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

COMMENTARY NUMBER 880
March CPI, PPI, Retail Sales, Real Earnings, Consumer Update

April 15, 2017

**Substantially Adverse Economic Circumstances Have Begun to Unfold,
Threatening FOMC Hopes for Normalizing Monetary Policy**

**Amidst Mounting Income and Credit Stresses on Consumers,
Headline Retail Sales Suffered Major, Near-Term Downside Revisions;
Recent Auto Sales Were Not As Strong as Advertised**

**First-Quarter Real Average Weekly Earnings Declined Year-to-Year,
Along with Back-to-Back Quarterly Contractions,
Circumstances Not Seen Since the Stalled GDP of Second-Half 2012**

**Real Growth in Consumer Credit Outstanding Has Faltered in a Manner
Also Not Seen Since the Stalled GDP of Second-Half 2012**

**Headline CPI-U Inflation Fell by 0.29% (-0.29%) in March,
Pushing Annual CPI-U Inflation Lower to 2.38% (Was 2.74%), with
CPI-W at 2.35% (Was 2.82%) and ShadowStats at 10.1% (was 10.5%)**

March Final-Demand PPI Annual Inflation Hit a 60-Month High of 2.28%

PLEASE NOTE: The next regular Commentary *on Tuesday, April 18th, will cover March 2017 Industrial Production and New Residential Construction (Housing Starts), as well as an updated review on near-term economic activity. Please call me at (707) 763-5786, if you have questions or would like to talk.*

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Consumers Directly Generate 70% of GDP Activity; They Are in Trouble. Headline economic reporting of the last several days has highlighted weakening consumer liquidity conditions, in conjunction with downwardly revised and weaker-than-expected headline retail sales. With personal consumption and residential real estate accounting for more than 70% of U.S. Gross Domestic Product (GDP)**,** intensifying consumer liquidity woes are the type of "substantially adverse economic circumstances" the Federal Reserve's Federal Open Market Committee (FOMC) has highlighted as factors that could drive policy back into expanded quantitative easing. That circumstance is discussed in today's (April 15th) *Hyperinflation Watch*, page 18 (see also prior *Commentary No. 879*). The implications are strongly negative for the U.S. dollar and positive for the price of gold.

Earnings and Credit Growth Falter As Last Seen with Stalled GDP Growth in Second-Half 2012. Putting aside, for the moment, the regular ShadowStats contentions that headline real U.S. GDP growth is deliberately and artificially bloated (see *Commentary No. 876* and *Commentary No. 877*), the headline GDP expansion since second-quarter 2011, following the economic collapse into 2009, has not been consistently strong or positive. Headline activity slowed sharply and flattened out in the second half of 2012, with annualized real quarterly growth dropping from a near-term peak of 4.58% in fourth-quarter 2011, to 2.18% in first-quarter 2012, to 1.88% in second-quarter 2012, to 0.48% in third-quarter 2012 to 0.09% in fourth-quarter 2012. Growth rebounded to an annualized pace of 2.83% in first-quarter 2013.

If one thought that GDP growth were overstated at all, an argument could be made that actual economic activity dropped into a "new" recession in the latter half of 2012.

The point of all this is that headline Real Average Weekly Earnings just declined year-to-year for first-quarter 2017, along with a second straight quarter-to-quarter contraction (see the *Real Average Weekly Earnings* section and *Graph 3* starting on page 6). The last time that happened was in third- and fourth-quarter 2012.

Discussed in the *Updated Consumer Liquidity Conditions* on page 8, real total Consumer Credit Outstanding has stalled in a manner also not seen since third- and fourth-quarter of 2012.

Debt expansion can help make up for a shortfall in income growth. Irrespective of the current level of consumer optimism, the combination of contracting real income and no real growth in credit will kill meaningful growth in real personal consumption, and in real GDP.

Unusual Weakness in and Downside Revisions to Retail Sales. In the context of the faltering income and credit growth, headline nominal retail sales declined sharply in March 2017, on top of a major downside revision to February sales and a downside revision to headline sales activity in January. Nonetheless, while month-to-month inflation-adjusted real sales activity turned negative in January, and the real contraction in February sales deepened, the nominal decline in March sales of 0.22% (-0.22%) [down 0.66% (-0.66%) before the downside revisions to February] was less than the steep headline decline of 0.29% (-0.29%) in monthly CPI-U inflation. That turned the monthly real retail sales change for March to a small monthly gain of 0.07%.

The more-negative-than-expected retail sales detail primarily reflected weaker activity in, and downside adjustments to, automobile sales, but there well may be another factor at work here. Annual benchmark revisions to the Retail Sales series are planned in eleven days, on April 26th. The government's statistical reporting bureaus prefer not to have major headline revisions to recently reported month-to-month actvity, along with the benchmarks, so the headline changes seen in the April 14th regular monthly detail may have been precursors of historical revisions yet to come. Due to the structuring of generally over-optimistic assumptions in current reporting, most benchmark revisions revise prior economic history to the downside (see the discussion in the *Reporting Detail*, page 22).

Today's *Commentary* (April 15th). These *Opening Comments* and *Executive Summary* cover summary detail of March and first-quarter 2017 CPI, PPI, Retail Sales (Nominal and Real) and Real Average Weekly Earnings, with the headline numbers expanded upon in the *Reporting Detail*.

The *Hyperinflation Watch* reviews the unfolding economic circumstances in the context of possible impact on FOMC policy and developing circumstances for the U.S. dollar and for gold silver and oil prices.

The *Week, Month and Year Ahead* previews Tuesday's (April 18th) reporting of March 2017 Industrial Production and Residential Construction.

Executive Summary: Retail Sales (Nominal and Real)—March 2017—Sharp Downside Revisions Foreshadow Worse to Come. Nominal Retail sales declined month-to-month by 0.22% (-0.22%) versus the revised February 2017 detail, but such was in the context of the level of February sales being revised lower by 0.45% (-0.45%), with the effect that net of prior-period revisions, headline nominal sales were down by 0.66% (-0.66%) in the month relative to what previously had been estimated. Separately, the level of nominal January 2017 sales revised lower by 0.11% (-0.11%) from its prior reporting. The bulk of the monthly decline in March sales number and the bulk of the downside revisions to February and January monthly activity reflected declining or downwardly revised auto sales. For both nominal and real retail sales, however, the downside revisions are just beginning, with heavily negative revisions to the series likely in the looming annual benchmark revisions of April 26th (see the *Reporting Detail*).

***Nominal (Not-Adjusted-for-Inflation) Retail Sales*.** In the context of sharp downside revisions to January and February activity, nominal March 2017 Retail Sales activity declined by a statistically insignificant 0.22% (-0.22%) month-to-month, following a statistically-significant February decline of 0.26% (-0.26%) and a still-meaningful gain of 0.53% in January 2017. Nominal year-to-year change in Retail Sales was a statistically-significant increase of 5.16% in March 2017, versus downwardly revised gains of 5.12% in February 2017 and 5.90% in January 2017.

Real Retail Sales (Adjusted for Inflation). Fortuitously for inflation-adjusted real March 2017 retail sales, headline, seasonally adjusted CPI-U monthly inflation was a contraction of 0.29% (-0.29%), which pushed the nominal decline in sales from a loss of 0.22% (-0.22%) to a real month-to-month gain of

0.07%. Otherwise, February 2017 CPI-U, showed a monthly gain of 0.12%, with January 2017 inflation up by 0.55%. Year-to-year seasonally-adjusted CPI-U inflation eased to 2.38% in March 2017, versus 2.80% in February 2017 and 2.54% in January 2017. Accordingly, real monthly sales, again, rose by 0.07% in March 2017, declined by 0.38% (-0.38%) in February and by 0.22% (-0.22%) in January 2017. Real annual Retail Sales growth was 2.71% in March 2017, versus 2.26% in February 2017 and 3.27% in January 2017.

Real Retail Sales Graphs, Corrected and Otherwise. In the *Reporting Detail*, *Graphs 19* and *21* show the level of real retail sales activity (deflated by the CPI-U), while *Graphs 20* and *22* show year-to-year percent change. The apparent "recovery" of headline real retail sales shown in the following *Graph 1* (see also *Graph 19* in the *Reporting Detail*) generally continued into late-2014. Although headline reporting turned down in December 2014, into first-quarter 2015, it turned higher into the third-quarter 2015, slowed to a near-standstill in fourth-quarter 2015 and contracted in first-quarter 2016, with an uptick in second-quarter 2016, renewed slippage into third-quarter 2016, a further uptick in fourth-quarter 2016 and with renewed faltering now in early-2017.

Nonetheless, headline real growth in retail sales continued to be overstated heavily, due to the understatement of CPI-U inflation used in deflating the retail sales series. Discussed more fully in *Chapter 9* of *2014 Hyperinflation Report—Great Economic Tumble* – *Second Installment* and *Public Commentary on Inflation Measurement*, deflation by too-low an inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted economic growth.

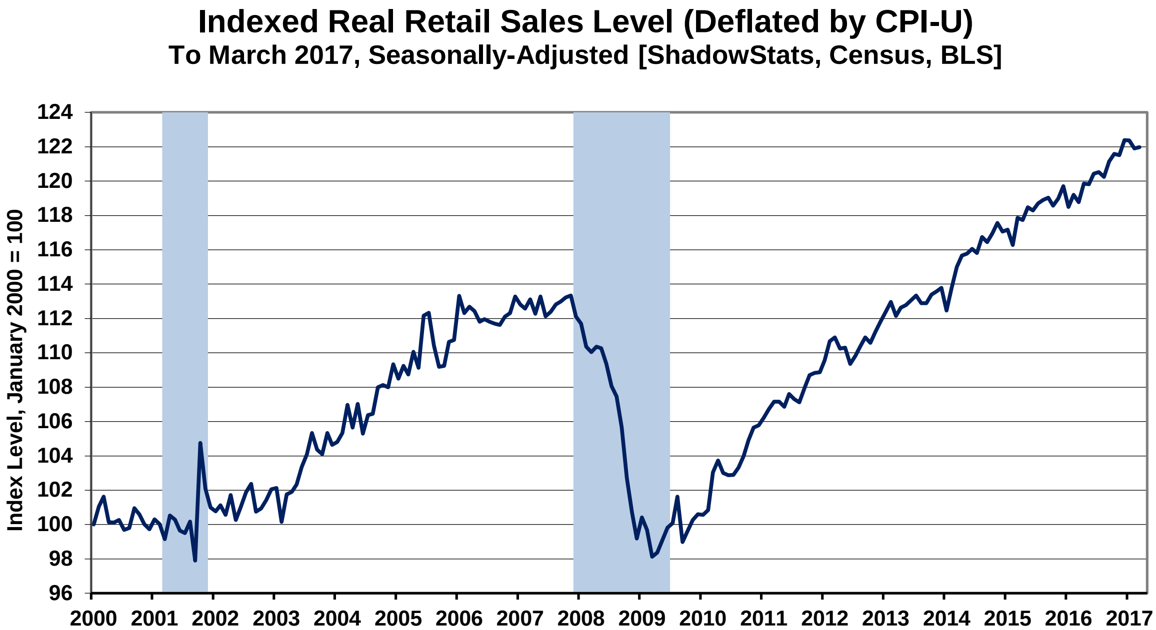
Both of the accompanying graphs are indexed to January 2000 = 100.0 to maintain consistency in the series of graphs related to corrected inflation-adjustment, including the regular plots of the "corrected" industrial production index (see *Commentary No. 877*), and "corrected" new orders for durable goods and "corrected" GDP (covered respectively in *Commentary No. 875* and *Commentary No. 876*, and also in *No. 859 Special Commentary*).

The first graph here reflects the official real retail sales series, except that it is indexed, instead of being expressed in dollars. The plotted patterns of activity and rates of growth are exactly same for the official series, whether the series is indexed or expressed in dollars, again, as is evident in a comparison again of *Graph 1* with *Graph 19* in the *Retail Sales—Nominal and Real* in the *Reporting Detail* section.

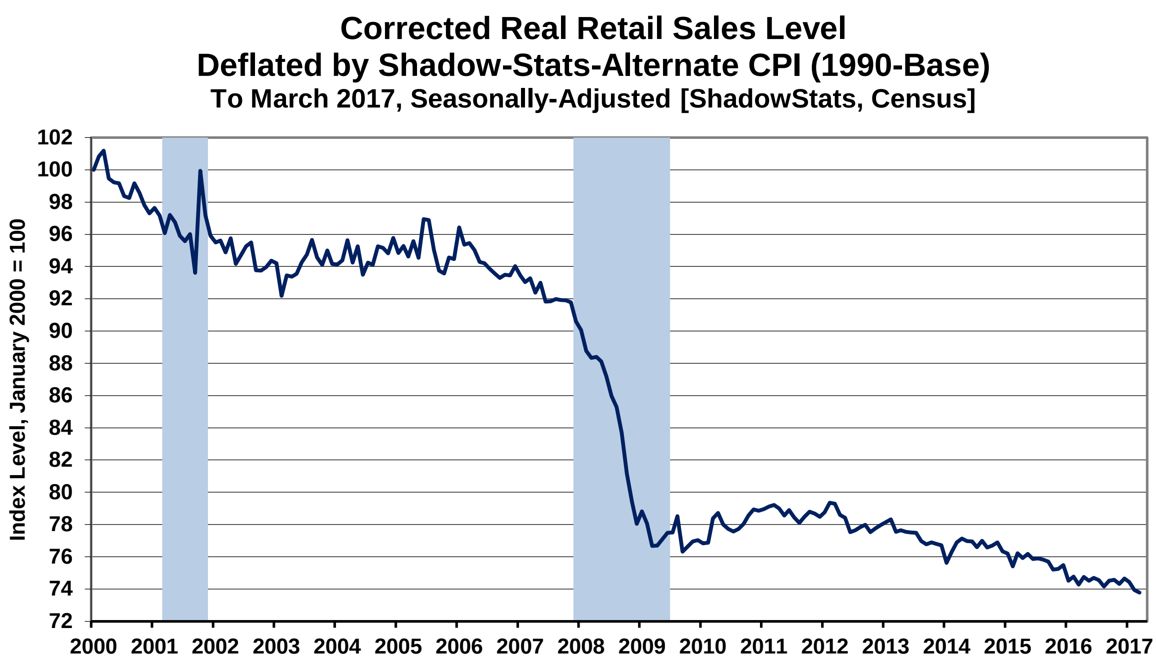
Instead of being deflated by the CPI-U, the "corrected" real retail sales numbers—in *Graph 2*—use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation. With the higher inflation of the ShadowStats measure, the revamped numbers show a pattern of plunge and stagnation and renewed downturn. That pattern generally is consistent with consumer indicators such as real average weekly earnings (see the next section), faltering consumer liquidity conditions (see the accompanying *Updated Consumer Liquidity Conditions*, and the *ECONOMY* section of *No. 859 Special Commentary*).

[Graphs 1 and 2 follow on the next page.]

Graph 1: Headline Real Retail Sales Level, Indexed to January 2000 = 100



Graph 2: "Corrected" Real Retail Sales Level, Indexed to January 2000 = 100



Consumer Price Index (CPI)—March 2017—Headline CPI-U Inflation Fell by 0.3% (-0.3%) for the Month, Slowed to 2.4% Year-to-Year. The first-half of the calendar year traditionally shows a pattern of downside seasonal-adjustments to monthly CPI change, from January through June. The Bureau of

Labor Statistics (BLS) reported a headline March 2017 CPI-U month-to-month inflation contraction of 0.29% (-0.29%), reflecting heavily-negative seasonal adjusts to rising gasoline prices, as well as reported sharp declines in prices for cell phone services and in other areas such as clothing and new autos. Not adjusted for seasonal factors, however, as most people experience life, headline CPI-U inflation rose by 0.11% in the month. In February 2017, the adjusted, headline monthly gain was 0.12%, versus an unadjusted gain of 0.31%.

Unadjusted, annual inflation backed off its 60-month high of 2.74% in February 2017, dropping to 2.38% in March 2017. The recent inflation surge had been driven by rising gasoline prices, not by an overheating economy. Those pressures go both ways and, again, are affected heavily by seasonal adjustments. Consider that unadjusted, headline gasoline inflation rose by 1.12% in March; that is what people paid at the pump. Seasonally-adjusted, headline gasoline prices fell by 6.19% (-6.19%) month-to-month. Meaningful seasonal adjustments are difficult to construct, when pricing volatility of the last two-to-three years has been largely independent of regular monthly patterns of seasonality.

Adjusted monthly contractions in the energy and "core" (net of food and energy, but including cell phone and autos) sectors drove the monthly headline drop of 0.29% (-0.29%) in the CPI-U. While inflation in the food sector rose again, it was not enough to counter the sectors in decline.

Separately, with headline annual March 2017 CPI-U inflation at 2.4%, year-to-year inflation is not and has not been quite as low as indicated, when considered in the context of traditional CPI reporting and common experience. Moving on top of the unadjusted annual changes to the CPI-U, the ShadowStats-Alternate Inflation Measures showed year-to-year inflation in March 2017 easing to 6.0%, based on 1990 methodologies, and to 10.1%, based on 1980 methodologies.

The Consumer Price Index for All Urban Consumers (CPI-U) is the broadest headline consumer-inflation number and is used to adjust numerous economic measures such as Retail Sales for inflation effects as reflected in the *Retail Sales—Nominal and Real* section of the *Reporting Detail*. The narrower Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used for deflating measures such as earnings for production and nonsupervisory employees on private nonfarm payrolls. March 2017 seasonally-adjusted CPI-W declined month-to-month by 0.37% (-0.37%), having gained by 0.06% in February. Unadjusted, year-to-year change in the March 2017 CPI-W was 2.35%, down from a gain of 2.82% in February 2017.

However measured, contracting inflation boosts inflation-adjusted real activity versus the headline nominal activity, while rising inflation has the opposite effect.

