing the benchmarked-revised levels of real activity, annual real growth rates and quarterly real growth rates for Gross Domestic Product (GDP), Gross Domestic Income (GDI) and Gross National Product (GDP) versus the prior, headline details (again, first-quarter 2014 was the first quarter of the revisions).

GDI is the theoretical income-side equivalent to the consumption-side GDP estimate. The GDP and GDI are made to equal each other, every quarter, with the addition of a "statistical discrepancy" to the GDI-side of the equation. That said, headline GDI reporting and revisions have little relationship to the GDP.

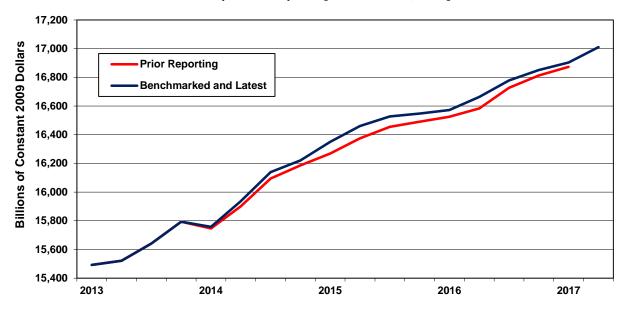
GNP remains the broadest measure of U.S. economic activity, where GDP is GNP net of trade flows in factor income (interest and dividend payments). As a reporting gimmick aimed at boosting the headline reporting of economic growth for net-debtor nations such as the United States, international reporting standards were shifted some decades back to reporting headline GDP instead of what had become a relatively weaker GNP.

The next "comprehensive" benchmark revision to the GDP will be the next benchmarking in July 2018, which will revise the data back to 1929.

[Graphs of benchmark-revised detail, versus unrevised prior reporting, begin on the next page.]

Graph 1: 2017 Benchmarked GDP - Inflation-Adjusted Real Level of Activity

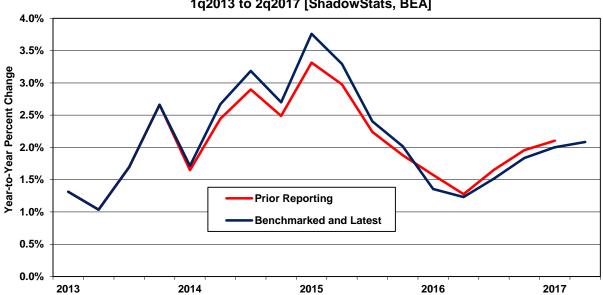
#### Quarterly Gross Domestic Product (GDP) - Billions of \$2009 1q2013 to 2q2017 [ShadowStats, BEA]



Graph 2: 2017 Benchmarked GDP - Real Year-to-Year Change

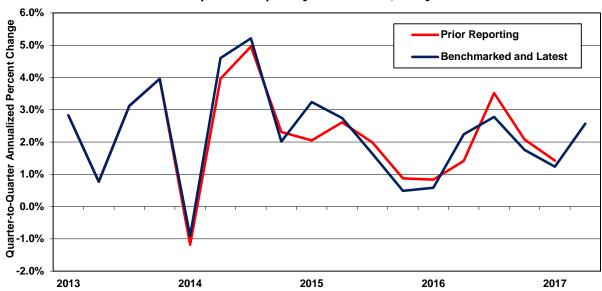
#### **Quarterly Real Gross Domestic Product (GDP)**

Yr/Yr % Change, Benchmark Revisions and Latest 1q2013 to 2q2017 [ShadowStats, BEA]



Graph 3: 2017 Benchmarked GDP - Real Annualized Quarter-to-Quarter Change

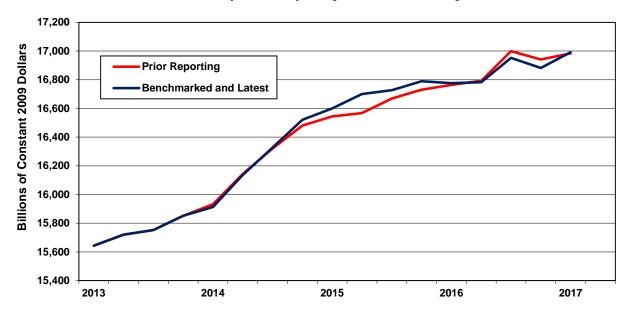
## Real Gross Domestic Product (GDP) Annualized Q/Q % Change, Benchmark Revisions and Latest 1q2013 to 2q2017 [ShadowStats, BEA]



[GDI Graphs 4 to 6 begin on the next page.]

Graph 4: 2017 Benchmarked GDI – Inflation-Adjusted Real Level of Activity

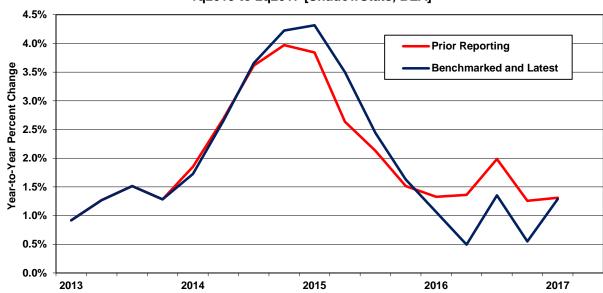
#### Quarterly Gross Domestic Income (GDI) - Billions of \$2009 1q2013 to 2q2017 [ShadowStats, BEA]



Graph 5: 2017 Benchmarked GDI – Real Year-to-Year Change

#### **Quarterly Real Gross Domestic Income (GDI)**

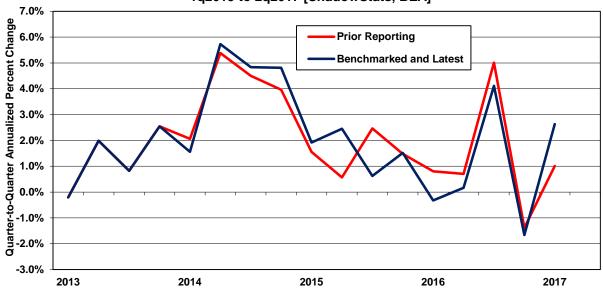
Yr/Yr % Change, Benchmark Revisions and Latest 1q2013 to 2q2017 [ShadowStats, BEA]



CORRECTION – As plotted originally in <u>Advance Commentary No. 902-A</u>, the labels for the lines in Graph 6 were reversed. The legend is correct here and has been corrected in No. 902-A posted on <u>www.ShadowStats.com</u>.

Graph 6: 2017 Benchmarked GDI – Real Annualized Quarter-to-Quarter Change

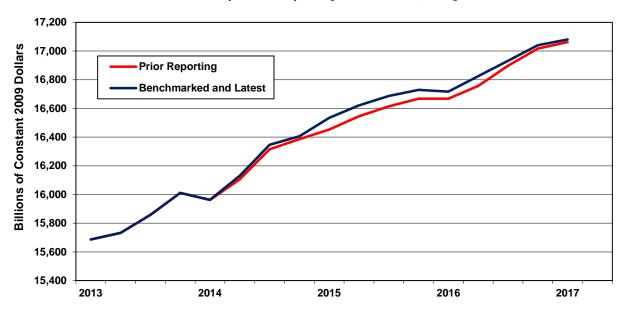
## Real Gross Domestic Income (GDI) Annualized Q/Q % Change, Benchmark Revisions and Latest 1q2013 to 2q2017 [ShadowStats, BEA]



[GNP Graphs 7 to 9 begin on the next page.]

Graph 7: 2017 Benchmarked GNP - Inflation-Adjusted Real Level of Activity

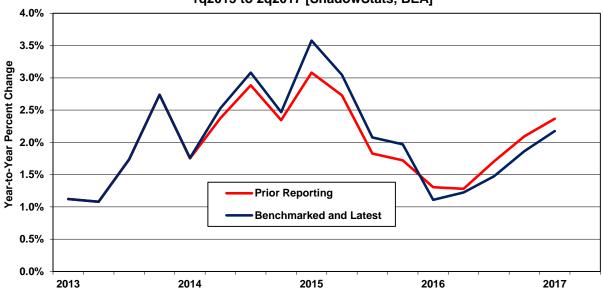
#### Quarterly Gross National Product (GNP) - Billions of \$2009 1q2013 to 2q2017 [ShadowStats, BEA]



Graph 8: 2017 Benchmarked GNP - Real Year-to-Year Change

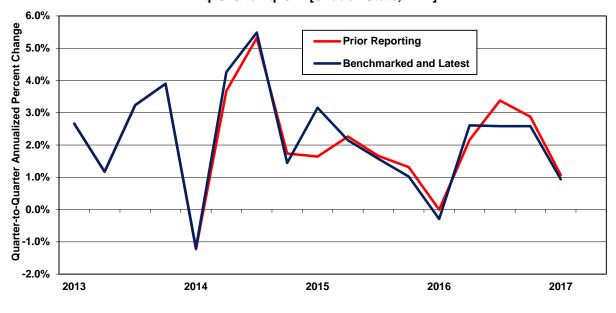
#### **Quarterly Real Gross National Product (GNP)**

Yr/Yr % Change, Benchmark Revisions and Latest 1q2013 to 2q2017 [ShadowStats, BEA]



Graph 9: 2017 Benchmarked GNP- Real Annualized Quarter-to-Quarter Change

### Real Gross National Product Income (GNP) Annualized Q/Q % Change, Benchmark Revisions and Latest 1q2013 to 2q2017 [ShadowStats, BEA]



Extimate—Stronger Growth Ran Counter to Anecdotal Evidence, with Headline Detail of Minimal Substance or Significance. In the context of annual benchmark revisions up through first-quarter 2017 (see the *Opening Comments*), the "advance" or first estimate of second-quarter 2017 GDP showed a statistically-insignificant, real (inflation-adjusted), annualized, quarterly headline gain of 2.57%, versus downwardly-benchmarked growth of 1.24% [pre-bench mark 1.42%] in first-quarter 2017 and 1.76% [pre-benchmark 2.08%] in fourth-quarter 2016. Year-to-year annual growth notched minimally higher in the "advance" second-quarter estimate to 2.08%, from a downwardly benchmarked 2.00% [pre-benchmark 2.10%] in first-quarter 2017 and 1.84% [pre-benchmark 1.96%] in fourth-quarter 2016.

Details of the benchmarked real levels of and annual growth in the headline series are graphed in the *Reporting Detail* section (see *Graphs 19* to 25), along with comparative *Graphs 10* to 18, later in this *Executive Summary*.

Second-Quarter 2017 GDP, "Advance" Estimate – Benchmarked Growth Distribution. The initial headline estimate of second-quarter 2017 real GDP growth at 2.08% was dominated by surging growth in personal consumption expenditures, helped along by a relative cessation to the reduction of inventory liquidation seen in the first-quarter. Where this section usually details the various sub-component growth

contributions of the headline GDP components, such is supplanted this month by *Table 1*, which shows comparative growth contributions with recent quarters, both before and after the benchmark revisions. Going forward, the regular analysis here will return, along with a variation on the accompanying table. *Commentary No. 896* of June 29th detailed the growth-distribution for the pre-benchmark third estimate of first-quarter 2017 GDP.

