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

COMMENTARY NUMBER 952

GDP, GNP and GDI, Private Labor Surveying, Retail Sales Overhaul

May 30, 2018

Private Labor Surveying Showed Retrenchment in May 2018

Benchmarked Retail Sales Showed Fundamentally-Weakened Growth

Contracting Consumer Goods and Housing Elements in the GDP Reflect Mounting Liquidity Stresses, Amidst Faltering Consumer Optimism

First-Quarter 2018 Gross Domestic Product (GDP) Annualized Real Growth Slowed to a Revised 2.17% (Previously 2.32%), Down from 2.89% in Fourth-Quarter 2017

First-Quarter 2018 Real Trade Deficit Widened in Revision, Weakening Revised Headline GDP Growth by 0.12% (-0.12%)

Downwardly-Revised Inventory Growth Weakened Revised GDP by 0.29% (-0.29%)

Upwardly-Revised Gain in the Nebulous "Intellectual Properties" Category of Fixed Investment Boosted Revised GDP Growth by 0.29%

Initial Growth in First-Quarter Gross Domestic Income (GDI), Purported GDP-Equivalent, Increased to 2.80% from an Upwardly-Revised 1.05% in Fourth-Quarter 2017

Initial Growth in Gross National Product (GNP), the Broadest National Income Measure, Dropped to 2.00% from 2.71% in Fourth-Quarter 2017

Better-Quality Economic Measures Show Continuing Economic Non-Expansion

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PLEASE NOTE: The next missive (Commentary No. 953-A), scheduled for Friday, June 1st, will provide early-day summary detail of June 2018 Employment and Unemployment and May 2018 Construction Spending, along with the monthly review of May Monetary Conditions. Full coverage of the Labor and Construction numbers will follow in Commentary No. 953-B of June 4th.

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

Today's (May 30th) *Opening Comments and Executive Summary.* The ***Opening Comments*** review headline economic trends, in the context of the most-recent private and public economic surveys. Covered on the private side is the May 2018 Conference Board Help-Wanted Online Advertising® (HWOL), the public side looks at recent annual benchmarkings, particularly expanding on the heavily-massaged overhaul to Retail Sales, discussed briefly in prior *Commentary No. 951*. The ***Executive Summary*** (page 10) highlights reporting of the first-revision (second-estimate) of First-Quarter GDP (and headlines of the related initial quarterly estimates of the GDI and GNP).

The ***Reporting Detail*** (page 21) reviews the second estimate of First-Quarter 2018 Gross Domestic Product, along with the initial first-quarter 2018 estimates of the broader Gross National Product (GNP), and Gross Domestic Income (GDI), which is the theoretically-equivalent, income-side measure to the GDP's consumption-side reporting.

The ***Consumer Liquidity Watch*** (page 30 has been updated for the initial May 2018 estimate of the Conference Board's Consumer Confidence, and for the final-May estimate of Consumer Sentiment from the University of Michigan.

The ***Week, Month and Year Ahead*** (page 44) provides background on recent *Commentaries* and previews Friday's releases of May 2018 Employment and Unemployment, April 2018 Construction Spend and next week's release of the April Trade Deficit and accompanying benchmark revisions.

OPENING COMMENTS

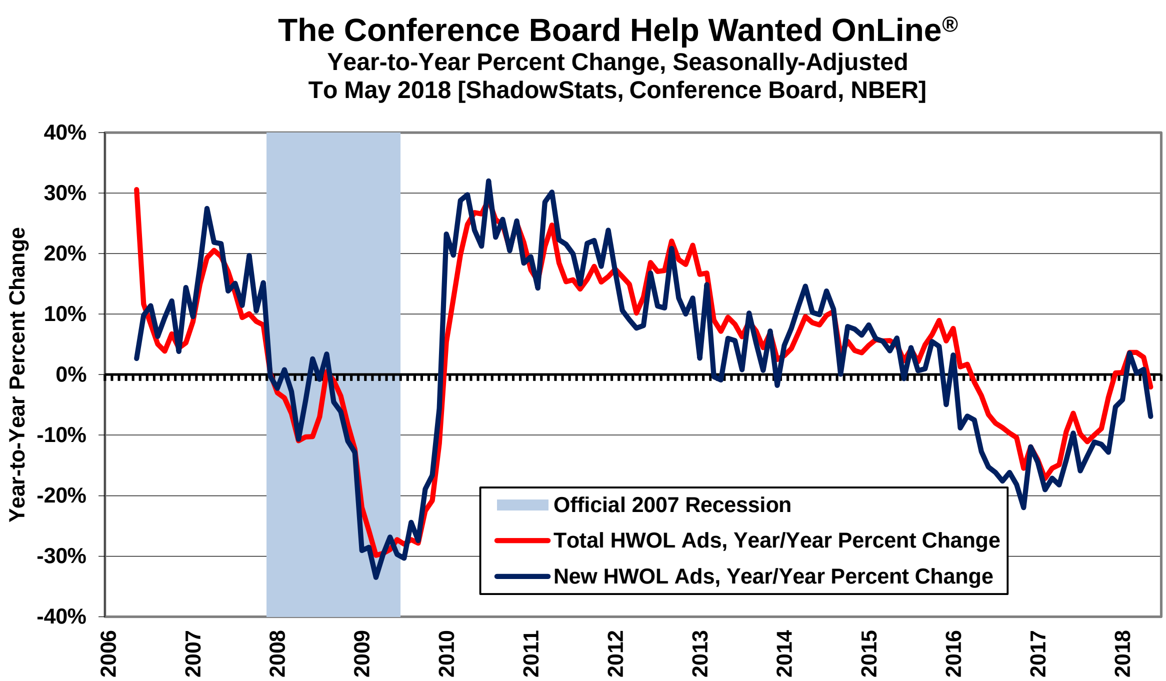
Economic Activity Remains Fundamentally Driven by Consumer Conditions; Those Conditions are Deteriorating Anew, Having Never Recovered Fully from the Collapse into 2009. This morning's second-estimate of First-Quarter 2018 Gross Domestic Product (GDP) revised the annualized real headline growth down a notch to 2.2%, from 2.3%, much as expected. That was well below the historical average of 2.7%, let alone the prior Fourth-Quarter 2017, disaster-bloated 2.9% annualized growth. Benchmark revisions to key economic indicators suggest major downside benchmark revisions loom for the historical GDP series on July 27th. Rapidly-deteriorating consumer liquidity conditions and outlook promise an intensifying near-term downturn/deterioration in headline economic activity, irrespective of the nature of any current headline reporting.

At the root of many reporting distortions of recent years and the related, unfolding downside revisions to historical numbers is the use of overly-optimistic assumptions plugged into the headline reporting of major economic series. That tactic used by the government's economic reporting Bureaus, is discussed later in these *Opening Comments* (see also [*Special Commentary No. 885*](), *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*), tied there to the Retail Sales benchmark revisions.

Real consumer earnings and credit are not growing, and consumer optimism is faltering in the two most-widely followed surveys of consumer outlook. Deteriorating consumer conditions are reviewed in today's *Consumer Liquidity Watch*. Consumer circumstances did not brighten, with tumbling jobs prospects indicated in today's release of the Conference Board's Help-Wanted Online Advertising®.

May 2018 Help-Wanted Advertising Plunged Month-to-Month and Year-to-Year, in Deepening Economic Non-Expansion. The Conference Board Help-Wanted Online Advertising® (HWOL) for May 2018 declined month-to-month by 1.1% (-1.1%), after previously declining by 1.4% (-1.4%) in April, gaining 2.2% in March and declining by 3.8% (-3.8%) in February, while the "New Ads" subcomponent plunged month-to-month by 7.0% (-7.0%), after declining by 1.0% (-1.0%) in April, gaining by 0.4% in March and declining by 6.1% (-6.1%) in February. The monthly patterns have continued to be irregular, with monthly gains and losses shifting towards the negative for both series in the last twelve months. The regular plot of this series is shown in *Graph OC-1*; a subsequent, experimental/alternative historical *Graph OC*-2 also is shown shortly thereafter.

Graph OC-1: The Conference Board Help Wanted OnLine® to May 2018



"Total Ads" showed a year-to-year decline of 2.1% (-2.1%) in May 2018, the first such annual drop since November 2017. It followed annual gains of 2.9% in April 2018, 3.7% in March and February 2018, 0.4% in January 2018 and 0.3% in December 2017. The November 2017 decline of 3.7% (-3.7%) was the 20th consecutive month of year-to-year decline. "New Ads" annual growth also plunged year-to-year in

May 2018, down by 6.9% (-6.9%), having increased by 0.9% in April 2018, versus 0.2% in March 2018 and 3.6% year-to-year in February 2018, after having declined by 4.1% (-4.1%) year-to-year in January 2018, its 24th consecutive month of annual decline. Now having turned down for the year in May 2018, the protracted year-to-year deterioration in labor-market demand reflected in "New Ads" remains a meaningfully-negative, leading indicator to broad economic activity. Against the November 2015 series peaks, May 2018 "Total Ads" were down by 17.9% (-17.9%), with "New Ads" down by 31.5% (-31.5%).

Annual growth began to slow in 2010 and turned negative year-to-year in late-2015 and early-2016. The shaded area in *Graph OC-1* reflects the formal bounds of the 2007 to 2009 recession. While the HWOL held in negative annual growth territory into early-2010, beyond the formal economic trough in June 2009, keep in mind that payroll employment—traditionally a coincident economic indicator to the general economy—did not hit its cycle trough until February 2010.

Many thanks to The Conference Board for permission to publish the preceding graph of year-to-year change in its *Help Wanted OnLine*® data. The annual percentage change is plotted for two series: Total Ads (red line) and New Ads (blue line). "Total ads are all unduplicated [online] ads appearing during the reference period. This figure includes ads from the previous months that have been reposted as well as new ads." "New ads are all unduplicated ads which did not appear during the previous reference period. An online help wanted ad is counted as 'New' only in the month it first appears." Related background details and reporting are found here: The Conference Board Help Wanted OnLine®.

The detail of prior discussions in *Commentary No. 948*, *No. 852* and *No. 820*, has been updated for the May 2018 information. These comments and analysis remain those of ShadowStats alone, not those of The Conference Board, including the experimental *Graph OC-2*.

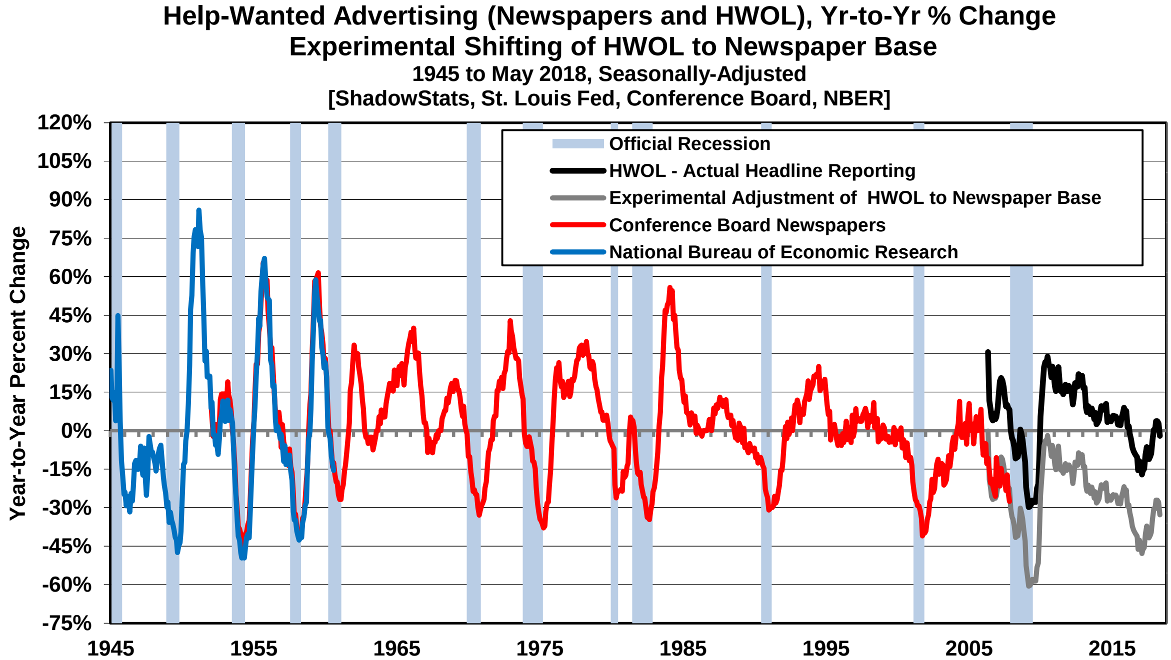
ShadowStats follows a number of business indicators—both conventional and not—looking for reliable reporting of real-world economic activity and for indications of shifting patterns in same. The HWOL is one of the best, private leading-indicator measures. Before the natural-disaster (hurricanes and wildfires) economic disruptions and the related recovery boosts in the last five months of 2017, a number of major government economic indicators, including production, employment and housing and construction measures, had been showing "unexpected" weakness, or continued non-recovery/non-expansion and renewed downturn in the post-2007 economic collapse period.

The disaster-recovery boost appeared to peak in November 2017, with many elements of broad economic activity beginning to turn down anew. Those trends should continue in play, and the headline details with the May HWOL could be a partial artefact of the final unwinding of those disaster-recovery effects.

The Conference Board Help Wanted OnLine® Advertising, Historical Background. *[Please note: this section has been revised minimally from prior reporting, primarily for the monthly update to the experimental, comparative* Graph OC-2.*]* The HWOL basic concept has proven itself over the last century, in the context of the closely-paralleled tallying of help-wanted advertising in newspapers. As had been noted previously, annual growth in the current on-line series tracked the economic collapse into 2009, parallel with the last of the series based on newspaper help-wanted advertising (see *Graph OC-2*).

Although the new series tracked the newspapers with parallel shifts in annual growth, the new series relative changes were at more-positive year-to-year change levels, presumably related to the change in the nature (perhaps cost or ease) of the new advertising technology (online versus printed newspaper). As to what the new series would look like, if shifted visually to match the highly correlated, prior and coincident newspaper series, consider experimental *Graph OC-2*. The current plot would be underwater, where the black line reflects the headline HWOL series and related annual growth rates for the actual series, the gray line shows that series fit to overlay the annual growth in the newspaper series. Again, this plot is an experiment of ShadowStats, not the Conference Board.

Graph OC-2: Historical Comparisons of Help-Wanted Advertising versus Economic Activity, Post World War II



The beauty and benefit of a good leading indicator is that it provides a meaningful "advance" signal of a shift in economic activity, before that shift may become obvious in other series. Such is a particularly valuable commodity, when headline data out of the federal government increasingly are politicized and unreliable (see *Special Commentary No. 885*, *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*).

With the preceding ShadowStats comments in mind, the following caution, posted on the Conference Board's web site, speaks for itself:

> NOTE: Recently, the HWOL Data Series has experienced a declining trend in the number of online job ads that may not reflect broader trends in the U.S. labor market. Based on changes in how job postings appear online, The Conference Board is reviewing its HWOL methodology to ensure accuracy and alignment with market trends.

First fully covered by ShadowStats in *Commentary No. 820* of July 16, 2016, the HWOL is updated here through May 2018 (released May 30th). As a leading economic indicator, help-wanted advertising had its roots as far back in time as the initial reporting of Industrial Production, post-World War I. The Conference Board has adapted the concept to reflect the fundamental shift of help-wanted advertising from printed newspapers to online advertising. The prior newspaper-based series simply was the best leading indicator of its day.

Back in the days when help-wanted advertising was the primary source of classified-advertising revenue for the physically-printed, folding newspapers, the Conference Board's Help-Wanted Advertising Index (newspapers) simply was the most reliable leading indicator available of broad economic activity. It was a component of the Commerce Department's Index of Leading Economic Indicators. It led activity in employment as well as the Gross National Product (GNP) and the now-headline Gross Domestic Product (GDP), which is a subcomponent of the GNP (ex-trade flows in factor income such as interest and dividend payments).

The National Bureau of Economic Research (NBER) has published detail with the St. Louis Federal Reserve on help-wanted advertising indices back to 1919. From the post-World War I era into the 2000s, year-to-year change in the various historical help-wanted series always signaled what would become recognized eventually as a formal recession, when the annual change in the index was a contraction by 15% (-15%) or more, which has happened here. Again, see *Graph OC-2* for the post-World War II era.

Since formal tracking switched to help-wanted advertising on the Internet (HWOL®), around 2005, seen with The Conference Board Help Wanted OnLine®, that series has been through only one, formally-confirmed down-cycle in the economy. The year-to-year growth plots in the accompanying graph begin with the first annual-growth rate availability in May 2006. Again, even with a limited initial history, the new series tracked that headline downturn into 2009, directly in tandem with the final several years of surveys of newspaper help-wanted online advertising (again see *Graph OC-2*), and the HWOL® has broadly tracked to the downside in an environment of what appears to be a "new," still-unfolding recession (see *Special Commentary No. 935*).

Considering the apparent recession signal generated by the HWOL®, there appears to be a formal recession missing from the headline accounting by the NBER (formal arbiter of recessions), starting at the end of 2014, as indicated also by the better-quality government or Federal Reserve economic series, specifically Industrial Production (see *Commentary No. 942-B*), and which very easily could show up in the pending the comprehensive GDP benchmark revisions back to 1929 on July 27th (see the *Executive Summary* of *Commentary No. 943* and the later section in these *Opening Comments* on the Retail Sales benchmark revisions). Again, comparing the HWOL versus the prior newspaper series suggests a downside shift in the HWOL annual-change plot to put it on a consistent basis with the prior newspaper advertising growth rates, which, again, has been published on an experimental basis in *Graph OC-2*.

Time will establish new annual growth parameters that would signal a formal recession. My betting remains that they will look much like the earlier series, and much like the pattern seen in the present series in terms of year-to-year contraction. Those looking for independent confirmation of underlying economic conditions should find this series to be highly valuable. As for the BLS employment and unemployment series, they still need to begin catching up with the Conference Board's higher-quality, independent leading indicator, despite the ongoing, heavy upside reporting biases deliberately structured into the BLS series and expanded anew into the initial 2017 payroll-survey benchmarking. See the discussions in *Special Commentary No. 885*, *Commentary No. 864* and in *Commentary No. 948*'s *Birth-Death/Bias-Factor Adjustment (BDM)* section of the *Supplemental Labor-Detail Background*.

Retail Sales Benchmark Revisions Reflected a Negative 2016 Annual Retail Trade Survey, Boosted Thereafter by the Usual Suspects: Overly-Optimistic, Underlying Assumptions. Restated historical estimates of the Retail Sales series were just published back to 1992, reflecting results of the 2016 Annual

Retail Trade Survey, in the context of a new sample, new seasonal factors and redefined component series. Released by the Census Bureau (*Press Release*) on Friday, May 25th, the aggregate benchmark revisions were so minor in aggregate as not to be credible, as noted briefly in prior *Commentary No. 951*. That remains the case, as updated here. A comprehensive review of the new numbers, though, has highlighted conflicting signals from the new, hard historical detail, versus the regularly-gimmicked, ever-Pollyannaish underlying assumptions that dominate near-term headline economic reporting.

There is a regular lack of credible Retail Sales reporting, where occasional hard surveys of actual activity, every several years or so (the 2016 Retail Census here), usually lower previously reported guesstimates of Retail Sales activity out of the Commerce Department, only to be supplanted going forward with overly optimistic underlying assumptions. In turn, those assumptions set up the next downside benchmarking, generated from new hard detail.

