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

#### **COMMENTARY NUMBER 940**

February Retail Sales, Real Income, CPI, PPI and the Financial Markets

March 15, 2018

As a Weakening Economy Threatens Fed Policy, Watch the Dollar!

Headline Retail Sales Helped Put the Lie to the Happy Jobs Report; Recession Signal Remained Heavily in Place

February Real Retail Sales Declined Month-to-Month by 0.22% (-0.22%), but the Monthly Decline was 0.48% (-0.48%), Net of Seasonal-Factor Reporting Inconsistencies

With Three Consecutive Monthly Contractions in Place Real Sales Are on Solid Course for a First-Quarter Contraction, Increasingly, So Is the GDP

Real Average Weekly Earnings on Track for Third-Consecutive Quarterly Decline, the Fifth Headline Quarter-to-Quarter Decline in the Last Six Quarters

A Leading Indicator to Broad Economic Activity, February Real Annual Growth in Money Supply M3 Slowed to a Five-Month Low

Unadjusted Annual CPI-U Inflation Rose to 2.21% in February, from 2.07% in January, Annual PPI Inflation Rose to 2.77% from 2.69%, Well Shy of Common Experience, Still Dominated by Irregular Volatility in Adjusted, Monthly Gasoline Prices

Fed's Targeted 2.0% "Core" Inflation Held Range-Bound at 1.8% for the 11th Month

\_\_\_\_\_

PLEASE NOTE: The next regular Commentary, planned for Friday, March 16th, possibly going overnight, will cover February Industrial Production and New Residential Construction (Housing Starts).

Best wishes — John Williams (707) 763-5786

**Today's (March 15th)** *Opening Comments and Executive Summary.* The *Opening Comments* reviews the latest economic detail in the context of what increasingly looks like an unfolding first-quarter GDP contraction. The *Executive Summary* (page 3) highlights details of February Retail Sales, CPI (Real Earnings) and PPI.

The *Reporting Detail* (page 9) reviews in greater depth the February Retail Sales, the Consumer and Producer Price Indices, as well as related growth in *Real Average Weekly Earnings* and *Real Money Supply*.

The *Hyperinflation Watch* (page 29) reviews current financial-market circumstances and looming FOMC activity.

The Consumer Liquidity Watch (page 36) has been updated for February 2018 Real Average Weekly Earnings.

The *Week, Month and Year Ahead* (page 50) provides background on recent *Commentaries* and updated prospects for Friday's headline February Industrial Production and New Residential Construction (Housing Starts).

#### OPENING COMMENTS AND EXECUTIVE SUMMARY

"Unexpected" Slowing Economy Continues to Surface, Increasingly Throwing the "Strong" February Jobs Report into Question and Threatening FOMC Policy. February 2018 Retail Sales contracted for the third straight month, both before and after inflation adjustment. That makes the purported January and February respective monthly jobs surges of 14,000 and 50,000 in Retail Sales payrolls appear increasingly unlikely, as discussed in prior <u>Commentary No. 939</u> (see pages 20 and 25).

Separately, many thanks to the subscriber who forwarded the link: <u>Treasury Secretary Mnuchin: Economy is not really at full employment yet</u>. As with former Fed Chair Janet Yellen, the Treasury Secretary is raising concerns as to the historically-high level of the participation rate (labor force/working-age population), despite an ongoing 17-year low in the headline U.3 unemployment rate (see the graphs and discussion in prior <u>Commentary No. 939</u>, page 14).

Other Signals Mount of Troubled or Faltering Economic Activity. Discussed in the Reporting Detail (page 23 and plotted in Graph 3 of the Executive Summary, also Graph CLW-7 in the Consumer Liquidity Watch), February 2018 Real Average Weekly Earnings remained on track for its third- consecutive quarter-to-quarter decline, which would be its fifth headline quarterly decline in the Last six quarters. Keep in mind that the consumer drives roughly 73% of headline activity in the national economy (GDP).

Also noted in today's CPI *Reporting Detail* (page 24), money supply remains a fundamental leading indicator to broad, domestic economic activity (GDP). February 2018 nominal annual growth in the Money Supply M3 (the ShadowStats Continuing Money Supply Series, see the *Hyperinflation Watch* of *Commentary No. 939*) slowed sharply, dropping to a five-month low in inflation-adjusted terms.