Real Average Weekly Earnings—March 2017—First-Quarter 2017 Activity Declined Year-to-Year and It Contracted Quarter-to-Quarter for the Second, Consecutive Quarter. Headline March 2017 real average weekly earnings were published coincident with the April 14th release of the March CPI-W. In the production and nonsupervisory employees category—the only series for which there is a meaningful history, the regularly-volatile real average weekly earnings gained 0.25% month-to-month in March 2017, versus a revised 0.07% gain in February and revised decline of 0.47% (-0.47%) in January, the sixth consecutive monthly decline for the series.

Year-to-year, the adjusted March 2017 annual detail declined for the fourth straight month, down by 0.31% (-0.31%),versus an unrevised 0.39% (-0.39%) annual decline in February 2017 and a revised decline of 0.46% (-0.46%) in January 2017.

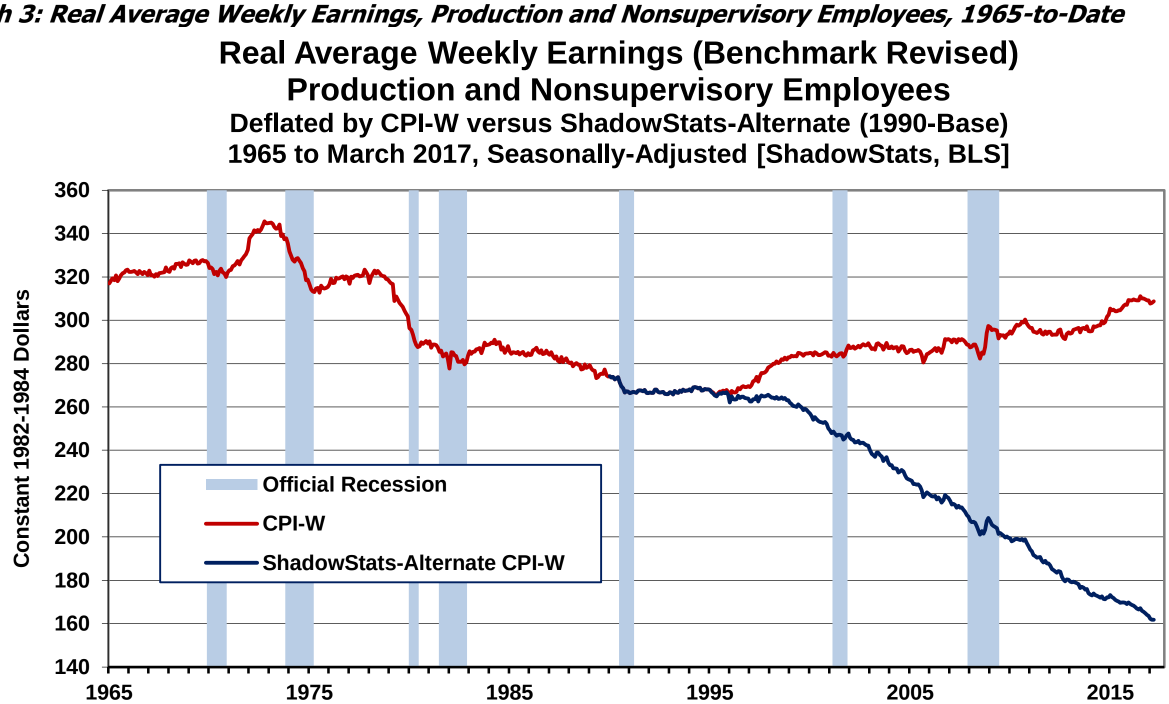
Such left fourth-quarter 2016 in an unrevised 1.36% (-1.36%) annualized real quarter-to-quarter contraction, versus third-quarter 2016 growth of 1.48%, a second-quarter 2016 annualized contraction of 0.11% (-0.11%) and unrevised first-quarter 2016 annualized growth of 1.81%.

With initial headline March 2017 now in place, first-quarter 2017 real earnings contracted at an annualized quarterly pace of 1.53% (-1.53%), the second, consecutive quarter-to-quarter contraction.

Year-to-year, first-quarter 2017 real earnings contracted by 0.39% (-0.39%), the first annual quarterly contraction since fourth-quarter 2012, when the real GDP effectively was unchanged quarter-to-quarter. The signal here highlights financial stresses on the consumer and offers a major downside risk to headline real GDP reporting.

Graph 3 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 3: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date



Producer Price Index (PPI)—March 2017—Final Demand PPI Annual Inflation Hit a 60-Month High. In the context of monthly PPI Goods inflation declining by 0.09% (-0.09%), Construction inflation increasing by 0.17% and the dominant "margins" in the Services sector declining by 0.09% (-0.09%), aggregate Final-Demand PPI (FD-PPI) monthly inflation contracted by 0.09% (-0.09%) month-to-month, with year-to-year inflation rising to 2.28%, a 60-month or five-year high. A full breakout on monthly and annual PPI inflation detail by major sub-category is found in the *Reporting Detail*.

Recent spikes seen in annual inflation for both the PPI and CPI have not reflected an overheating economy, only energy-price distortions in the last several years, rigged heavily through the Federal Reserve's interest-rate jawboning and dollar-propping gimmicks, combined with recent OPEC-supply jawboning. Nonetheless, headline March 2017 PPI energy prices declined month-to-month, with slowing annual growth, both before and after seasonal adjustment.

In terms of annualized quarter-to-quarter inflation, the headline FD-PPI rose by 3.65% in first-quarter 2017, versus 2.19% in fourth-quarter 2016, 0.97% in third-quarter 2016, 1.47% in second-quarter 2016 and 0.73% in first-quarter 2016.

In terms of year-to-year annual inflation by quarter, the headline FD-PPI rose by 2.04% in first-quarter 2017, versus 1.34% in fourth-quarter 2016, 0.21% in third-quarter 2016, 0.12% in second-quarter 2016 and was unchanged at 0.00% in first-quarter 2016.

In terms of annual average inflation, the headline FD-PPI gained 0.42% in 2016, versus 2015, which saw an annual decline in inflation of 0.87% (-0.87%), versus 2014, which gained 1.58% versus 2013.

Aside from the irregular distortions to the headline detail from estimating wholesale goods inflation in combination with nebulous and inconsistent profit margins in the services sector, regular monthly revisions for November 2016, based on the March 2017 detail, indicated continuing unstable surveying/reporting in services sector (again, see the *Reporting Detail*).

Updated Consumer Liquidity Conditions—Continuing Income and Credit Stresses Amidst Mixed Optimism. Discussed in the *Opening Comments*, the U.S. consumer faces mounting financial stresses, which appear to have begun affecting headline Retail Sales activity. On the income side, Real Average Weekly Earnings were discussed in the prior section, while low-level Median Real Monthly Household Income has remained stagnant, as discussed in this section. Consumer Credit also is faltering as if it is in the second-half of 2012, again. That is discussed in the *Consumer Credit* section beginning on page 15.

This general discussion of Consumer Liquidity Conditions has been updated for the Federal Reserve's monthly detail of Consumer Credit Outstanding (see *Graphs 11* to *13*), as well as for the advance-estimate of the April 2017 Consumer Sentiment Index from the University of Michigan (see *Graphs 5* and *6*). The material here updates Consumer Liquidity Conditions last covered in *Commentary No. 878* of April 4th and as fully reviewed in the *CONSUMER LIQUIDITY* section of *No. 859 Special Commentary.*

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 ability and willingness of the consumer to take on new debt have remained at the root of the liquidity crisis and ongoing economic woes.

These same pocket-book issues contributed to the anti-incumbent electoral pressures in the 2016 presidential race. The post-election environment showed a near-term surge in consumer optimism to levels generally not seen since before the formal onset of the recession in 2007, while underlying liquidity conditions and reality continued to remain shy of consumer hopes. Accompanying details reflect February 2017 and fourth-quarter 2016 readings of consumer credit and obligations, stressed real median monthly household income in February 2017 and those elevated, but mixed, March 2017 and early-April confidence and sentiment numbers.

Generally, the higher and stronger these measures are, the healthier is consumer spending. Most measures of consumer liquidity and attitudes remain off their lows, and one of the hard ones—real monthly median household income—actually had spiked recently to pre-recession levels, reflecting the temporary collapse in gasoline prices and deflation by the otherwise underestimated headline CPI-U inflation. Having stagnated briefly, real monthly median household income generally has begun to falter or move lower, along with a developing pickup in consumer inflation.

Still, the broad underlying consumer liquidity fundamentals simply have not supported, and still do not support a turnaround in general economic activity. Never truly recovering in the post-Panic of 2008 era, limited growth in household income and credit, have eviscerated and continue to impair broad, domestic U.S. business activity, which feeds off the financial health and liquidity of consumers.

This circumstance remains in play in the context of that post-election surge in consumer expectations that now has exceeded pre-recession levels. Nonetheless, underlying liquidity conditions and reality—particularly income and credit—remain well shy of consumer hopes and needs.

The combined issues here have driven the housing-market collapse and ongoing stagnation in consumer-related real estate sales and construction activity, and have constrained both nominal and real retail sales activity and the related, personal-consumption-expenditure and residential-construction categories related to the Gross Domestic Product (GDP). Those sectors account for more than 70% of total U.S. GDP activity.

Yet, with the better-quality economic indicators, and likely underlying economic reality, never having recovered fully from its collapse into 2009 (see *Commentary No. 876*, *Commentary No. 877* and *Commentary No. 869*), consumers again are pulling back on consumption, as evidenced by a renewed slowdown in broad a broad array of economic indicators. Underlying reality is evident in more-meaningful series—not the GDP—irrespective of the transient, gimmicked boosts to that most worthless of economic indicators.

Consumer Confidence and Sentiment. This detail incorporates full March 2017 reporting for the Conference Board's Consumer-Confidence and the University of Michigan Consumer-Sentiment measures, along with the just-released "advance" estimate of April Sentiment. Reflected in *Graphs 4* and *5*, both confidence and sentiment rose in September and plunged in October, likely reflecting concerns as to the direction of the presidential race. The November measures rallied sharply, reflecting post-election consumer optimism and continued to explode in December, generally consistent with post-election reaction in the domestic stock-market and U.S. dollar.

The Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph 4*, and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph 5*), again, both soared post-election into December 2016, but took breathers in January 2017, with Confidence jumping in anew in February but with Sentiment off its near-term high. While the three-month moving average in sentiment in January rose to a pre-recession high, the three-month moving average in confidence as of February set a new post-recession high. The March numbers showed a jump in the Consumer-Confidence Index® to levels not seen since before the 2001 recession, while the Consumer Sentiment number continued to flutter around its near-term peak, still at a pre-2007-recession high. The advance-April estimate for Consumer Sentiment continued to flutter at a high level, minimally higher than in the full reporting for March, although the three-month moving average declined for the series and the six-month average continued to move higher, as reflected in respective the plots of the both.

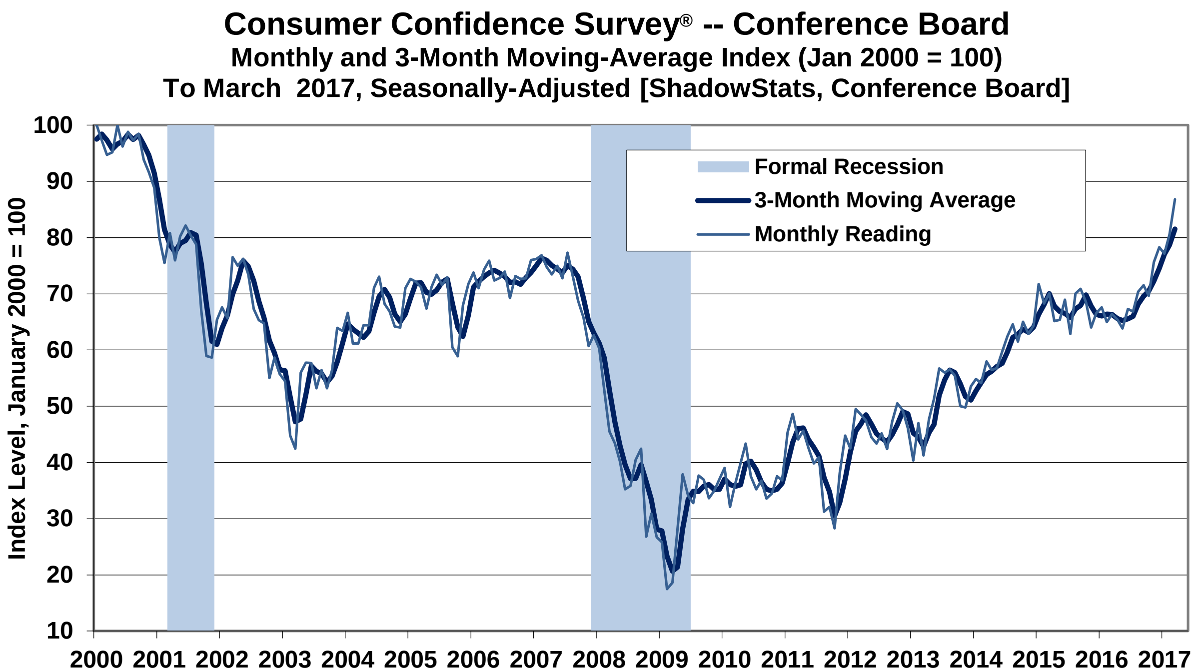
Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs 4* to *6* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while the 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. With what should become increasingly-negative, unstable and uncertain headline financial and economic reporting in the months ahead—beyond the initial change-in-government euphoria—successive negative hits to both the confidence and sentiment readings remain increasingly likely in the near future.

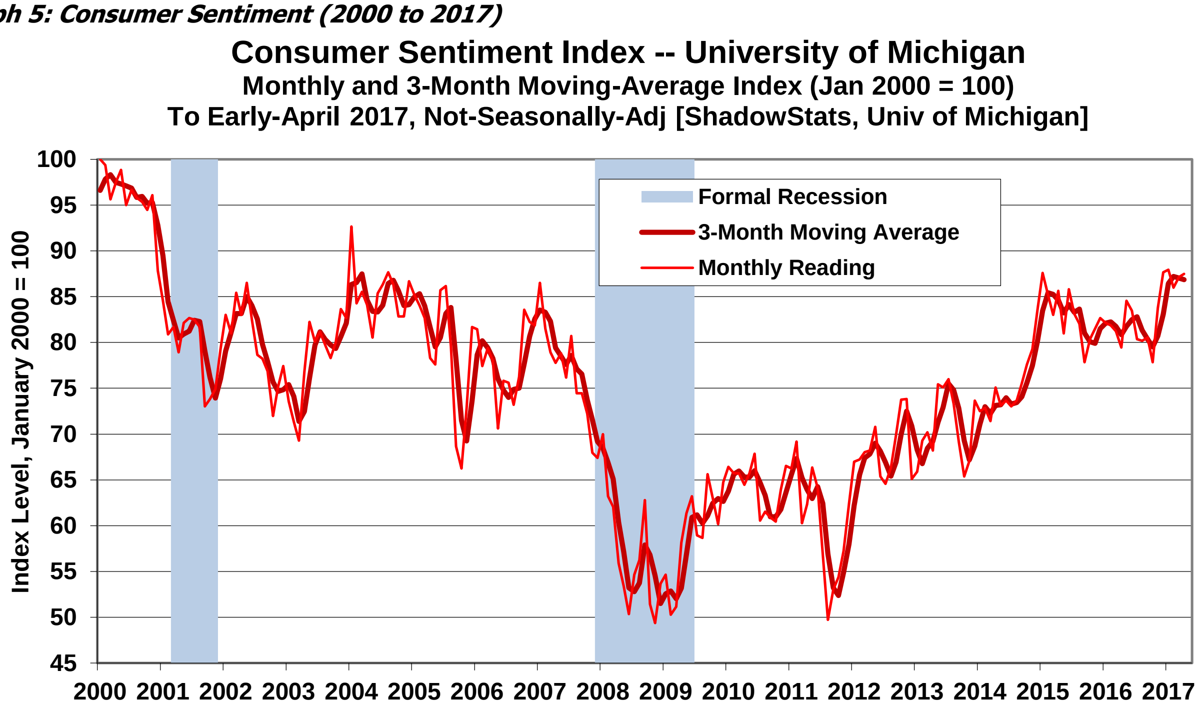
Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph 6*—plotted for the last 47 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods of normal, positive economic activity of the last four decades. Broadly, though, the harder consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and third-quarter 2016.

[Graphs 4 to 6 begin on the following page.]