The primary issue here remains that the U.S. Statistical Bureaus of the Departments of Commerce (Census Bureau and Bureau of Economic Analysis) and Labor (Bureau of Labor Statistics) often have to make underlying assumptions in regular monthly reporting, where hard details are not yet available.

Discussed in *Special Commentary No. 885* (*Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*), the tendency is to use overly-optimistic assumptions, simply because the political embarrassment of understating economic growth is much greater than in overstating it.

Unusually-Minimal Aggregate Revisions Shifted Growth Lower into the 2016 Retail Sales Census, then Assumption-Driven Higher Relative Growth (Not Levels) Boosted Nearer-Term Activity. The 2018 annual benchmark revisions to headline Retail Sales generally were to the downside, but with well below the usual volatility seen in these regular corrections to the series. The effect of the benchmark revisions was to shift historical growth lower into 2016. This largely reflected the negative impact of the 2016 Annual Retail Trade Survey—a census of hard retail sales activity—coming in below the Census Bureau's earlier guesstimates of 2016 activity, which were based on highly-volatile monthly sampling surveys and guesstimates. The revised upside movement thereafter in relative growth, not in level of activity, should prove to be no more than the regular imposition of upside assumptions that standardly bloat interim reporting.

Downside Revisions to Sales Level Amidst Shifting Growth and Holiday-Season Patterns. Despite reporting-quality issues, several significant and unusual points came out of the new details, as considered regularly by ShadowStats, despite a relative shift higher in the most-recent benchmarked growth rates (again, levels of activity still revised lower from 2014 through the latest April 2018 estimate):

Signals of Pending Recession. Discussed in *Commentary No. 950*, the pre-benchmark headlined first-quarter 2018 annualized real contraction of 2.05% (-2.05%), revised to 1.76% (-1.76%) in the benchmarking, yet it remained the deepest quarterly contraction since the 2009 depths of the Great Contraction.

While at least some of that decline was due to the relative waning of natural-disaster impact in fourth-quarter activity, real year-to-year change of roughly 2.0% and below usually signals pending recession. For first- and second-quarter 2018, the year-ago numbers were long before the hurricanes and wildfires. Pre-benchmarking, first-quarter 2018 real annual growth had slowed to 2.01%, from a disaster- bloated 3.17% in fourth-quarter 2017, a formal recession warning. Post-benchmarking, first-quarter 2018 revised to 2.21%, versus 3.39% in fourth-quarter 2017. Post-benchmarking, second-quarter 2018 activity was on early track for a real annual gain of 2.09%. With the new headline levels of activity below their pre-benchmark levels, the recession signal continues in play.

Implications for the Pending GDP Benchmarking. Noted in *Commentary No. 951*, to the extent there are implications for the July 27th comprehensive benchmark revision to Gross Domestic Product (GDP), back to 1929, from the retail sales overhaul, the minimally-revised Retail Sales growth patterns would be consistent with an unfolding, headline double-dip recession, as a second-leg to the headline Great Recession, following the fourth-quarter 2014 peak in Industrial Production. More importantly, the implied weakness in the 2016 Retail Sales Census should have negative GDP impact.

Negative annual revisions in both Industrial Production and Manufacturers' Shipments (see related benchmarking coverage in *Commentary No. 942-B* and *Commentary No. 950*), show slowing activity into 2016, also a good bet for the rehabilitated GDP. Still-pending benchmark revisions in U.S. International Trade in Goods and Services (June 6th) and Construction Spending (July 2nd) also will impact GDP revisions.

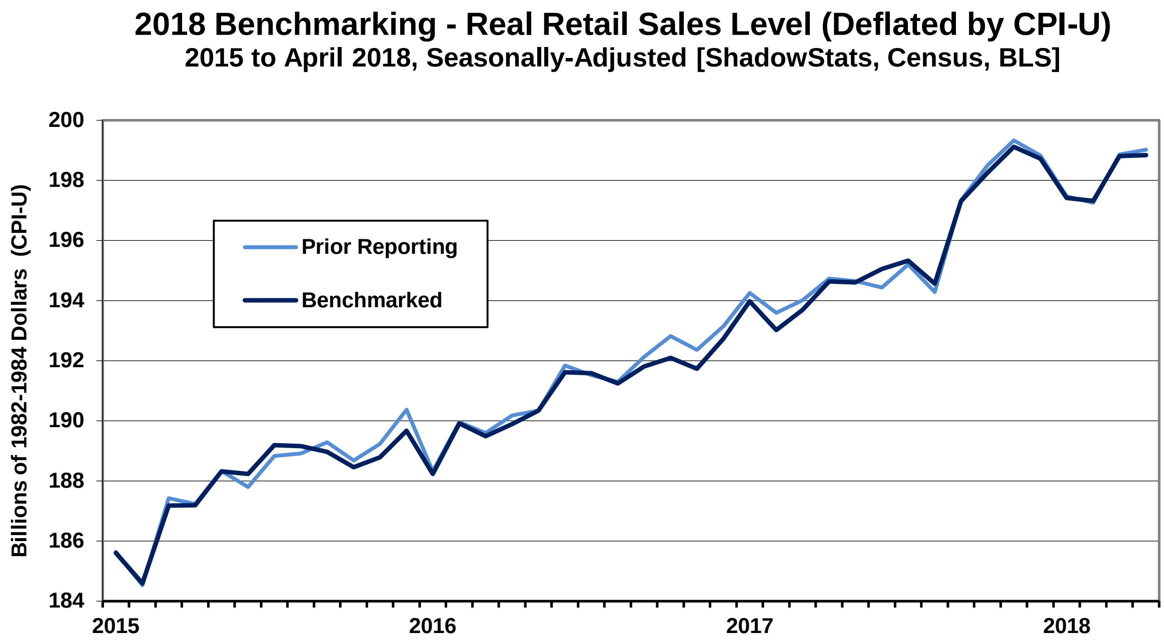
A Negative Shift to Traditional Holiday-Season Shopping Patterns? Accompanying *Table OC-1* shows the average percent revision to nominal retail sales level by month, for the most-heavily revised years, 2014 to 2017. Again, the downside revisions centered on changes triggered by the relatively-weak 2016 Census of the Retail Trade. Interestingly, the heaviest downside revisions to the levels of these seasonally-adjusted series were seen in fourth-quarter activity, periods that encompassed and were dominated by the traditional Holiday Shopping Season of November and December.

Table OC-1: Average Monthly Revisions in Nominal Retail Sales Activity from the 2018 Benchmarking

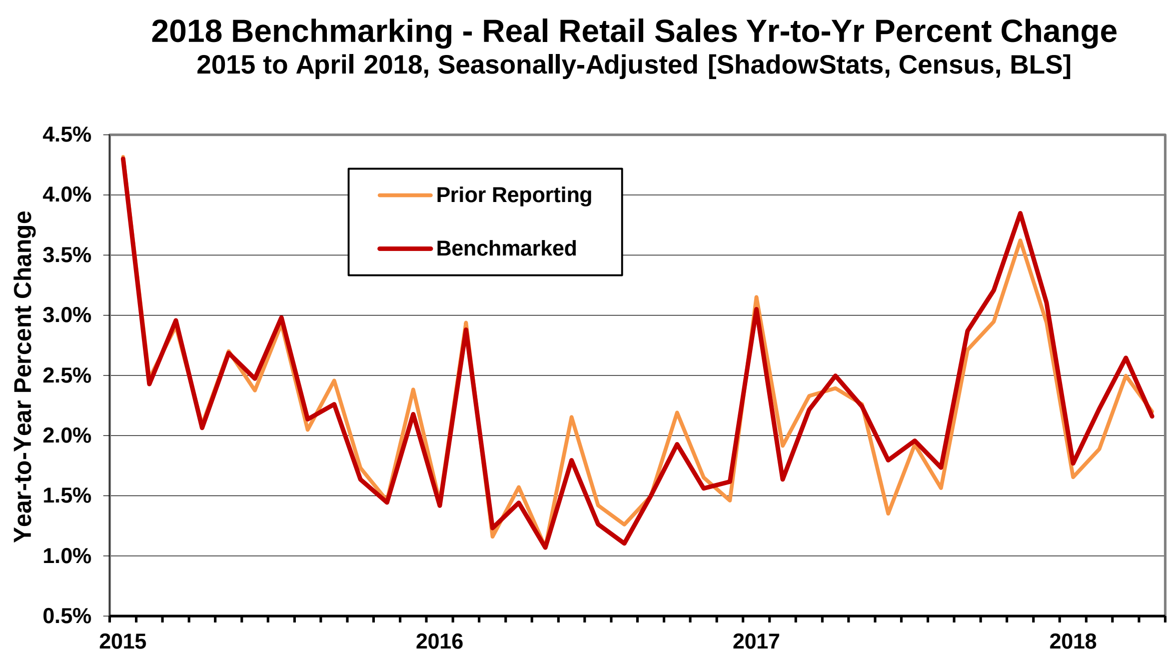
2018 Retail Sales Benchmarking		
	Average Percent Revision to Monthly Level of Sales Activity	
Year	Full Year	Holiday Shopping Season*
2014	-0.02%	-0.14%
2015	-0.04%	-0.24%
2016	-0.12%	-0.31%
2017	-0.04%	-0.10%
* Fourth-Quarter; Sources: ShadowStats, Commerce		

Graphs With a Narrowed Time Horizon. The graphs in the *Opening Comments* of *Commentary No. 951* showed plots since 2012. The time scale has been narrowed further here to since 2015, in hopes of showing greater visual detail of the net revisions. Where the Retail Sales series was just recast and revised back to its modern incarnation of 1992, the accompanying graphs *OC-3* and *OC-4* reflect the most-visible revisions to the aggregate numbers, post-2014, in its most meaningful economic perspective, which is in real terms, net of CPI-U inflation. Based on the headline Census numbers, the Real Retail Sales series is calculated and published regularly by the Saint Louis Federal Reserve. Also calculated in the same manner here by ShadowStats.

Graph OC-3: Benchmark-Revised Real Retail Sales, Showing 2012 to April 2018



Graph OC-4: Benchmark-Revised Real Retail Sales (Year-to-Year Change), 2012 to April 2018



April 2018 "Advance" Goods Trade Deficit Showed A Narrowing Versus March, but Still-Deeper Deficits in March and February; Next Week's Benchmark Revisions May Be in Play. Normally ShadowStats would review an "advance" monthly trade balance in goods, released before the latest GDP reporting or revision, but not with today's detail. While the first-revision to First-Quarter 2018 GDP showed a deepening trade deficit/net-export shortfall in the headline detail, the context of the "advance" monthly number for April, which applies only to Second-Quarter 2018 GDP and the coincident benchmark revisions, was not obvious.

Where the headline April 2018 detail showed a narrowing of the goods deficit to $68.190 billion from a revised (deeper) $68.592 billion in March, all of the limited headline deficits widened in revision, which also well could be the case for those numbers with next week's, June 6th headline detail for the full-April 2018 trade deficit and coincident annual benchmark revisions. The April deficit will be reviewed at that time, in the context of consistent, benchmarked detail.

EXECUTIVE SUMMARY: Gross Domestic Product (GDP)—First-Quarter 2018, Second Estimate—Hit by Trade Deterioration, Still Troubled by Weak Consumer Activity. Broad, headline U.S. economic growth, as measured by the GDP, notched lower in its first-revision to first-quarter 2018 activity, to an annualized real quarterly growth rate of 2.17% [previously 2.32%], down from 2.89% in fourth-quarter 2017. The revision was in line with consensus expectations.

The downside revision to aggregate growth, primarily reflected negative revisions to Net Exports [the shift was a negative contribution to the GDP growth of 0.12% (-0.12%)], declining growth in Inventories [the slowing was a negative contribution to GDP growth of 0.29% (-0.29%)] and an upward revision the level of the Intellectual Property component of Fixed Investment [the increase boosted GDP growth by 0.29%].

Discussed in the *Opening Comments* and *Consumer Liquidity Watch*, however, the U.S. consumer continues in an intensifying liquidity bind, as reflected the revised first-quarter GDP consumption detail that reflected quarterly contractions not only in Consumer Goods, but also in Residential Construction. Those circumstances rarely are seen outside of formal recessions.

First-Quarter 2018 GDP (including only one more monthly revision) will be the last reporting of this series before its overhaul and redefinitions in the July 27th comprehensive, annual GDP benchmarking, discussed later in this *Executive Summary*.

Headline Second Estimate of First-Quarter 2018 GDP. Detailed in *Table 1*, the headline second estimate of First-Quarter 2018 GDP revised to a slower annualized real quarterly growth rate of 2.15% [previously 2.32%], down from 2.89% in fourth-quarter 2017, 3.16% in third-quarter 2017, 3.06% in second-quarter 2017, 1.24% in first-quarter 2017 and 1.76% in fourth-quarter 2016.

Not shown in the table are the revised year-to-year real growth rate of 2.82% [previously 2.86%] in first-quarter 2018 versus 2.58% in fourth-quarter 2017, 2.30% in third-quarter 2017, 2.21% in second-quarter 2017, 2.00% in first-quarter 2017 and 1.84% in fourth-quarter 2016. The average real annualized and annual GDP growth rate over the last forty years has been 2.7% for both measures.

Table 1 shows the breakout of GDP growth by quarter, by economic sector and by general product sector. As noted in th *Opening Comments*, consumer weakness was seen particularly in the negative contribution to the headline GDP growth rate of 0.13% (-0.13%) in the Goods Sector under Personal Consumption Expenditures, and negative growth contribution of 0.08% (-0.08%) from Residential Investment, a subcomponent of Fixed Investment in Gross Private Domestic Investment.

Table 1: Second Estimate of First-Quarter 2018 GDP, Revised Growth Distribution versus Recent Quarters

Annualized Quarterly Real Growth in Headline Gross Domestic Product Growth Contribution by Consumption and Product Sector							
	1st-Q 2018 Second Estimate	1st-Q 2018 First Estimate	4th-Q 2017	3rd-Q 2017	2nd-Q 2017	1st-Q 2017	4th-Q 2016
CONTRIBUTING ECONOMIC SECTOR							
Personal Consumption Expenditures							
- Goods	-0.13%	-0.24%	1.67%	0.97%	1.16%	0.15%	1.03%
- Services	0.84%	0.97%	1.08%	0.52%	1.08%	1.17%	0.97%
Gross Private Domestic Investment							
- Fixed Investment	1.05%	0.76%	1.31%	0.40%	0.53%	1.27%	0.28%
- Change in Private Inventories	0.13%	0.43%	-0.53%	0.79%	0.12%	-1.46%	1.06%
Net Exports of Goods and Services	0.08%	0.20%	-1.16%	0.36%	0.21%	0.22%	-1.61%
Government Consumption/Investment	0.20%	0.20%	0.51%	0.12%	-0.03%	-0.11%	0.03%
GDP Annualized Real Growth	2.17%	2.32%	2.89%	3.16%	3.06%	1.24%	1.76%
Final Sales, GDP Less Inventories	2.04%	1.89%	3.42%	2.37%	2.94%	2.70%	0.70%
CONTRIBUTING PRODUCT SECTOR							
Goods	0.94%	0.88%	0.78%	2.74%	2.10%	-0.47%	0.88%
Services	0.91%	1.10%	1.18%	0.93%	1.32%	0.91%	0.61%
Structures	0.33%	0.34%	0.93%	-0.51%	-0.36%	0.80%	0.27%
GDP Annualized Real Growth	2.17%	2.32%	2.89%	3.16%	3.06%	1.24%	1.76%
Sources: Bureau of Economic Analysis (BEA), ShadowStats.							

Implicit Price Deflator Showed Weaker Annualized Inflation as the CPI-U Soared. Discussed in the *Reporting Detail*, the Implicit Price Deflator (IPD)—the GDP inflation measure—softened minimally in first-quarter 2018 revision, an annualized quarterly inflation rate of 1.95% [previously 1.98%], down from 2.34% in fourth-quarter 2017. In contrast, the headline, seasonally-adjusted Consumer Price Index (CPI-U) showed a first-quarter 2018 inflation rate of 3.51%, up from 3.31% in fourth quarter 2016.

Gross National Product (GNP) and Gross Domestic Income (GDI). Also reviewed in the *Reporting Detail*, initial reporting of First-Quarter 2018 Gross Domestic Income (GDI), the theoretical income-side equivalent to the consumption-side GDP, showed real annualized quarterly growth of 2.80%, versus a revised 1.05% in fourth-quarter 2017, with year-to-year growth of 2.14% versus 2.11%.

The initial reporting of the broader First-Quarter 2018 Gross National Product (GNP) showed real annualized quarterly growth of 2.00%, versus 2.71% in fourth-quarter 2017, with year-to-year growth of 2.78% versus 2.51%.

Underlying Economic Reality. *[Note: With natural-disaster-related disruptions largely having played out or having wound down coming into the first-quarter 2018, this text largely has been repeated from* Commentary No. 947*, which covered the first estimate of First-Quarter 2018 GDP. All details and graphs have been updated to reflect the latest developments and the headline reporting of the second estimate of First-Quarter 2018 GDP (also, for background, see* Commentary No. 950*, the* Economy *section of* Special Commentary No. 935, 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 incorporated here by reference).*

The consumer-base of the U.S. economy remains troubled, with faltering confidence and mounting liquidity issues as discussed in today's *Opening Comments* and *Consumer Liquidity Watch* on page 30.

With increasingly softer annualized real first-quarter 2018 growth in the GDP of 2.2% coming in somewhat below the 40-year average of 2.7% annualized and annual growth of the series, such reflects some minimal back off from the transient, one-time boosts to fourth-quarter activity from the systemic disruptions and distortions tied to a particularly violent and destructive 2017 Atlantic Hurricane and California Wildfire seasons. That said, while headline growth GDP was positive, underlying real-world U.S. economic activity continued in a deepening-to-flattening and as-yet-unrecognized "new" recession.

Distortions, aside, headline monthly reporting activity in better-quality subsidiary economic series have continued to confirm a still unfolding, renewed contraction (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, again, see *Commentary No. 946* and *Commentary No. 942-B*). While the July 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 that GDP benchmarking.

This ongoing, low-level, non-recovering stagnation/new downturn in the real-world economy remains in place despite some corrective regulatory actions, tax reform and developing movement on the trade front and an unbalanced spending/budget deficit bill. Nonetheless, continuing efforts by the Trump Administration to enact new trade and economic policies, the latter aimed at generating stimulus programs, such as investment in infrastructure, have not been well orchestrated with a still largely uncooperative Congress. Nonetheless, tax reforms indeed should generate some stimulus for business activity along with the recently enacted budget deal. Assuming eventual, coordinated and meaningful legislative movement in the Congress—despite continuing, significant political discord—and given basic economic lead times, the first major, positive impact on the economy, from any actions now, would be after the 2018 Congressional election, into mid-to-late 2019.

The continuing, headline economic boom stories in the popular press largely have been generated at least partially as a result of waning hurricane distortions having boosted recovery-related consumption and production, seen in the headline fourth-quarter GDP, with likely some lingering effects into first-quarter 2018. Beyond the one-shot, current hurricane-related boosts straddling third- and fourth-quarter 2017 GDP, underlying headline economic reporting and even headline GDP growth should turn lower/negative in the next several quarters, perhaps with some still further downside revision to first-quarter 2018, next month.