**Table 1: Some Recent-Quarter Benchmark-Revision Comparisons** 

| Annualized Quarterly Real Growth in Headline Gross Domestic Product Growth Contribution by Consumption and Product Sector |            |                  |                   |                  |                   |
|---|------------|------------------|-------------------|------------------|-------------------|
|   | 2nd-Q 2017 | 1st-Q 2017       | 1st-Q 2017        | 4th-Q 2016       | 4th-Q 2016        |
|   | Advance    | Revised<br>Final | Pre-<br>Benchmark | Revised<br>Final | Pre-<br>Benchmark |
| CONTRIBUTING ECONOMIC SECTOR  |            |                  |                   |                  |                   |
| Personal Consumption Expenditures   |            |                  |                   |                  |                   |
| - Goods   | 1.02%      | 0.15%            | 0.11%             | 1.03%            | 1.29%             |
| - Services  | 0.91%      | 1.17%            | 0.64%             | 0.97%            | 1.11%             |
| Gross Private Domestic  |            |                  |                   |                  |                   |
| - Fixed Investment  | 0.36%      | 1.27%            | 1.71%             | 0.28%            | 0.46%             |
| - Change in Private Inventories   | -0.02%     | -1.46%           | -1.11%            | 1.06%            | 1.01%             |
| 3.  |            |                  |                   |                  |                   |
| Net Exports of Goods and Services   | 0.18%      | 0.22%            | 0.23%             | -1.61%           | -1.82%            |
| Government Consumption/Investment   | 0.12%      | -0.11%           | -0.16%            | 0.03%            | 0.03%             |
| GDP Annualized Real Growth  | 2.57%      | 1.24%            | 1.42%             | 1.76%            | 2.08%             |
| Final Sales, GDP Less Inventories   | 2.59%      | 2.70%            | 2.53%             | 0.70%            | 2.06%<br>1.07%    |
|   |            | 0 /0             | ,                 | 0.1.070          |                   |
| CONTRIBUTING PRODUCT SECTOR   |            |                  |                   |                  |                   |
| Goods   | 1.62%      | -0.47%           | 0.07%             | 0.88%            | 0.67%             |
| Services  | 1.22%      | 0.91%            | 0.44%             | 0.61%            | 0.97%             |
| Structures  | -0.27%     | 0.80%            | 0.91%             | 0.27%            | 0.44%             |
| GDP Annualized Real Growth  | 2.57%      | 1.24%            | 1.42%             | 1.76%            | 2.08%             |
| Sources: Bureau of Economic Analysis (BEA), ShadowStats.  |            |                  |                   |                  |                   |

Underlying Economic Reality. [Note: In the context of the minimal, aggregated GDP benchmark revisions and near-consensus headline growth for the initial estimate second-quarter 2017 GDP, much of the following section, other than for updated benchmarking and second-quarter GDP comments, is repeated from Commentary No. 896, which reviewed the prior reporting of the third-estimate of first-quarter. All details and graphs have been updated to reflect the latest developments and economic detail

(also, for background, see the Economy section of No. 859 Special Commentary, and related headline issues raised in Special Commentary No. 888, Commentary No. 887, Special Commentary No. 885, Commentary No. 877, Commentary No. 876 and Commentary No. 900, all are incorporated here by reference).

Despite the increase in the headline, real annualized second-quarter 2017 GDP growth to 2.57%, from a downwardly-benchmark-revised 1.24% (1.42% pre-benchmark) growth in first-quarter 2017, underlying U.S. economic activity has continued in a deepening-to-flattening and as-yet-unrecognized "new" recession. Headline monthly reporting activity in better-quality subsidiary economic series continues to confirm that general direction (the ShadowStats contention remains that the "new" downturn is in reality just a continuation of the economic crash into 2009, from which the aggregate real-world economy never fully recovered). While the 2017 GDP benchmarking did show some slowing in previously-reported 2016 and 2017 growth, activity in 2014 and 2015—otherwise heavily revised to downside in series-specific benchmarkings (again, see *Commentary No. 900*)—revised higher with the GDP benchmarking.

Such is despite some corrective actions taken by the Trump Administration, and new policies in development to generate new economic stimulus. Assuming eventual legislative cooperation from Congress—despite significant political discord currently in place—and given basic economic lead times, the first major, positive impact on the economy from that now would be late-2018 to early-2019, at the earliest. Despite just-released benchmarking and headline, second-quarter 2017 details, interim economic activity and even headline GDP reporting still should turn lower in the next several quarters, as increasingly has been signaled by a number of indicators (see *General Commentary No. 894*).

Discussed back in <u>Commentary No. 823</u>, the 2016 GDP benchmark revisions effectively were neutral in aggregate, with the business-cycle reporting "smoothed" by the BEA. The revisions were not of a nature to trigger formal immediate recognition of a "new" or double-dip recession, which likely still will be clocked from December 2014. Today's *Commentary*, offers similar comments on the 2017 benchmarking, where "formal" recession recognition of a post-fourth-quarter 2014 recession is not imminent.

Beyond the smoothing gimmicks of the 2016 benchmarking, the prior year's 2015 GDP annual benchmark revisions coverage—in <u>Commentary No. 739</u>—noted that annual benchmarkings increasingly were reshaping the GDP-reporting history into a post-2007 collapse pattern of successive multiple dips. By the next "comprehensive" GDP benchmark revision in July 2018 (a restatement of activity back to 1929), honest post-2007 historical GDP reporting should be confirming a non-recovering, multiple-dip economic collapse including a "new" or ongoing downturn post-fourth-quarter 2014.

That circumstance should encompass the evolving, current downturn in broad, domestic economic activity, discussed in <u>No. 859 Special Commentary</u>. Again, the present, unofficial "new" recession or multiple-dip downturn remains likely to be timed from December 2014, even without headline back-to-back contractions of quarterly GDP currently in place. Formal recognition of same remains pending, albeit not imminent, where consecutive quarterly GDP contractions no longer are necessary for formal recession recognition (see the opening paragraphs of <u>Commentary No. 823</u>).

<u>Headline Aggregate GDP Remains Heavily Overstated versus Underlying Reality.</u> Formal headline GDP activity continues to run well above economic reality as signaled by a number of better-quality business indicators, as reviewed here and in <u>No. 859 Special Commentary</u>. A sampling of those indicators—

plotted in this section—includes such varied series as domestic freight activity (*Graph 14*), industrial production of consumer goods (*Graph 15*), U.S. petroleum consumption (*Graph 16*), total real U.S. construction spending (*Graph 17*) and the employment-population ratio (*Graph 18*). Either the GDP reporting is wrong, or most other major economic series are wrong (see *Commentary No. 876* and *Commentary No. 877*).

While the GDP is heavily modeled, imputed, theorized and gimmicked, it also encompasses reporting from those various major economic series and private surveys, which still attempt to measure real-world activity. Flaws in the GDP inflation methodologies and simplifying reporting assumptions have created the headline post-2009 faux ongoing economic recovery and expansion.

Accordingly, the broad ShadowStats economic outlook has not changed, and, again, the gist of most of following text remains along the lines as expounded upon in *No.* 859. The details and numbers here, however, are updated for the latest headline information, including the GDP benchmarking. In combination, these various collapsing economic indicators eventually should engender a formal recession call, irrespective of the timing of actual, if any, headline quarterly contractions in real GDP, or what likely was related political gaming of the GDP data into early-2017.

Fundamental, real-world economic activity shows that the broad economy began to turn down in 2006 and 2007, plunged into 2009, entered a protracted period of stagnation thereafter—never recovering—and then began to turn down anew in late-2014, early-2015. Irrespective of the reporting gimmicks introduced in the July 2013, July 2014 and July 2016 GDP benchmark revisions—including a recent pattern of inclusion and estimation of highly-questionable data on the Affordable Care Act (ACA) and related healthcare spending—a consistent, fundamental pattern of faltering historical activity is shown in the accompanying "corrected" GDP graphs (see *Graphs 11* and *13*).

Discussed in the *Consumer Liquidity Watch*, with liquidity-strapped consumers unable to fuel sustainable growth in consumption, a full business recovery could not have taken place since 2009. A "Recovery" and renewed economic "Expansion" (see *Commentary No. 875* for definitions) will not be forthcoming until consumer structural income and liquidity problems are resolved, including more-normal credit functioning of the domestic banking system.

Official and Corrected GDP. Reviewed and graphed in the Opening Comments of Commentary No. 876, the full economic "Recovery" and post-third-quarter 2011 "Expansion" indicated by headline real GDP numbers, remains an illusion. In scope, it is not supported by other major economic series. It is a statistical mirage created at least partially by using a too-low rate of inflation in deflating (removing certain inflation effects) from the GDP series. Today's accompanying graphs also tell that story, updated for the 2017 GDP benchmarking and the "advance" estimate of second-quarter 2017 GDP, as well as reflecting a sampling of other elements of economic reality.

The first set of graphs (*Graphs 10* and *11*) updates the detail 1970-to-date, expressed in billions of 2009 dollars as used with the headline GDP. Revised for the small changes revisions to headline GDP data, the graphs show official periods of recession as shaded areas, with ShadowStats-defined recessions indicated by the lighter shading in *Graph 11*, the second graph of the first set, as published initially in <u>2014</u> *Hyperinflation Report—Great Economic Tumble*.

The second set of graphs (2000-to-date) is the one that traditionally has been incorporated in the GDP *Commentaries*. *Graphs 12* and *13* show short-term detail, expressed on an index base where first-quarter 2000 = 100.0.

Shown in the first graph of each set (*Graphs 10* and *12*) of official *Headline Real GDP*, GDP activity has been reported above pre-2007 recession levels—fully recovered and in economic expansion—since third-quarter 2011, and headline GDP has shown sustained growth since (growth pauses or interruptions for second-half 2012 and first-quarter 2014 excepted). Adjusted for GDP inflation (the implicit price deflator or IPD), the first estimate of second-quarter 2017 GDP currently stands 13.5% above its pre-recession peak-GDP estimate of fourth-quarter 2007. That was against a revised 12.8% [pre-benchmarking 12.5%] in first-quarter 2017. Again, no other major economic indicators show recovery or expansion close to the GDP's. None of the series covered in this section and in *No.* 859 has shown a significant recovery.

In contrast, the "corrected" GDP version, in the second graph of each set (*Graphs 11* and *13*), shows second -quarter 2017 GDP activity to be down by 6.9% (-6.9%) from its pre-recession peak of first-quarter 2006. That was against a revised contraction of 7.0% (-7.0%) [pre-benchmarking down by 7.2% (-7.2%)] in first-quarter 2017. Noted in *General Commentary No. 867*, *Commentary No. 869*, *Commentary No. 887* and *Commentary No. 899*, headline Industrial Production and the related Manufacturing series have rivaled, and in the case of manufacturing, have exceeded the Great Depression in terms of the number of quarters or months of non-Expansion.

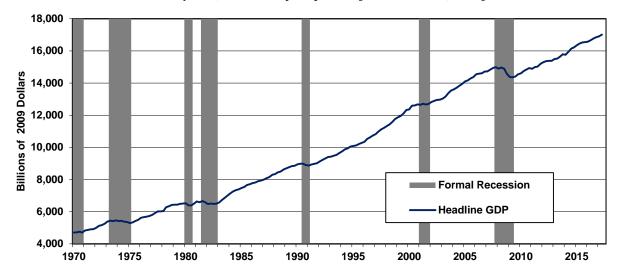
Again, the second graph in each series (*Graphs 11* and *13*) plots the *Corrected Real GDP*, adjusted for the understatement inherent in official inflation estimates (see <u>Public Commentary on Inflation</u> <u>Measurement</u>), with the deflation by the implicit price deflator (IPD) adjusted for understatement of roughly two-percentage points of annual inflation in recent years. The inflation understatement has resulted from hedonic-quality adjustments, also as discussed in the *Hyperinflation Reports*.

