John Williams'

Shadow Government Statistics

Analysis Behind and Beyond Government Economic Reporting

COMMENTARY NUMBER 828
First Revision to Second-Quarter 2016 GDP

August 26, 2016

Gross Domestic Product (GDP) Second-Quarter Growth
Revised to 1.1% (Previously 1.2%) versus 0.8% in First Quarter

Gross Domestic Income (Theoretical GDP Equivalent) Growth
Plunged to 0.2% in Second Quarter from 0.8% in First Quarter

Gross National Product (Broadest Measure) Growth
Jumped to 1.6% in Second Quarter from 0.0% in First Quarter

Irrespective of Headline Reporting Instabilities for GDI, GNP and GDP
Annual Growth Rates Are Slowing in a New-Recession Pattern

PLEASE NOTE: The next regular Commentary, *scheduled for Friday, September 2nd, will cover August Employment and Unemployment, and the July Trade Deficit and Construction Spending*.

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Recession Remained in Play, As Did GDP-Reporting Gimmicks. Broad economic weakness has continued in underlying economic series such as industrial production, new orders for durable goods, real retail sales, international trade activity and the better-quality construction reporting, along with a variety of private indicators ranging from S&P 500® revenues and the Cass Freight Index™ to the Conference Board's Help Wanted OnLine® advertising survey. Where a number of series have shown clear and continuing recession, the real-world U.S. economy has been in a "new" recession since December 2014. That said, the first revision to second-quarter 2016 Gross Domestic Product (GDP) and related reporting detail remained in positive territory. Despite generally weakening growth in the GDP data, there has been no headline recession, new or otherwise, in the government's national-income reporting, so far.

Booming Consumer? Those hyping "strong" headline elements in the second-quarter GDP detail are touting the strength in the consumer. Yet, the three largest areas driving personal consumption, in sequence of largest to smallest contributor to GDP growth, were utility usage due to unseasonable weather (0.52%), highly questionable measurement of non-productive healthcare (0.44%) and an extraordinary surge in food consumption (0.36%).

Weakening Activity. Annualized second-quarter 2016 GDP real growth revised lower to 1.10%, in its second estimate, from initial reporting of 1.22%, versus an annualized gain of 0.83% in first-quarter 2016. The headline revision matched consensus expectations of 1.1%, which was suspect. The consensus rarely is that good at forecasting, unless the Bureau of Economic Analysis (BEA) targets its reporting to match the expectations. Missing from today's revisions were some of the more-negative numbers reported subsequent to the first GDP estimate. For example, consider the trade detail, which had turned to a quarterly real deficit, from surplus, in the most-recent reporting (post-"advance" estimate, *Commentary No. 824*). In the GDP revision, the headline first-quarter trade "surplus" did narrow minimally, but it, too, should have turned to a deficit, with a more-negative impact on the GDP growth revision.

Fortuitously for the markets and the politicians, the economy held as expected, with no negative surprises.

Except, the second GDP estimate for second-quarter 2016 was accompanied by initial estimates for Gross Domestic Income (GDI) and Gross National Product (GNP). Where GDI is the theoretical equivalent of the GDP, headline second-quarter GDI growth fell sharply to 0.18%, from 0.81% in the first quarter.

The broader GNP measure, which includes the trade balance in interest and dividend payments, saw some extraordinary volatility in that area, with second-quarter GNP growth jumping to 1.59%, from 0.00% in the second quarter.

Nonetheless, annual real growth slowed to multi-year lows in second-quarter 2016 for each of the GDP, GDI and GNP. Annual growth in the various series peaked in third-quarter 2014 (GNP), fourth-quarter 2014 (GDI) and first-quarter 2015 (GDP), with the beginning of the sharp downturn in annual growth—typical at the onset of a recession—centered on fourth-quarter 2014. ShadowStats expects the underlying "new" recession eventually to be timed from December 2014.

Heavily Followed but of Extremely Poor Quality. In this most-politically-sensitive of popularly followed domestic economic series, the GDP does not reflect properly or accurately the changes to the underlying economic fundamentals and measures that drive the broad economy. Separately reported, real-world economic activity has 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—and then began to turn down anew in late-2014.

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 sharply, anew, along with the 2016 benchmarking (see *Opening Comments* of *Commentary No. 823*).

Today's *Commentary* (August 26th). The balance of these *Opening Comments* provides summary detail of the second estimate (first revision) to second-quarter 2016 GDP and the initial reporting of GNP and GDI for the second quarter.

The *Week and Month Ahead* section previews next week's releases of August Employment and Unemployment, and the July Trade Deficit and Construction Spending.

Gross Domestic Product (GDP)—Second-Quarter 2016, Second Estimate, First Revision—Slowing Growth Remained Statistically Insignificant. The second estimate of, first revision to second-quarter 2016 GDP showed a statistically-insignificant, real (inflation-adjusted), annualized, quarterly headline gain of 1.10%, previously estimated at 1.22%.

While the minimal downside revision to the headline growth matched consensus expectations, that estimate still has one further monthly revision (likely to the downside) on September 29th. The revised, annualized second-quarter 2016 real growth of 1.10% followed quarterly real growth rates of 0.83% for first-quarter 2016, 0.87% in fourth-quarter 2015 and 1.99% in third-quarter 2015.

Headline year-to-year real GDP growth in second-quarter 2016 revised slightly lower, slowing to 1.20%, from initial reporting of 1.23%, still the weakest growth in three years, since second-quarter 2013. That was down from 1.57% annual growth in first-quarter 2016, and 1.88% in fourth-quarter 2015. Real annual growth has been in continual decline since the near-term peak of 3.31% in first-quarter 2015, the post-recession high annual growth for the series. The sharp downtrend in annual growth is common at the onset of formal recessions.

Graphs 6 and *8*, in the *Reporting Detail* 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. In addition, *Graph 7* shows current year-to-year quarterly detail, from 2000-to-date, where *Graph 9* shows the same series in terms of its full quarterly, year-to-year history back to 1948.

Second-Quarter 2016 GDP, Second Estimate - Growth Distribution. The first revision to second-quarter 2016 GDP took the annualized growth rate to 1.10% from 1.22%. Such was against growth of 0.83% in first-quarter 2016, 0.87% in fourth-quarter 2015, 1.99% in third-quarter 2015, 2.61% in second-quarter 2015 and 2.05% in first-quarter 2015.

The annualized growth number in each sub-category of consumer spending, business/residential investment, trade deficit and government spending is the additive contribution to the total, headline change in GDP, where 2.94% - 1.67% + 0.10% - 0.27% = 1.10%. *Commentary No. 823* of July 31st detailed the growth-distribution for the "advance" or first estimate of second-quarter GDP.

Regrouped by general product line, the BEA estimated that the headline 1.10% [previously 1.22%] quarterly GDP growth rate included a 1.46% [1.36%] growth-rate contribution from services and a 0.52% [0.54%] contribution from goods, with a growth-rate subtraction of 0.88% (-0.88%) [0.68% (-0.68%)] from structures.

Contributing Growth Factors. The headline gain in second-quarter 2016 GDP was dominated by consumer spending and some faux trade contribution, with the other factors negative in their second-quarter GDP-growth contribution. The revisions were distorted in the context of inconsistent, related revisions to the related real-world series, such as with the trade deficit.