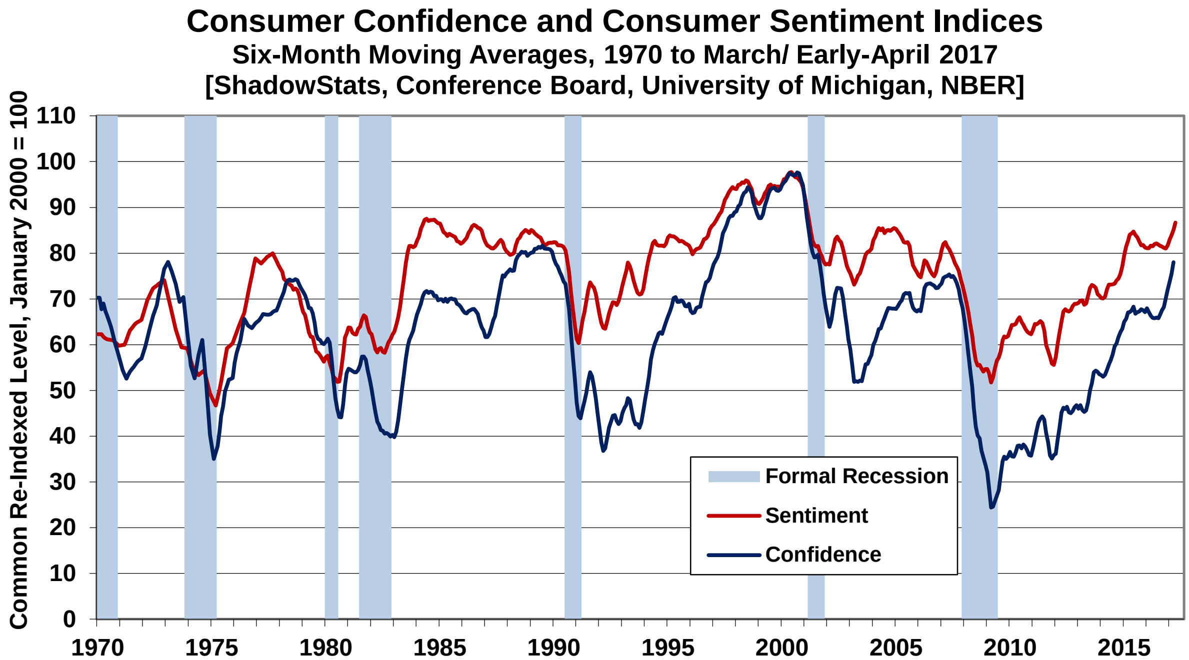
Graph 4: Consumer Confidence (2000 to 2017)



Graph 5: Consumer Sentiment (2000 to 2017)



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



February 2017 Real Median Household Income Showed a Statistically-Significant Monthly Gain. Discussed in [*Commentary No. 876*](), while February 2017 real Median Household Income rose in the month, it held below its pre-recession peak, consistent with ongoing consumer-liquidity stresses.

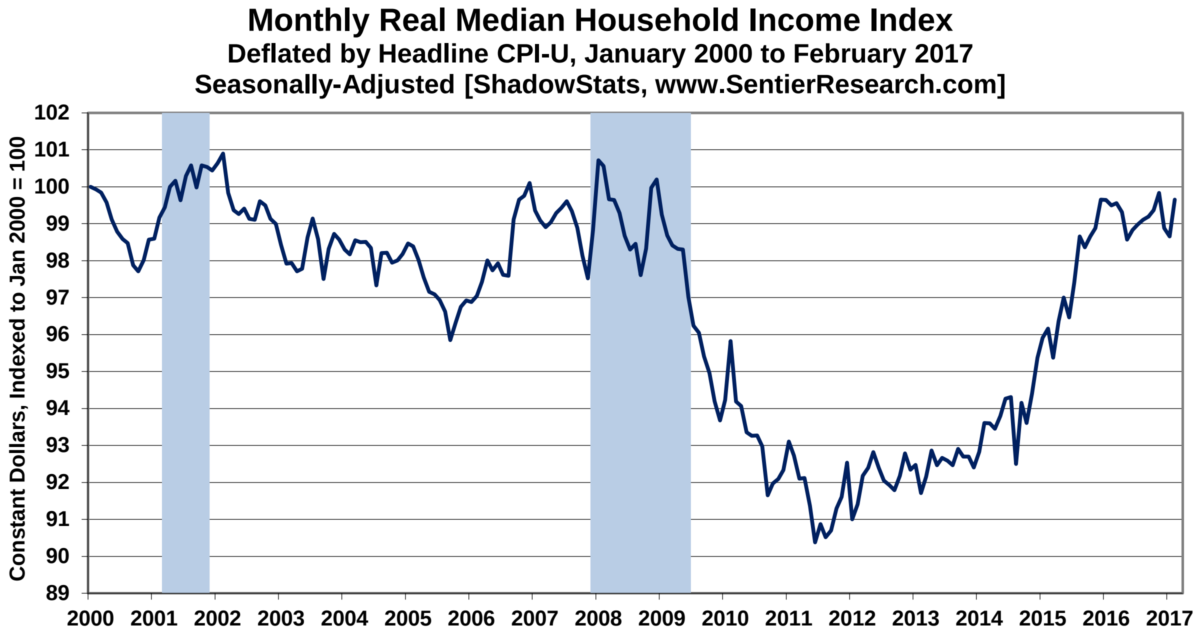
Reported March 30th, by www.SentierResearch.com, the level of the February 2017 Real Median Household Income Index rose month-to-month by a statistically-significant 1.01%, having declined by 0.23% (-0.23%) in January. The series also rose by 0.16% year-to-year in February 2017, having declined by 0.99% (-0.99%) in January 2017. Those details are plotted in the accompanying *Graphs 7* and *8*, showing ongoing stagnation both in terms of level and year-to-year change.

Where low or negative headline CPI-U inflation and related spikes in inflation-adjusted real income resulted from collapsing gasoline prices in 2014, that process began to reverse in the latter part of 2016.

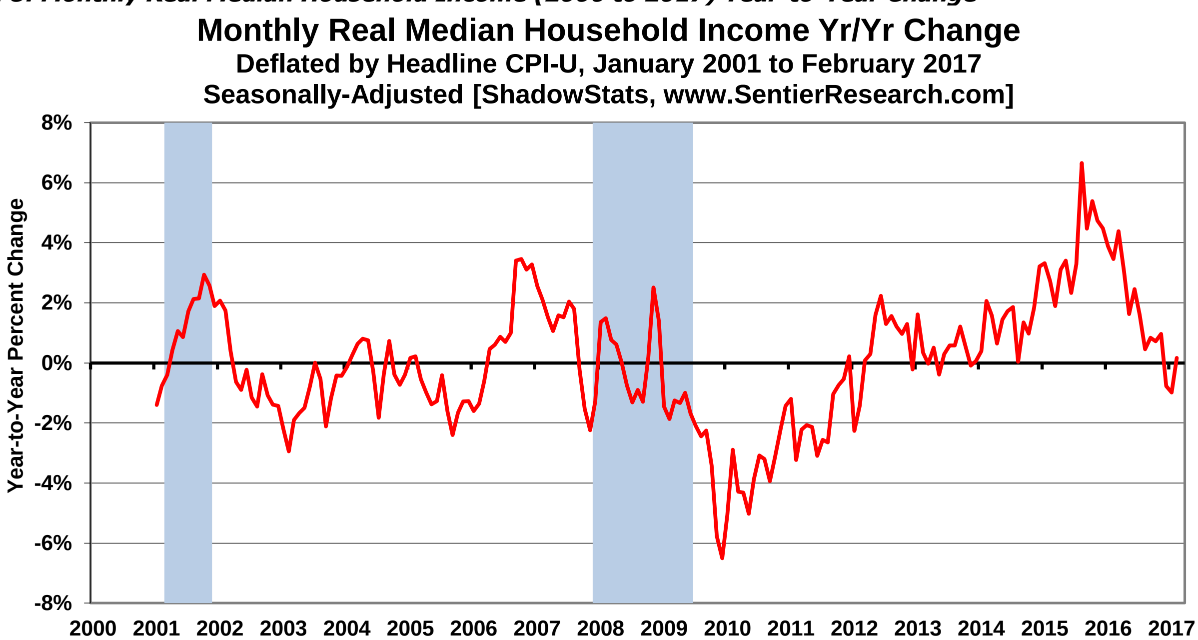
On a monthly basis, when headline GDP purportedly started its solid economic recovery in mid-2009, the monthly household income number nonetheless plunged to new lows. Again, the income series had been in low-level stagnation, with the post-2014 uptrend in the inflation-adjusted monthly index boosted specifically by collapsing gasoline prices and related, negative headline CPI-U consumer inflation. The index approached pre-recession levels in the December 2015 reporting, but it remained minimally below the pre-recession highs for both the formal 2007 and 2001 recessions. It should continue turning down anew, as headline monthly consumer inflation generally picks up at an accelerating pace, albeit not perhaps in March 2017.

Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash generally was used to help pay down unsustainable debt or other obligations, not to fuel new consumption. Again, the effects of changing gasoline prices have reversed, pushing headline consumer inflation higher.

Graph 7: Monthly Real Median Household Income (2000 to 2017) Index, January 2000 = 100



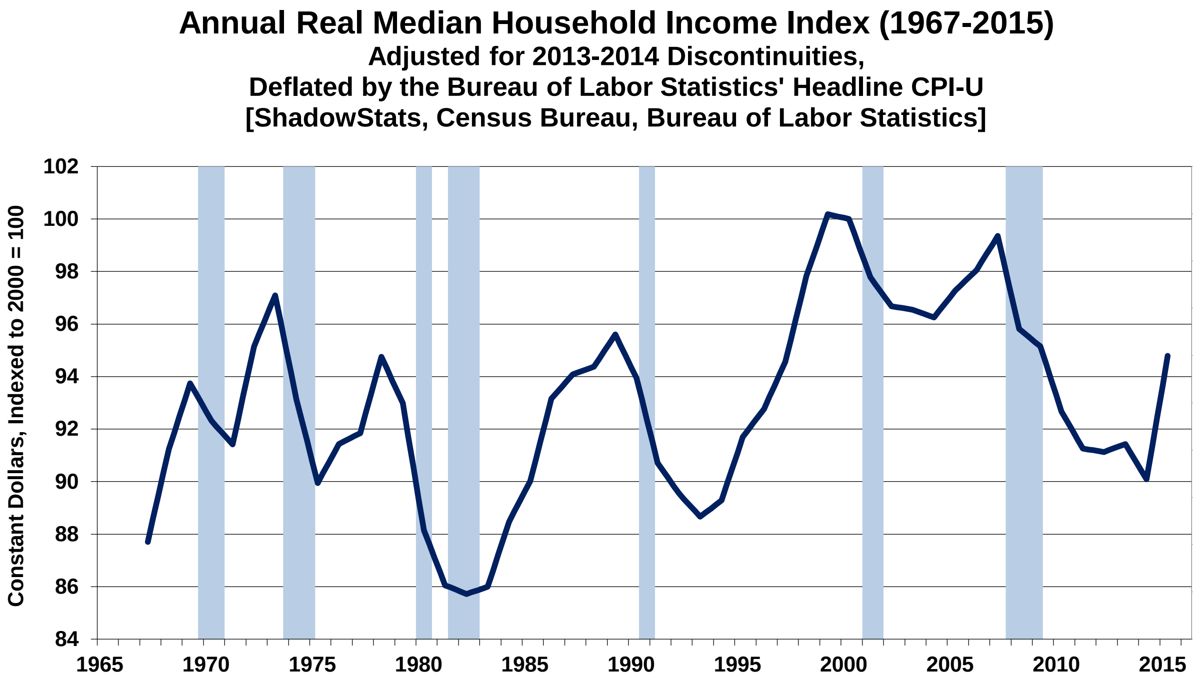
Graph 8: Monthly Real Median Household Income (2000 to 2017) Year-to-Year Change



This measure of real monthly median household income generally can be considered as a monthly version of the annual detail shown in *Graph 9*, which was updated nine months ago for 2015 detail (see the full analysis of the 2015 annual household income reporting in *Commentary No. 833*). The relative jump seen in the headline annual 2015 median income, despite formal adjustment for discontinuities in the recent annual reporting, was due largely to series redefinitions, not due to a sudden change in consumer liquidity, other than as tied to the collapse in gasoline prices and a related spike in the inflation-adjusted numbers. The level of real annual median household income for 2015, not only was below that seen at the purported trough of the economic collapse into 2009, but also it was below levels seen in the early-1970s and the late 1980s.

Differences in the Monthly versus Annual Median Household Income. The general pattern of relative historical weakness also has been seen in the headline reporting of the annual Census numbers, shown in *Graph 9*, with 2014 real annual median household income having hit a ten-year low, and, again, with the historically-consistent 2015 annual number still holding below that seen when the collapsing economy hit its purported trough in 2009.

Graph 9: Annual Real Median U.S. Household Income (1967 to 2015)



The Sentier numbers had suggested a small increase in 2014 versus 2013 levels. Still, the monthly and annual series remain broadly consistent, although based on separate questions within the monthly Consumer Population Series (CPS), as conducted by the Census Bureau.

Where Sentier uses monthly questions surveying current annual household income, the headline annual Census detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent with Real Average Weekly Earnings, now through March 2017.

Real Average Weekly Earnings—March 2017—First-Quarter 2017 a Showed Second, Consecutive Quarterly Contraction and a Quarterly Year-to-Year Downturn. In Real Average Weekly Earnings were updated through March 2017, coincident with the April 14th release of the March CPI-W. As discussed in the prior, March CPI section of this *Executive Summary* (see *Graph 3*), and in the later *Reporting Detail*. The pattern of weakness was last seen during the period of stalled headline GDP growth in the second-half of 2012.

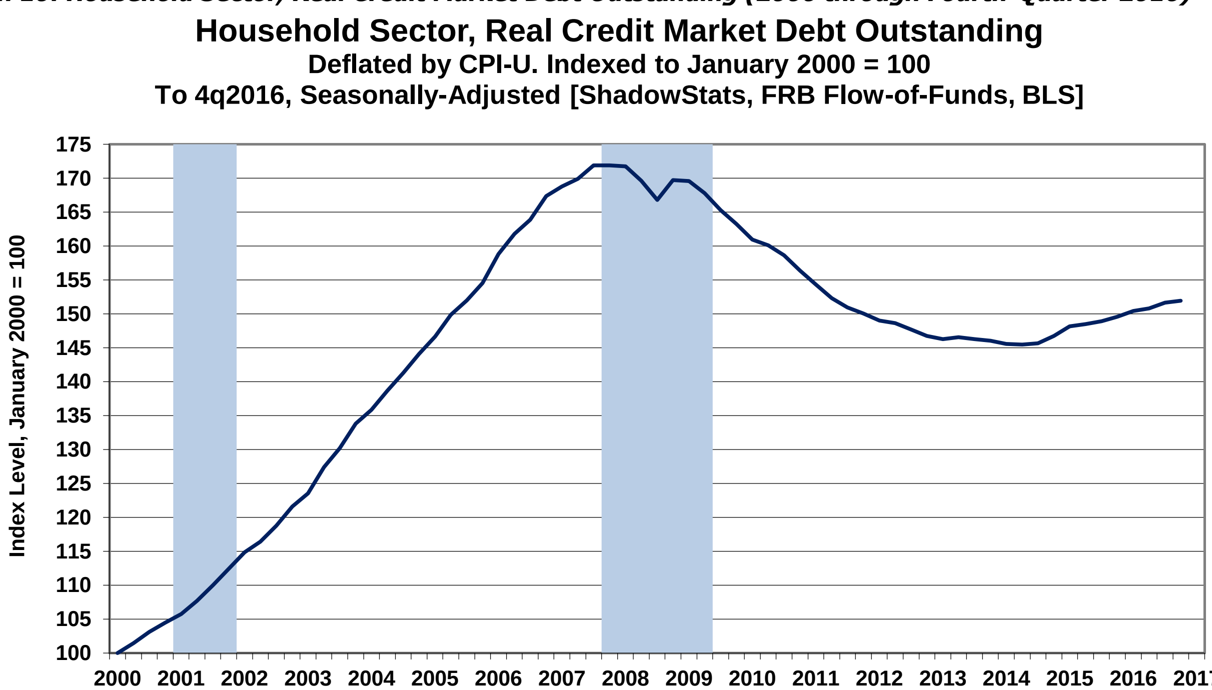
Consumer Credit Has Continued to Tighten—Seasonally-Adjusted Monthly Growth Turned Flat-to-Minus. The final four graphs on consumer conditions address consumer borrowing. Debt expansion can help make up for a shortfall in income growth. The ShadowStats analysis usually focuses on the particular current weakness in consumer credit, net of what has been rapidly expanding government-sponsored student loans. Where detail on that series is only available not-seasonally-adjusted, the following graphs are so plotted.

Nonetheless, the aggregate series also is smoothed for seasonal adjustment. In real terms, the adjusted series rarely declines month-to-month in a growing economy. On top of stagnant month-to-month growth in December 2016, it declined by 0.26% (-0.26%) in January 2017, bouncing back by 0.28% in February. The last time there had been a monthly decline was in September 2012, down by 0.13% (-0.13%). Smoothed for a three-month moving average of monthly change, the series rarely drops below 0.10%, in a growing economy. February 2017 was at 0.04%. The last time growth was seen below 0.10% was in September and October of 2012, with September at the near-term trough of 0.05%.

The significance of that timing, as also seen for the historic parallels for the quarterly and annual contractions just reported in Real Average Weekly Earnings and discussed in the *Opening Comments*, is that headline real GDP growth stalled in the second-half of 2012, with annualized real quarterly GDP growth at 0.48% in third-quarter 2012, and at 0.09% in fourth quarter 2012.

Returning to the regular ShadowStats assessment of consumer credit, consider *Graph 10* of *Household Sector, Real Credit Market Debt Outstanding*. Household debt declined in the period following the Panic of 2008, and it has not recovered fully, based on the Federal Reserve's flow-of-funds accounting through fourth-quarter 2016. Household Sector, Real Credit Market Debt Outstanding in fourth-quarter of 2016 still was down by 11.6% (-11.6%) from its pre-recession peak of third-quarter 2007. Third-quarter 2016 was down by a revised 11.8% (-11.8%) [previously down by 11.6% (-11.6%)] from the peak.