Beyond these indicators, and the much-weaker-than-consensus February Retail Sales reporting, discussed in the *Reporting Detail*, February Industrial Production and Housing Starts will be published tomorrow, March 16th. There is a good shot at weaker-than-consensus results there (see the *Week, Month and Year Ahead* section), and those results, irrespective of tone, will be assessed in the next *Commentary*.

As the Weakening Economy Threatens Fed Policy, Watch the Dollar! The widely followed Atlanta Fed estimate of first-quarter real GDP growth revised lower to 1.9% on March 14th, subsequent to the headline reporting of February Retail Sales and the CPI and PPI inflation details. That was down from 2.5 % on March 12th, and from an initial 4.2% estimate published January 29th. The Federal Reserve's Federal Open Market Committee (FOMC) expectations of current U.S. economic growth likely are moving somewhat along with the Atlanta Fed forecasts.

With continued discussion in today's *Hyperinflation Watch*, headline economic activity has begun to sink well below recent consensus forecasts, and it increasingly should threaten the expected, continued tightening trend (including a rate hike on March 21st) and bond sales already indicated by the FOMC. If the economy continues to unfold as ShadowStats expects, selling pressure should mount sharply against the U.S. dollar, threatening the domestic equity and bond markets, spiking headline domestic inflation, along with corresponding jumps in the prices of the wealth-preserving precious metals, gold and silver.

EXECUTIVE SUMMARY: Retail Sales—February 2018—Nominal and Real Sales Both Contracted for the Third Straight Month; Real Growth Recession-Signal Remained Strong. Headline Retail Sales continued to deteriorate in February 2018, now sinking for three months straight, both in nominal and in real terms, thanks to a continued downside revision in December activity. The circumstance was worse after adjusting for monthly and annual inflation changes. What has become clear in these sales data is that the Holiday Shopping Season boom was a bust.

After several months of post-hurricane-spiked sales boosts from replacement and repair activity, February 2018 nominal retail sales declined month-to-month for the third consecutive month by an unexpected 0.07% (-0.07%). Consensus expectations had been for a monthly gain in the range of 0.3% to 0.4%. January 2018 nominal retail sales declined by a revised 0.17% (-0.17%) month-to-month on top of a revised monthly contraction of 0.05% (-0.05%) in December. Nominal annual growth rose to 3.99% in February 2018, versus 3.86% in January 2018 and 5.11% in December 2017.

Net of headline CPI-U inflation, February 2018 real retail sales fell by 0.22% (-0.22%) in the month, following monthly real declines of 0.65% (-0.65%) in January and 0.22% (-0.22%) in December. February 2018 real annual growth held at a solid "recession-warning" level of 1.70%, following 1.69% in January 2018 and 2.94% in December. First-quarter 2018 real retail sales are on track for an annualized contraction of 3.12% (-3.12%), a circumstance that likely will see some parallel in first-quarter 2018 real GDP activity.

Real Retail Sales Graphs, Corrected and Otherwise. In the Reporting Detail, Graphs 4 and 6 show the level of real retail sales activity (deflated by the CPI-U), while Graphs 5 and 7 show year-to-year percent change. The apparent "recovery" and subsequent "expansion" of headline real retail sales shown in the following Graph 1 (see Graph 4 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, then an uptick in fourth-quarter 2016 and ongoing upturn into 2017. A post-hurricane-induced or related surge of activity followed in September through November, where it peaked. Real sales declined in December 2017 and dropped at an accelerating pace in January 2018, and were down again in February.

Nonetheless, headline real growth in retail sales continues 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 used here) 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. Parallel, regular plots of the ShadowStats "corrected" industrial production index are found in <u>Commentary No. 936</u> and in <u>Commentary No. 937</u> and <u>Commentary No. 938</u> for graphs of "corrected" new orders for durable goods and the "corrected" GDP.

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 the same for the official series, whether the series is indexed or expressed in dollars, again, as is evident in a comparison of *Graph 1* with *Graph 4* 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 *Graph 3* later in the *Executive Summary* and *Graph CLW-7* in the *Consumer Liquidity Watch*) and faltering consumer liquidity conditions (again, see the *Consumer Liquidity Watch*). Extended coverage is found in the *Reporting Detail*.

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

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

### Indexed Real Retail Sales Level (Deflated by CPI-U) To February 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



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

# Corrected Real Retail Sales Level Deflated by Shadow-Stats-Alternate CPI (1990-Base) To February 2018, Seasonally-Adjusted [ShadowStats, Census]



Note: More-extensive analysis and graphs of Retail Sales follows in the *Reporting Detail*.