The pattern of economic collapse into 2009, followed by some minimal recovery, low-level stagnation and renewed contraction is seen with many series. As shown in *Graphs 14* to *18* (again also see *No. 859* more-extensive background), better-quality independent numbers—including some U.S. government—put the lie to the gimmicked headline reporting that has been massaged for decades by government agencies and consulting academics.

[Graphs 10 to 18 begin on the following page.]

Graph 10: Real GDP Index (1970-2017), First Estimate of Second-Quarter 2017

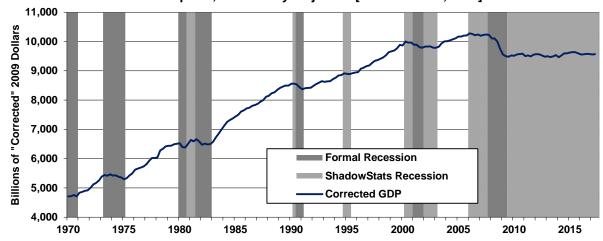
### Headline Real GDP (Benchmarked) Nominal GDP Deflated by Implicit Price Deflator To 2q2017, Seasonally-Adjusted [ShadowStats, BEA]



Graph 11: "Corrected" Real GDP (1970-2017), First Estimate of Second-Quarter 2017

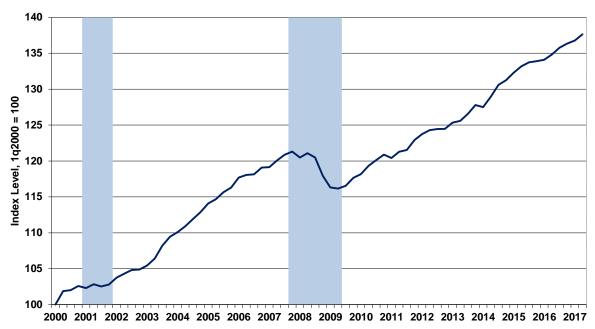
### Corrected Real GDP (Benchmarked) Nominal GDP Deflated by Implicit Price Deflator Adjusted for

Nominal GDP Deflated by Implicit Price Deflator Adjusted for Understatement of Annual Inflation To 2q2017, Seasonally-Adjusted [ShadowStats, BEA]



Graph 12: Real GDP Index - Headline Real GDP through First Estimate of Second-Quarter 2017





Comparative Indicators. Graph 13 of the "corrected" GDP series follows, along with a sampling of comparative economic indicators (see the expanded coverage in <u>No. 859</u>). The comparative indicators here generally confirm the story from the "corrected" GDP graph that the economy never recovered from its collapse into 2009 and is either in renewed downturn or in continuing low-level stagnation, albeit some of the latter may be slightly up-trending.

*Graph 14* shows the Cass Freight Index<sup>TM</sup> measure of North American freight volume through June 2017 (see *Commentary No. 901*), used with the permission of Cass Information Systems, Inc. Few measures better reflect the actual flow of goods in commerce than freight activity. As a broad measure of basic domestic economic activity, the index has much more in common with the "corrected" GDP in *Graph 13*, than with the headline GDP of *Graph 12*.

*Graph 15* plots the latest headline level of activity for industrial production of consumer goods, which represents 17% of GDP.

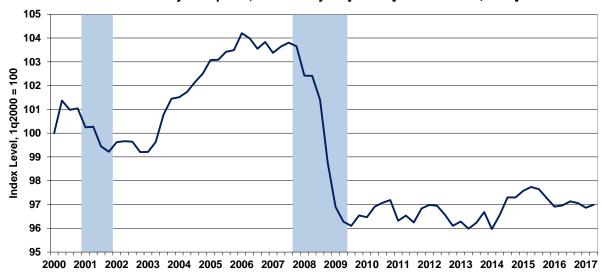
*Graph 16* of U.S. Petroleum Consumption and *Graph 17* of inflation-adjusted total U.S. Construction Spending, including everything from roads and office buildings to residential construction, are among the variety of indicators that show patterns of economic collapse into 2009/2011, followed by some minimal (not full) recovery and ongoing stagnation.

*Graph 18* of the employment-to-population ratio remains a solid indicator of underlying labor conditions in the context of the broad population and long-term discouraged and displaced workers, reflected there through June 2017.

Graph 13: "Corrected" Real GDP Index (2000-2017), First Estimate of Second-Quarter 2017

#### **Corrected Real GDP**

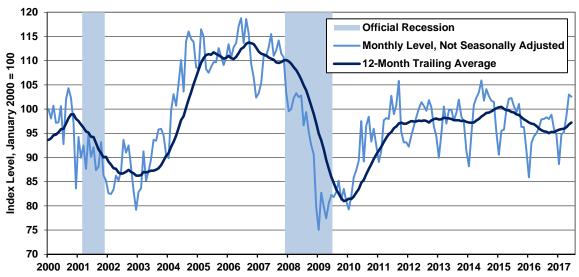
Nominal GDP Deflated by Implicit Price Deflator Corrected for Roughly Two-Percentage Point Understatement of Annual Inflation Quarterly to 2q2017, Seasonally-Adjusted [ShadowStats, BEA]



Graph 14: Cass Freight Index ™ (2000-June 2017)

#### Cass Freight Index™ (Jan 2000 = 100) To June 2017, Not Seasonally Adjusted

[ShadowStats, Cass Information Systems, Inc.]



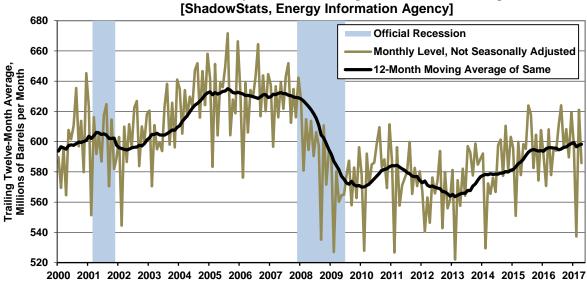
Graph 15: Industrial Production – Consumer Goods (2000-2017)
(Graph 28 on page 32 Commentary No. 899)

### Production - Consumer Goods (2012 = 100) Level to June 2017, Seasonally-Adjusted [ShadowStats, FRB]



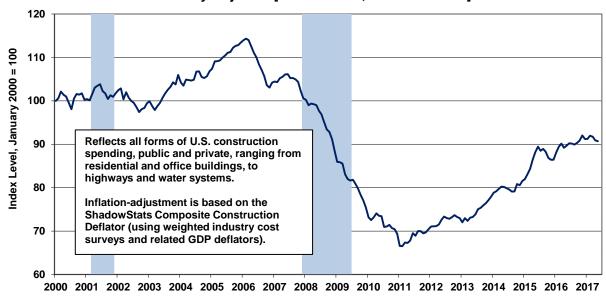
Graph 16: U.S. Petroleum Consumption (2000 – 2017)

## U.S. Product Supplied of Crude Oil and Petroleum Product To April 2017, Not Seasonally Adjusted, Millions of Barrels per Month, Trailing Twelve-Month Average



Graph 17: Real Total U.S. Construction Spending (2000 - 2017)
(Graph 19 on page 19 of Commentary No. 897)

### Index of Real Total Value of Construction Put in Place To May 2017, Inflation Adjusted (Jan 2000 = 100) Seasonally-Adjusted [ShadowStats, Census Bureau]



Graph 18: Civilian Employment-Population Ratio (2000-2017)
(Graph 3 on page 6 of Commentary No. 898)

### Civilian Employment-Population Ratio To May 2017, Seasonally-Adjusted [ShadowStats, BLS]



[The Reporting Detail contains extended analysis and graphs of the GDP-related reporting.]

#### REPORTING DETAIL

**GROSS DOMESTIC PRODUCT—GDP ("Advance" Second-Quarter 2017, Annual Revisions)** 

Underlying Recession Continued in Play, Despite the Still Heavily Bloated GDP Detail and Benchmark Revisions. Irrespective of minimal net annual benchmark revisions and a consensus headline initial estimate of 2.6% annualized quarterly real growth in second-quarter 2017 GDP, underlying reality remained that broad U.S. economic activity never recovered fully from its crash into 2009, that it never entered a period of formal, new economic expansion, and that it began to turn down anew in December 2014. Headline issues with GDP deflator estimates, and related exaggerations of GDP recovery from the economic collapse into 2009 have been and are reviewed here frequently, including Commentary No. 876, the Economy section of No. 859 Special Commentary and in today's Executive Summary (see the discussion there surrounding Graphs 10 to 18.

Heavily Followed but of Extremely Poor Quality. In this most-politically-sensitive of popularly followed economic series, the GDP does not reflect properly or accurately the changes to the underlying economic fundamentals and measures that drive the broad economy. Again, as discussed and as reflected in the graphs of the Executive Summary, various separately-reported measures of real-world economic activity have shown that the general economy began to turn down in 2006 and 2007, plunged into 2009, entered a protracted period of stagnation thereafter—never recovering fully, never entering a phase of formal economic Expansion—and then began to turn down anew in late-2014. That said, the 2017 revisions reflected, revised slowing growth in 2016 into first-quarter 2017, in the context of upside revisions to 2014 and 2015, which appear far-removed from reality (again see Commentary No. 900).

The GDP (or the broader GNP detail headlined in earlier decades) simply remains the most worthless of the popular government economic series, in terms of determining what really is happening to U.S. business activity. The series is the most-heavily-modeled, politically-massaged and gimmicked government indicator of the economy. It has been so since at least the 1960s, and that reporting quality deteriorated anew, sharply in both the 2016 and just-published 2017 benchmarkings (see the today's *Opening Comments* and those of *Commentary No.* 823, and *Special Commentary No.* 885, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*.

[Notes on GDP-Related Nomenclature and Definitions follow on the next page.]

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#### Notes on GDP-Related Nomenclature and Definitions

For purposes of clarity and the use of simplified language in the text of the GDP analysis, here are definitions of several key terms used related to GDP reporting:

**Gross Domestic Product (GDP)** is the headline number and the most widely followed broad measure of U.S. economic activity. It is published quarterly by the Bureau of Economic Analysis (BEA), with two successive monthly revisions, and with an annual revision in the following July.

**Gross Domestic Income (GDI)** is the theoretical equivalent to the GDP, but the popular press generally does not follow it. Where GDP reflects the consumption side of the economy and GDI reflects the offsetting income side. When the series estimates do not equal each other, which almost always is the case, since the series are surveyed separately, the difference is added to or subtracted from the GDI as a "statistical discrepancy." Although the BEA touts the GDP as the more accurate measure, the GDI is relatively free of the monthly political targeting the GDP goes through.

**Gross National Product (GNP)** is the broadest measure of the U.S. economy published by the BEA. Once the headline number, now it rarely is followed by the popular media. GDP is the GNP net of trade in factor income (interest and dividend payments). GNP growth usually is weaker than GDP growth for net-debtor nations. Games played with money flows between the United States and the rest of the world tend to mute that impact on the reporting of U.S. GDP growth.

**Real** (or **Constant Dollars**) means the data have been adjusted, or deflated, to reflect the effects of inflation.

**Nominal** (or **Current Dollars**) means growth or level has not been adjusted for inflation. This is the way a business normally records revenues or an individual views day-to-day income and expenses.