- ***Consumer Spending Contributed 2.94% [Previously 2.83%] to Second-Quarter 2016 GDP Growth; First-Quarter Growth Contribution was 1.11%.*** The dominant GDP growth contribution from consumer spending remained about evenly split between goods and services. The three dominant factors, accounting for about half the gain the consumer sector were utility usage due to unseasonable weather (0.52% GDP growth contribution), the highly questionable measurement of non-productive healthcare (0.44% GDP growth contribution), and an extraordinary surge in food consumption (0.36% GDP growth contribution).

- ***Business/Residential Investment Subtracted 1.67% (-1.67%) [Previously 1.68% (-1.68%)] from Second-Quarter 2016 GDP Growth; Subtracted 0.56% (-0.56%) from First-Quarter Growth.*** A slowing pace of inventory growth accounted for a deeper, revised 1.26% (-1.26%) [previously 1.16% (-1.16%)] negative GDP growth contribution for that category. Accordingly, headline final sales—GDP net of inventory change—rose at a revised annualized quarterly pace of 2.36% [previously 2.38%] in second-quarter 2016, versus 1.24% in first-quarter 2016. Residential and nonresidential real estate investment provided the bulk of the remaining, albeit less-negative contribution here, despite heavy downside revisions in the reporting of construction spending, subsequent to the "advance" estimate of quarterly growth.

- ***Net Exports Added 0.10% [Previously 0.23%] to Second-Quarter 2016 GDP Growth; Added 0.01% to First-Quarter Growth.*** The gain here should have reversed to a contraction given trade-deficit detail published subsequent to the "advance" estimate.

- ***Government Spending Subtracted 0.27% (-0.27%) [Previously 0.16% (-0.16%)] from Second-Quarter 2016 GDP Growth, Contributed 0.28% to First-Quarter Growth.*** Both headline second-quarter and first-quarter growth contributions and today's revisions were dominated by large swings in state and local government investment, likely tied to Affordable Care Act disruptions. The federal government appears to have serious issues in generating meaningful data here.

Implicit Price Deflator (IPD). The first-revision to second-quarter 2016 GDP inflation, or the implicit price deflator (IPD), showed annualized quarterly change of 2.31% [previously 2.21%], versus an annualized 0.46% in first-quarter 2016 and 0.91% in fourth-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. The upside revision to the second-quarter 2016 IPD of 0.10% largely accounted for the downside revision to real (inflation-adjusted) second-quarter GDP growth of 0.12% (-0.12%).

Year-to-year, headline second-quarter IPD inflation revised to 1.22% [previously 1.20%], versus 1.21% in first-quarter 2016, 1.10% in fourth-quarter 2015 and 1.00% in third-quarter 2015. Expanded periods of data and comparative CPI numbers are found in the *Reporting Detail*.

Gross National Product (GNP). 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 standardly had become a relatively weaker GNP.

Annualized real second-quarter 2016 GNP growth rose to 1.59%, from 0.00% [a fractional annualized quarterly contraction of 0.003% (-0.003%)] in first-quarter 2016, and against an annualized 1.32% gain in fourth-quarter 2015 GNP.

On a year-to year basis, second-quarter 2016 GNP slowed to 1.14%—the lowest level since second-quarter 2013—versus 1.31% in first-quarter 2016, and 1.72% in fourth-quarter 2015.

Gross Domestic Income (GDI). 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, but the discrepancy just as easily could be added to the GDP number. 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).

Annualized real GDI growth in second-quarter 2016 shrank to 0.18%, versus a revised gain of 0.81% in first-quarter GDI and an unrevised gain of 1.48% in the fourth-quarter 2015. Year-to-year real GDI growth narrowed to 1.23% in second-quarter 2016, the weakest level since first-quarter 2013, versus a revised 1.33% in first-quarter 2016 and an unrevised 1.51% in fourth-quarter 2015.

Underlying Economic Reality. Despite the broadly neutral, and artificially-smoothed 2016 GDP benchmark revisions of July 29th (see *Commentary No. 823*), and what broadly is viewed as weak growth in second-quarter 2016 GDP, the U.S. economy continued in a deepening and as-yet-unrecognized "new" recession. Headline monthly reporting activity in subsidiary economic series broadly has continued to move market expectations in that general direction (the ShadowStats contention remains that the "new" downturn is in reality just a continuation of the economic crash into 2009).

The second-estimate of second-quarter 2016 GDP at an annualized real quarterly pace of 1.10% was statistically-insignificant. That followed downwardly-benchmarked and also statistically-insignificant annualized real quarterly growth of 0.83% in first-quarter 2016 and 0.87% in fourth-quarter 2015. Those remain the weakest three consecutive quarters of real GDP growth since 2012, and otherwise since formally exiting the 2007 recession.

Discussed in benchmarking *Commentary No. 823*, the 2016 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" recession, which likely still should be clocked from December 2014. While such eventually will happen, the focus now shifts to the rapidly weakening economy in the current period and near-term months, which should trigger the "formal" recession recognition. More detail will follow in the *ShadowStats Special Report* (see *Week and Month Ahead*).

Formal headline GDP activity continues to run well above economic reality as signaled by a number of business indicators, such as corporate revenues, domestic freight activity (see *Graph 5*), domestic consumption of petroleum products and a variety of better-quality economic series, such as industrial production, new orders for durable goods and real retail sales. These circumstances have been detailed most recently in *Commentary No. 824*, *Commentary No. 826* and *Commentary No. 820*.

Accordingly, the broad ShadowStats economic outlook has not changed, and the gist of most of the following text remains along the lines of other recent GDP *Commentaries*. The details and numbers, however, are updated to reflect the latest headline detail and benchmarking.

Discussed in *Commentary No. 739*, which covered last year's 2015 GDP annual benchmark revisions, annual benchmarkings increasingly are reshaping the GDP-reporting history into a post-2007 collapse pattern of successive multiple dips, irrespective of the current gimmicked revisions. By the next comprehensive GDP benchmark revision in July 2018, post-2007 historical GDP reporting should be confirming a non-recovering, multiple-dip economic collapse including a "new" or ongoing recession.

That circumstance should encompass the evolving, current downturn in broad, domestic economic activity, discussed previously in *No. 777* and *No. 742 Special Commentary: A World Increasingly Out of Balance*. Where again, the present "new" recession or multiple-dip downturn remains likely to be timed from December 2014, without headline back-to-back contractions of quarterly GDP currently in place, formal recognition of same remains pending, although the consecutive quarterly GDP contractions no longer are necessary for formal recession recognition (see the opening paragraphs of *Commentary No. 823*). Recognition of the onset of the December 2007 recession was not formalized until November 28, 2008, but did have consecutive GDP contractions.

Ongoing monthly economic-reporting details for key series, public and private, however, increasingly confirm the patterns of declining or collapsing economic activity. For example, consider the discussion in *Commentary No. 820* on The Conference Board Help Wanted OnLine® Advertising through June, which was generating a signal for an economic downturn. In combination, these various collapsing economic indicators should engender a formal recession call, irrespective of the timing of actual, headline quarterly contractions in real GDP or related political gaming of the data out of Washington.

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 recent quarters. 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)—a consistent, fundamental pattern of faltering historical activity is shown in the accompanying "corrected" GDP graphs.

Please note that the pattern of activity shown for the "corrected" GDP series is much closer to the patterns shown in the graphs of unemployment (see *Commentary No. 824*), monthly real median household income and other consumer measures (see *Commentary No. 825*). This also has been detailed in *No. 742 Special Commentary: A World Increasingly Out of Balance* and *No. 692 Special Commentary: 2015 - A World Out of Balance*. Similar patterns are found in economic series not otherwise reliant on understated inflation for their reported growth, such as housing starts (see *Commentary No. 826* and *2014 Hyperinflation Report—Great Economic Tumble – Second Installment*).