Benchmark Revisions and Perpetual GDP Overstatement. All reporting going forward—beginning with the first estimate of Second-Quarter 2018 GDP (July 27th)—will be in the context of a then-coincident, comprehensive benchmark revision to the GDP series back to 1929. Based on recent benchmark revisions to underlying economic series, discussed in the *Opening Comments*, odds strongly favor downside revisions to GDP activity since at least 2014, most likely since 2010. Although a new recession should be coming into play in the next several quarters, the benchmarking could show that the 2007 recession was a double-dip recession, turning down anew after Industrial Production "recovered" briefly from the 2007 collapse into 2009, in fourth-quarter 2014, only to falter again. Common experience appears to reflect the economy off bottom, but not fully recovered, as seen in *Graphs 1* to *9* with related comments ahead.

Headline GDP overstatement has been a common issue in recent years. Discussed back in *Commentary No. 823*, 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 recognized as having begun around December 2014, perhaps with the pending, comprehensive 2018-benchmarking overhaul. *Commentary No. 902-B* offered similar comments on the 2017 benchmarking.

Beyond the smoothing gimmicks of the 2016 benchmarking, the prior year's 2015 GDP annual benchmark revisions coverage—in *Commentary No. 739*—noted that annual benchmarkings increasingly were reshaping the GDP-reporting history into a post-2007 collapse pattern of successive multiple dips.

With the "comprehensive" GDP benchmark revision pending on July 27, 2018 (a restatement of activity back to 1929), potentially more-honest, post-2007 historical GDP reporting could be confirming a non-recovering, multiple-dip economic collapse including a "new" or ongoing downturn post-fourth-quarter 2014. The Bureau of Economic Analysis (BEA) recently posted its *Background Briefing* on the pending GDP revisions. Some of the factors in play already have hit the production data, in its revision (as suggested in *Commentary No. 942-B*).

These background circumstances also should encompass the evolving, current 2018 downturn in broad, domestic economic activity, discussed in *Special Commentary No. 935*. 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 *Commentary No. 823*).

Headline Aggregate GDP Remains Heavily Overstated versus Underlying Reality. 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 *Special Commentary No. 935*. A sampling of those indicators—plotted in this section—includes such varied series as domestic freight activity (*Graph 5*), industrial production of consumer goods (*Graph 6*), U.S. petroleum consumption (*Graph 7*), total real U.S. construction spending (*Graph 8*) and the employment-population ratio (*Graph 9*). 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 or contributed significantly to the headline post-2009 faux ongoing economic recovery and expansion.

Accordingly, the broad ShadowStats economic outlook has not changed a bit, fundamentally, and, again, the gist of most of following text remains along the lines as expounded upon in *Special Commentary No. 935*. The details and numbers here, again, are updated for the latest headline information. In combination, these various collapsing, non-recovering and non-expanding 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 may be political/financial-market gaming of the GDP data and other headline numbers, such as the unemployment rate.

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 the still highly-questionable data on the Affordable Care Act (ACA) and related healthcare spending—a consistent, fundamental pattern of faltering historical activity, again, is shown in the accompanying "corrected" GDP graphs (see *Graphs 2* and *4*).

Discussed in today's *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 tell that story, updated for the second estimate of first-quarter 2018 GDP, as well as a sampling of other elements of economic reality.

The first set of graphs (*Graphs 1* and *2*) updates the detail 1970-to-date, expressed in billions of 2009 dollars used with the headline GDP, for the revised headline detail available for first-quarter 2018. Updated for the new numbers, the graphs show official periods of recession as shaded areas, with ShadowStats-defined recessions indicated by the lighter shading in *Graph 2*, the second graph of the first set, as published initially in *2014 Hyperinflation Report—Great Economic Tumble*.

The second set of graphs (2000-to-date) is the one traditionally incorporated in the GDP *Commentaries*. *Graphs 3* and *4* show short-term detail, expressed on an index base where first-quarter 2000 = 100.0.

Shown in the first graph of each set (*Graphs 1* and *3*) 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 second estimate of first-quarter 2018 GDP currently stands 15.9% above its pre-recession peak estimate of fourth-quarter 2007. Again, no other major economic indicators show recovery or expansion close to the GDP's, as discussed in the *Opening Comments* of prior *Commentary No. 946*. None of the series covered in this section or in *No. 859* has shown a significant recovery to pre-recession highs, let alone formal economic expansion.

In contrast, the "corrected" GDP version, in the second graph of each set (*Graphs 2* and *4*), shows the second-estimate of first-quarter 2018 GDP activity still to be down by 6.3% (-6.3%) from its pre-recession peak of first-quarter 2006. Noted in *General Commentary No. 867*, *Commentary No. 869*, *Commentary No. 926* and *Commentary No. 942-B*, 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.

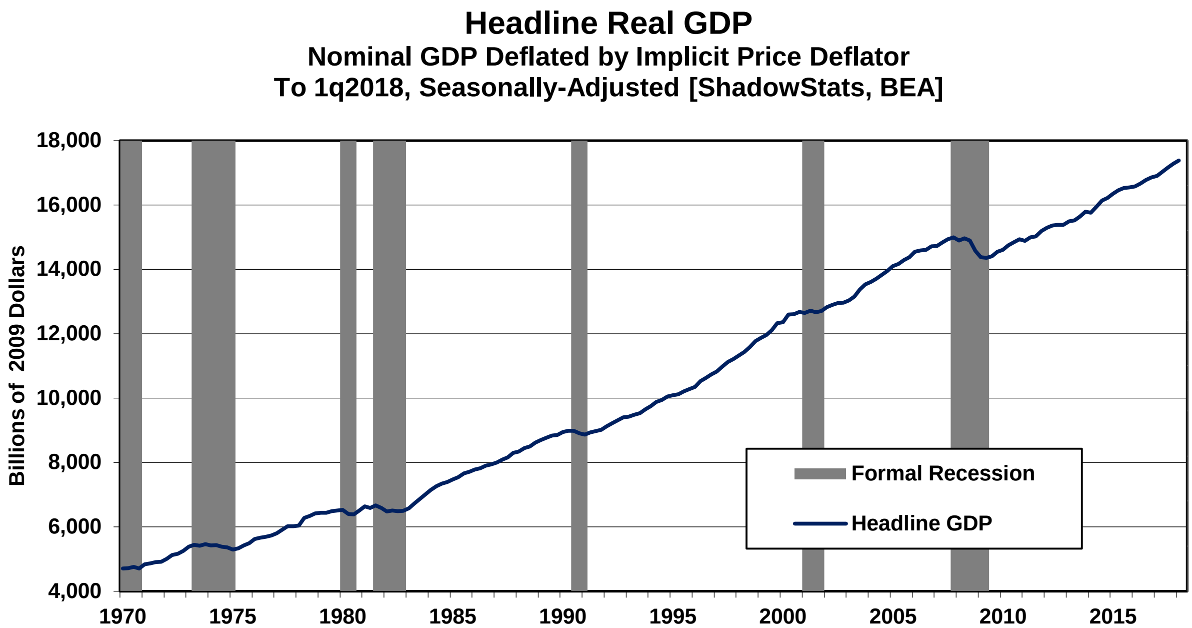
Again, the second graph in each series (*Graphs 2* and *4*) plots the *Corrected Real GDP*, adjusted for the understatement inherent in official inflation estimates (see *Public Commentary on Inflation Measurement*), with the deflation by the implicit price deflator (IPD), adjusted for understatement 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*.

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 5* to *9* (again also see more-extensive background in *Special Commentary No. 935* and earlier in *No. 859*), 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.

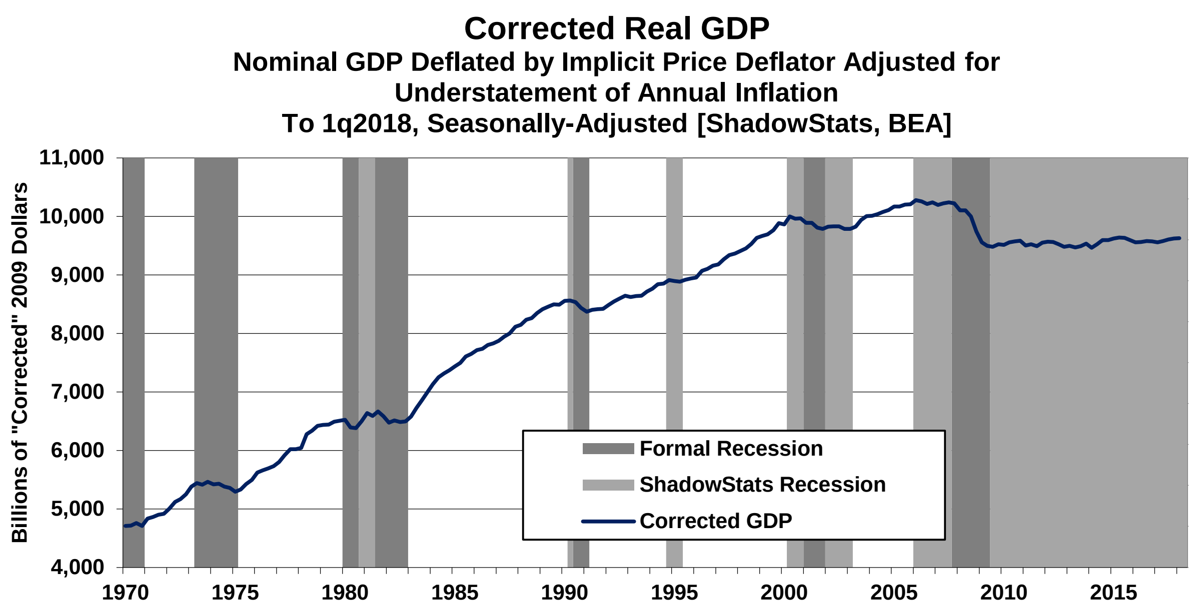
Headline GDP Reporting. The Bureau of Economic Analysis (BEA) reported May 30th, that the second estimate of First-Quarter 2018 GDP showed an annualized quarterly gain of 2.17% versus 2.89% in fourth-quarter 2017, 3.16% in third-quarter 2017, 3.06% in second-quarter 2017 and 1.24% in first-quarter 2017. Year-to-year growth was 2.86% versus 2.58% in fourth-quarter 2017, versus 2.30% in third-quarter 2017, versus 2.21% in second-quarter 2017 and 2.00% in first-quarter 2017. For the full-year 2017, annual GDP growth was 2.25%, versus 1.49% in 2016 and 2.86% in 2015.

Those updated details are reflected in *Graphs 1* and *3*, and in *Graphs 10* to *15* in the *Reporting Detail.* With First-Quarter 2018 GDP standing at 15.9% above the pre-2007-recession peak of the series, an incredible (as in not believable) pace of economic expansion, again, not seen otherwise in other major economic reporting, as regularly discussed here. Again, *Graphs 2* and *4*, reflect the ShadowStats alternative estimates of GDP growth, corrected for the understatement of annual inflation used in deflating real GDP growth.

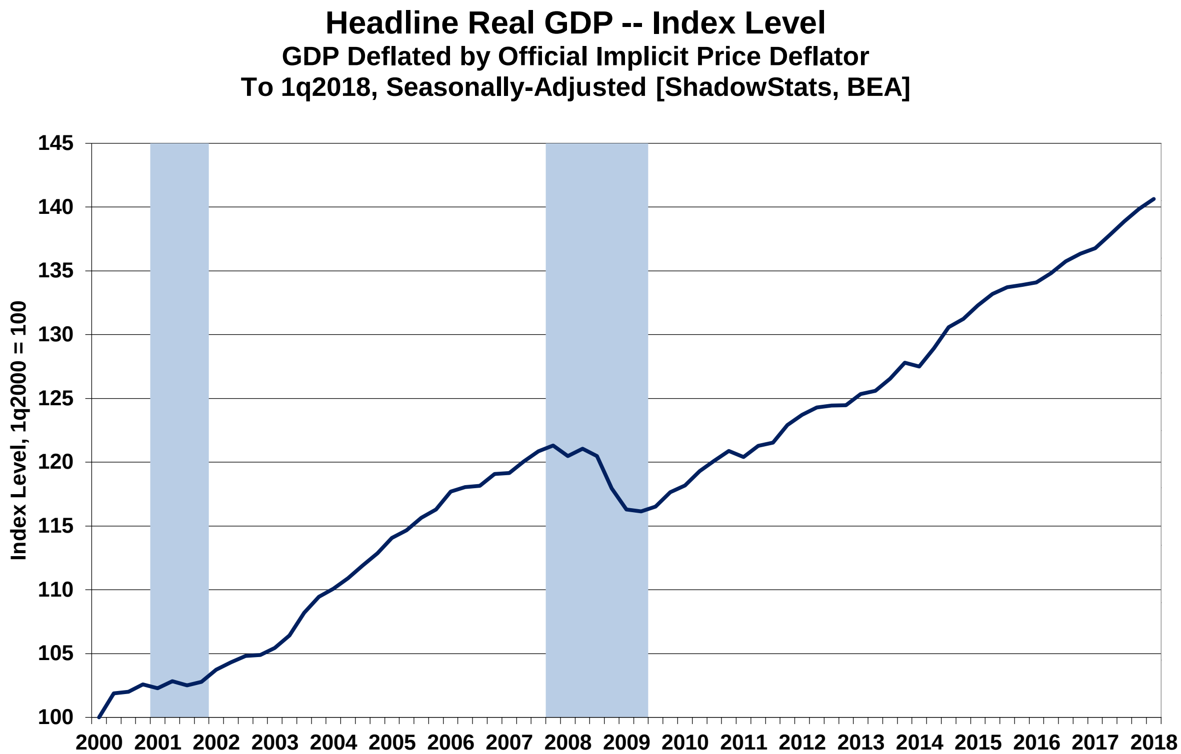
Graph 1: Real GDP (1970 -2018), Second-Estimate of First-Quarter 2018



Graph 2: "Corrected" Real GDP (1970 -2018), Second-Estimate of First-Quarter 2018



Graph 3: Real GDP Index – Headline Real GDP through Second-Estimate of First-Quarter 2018



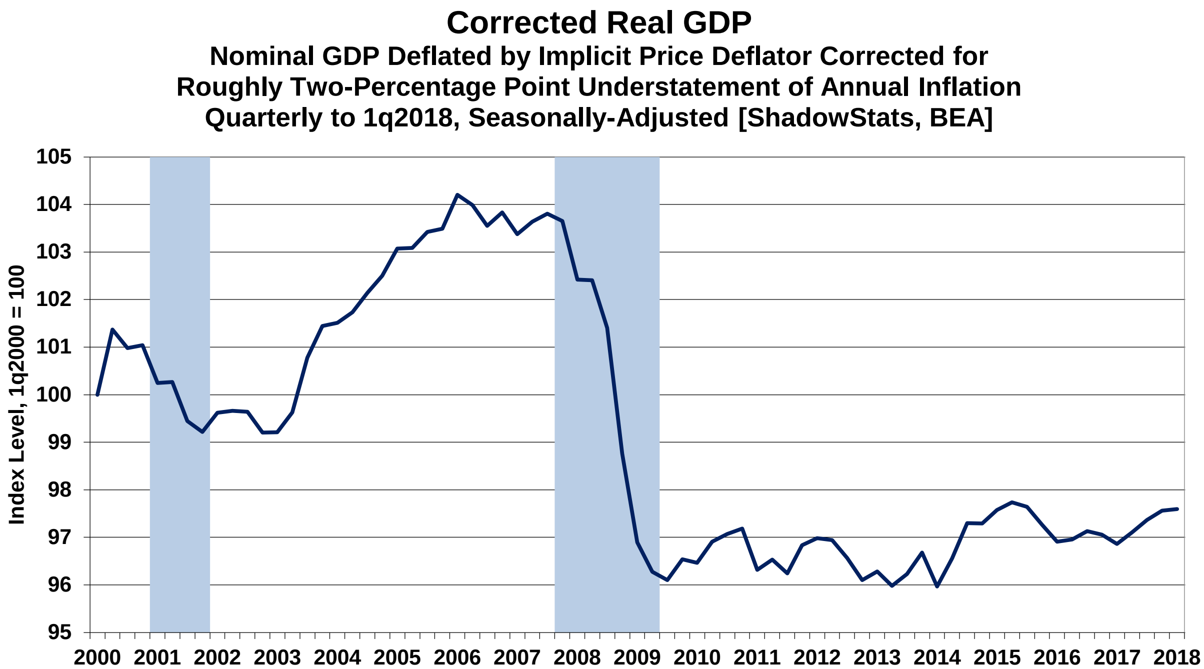
Comparative Indicators. The following *Graph 4* of the "corrected" GDP series is shown along with an example of the regular, comparative economic indicators, which generally confirm the broad story from the "corrected" GDP graph that the economy never recovered from its collapse into 2009 and is either in renewed downturn or continuing low-level stagnation, albeit some of the latter is slightly up-trending.

The comparative *Graph 5* shows the Cass Freight Index™ measure of North American freight volume through April 2018, used with the permission of Cass Information Systems, Inc. Few measures better reflect the actual flow of goods in commerce than freight activity (see the *Opening Comments* of *Commentary No. 950*). As a broad measure of basic domestic economic activity, the index has much more in common with the "corrected" GDP in *Graph 4*, than with the headline GDP of *Graph 3*.

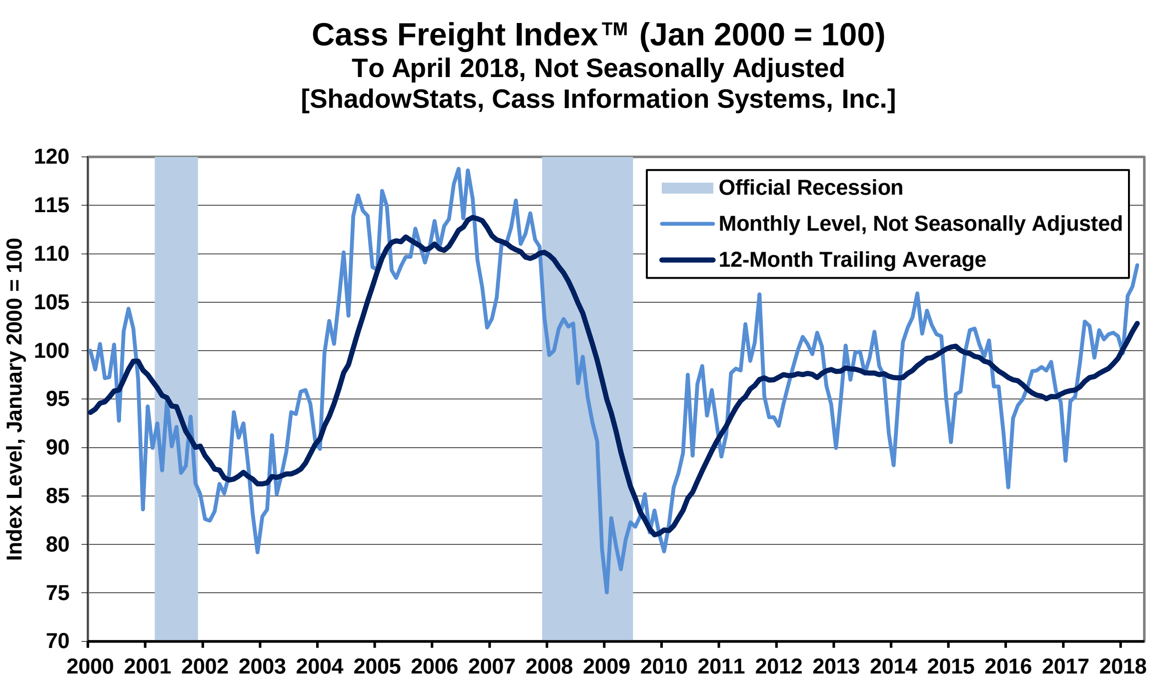
Graph 6 plots April 2018 Manufacturing of Consumer Goods also from *Commentary No. 950*, in the context of continuing downside benchmark revisions to Industrial Production as detailed in there and in *Commentary No. 942-B*. Those revisions likely foreshadow looming downside benchmark revisions to headline GDP on July 27th. *Graph 7* of U.S. Petroleum Consumption, and *Graph 8* of inflation-adjusted total U.S. Construction Spending, which includes 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/downturn.