Consumer Price Index (CPI)—February 2018—Adjusted Monthly Gain of 0.15%, Unadjusted Annual Gain of 2.21%, Fed's "Core" Inflation Remained Range-Bound at 1.8% for 11th Month. Unstable seasonal adjustments and resulting gasoline-price volatility continued to move CPI-U monthly inflation, with "falling" seasonally-adjusted gasoline prices weakening the February 2018 CPI data, where reversed factors had hardened the January CPI boost but weakening gasoline prices had muted the CPI-U gain in December. Consider that consumers saw gasoline prices rise by 1.6% at the pump in February, but the headline CPI showed those prices declining by 0.9% (-0.9%) in the headline CPI-U reporting.

Accordingly, the monthly, seasonally-adjusted CPI-U rose by a consensus 0.2% (0.15%) in February 2018, versus 0.5% (0.54%) in January, 0.2% (0.20%) in December and 0.3% (0.34%) in November. On an unadjusted basis, monthly CPI-U rose by 0.45% in February 2018, 0.54% in January, falling by 0.06% (-0.06%) in December, having been unchanged at 0.00% in November 2017.

On an unadjusted basis, year-to-year CPI-U rose by 2.21% in February 2018, 2.07% in January 2018, 2.11% in December 2017 and 2.20% in November 2017.

As to the financial market's concentration on the FOMC's favored charade, the CPI-U component inflation measure hyped as the targeted "Core" rate (net of food and energy) held range-bound at an unadjusted, year-to-year 1.85% in February 2018. That was the eleventh straight month at 1.8% +/- 0.1%. The term charade is used here, since Alan Greenspan was instrumental in redefining the CPI-U series so that it would not show meaningful inflation (see the <u>Public Commentary on Inflation Measurement</u> for further detail).

With unadjusted, aggregate annual January 2018 CPI-U inflation up by 2.2%, 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 February 2018 at 5.8%, based on 1990 methodologies, and at 10.0%, based on 1980 methodologies (see the *Reporting Detail*).

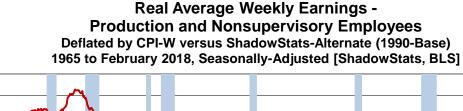
The Consumer Price Index for All Urban Consumers (CPI-U), the broadest headline consumer-inflation number, is used to adjust numerous economic measures such as Retail Sales for inflation effects (see *Graph 1* and *Graphs 4 to 7* in the *Reporting Detail*). The narrower Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used for deflating measures such as earnings for production and nonsupervisory employees on private nonfarm payrolls (see *Graph 3*). Somewhat moreheavily weighted for the "declining" adjusted gasoline prices, the February 2018 seasonally-adjusted CPI-W rose month-to-month by 0.11%, versus gains of 0.62% in January 2018 a, versus gains of 0.19% in December 2017. Unadjusted, year-to-year change in the February 2018 CPI-W was 2.32%, versus 2.14% in January 2018 and 2.18% in December 2017.

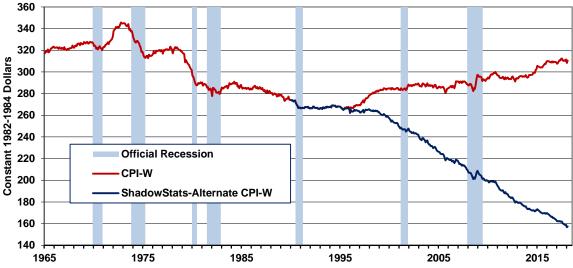
Real Average Weekly Earnings—February 2018—Quarterly Real Earnings Continued on a Solid Course for Third Consecutive Quarterly Contraction, the Fifth Quarter-to-Quarter Drop in the Last Six Quarters. The headline estimate for February 2018 real average weekly earnings was published along with the February CPI-W on February 14th. For the production and nonsupervisory employees category—the only series for which there is a meaningful history (back to 1964), the regularly-volatile, real average weekly earnings jumped month-to-month by 0.76% in February 2018, following a revised, deeper decline in January of 1.08% (-1.08%) in January 2018 (see accompanying Graph 3).

That has continued to set up first-quarter 2018 as a likely, third-consecutive quarter of contracting quarter-to-quarter real earnings. Based solely on the January and February details, the early first-quarter 2018 trend is for an annualized decline of 1.83% (-1.83%). Such also would be the fifth real quarterly contraction in the last six quarters.

Graph 3 shows 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 in 2015 by negative headline inflation), but most recently downtrending. 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 <u>Public Commentary on Inflation Measurement</u> for further detail.