With liquidity-strapped consumers unable to fuel sustainable growth in consumption, a full business recovery could not have taken place since 2009, and a recovery 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. Usually discussed in these *Commentaries* covering the quarterly GDP reporting and monthly updates, the full economic recovery indicated by the official, real GDP numbers remains an illusion. It is a statistical illusion created at least partially by using a too-low rate of inflation in deflating (removing certain inflation effects) from the GDP series. The accompanying graphs tell that story, updated for the second estimate of second-quarter 2016.

The first set of graphs (2000-to-date) is the one that traditionally has been incorporated in the GDP *Commentaries*. *Graphs 1* and *2* show short-term detail, expressed on an index base where first-quarter 2000 = 100.0. Added for comparison is the Cass Freight Index™, a measure of North American freight volume as calculated by, and used with the permission of Cass Information Systems, Inc. Shown in *Graph 3*, the freight index, as a broad measure of basic domestic economic activity, has much more in common with the "corrected" GDP of *Graph 2*, than the headline GDP of *Graph 1*.

The second set of graphs (*Graphs 4* and *5*) updates the detail 1970-to-date, expressed in billions of 2009 dollars as used with the headline GDP. The graphs show official periods of recession as shaded areas, with ShadowStats-defined recessions indicated by the lighter shading in *Graph 5*, the second graph of the second set, as published initially in *2014 Hyperinflation Report—Great Economic Tumble*.

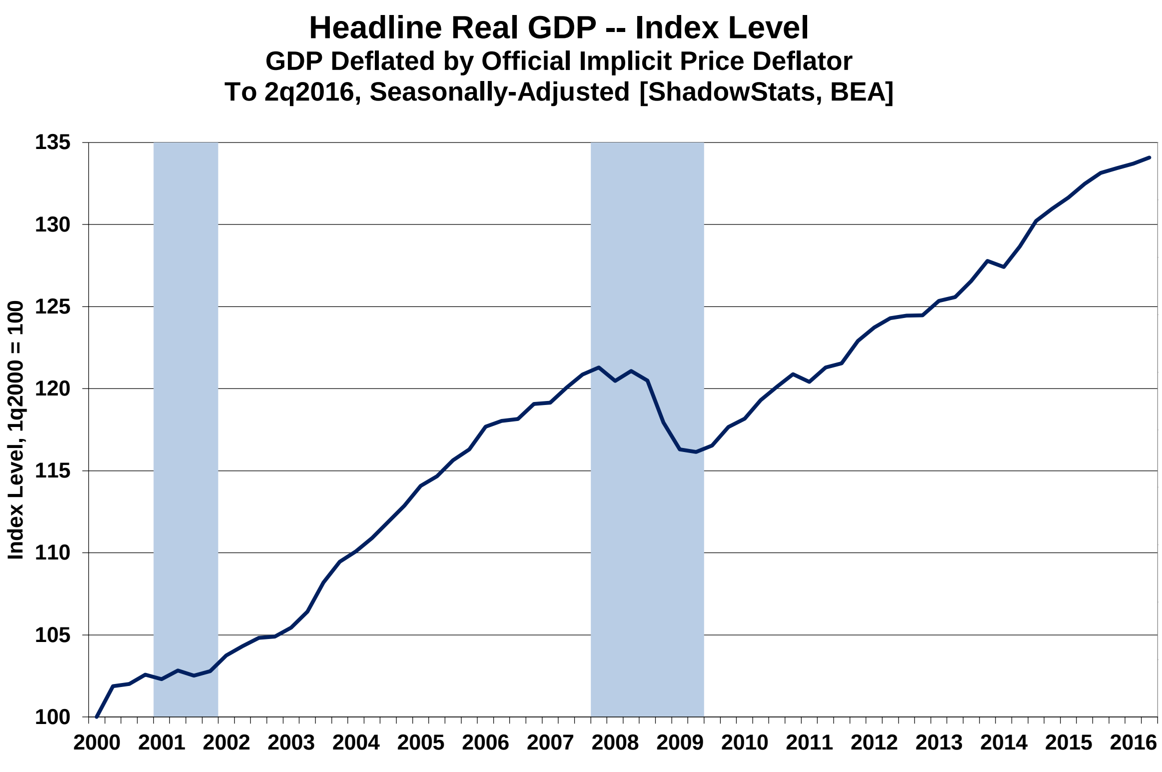
Shown in the first graph of each set (*Graphs 1* and *4*) of official *Headline Real GDP*, GDP activity has been reported above pre-2007 recession levels—in full recovery—since second-quarter 2011, and headline GDP has shown sustained growth since (growth pauses or interruptions for second-half 2012 and first-quarter 2014 excepted). Adjusted for GDP inflation (the implicit price deflator - IPD), headline second-quarter 2016 GDP currently stands 10.5% above its pre-recession peak-GDP estimate of fourth-quarter 2007. In contrast, the "corrected" GDP version, in the second graph of each set (*Graphs 2* and *5*), shows second-quarter 2016 GDP activity to be down from its pre-recession peak of first-quarter 2006 by 7.5% (-7.5%).

Again, the second graph in each series (*Graphs 2* and *5*) plots the *Corrected Real GDP*, corrected for the understatement inherent in official inflation estimates (see *Public Commentary on Inflation Measurement*), 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*.

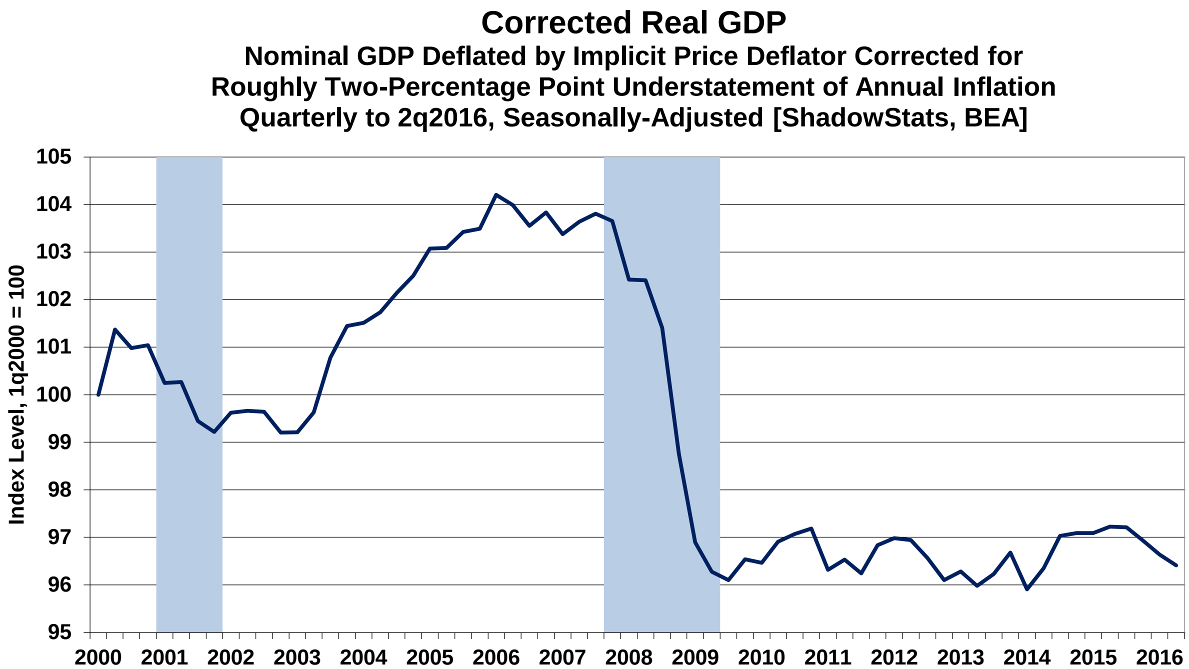
Further, discussed broadly in the second installment of the *Hyperinflation Report*, no other major economic series has shown a pattern of official full economic recovery and meaningful expansion thereafter, consistent with the headline GDP reporting. Such is covered in the recent discussions on industrial production, real retail sales and real durable goods orders (see *Commentary No. 826* and *Commentary No. 827*). Either the GDP reporting is wrong, or all other major economic series are wrong. 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 "recovery."