Graph 9 of the employment-to-population ratio also 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 April 2018.

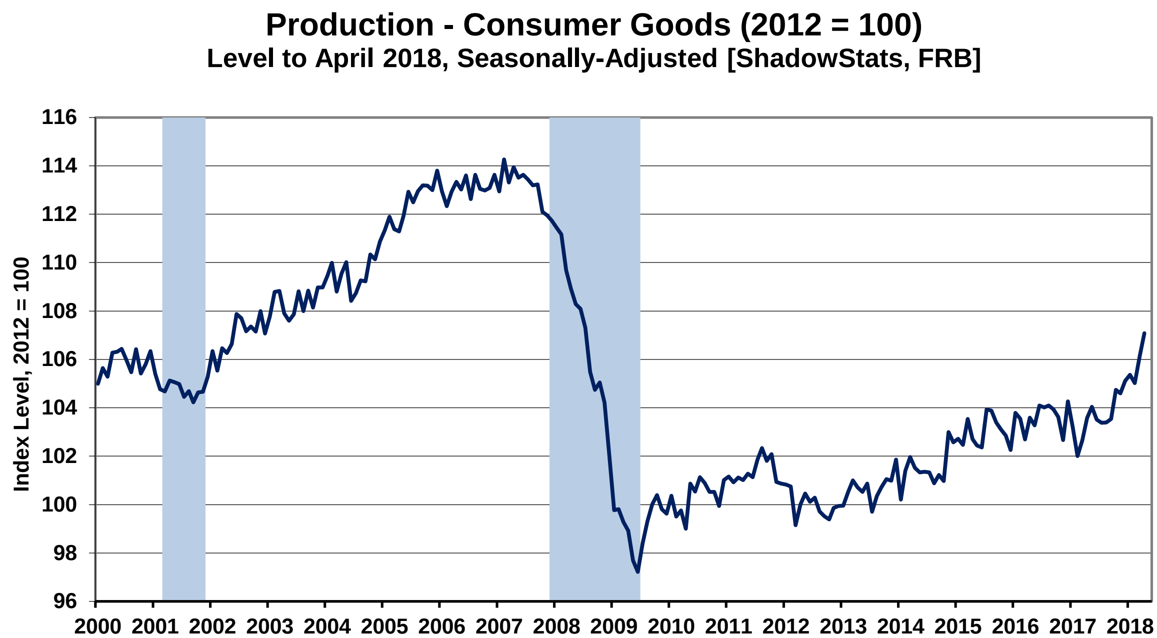
Graph 4: "Corrected" Real GDP Index (2000 - 2018), Second-Estimate of First-Quarter 2018



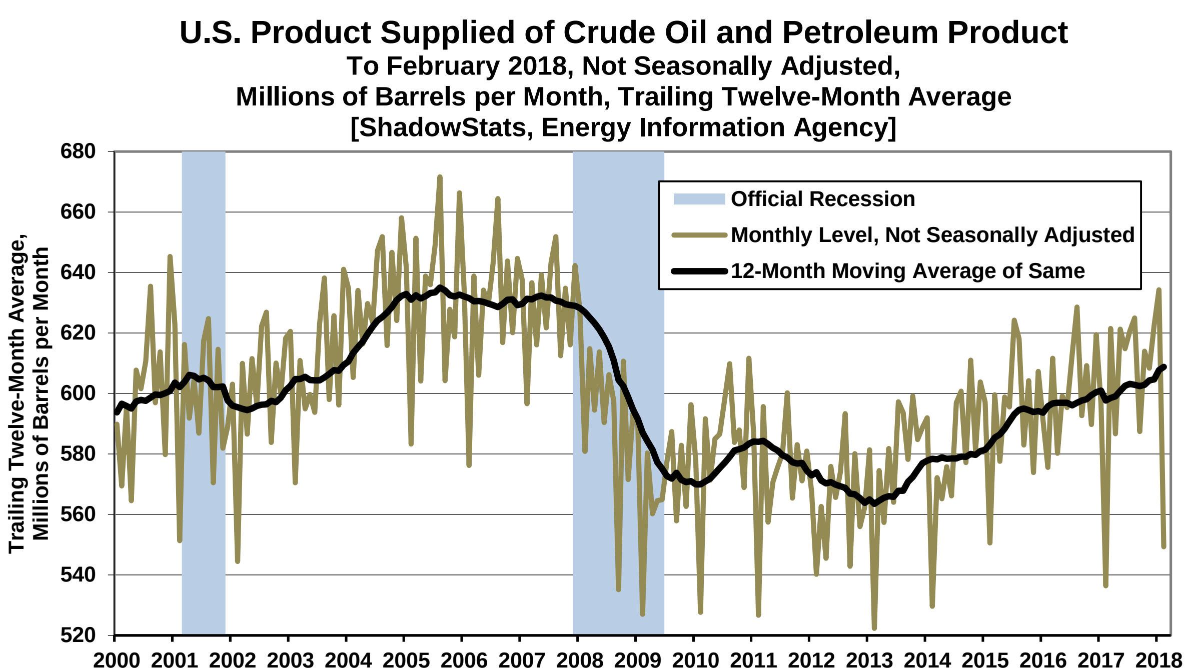
Graph 5: CASS Freight Index™ Moving-Average Level (2000 to April 2018)
(Same as Graph OC-9 in Commentary No. 950)



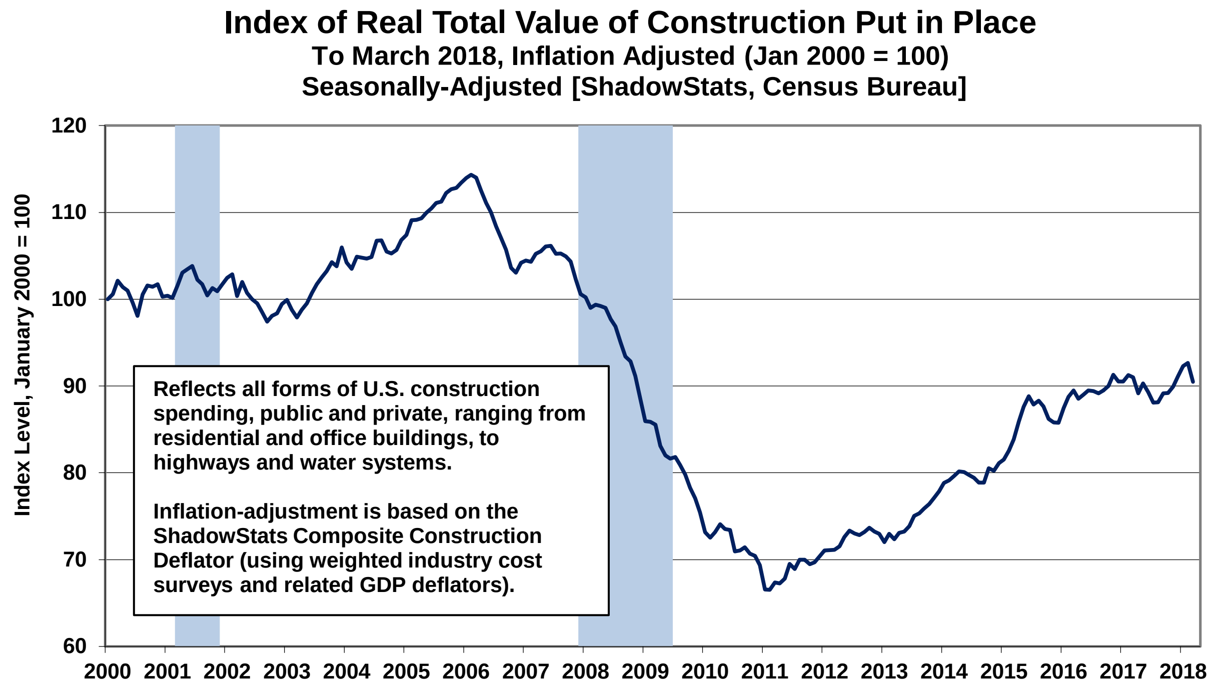
Graph 6: U.S. Industrial Production, Manufacturing - Consumer Goods (2000 to April 2018)
(Same as Graph Benchmark 24 in Commentary No. 950)



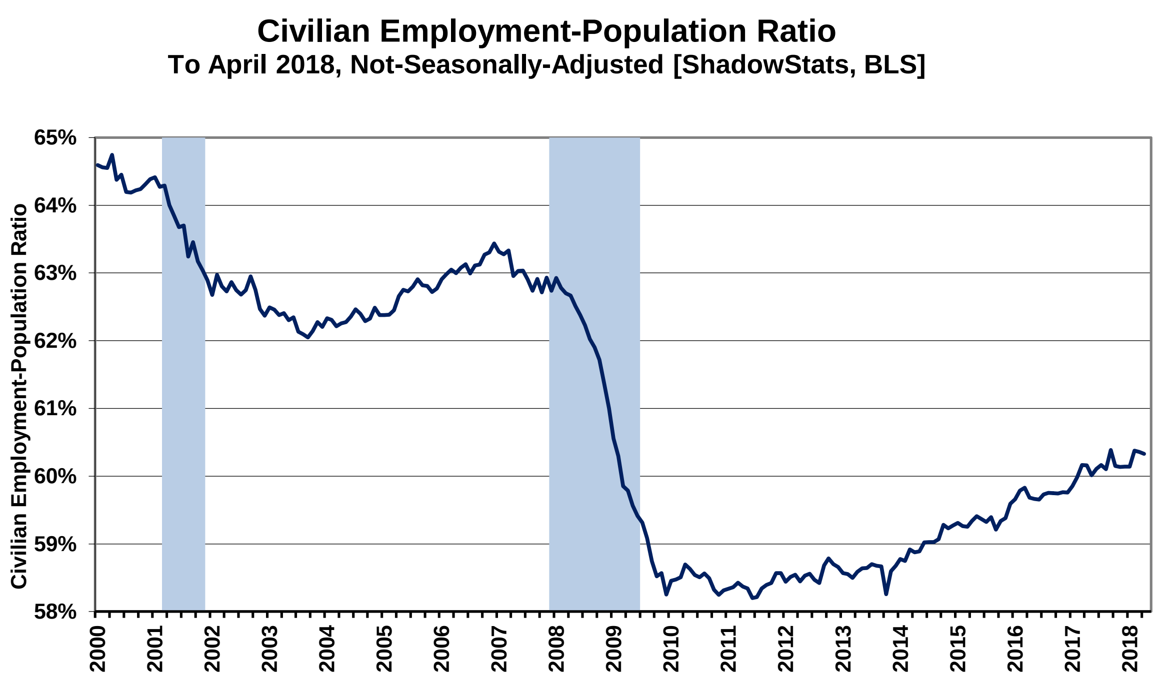
Graph 7: U.S. Petroleum Consumption (2000 – February 2018)



Graph 8: Real Total U.S. Construction Spending (2000 – March 2018)
(See Graph 31 in Commentary No. 948)



Graph 9: Civilian Employment-Population Ratio (2000-April 2018)
(See Commentary No. 948)



[Extended analysis and graphics of the GDP follows in the* Reporting Detail.*]

REPORTING DETAIL

GROSS DOMESTIC PRODUCT—GDP (First-Quarter 2018, First Revision, Second Estimate)

Reflecting Intensifying Trade Issues and Consumer-Liquidity Woes, the Second Estimate of First-Quarter 2018 GDP Softened to 2.17% from 2.32%, versus 2.89% in Fourth-Quarter 2017. First-Quarter 2018 GDP activity slowed to a revised, annualized real quarterly gain of 2.17% [previously 2.32%], from 2.89% in fourth-quarter 2017 and 3.16% in third-quarter 2017, coming in at consensus expectations for revised growth of 2.2%.

The headline, first-quarter 2018 annualized real growth of 2.17% in GDP was accompanied by initial estimates of first-quarter growth of 2.00% in the broader Gross National Product (GNP) reporting and by 2.80% in Gross Domestic Income (GDI), a theoretical equivalent of the GDP. As usual, these numbers were without much real-word meaning.

Although headline fourth-quarter growth slowed from the ten-quarter high level of third-quarter 2017 activity, fourth-quarter GDP remained bloated from disaster recovery. First-quarter 2018 activity has continued to slow sharply, but has remained well above early consensus and did not come close to being flat for the quarter, let alone in outright contraction, as I had predicted initially(ShadowStats). Still, the headline details increasingly have reflected deteriorating conditions for the U.S. consumer, as discussed into today's *Opening Comments*, *Executive Summary* and the *Consumer Liquidity Watch.*

***Heavily Followed but of Extremely Poor Quality*.** Heavily biased to the upside, by understated inflation used in deflating real GDP activity, as introduced with various changes to reporting methodology during the various Bush and Clinton administrations (see the *Public Commentary on Inflation Measurement*), among other issues, this most-politically-sensitive of popularly-followed economic series, the GDP, usually does not reflect properly or accurately the changes to the underlying economic fundamentals and the measures that drive the broad economy. Again, as discussed and reflected in the graphs of the *Executive Summary*, various separately-reported measures of real-world economic activity show that the general economy began to turn down in 2006 and 2007 and plunged into 2009. That plunging economy entered a protracted period of stagnation thereafter—never fully "Recovering," never entering a phase of formal economic "Expansion." It began to turn down anew in late-2014, still in ongoing stagnation/ downturn irrespective of any late-2017 hurricane distortions (see *Commentary No. 902-B* and *Commentary No. 900*).

On occasion, special factors such as natural disasters will distort the regular patterns of quarterly economic activity, as is the recent circumstance, tied to Hurricanes Harvey, Irene and Nate and to the California wildfires in the latter-third of 2017. Those circumstances aside, 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 reporting quality deteriorated anew, sharply in both the 2016 and 2017 benchmarkings (see the *Opening Comments* of Commentary No. 902-B, Commentary No. 823, and Special Commentary No. 885, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*. The pending "comprehensive" benchmark revision to the series, back to 1929 (July 27th), however, should catch up with some missed downside corrections to the series, particularly in 2011, discussed briefly in today's *Opening Comments*, Commentary No. 942-B and Commentary No. 950.

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 Wednesday, May 30th, by the Bureau of Economic Analysis (BEA), the first revision to, second estimate of annualized First-Quarter 2018 Gross Domestic Product (GDP) real growth came in at 2.17% +/- 3.5% (95% confidence interval), matching market expectations of 2.2%, but holding below the forty-year average of annualized quarterly growth of 2.7%. That revised annualized first-quarter growth rate of 2.17% revised lower, from initial reporting of 2.32%, and was down from 2.89% in fourth-quarter 2017, 3.16% in third-quarter 2017, 3.06% in second-quarter 2017 and 1.24% in first-quarter 2017.

Graphs 10 and *12* 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 11* and *13*, headline year-to-year real GDP growth revised to 2.81% [previously 2.86%] in first-quarter 2018, somewhat above the forty-year annual average growth of 2.7%, versus 2.58% in fourth-quarter 2017, 2.30% in third-quarter 2017, 2.21% in second-quarter 2017, 2.00% in first-quarter-2017.

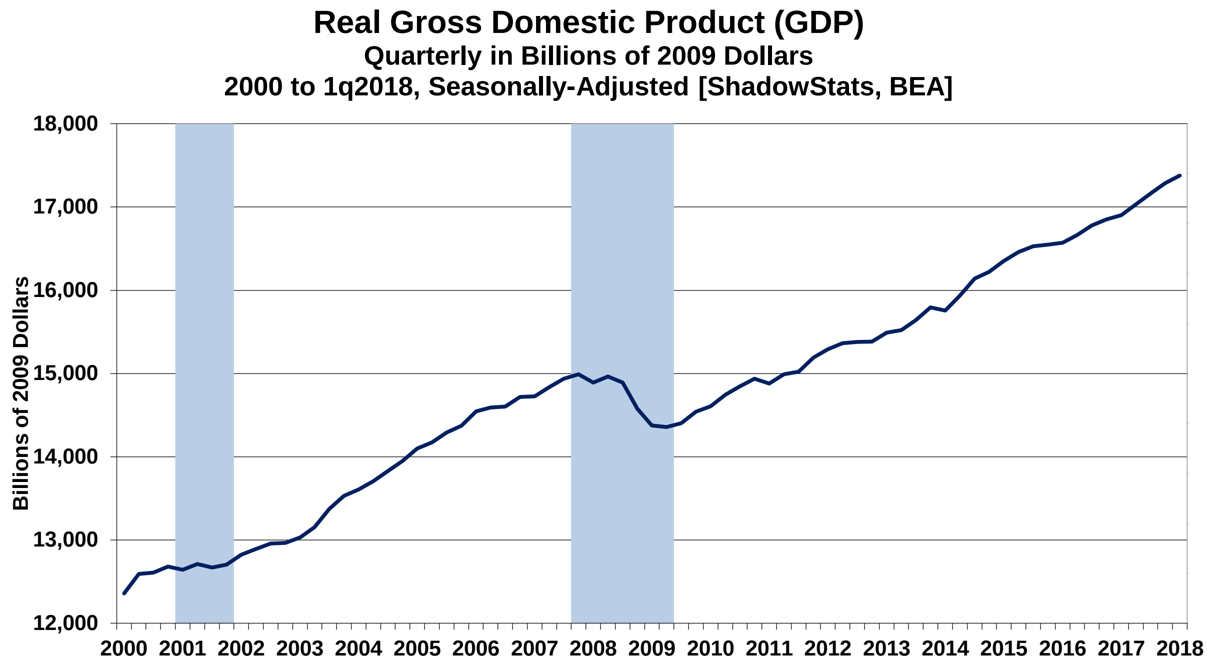
Graphs 14 and *15* respectively show the levels of annual real GDP activity, as well as annual percent change, as estimated beginning in 1929.

Reflected in *Graph 15*, the annual-average real GDP growth in 2017 rebounded some to 2.27%, versus 1.49% in 2016, 2.86% in 2015 and 2.57% in 2014. The annual growth rate of 1.49% in 2016 was the slowest pace of annual growth in the post-2009 "recovery."