Graph 3: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date (Same as Graph CLW-7 in the Consumer Liquidity Watch)





Producer Price Index (PPI)—February 2018—Final Demand Annual PPI Inflation Notched Higher to 2.77%, but the Monthly Gain Slowed to 0.17% from 0.44%. As with the CPI, unstable gasoline prices and related seasonal adjustments continued to dominate energy costs and monthly wholesale inflation, despite the Final Demand Producer Price Index (FD-PPI) being dominated in its weighting by the services sector, where somewhat nebulous, shifting profit margins often counter price movements in the lower-weighted hard costs of the goods sector.

That said, the unadjusted 2.77% annual gain for February 2018 headline, aggregate FD-PPI encompassed a 2.76% annual gain in the Services sector, 3.00% in the Goods sector (Energy was up by 9.12%), and 3.48% in the Construction sector. The headline, seasonally-adjusted 0.17% monthly gain in the aggregate FD-PPI series encompassed 0.26% in Services, a contraction of 0.09% (-0.09%) in Goods and a monthly gain of 0.08% in Construction.

[Extended analysis and graphs of the various headline series follows in the Reporting Detail, beginning on the next page.]

Copyright 2018 American Business Analytics & Research, LLC, www.shadowstats.com

#### REPORTING DETAIL

#### **RETAIL SALES—Nominal and Real (February 2018)**

Monthly Sales Contracted for a Third Consecutive Month, Both Before and After Inflation; Real Annual Growth Remained Deep in Recession-Signal Territory. Headline Retail Sales continued to deteriorate in February 2018, now sinking for three months straight, both in nominal and in real terms, thanks to a small downside revision in December activity. The circumstance looks worse after adjusting for monthly and annual inflation changes, and even worse when considering that the limited and noncomparable seasonal-adjustment revisions, not published on a consistent month-to-month basis. They bloated the level of the current nominal Retail Sales in February 2018 by 0.3%, which still left a headline monthly contraction of 0.1% (-0.1%) for the month.

What now is clear in these data is that the Holiday Shopping Season boom was anything but. As discussed in the *Opening Comments*, the headline payroll jobs surge in January and February, which helped to generate such a strong February payroll survey, likely did not take place.

**Post Hurricane-Recovery Surge: the Economy Now Is Turning Down.** After several months of post-hurricane-spiked sales boosts from replacement and repair activity, February 2018 nominal retail sales declined month-to-month by an unexpected 0.07% (-0.07%), where consensus expectations had been for a monthly gain in the range of 0.3% to 0.4%. January 2018 nominal retail sales declined by a revised 0.17% (-0.17%) [previously down 0.26% (-0.26%)] month-to-month on top of a revised monthly contraction of 0.05% (-0.05%) [previously a 0.03%, initially a 0.35% monthly gain] in December 2017.

Nominal annual growth rose to 3.99% in February 2018, versus 3.86% [previously 3.65%] in January 2018, versus 5.11% [previously 5.19%, initially 5.91% in December 2017]. The annual revisions largely reflected seasonal-adjusted games played with year-ago monthly revisions.

Net of headline CPI-U inflation, February 2018 real retail sales fell by 0.22% (-0.22%) in the month, with annual real growth holding at a "recession-warning" level of 1.70%. The patterns of real growth leave intact the indication of a November 2017 peak in activity, boosted by the replacement and repair of hurricane destruction and disruption, discussed previously in *Commentary No. 936*.

Seasonal-Factor Inconsistencies. As to the regular concurrent seasonal-adjustment instabilities (see Headline Distortions from Shifting Concurrent-Seasonal Factors in prior Commentary No. 939, Supplemental Labor-Detail Background, only the headline retail sales data for December 2017 to February 2018, and January 2017 to February 2017 were published on a consistent basis, using the concurrent seasonal factors based on February 2018. The revisions to the January 2017 and February data

showed an impact of the new seasonals lowering sales estimates for a downside revision to January 2017 and an upside revision to February 2017 which had the effect of boosting the headline, relative, seasonally-adjusted month-to-month growth for February 2018 by 0.3%.