GDP Implicit Price Deflator (IPD) is the inflation measure used to convert GDP data from nominal to real. The adjusted numbers are based on "Chained 2009 Dollars," as introduced with the 2013 comprehensive revisions, where 2009 is the base year for inflation. "Chained" refers to the substitution methodology, which gimmicks the reported numbers so much that the aggregate of the deflated GDP sub-series missed adding to the theoretically-equivalent deflated total GDP series by \$105.5 billion in "residual," as of the second estimate of second-quarter 2016.

**Quarterly** growth, unless otherwise stated, is in terms of seasonally-adjusted, annualized quarter-to-quarter growth, i.e., the growth rate of one quarter over the prior quarter, raised to the fourth power, a compounded annual rate of growth. While some might annualize a quarterly growth rate by multiplying it by four, the BEA uses the compounding method, raising the quarterly growth rate to the fourth power. So a one percent quarterly growth rate annualizes to 1.01 x 1.01 x 1.01 x 1.01 = 1.0406 or 4.1%, instead of 4 x 1% = 4%.

**Annual** growth refers to the year-to-year change of the referenced period versus the same period the year before.

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*Gross Domestic Product (GDP)*. Published July 28th by the Bureau of Economic Analysis (BEA), in the context of accompanying annual benchmark revisions (see the *Executive Summary*), the "advance" or first estimate of second-quarter 2017 GDP showed a statistically-insignificant, real (inflation-adjusted), annualized, quarterly headline gain of 2.57% +/- 3.5% (95% confidence interval), which effectively matched consensus expectations of 2.6%. That was up from a downwardly-revised (benchmarked) 1.24% [estimated at 1.42%, pre-benchmarking] in first-quarter 2017. Distribution of second-quarter 2017 GDP growth by major category is detailed in the *Executive Summary*].

While the aggregate benchmark revisions minimally raised the level of real first-quarter 2017 activity, they also lowered annual and quarterly real growth rates of the last year or so. Again, the headline second-quarter 2017 annualized real growth of 2.57%, followed revised gains of 1.24% [previously 1.42%] in first-quarter 2017, 1.76% [previously 2.08%] in fourth-quarter 2016, 2.78% [previously 3.51%] in third-quarter 2016, 2.24% [previously 1.42%] in second-quarter 2016, 0.58% [previously 0.83%] in first-quarter 2016, 0.49% [previously 0.87%] in fourth-quarter 2015 and 1.63% [previously 1.99%] in third-quarter 2016. See *Graphs 1* to *10* in the *Opening Comments* for plots of benchmark-revision details.

*Graphs 19* and *21* plot headline levels of real quarterly GDP activity, respectively showing short-term (since 2000) and long-term (since the historical onset of the quarterly GDP series in 1947) perspectives. *Graph 23* shows the level of annual real GDP activity, as estimated beginning in 1929.

Shown in *Graphs 20* and 22, headline year-to-year real GDP growth in the "advance" estimate of second-quarter 2017 notched minimally higher to 2.08% from a downwardly-revised 2.00% [previously 2.10%] in first-quarter-2017, versus 1.84% [previously 1.96%] in fourth-quarter 2016, 1.52% [previously 1.65%] in third-quarter 2016, 1.23% [previously 1.28%] in second-quarter 2016, 1.36% [previously 1.57%] in first-quarter 2016, 2.02% [previously 1.88%] in fourth-quarter 2015 and 2.40% [previously 2.24%] in third-quarter 2015.

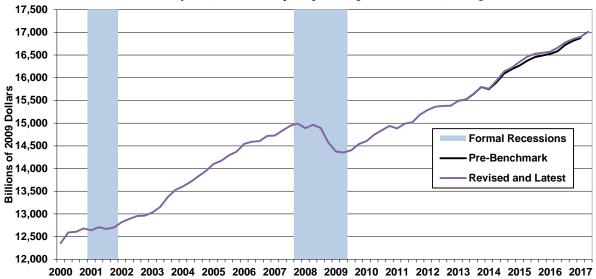
A sharp downtrend in annual growth is common at the onset of formal recessions. Shown in *Graph 24*, annual-average real GDP growth in 2016 slowed to 1.49% [previously 1.62%], versus a revised 2.86% [previously 2.60%] in 2015 and versus 2.57% [previously 2.37%] in 2014. The annual growth rate of 1.49% in 2016 was the slowest pace of annual growth in the post-2009 "recovery."

The current-cycle trough in quarterly annual change was in second-quarter 2009 (see *Graphs 20* and 22), reflecting a year-to-year decline of 4.09% (-4.09%). That was the deepest year-to-year contraction for any quarterly GDP in the history of the series, which began with first-quarter 1947 (1948 in terms of available year-to-year detail). *Graph 20* shows the revised current year-to-year quarterly detail, from 2000-to-date, where *Graph 22* shows the same series in terms of its full quarterly, year-to-year history back to 1948. Shown in *Graph 24*, the year-to-year decline of 2.78% (-2.78%) in 2009 was the steepest regular annual drop in economic activity since the Great Depression. The 1946 production shutdown and economic reorganization following World War II, however, resulted in an annual GDP decline of 11.58% (-11.58%), minimally narrower than the 1932 annual economic crash of 12.89% (-12.89%).

[Graphs 19 to 25 begin on the following page.]

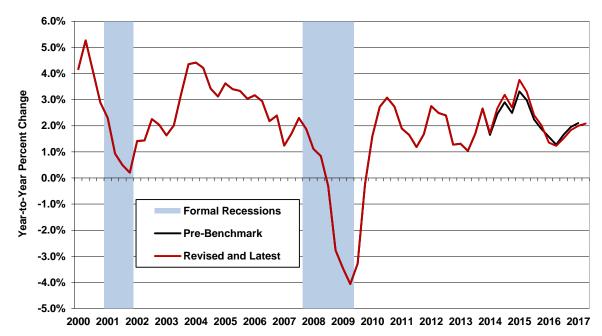
Graph 19: Quarterly GDP in Billions of 2009 Dollars (2000 to 2017), First Estimate of Second-Quarter 2017

## Real Gross Domestic Product (GDP) - Benchmarked Quarterly in Billions of 2009 Dollars 2000 to 2q2017, Seasonally-Adjusted [ShadowStats, BEA]

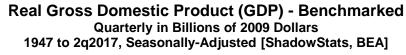


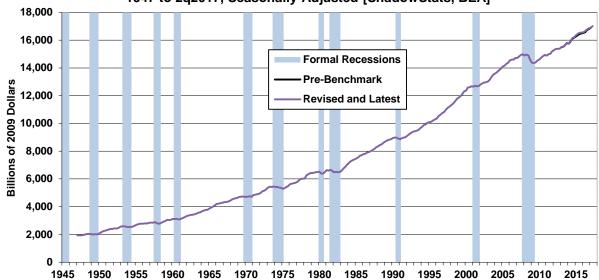
Graph 20: Quarterly GDP Real Year-to-Year Change (2000 to 2017), First Estimate of Second-Quarter 2017

#### Quarterly Real Gross Domestic Product - Benchmarked Year-to-Year Change, 1q2000 to 2q2017 [ShadowStats, BEA]



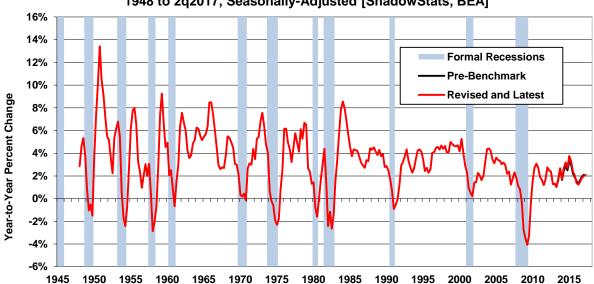
Graph 21: Quarterly GDP in Billions of 2009 Dollars (1947-2017), First Estimate of Second-Quarter 2017





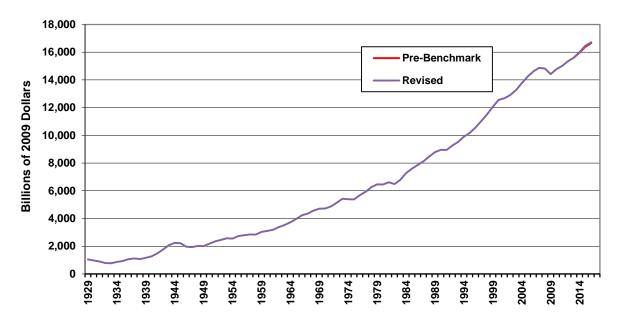
Graph 22: Year-to-Year GDP Real Change (1948-2017), First-Estimate of Second-Quarter 2017

#### Real Gross Domestic Product (GDP) - Benchmarked Year-to-Year Percent Change by Quarter 1948 to 2q2017, Seasonally-Adjusted [ShadowStats, BEA]



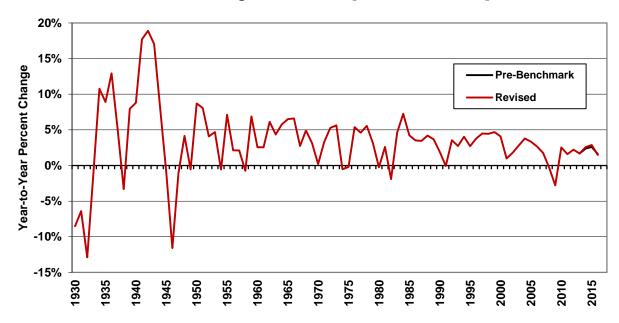
Graph 23: Annual GDP in Billions of 2009 Dollars (1929-2016)

### Annual Real Gross Domestic Product - Benchmarked Level in Billions of 2009 Dollars, 1929 to 2016 [ShadowStats, BEA]

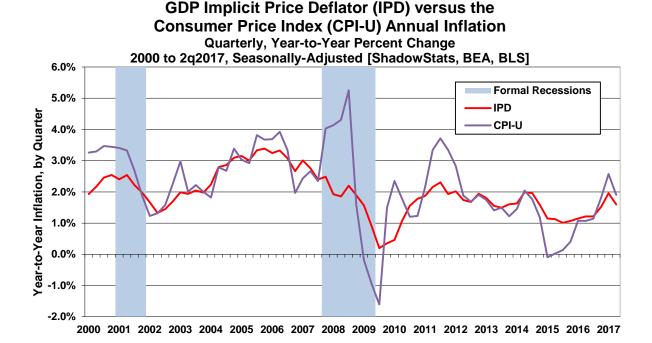


Graph 24: GDP Real Annual Percent Change (1930-2016)

### Annual Real Gross Domestic Product - Benchmarked Percent Change, 1930 to 2016 [ShadowStats, BEA]



Graph 25: Year-to-Year Inflation, Quarterly IPD versus CPI-U, Seasonally-Adjusted (2000-2017)



*Implicit Price Deflator (IPD)*. In the context of minimal benchmark revisions, the initial estimate of second-quarter 2017 GDP inflation, or the implicit price deflator (IPD), was 1.00%, versus a revised 2.00% [previously 1.94%] in first-quarter 2017, 2.03% [previously 2.10%] in fourth-quarter 2016, 1.37% [previously 1.41%] in third-quarter 2016, 2.43% [previously 2.29%] in second-quarter 2016, 0.25% [previously 0.46%] in first-quarter 2016, 0.82% [previously 0.91%] in fourth-quarter 2015, 1.35% [previously 1.22%] in third-quarter 2015, 2.18% [previously 2.25%] in second-quarter 2015 and down by 0.06% (-0.06%) [previously up by 0.04% in first-quarter 2015].

As general guidance, the weaker the inflation rate used in deflating an economic series, the stronger will be the resulting inflation-adjusted growth, and vice versa. In the current circumstance, weaker second-quarter inflation effectively accounted for the increased headline gain in quarterly real GDP growth.