Graph 10: Household Sector, Real Credit Market Debt Outstanding (2000 through Fourth-Quarter 2016)



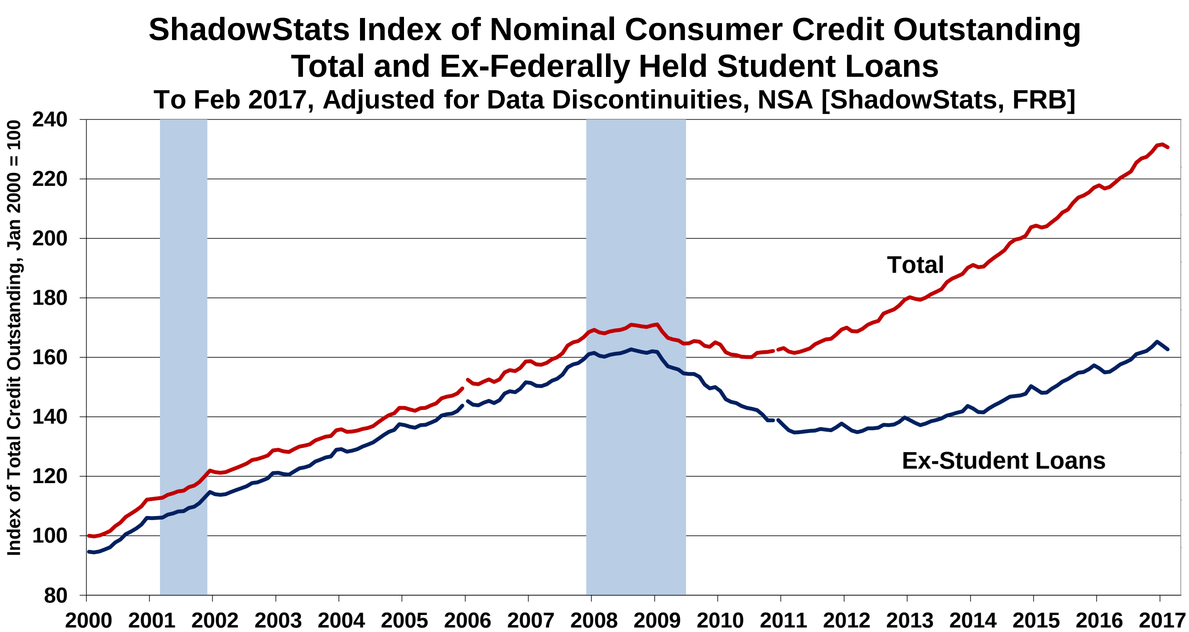
The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce. The slight upturn seen in the series through 2015 and into 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016. Current activity also has reflected continued relative strength from student loans, as shown in the *Graphs 11* to *13*.

Shown through the latest reporting (February 2017), *Graph 11* of monthly Consumer Credit Outstanding is a subcomponent of *Graph 10* on real Household Sector debt. Where *Graph 11* reflects the nominal reporting, not adjusted for inflation, inflation-adjusted real activity for the monthly Consumer Credit Outstanding is shown both in terms of level (*Graph 12*) and in terms of year-to-year change (*Graph 13*).

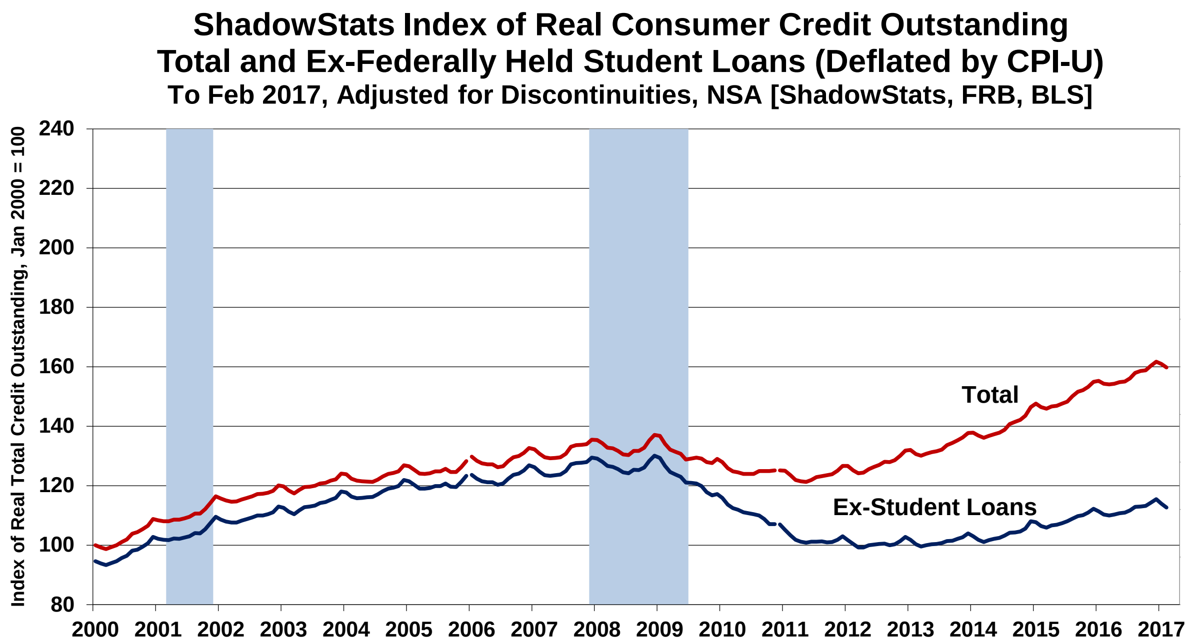
Post-2008 Panic, growth in outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel broad consumption or housing growth. Although in slow uptrend, the nominal level of Consumer Credit Outstanding (ex-student 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 over one year reflecting some regular, unadjusted seasonal dips or jumps.

Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Although the monthly dip in the not-seasonally-adjusted consumer credit reflects a seasonal decline, the pace of year-to-year growth continues to slow, suggesting some tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in February 2017 was down from its December 2007 pre-recession peak by 12.9% (-12.9%). Year-to-year growth in *Graph 13* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

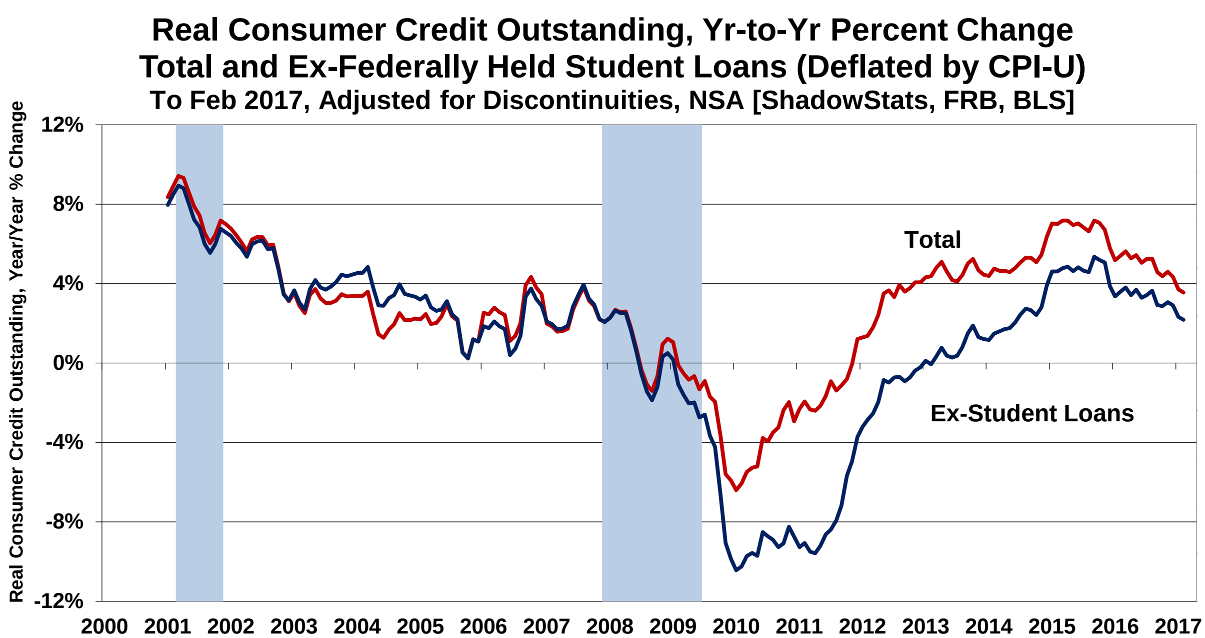
Graph 11: Nominal Consumer Credit Outstanding (2000 to 2017)



Graph 12: Real Consumer Credit Outstanding (2000 to 2017)



Graph 13: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2017)



[The **Reporting Detail** *contains extended analysis and graphs.]*

HYPERINFLATION WATCH

Deteriorating Economic Data Should Begin to Roil the Markets. Discussed in prior *Commentary No. 879*, in the context of two recent quarter-point rate hikes, the Federal Reserve's Federal Open Market Committee (FOMC) allowed that "substantially adverse economic circumstances" not only could thwart tentative considerations to begin normalizing the Fed's balance sheet by year-end, but also could trigger renewed buying of assets, effectively returning the U.S. central bank's monetary policy to some form of expanded quantitative easing.

Despite the Fed's protestations to the contrary, including downgraded redefinitions of "normal" or "healthy" economic activity (see *No. 859 Special Commentary*), those adverse circumstances never went away, subsequent to the Panic of 2008 and the economic collapse into 2009. Discussed in the *Opening Comments*, however, headline economic activity has taken a sudden turn to the downside, with a pattern that likely will continue to deteriorate in the weeks and months ahead.

Separately, meaningful fiscal stimulus for the U.S. economy appears to be stalled, at present, by lack of Congressional cooperation with the new Administration. There is a chance to turn the U.S. economic and fiscal conditions to the plus-side, but again, as discussed in *No. 859 Special Commentary*, a three pronged effort is needed: (1) fiscal stimulus [there is roughly a one-year lead time for results], (2) a credible proposal to bring the U.S. government's long-term fiscal conditions into balance, and (3) overhauling the Federal Reserve and banking system.

With near-term Congressional action increasingly unlikely, and renewed "adverse" economic conditions increasingly in hand, financial markets could turn savagely against the U.S. dollar at any time. As the markets sense the mounting economic woes and movement by the Fed back towards quantitative easing, heavy selling of the U.S. currency should reflect mounting fears of inflation. Flight from the weakening dollar (and related spiking oil prices), increasingly would flow into the heavy buying of gold and silver as stores of wealth, vehicles that can preserve the purchasing power of one's wealth and assets.

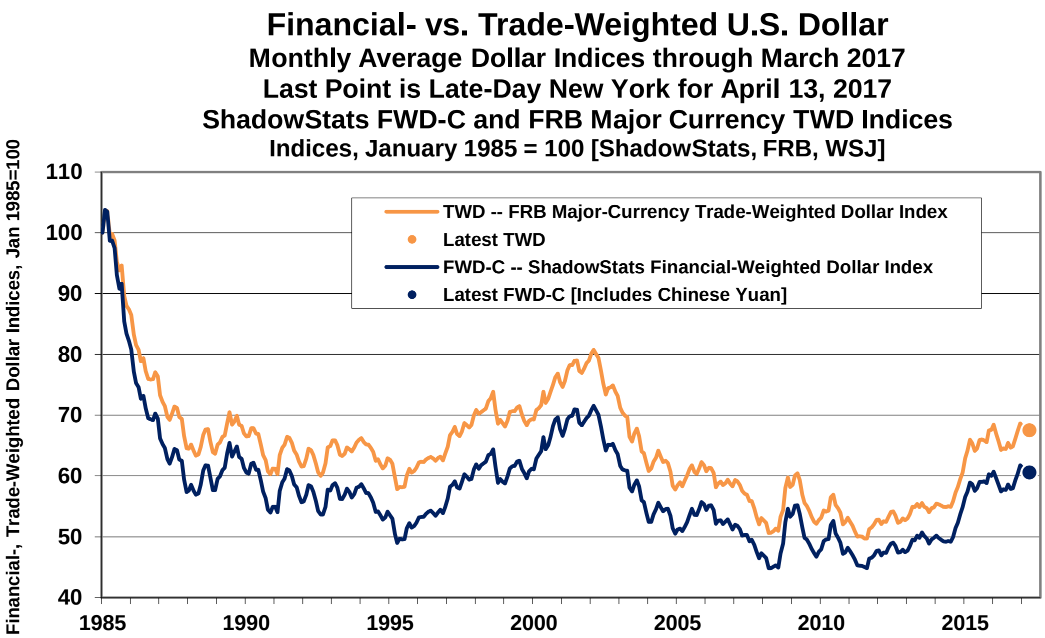
FOMC Focus Remains Banking-System Solvency; Economic Activity and Inflation Are Peripheral Concerns Other than for Banking-System Impact. The ShadowStats assessment of faltering-economic activity pushing the FOMC back towards an expanded form of quantitative easing, and various, possible economic and financial scenarios facing the Trump Administration, were reviewed in *No. 859 Special Commentary* of January 8th, which is included here by reference. That broad outlook has not changed since that *Special Commentary*, particularly in the context of the recent rate hikes.

Consider, as the banking system approached the brink of collapse in the Panic of 2008, the Fed and the U.S. Treasury opted to save the system at any and all costs, which involved creating, spending, buying, lending whatever money, and guaranteeing whatever obligations, liabilities or circumstances that had to be covered. The stopgap measures saved the system, temporarily buying time, but none of the major underlying issues—such as the collapsing domestic economy and long-term solvency issues facing the U.S. Treasury—were addressed.

The Fed's primary job always has been to support the banking system. Purported economic stimulus from the various forms of quantitative easing was nonsense, it always was about providing liquidity to the banking system. Talk of economic justification for quantitative easing was the Fed's political cover for those banking-system bailout actions, and that remains the case.

What has changed since the first of the year is some subsequent, now intensifying, weakening in headline economic detail, with the value of the U.S. dollar moving off its recent highs, and with gold and silver prices and oil prices moving off recent bottoms. Those trends generally should continue, despite further near-term Federal Reserve jawboning for more interest-rate hikes. The re-intensifying economic downturn increasingly will push the FOMC back towards quantitative easing.

Graph 14: Financial- versus Trade-Weighted U.S. Dollar



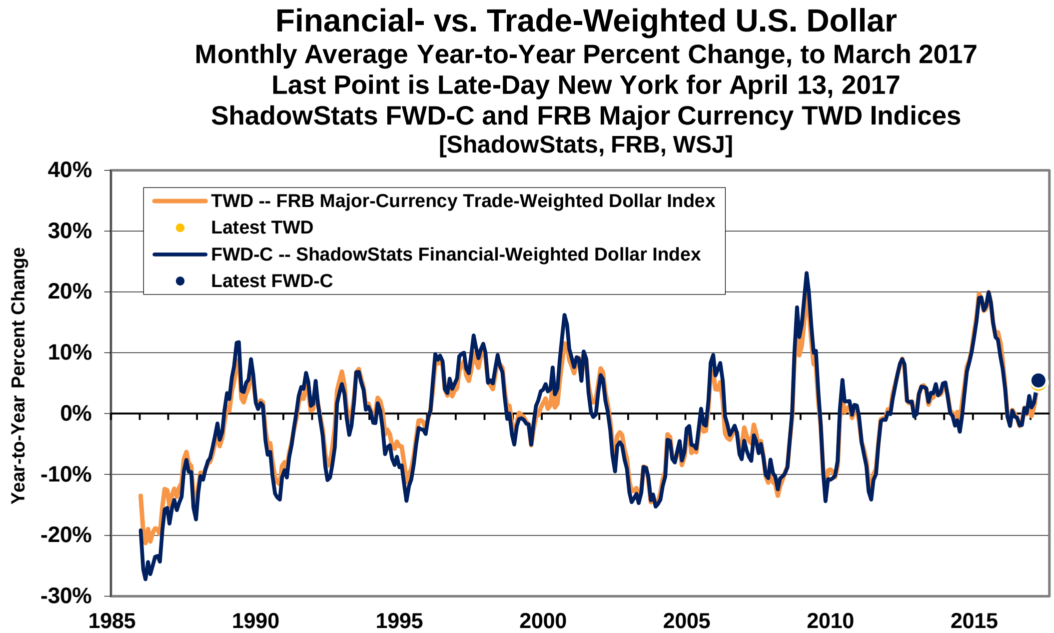
A Need to Show Caution When Jawboning Currency Movements. Official negative U.S. dollar jawboning—as undertaken recently by the President—rarely has lasting impact. One needs to be careful, though, if there is any substance behind the jawboning.

An example that comes to mind is when former Treasury Secretary James Baker did more than jawbone the dollar lower on Saturday, October 17, 2017; he indicated that the U.S. no longer would prop the dollar against the German mark. That action was a fundamental trigger for the ensuing stock-market crash on Monday, October 19th.

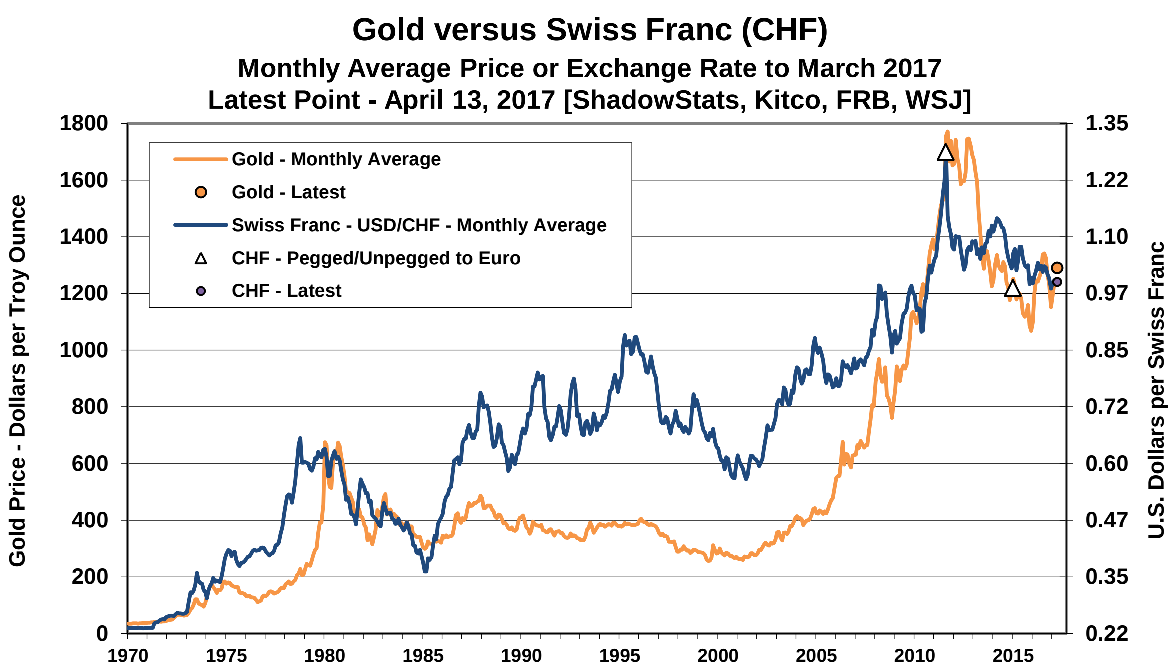
Underlying Federal Reserve policy and the weakening economy should take care of driving the dollar much lower in the months ahead. Jawboning likely will not be necessary.