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 the unemployment-related *Commentaries* such as *Commentary No. 824*. Again, independent numbers—non-U.S. government—such as the Cass Freight Index (copied here from *Commentary No. 826*), put the lie to the gimmicked headline reporting that has been massaged for decades by government agencies and consulting academics, often publishing

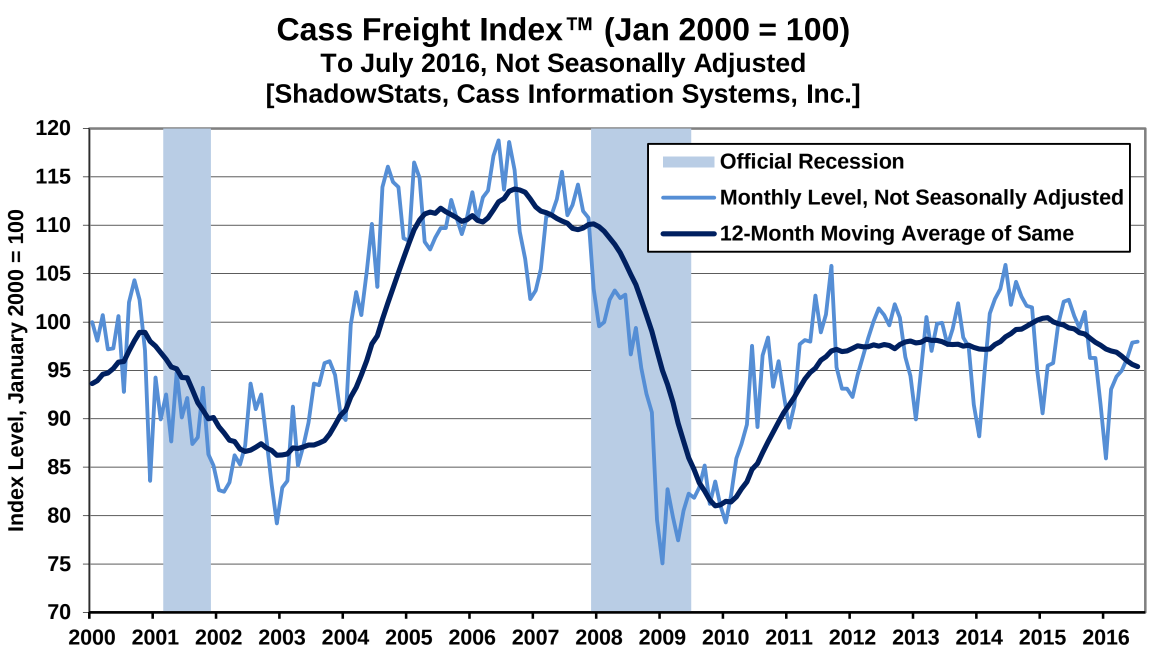
Graph 1: Real GDP Index – Headline Real GDP through Second Estimate of Second-Quarter 2016



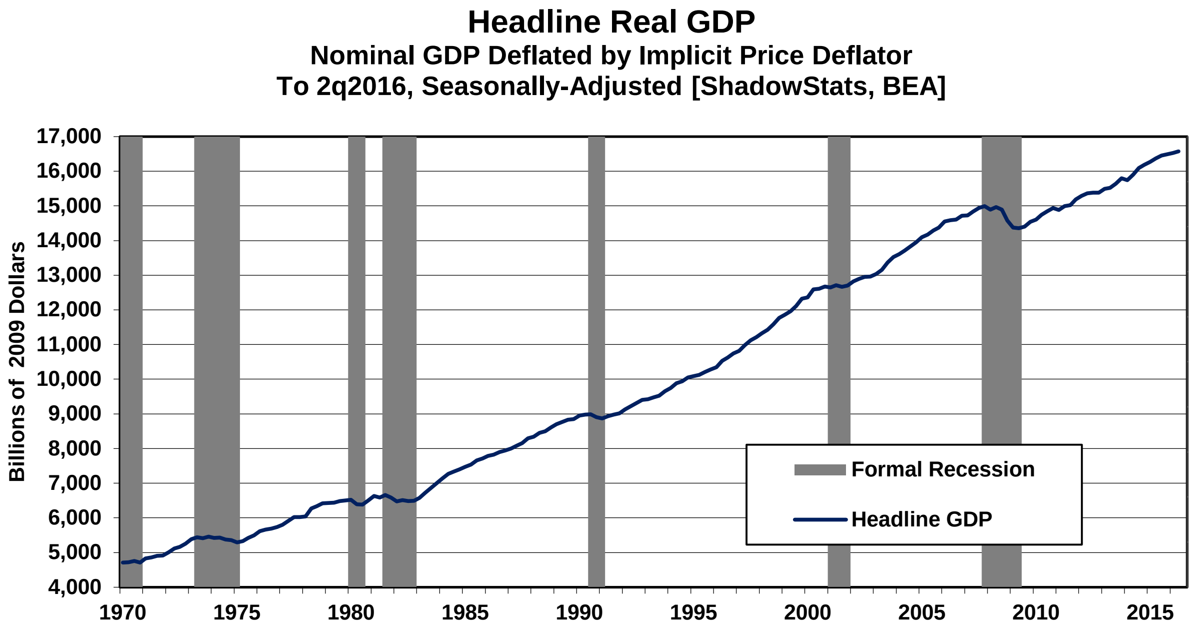
Graph 2: "Corrected" Real GDP Index (2000-2016), Second Estimate of Second-Quarter 2016