Year-to-year, the headline second-quarter 2017 IPD inflation was 1.60%, versus minimally revised annual gains of 1.96% in first-quarter 2017, 1.52% in fourth-quarter 2016, 1.22% in third-quarter 2016, 1.21% in second-quarter 2016, 1.15% in first-quarter 2016, 1.07% in fourth-quarter 2015, 1.01% in third-quarter 2015, 1.13% in second-quarter 2015 and 1.05% in first-quarter 2015.

In terms of year-over-year, average annual inflation, the 2016 IPD inflation was unrevised at 1.11%, versus 1.10% in 2015 and 1.09% in 2014.

For purposes of comparison, the seasonally-adjusted Consumer Price Index CPI-U contracted at an annualized pace of 0.31% (-0.31%) in second-quarter 2017, versus annualized gains of 3.15% in first-quarter 2017, 3.04% in fourth-quarter 2016, 1.78% in third-quarter 2016, 2.33% in second-quarter 2016,

0.11% in first-quarter 2016, 0.35% in fourth-quarter 2015, 1.50% in the third-quarter 2015, 2.35% in second-quarter 2015 and a quarterly contraction of 2.52% (-2.52%) in first quarter of 2015.

Unadjusted, year-to-year quarterly CPI-U inflation showed annual gains of 1.91% in second-quarter 2017, versus 2.54% in first-quarter 2017, 1.80% in fourth-quarter 2016, 1.12% in third-quarter 2016, 1.05% in second-quarter 2016, 1.08% in first-quarter 2016, 0.47% in fourth-quarter 2015, 0.11% in third-quarter 2015, and quarterly contractions of 0.04% (-0.04%) in second-quarter 2015 and 0.06% (-0.06%) in first-quarter 2015.

In terms of year-over-year, average annual inflation, the 2016 CPI-U inflation was 1.26%, versus 0.12% in 2015 and 1.62% in 2014 (see *Commentary No. 862* and *Commentary No. 866*).

Gross National Product (GNP) and Gross Domestic Income (GDI). Initial second-quarter estimates of GNP and GDI will not be released until next month, but benchmark-revised details were released for first-quarter 2014 through first-quarter 2017, as plotted in Graphs 4 to 10 and as discussed in the Opening Comments. More-extensive analysis will follow with the first estimates of second-quarter GNP and GDI activity on August 30th.

GNP remains the broadest measure of U.S. economic activity, where GDP is GNP net of trade flows in factor income (interest and dividend payments). As a reporting gimmick aimed at boosting the headline reporting of economic growth for net-debtor nations such as the United States, international reporting standards were shifted some decades back to reporting headline GDP instead of what had become a relatively weaker GNP.

GDI is the theoretical income-side equivalent to the consumption-side GDP estimate. The GDP and GDI are made to equal each other, every quarter, with the addition of a "statistical discrepancy" to the GDI-side of the equation.

Increasingly touted by the BEA as *the* GDP counterpart, the regularly-unstable GDI has been bloated heavily by effectively-worthless income reporting out of the Bureau of Labor Statistics (BLS). The purported income gains have reflected heavily-upside-biased income estimates out of the otherwise-rigged nonfarm payroll survey. As an indication of the "nonsense" reporting here, the nominal "statistical discrepancy" between the headline level of first-quarter 2017 GDP minus GDI deepened to -328.7 versus a revised -205.7 (previously estimated -124.6) billion dollars.

Indicative of the lack of reporting stability in all these series, consider that where headline first-quarter 2017 annualized real GDP growth revised to 1.24% from 1.42%, the theoretically-equivalent real GDI revised from 1.01% to 2.63%, while the broader real GNP revised to 0.94% from 1.07%.

*ShadowStats Alternate GDP*. The ShadowStats-Alternate GDP second-quarter 2017 GDP estimate was a year-to-year contraction of 1.8% (-1.8%), versus a headline 2.1% GDP annual gain, that was against an unrevised ShadowStats annual decline of 1.9% (-1.9%) in first-quarter 2017, versus a revised annual real headline GDP gain of 2.0% (previously 2.1%).

While the annualized, real quarterly growth rate is not estimated formally on an alternate basis, the statistically-insignificant, first-estimate of annualized, headline quarter-to-quarter gain of 2.6% in second-quarter 2017 likely was much weaker, net of all the happy assumptions, regular reporting gimmicks and

any short-term political gaming coming into the headline detail. Actual quarterly contractions appear to have been a realistic possibility for inflation-adjusted GDP in most quarters since the official, second-quarter 2009 end to the 2007 recession.

Adjusted for understated inflation and other methodological changes—such as the inclusion of intellectual property, software and recent accounting for the largely not-measurable and questionable impact of the Affordable Care Act (ACA)—the business collapse that began in 2006/2007 is ongoing; there has been no meaningful economic rebound, as discussed in today's *Opening Comments and Executive Summary*. The "corrected" real GDP *Graphs 11* and *13* in the *Executive Summary* (see also the *Economy* section in *No.* 859 Special Commentary and 2014 Hyperinflation Report—Great Economic Tumble), are based on the removal of the impact of hedonic quality adjustments that have reduced the reporting of official annual GDP inflation by roughly two-percentage points. It is not the same measure as the ShadowStats-Alternate GDP, here, which reflects reversing additional methodological distortions ("Pollyanna Creep") of recent decades, highlighted in the Alternate Data tab on the GDP on the <a href="www.ShadowStats.com">www.ShadowStats.com</a> home page.

#### **HYPERINFLATION WATCH**

#### **VELOCITY OF MONEY**

Second-Quarter Velocity of Money Declined Minimally for M2 and M3, More Sharply for M1. In the context of annual revisions to both the nominal GDP and nominal Money Supply measures, for the first time in two quarters, quarterly M3 growth rose more rapidly than the GDP pace. As a result growth rates in the narrower M1 and M2 measures (M3 encompasses M2, M2 encompasses M1), all were at faster paces, above that of the nominal GDP. As a result, the second-quarter change in the Velocity of Money (GDP/money supply) declined across all three money measures, where it had gained in the prior two quarters only for the broadest money measure M3.

Incorporating the headline detail of second-quarter 2017 GDP and annual revisions, as well as the detail from the latest Federal Reserve reporting and continual benchmarking of money-supply-related data, *Graphs 26* and 27 show estimates of the Velocity of Money, broken out for Money Supply M1, M2 and M3 (the ShadowStats Ongoing-M3 Measure). Velocity is a measure of how many times the money supply turns over in a year, versus the broad economy (GDP). Velocity is calculated simply as the ratio of the nominal GDP to the nominal money supply measure.

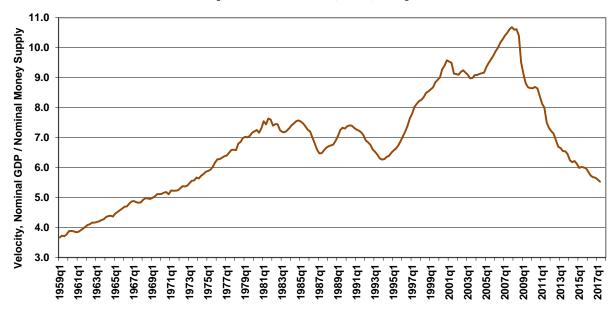
Where nominal GDP is in the numerator and the nominal money measure is in the denominator of the velocity ratio, slowing velocity indicates a relatively slower pace of nominal economic growth versus the money supply growth, and vice versa.

Velocity had plunged into first-quarter 2015 for M1 and M2. Since the end of 2010, however, the broader measure of M3 velocity had been steady through third-quarter 2014, when it also turned lower. With the

exception of an uptick in second-quarter 2015, all velocity measures have been declining since late-2014, except for the just indicated recent upticks in M3 velocity.

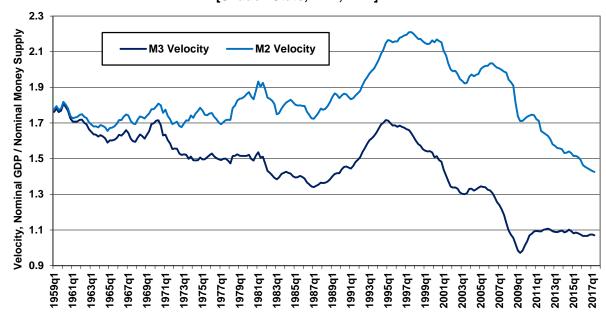
Graph 26: Velocity of Money Supply M1 through 2q2017

## Velocity of Money Supply M1 (1q1959 to 2q2017) Benchmarked Nominal GDP/Nominal Money Supply [ShadowStats.com, FRB, BEA]



Graph 27: Velocities of Money Supply M2 and M3 through 2q2017

## Velocities of Money Supply M3 and M2 (1q1959 to 2q2017) Benchmarked Nominal GDP/Nominal Money Supply [ShadowStats, FRB, BEA]



As to M1, consider that perhaps 70% or more of the cash-in-circulation component of that measure (with cash accounting for about 42% of M1) could be physically outside the United States, per the Federal Reserve. Where that has been an increasing trend, a true measure of domestic M1 velocity well could be showing a significant uptrend. In like manner, where M1 includes cash, M2 includes M1, and M3 includes M2, M2 and M3 velocities also would be higher (headline cash accounts for roughly 11% of M2 and 8% of M3).

M3, versus M1 and M2, had been showing opposite patterns since 2011, because growth in M3 had been weaker than growth in M1 and M2, a pattern that has intensified. The reason behind that difference was that much of the relatively stronger M1 and M2 growth reflected, and still reflects, cash moving out of M3 categories—such as large time deposits and institutional money funds—into M2 or M1 accounts. The clarity of what happened there is why ShadowStats still tracks what had been the broadest money measure (M3) available.

Subscribers often ask for specifics on the velocity of the money supply, with the result that this section has become a standard feature for *Commentaries* covering the "advance" GDP reporting of a given quarter. The nature of velocity is discussed in further detail in the 2008 *Money Supply Special Report*. Again, velocity simply is the number of times the money supply turns over in the economy in a given year, or the ratio in nominal terms (not adjusted for inflation) of GDP to the money supply. It is a residual number, not otherwise open to calculation or independent surveying.

Velocity has theoretical significance. In combination with money-supply growth, it should be a driving force behind inflation. Yet, since velocity is a ratio of two not-particularly-well or realistically-measured numbers, its actual estimate is of limited value. As an inflation predictor, it has to be viewed in the context of accompanying money-supply growth, and vice versa, generally as a coincident indicator. Again, full definitions can be found in the *Money Supply Special Report*.

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

#### **CONSUMER LIQUIDITY WATCH**

#### CONSUMER LIQUIDITY CONDITIONS: INCOME, CREDIT AND RELATIVE OPTIMISM.

[Today's Consumer Liquidity section updates the University of Michigan's Consumer Sentiment Index for Full-Month Reporting of July 2017.]

**Liquidity Stresses Mounted Amidst Faltering Optimism.** The U.S. consumer faces continuing financial stress, increasingly reflected in the renewed softening of headline economic activity, including Real Retail Sales, Home Sales and Construction Series and series that ultimately reflect in affected series such as Industrial Production, among others, with related, negative impact on the broad economy.

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

These same pocket-book issues contributed to the anti-incumbent electoral pressures in the 2016 presidential race. The post-election environment showed a near-term surge in both the consumer confidence and sentiment measures to levels generally not seen since before the formal onset of the recession in 2002, let alone 2007. Yet, underlying liquidity conditions, economic reality and lack of positive actions out of the government to turn the economy meaningfully, all have continued to remain shy of consumer hopes. Not surprisingly, consumer optimism has begun to falter anew.