The updated U.S. dollar and gold graphs that usually accompany the monthly CPI *Commentary* follow, showing post-March FOMC monthly-average plots of prices covering the U.S. Dollar (*Graphs 14* and *15*), along with gold (*Graphs 16*, *17* and *18*), where the April points on the graphs reflect late-day, pre-holiday New York prices for Thursday, April 13th.

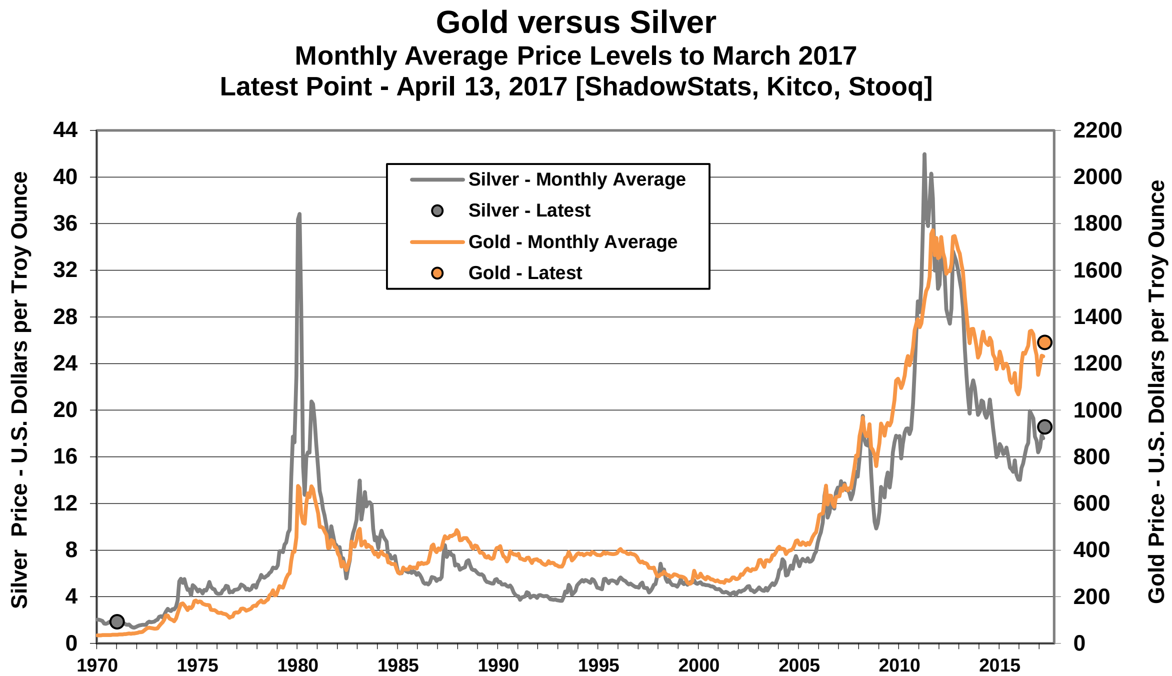
Graph 15: Year-to-Year Change, Financial- versus Trade-Weighted U.S. Dollar



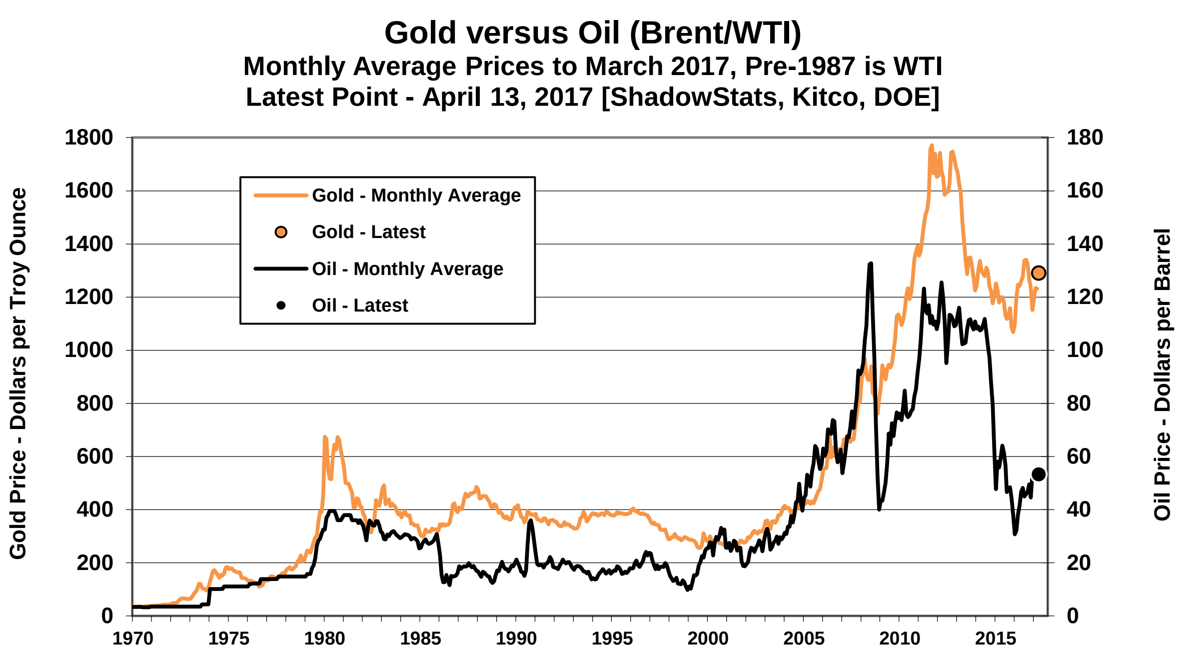
Graph 16: Gold versus the Swiss Franc



Graph 17: Gold versus Silver



Graph 18: Gold versus Oil



REPORTING DETAIL

RETAIL SALES – Nominal and Real (March 2017)

Despite Sharp Downside Revisions to Recent Headline Retail Sales Activity, Annual Benchmark Revisions—Likely Broadly Negative—Loom in Eleven Days. Headline nominal Retail sales declined month-to-month by 0.22% (-0.22%) versus revised February 2017 detail. The new level of nominal monthly sales for February was revised lower by 0.45% (-0.45%), with the effect that net of prior-period revisions, headline nominal sales were down by 0.66% (-0.66%) in the month relative to what previously had been estimated.

Separately, the level of January 2017 nominal retail, was revised lower by 0.11% (-0.11%) from its reporting last month. December 2016, however, was not revised, as is standard practice for the third month back, except in annual benchmark revisions. As a result of the monthly revisions, the monthly nominal gain of 0.08% initially reported for February 2017 now is a contraction of 0.26% (-0.26%), while monthly growth in January revised from a gain of 0.64% to 0.53%.

The bulk of the month-to-month decline in the headline nominal March sales number reflected a decline in auto sales, while the bulk of the downside revisions to February and January monthly activity reflected downside revisions to auto sales.

Fortuitously for inflation-adjusted real March 2017 retail sales, headline, seasonally adjusted CPI-U monthly inflation was a contraction of 0.29% (-0.29%), which pushed the nominal decline in sales from a loss of 0.22% (-0.22%) to a real month-to-month gain of 0.07%. For both nominal and real retail sales, however, the likely downside revisions are just beginning.

Annual Retail Sales Benchmark Revision Set for April 26th. The Census Bureau intends to publish its annual benchmark revision of the series in eleven days, on Wednesday, April 26, 2017, encompassing the 2015 Annual Retail Trade Survey. Where these benchmarkings can be squirrelly, they most often downgrade prior economic activity, although last year's revisions were relatively minor (see *Commentary No. 804*). ShadowStats will publish an analysis of the detail within a couple of days of the publication. The recent downside benchmark revisions to Industrial Production were suggestive of downside revisions to retail sales, as well. As noted there (see *Commentary No. 877*):

> Upside-gimmicked assumptions often are used by the federal government's statistical bureaus, with those assumptions also feeding regularly into the FRB's economic data. As once explained by an official of one of the statistical bureaus, it was a political embarrassment to understate actual economic conditions, but there was no political problem with overstating them.

Nominal Retail Sales—March 2017. In the context of sharp downside revisions to the levels of retail sales activity in both January 2017 and February 2017, the Census Bureau reported April 14th, that headline nominal March 2017 Retail Sales activity declined by 0.22% (-0.22%) month-to-month, following a revised monthly decline of 0.26% (-0.26%) [previously a monthly gain of 0.08%] in February, versus a downwardly-revised 0.53% [previously 0.64%, initially 0.36%] monthly gain in January 2017.

That seasonally-adjusted, headline March 2017 decline of 0.22% (-0.22%) +/- 0.59% was not statistically-significant (all confidence intervals are expressed at the 95% level). Net of prior-period revisions, March 2017 sales declined by 0.66% (-0.66%), which would have been statistically significant. The revised headline February 2017 monthly retail sales decline of 0.26% (-0.26%) +/- 0.23%, however, was statistically-significant, as was the case with the 0.53% gain in January.

In the context of the seasonal-factor distortions detectable in today's limited availability of just five months of consistently-reported detail, the relative growth in February 2017 versus March 2017 was upped by roughly 0.1% from where it would have been otherwise, but for the inconsistent seasonal factors. As with the employment and unemployment numbers, concurrent seasonal adjustments are used, where the seasonal factors for the last five years of data are recast every month, based on the latest month's headline detail. Only the three most recent months and the two most-recent months one year ago are reported on a consistent basis. As a result, growth patterns can be shifted historically into the current period, with no consistent accounting or reporting available on monthly basis (see *Headline Distortions from Shifting Concurrent-Seasonal Factors* on page 26 of *Commentary No. 879*).

Year-to-Year Annual Change. The March 2017 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 5.16% +/- 0.82%, versus downwardly revised annual gains of 5.12% [previously 5.86%] in February 2017 and 5.90% [previously 6.01%, initially 5.56%] in January 2017.

March Core Retail Sales, Net of Food and Gasoline. Reflecting a real-world environment that should be seeing rising, seasonally-adjusted food prices and somewhat higher gasoline prices [up by 0.87% for the month on a not-seasonally-adjusted basis, per the Department of Energy, but down, net of seasonal adjustments], seasonally-adjusted grocery-store sales gained month-to-month by 0.48%, with gasoline-station sales down by 0.96% (-0.96%) in March 2017.

Under normal conditions, the bulk of non-seasonal variability in food and gasoline sales is in pricing, instead of demand. "Core" retail sales—consistent with the Federal Reserve's historical preference for ignoring food and energy prices when "core" inflation is lower than full inflation (when the Fed is looking to downplay inflation)—are estimated using two approaches:

Version I: March 2017 versus February 2017 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—contracted by 0.24% (-0.24%), versus the official headline aggregate sales decline of 0.22% (-0.22%).

Version II: March 2017 versus February 2017 seasonally-adjusted retail sales series—net of the monthly change in the level of revenues for grocery stores and gas stations—contracted by 0.20% (-0.20%), versus the official headline aggregate sales drop of 0.22% (-0.22%).

Real Retail Sales—March 2017. The headline detail from the coincident (April 14th) release of the March 2017 CPI-U, showed a month-to-month decline in seasonally-adjusted CPI-U by 0.29% (-0.29%), versus monthly gains of 0.12% in February 2017 and 0.55% in January 2017, with year-to-year seasonally-adjusted CPI-U inflation of 2.38% in March 2017, 2.80% in February 2017 and 2.54% in

January 2017. Accordingly, real monthly sales rose 0.07% in March 2017, but declined 0.38% (-0.38%) [previously down by 0.04% (-0.04%)] in February and by 0.22% (-0.22%) [previously a gain of 0.09%, initially down by 0.19% (-0.19%)] in January 2017. Real annual Retail Sales growth was 2.71% in March 2017, versus 2.26% [previously 2.79%] in February 2017 and a revised 3.27% [previously 3.38%, initially 2.95%] in January 2017.

<u>Intense Signal of Recession in Annual Real Growth Remained in Temporary Abeyance.</u> During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal broadly has been in play since February 2015 (the "new" recession likely will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn. With December 2016 at 2.25%, January 2017 at a downwardly revised 3.27%, going against a very weak January 2016, February 2017 revised sharply lower to 2.26% and with March 2017 at 2.71%, in the context of downwardly-revised CPI-U adjusted growth patterns, that recession signal remains in temporary abeyance.

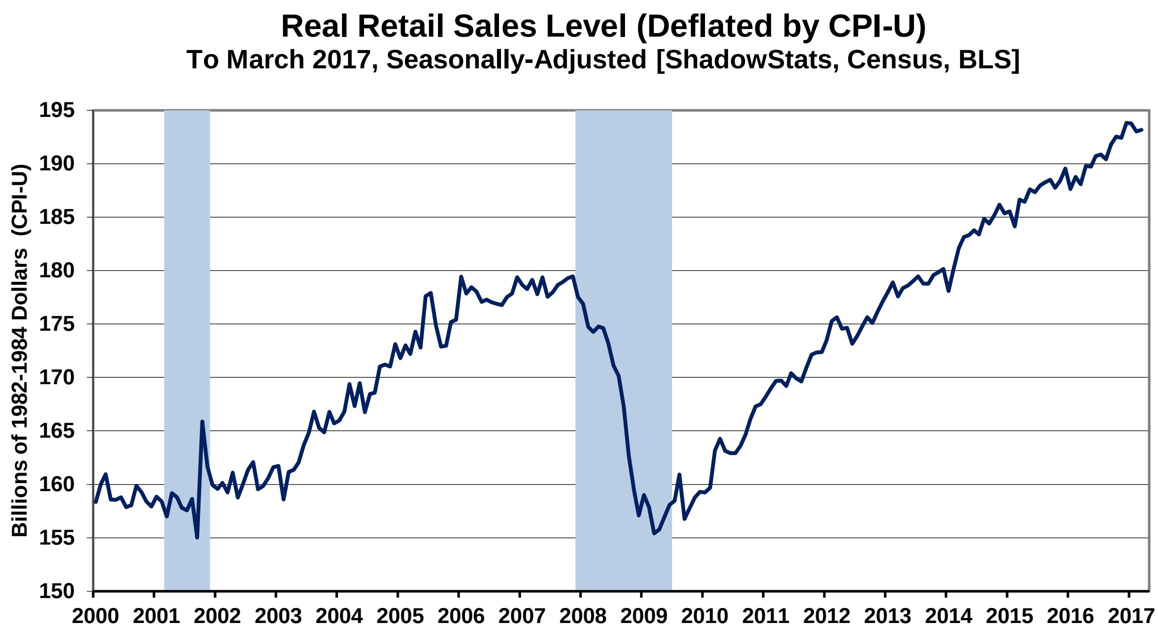
<u>First-Quarter 2017 Annualized Real Growth Slowed Sharply versus Fourth-Quarter 2016.</u> First-quarter 2017 annualized quarter-to-quarter real growth in Retail Sales slowed sharply to 0.84%, versus an unrevised annualized pace of 4.02% in fourth-quarter 2016, an unrevised third-quarter 2016 pace of 2.02%, 4.14% [previously 4.19%] annualized growth in second-quarter 2016 and a revised estimate of a real quarterly contraction of 0.89% (-0.89%) [previously 0.58% (-0.58%)] in first-quarter 2016.

***Structural Liquidity Issues Continue to Impair Retail Sales*.** An extreme consumer-liquidity bind increasingly constrains retail sales activity, as discussed in the *Opening Comments* and in the *Updated Consumer Liquidity Conditions* section in the *Executive Summary* and as fully reviewed in the *CONSUMER LIQUIDITY* section of *No. 859 Special Commentary*. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including retail sales, real or nominal. That circumstance—in the last nine-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending.