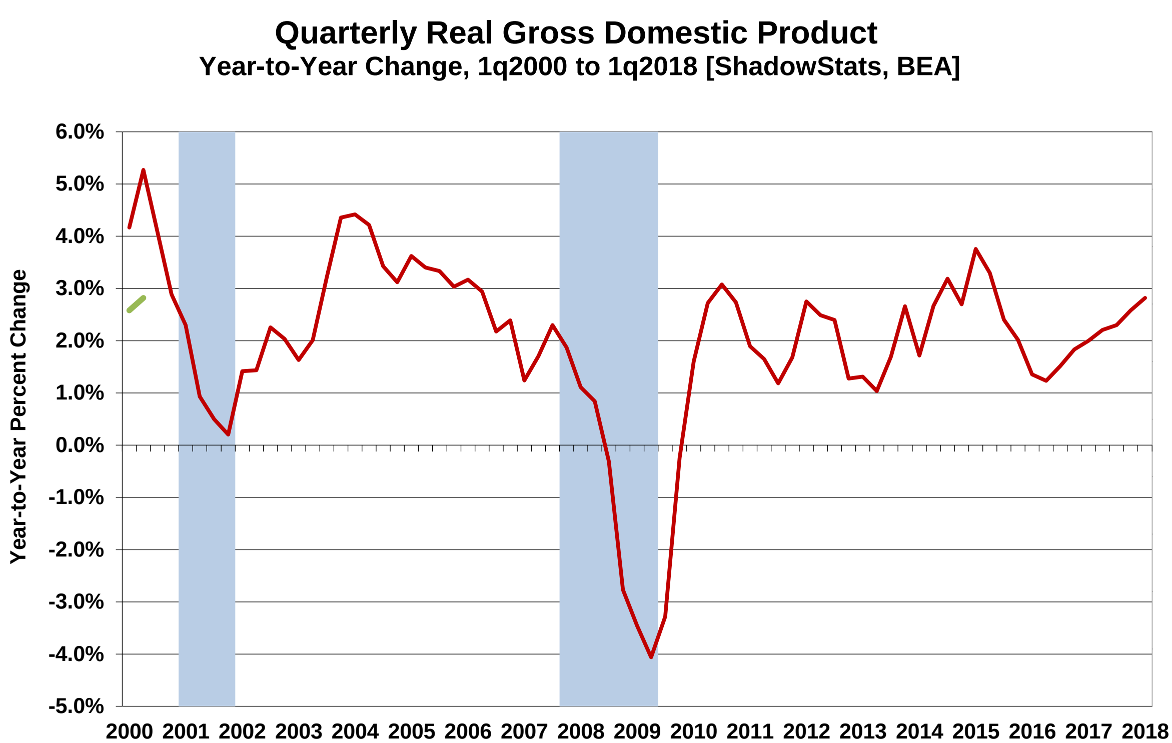
The current-cycle trough in quarterly annual change was in second-quarter 2009 (see *Graphs 11* and *13*), reflecting a year-to-year decline of 4.09% (-4.09%). That was the deepest year-to-year contraction for any quarterly GDP in the history of the series, which began with first-quarter 1947 (1948 in terms of available year-to-year detail). *Graph 11* shows the revised current year-to-year quarterly detail, from 2000-to-date, where *Graph 12* shows the same series in terms of its full quarterly, year-to-year history back to 1948. Shown in *Graph 15*, the annual 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 10 to 15 begin on the next page.]

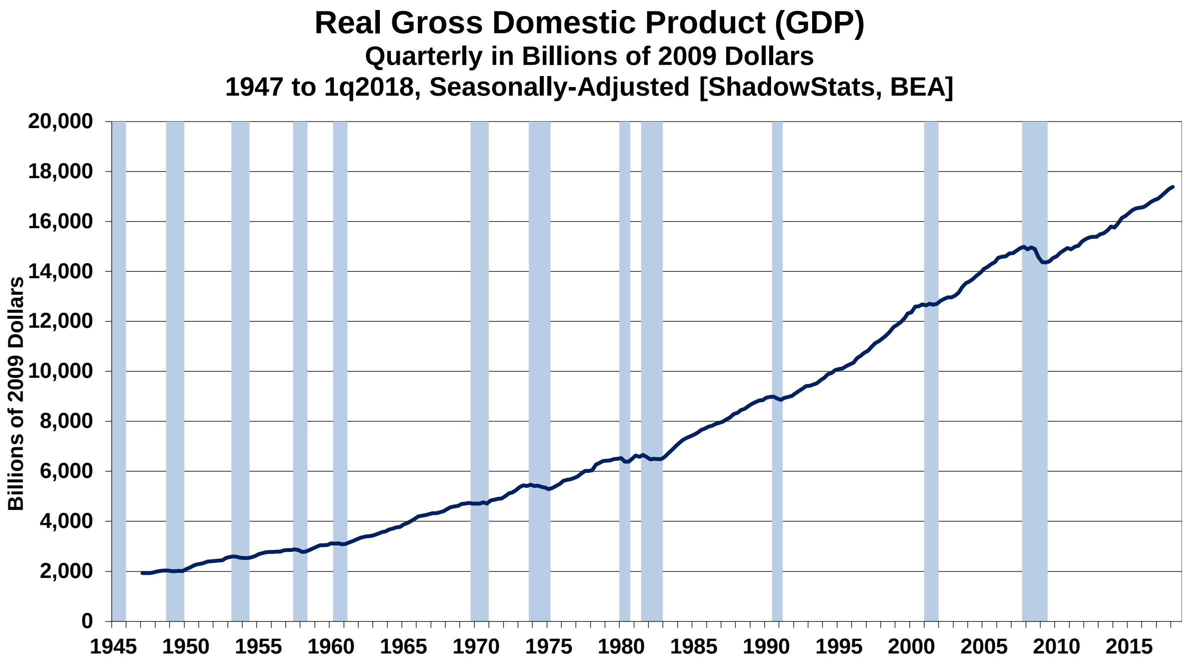
Graph 10: Quarterly GDP in Billions of 2009 Dollars (2000 to 2018), Second-Estimate of First-Quarter 2018



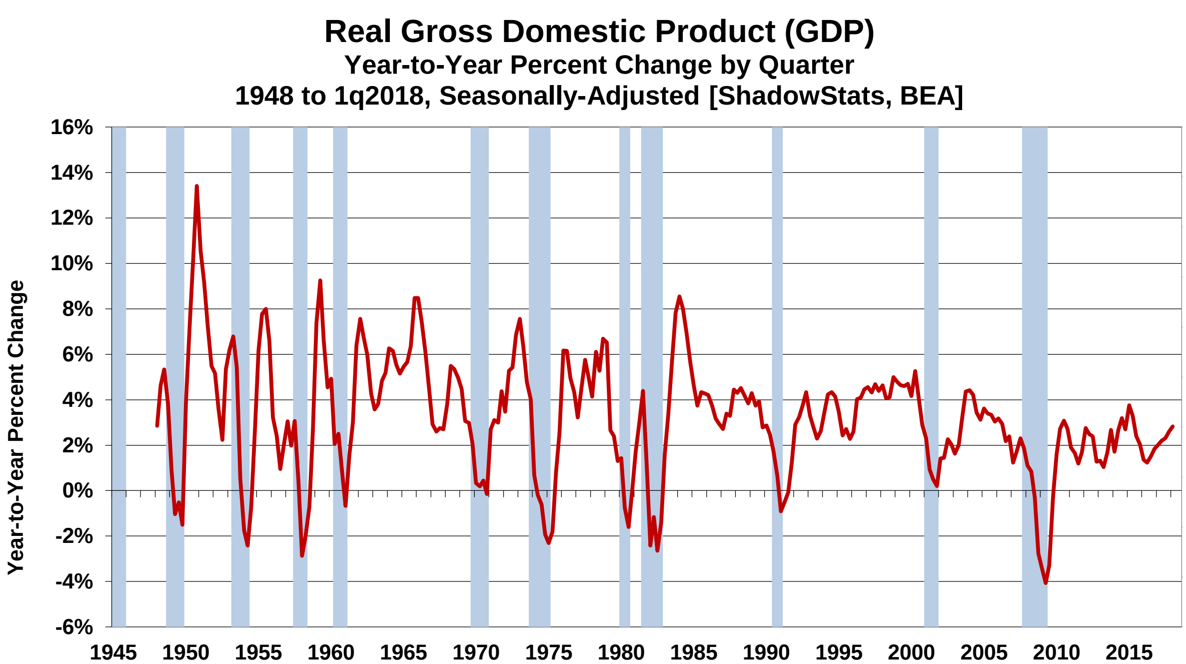
Graph 11: Quarterly GDP Real Year-to-Year Change (2000 to 2018), Second-Estimate of First-Quarter 2018



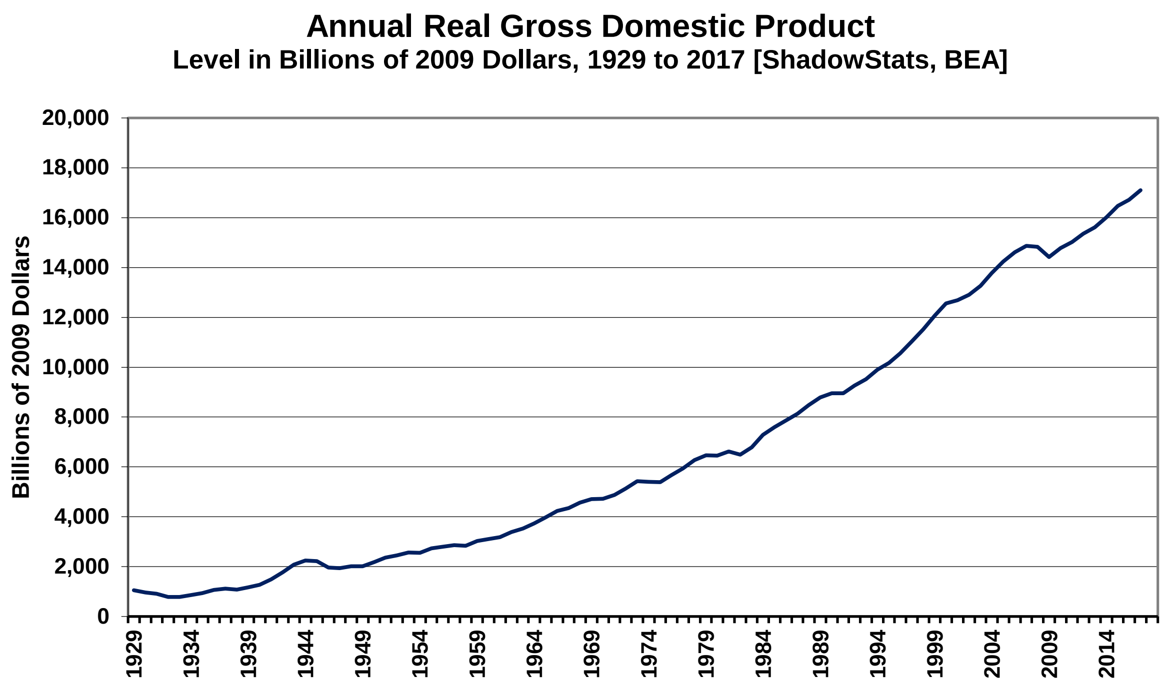
Graph 12: Quarterly GDP in Billions of 2009 Dollars (1947-2018), Second-Estimate of First-Quarter 2018



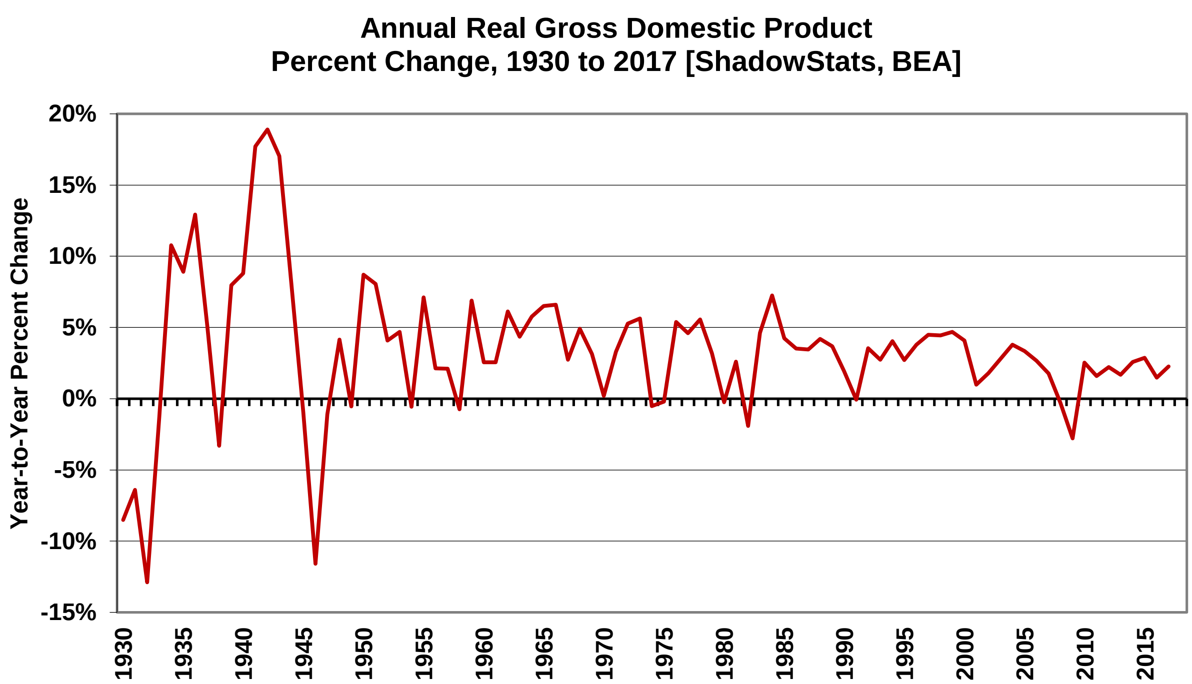
Graph 13: Year-to-Year GDP Real Change (1948-2018), Second-Estimate of First-Quarter 2018



Graph 14: Annual GDP in Billions of 2009 Dollars (1929-2017)



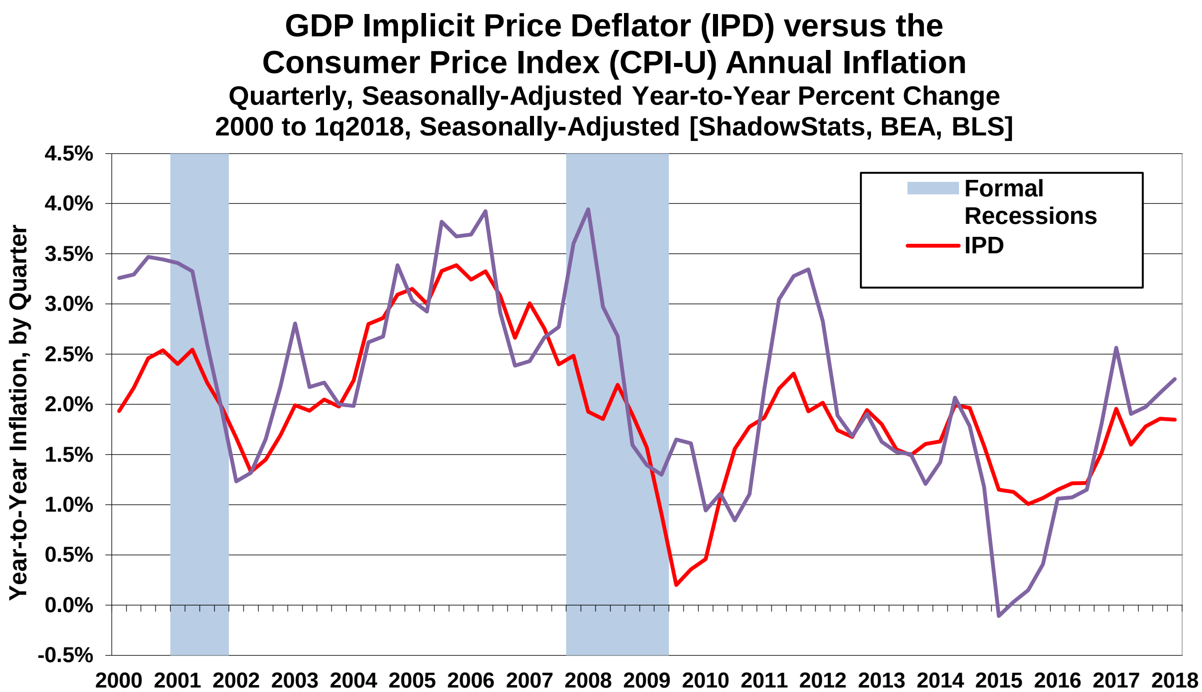
Graph 15: GDP Real Annual Percent Change (1930-2017)



Implicit Price Deflator (IPD). The second estimate of first-quarter 2018 GDP inflation, or the implicit price deflator (IPD) was an annualized quarter-to-quarter 1.95% (previously 1.98%), versus 2.35% in fourth-quarter 2017, 2.09% in third-quarter 2017, 1.01% in second-quarter 2017, 2.00% in first-quarter 2017, 2.03% in fourth-quarter 2016, 1.37% in third-quarter 2016, 2.43% in second-quarter 2016, and 0.25% in first-quarter 2016. 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.

Year-to-year, the second estimate of first-quarter 2018 IPD inflation was unchanged at the second decimal point at 1.85%, versus annual gains of 1.86% in fourth-quarter 2017, 1.78% in third-quarter 2017, 1.60% in second-quarter 2017, 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. In terms of full-year, average annual inflation, the 2017 IPD inflation was an unrevised 1.80%, versus 1.28% in 2016.

Graph 16: Yr-to-Yr Inflation, Second-Estimate, First-Quarter 2018 IPD versus CPI-U (2000-2018)



For purposes of comparison, the seasonally-adjusted Consumer Price Index CPI-U showed an annualized pace of inflation in first-quarter 2018 of 3.51%, having gained 3.31% in fourth-quarter 2017, 2.13% in third-quarter 2017, 0.10% in second-quarter 2017, 2.96% in first-quarter 2017, 2.74% in fourth-quarter 2016, 1.84% in third-quarter 2016, 2.66% in second-quarter 2016 and 0.07% in first-quarter 2016 .

Seasonally-adjusted, year-to-year quarterly CPI-U inflation, consistent with the way the seasonally-adjusted, headline real GDP is worked, showed annual gains of 2.25% in first-quarter 2018, versus 2.16% in fourth-quarter 2017, 1.97% in third-quarter 2017, 1.90% in second-quarter 2017, 2.57% in first-quarter 2017, 1.80% in fourth-quarter 2016, 1.15% in third-quarter 2016, 1.07% in second-quarter 2016 and 1.05% in first-quarter 2016 (see *Graph 11*).

Unadjusted, year-to-year quarterly CPI-U inflation showed annual gains of 2.21% in first-quarter 2018, versus 2.12% in fourth-quarter 2017, 1.96% in third-quarter 2017, 1.91% in second-quarter 2017, 2.54% in first-quarter 2017, 1.80% in fourth-quarter 2016, 1.12% in third-quarter 2016, 1.05% in second-quarter 2016 and 1.08% in first-quarter 2016. In terms of full-year, average annual inflation, the 2017 CPI-U inflation was 2.13% versus 1.26% in 2016.

Gross National Product (GNP) and Gross Domestic Income (GDI). Initial first-quarter 2018 estimates of GNP and GDI were released this morning (May 30th), delayed by one month, as usual, due to a lack of available, significant underlying detail, a problem that remains common to the headline GDP detail, as well. These highly-massaged and gimmicked, broadly-meaningless data all were updated today, subject to the comprehensive benchmark revision back to 1929, scheduled for release on July 27th.

GNP is 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.

That said, in its initial reporting, annualized real First-Quarter 2018 GNP was 2.00%, down from 2.71% in fourth-quarter 2017, versus 3.65% in third-quarter 2017, 2.77% in second-quarter 2017, 0.94% in first-quarter 2017. Real year-to-year growth was 2.78% in the initial estimate of first-quarter 2018 GNP, versus 2.51% in fourth-quarter 2017, 2.48% in third-quarter 2017, 2.22% in second-quarter 2017 and 2.18% in first-quarter 2017.

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 an ever-fluctuating "statistical discrepancy" to the GDI-side of the equation.