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

The combined issues here have driven the housing-market collapse and ongoing, long-term stagnation in consumer-related real estate sales and construction activity, and have constrained both nominal and real retail sales. Related, personal-consumption-expenditure and residential-construction categories accounted for 73.0% of the headline real, first-quarter 2017 U.S. GDP.

With the better-quality economic indicators and underlying economic reality never having recovered fully from the collapse into 2009, consumers increasingly should pull back on consumption in the months ahead. Underlying reality is evident in more-meaningful economic indicators—not the GDP—irrespective of the transient, gimmicked boosts to, and current headline slowing in, that most worthless of economic series, discussed most recently in *Commentary No. 896*.

Consumer Optimism: July Consumer Confidence and Sentiment Measures Mixed. This detail incorporates the full-month reporting of July 2017 for the University of Michigan's Consumer Sentiment Index (Sentiment), updated July 28th, as well as the previously reported July 2017 reading of The Conference Board's Consumer-Confidence Index® (Confidence). Reflected in Graphs CL-1 and CL-2, both Confidence and Sentiment rose in September 2016 and plunged in October, likely reflecting concerns as to the direction of the presidential race. Post-election, both measures rallied sharply, reflecting a surge in consumer optimism into early 2017. Both series appeared to have topped and pulled back in June, but the July Confidence number just rebounded anew, albeit on top of a downwardly-revised reading for June, while the full-July Sentiment number continued to pull back, although it was revised minimally higher versus the advance-July estimate. Nonetheless, both the Confidence and Sentiment levels remained off their respective post-election, euphoric peaks of March 2017 (Confidence) and January 2017 (Sentiment).

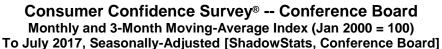
The Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph CL-1*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph CL-2*), again, both soared post-election, into early 2017, with Confidence booming into and topping in March and with sentiment booming into and topping in January 2017. The three-month moving averages in both series broke to pre-recession highs, with the Confidence hitting levels not seen since before the 2001 recession. The moving averages also have begun to falter, although still at high levels.

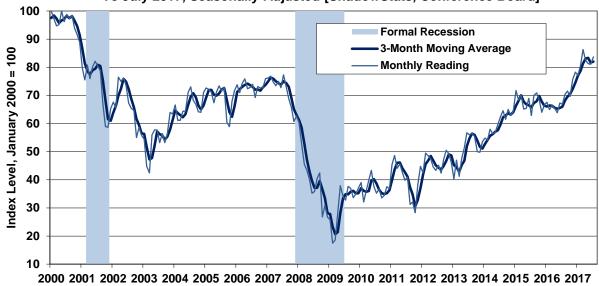
Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs CL-1* to *CL-3* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while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

The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in <u>Commentary No. 764</u>), and often are highly volatile month-to-month, as a result. With what should become increasingly-negative, unstable and uncertain headline financial and economic reporting in the months ahead—beyond the early change-in-government euphoria—continued, successive negative hits to both the confidence and sentiment readings remain increasingly likely in the near future.

Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CL-3*—plotted for the last 47 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods of normal, positive economic activity of the last four decades, with their six-month moving averages at levels last seen going into the 2001 recession, although they appear to be topping out. Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and for third-quarter 2016. Beyond having happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

Graph CL-1: Consumer Confidence (2000 to 2017)



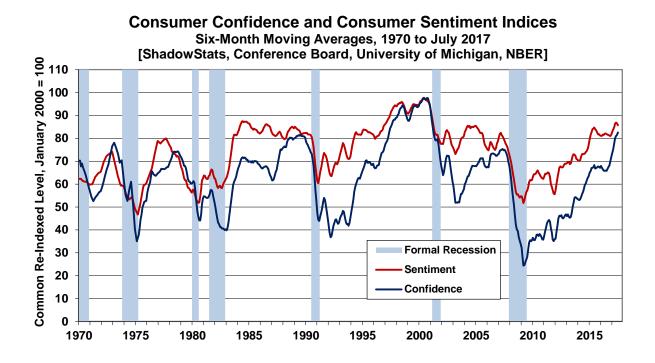


Graph CL-2: Consumer Sentiment (2000 to 2017)

#### Consumer Sentiment Index -- University of Michigan Monthly and 3-Month Moving-Average Index (Jan 2000 = 100) To July 2017, Not-Seasonally-Adj [ShadowStats, Univ of Michigan]



Graph CL-3: Comparative Confidence and Sentiment (6-Month Moving Averages, 1970 to 2017)



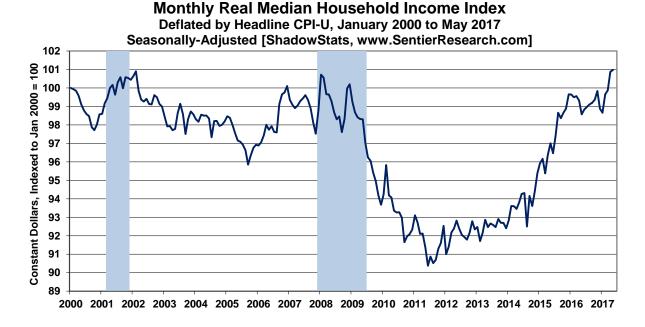
Consumer Income: May 2017 Real Median Household Income Was Statistically Unchanged, Despite a Boost from Falling Gasoline Prices. Previously discussed in General Commentary No. 894, and in the contexts of continued, faltering gains in post-election consumer optimism, and inflation-adjusted activity boosted by declining headline Consumer Price Index (CPI-U) inflation (weakened by seasonally-adjusted gasoline price declines), May 2017 Real Median Monthly Household Income was "statistically unchanged" (a statistically-insignificant monthly gain of 0.10%), as reported by <a href="https://www.SentierResearch.com">www.SentierResearch.com</a>. That followed a statistically-significant monthly gain of 1.00% in April 2017. As shown in Graph CL-4, such enabled May 2017 real monthly median household income to hold a level regained last month and otherwise last seen fifteen years ago, in February 2002. Year-to-year real median household income rose to 2.44% in May 2017, the highest level since last June, following an annual gain of 1.57% in April 2017 (see Graph CL-5).

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

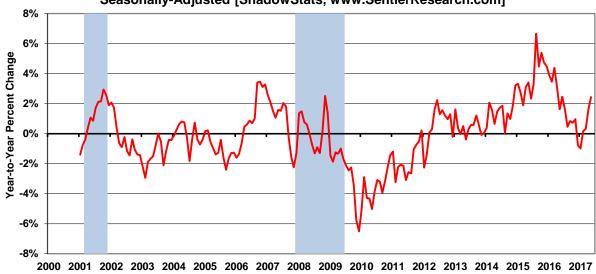
Nonetheless, the recent "rebound" in the series still has left consumers financially strapped. Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash largely has been used to help pay down unsustainable debt or other obligations, not to

fuel new consumption. Except for mixed gyrations in first-half 2017, the effects of changing gasoline prices in the headline CPI-U generally had reversed, pushing headline consumer inflation higher and beginning to push real income lower.

Graph CL-4: Monthly Real Median Household Income (2000 to 2017) Index, January 2000 = 100



Graph CL-5: Monthly Real Median Household Income (2000 to 2017) Year-to-Year Change
Monthly Real Median Household Income Yr/Yr Change
Deflated by Headline CPI-U, January 2001 to May 2017
Seasonally-Adjusted [ShadowStats, www.SentierResearch.com]

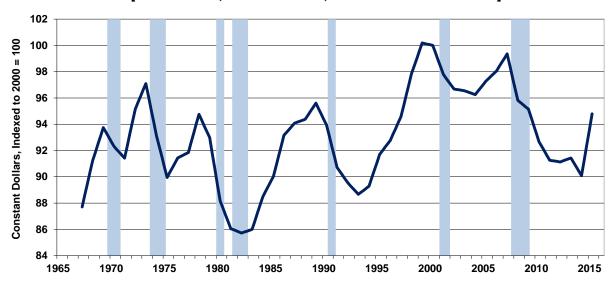


This measure of real monthly median household income generally can be considered as a monthly version of the annual detail shown in *Graph CL-6*, which was updated ten months ago for 2015 detail (see the full analysis of the 2015 annual household income reporting in *Commentary No. 833*, including an analysis of annual detail on income variance or "inequality"). The relative jump seen in the headline annual 2015

median income, despite formal adjustment for discontinuities in the recent annual reporting, was due largely to series redefinitions, not due to a sudden change in consumer liquidity, other than as tied to the collapse in gasoline prices and a related spike in the inflation-adjusted numbers. The level of real annual median household income for 2015, not only was below that seen at the purported trough of the economic collapse into 2009, but also it was below levels seen in the early-1970s and the late 1980s.

Graph CL-6: Annual Real Median U.S. Household Income (1967 to 2015)

# Annual Real Median Household Income Index (1967-2015) Adjusted for 2013-2014 Discontinuities, Deflated by the Bureau of Labor Statistics' Headline CPI-U [ShadowStats, Census Bureau, Bureau of Labor Statistics]



*Special Note:* Accompanying the release of the May 2017 data by Sentier Research was this <u>Notice of Final Report</u>:

Dear Friends, This will be our final report in the monthly series of median household income. We can no longer afford to provide these estimates given our current level of resources. We believe, as we hope you do, that these estimates provided an important new dimension regarding the economic situation of American households as we slowly climbed out of the Great Recession. The story continues but we must move on. Our hope is that someone will be able to continue this work. Should you or someone you know be interested please contact us. Thanks to all of you for your kind support.. John and Gordon

ShadowStats hopes a circumstance will unfold that enables continued reporting of this extraordinarily valuable and timely indicator of consumer liquidity. Gordon Green and John Coder, the authors of the monthly report, both are former senior officials at the U.S. Census Bureau and have a unique understanding of the underlying monthly data. At present, the Census Bureau publishes a broadly-similar series on an annual basis, but with an extraordinary time lag. The official Census annual version for 2016 is due for release and publication in September 2017. Again, see *Commentary No. 833* for the 2015 detail published in September 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 Bureau numbers, again, shown in preceding *Graph CL-6*, with 2014 real annual median household income having hit a tenyear low, and, again, with the historically-consistent 2015 annual number still holding below that seen when the collapsing economy hit its purported trough in 2009. 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 has used monthly questions surveying current annual household income, the headline annual Census Bureau detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent with Real Average Weekly Earnings.

**Real Average Weekly Earnings—June 2017—Month-to-Month Real Earnings Spiked by Declining Inflation.** For the production and nonsupervisory employees category—the only series for which there is a meaningful history (see the full discussion in the *CPI* section of the *Reporting Detail* in <u>Commentary No. 899</u>), spiked monthly by lower inflation in the context of headline, seasonally-adjusted declines in gasoline prices, the regularly-volatile real average weekly earnings were up by 0.53% in June 2017 (as reported by the Bureau of Labor Statistics on July 14th. That was against an unrevised gain of 0.04% in May 2017 and a revised monthly gain of 0.39% in April 2017. Year-to-year, the adjusted June 2017 real change rose to 1.10%, versus revised annual gains of 0.59% in May 2017 and 0.49% in April 2017.