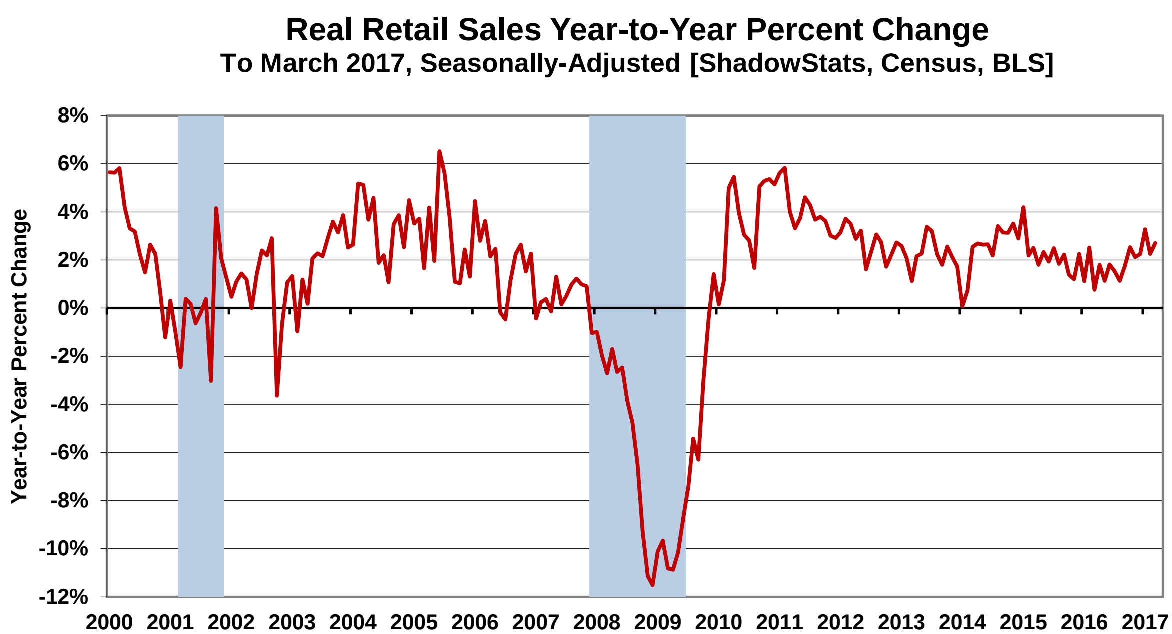
As headline consumer inflation generally continues its upside climb in the year ahead, and as overall Retail Sales continue to suffer from the ongoing consumer liquidity squeeze, the real Retail Sales data generally should continue to trend meaningfully lower, in what eventually still should gain recognition as a formal "new" recession.

Real Retail Sales Graphs. The first of the four graphs following, *Graph 19* shows the level of real retail sales activity (deflated by the CPI-U) since 2000; *Graph 20* shows the year-to-year percent change for the same period. Annual real growth had slowed markedly into fourth-quarter 2015 and 2016, generating an intense recession signal, despite some near-term volatility and revisions with some recent upturn in annual real growth. *Graphs 21* and *22* show the level of, and annual growth in, real retail sales (and its predecessor series) in full post-World War II detail.

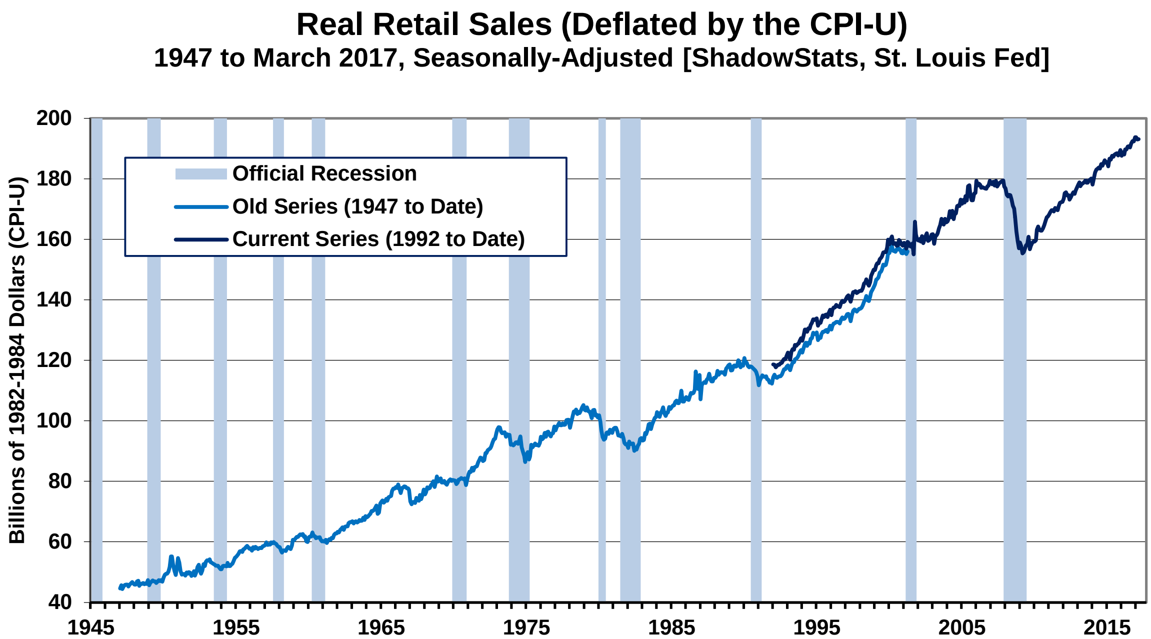
Graph 19: Level of Real Retail Sales (2000 to Date)



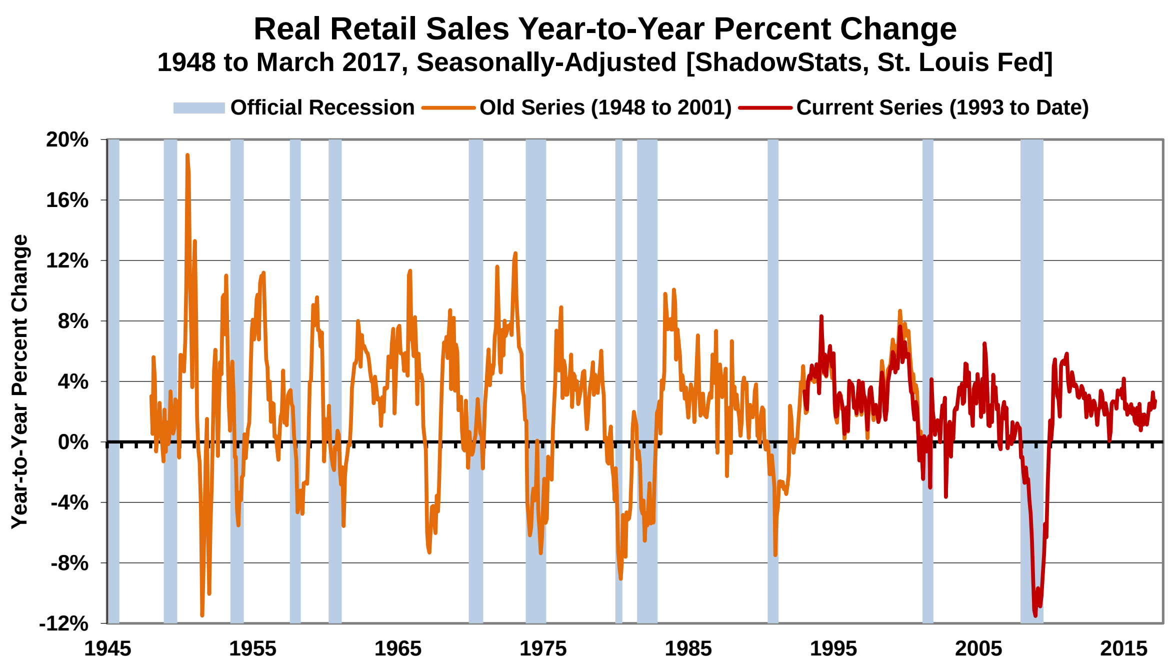
Graph 20: Real Retail Sales (2000 to Date), Year-to-Year Percent Change



Graph 21: Level of Real Retail Sales (1947 to Date)



Graph 22: Real Retail Sales (1948 to Date), Year-to-Year Percent Change



The relative strength seen in the real retail series since the economic trough in 2009 largely has reflected the understatement of the rate of inflation used in deflating the series. Discussed more fully in *Chapter 9* of *2014 Hyperinflation Report—Great Economic Tumble* – *Second Installment*, deflation by too low an inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted, real economic growth. Shown in the latest "corrected" real retail sales—*Graph 2* in the *Executive Summary* section—with the deflation rates corrected for the understated inflation reporting of the CPI-U, the recent pattern of real sales activity has turned increasingly negative. The corrected graph shows that the post-2009 period of protracted stagnation ended, and a period of renewed and ongoing contraction began in second-quarter 2012 and continues to date. The corrected real retail sales numbers use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation instead of the CPI-U.

CONSUMER PRICE INDEX—CPI (March 2017)

Headline CPI-U Inflation Fell by 0.3% (-0.3%) for the Month, Slowed to 2.4% Year-to-Year. Regular reporting in the first-half of the calendar year shows a pattern of downside seasonal-adjustments to month-to-month CPI growth, from January through June. The headline March 2017 CPI-U monthly inflation contraction of 0.3% (-0.3%) [down by 0.29% (-0.29%) at the second decimal point] was below the consensus of a 0.1% (-0.1%) decline, reflecting not only heavily-negative seasonal adjustments to rising gasoline prices, but also sharp declines in prices for cell phone services and other areas such as clothing and new autos, which also are affected by questionable hedonic quality adjustments. Not adjusted for seasonal factors, however, as most people experience life, headline CPI-U inflation rose by 0.11% month-to-month in March 2017.

Unadjusted, year-to-year inflation backed off its 60-month high of 2.7% [up by 2.74% at the second decimal point] in February 2017, falling back to 2.4% [2.38%] in March 2017. The recent inflation surge there had been driven by gasoline prices, not by an overheating economy. Those pressures go both ways and, again, are affected heavily by seasonal adjustments. Consider that in March 2017, the Bureau of Labor Statistics (BLS) reported that gasoline prices rose month-to-month by 1.12% unadjusted; that is what people paid at the pump. Seasonally-adjusted, headline gasoline prices fell by 6.19% (-6.19%) month-to-month. Meaningful seasonal adjustments are difficult to work, when most pricing volatility of the last two-to-three years has been largely independent of regular monthly patterns of seasonality.

Adjusted monthly contractions in the energy and "core" (net of food and energy, but including cell phone and autos) sectors drove the monthly headline drop of 0.29% (-0.29%) in the CPI-U, where the food sector inflation rose again, but not enough to counter the sectors in decline.

Separately, with headline annual March 2017 CPI-U inflation at 2.4%, year-to-year inflation is not and has not been quite as low as indicated, when considered in the context of traditional CPI reporting and common experience. Moving on top of the unadjusted annual changes to the CPI-U, the ShadowStats-Alternate Inflation Measures showed year-to-year inflation in March 2017 easing to 6.0% [previously 6.3%], based on 1990 methodologies, and to 10.1% [previously 10.5%], based on 1980 methodologies.

Longer-Range Inflation Outlook. Despite the U.S. dollar strength subsequent to the election and the hype leading into recent quarter-point FOMC rate hikes, a tremendous threat to the dollar and systemic liquidity and stability continues, tied to the U.S. Federal Reserve's inability to resolve fundamentally the 2008 financial collapse, other than having bought limited additional time with its emergency stopgap measures (see today's *Hyperinflation Watch* and *No. 859 Special Commentary*). Since the 2008 crisis, domestic- and global-banking systems have not been stabilized in a healthy or sustainable manner.

Efforts to stimulate a non-recovering U.S. economy, amidst renewed faltering activity, have been nil, up through the advent of the Trump Administration. Given standard lead times, positive impact from any economic-stimulus package this year would not have significant effect now until mid-2018, at the earliest, a time lapse fraught with potential disaster created by an still-incapacitated Fed, fighting to the death a battle it already lost in the 2008 panic.

In the context of current economic reporting and signals, faltering economic activity has become increasingly obvious, along with related, increasing stresses on domestic systemic-liquidity and solvency issues, pushing the U.S. central bank back towards expanded quantitative easing around mid-year 2017. Such would generate high risk of extreme flight from the U.S. dollar—a massive dollar debasement—threatening an increasingly-rapid upturn in energy and dollar-based commodity inflation, driving headline U.S. inflation much higher.

Compounding the high-risk of a near-term run on the U.S. dollar remains mounting recognition in global markets that the U.S. Federal Reserve and other central banks still have no effective idea as to how to boost current economic activity, how to stabilize global banking-system solvency, or otherwise how to slog their way out of a self-generated quagmire.

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Notes on Different Measures of the Consumer Price Index

The Consumer Price Index (CPI) is the broadest inflation measure published by the U.S. Government, through the Bureau of Labor Statistics (BLS), Department of Labor:

*The **CPI-U (Consumer Price Index for All Urban Consumers)** is the monthly headline inflation number (seasonally adjusted) and is the broadest in its coverage, representing the buying patterns of all urban consumers. Its standard measure is not seasonally-adjusted, and it never is revised on that basis except for outright errors.*

*The **CPI-W (CPI for Urban Wage Earners and Clerical Workers**) covers the more-narrow universe of urban wage earners and clerical workers and is used in determining cost of living adjustments in government programs such as Social Security. Otherwise, its background is the same as the CPI-U.*

*The **C-CPI-U (Chain-Weighted CPI-U)** is an experimental measure, where the weighting of components is fully substitution based. It generally shows lower annual inflation rate than the CPI-U and CPI-W. The latter two measures once had fixed weightings—so as to measure the cost of living of maintaining a constant standard of living—but now are quasi-substitution-based. Since it is fully substitution based, the series tends to reflect lower inflation than the other CPI measures. Accordingly, the C-CPI-U is the "new inflation" measure being proffered by Congress and the White House as a tool for reducing Social Security cost-of-living adjustments by stealth. Moving to accommodate the Congress, the BLS introduced changes to the C-CPI-U estimation process with the February 26, 2015 reporting of January 2015 inflation, aimed at finalizing the C-CPI-U estimates on a more-timely basis, and enhancing its ability to produce lower headline inflation than the traditional CPI-U.*

*The **ShadowStats Alternative CPI-U Measures** are attempts at adjusting reported CPI-U inflation for the impact of methodological change of recent decades designed to move the concept of the CPI away from being a measure of the cost of living needed to maintain a constant standard of living. There are two measures, where the first is based on reporting methodologies in place as of 1980, and the second is based on reporting methodologies in place as of 1990.*

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CPI-U. The Bureau of Labor Statistics (BLS) reported on April 14th that the headline, seasonally-adjusted March 2017 2016 CPI-U declined month-to-month by 0.3% (-0.3%) [down by 0.29% (-0.29%) at the second decimal point]. That followed monthly gains of 0.1% [up by 0.12%] in February, 0.6% [0.55%] in January, 0.3% [0.26%] in December 2016, 0.2% [0.21%] in November and 0.3% [0.29%] in October.

The adjusted headline March 2017 monthly inflation was weakened by mixed seasonal adjustments, minimally boosted by positive seasonal adjustments to the food sector, but heavily hit by continued negative seasonals in the energy and "core" (ex-food and energy) sectors. On an unadjusted basis, monthly March 2017 CPI-U gained 0.08%, 0.31% in February, 0.58% in January and 0.03% in December 2016, having declined by 0.15% (-0.15%) in November, and having increased by 0.12% in October.

March 2017 seasonal adjustments for monthly gasoline inflation were heavily negative, "depressing" an unadjusted monthly gain of 1.19% in gasoline prices into an adjusted decline of 6.19% (-6.19%). The Department of Energy (DOE) estimated an unadjusted monthly gain in March gasoline prices of 0.87%.

While early-April 2017 retail gasoline prices (DOE) are running higher month-to-month by about 1.4%, sharply negative seasonal adjustments to April 2017 gasoline prices easily could constrain the headline, seasonally-adjusted CPI-U into a small month-to-month gain.

<u>Major CPI-U Groups</u>. Encompassed by the seasonally-adjusted monthly decline of 0.29% (-0.29%) in March 2017 CPI-U [up by an unadjusted 0.08%], March food inflation rose by a seasonally-adjusted 0.34% [up by 0.15% unadjusted], energy inflation declined by a seasonally-adjusted 3.20% (-3.20%) in March [up by an unadjusted 0.20%], while the adjusted March "core" (ex-food and energy) inflation rate fell by 0.12% (-0.12%) [up by 0.06% unadjusted]. Separately, core CPI-U inflation showed unadjusted year-to-year inflation of 2.00% in March 2017, versus 2.22% in February 2017, 2.27% in January 2017, 2.20% in December 2016, 2.11% in November 2016 and 2.14% in October 2016.

<u>Year-to-Year CPI-U</u>. Not seasonally adjusted, March 2017 year-to-year inflation for the CPI-U fell back to 2.4% (2.38%) at the second decimal point, from a 60-month high of 2.7% (2.74%) on February 2017, versus 2.5% (2.50%) in January 2017, 2.1% (2.07%) in December 2016, 1.7% (1.69%) in November 2016 and 1.6% (1.64%) in October 2016.

Year-to-year, CPI-U inflation would increase or decrease in next month's April 2017 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, headline gain of 0.35% in April 2016 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for April 2017, the difference in April's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the March 2017 annual inflation rate of 2.38%. Given an early guess of a seasonally-adjusted 0.1% gain in the monthly April 2017 CPI-U, that would leave the annual CPI-U inflation rate for April 2017 at about 2.1%, plus-or-minus, depending on rounding.

<u>Quarterly CPI-U.</u> On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-U rose by 3.15% in first-quarter 2017, having gained by 3.44% in fourth-quarter 2016, 1.63% in third-quarter 2016, 2.53% in second-quarter 2016 and having declined by 0.31% (-0.31%) in first-quarter 2016.

On an unadjusted, year-to-year basis, annual inflation by quarter was up by 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.

Annual Average CPI-U. The annual average CPI-U inflation rate was 1.26% in 2016, versus 0.12% in 2015.

CPI-W. The March 2017 seasonally-adjusted, headline CPI-W, which is a narrower series and has greater weighting for gasoline than does the CPI-U, declined month-to-month by 0.37% (-0.37%), following gains of 0.06% in February, 0.61% in January, 0.29% in December 2016, 0.22% in November and 0.32% in October and 0.29%.

On an unadjusted basis, year-to-year CPI-W rose 2.35% in March 2017, versus 2.82% in February 2017, 2.51% in January 2017, 1.99% in December 2016, 1.51% in November 2016 and 1.45% in October 2016.