Annualized real First-Quarter 2018 GDI rose to 2.80%, versus an upwardly revised 1.05% [previously 0.87%] in fourth-quarter 2017, still down sharply from 2.44% in third-quarter 2017, versus 2.28% in second-quarter 2017 and 2.68% in first-quarter 2017. Real year-to-year growth in first-quarter 2018 was 2.14%, versus a revised 2.11% [previously 2.07%] in fourth-quarter 2017, versus 1.42% in third-quarter 2017, 1.83% in second-quarter 2017 and 1.30% in first-quarter 2017.

ShadowStats Alternate GDP. The ShadowStats-Alternate GDP first-quarter 2018 GDP, second estimate, was an unrevised year-to-year decline of 1.3% (-1.3%), versus a downwardly-revised annual GDP headline gain of 2.8% [previously 2.9%] at the first-decimal point. That was against a ShadowStats annual decline of 1.6% (-1.6%) and an annual, real headline GDP gain of 2.6% in fourth-quarter 2017.

While the annualized, real quarterly growth rate is not estimated formally on an alternate basis, the heavily bloated, overstated, second estimate of an annualized, headline quarter-to-quarter gain of 2.2% in first-quarter 2018 likely was much weaker in reality, net of all the happy assumptions, regular reporting gimmicks and largely "unrecognized" data distortions from recent hurricane activity. Specifically, as the hurricane disruptions to the data increasingly resolve themselves, first-quarter 2018 headline real GDP reporting growth remains at some risk of further downside on June 28th, the last reporting before the whole series revised and revamped back to 1929, on July 27th.

Real-world quarterly contractions appear to have been a realistic possibility for bloated, headline 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 still-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 2* and *4* in the *Executive Summary* (see also the *Economy* section in *Special Commentary No. 935* 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 www.ShadowStats.com home page.

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

CONSUMER LIQUIDITY WATCH

CONSUMER LIQUIDITY, INCOME, CREDIT AND RELATIVE OPTIMISM. *[Updated for May 2018 Consumer Confidence (Conference Board) and Consumer Sentiment (University of Michigan).]*

Consumer Optimism Has Peaked, At Least Temporarily, Pulling Back on Both a Smoothed Basis and Monthly, Net of Revisions, Amidst Tightened Real Growth in Consumer Earnings and Credit. Today's *Consumer Liquidity Watch* incorporates by reference the *Opening Comments* of the May 9th *Commentary No. 948*, which reviewed various economic signals ranging from tightening systemic liquidity tied to sinking, inflation-adjusted real annual growth in M3 money supply, to Sentier Research's reintroduction of monthly Real Median Household Income, highlighted later in this text.

May 2018 details recently have become available for the Conference Board's Consumer Confidence Index (May 29th) and the University of Michigan's final estimate for May Consumer Sentiment (May 25th). While headline Consumer Confidence took a hefty jump in May, such was in the context of a downside revision of 2.4% (-2.4%) to the previously-estimated level of April Confidence, which the new initial May estimate did not top. The final May Sentiment number revised lower, by 0.8% (-0.8%). While both measures remain at high levels, both remain shy of levels seen in November 2017.

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

Liquidity conditions have been tightening for consumers, with Real Consumer Credit Outstanding having continued to falter in March 2018, with headline Real Average Weekly Earnings contracting quarter-to-quarter in first-quarter 2018 and continued faltering in May, and with monthly Real Median Household Income in April 2018 slowing anew in terms of annual growth. These factors are among the likely elements driving the early signs of a downturn in consumer optimism and consumer consumption and residential investment (a shrinking 72.9% of First-Quarter 2018 GDP). In combination, these various factors should exacerbate financial-market, policy-maker and FOMC concerns as to any ongoing, positive direction in broad U.S. economic activity.

Weakening consumer liquidity conditions previously had been mirrored in weakening, headline economic activity coming into the series of major natural disasters that disrupted the economy, beginning in August 2017. Intensifying weakness had included Payroll-Employment, Real Retail Sales, Housing and Construction, and the Manufacturing/Production sector, generally pre-natural disaster activity.

Net of what have been mixed, but significant, hurricane and later-wildfire distortions, initial hits to activity were followed by related and transient economic boosts from recovery, replacement and restoration activity, particular in fourth-quarter 2017. Funded by insurance payments and savings liquidation, those distortions increasingly had passed into the recent headline economic data and now begun to recede. Against artificially bloated third- and fourth-quarter 2017 activity of 3.2% and 2.9%, first-quarter 2018 economic activity slowed to a revised 2.2% and likely will revise still lower as better-quality numbers become available. Such effects are discussed in the separate analyses of relevant series in covered in the regular *ShadowStats Commentaries*. Where there are current signals of faltering consumer liquidity (again see Consumer Credit Outstanding and Real Earnings), headline consumer optimism has begun to falter, as discussed earlier. Net of a sharp downside revision to April, the May 2018 releases of the Conference Board's Consumer-Confidence Index® and the advance-estimate of the University of Michigan Consumer Sentiment for May 2018, again, both were off recent peak activity.

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

These underlying pocketbook issues contributed to the anti-incumbent electoral pressures in the 2016 presidential race. The post-election environment showed a near-term surge in both the consumer confidence and sentiment measures to levels generally not seen since before the formal onset of the recession in 2001, let alone 2007. Yet, underlying liquidity conditions, economic reality and lack of positive actions out of the government to turn the economy meaningfully, so far, all have continued to remain shy of consumer hopes, and those numbers have begun to stumble in recent detail.

The temporary liquidity boost fueled by recent disaster effects, such as insurance payments or savings drawdowns to fund replacement of storm-damaged assets, was of a one-time nature and short-lived in terms of ongoing economic impact. The underlying, fundamental longer-term liquidity issues remain in place. Nonetheless, mirroring the disaster-fueled economic hype in the popular press, consumer optimism had rallied strongly, albeit, again, now faltering or mixed, as discussed shortly.

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

The combined issues here have driven the housing-market collapse and ongoing, long-term stagnation in consumer-related real estate sales and construction activity, and have constrained both nominal and real retail sales. Related, personal-consumption-expenditure and residential-construction categories accounted for 73.1% of the headline real, Fourth-Quarter 2017 U.S. GDP.

Net of short-lived disaster distortions (insurance payments, savings liquidations), with the better-quality economic indicators and underlying economic reality never having recovered fully from the collapse into 2009, consumers increasingly should pull back on consumption in the months ahead. Underlying reality is evident in more-meaningful economic indicators—not the GDP—irrespective of the transient boosts from disasters or political gimmicks, discussed recently in *General Commentary No. 929* and the *Executive Summary* of *Commentary No. 928*.

Anecdotal Evidence of Business and Consumer Uncertainty Continue to Indicate a Seriously-Troubled Economy and Very Dangerous Financial Markets. Against what appears to be a headline economic consensus that all is right again with the U.S. economy and financial markets, underlying real-world common experience suggests a much different outlook. Regularly discussed here, ongoing non-recovery, low-level stagnation and signs of renewed downturn remain patterns common to key elements of headline U.S. economic activity. Consider factors ranging from housing sales and broad construction activity, to headline reporting of domestic manufacturing (and revisions), as well as those series that are heavily gimmicked, such as the Gross Domestic Product (GDP), also regularly discussed and dissected here.

Similar signals of such economic stress are seen in patterns of activity that move along with the real-world broad economy. They range from indicators such as freight volume and domestic consumption of petroleum to factors such as levels of real consumer debt outstanding, real average weekly earnings and measures of employment stress in the broad economy. Those stresses are reflected in historically-low levels of the employment-population ratio and the labor-force participation rate. With the liquidity-starved U.S. consumer driving three-quarters of the GDP, there is no way for the broad economy to boom—happy Retail Sales headlines aside—without some meaningful shift in underlying consumer circumstances. Links to background discussions in these various areas are found in the *Recent Commentaries* section of the *Week, Month and Year Ahead*, along with links to background discussions on the quality of the more-politicized GDP (*Commentary No. 938*) and employment/unemployment details discussed in the *Supplemental Labor-Detail Background* of *Commentary No. 939*.

Beyond assessing headline economic numbers, ShadowStats also looks at anecdotal evidence, including comments by subscribers and clients, who live in the real world. Two broad observations have come from a number of recent conversations. First, real estate activity appears to be slowing in recently strong areas. Second, a number of major companies are "sitting on their hands," holding back on issuing new contracts to third-party vendors in areas such as upgrading computer systems and other consulting. The companies cite the slowdown in contracts as "due to uncertainty," an issue, as well with the U.S. consumer, where that uncertainty encompasses:

- Unfolding circumstances in the Washington, D.C. political arena.
- Where the manic financial markets are headed.
- Ultimately, what is, or will be, happening to near-term business activity?

Economic reporting, and business and financial-market stories sometimes receive happy year-end spikes in the press. That circumstance was supplemented in late-2017 by near-term hurricane boosts to, and distortions of, some current economic activity, such as the November Retail Sales reporting. The latter circumstance should prove fleeting. The underlying, broadly-faltering U.S. economy should be dominating headline economic reporting, once again, and all too soon, most likely in the next couple of months. That said, albeit reflecting some of the headline economic hype in the popular press, headline consumer optimism remains strong.

Consumer Optimism: Consumer Sentiment and Confidence Have Backed Off Recent Peaks. Reflected in *Graphs CLW-1* and *CLW-2*, May 2018 details for the Conference Board's Consumer-Confidence Index® (May 29th) and the University of Michigan's final estimate for May Consumer Sentiment (May 25th) reflected faltering consumer optimism. While headline Consumer Confidence took a hefty jump in May, such was in the context of a downside revision of 2.4% (-2.4%) to the previously-estimated level of April Confidence, which the new initial May estimate did not top. The final May Sentiment number revised lower, by 0.8% (-0.8%). While both measures remain at high levels, both remain shy of levels seen in November 2017.

For both the Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph CLW-1*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph CLW-2*), the monthly and three-month moving averages remain above pre-2007 recession highs, yet the still-high moving averages have slowed in their gains, having begun to falter along with the softening detail and related headline consumer activity on a monthly basis.

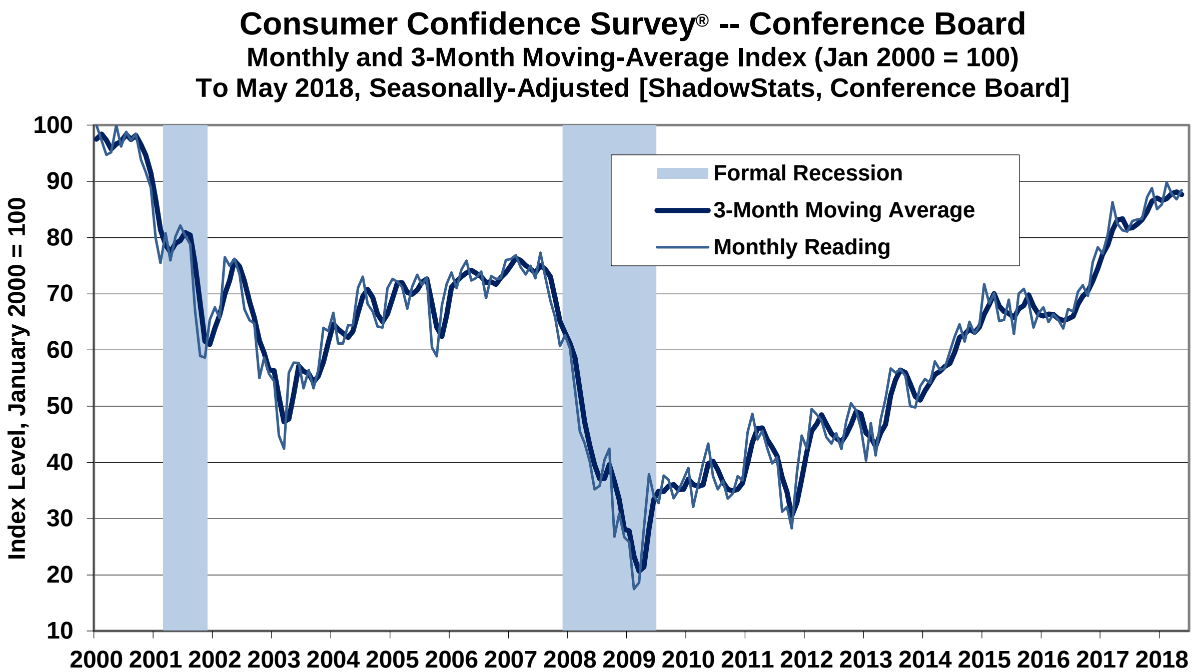
Pre-election, September 2016 Confidence and Sentiment jumped and then plunged in October 2016, likely reflecting concerns as to the direction of the presidential race. Post-election, both measures rallied sharply, reflecting surges in consumer optimism into early-2017. Both series then topped and pulled back, with mixed numbers into August and September 2017, but with the October 2017 Sentiment measure showing a large jump, purportedly because consumers were willing to accept diminished prospects for their living standards (see *Commentary No. 916*)? Nonetheless, the Sentiment measure retrenched in November and December. The Conference Board blamed hurricane impact in Texas and Florida for its downturn in September 2017 Confidence, but those numbers exploded into October and November 2017, again reversing largely with December's headline downturn.

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

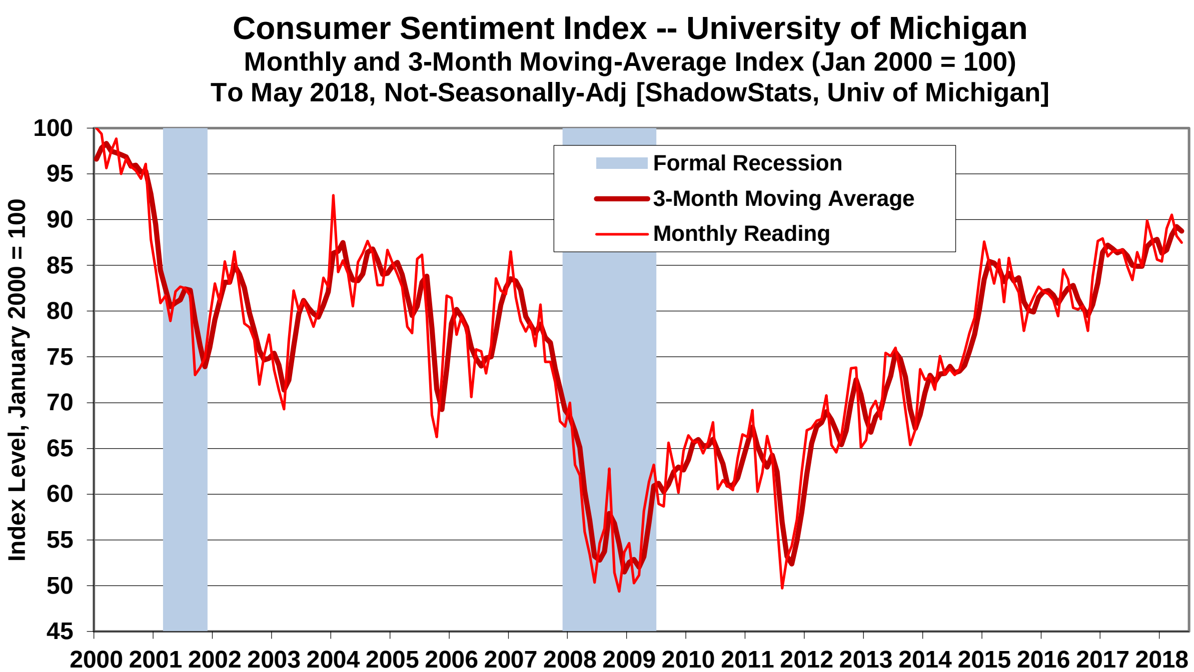
The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in *Commentary No. 764*), and often are highly volatile month-to-month, as a result. Recent press has been highly positive on the headline economic and employment news, reflecting short-lived hurricane boosts to activity particularly on unemployment (not payroll employment), retail sales and industrial production. As headline financial and economic reporting in the next month or two turn increasingly-negative and unstable, so too should the surging "optimism." Increasingly, a downturn in consumer outlook should take hold, despite any euphoric headlines, reflecting some deep-seated consumer liquidity issues.

Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth into fourth-quarter 2017, although various consumer measures to hits in the initial first-quarter 2018 GDP. In the current environment of what had been surging optimism, beyond having happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

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

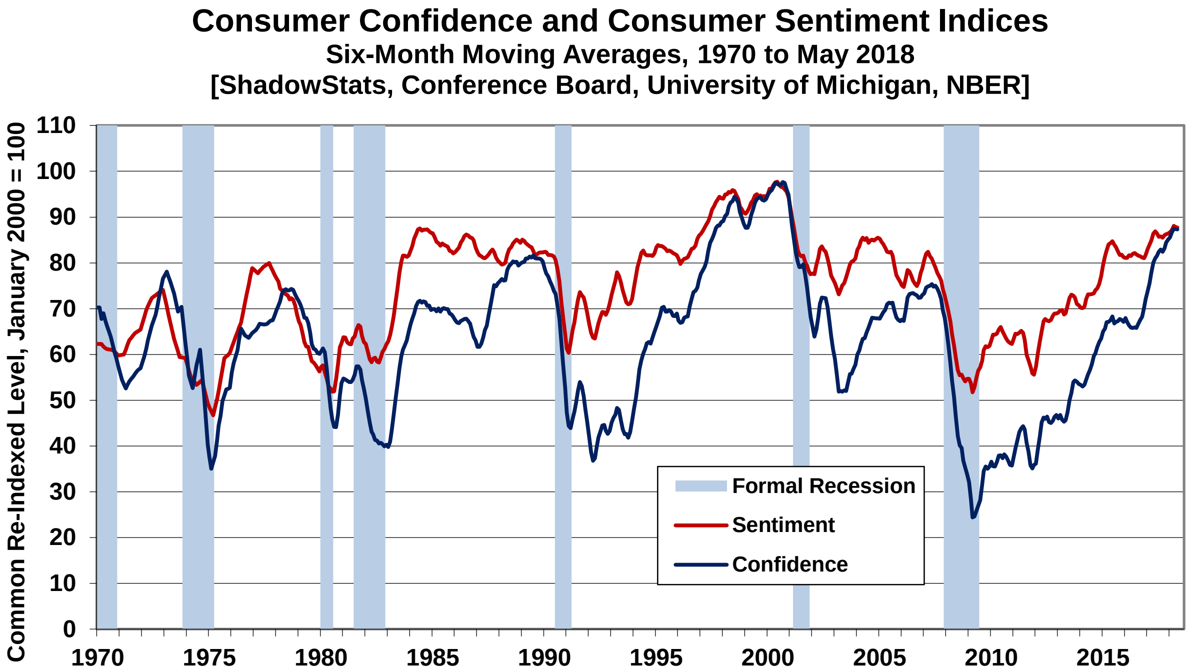


Graph CLW-2: Consumer Sentiment (2000 to 2018)



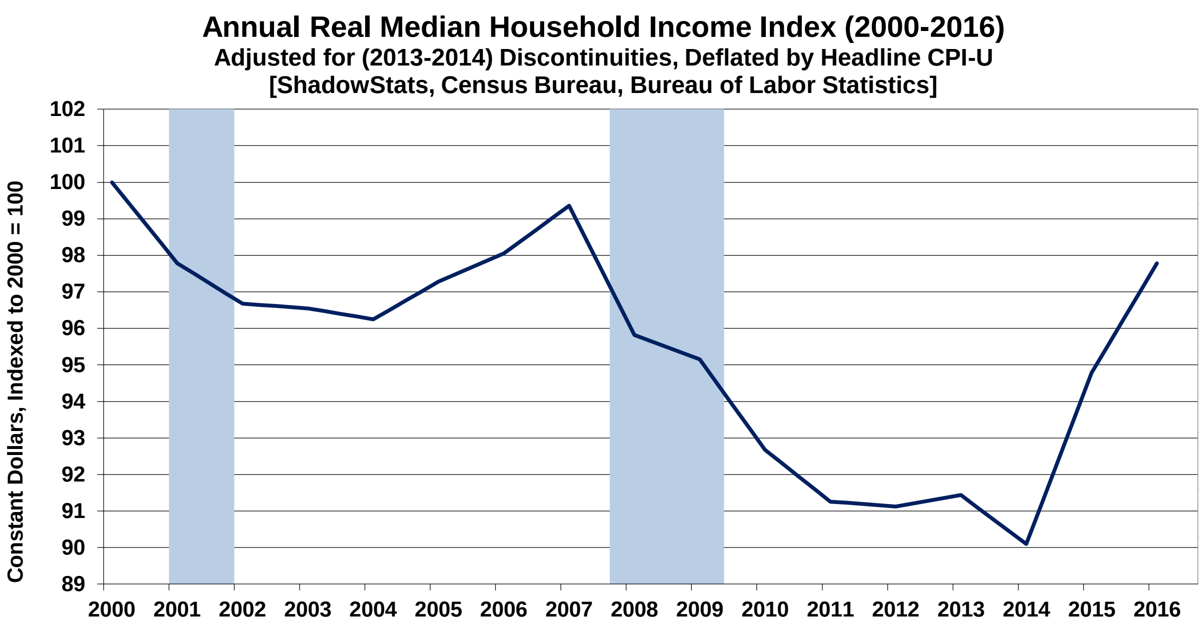
Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CLW-3*—plotted for the last 48 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods of normal, positive economic activity of the last four decades, with their six-month moving averages at levels last seen going into the 2001 recession, although increasingly, they appear to be topping out.