Initial reporting of second-quarter 2017 activity reflected an annualized real quarterly gain of 4.01%, following an unrevised first-quarter 2017 contraction of 1.13% (-1.13%), a fourth-quarter 2016 contraction of 1.36% (-1.36%), third-quarter 2016 growth of 1.48%, a second-quarter 2016 contraction of 0.11% (-0.11%) and first-quarter 2016 annualized growth of 1.81%.

Year-to-year change in second-quarter 2017 real earnings rose by 0.73%, following an unrevised annual contraction of 0.29% (-0.29%) in first-quarter 2017, the first annual or year-to-year quarterly contraction since fourth-quarter 2012, when the real GDP effectively was unchanged quarter-to-quarter. The signal there highlighted financial stresses on the consumer and major downside risk to headline real GDP reporting.

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

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

#### Real Average Weekly Earnings (Benchmark Revised) **Production and Nonsupervisory Employees** Deflated by CPI-W versus ShadowStats-Alternate (1990-Base)

1965 to June 2017, Seasonally-Adjusted [ShadowStats, BLS] 360 340 320 Constant 1982-1984 Dollars 300 280

Official Recession

ShadowStats-Alternate CPI-W

CPI-W

1975

260 240

220

200

180 160 140

1965

Consumer Credit: Lack of Meaningful Real Consumer Credit Growth Remains an Economic Constraint. The final four graphs on consumer conditions address consumer borrowing. Where debt expansion can help make up for a shortfall in income growth, adequate expansion of consumer debt, which would help fuel growth in personal consumption, has been lacking.

1995

2005

2015

1985

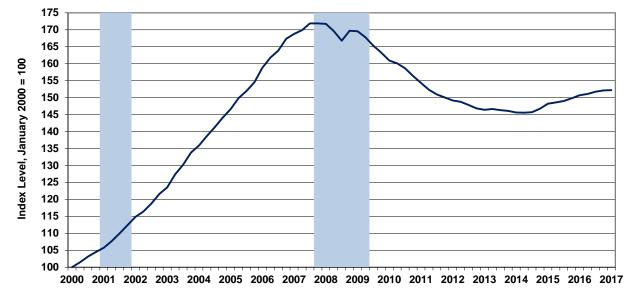
Consider Graph CL-8 of Household Sector, Real Credit Market Debt Outstanding. The level of real household debt declined in the period following the Panic of 2008, reflecting loan defaults and reduced banking lending, and it has not recovered fully, based on the Federal Reserve's flow-of-funds accounting through first-quarter 2017. Household Sector, Real Credit Market Debt Outstanding in first-quarter of 2017 still was down by 11.5% (-11.5%) from its pre-recession peak of third-quarter 2007, the same as in fourth-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 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016. Current activity also has reflected continued relative strength from student loans, as shown in the Graphs CL-9 to 11.

The ShadowStats analysis usually focuses on the particular current weakness in monthly levels of consumer credit, net of what has been rapidly expanding government-sponsored student loans. Where detail on that series is only available not-seasonally-adjusted, the following graphs are so plotted.

Graph CL-8: Household Sector, Real Credit Market Debt Outstanding (2000 through First-Quarter 2017)

## Household Sector, Real Credit Market Debt Outstanding Deflated by CPI-U. Indexed to January 2000 = 100 To 1q2017, Seasonally-Adjusted [ShadowStats, FRB Flow-of-Funds, BLS]



Shown through the latest reporting (May 2017), *Graph CL-9* of monthly Consumer Credit Outstanding is a subcomponent of *Graph CL-8* on real Household Sector debt. Where *Graph CL-9* reflects the nominal reporting, not adjusted for inflation, inflation-adjusted real activity for monthly Consumer Credit Outstanding is shown in terms of both level (Graph CL-10) and year-to-year change (*Graph CL-11*).

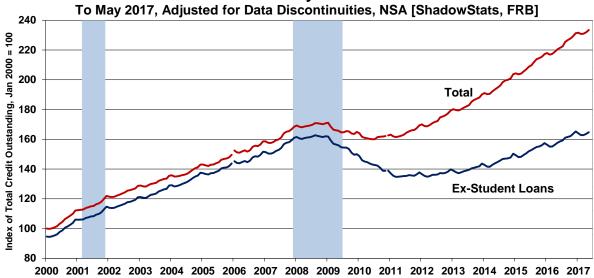
Post-2008 Panic, growth in outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel broad consumption or housing growth. Although in slow uptrend, the nominal level of Consumer Credit Outstanding (exstudent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

Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Although the recent monthly dips in the not-seasonally-adjusted consumer credit reflect a seasonal pattern, the pace of year-to-year growth continues to slow, suggesting some tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in May 2017 was down from its December 2007 pre-recession peak by 15.5% (-15.5%). Year-to-year growth in *Graph CL-11* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

[Graphs CL-9 to CL-11 begin on the next page.]

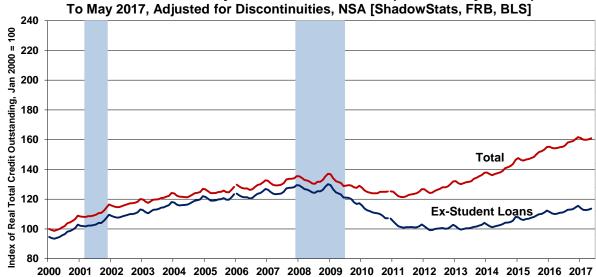
Graph CL-9: Nominal Consumer Credit Outstanding (2000 to 2017)





Graph CL-10: Real Consumer Credit Outstanding (2000 to 2017)

### ShadowStats Index of Real Consumer Credit Outstanding Total and Ex-Federally Held Student Loans (Deflated by CPI-U) To May 2017, Adjusted for Discontinuities, NSA (ShadowState, ERR, RIS)



Graph CL-11: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2017)





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#### WEEK, MONTH AND YEAR AHEAD

Continued Softening in Headline Economic Reporting Increasingly Still Should Compromise Fed Policies, Pummel the Dollar, Boost the Price of Gold and Foster Other Financial-Market Tumult. Despite the relatively positive GDP benchmark revisions and initial second-quarter 2017 headline activity for the GDP, underlying reality remains a weakening, seriously-impaired U.S. economy. That circumstance, combined with the mounting political discord discussed in the *Opening Comments* of *Commentary No. 901* (see also *Special Commentary No. 888*), odds continue to mount of financial-market turmoil in the near future, particularly as likely will be triggered by a market-related, heavy sell-off in the U.S. Dollar. This circumstance will be reviewed and updated in *Special Commentary No. 904*, scheduled for August 11th. The balance of the text here is little changed from prior regular *Commentary No. 901*, other than for the *Pending Release* section and for adjustments to any comments on a weaker-than-expected GDP benchmarking.

Irrespective of the GDP benchmarking, as discussed previously in the *Hyperinflation Watches* of *Commentary No. 899* and *General Commentary No. 894*, and further to the discussions in the *Opening Comments* and *Hyperinflation Watch* of *Commentary No. 892*, headline economic reporting during June showed a marked downturn versus consensus forecasts. Though not as severe as the June shocks, similar patterns have continued to unfold in related reporting in July (GDP excepted). While such circumstances usually signal an unfolding, major downshift in underlying economic reality, in the current circumstance that also forewarns of a potential shift in FOMC activity, a circumstance still well removed from consensus expectations, at this time. In terms of Fed policy, that would be a cessation of incremental rate hikes and a shift back towards expanded quantitative easing.

The immediate effect of such a policy change by the U.S. central bank likely would be a massive sell-off in the U.S. dollar, which otherwise has been propped by recent FOMC rate hikes and continual jawboning for same. In parallel, heavy selling in the U.S. equity and credit markets would follow. Consensus economic forecasts have begun to soften, as has the exchange rate for the U.S. dollar.

The circumstances here and the outlook still remain as broadly outlined in <u>No. 859 Special Commentary</u>; currently shifting headlines only reflect the continued movement and evolution forward in time of the Fed's difficulties discussed in that missive.

The problem for the Federal Reserve remains that faltering domestic economic activity stresses banking-system solvency. Aside from formal obligations of the Fed to maintain healthy domestic economic and inflation conditions, the central bank's primary function, in practice, always has been to keep the banking system afloat. The near-absolute failure of that function in 2008 remains the primary ongoing and unresolved problem for the Fed, and it continues as one of the ongoing primary issues preventing the return of U.S. economic activity to normal functioning. Contrary to the recent purported headline comments of "not in our lifetime" by Federal Reserve Chair Janet Yellen, the continued unfolding of "unexpected" economic deterioration suggests that the next major systemic financial crisis is likely to break in the next several months.

Separately, recent benchmark revisions to Construction Spending (see <u>Commentary No 897</u>), the Trade Deficit (<u>Commentary No. 890</u>), Industrial Production (<u>Commentary No. 877</u>), Manufacturers' Shipments (<u>Special Commentary No. 888</u>), Housing Starts (<u>Commentary No. 887</u>) and Retail Sales (<u>Commentary No. 882</u>) broadly have confirmed that historical activity in recent years has been overstated and/or that it is turning down anew, particularly in 2015, with the availability of better-quality historical detail. Such is despite recent near-term improvement in some headline details, such as the headline unemployment rate, which increasingly suffers from dysfunctional definitional and sampling issues. Again, reporting patterns likely will continue to weaken with increasing intensity in the weeks and months ahead. Adding a negative uncertainty to unfolding financial-market risks remains potential political surprise, discussed in <u>Special Commentary No. 888</u>. Otherwise, the broad outlook has not changed.

Reflected in common experience, actual U.S. economic activity generally continues in stagnation or downturn, never having recovered its level of pre-economic-collapse (its pre-2007-recession peak), while the latest GDP reporting shows economic expansion of 13.5% (see today's *Executive Summary*).

Discussed in <u>No. 859 Special Commentary</u>, the Trump Administration continues to face extraordinarily difficult times, but has a chance to turn the tide on factors savaging the U.S. economy and on highly negative prospects for long-range U.S. Treasury solvency and stability. Any forthcoming economic

stimulus faces a nine-month to one-year lead-time, once in play, before it meaningfully affects the broad economy. Delays from political discord continue to push targeted programs back in time. Needed at the same time are a credible plan for bringing the U.S. long-term budget deficit (sovereign solvency issues) under control and action to bring the Federal Reserve under control and/or to reorganize the banking system. These actions broadly are necessary to restore domestic-economic and financial-system tranquility (see *No.* 859), but cannot happen without the meaningful participation and cooperation of Congress. The financial crisis at hand likely will break well before the 2018 Congressional Election will have a chance to stabilize the outlook for economic policy objectives.

<u>No. 859 Special Commentary</u> updated the post-election, near-term economic and inflation conditions, including general economic, inflation and systemic distortions, which had evolved out of the Panic of 2008, have continued in play and, again, need to be addressed by the Trump Administration and Congress (see also the *Hyperinflation Watch* of <u>Commentary No. 862</u> and <u>Commentary No. 869</u>).

Contrary to the official reporting of an economy that collapsed from 2007 into 2009 and then recovered strongly into ongoing expansion, underlying domestic reality remained and remains that the U.S. economy started to turn down somewhat before 2007, collapsed into 2009 but never recovered fully. While the economy bounced off its 2009 trough, it entered a period of low-level stagnation and then began to turn down anew in December 2014, a month that eventually should mark the beginning of a "new" formal recession (see *General Commentary No. 867*). Formal economic expansion does begin until economic recovery breaks above its pre-recession high.