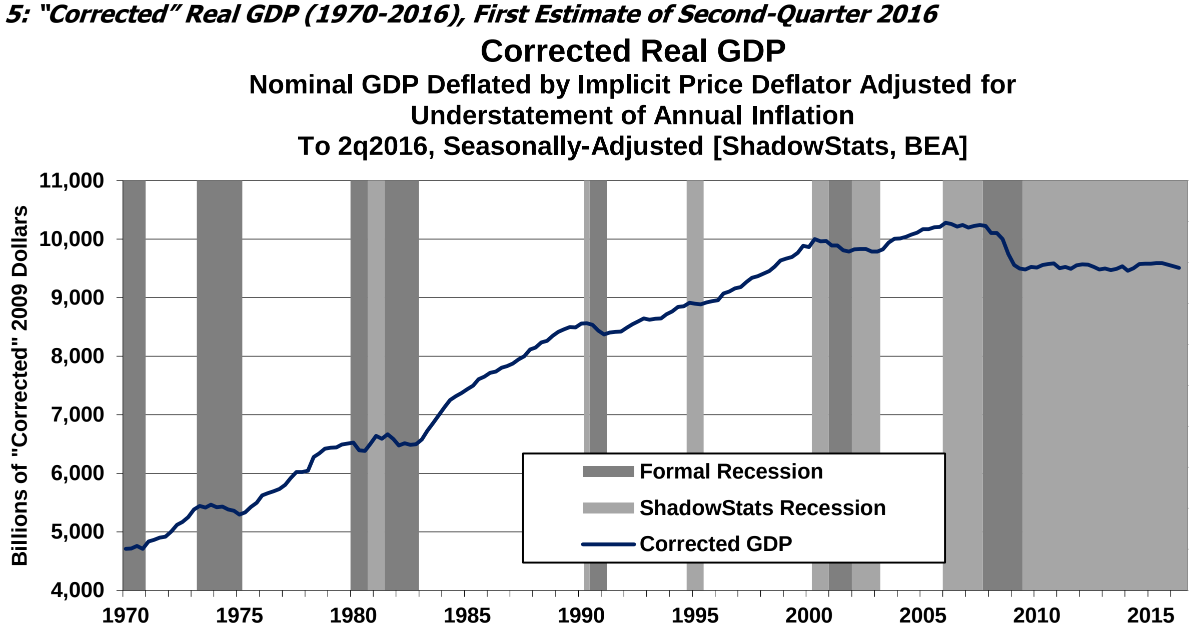
Graph 3: Cass Freight Index ™ (2000-July 2016)



Graph 4: Real GDP Index (1970-2016), Second Estimate of Second-Quarter 2016



Graph 5: "Corrected" Real GDP (1970-2016), First Estimate of Second-Quarter 2016



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

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REPORTING DETAIL

GROSS DOMESTIC PRODUCT—GDP (Second-Quarter 2016, Second Estimate, First Revision)

Recession Remained Very Much in Play, Despite Gimmicked GDP Reporting. *[Please note that the following section—through the "Notes ..."—largely has been copied from the* Opening Comments.*]* Broad economic weakness has continued in underlying economic series such as industrial production, new orders for durable goods, real retail sales, trade activity and better-quality construction reporting, along with a variety of private indicators ranging from S&P 500® revenues and the Cass Freight Index™ to the Conference Board's Help Wanted OnLine® advertising survey. Where a number of series have shown clear and continuing recession, the real-world U.S. economy has been in a "new" recession since December 2014. That said, the first revision to second-quarter 2016 Gross Domestic Product (GDP) and related detail remained in positive territory. Despite generally weakening growth in the GDP data, there has been no headline recession, new or otherwise, yet, in the government's national income reporting.

Weakening Activity. Annualized second-quarter 2016 GDP real growth revised lower to 1.10%, in its second estimate, from initial reporting of 1.22%, versus an annualized gain of 0.83% in first-quarter 2016. The headline revision matched consensus expectations at 1.1%, which was somewhat suspect. The consensus rarely is that good at forecasting, unless the Bureau of Economic Analysis (BEA) targets its reporting accordingly. Missing from today's revisions were some of the more-negative numbers reported subsequent to the first GDP estimate. For example, consider the trade detail, which had turned to a quarterly real deficit, from surplus, in the most-recent reporting. In the GDP revision, the headline first-quarter trade "surplus" did narrow minimally, but it, too, should have turned to a deficit, with a more-negative impact on the GDP growth revision.

Fortuitously for the markets and the politicians, the economy held as expected, with no negative surprises.

Except, the second GDP estimate for second-quarter 2016 was accompanied by initial estimates for Gross Domestic Income (GDI) and Gross National Product (GNP). Where GDI is the theoretical equivalent of the GDP, headline second-quarter GDI growth fell sharply to 0.18%, from 0.81% in the first quarter.

The broader GNP measure, which includes the trade balance in interest and dividend payments, saw some extraordinary volatility in that area, with second-quarter growth jumping to 1.59%, from 0.00% in the second quarter.

Nonetheless, annual real growth slowed to multi-year lows in second-quarter 2016 for each of the GDP, GDI and GNP. Annual growth in the various series peaked in third-quarter 2014 (GNP), fourth-quarter 2014 (GDI) and first-quarter 2015 (GDP), with the beginning of the sharp downturn in annual growth—typical of the onset of a recession—centered on fourth-quarter 2014. ShadowStats expects the underlying "new" recession eventually to be timed from December 2014.

Heavily Followed but of Extremely Poor Quality. In this most-politically-sensitive of popularly followed domestic economic series, the GDP does not reflect properly or accurately the changes to the underlying economic fundamentals and measures that drive the broad economy. Separately reported, real-world economic activity has 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—and then began to turn down anew in late-2014.

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*).

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.*

Gross Domestic Product (GDP). Published August 26th, by the Bureau of Economic Analysis (BEA), the second estimate of, first revision to second-quarter 2016 GDP showed a statistically-insignificant, real (inflation-adjusted), annualized, quarterly headline gain of 1.10% [previously 1.22%] +/- 3.5% (95% confidence interval). Distribution of the revised second-quarter 2016 GDP growth by major category is detailed in the *Opening Comments*. The current headline detail is in the context of the July 29th annual GDP benchmark revisions discussed in *Commentary No. 823*.

The minimal downside revision to the headline quarterly growth matched consensus expectations. That detail, however, still has one monthly revision (likely to the downside) on September 29th. The revised, annualized second-quarter 2016 real growth of 1.10%, followed quarterly real growth rates of 0.83% for first-quarter 2016, 0.87% in fourth-quarter 2015 and 1.99% in third-quarter 2015.

Graphs 6 and *8* 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.

Shown in *Graphs 7* and *9*, headline year-to-year real GDP growth in second-quarter 2016 revised slightly lower, slowing to 1.20% [previously 1.23%], still the weakest growth in three years, since second-quarter 2013. That was down from 1.57% annual growth in first-quarter 2016, and 1.88% in fourth-quarter 2015. Real annual growth has been in continual decline since the near-term peak of 3.31% in first-quarter 2015, the post-recession high annual growth for the series. The sharp downtrend in annual growth is common at the onset of formal recessions.

The current-cycle trough in annual change was in second-quarter 2009 (see *Graphs 7* and *9*), 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 7* shows current year-to-year quarterly detail, from 2000-to-date, where *Graph 9* shows the same series in terms of its full quarterly, year-to-year history back to 1948.

Implicit Price Deflator (IPD). The first-revision to second-quarter 2016 GDP inflation, or the implicit price deflator (IPD), showed annualized quarterly change of 2.31% [previously 2.21%], versus an annualized 0.46% in first-quarter 2016, 0.91% in fourth-quarter 2015, 1.22% in third-quarter 2015, 2.25% in second-quarter 2015 and 0.04% in the 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. The upside revision to the second-quarter 2016 IPD of 0.10% largely accounted for the downside revision to real (inflation-adjusted) second-quarter GDP growth of 0.12% (-0.12%).