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



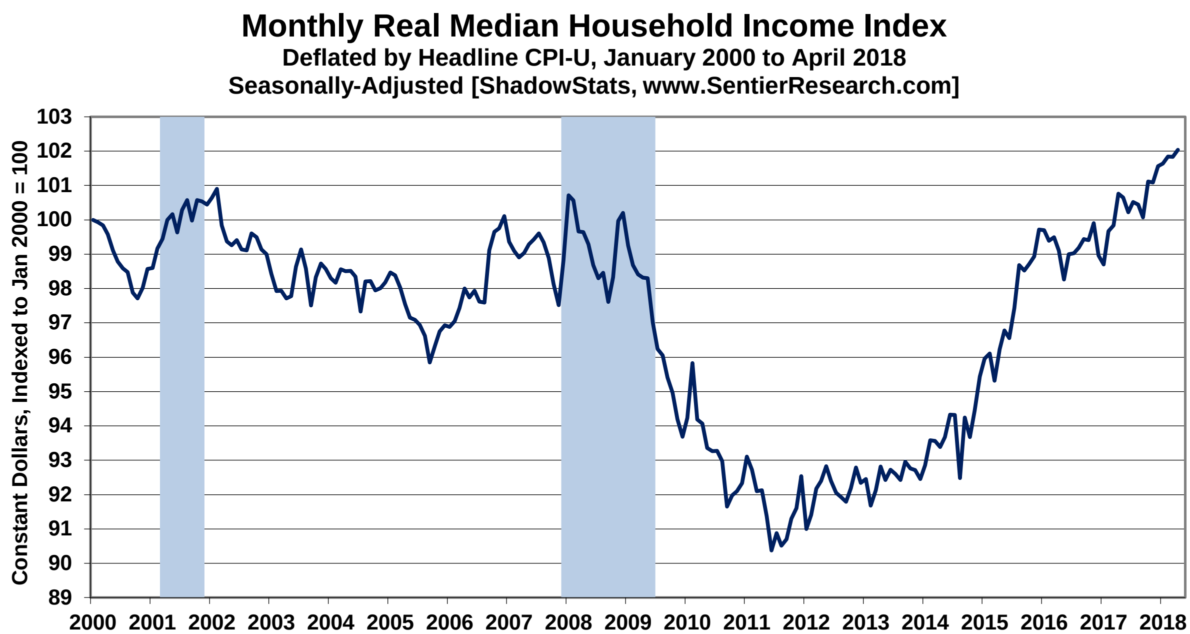
Annual Real Median Household Income in 2016 Held Below Its 2007 Pre-Recession Peak, Below Late-1990s Activity and About Even with the Mid-1970s, Monthly Activity Has Been Broadly Stagnant. *Graphs CLW-4* and *CLW-5* show the latest plots of annual and monthly Real Median Household Income.

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



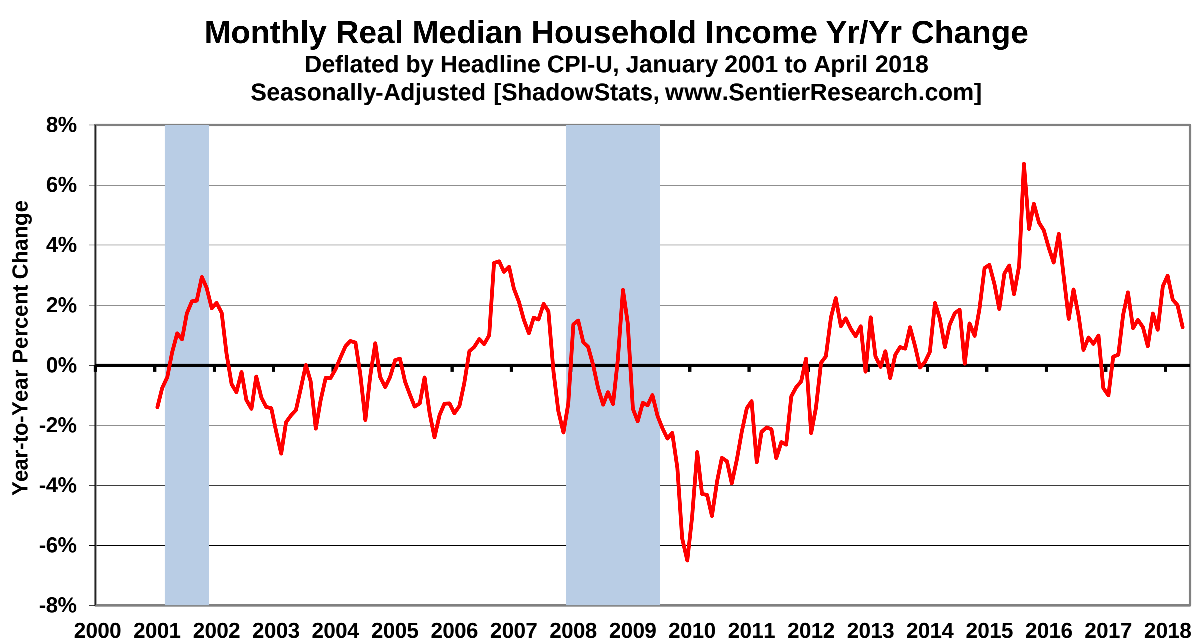
The Sentier Research Series of Monthly Real Median Household Income, Notched Higher in April, With Slowing Annual Growth, Broadly Showing Stagnant Activity. Discussed in the Opening Comments of *Commentary No. 948*, Sentier Research (www.SentierResearch.com) reinstituted its monthly reporting of Real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

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



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

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



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

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

Differences in the Monthly versus Annual Median Household Income**.** The general pattern of relative monthly historical weakness has been seen in the headline reporting of the annual Census Bureau numbers, again, shown in *Graph CLW-4*, with 2014 real annual median household income having hit a ten-year low, and, again, with the historically-consistent 2015 and 2016 annual number still holding below the 2007 pre-recession high.

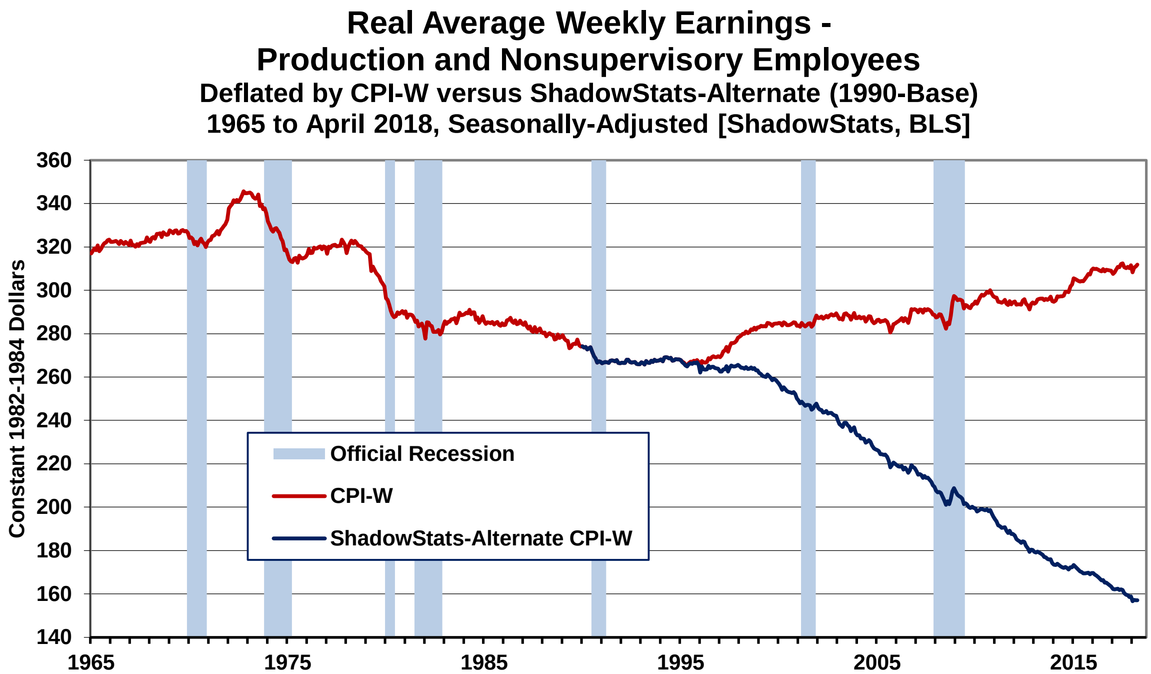
The Sentier numbers have suggested a small increase in 2014 versus 2013 levels, low-inflation induced real increases in 2015 and 2016. Allowing for the direction difference in 2014, and continual redefinitions and gimmicks in the annual series (again, see the *Opening Comments* of *Commentary No. 909*) the monthly and annual series had remained broadly consistent, although based on separate questions within the Consumer Population Series (CPS), as conducted by the Census Bureau.

Where Sentier uses monthly questions surveying current annual household income, the headline annual Census Bureau detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent with Real Average Weekly Earnings.

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

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

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



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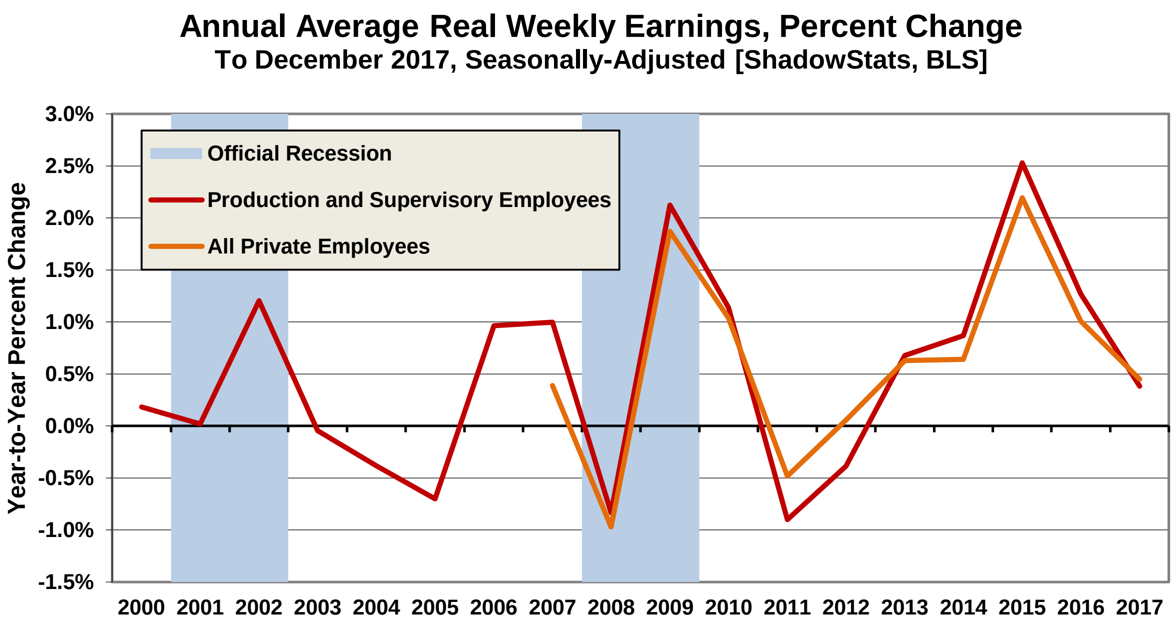
Shown in *Graph CLW-8*, and as discussed in *Commentary No. 931*, both the “all-employees” and “production and nonsupervisory employees” categories showed a sharply slowing pace in annual growth in 2017. Presumably coming off more-positive economic circumstances, the patterns there are consistent with a renewed economic downturn, not with a new economic boom, and the current pace of decline is greater than the average tax reduction to be seen by consumers in the year ahead.

Not all economic downturns are reflected in the headline economic data. For example, industrial production indicated the U.S. economic downturn intensified in fourth-quarter 2014, enough to qualify as a new recession, which is consistent with the plot in *Graph CLW-8*. See the related discussions in [Commentary No. 928](#) and [Commentary No. 936](#).

Graph CLW-8: Annual Average of Weekly Earnings, Annual Percent Change (2000 to 2017)



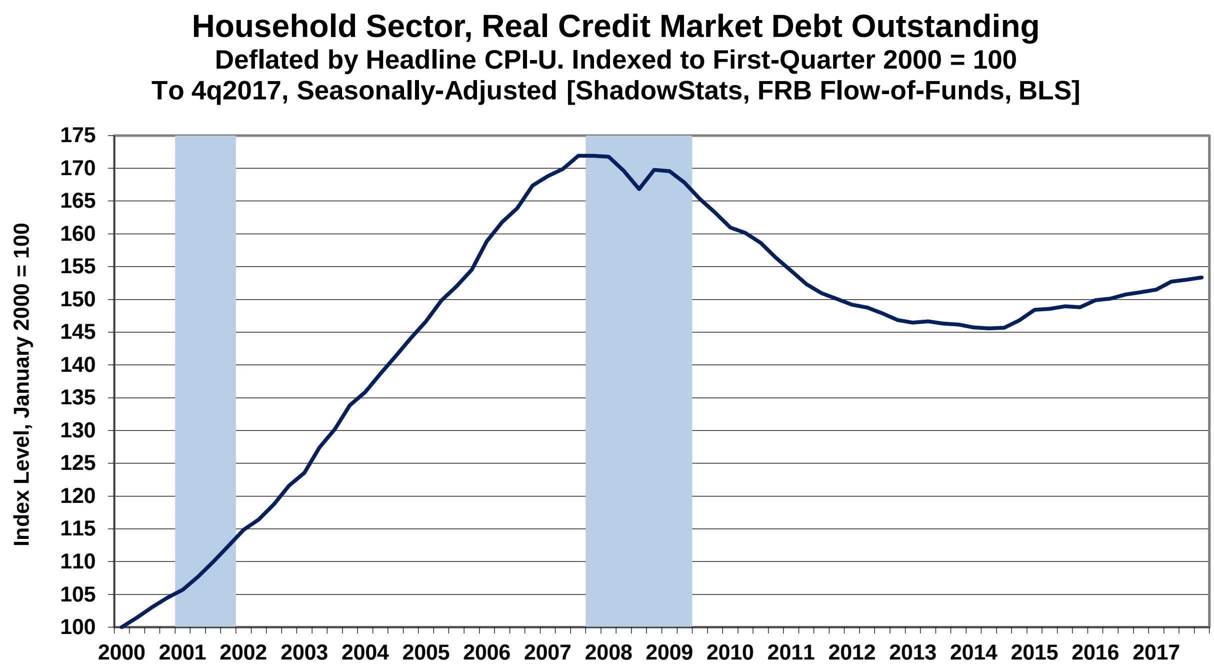
When income growth is inadequate to support consumption growth, consumers often make up the difference in debt expansion. Yet, real Consumer Credit Outstanding has shown a patterns of declining annual real growth for the last several quarters, irrespective of the specific series, as reflected in the plots of real monthly year-to-year change in *Graph CLW-13*.

Consumer Credit: Lack of Expansion in Real Consumer Credit Constrains Economic Growth. The final five graphs on consumer conditions address consumer borrowing. Where debt expansion can help make up for a shortfall in income growth, expansion of consumer debt, which would help fuel expansion in personal consumption, has been nonexistent.

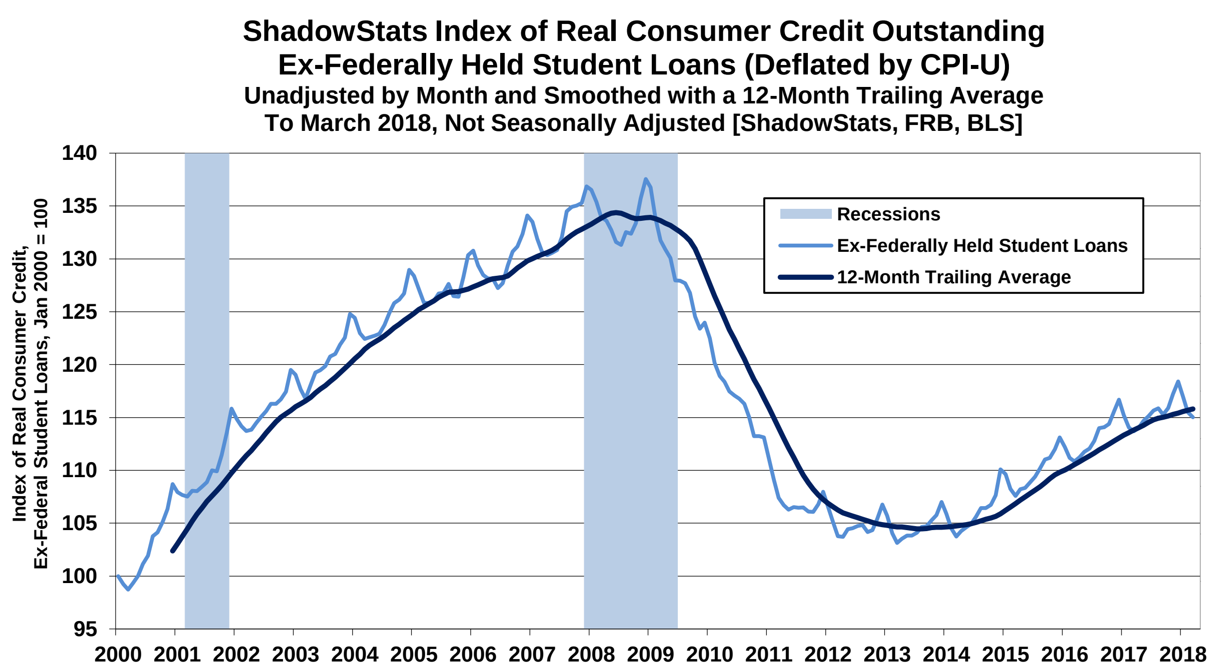
Quarterly Series. Consider *Graph CLW-9* of *Household Sector*, *Real Credit Market Debt Outstanding*. The level of real household debt declined in the period following the Panic of 2008, reflecting loan defaults and reduced banking lending, and it has not recovered fully, based on the Federal Reserve's flow-of-funds accounting through fourth-quarter 2017, released on March 8th. Household Sector, Real Credit Market Debt Outstanding in fourth-quarter 2017 still was down by 10.8% (-10.8%) from its pre-recession peak of third-quarter 2007. That was against a revised third-quarter 2017 decline of 11.0% (-11.0%) [previously down by 10.9% (-10.9%)]. The flattened visual uptick at the latest point in *Graph CLW-9* reflected a slowing in real year-to-year change from 1.72% [previously 1.70%] in second-quarter 2017, to 1.48% [previously 1.55%] in third-quarter 2017 and to 1.47% in fourth-quarter 2017. Such completes 41 straight quarters—a full decade-plus—of credit non-expansion, versus its pre-recession peak.