Coincident with and tied to the economic crash and the Panic of 2008, the U.S. banking system moved to the brink of collapse, a circumstance from which U.S. and global central-bank policies never have recovered. Unwilling to admit its loss of systemic control, the Federal Reserve has made loud noises in the last year or so of needing to raise interest rates, in order to contain an "overheating" economy, but that "overheating" activity—never recognized by Main Street, U.S.A.—has been fading quickly. As this ongoing crisis evolves towards its unhappy end, the U.S. dollar ultimately should face unprecedented debasement with a resulting runaway domestic inflation.

Broad economic and systemic conditions are reviewed regularly, with the following *Commentaries* of particular note: *General Commentary No. 894*, *Special Commentary No. 885*, *Commentary No. 869*, *No. 859 Special Commentary*, *No. 777 Year-End Special Commentary* (December 2015), *No. 742 Special Commentary: A World Increasingly Out of Balance* (August 2015) and *No. 692 Special Commentary: 2015 - A World Out of Balance* (February 2015). Those publications updated the long-standing hyperinflation and economic outlooks published in *2014 Hyperinflation Report—The End Game Begins – First Installment Revised* (April 2014) and *2014 Hyperinflation Report—Great Economic Tumble – Second Installment* (April 2014). The two *Hyperinflation* installments remain the primary background material for the hyperinflation circumstance. Other references on underlying economic reality are the *Public Commentary on Inflation Measurement* and the *Public Commentary on Unemployment Measurement*.

**Recent Commentaries (Covering Headline Details and/or Special Features).** [Pease Note: Complete ShadowStats archives are found at <a href="https://www.ShadowStats.com">www.ShadowStats.com</a> (left-hand column of home page).]

<u>Advance Commentary No. 902-A</u> (July 28, 2017) provided an initial assessment and highlights of the first-estimate of Second-Quarter 2017, along with the accompanying annual benchmark revisions, more-fully reviewed in today's *Commentary No. 902-A*.

<u>Commentary No. 901</u> (July 27, 2017) discussed possible financial-market impact on continuing political discord in Washing, and reviewed the June 2017 Cass Freight Index, New Orders for Durable Goods and New- and Existing Home Sales.

<u>Commentary No. 900</u> (July 19, 2017) reviewed June 2017 New Residential Investment (Housing Starts and Building Permits), and previewed the upcoming annual GDP benchmark revisions and the coincident "advance" estimate of second-quarter 2017 GDP.

<u>Commentary No. 899</u> (July 17, 2017) covered headline June 2017 Retail Sales, Industrial Production, the Consumer Price Index (CPI) and the Producer Price Index (PPI), along with a review of current circumstances affecting the markets, U.S. dollar, gold and silver and the FOMC.

<u>Commentary No. 898</u> (July 7, 2017) covered the headline employment and unemployment detail for June 2017, along with the initial estimate of annual growth in the ShadowStats Ongoing M3 for June.

<u>Commentary No. 897</u> (July 6, 2017) reviewed the headline May 2017 Construction Spending and the annual revisions to same, along the May Trade Deficit, and June The Conference Board Help Wanted OnLine<sup>®</sup> Advertising and the May Cass Freight Index<sup>TM</sup>.

Commentary No. 896 (June 29, 2017) reviewed the third estimate of first-quarter 2017 GDP.

Commentary No. 895 (June 26, 2017) covered May 2017 New Orders for Durable Goods.

<u>General Commentary No. 894</u> (June 23, 2017) reviewed unfolding economic, financial and political circumstances in the context of market expectations shifting towards an "unexpected" headline downturn in broad economic activity, along with headline details on May 2017 Real Median Household Income (Sentier Research) and New- and Existing-Home Sales.

<u>Commentary No. 893</u> (June 16, 2017) assessed May 2017 New Residential Construction (Housing Starts) and updated <u>Consumer Liquidity Conditions</u>.

<u>Commentary No. 892</u> (June 15, 2017) reviewed May 2017 Industrial Production and assessed current circumstances and likely pending shifts in FOMC policy, in the context of rapidly-deteriorating, headline economic data.

<u>Commentary No. 891</u> (June 14, 2017) covered the May 2017 CPI and PPI, along with real and nominal retail sales, along with a quick comment on the FOMC rate hike.

<u>Commentary No. 890</u> (June 5, 2017) covered the negative-downside annual benchmark revisions to the trade deficit, the May 2017 estimates of labor conditions, ShadowStats Ongoing Money Supply M3, The Conference Board Help Wanted OnLine<sup>®</sup> Advertising and April 2017 estimates of the Cass Freight Index<sup>TM</sup>, and the monthly trade deficit and construction spending.

<u>Commentary No. 889</u> (May 26, 2017) reviewed the second-estimate, first-revision to first-quarter 2017 GDP, and the April 2017 estimates of New Orders for Durable Goods and New- and Existing Home Sales and Sentier Research's April Real Median Household income.

<u>Special Commentary No. 888</u> (May 22, 2017) discussed evolving political circumstances that could impact the markets and the economy, reviewed the annual benchmark revisions to Manufacturers' Shipments and New Orders for Durable Goods and updated Consumer Liquidity Conditions.

<u>Commentary No. 887</u> (May 18, 2017) reported on the April 2017 detail for Industrial Production and Residential Construction (Housing Starts), with some particular attention to historic, protracted periods of economic non-expansion, of which the current non-recovery is the most severe.

<u>Commentary No. 886</u> (May 16, 2017) reviewed the headline details of the April 2017 CPI and PPI detail, along with headline reporting of nominal and real Retail Sales, real Average Weekly Earnings and regular monthly review of U.S. dollar conditions and prospects.

<u>Special Commentary No. 885</u>, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, (May 8, 2017) reviewed the unusual nature of the headline reporting of the April 2017 employment and unemployment details.

<u>Commentary No. 884</u> (May 4, 2017) reviewed the March 2017 details for the U.S. Trade Deficit and Construction Spending and the Conference Boards' reporting of April 2017 Help Wanted OnLine.

<u>Commentary No. 883</u> (April 29, 2017) covered the headline detail for the "advance" or first-estimate of first-quarter GDP, along with an update to *Consumer Liquidity Conditions*.

<u>Commentary No. 882</u> (April 27, 2017) summarized the annual benchmark revisions to Retail Sales and reviewed the March 2017 releases of New Orders for Durable Goods and New- and Existing-Home Sales.

<u>Commentary No. 881</u> (April 19, 2017) reviewed the prior March 2017 Industrial Production, Housing Starts and the Cass Freight Index<sup>TM</sup>, along with an economic update in advance of the initial first-quarter 2017 GDP estimate.

<u>Commentary No. 880</u> (April 15, 2017) detailed the prior March 2017 headline reporting the of both Real and Nominal Retail Sales, Real Earnings, the CPI, the PPI and updated Consumer Liquidity, where mounting stresses on consumer income and credit are signaling major economic issues ahead.

<u>Commentary No. 879</u> (April 7, 2017) covered March 2007 Employment and Unemployment, Help-Wanted Advertising and an update on monetary policy and Money Supply M3 (the ShadowStats Ongoing Measure).

<u>Commentary No. 877</u> (April 2, 2017) outlined the nature of the downside annual benchmark revisions to industrial production, along with implications for pending annual revisions to Retail Sales, Durable Goods Orders and the GDP.

<u>Commentary No. 876</u> (March 30, 2017) current headline economic activity in the context of formal definitions of the business cycle (no other major series come close to the booming GDP, which is covered in its third revision to fourth-quarter activity. Also the February 2017 SentierResearch reading on real median household income was highlighted.

<u>Commentary No. 875</u> (March 24, 2017) assessed and clarified formal definitions of the U.S. business cycle, which were expanded upon significantly, subsequently, in *No.* 876. It also provided the standard review of the headline February 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the Cass Freight Index<sup>TM</sup>.

<u>Commentary No. 873</u> (March 16, 2017) discussed prospects for future tightening and/or a return to quantitative easing by the FOMC, along with the prior review of the February 2017 Residential Construction reporting.

<u>Commentary No. 872</u> (March 15, 2017) offered some initial comment on the FOMC rate hike, in conjunction with the review of last month's February 2017 Retail Sales (real and nominal), Real Earnings and the CPI and PPI.

<u>Commentary No. 871</u> (March 10, 2017) covered reporting of February Labor Conditions, updated Consumer Liquidity and the ShadowStats Ongoing M3 Measure for February 2017, and a revised FOMC outlook.

<u>General Commentary No. 867</u> (February 24, 2017) assessed mixed signals for a second bottoming of the economic collapse into 2009, which otherwise never recovered its level of pre-recession activity. Such was in the context of contracting and faltering industrial production that now rivals the economic collapse in the Great Depression as to duration. Also covered were the prior January 2017 New- and Existing Home Sales.

<u>Commentary No. 864</u> (February 8, 2017) analyzed January 2017 Employment and Unemployment detail, including benchmark and population revisions, and estimates of December Construction Spending, Household Income, along with the prior update to Consumer Liquidity.

<u>Commentary No. 861</u> (January 13, 2017) covered the December 2016 nominal Retail Sales, the PPI, with a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations. The GAAP-detail will be reviewed in a *Special Commentary*.

*No.* 859 Special Commentary (January 8, 2017) reviewed and previewed economic, financial and systemic developments of the year passed and the post-election year ahead.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. In the context of historical background provided in <u>Special Commentary No. 885</u>: Numbers Games that Statistical Bureaus, Central Banks and Politicians Play, 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 both to understate inflation and to overstate economic activity meaningfully—as generally viewed in the common experience of Main Street, U.S.A.—ongoing, near-term headline reporting issues often reflect systemic distortions of monthly seasonal adjustments.

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

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

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

PENDING ECONOMIC RELEASES: Construction Spending (June 2017). The Commerce Department will release its estimate of June 2017 construction spending, tomorrow, Tuesday, August 1st. Detail will be covered in ShadowStats *Commentary No. 903* of August 4th. As usual, headline monthly changes should not be statistically-significant. Irrespective of almost perpetually-positive market expectations for this series, detail generally should continue in flat-to-downtrending stagnation, particularly in real terms, net of inflation.

**U.S. Trade Deficit (June 2017) and Annual Revisions.** The Commerce Department and Bureau of Economic Analysis (BEA) will release their full version of the monthly U.S. trade balance for June 2017, on Friday, August 4th, to be covered in ShadowStats *Commentary No. 903* of that date. Expected to soften in the context of a minimally narrowed "advance" estimate released on July 26th, the full headline reporting nonetheless will revise that often worthless initial guess. Any surprises here will affect expectations for the first-revision to second-quarter 2017 GDP.

Employment and Unemployment (July 2017). In the context of reporting issues discussed in <u>Special Commentary No. 885</u>: Numbers Games that Statistical Bureaus, Central Banks and Politicians Play, the Bureau of Labor Statistics (BLS) will publish its headline July 2017 labor data on Friday, August 4th, to be covered in ShadowStats Commentary No. 903 of that date. Both the more-inclusive unemployment-rate numbers, as well as the headline payroll-employment details, remain open for negative headline surprises, given the still, increasingly stagnant-to-weakening tone in a number of the better business indicators.

Specifically, headline detail likely should turn weaker, not stronger, despite what appear to be headline expectations for the July 2017 U.6 unemployment rate to narrow from June's 4.4% reading. Month-to-month headline unemployment-rate details are not comparable, as discussed in the monthly *Commentaries* covering the series, and recent lows have stretched series credulity—severely—irrespective of various reporting gimmicks. With consensus expectations for the headline, payroll-employment gain running around 180,000 to 185,000, versus 220,000 in June, payrolls also are still at fair risk of disappointing expectations.