Quarter-to-Quarter CPI-W. On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-W rose by 3.22% in first-quarter 2017, versus 3.80% in fourth-quarter 2016, 1.40% in third-quarter 2016 and 2.56% in second-quarter 2016, having declined in first-quarter 2016 by 1.08% (-1.08%). On an unadjusted year-to-year basis, annual inflation by quarter was up by 2.56% in first-quarter 2017, versus 1.65% in fourth-quarter 2016, 0.76% in third-quarter 2016, 0.71% in second-quarter 2016 and 0.79% in first-quarter 2016.

Annual CPI-W. The annual average CPI-W inflation rate was 0.98% in 2016, versus an annual average contraction of 0.41% (-0.41%) in 2015.

Chained-CPI-U. The headline C-CPI-U is not seasonally adjusted, but it is revised regularly, as last happened with the January 2017 reporting. Headline March 2017 C-CPI-U annual inflation came in at 2.43%, versus 2.89% in February 2017, versus 2.58% in January 2017, 2.07% in December 2016, 1.58% in November 2016 and 1.53% in October 2016.

Unadjusted Quarterly C-CPI-U, Year-to-Year. On an unadjusted, year-to-year basis, annual inflation by quarter was up by 2.63% in first-quarter 2017, 1.73% in fourth-quarter 2016, 0.92% in third-quarter 2016, 0.84% in second-quarter 2016 and 0.76% in first-quarter 2016.

Annual Average C-CPI-U. The annual average C-CPI-U inflation rate was 1.06% in 2016, versus annual average price index contraction of 0.12% (-0.12%) in 2015.

See discussions in the earlier CPI *Commentary No. 721* and in the opening notes in the *CPI Section* of *Commentary No. 699* as to recent changes in the series. More-frequent revisions and earlier finalization of monthly detail have been designed to groom the C-CPI-U series as the new Cost of Living Adjustment (COLA) index of choice for the budget-deficit-strapped federal government, as discussed in the *Public Commentary on Inflation Measurement*.

Caution: Artificially-low inflation numbers estimated by the U.S. Government and used in fields ranging from Social Security COLAs (see the 2017 CPI-W estimate discussion in *Commentary No. 841*) to determining income-tax brackets, have been redesigned in recent decades specifically to help reduce the federal deficit. They are harmfully misleading to anyone using a government CPI estimate as a meaningful cost-of-living measure for guidance on income or investment purposes.

Alternate Consumer Inflation Measures. The ShadowStats-Alternate Consumer Inflation Measures are constructed on top of the unadjusted CPI-U series. Adjusted to 1990 methodologies—the ShadowStats-Alternate Consumer Inflation Measure (1990-Base)—year-to-year annual inflation was roughly 6.0% in March 2017, versus 6.3% in February 2017, 6.1% in January 2017, 5.7% in December 2016, 5.3% in November 2016, 5.2% in October 2016 and 5.0% in September 2016.

The March 2017 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, was at about 10.1% (10.14% at the second decimal point) versus 10.5% (10.53%) in February 2017, 10.3% (10.27%) in January 2017, 9.8% (9.81%) in December 2016, 9.4% (9.40%) in November 2016, 9.3% (9.34%) in October 2016 and 9.1% (9.15%) in September 2016. Detail, along with an inflation calculator will be found in the CPI section of the Alternate Data tab of the www.ShadowStats.com home page.

Note: The ShadowStats-Alternate Consumer Inflation Measures largely have been reverse-engineered from BLS estimates of the anticipated impact on annual CPI inflation from various changes made to CPI reporting methodology since the early 1980s, as also incorporated in the CPI-U-RS series. That series provides an official estimate of historical inflation, assuming that all current methodologies were in place going back in time. The changes reflected there are parallel with and of the same magnitude of change as estimated by the BLS, when a given methodology was changed.

The ShadowStats estimates are adjusted on an additive basis for the cumulative impact on the annual inflation rate from the various BLS changes in methodology (reversing the net aggregate inflation reductions by the BLS). The series are adjusted by ShadowStats for those aggregate changes, but the series otherwise are not recalculated.

Over the decades, the BLS has altered the meaning of the CPI from being a measure of the cost of living needed to maintain a constant standard of living, to something that neither reflects the constant-standard-of-living concept nor measures adequately what most consumers view as out-of-pocket expenditures. Roughly five percentage points of the additive ShadowStats adjustment since 1980 reflect the BLS's formal estimate of the annual impact of methodological changes; roughly, two percentage points reflect changes by the BLS, where ShadowStats has estimated the impact not otherwise published by the BLS. For example, the BLS does not consider more-frequent weightings of the CPI series or shifting the nature of retail outlets to be changes in methodology. Yet those changes have had the effect of reducing headline inflation from what it would have been otherwise (See Public Commentary on Inflation Measurement *for further details.)*

Gold and Silver Historic High Prices Adjusted for March 2017 CPI-U/ShadowStats Inflation—

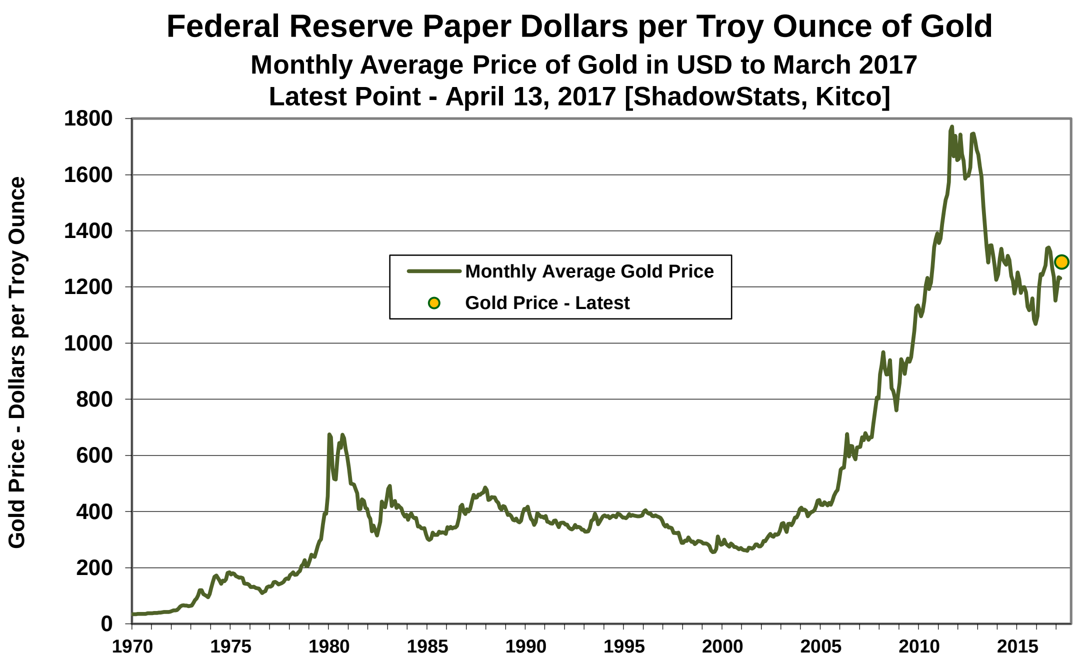
CPI-U: GOLD at $2,664 per Troy Ounce, SILVER at $155 per Troy Ounce
ShadowStats: GOLD at $14,064 per Troy Ounce, SILVER at $818 per Troy Ounce

Despite the September 5, 2011 historic-high gold price of $1,895.00 per troy ounce (London afternoon fix), and despite the multi-decade-high silver price of $48.70 per troy ounce (London fix of April 28, 2011), gold and silver prices have yet to re-hit their 1980 historic levels, adjusted for inflation. The earlier all-time high of $850.00 (London afternoon fix, per Kitco.com) for gold on January 21, 1980 would be $2,664 per troy ounce, based on March 2017 CPI-U-adjusted dollars, and $14,064 per troy ounce, based on March 2017 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (all series here are not seasonally adjusted).

In like manner, the all-time high nominal price for silver in January 1980 of $49.45 per troy ounce (London afternoon fix, per silverinstitute.org)—although approached in 2011—still has not been hit since 1980, including in terms of inflation-adjusted dollars. Based on March 2017 CPI-U inflation, the 1980 silver-price peak would be $155 per troy ounce and would be $818 per troy ounce in terms of the March 2017 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (again, all series not seasonally adjusted).

Shown in *Table 1*, on page 47 of [*No. 859 Special Commentary*](), over the decades, the increases in gold and silver prices have compensated for more than the loss of the purchasing power of the U.S. dollar as reflected by CPI inflation. They also effectively have come close to fully compensating for the loss of purchasing power of the dollar based on the ShadowStats-Alternate Consumer Price Measure (1980-Methodologies Base).

Graph 23: Monthly Average Gold Price in Dollars (Federal Reserve Notes)



Real Retail Sales—March 2017—Boosted to a Real Monthly Gain of 0.07% by Plunging Headline CPI-U Inflation. Real Retail Sales are detailed in the prior *Retail Sales - Nominal and Real* section.

Real Average Weekly Earnings—March 2017—First-Quarter Activity Declined Year-to-Year, Along with a Second Consecutive Quarter-to-Quarter Contraction. The headline estimate for March 2017 real average weekly earnings was published coincident with the April 14th release of the March CPI-W. In the production and nonsupervisory employees category—the only series for which there is a meaningful history, the regularly-volatile real average weekly earnings were up by 0.25% month-to-month in March 2017, versus a revised 0.07% [previously 0.12%] gain in February, having declined for in January by a revised 0.47% (-0.47%) [previously down by 0.52% (-0.52%), initially down by 0.42% (-0.42%)], the sixth consecutive monthly decline for the series.

Year-to-year, the adjusted March 2017 annual detail declined for the fourth straight month, down by 0.31% (-0.31%),versus an unrevised 0.39% (-0.39%) annual decline in February 2017, versus a revised January 2017 annual decline of 0.46% (-0.46%) [previously down by 0.51% (-0.51%), initially down by 0.41% (-0.41%)].

Such left fourth-quarter 2016 in an unrevised 1.36% (-1.36%) annualized real quarter-to-quarter contraction, versus third-quarter 2016 growth of 1.48%, a second-quarter 2016 annualized contraction of 0.11% (-0.11%) and unrevised first-quarter 2016 annualized growth of 1.81%.

First-Quarter 2017 Real Earnings Contracted Quarter-to-Quarter and Year-to-Year. With the initial headline March 2017 in place, first-quarter 2017 contracted at an annualized quarter-to-quarter pace of 1.53% (-1.53%), such was the second, consecutive quarter-to-quarter real contraction.

Year-to-year change in first-quarter 2017 real earnings contracted by 0.39% (-0.39%), the first annual quarterly contraction since fourth-quarter 2012, when the real GDP effectively was unchanged quarter-to-quarter. The signal here highlights financial stresses on the consumer and major downside risk to headline real GDP reporting.

The 2015 rally in real annual income and the subsequent slowdown in latter 2016 were tied directly to the impact of collapsing gasoline prices, and a subsequent rebound in inflation-adjusted income.

While these usually heavily-revised and seasonally-adjusted monthly changes are without much, if any, meaning in the near-term—effectively reporting garbage—over the longer term and quarterly, and particularly the benchmarked trends tend to be of some substance. As with the BLS reporting tied to the nonfarm payrolls, the headline seasonally-adjusted monthly data here are not comparable due to reporting issues with concurrent seasonal factor adjustments (see *Headline Distortions from Shifting Concurrent-Seasonal Factors* on page 26 of prior *Commentary No. 879*).

Separately, the CPI-W deflated reporting here also is biased versus the CPI-U-deflated series, where the CPI-W—more heavily weighted with gasoline prices—tends to have much deeper, negative headline inflation, with resulting stronger headline, real growth than would be seen with the CPI-U, when gasoline prices are falling, and vice versa. Such was true again, in the March 2017 detail, where lower, seasonally-adjusted gasoline prices generated a headline, seasonally-adjusted CPI-W decline of 0.37% (-0.37%), month-to-month, versus the parallel CPI-U decline of 0.29% (-0.29%).

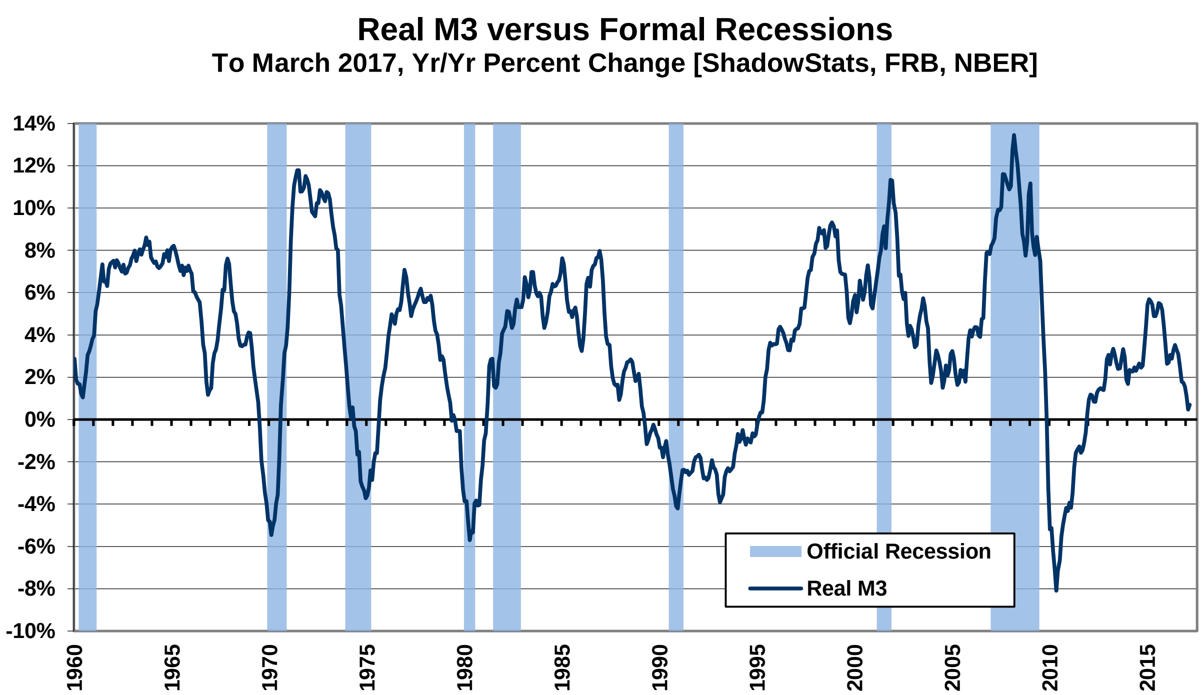
Found in the *Executive Summary* section, *Graph 3* plots this series, showing the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened headline 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.

Real (Inflation-Adjusted) Money Supply M3—March 2017—Annual Growth Continues to Signal a New Economic Downturn. The signal for a double-dip, multiple-dip or simply protracted, ongoing recession, based on annual contraction in the real (inflation-adjusted) broad money supply (M3), has recently been re-triggered, although the prior signal had remained in place, despite real annual M3 growth having rallied in positive territory post-2010. Shown in *Graph 24*—based on March 2017 CPI-U reporting and the latest ShadowStats-Ongoing M3 Estimate—annual inflation-adjusted growth in March 2017 M3 rose to 0.70%, versus a revised plunge in February 2017 M3 to 0.47% [previously 0.39%], from 1.09% in January 2017, from 1.53% in December 2016 and from a prior peak growth of 5.67% in February 2015. Such has continued to reflect rapidly slowing nominal annual M3 growth (see *Commentary No. 871*) with an offset in March 2017 from the headline, unadjusted annual growth in CPI-U inflation falling back to 2.38%, from 2.74% in February 2017.

Had the annual growth in CPI held close to or increased upon the 2.7% of February, as I had predicted, the real growth in M3 would have declined further, closing in on zero. That now awaits a later month, either from a continuing decline in M3, as appears likely, or from some renewed annual gain in CPI-U, which is not highly likely for another month or so.

The current monthly uptick in annual growth reflected a temporary softening pattern of plunging annual growth, but still to levels last seen in plunging growth into the 2009 economic collapse, and at a level always seen going into or already in a recession. The uptick in March 2017 real M3 growth reflected solely the drop in headline CPI-U annual inflation, where nominal annual growth in M3 has continued to plunge each month.

Graph 24: Real M3 Annual Growth versus Formal Recessions



The signal for a downturn or an intensified downturn is generated when annual growth in real M3 first slows sharply, approaches zero and turns negative in a given cycle; the signal is not dependent on the depth of the downturn or its duration. Breaking into positive territory does not generate a meaningful signal one way or the other for the broad economy. The previous "new" downturn signal was generated in December 2009, even though there had been no upturn since the economy purportedly hit bottom in mid-2009. The ongoing issue here confounding the regular signal is that the U.S. economy never has recovered fully from its collapse into 2009 (see *Commentary No. 877*). The initial economic downturn never evolved into a meaningful or sustainable recovery. The current level and pattern of real annual M3 growth always has been followed by annual contraction and recession signal.

Again, when real M3 growth breaks above zero, there is no signal; the signal is generated only when annual growth moves to zero and into negative territory, where it continues to head at present. The broad economy tends to follow in downturn or renewed deterioration roughly six-to-nine months after the signal. Weaknesses in a number of economic series have continued to the present, with significant new softness in recent reporting. Actual post-2009 economic activity has remained at relatively low levels of activity—in protracted stagnation, with no actual recovery (see *Graphs 2* and *3* in the *Opening Comments*, and again see *Commentary No. 877* and the *ECONOMY* section of *No. 859 Special Commentary*).