The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce. The slight upturn seen in the series through 2015 and into 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016 and intermittently into fourth-quarter 2017. Current activity also has reflected continuing relative strength from student loans, as shown in the *Graphs CLW-10* to *CLW-13*.

Graph CLW-9: Household Sector, Real Credit Market Debt Outstanding (2000 through Fourth-Quarter 2017)



Graph CLW-10: Real Consumer Credit Outstanding, Ex-Federal Student Loans (2000 to 2018)



Shown for comparative purposes is *Graph CLW-10*, real, not-seasonally-adjusted Consumer Credit Outstanding, Ex-Federally-Held Student Loans, has not recovered on a monthly, let alone the 12-month trailing-average basis used as a surrogate for seasonal adjustment. Discussed in the next section, this measure of consumer credit now has been through 123 months 41 quarters of non-expansion. That is reflected on a parallel basis through fourth-quarter 2017 reporting shown in *CLW-9*. Please note that the scale in *Graph CLW-10* is indexed to Consumer Credit Outstanding Ex-Federal Student Loans equal to 100 in January 2000. In *Graphs CLW-11* to *13*, that indexing is applied to the total Consumer Credit Outstanding number, which is greater in amount than its dominant Ex-Federal Student Loans subcomponent.

Monthly Series. Indeed, the ShadowStats analysis usually focuses on the particular current and continuing weakness in monthly levels of consumer credit, net of what has been rapidly expanding government-sponsored student loans. Where detail on that series only is available not-seasonally-adjusted, the following three related graphs and the preceding *Graph CLW-10* are so plotted.

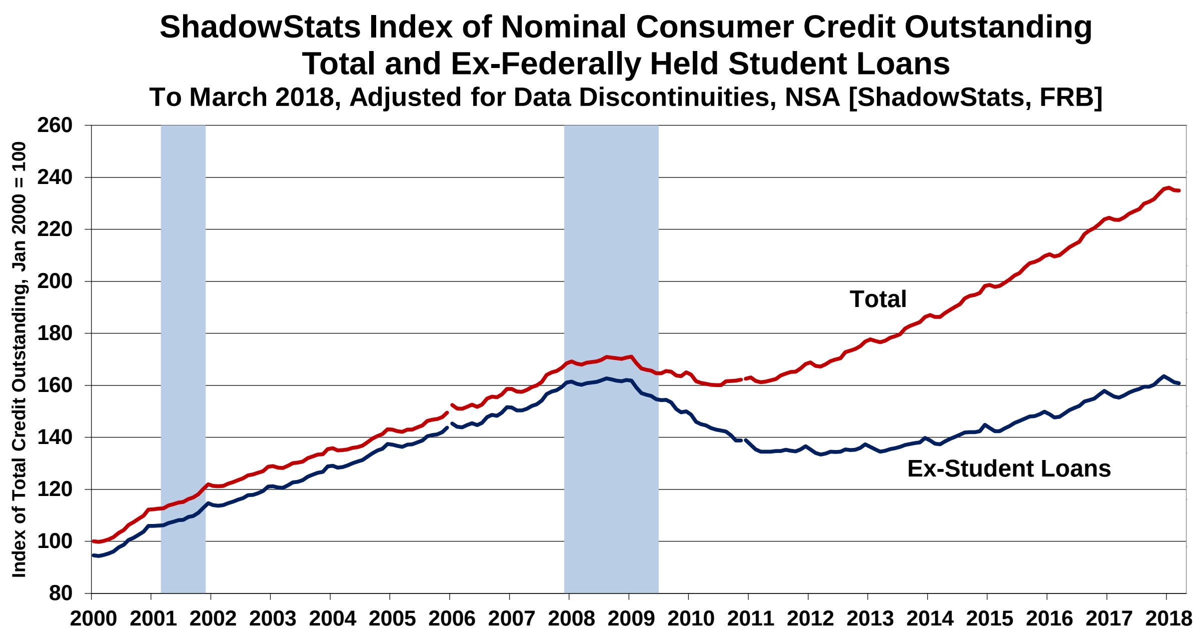
Shown through the March 2018 reading (released May 7th), the headline nominal monthly Consumer Credit Outstanding (*CLW-11*) is a subcomponent of the nominal Household Sector debt. Where *Graph CLW-12* reflects the real or inflation-adjusted activity for monthly Consumer Credit Outstanding terms of both level (*Graph CLW-12*) and year-to-year change (*Graph CLW-13*). *Graphs CLW-12* and *CLW-10* are comparable to the inflation-adjusted Household Sector plot in *Graph CLW-9*.

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

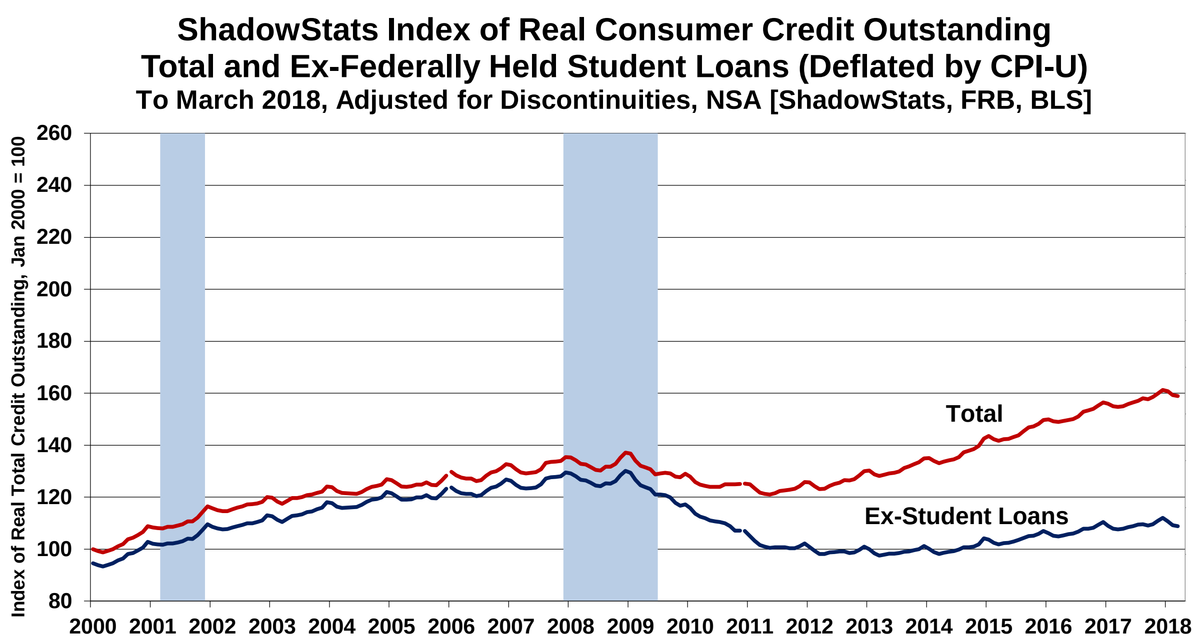
Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Where the recent monthly downside move in the not-seasonally-adjusted real consumer credit reflected something of a seasonal pattern, the pattern of year-to-year growth has been in downtrend, suggesting some tightening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

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

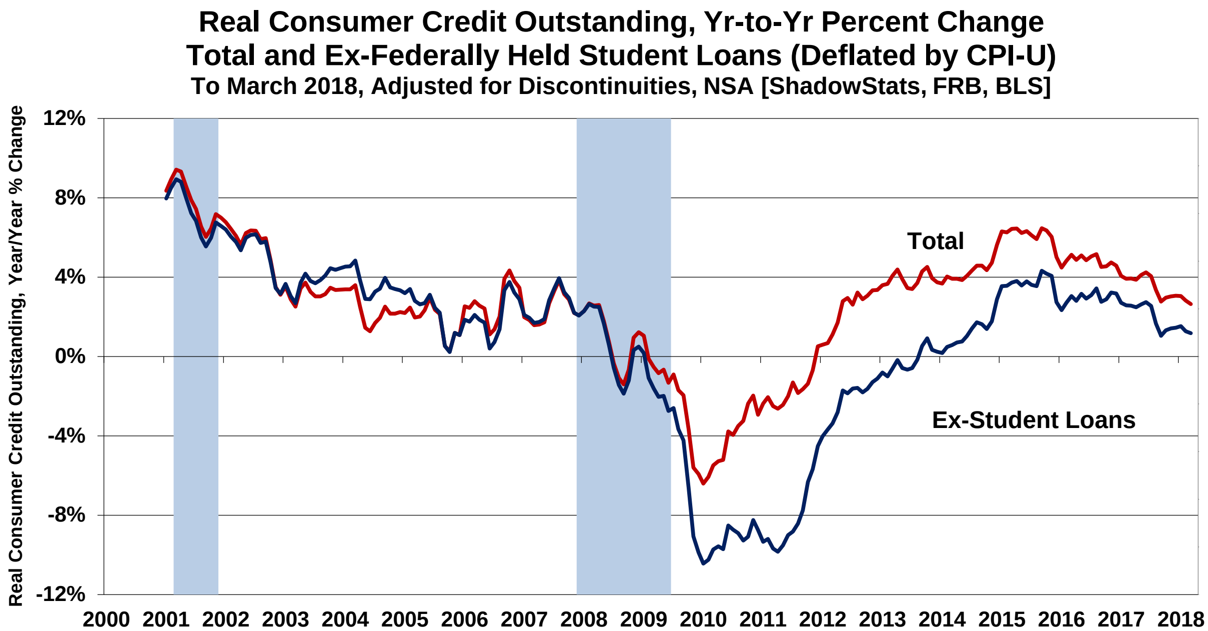
Graph CLW-11: Nominal Consumer Credit Outstanding (2000 to 2018)



Graph CLW-12: Real Consumer Credit Outstanding (2000 to 2018)



Graph CLW-13: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2018)



[The* Week, Month and Year Ahead *begins on the next page.]

WEEK, MONTH AND YEAR AHEAD

U.S. Dollar and Financial-Market Turmoil Continue at High Risk, Amidst Mounting Fiscal Concerns, Consumer Liquidity Issues and Non-Expanding, Real-World Economic Activity. *[Other than for links or references, the text in these opening paragraphs has not changed from prior Commentary No. 951.]* In the context of intensified weakening of underlying fundamental drivers of broad economic activity and negative stresses on basic consumer-liquidity conditions, discussed respectively in the *Opening Comments* and *Consumer Liquidity Watch* of *No. 950* (see today's sections, too), the revised first-quarter GDP (see today's *Opening Comments* and *Commentary No. 947*) reflected difficult economic times beginning to hit U.S. consumer activity, where the U.S. consumer remains the fundamental driving force behind domestic business conditions. Continuing negative surprises likely will follow in the regular economic reporting and annual benchmark revisions of key economic series in the next couple of weeks and months. The broad outlook has not changed. Weaker economic growth and renewed, faltering economic headlines should follow.

Broad outlooks for the U.S. economy, the U.S. dollar, gold, silver and the financial markets were reviewed in *Special Commentary No. 935*, covered there in the *Executive Summary* beginning on page 2, with *Contents* and links to *Major Sections* and *Graphs* beginning there on page 6. The faltering economic outlook also was reviewed in the *Opening Comments* and *Industrial Production Benchmark Revisions* sections of *Commentary No. 942-B*. The circumstances broadly have not changed from the related financial market vulnerabilities discussed in the *Hyperinflation Watch* of *Commentary No. 945*, incorporated here by reference. U.S. dollar and related market conditions were updated in the *Opening Comments* and *Hyperinflation Watch* of *Commentary No. 949*.

The U.S. dollar and financial markets remain at extraordinarily-high risk of intense, panicked declines, still likely in the very near term. Holding physical gold and silver remain the ultimate hedges—stores of wealth—for preserving the purchasing power of one's U.S. dollar assets, during times of high inflation and currency debasement, and/or political- and financial-system upheaval, Please call (707) 763-5786, if you would like to discuss current circumstances, or otherwise.

Best wishes – John Williams

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

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

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

Trade Deficit (April 2018 and Annual Benchmark Revisions). Details for the headline April 2018 Trade Deficit will be released on Wednesday, June 6th, along with a major benchmark revision to the historical detail, which should have significant impact on the July 27th Comprehensive GDP Benchmark Revision. Discussed in the *Opening Comments*, the "advance" estimate of the trade April trade deficit narrowed, in the context of a revised widening to all of the earlier aggregate reporting, an early indication, perhaps, of the benchmark revisions. Reporting here tentatively is planned for June 6th, but it easily could move to the June 7th, given the likely complexity of the revisions.

LINKS TO PRIOR COMMENTARIES AND SPECIAL REPORTS

Prior Writings Underlying the Current *Special Commentaries* and a Sampling of Recent *Regular Commentaries*. Underlying the recent *Special Commentary No. 935* *(Part One)* and the pending *Special Commentaries (Part Two)* on Inflation, and *(Part III)* on the Federal Reserve and U.S. banking system, are *Commentary No. 899* and *General Commentary No. 894*, along with general background from regular *Commentaries* throughout 2017.

These missive also are built upon writings of prior years, including *No. 777 Year-End Special Commentary* (December 2015), *No. 742 Special Commentary: A World Increasingly Out of Balance* (August 2015) and *No. 692 Special Commentary: 2015 - A World Out of Balance* (February 2015). In turn, they updated the long-standing hyperinflation and economic outlooks published in *2014 Hyperinflation Report—The End Game Begins* – *First Installment Revised* (April 2014) and *2014 Hyperinflation Report—Great Economic Tumble* – *Second Installment* (April 2014).

The two *Hyperinflation* installments remain the primary background material for the hyperinflation circumstance. Other references on underlying economic reality are the *Public Commentary on Inflation Measurement* and the *Public Commentary on Unemployment Measurement*.

Recent Commentaries. *[Listed here are* Commentaries *of the last several months or so, plus recent* Special Commentaries *and others covering a variety of non-monthly issues, including annual benchmark revisions, dating back through the beginning of 2017. Please Note: Complete ShadowStats archives back to 2004 are found at www.ShadowStats.com (left-hand column of home page).]* These regular *Commentaries* usually are published at least weekly and update the general economic and financial o-market outlook, as circumstances develop.

Commentary No. 951 (May 25th) reviewed April 2018 New Orders of Durable Durables, in the context of the annual revisions (see prior *No, 950*), New- and Existing-Home Sales and brief coverage of the annual benchmarking of the Retail Sales series.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Commentary No. 928 (December 22, 2017) covered November 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the third estimate of Third-Quarter 2017 GDP.

Commentary No. 927 (December 19, 2017) reviewed November 2017 New Residential Construction (Housing Starts and Building Permits) and Cass Freight Index™, along with an expanded discussion on underlying economic reality and the financial markets.

Commentary No. 926 (December 15, 2017) reviewed the headline November 2017 numbers for Retail Sales (both real and nominal), and Industrial Production, along a discussion on the dampening economic impact of business and consumer "uncertainty."

Commentary No. 925 (December 13th) reviewed November 2017 headline detail on the CPI and PPI, along with an update on the FOMC actions and the regular U.S. dollar, gold graphs.

Commentary No. 924 (December 8, 2017) discussed the November 2017 Employment and Unemployment details and Conference Board Help Wanted OnLine® Advertising, the October Trade Deficit and Construction Spending and updated Monetary Conditions in November.

Commentary No. 923 (November 29, 2017) covered the second estimate of Third-Quarter 2017 GDP, including initial estimates for Third-Quarter GNP, GDI and Per Capita Real Disposable Income, the October Trade Deficit, Cass Freight Index and New-Home Sales.

Commentary No. 919-B (November 6, 2017) provided more in-depth detail on the October 2017 labor detail.

Commentary No. 919-A (November 3, 2017) provided initial detail and background on October labor data, and reviewed the October 2017 Conference Board Help Wanted OnLine® Advertising, the September Cass Freight Index™, Trade Deficit and Construction Spending, and updated Monetary Conditions.

Special Commentary No. 918-B (October 30, 2017) provided a more comprehensive review of the initial third-quarter 2017 GDP detail, along with update versions of the *Hyperinflation Watch* and *Consumer Liquidity Watch*.

Commentary No. 917 (October 26/27, 2017) reviewed September Industrial Production, New Orders for Durable Goods, New Residential Construction (Housing Starts and Building Permits) and New- and Existing-Home Sales.

Commentary No. 916 (October 20th) reviewed the September 2017 Retail Sales details along with the headline Consumer and Producer Price Indices for September.

Commentary No. 915 (October 6, 3017) reviewed the September 2017 Employment and Unemployment details, along with September 2017 monetary conditions.

Commentary No. 913 (September 28, 2017) reviewed the third-estimate of second-quarter 2017 GDP, with a further consideration of some unusual economic reporting in the near future.

Commentary No. 910 (September 15, 2017) reviewed the August 2017 releases of Industrial Production and nominal and real Retail Sales.

Commentary No. 909 (September 14, 2017) assessed the annual release of 2016 Real Median Household Income, along with a review of August Consumer Price Index (CPI) and the Producer Price Index (PPI) and an updated *Alert* on the financial markets

Commentary No. 908-B (September 6, 2017) provided extended detail of the August 2017 Labor and Monetary conditions and July 2017 Construction Spending, along with coverage of the July 2017 Trade Deficit and the initial estimate of the 2017 Payroll Employment benchmarking.

Special Commentary No. 904 (August 14, 2017) issued an “Alert” on the financial markets (including U.S. equities, the U.S. dollar gold and silver, as well as FOMC policy), in the context of historical activity and unfolding circumstances of deteriorating economic and political conditions. Separately, headline details were reviewed for the July Consumer Price Index (CPI) and the Producer Price Index (PPI).

Commentary No. 903 (August 7, 2017) discussed new signals of economic deterioration in terms of political and FOMC considerations, along with headline coverage of the July labor data, M3 and The Conference Board Help Wanted OnLine®, and June trade deficit and construction spending.

Commentary No. 902-B (July 31, 2017) reviewed the 2017 annual benchmark revisions of GDP and related series, along with the “advance” estimate of second-quarter 2017 GDP.

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

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

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

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

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

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

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

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

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

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

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

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

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

Commentary No. 861 (January 13, 2017) covered the December 2016 nominal Retail Sales, the PPI, with a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations.

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