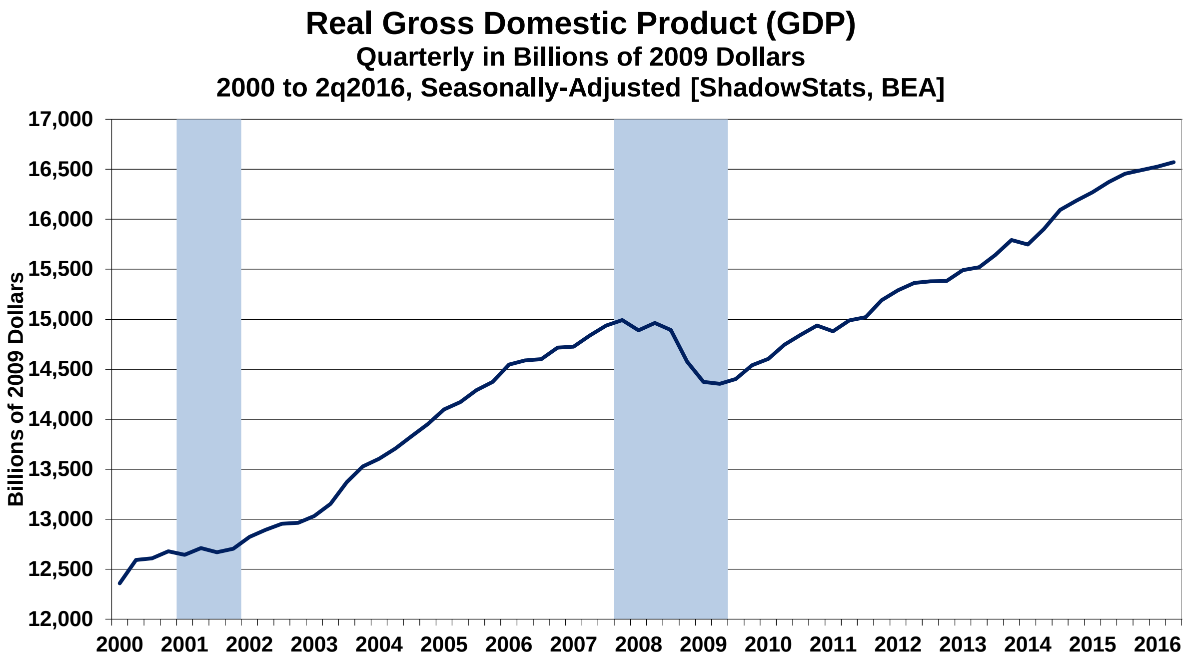
Year-to-year, headline second-quarter IPD inflation revised to 1.22% [previously 1.20%], versus 1.21% in first-quarter 2016, 1.10% in fourth-quarter 2015, 1.00% in third-quarter 2015, 1.11% in second-quarter 2015 and 1.10% in first-quarter 2015.

For purposes of comparison, the seasonally-adjusted Consumer Price Index CPI-U rose by an annualized 2.54% in second-quarter 2016, versus a decline of 0.31% (-0.31%) in first-quarter 2016, a 0.77% gain in fourth-quarter 2015, a 1.38% gain in the third quarter, a 2.44% gain in the second quarter and a quarterly contraction of 2.86% (-2.86%) in the first quarter of 2015.

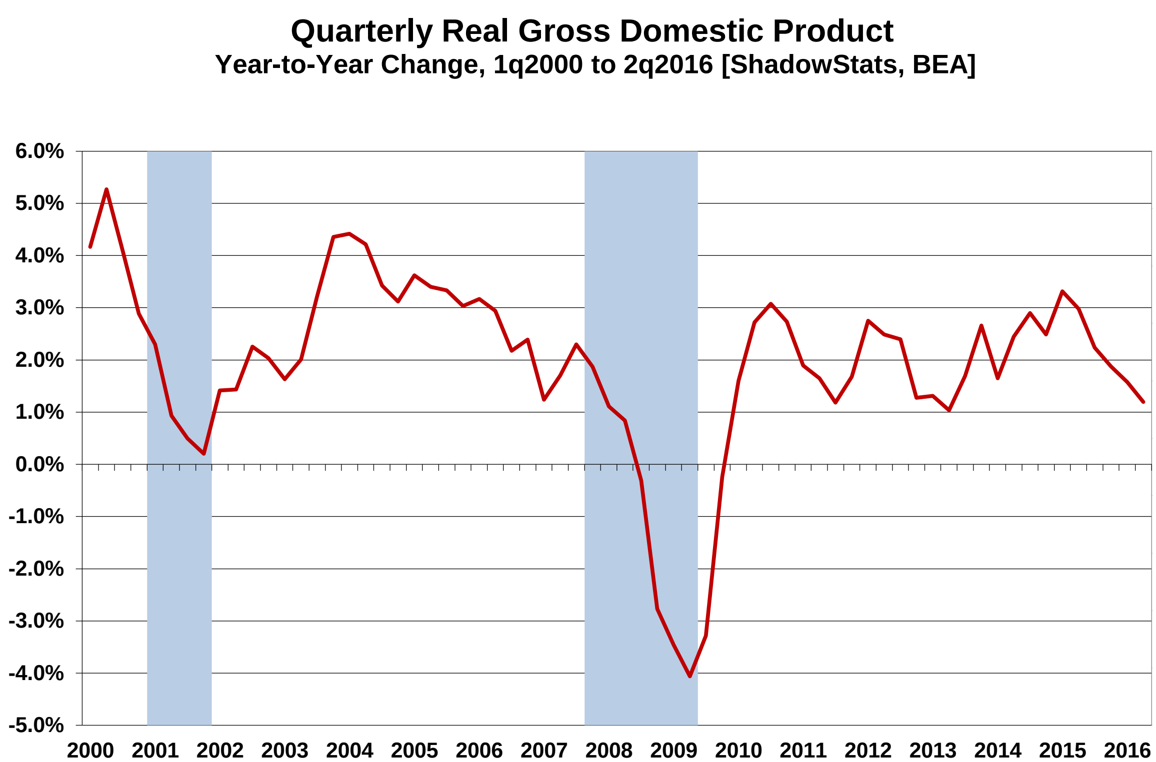
Unadjusted, year-to-year quarterly CPI-U inflation showed a year-to-year second-quarter 2016 gain of 1.05%, versus a first-quarter 2016 gain of 1.08%, a fourth-quarter 2015 gain of 0.47%, a third-quarter 2015 gain of 0.11%, an annual contraction of 0.04% (-0.04%) in second-quarter 2015 and a year-to-year decline of 0.06% (-0.06%) in first-quarter 2015 (see *Commentary No. 820*).

[Graphs 6 to 9 begin on the next page]

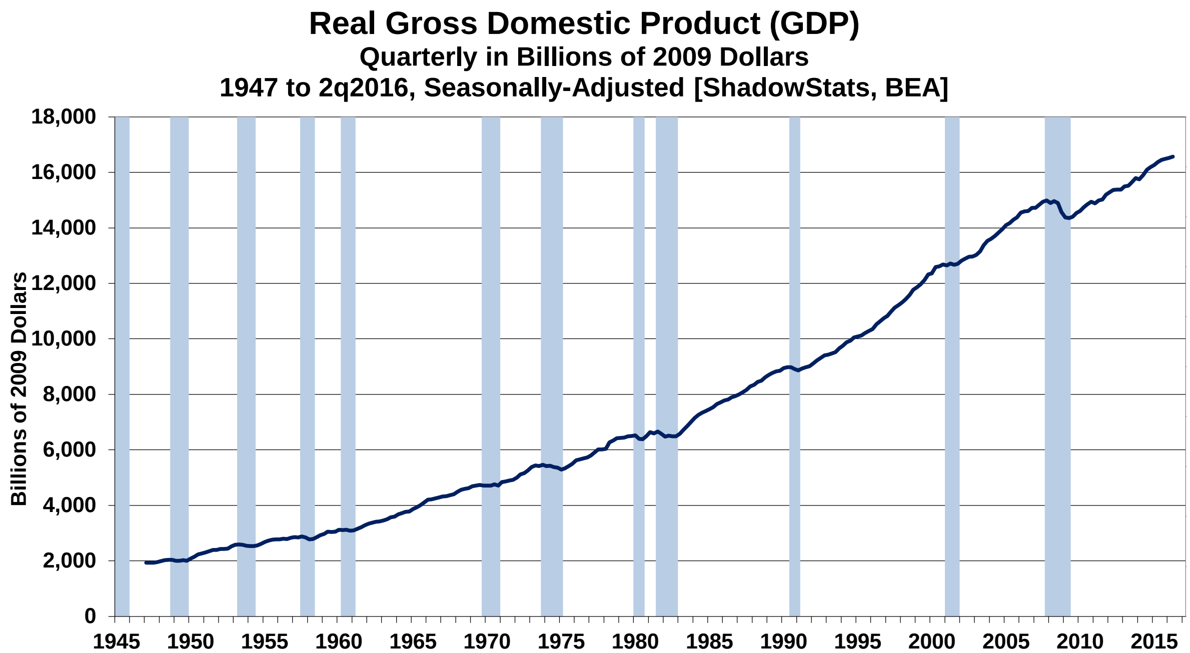
Graph 6: Quarterly GDP in Billions of 2009 Dollars (2000 to 2016), Second Estimate of Second-Quarter 2016