Despite the purported, ongoing recovery shown in headline GDP activity, a renewed downturn in official data is underway that likely still will gain official recognition as a "new" recession, in the months ahead. Underlying reality remains that the collapse into 2009 was followed by a plateau of low-level economic activity—no meaningful upturn, no recovery from or end to the official 2007 recession—and the unfolding "new" downturn remains nothing more than a continuation and re-intensification of the downturn that began unofficially in 2006.

PRODUCER PRICE INDEX (March 2017)

Final Demand PPI Annual Inflation Hit a 60-Month High. In the context of monthly PPI Goods inflation declining by 0.09% (-0.09%), Construction inflation increasing by 0.17% and the dominant "margins" in the Services sector declining by 0.09% (-0.09%), aggregate Final-Demand PPI (FD-PPI) monthly inflation contracted by 0.09% (-0.09%) month-to-month, with year-to-year inflation rising to 2.28%, a 60-month or five-year high. Previously discussed here, the recent spike in annual inflation has not reflected an overheating economy, only energy-price distortions in the last several years that have been rigged heavily through the Federal Reserve's interest-rate jawboning and dollar-propping gimmicks, combined with recent OPEC-supply jawboning. Nonetheless, headline March 2017 energy prices declined month-to-month, with slowing annual growth, both before and after seasonal adjustment.

***Quarterly and Annual Headline Detail*.** In terms of annualized quarter-to-quarter inflation, the headline FD-PPI rose by 3.65% in first-quarter 2017, versus 2.19% in fourth-quarter 2016, 0.97% in third-quarter 2016, 1.47% in second-quarter 2016 and 0.73% in first-quarter 2016.

In terms of year-to-year annual inflation by quarter, the headline FD-PPI rose by 2.04% in first-quarter 2017, versus 1.34% in fourth-quarter 2016, 0.21% in third-quarter 2016, 0.12% in second-quarter 2016 and was unchanged at 0.00% in first-quarter 2016.

In terms of annual average inflation, the headline FD-PPI gained 0.42% in 2016, versus 2015, which saw an annual decline in inflation of 0.87% (-0.87%), versus 2014, which gained 1.58% versus 2013.

Services-Side Nonsense Detail. The headline monthly Final-Demand PPI inflation generally still reflects neither real-world activity, nor common experience, except by possible coincidence. As structured, the monthly wholesale inflation rate remains dominated by the services sector, which remains of negligible common-experience or theoretical value, as discussed in the following *Bulk of Headline PPI Reporting Is of Little Practical Use* section. It also has proven to be highly unstable in its surveying and related reporting. Consider that the monthly PPI detail is subject to revision five months after its initial reporting. Those changes usually are small.

For the November 2016 PPI revision, this month, the headline monthly change revised from an initial month-to-month gain of 0.1% to a monthly increase of 0.2%. The revision, once again, was dominated by the unstable services sector, with an upside revision there more than offsetting a decline on the goods side (see *Inflation That Is More Theoretical than Real World*).

Bulk of Headline PPI Reporting Is of Little Practical Use. *[The background text here and in the next subsection is as published previously.]* Beyond the broad issues with general inflation measurement (see *Public Commentary on Inflation Measurement*), indeed the bulk of the PPI is covered by the "services" sector, where inflation is determined largely by shifting profit margins. Discussed in the next subsection, profit-margin inflation estimates generally are handled in a manner counter-intuitive to the more-traditional measurement of inflation in goods and services, otherwise calculated as a measurement of change in prices. Accordingly, the headline detail here increasingly has a limited relationship to real-world activity.

The conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily or meaningfully in the current version of the PPI. While, the dual measures are more meaningfully viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand—ShadowStats separates the analyses of those sectors by sub-category—the aggregate headline series here also is reviewed and covered within the headline reporting conventions of the Bureau of Labor Statistics (BLS).

Inflation That Is More Theoretical than Real World. Effective with January 2014 reporting, a new Producer Price Index (PPI) replaced what had been the traditional headline monthly measure of wholesale inflation in Finished Goods (see *Commentary No. 591*). In the new headline monthly measure of wholesale Final Demand, Final Demand Goods basically is the old Finished Goods series, albeit expanded.

The new otherwise dominant Final Demand Services sector largely reflects problematic and questionable surveying of intermediate or quasi-wholesale profit margins in the services area. To the extent that profit margins shrink in the services sector, one could argue that the resulting lowered estimation of inflation actually is a precursor to higher inflation, as firms subsequently would move to raise prices, in an effort to regain more-normal margins. In like manner, in the circumstance of "increased" margins—due to the lower cost of petroleum-related products not being passed along immediately to customers—competitive pressures to lower margins would tend to be reflected eventually in reduced retail prices (CPI). The oil-price versus margin gimmick works both way. In times of rapidly rising oil prices, it mutes the increase in Final Demand inflation, in times of rapidly declining oil prices; it tends to mute the decline in Final Demand inflation.

The current PPI series remains an interesting concept, but it appears limited as to its aggregate predictive ability versus general consumer inflation. Further, there is not enough history available on the new series (just seven years of post-2008-panic data) to establish any meaningful relationship to general inflation or other economic or financial series.

March 2017 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported April 13th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for March 2017 was a contraction of 0.09% (-0.09%). That was against monthly gains of 0.27% in February, 0.63% in January, and a revised gain of 0.09% [previously 0.18%] in December 2016, with an unrevised index against the upwardly revised index level for November.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in March 2017 was a 60-month high of 2.38%, versus 2.19% in February 2017, 1.64% in January 2017, 1.65% in December 2016, and an unrevised 1.28% in November 2016.

For the three major subcategories of March 2017 Final Demand PPI, headline monthly Goods inflation declined by 0.09% (-0.09%), Services “inflation” (profit margins) declined by 0.09% (-0.09%) and Construction inflation rose by 0.17%, with respective unadjusted annual growth rates of 3.96%, 1.53% and 1.50%.

Final Demand Goods (Weighted at 33.84% of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in March 2017 declined by 0.09% (-0.09%), having gained by 0.27% in February and 1.01% in January. There was negative impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, March inflation rose by 0.27%, the same level as the unadjusted February gain.

Unadjusted, year-to-year goods inflation in March 2017 showed an annual gain of 3.96%, following gains of 3.87% in February 2017 and 3.10% in January 2017.

Headline seasonally-adjusted monthly changes by major components of the March 2017 Final Demand Goods:

- “Foods” inflation (weighted at 5.43% of the total index) jumped by 0.87% month-to-month in March 2017, having gained 0.35% in February and having been unchanged at 0.00% in January. Seasonal adjustments were negative for the March headline change, which was up by 0.96% unadjusted. Unadjusted and year-to-year, annual March 2017 foods inflation rose by 0.26%, having declined by 1.80% (-1.80%) in February 2017 and by 2.23% (-2.23%) in January 2017.
- “Energy” inflation (weighted at 5.49% of the total index) declined by 2.87% (-2.87%) month-to-month in March 2017, having gained by 0.60% in February and 4.69% in January 2017. Seasonal adjustments were negative, with unadjusted monthly energy inflation down by 0.51% (-0.51%) in the month. Unadjusted and year-to-year, March 2017 energy prices gained by 15.18%, down from 19.17% in February 2017, but up from 13.98% in January 2017.
- “Less foods and energy” (“Core” goods) monthly inflation (weighted at 22.92% of the total index) rose by 0.36% in March 2017, having gained 0.09% in February and 0.36% in January. Seasonal adjustments were positive for monthly core inflation, with unadjusted monthly activity gaining 0.27%. Unadjusted and year-to-year, March 2017 growth rose to 2.27%, versus 2.00% in February 2017 and 2.09% in January 2017.

Final Demand Services (Weighted at 64.09% of the Aggregate Index). Headline monthly Final Demand Services inflation declined by 0.09% (-0.09%) in March 2017, having gained 0.45% in February and 0.27% in January 2017. The overall seasonal-adjustment impact on headline March services inflation was negative, with an unadjusted monthly gain of 0.09%. Year-to-year, unadjusted March 2017 services rose by 1.53%, versus annual gains of 1.44% in February 2017 and 0.81% in January 2017.

The headline monthly changes by major component for March 2017 Final Demand Services inflation:

- "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 38.87% of the total index), declined month-to-month by 0.09% (-0.09%), having gained by 0.54% in February and having declined by 0.09% (-0.09%) in January. Seasonal-adjustment impact on the adjusted March detail was negative, where the unadjusted monthly reading was unchanged at 0.00%. Unadjusted and year-to-year, March 2017 "other" services inflation was up by 1.45%, having gained 1.64% in February 2017 and 1.28% in January 2017.
- "Transportation and warehousing" inflation (weighted at 4.94% of the total index) declined month-to-month in March 2017 by 0.17% (-0.17%), having gained 0.26% in February 2017 and 1.14% in January 2017. Seasonal adjustments were negative for the headline March reading, where the unadjusted monthly number was a gain of 0.35%. Unadjusted and year-to-year, March 2017 transportation inflation was up by 1.31%, having gained 1.59% in February 2017 and 1.05% in January 2017.
- "Trade" inflation (weighted at 20.28% of the total index) declined month-to-month in March 2017 by 0.09% (-0.09%), having gained 0.35% in February and 0.88% in January. Seasonal adjustments also had a negative impact here, where the unadjusted monthly change was a gain of 0.26%. Unadjusted and year-to-year, March 2017 trade inflation rose to 1.50%, from 0.88% in February 2017 and from 0.09% in January 2017.

Final Demand Construction (Weighted at 2.08% of the Aggregate Index). Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Month-to-month construction inflation rose by 0.17% in March 2017, having contracted by 0.09% (-0.09%) in February and having gained 0.26% in January. The impact of seasonal factors on the March reading was neutral, where the unadjusted monthly change also gained 0.17%. The issues here are a combination of monthly headline cost changes along with a quarterly estimate of contractor profit-margin changes that have little connection to real-world activity. The latter circumstance was addressed in *Commentary No. 829* of September 2, 2016.

On an unadjusted basis, year-to-year construction inflation rose by 1.50% in March 2017, versus 1.23% in February 2017 and 1.32% in January 2017. Private surveys generally show much higher construction-related inflation than is reported in the PPI, by an order of magnitude of a couple of hundred basis points, such as reflected in the privately-published Building Cost and Construction Cost Indices [Dodge Data and Analytics (McGraw Hill) *Engineering News-Record*] and in construction-related price deflators in the National Income Accounts, such as the Gross Domestic Product (GDP). Discussed in *Commentary No. 829*, ShadowStats has constructed a Composite Construction Deflator (CCD) now used by ShadowStats in deflating the Census Bureau's monthly estimates of Construction Spending Put in Place in the United States.

PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods. As to the upcoming reporting of March 2017 New Orders for Durable Goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods in March 2017 was a gain of 0.24%, versus 0.18% in February and 0.30% in January. Year-to-year annual inflation continued to rise, hitting 1.75% in March 2017, versus 1.45% in February 2017 and 1.33% in January 2017. March 2017 durable goods orders (both nominal and real) will be reported on April 27th and covered in the ShadowStats *Commentary* of that date.

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WEEK, MONTH AND YEAR AHEAD

Intensifying Economic Woes Promise an Increasingly-Compromised, Frustrated Fed and Deteriorating U.S. Dollar Support. The outlook for future FOMC activity was updated in today's *Opening Comments* and *Hyperinflation Watch*, previously reviewed in *Commentary No. 873*. The latest assessment of current economic activity in today's *Opening Comments* is in the context of *Commentary No. 876* and *Commentary No. 877*, as well as in earlier *Commentary No. 875*, *Commentary No. 874*, with the broad outlook outlined in *No. 859 Special Commentary*.

Nonetheless, the following discussion has changed little from previous comments in *Commentary No. 878*. As reflected in common experience, actual U.S. economic activity generally continues in stagnation or downturn, never having recovered fully its level of pre-economic-collapse (its pre-2007-recession peak). While the latest headline GDP shows economic expansion of 12.2% since that series recovered its 2007-pre-recession high in 2011, no other "recovered" economic series has come close to showing that expansion either in terms of magnitude or in the purported brevity of the depression. Most of the better-quality series have remained in continuing, not-recovered status, in a period of protracted downturn that now rivals that of the Great Depression (see *Commentary No. 869*). With new signals for intensifying, near-term economic woes in hand, the FOMC soon should shift policies, once again, reverting to some form of quantitative easing, in an effort to address related, intensifying solvency risks in the domestic banking system (see the *Hyperinflation Watch*).

Discussed in *No. 859 Special Commentary*, the Trump Administration faces extraordinarily difficult times, but has a chance to turn the tide on factors savaging the U.S. economy and on prospects for long-range U.S. Treasury solvency and for stability and strength in the U.S. dollar. Any forthcoming economic stimulus faces a nine-month to one-year lead-time, before it meaningfully impacts the broad economy. Needed at the same time are a plan for bringing the U.S. long-term budget deficit (sovereign solvency issues) under control, and action to bring the Federal Reserve under control and/or to reorganize the banking system. These actions broadly are necessary to restore domestic-economic and financial-system tranquility (again, see *No. 859*).

Prior General Background. *No. 859 Special Commentary* also updated near-term economic and inflation conditions, and the outlook for same, including the general economic, inflation and systemic distortions evolving out of the Panic of 2008 that have continued in play, and which, again, need to be addressed by the new Administration in the immediate future (see also the *Hyperinflation Watch* of *Commentary No. 862* and *Commentary No. 869*).

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

Coincident with and tied to the economic crash and the Panic of 2008, the U.S. banking system moved to the brink of collapse, a circumstance from which U.S. and global central-bank policies never have recovered. Unwilling to admit its loss of systemic control, the Federal Reserve has been making loud noises of continuing to raise interest rates, in order to contain an overheating economy. As this ongoing crisis evolves towards its unhappy end, the U.S. dollar ultimately should face unprecedented debasement with a resulting runaway domestic inflation.

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

Recent Commentaries:

Commentary No. 879 covered March Employment and Unemployment, Help-Wanted Advertising and the March Money Supply M3, the ShadowStats Ongoing Measure.

Commentary No. 878 reviewed detail on the February 2007 Trade Deficit and Construction Spending, along with the latest update on Consumer Liquidity conditions.

Commentary No. 877 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 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 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™.

Commentary No. 874 reviewed February 2017 Industrial Production and updated the economic outlook.

Commentary No. 873 discussed prospects for future tightening and/or a return to quantitative easing by the FOMC, along with a review of the February 2017 Residential Construction reporting.

Commentary No. 872 offered some initial comment on the FOMC rate hike, in conjunction with the review of the prior February 2017 Retail Sales (real and nominal), Real Earnings and the CPI and PPI.

Commentary No. 871 covered prior reporting of February Labor Conditions, updated Consumer Liquidity and the ShadowStats Ongoing M3 Measure for February 2017, and a revised FOMC outlook.

Commentary No. 869 reviewed and assessed underlying economic reality and a broad variety of indicators in the context of the second-estimate of fourth-quarter 2016 GDP.

General Commentary No. 867 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 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 covered the December 2016 nominal Retail Sales, the PPI, with a brief look at some summary GAAP reporting on the U.S. government's fiscal 2016 operations. The GAAP-detail will be reviewed this month in a *Special Commentary*.

No. 859 Special Commentary reviewed and previewed economic, financial and systemic developments of the year passed and the year or so ahead.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. Significant reporting-quality problems remain with most major economic series. Beyond the pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended to understate inflation and to overstate economic activity—as generally viewed in the common experience of Main Street, U.S.A.—ongoing headline reporting issues are tied largely to systemic distortions of monthly seasonal adjustments.

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

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

Combined with ongoing allegations in the last year or two of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series (see *Commentary No. 669*). John Crudele of the *New York Post* continues his investigations in reporting irregularities: *Crudele Investigation*, *Crudele on Census Bureau Fraud* and *John Crudele on Retail Sales* (watch for the annual benchmark revisions here on April 26th).

PENDING RELEASES: Index of Industrial Production (March 2017). In the context of the broad, downside annual benchmark revisions to the series published on March 31st (see *Commentary No. 877*), the Federal Reserve Board will publish its estimate of March 2017 Industrial Production activity on Tuesday, April 18th, with coverage in *Commentary No. 881* of that date. Somewhat in tandem with the just published March retail sales detail, headline monthly production reporting should resume coming in on the downside of flat and below consensus. Consensus expectations are not likely to be much on the upside of flat.

Residential Construction—Housing Starts (March 2017). The Census Bureau will release March 2017 residential construction detail, including Housing Starts, also on Tuesday, April 18th, to be covered in *Commentary No. 881* of that date. In line with common-reporting experience of recent years, monthly results are likely to be unstable and not statistically meaningful, holding in a general pattern of down-trending stagnation. That said, in the wake of the nonsensical extreme swings in recent months, almost anything remains possible in this unstable series, despite what likely will be positive consensus expectations for the headline detail.

Irrespective of the generally meaninglessness of that headline detail, the broad pattern of housing starts still should remain consistent with the low-level, stagnant activity, as seen at present, where last month's February 2017 activity was down by 43% (-43%) from recovering the pre-recession high of the series. That stagnation is particularly evident with the headline detail viewed in the context of a six-month moving average. Again, this series remains subject to regular and extremely-large, prior-period revisions.

Per the *Updated Consumer Liquidity Conditions* in the *Executive Summary*, without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the liquidity-strapped U.S. consumer is unable to sustain growth in broad economic activity, including sustainable growth in demand for residential construction.

PENDING SPECIAL COMMENTARIES: *GAAP-Based Accounting of the U.S. Government (Fiscal-Year 2016).* With some preview in *Commentary No. 861* and *No. 859 Special Commentary*, full analysis remains a work in progress and should be published soon. The consolidation of the major *ShadowStats* reporting into one volume, including the recommended reading list remains targeted for late this month. An update will follow in *Commentary No. 881* of April 18th.