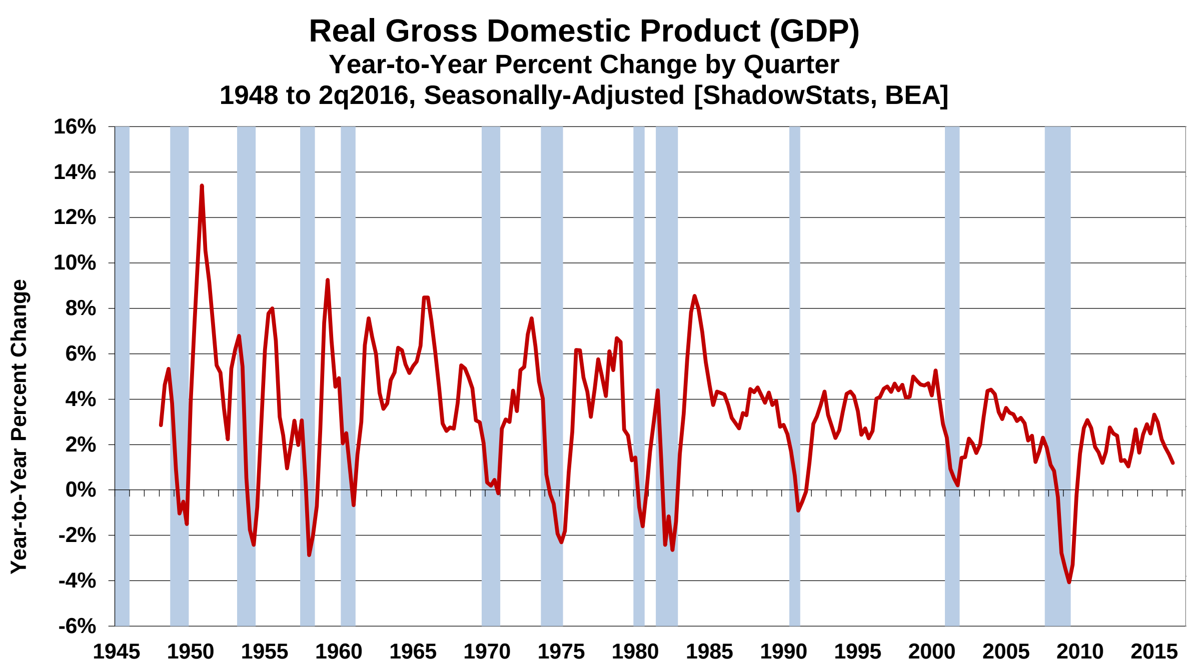
Graph 7: Quarterly GDP Real Year-to-Year Change (2000 to 2016), Second Estimate of Second-Quarter 2016



Graph 8: Quarterly GDP in Billions of 2009 Dollars (1947-2016), Second Estimate of Second-Quarter 2016



Graph 9: Year-to-Year GDP Real Change (1948-2016), Second Estimate of Second-Quarter 2016



Gross National Product (GNP). The first estimate of second-quarter 2016 GNP was published, along with the first revision to second-quarter GDP, this morning, August 26th. 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 headline, annualized real second-quarter 2016 GNP growth rose to 1.59% from 0.00% [a fractional annualized quarterly contraction of 0.003% (-0.003%)] in first-quarter 2016, and against an annualized 1.32% gain in fourth-quarter 2015 GNP. Extraordinary shifts in the flows of the factor-income measures will be addressed in a later *Commentary*.

On a year-to year basis, second-quarter 2016 GNP slowed to 1.14%—the lowest level since second-quarter 2013—versus 1.31% in first-quarter 2016, and 1.72% in fourth-quarter 2015.

Gross Domestic Income (GDI). 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, but the discrepancy just as easily could be added to the GDP number. 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 reflect heavily-upside-biased income estimates out of the otherwise-rigged nonfarm payroll survey, held in almost perpetual growth by built-in upside biases (see the *Birth-Death/Bias Factor* discussion in *Commentary No. 824*).

The first estimate of second-quarter 2016 GDI activity was published, along with the first revision to second quarter GDP, this morning, August 26th.

Reflecting ongoing significant overstatement of income growth in the GDI, and other instabilities in the headline reporting, the nominal first-quarter 2016 "statistical discrepancy" narrowed to $224.2 billion in second-quarter 2016, from $264.3 billion in first-quarter 2013.

Annualized real GDI growth in second-quarter 2016 shrank to 0.18%, versus a revised gain of 0.81% [previously 0.88%] in first-quarter GDI and 1.48% in the fourth-quarter 2015. Year-to-year real GDI growth narrowed to 1.23% in second-quarter 2016, the weakest level since first-quarter 2013, versus a revised 1.33% [previously 1.35%] in first-quarter 2016 and 1.51% in fourth-quarter 2015.

ShadowStats-Alternate GDP. The ShadowStats-Alternate GDP estimate for second-quarter 2016 GDP remained a year-to-year contraction of 2.0% (-2.0%), versus the second estimate of the second-quarter annual real headline GDP gain of 1.2%. That was against an unrevised ShadowStats 1.8% (-1.8%) annual decline estimate for first-quarter 2016, versus the official headline gain of 1.6% in first-quarter 2016 GDP.

While the annualized, real quarterly growth rate is not estimated formally on an alternate basis, the statistically-insignificant 1.1% annualized, headline quarter-to-quarter gain in second-quarter 2016 (first-revision) was much weaker, net of all the happy assumptions and regular reporting gimmicks coming into the headline detail. It is of high risk of revising lower in its September revision. 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. The "corrected" real GDP graph, and the longer-term "corrected" graph (see *Graphs 2* and *5* in the *Opening Comments*), updated from *2014 Hyperinflation Report—Great Economic Tumble – Second Installment*, 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.

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WEEK AND MONTH AHEAD

Headline Economic Deterioration Should Intensify in the Near Term, Increasingly Frustrating Fed Provocateurs, Pummeling the U.S. Dollar and Boosting Gold, Silver and Eventually Oil Prices. Market expectations for business activity should continue to deteriorate, amidst intensifying, negative headline economic reporting, and with Fed-policy retrenchment likely shifting towards renewed quantitative easing in the months ahead, irrespective of current Fed-policy jawboning favoring a rate hike.

The general trend in weakening expectations for business activity and movement towards looming recession recognition, reflect an ongoing broad spectrum of market-disappointing headline data. Unfolding circumstances were discussed in the opening paragraphs of prior *Commentary No. 827*, *Commentary No. 826*, *Commentary No. 825*, *Commentary No. 824*, *Commentary No. 823*, *Commentary No. 822*, *Commentary No. 821*, *Commentary No. 820*, *Commentary No. 818*, *Commentary No. 817*, *General Commentary No. 811*, *Supplemental Commentary No. 807-A*, *Commentary No. 800*, *Commentary No. 799*, *Commentary No. 796-A*, *Commentary No. 796* and *No. 777 Year-End Special Commentary*.

Negative market reactions have surfaced in trading of the U.S. dollar and in related financial markets, with some upside pressure on gold, silver and oil prices, subsequent to weaker-than-expected headline economic data or suggestions of a less-aggressive tightening stance by the Fed. Such reflects the impact of perpetual U.S. economic non-recovery and a renewed, intensifying downturn.

Market activity in oil has been mixed, due partially to irregular U.S. dollar strength, as discussed in *No. 818*. Market reactions reflect an intensifying sense of Federal Reserve impotence, with bleak longer-term implications for the U.S. dollar. Further Fed tightening prior to the election remains unlikely, while renewed quantitative easing could become a target of intensified market speculation, as the deepening recession unfolds, becoming increasingly obvious in the next several months (see the opening paragraphs of the *Opening Comments* in *No. 827* and the *Hyperinflation Watch* in *No. 826*).

Rapidly weakening, regular monthly economic reporting should result in much worse-than-expected—increasingly negative—reporting for at least the next several quarters of GDP (and GDI and GNP).

CPI-U consumer inflation—intermittently driven lower in 2015 and early-2016 by collapsing prices for gasoline and other oil-price related commodities—likely has seen its near-term, year-to-year low. Headline monthly March to June 2016 detail moved into positive headline territory, in tandem with rising gasoline prices. CPI inflation was "unchanged"—minimally negative—with a switch to positive seasonal adjustments for gasoline prices only partially offsetting the unadjusted monthly drop in gasoline prices. Those shifting energy seasonals should boost the August detail more strongly, resulting in a headline monthly gain. Going forward, a weakening U.S. dollar increasingly should boost inflation, with a related upturn in oil prices, gasoline and other commodities. The *Public Commentary on Inflation Measurement* reviews fundamental reporting issues with the headline CPI.

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

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

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

Combined with ongoing allegations in the last year or two of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series (see *Commentary No. 669*). John Crudele of the *New York Post* continues his investigations in reporting irregularities: *Crudele Investigation*. In the 1990s, the Census Bureau and BLS played political-reporting games with the nature of statistical sampling size in "inner cities" in the Census Bureau surveying tied to the monthly Household Surveys and the annual piggy-backed Poverty Survey. Such had major distorting impact on the headline data, and it may be in the works, again.

PENDING RELEASES:

Construction Spending (July 2016). The Commerce Department will release its estimate of July 2016 construction spending on Thursday, September 1st. Detail will be covered in ShadowStats *Commentary No. 829* of September 2nd. As usual, headline monthly changes should not be statistically-significant. Irrespective of almost perpetually-positive market expectations for this series, the detail generally should continue in down-trending stagnation, even net of negative, related headline inflation.

In what will have some impact on the nominal (not-inflation-adjusted) growth, relative to real (inflation-adjusted) growth, July 2016 inflation (PPI – Final Demand Construction) fell month-to-month by a seasonally-adjusted 0.61% (-0.61%), versus a headline gain of 0.09% in June and May in the aggregate construction spending category. That will increase the headline monthly real spending growth rate, accordingly, versus the nominal performance. In the aggregate-construction category, seasonally-adjusted and unadjusted annual inflation for July 2016 fell back to 0.80, from 1.96% in June 2016 and 1.87% in May 2016, roughly three to four percentage points or so shy of private industry estimates. The headline annual inflation will subtract accordingly from the nominal annual growth to generate the real year-to-year growth rate.

U.S. Trade Balance (July 2016). The Commerce Department and Bureau of Economic Analysis (BEA) will release their full version of the monthly U.S. trade balance for July 2016 on Friday, September 2nd, which will be covered in *Commentary No. 829* of that date. The full version of the July 2016 deficit will revise today's generally worthless July 28th "advance" estimate in merchandise trade, which showed an improving July deficit in the context of a worsening June shortfall, in revision. Irrespective of the games being played around the GDP reporting, the deficit general should continue to widen.

Employment and Unemployment (August 2016). The Bureau of Labor Statistics (BLS) will publish its August 2016 labor data on Friday, September 2nd. Headline detail will be covered in *Commentary No. 829* of that date. Both the more-inclusive unemployment-rate numbers, as well as the headline payroll-employment details, are open for continuing negative headline surprises, given the ongoing, general weakening tone in a number of business indicators.

In the context of recent the extreme volatility and inconsistencies in the last several months of payroll and unemployment detail, almost anything is possible with the BLS, particularly with the presidential race in full swing. Nonetheless, underlying reality remains a much weaker-than-expected economy, which increases the odds of a hefty downside surprise to the headline payroll gain in August

The headline unemployment detail, however, is completely unstable and not comparable month-to-month, due to the inconsistent use of published seasonally-adjusted numbers. Such has been demonstrated in recent reporting, as discussed fully in *Commentary No. 819*. That said, anything is possible in the next month, but the Household-Survey data increasingly should trend weaker than expected.

Underlying economic fundamentals continue to deteriorate, suggesting continued slowing or negative month-to-month growth in headline payrolls, as well as stagnation or deterioration in the broader unemployment rates such as U.6 and particularly the ShadowStats Alternate Unemployment Measure.

PENDING: Comprehensive *Special Report* and ShadowStats Website. The plan is to update fully, into one, massive background piece—a *Special Report (Commentary)*—the latest broad outlook for the U.S. and global economies, financial markets and systems, and inflation (U.S. hyperinflation). All of that will be in the context of incorporating and fully revising, wherever necessary, the materials in the *2014 Hyperinflation Report—The End Game Begins*, *2014 Hyperinflation Report—Great Economic Tumble*, *No. 777 Year-End Special Commentary* and other intervening missives, including the most-recent *Hyperinflation Outlook Summary* as found in *Commentary No. 783*.

The various background articles available at the www.ShadowStats.com site also will be updated in the process, including those first published in 2004 as introductory articles to the site. As usual, all original material will remain available to subscribers (all original public material also will remain available to anyone visiting the site).

As to timing, the *Special Report* already is in the works and should be published by early-October. It will incorporate fully up-to-date economic detail, including the mid-September 2016 releases by the Census Bureau of its 2015 income survey and by the Bureau of Labor Statistics of its preliminary benchmark revisions to 2016 payroll employment. It also will include updated, consistent GAAP-based financial detail on the U.S. government's financial condition through September 30, 2015 and initial prospects for the fiscal year ended September 30, 2016.

Updates to the various public materials on the Web site will be staggered through year-end. The introduction of the *2004 Primer Series* will be first (the link is to the initial background article that addressed among other issues political manipulation of data).

We also will introduce, in conjunction with the *Special Report*, a section with links to books and articles that we have found of particular interest and substance. Anyone with materials they would like to have considered for inclusion should send details in an e-mail to johnwilliams@shadowstats.com or call John Williams directly at (707) 763-5786.