*Nominal Retail Sales—February 2018.* The Census Bureau reported its "advance" estimate of February 2018 Retail Sales on Wednesday, March 14th. Headline nominal activity declined for a third straight month, down by 0.07% (-0.07%). Again, that was well below consensus estimates for a 0.3% to 0.4% month-to-month gain. The February decline was on top of a revised monthly decline of 0.17% (-0.17%) [previously down by 0.26% (-0.26%)] in January, which followed a downwardly-revised, now monthly contraction of 0.05% (-0.05%) [previously a gain of 0.03%, initially a 0.35% gain] in December. Net of the prior-month's revision, February 2018 sales were unchanged month-to-month at 0.00%.

The headline, seasonally-adjusted February 2018 nominal monthly contraction of 0.07% (-0.07%) +/-0.59% was not statistically-significant (all confidence intervals are expressed at the 95% level). The revised headline January 2018 monthly retail sales decline of 0.17% (-0.17%) +/- 0.23% also was not statistically significant.

**Year-to-Year Annual Change.** The February 2018 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 3.99% +/- 0.82%, which included an inconsistent annual boost of 0.27% from the relative, upside monthly seasonal-adjustment revisions to February 2017 versus January 2017 activity. That was against an upwardly revised 3.86% [previously 3.65%] in January 2018 and a downwardly-revised annual gain of 5.11% [previously 5.19%, initially 5.45%] in December 2017.

February 2018 "Core" Retail Sales, Net of Food and Gasoline. Reflecting an environment that in theory should be neutral for grocery stores, with seasonally-adjusted food prices unchanged at 0.00%, and on the downside for gasoline stations, with seasonally-adjusted gasoline prices down by 0.89% (-0.89%), per the BLS, adjusted retail sales grocery-store sales declined month-to-month by 0.15% (-0.15%), with gasoline-station sales down by 1.19% (-1.19%).

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 (as though people can live without consuming same), when "Core" inflation is lower than full inflation (at times when the Fed is looking to downplay inflation)—are estimated using two approaches:

<u>Version I:</u> Nominal February 2018 versus January 2018 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—rose by 0.06%, versus the official headline aggregate sales decline of 0.07% (-0.07%).

<u>Version II:</u> Nominal February 2018 versus January 2018 seasonally-adjusted retail sales series—net of the monthly *change* in grocery store and gasoline-station revenues—rose by 0.05%, versus the official headline aggregate sales decline of 0.07% (-0.07%).

Real Retail Sales—February 2018—In the Context of Positive CPI Inflation, Real Sales Declined by 0.22% (-0.22%) with Annual Growth at 1.70%. The February 2018 Consumer Price Index showed the seasonally-adjusted CPI-U up month-to-month by 0.15% in February 2018, following monthly gains of 0.54% in January 2018 and 0.20% in December 2017 (see the Consumer Price Index section for detail).

Deflated by the headline CPI-U detail, February 2018 Real Retail Sales declined by 0.22% (-0.22%) month-to-month, following real monthly declines of 0.65% (-0.65%) in January and 0.25% (-0.25%) in December. That headline real monthly decline in February 2018 Retail Sales at 0.22% (-0.22%) was down by 0.15% (-0.15%) net of prior-period revisions. That contraction becomes 0.42% (-0.42%), net of the shifting and inconsistent seasonal-factor adjustments.

In the context of year-ago revisions, year-to-year real growth was 1.70% in February 2018, versus 1.69% [previously 1.48%] in January 2018, 2.94% [previously 3.03%] in December 2017 and a three-year high of 3.62% in November 2017. Accordingly, as discussed in the *Commentary No. 936*, the upside boost to real retail sales activity from the late-2017 natural disaster distortions appears to have peaked in November 2017. The underlying ShadowStats outlook of non-recovering broad economic activity and renewed downturn has not changed.

Recession Signal Comes Back with a Vengeance. During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal broadly had been in play since February 2015 (a "new" recession likely still will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn. Disaster recovery boosts since October 2017 had pushed that signal into abeyance, for a second time, but that abeyance ended with the initial January 2018 detail.

When that annual growth signal had moved higher, close to three-percent earlier in 2017, ShadowStats had viewed the signal as in temporary abeyance. Post-2017 benchmarking (*Commentary No.* 882 of April 27, 2017), however, annual growth rates shifted lower, towards two-percent, and then below, reviving that recession signal. In the context of volatile near-term revisions, 1.22% year-to-year real growth reported initially in August 2017 was the most-solid recession signal since the economy crashed anew into early-2015.

That August reading revised higher to 1.58% in October, along with headline annual real growth in September 2017 at a revised 2.55% and October at 2.46%, still broadly within the recession-signal range, particularly in the context of the near-term, short-lived spikes. More significantly, year-to-year real quarterly growth then stood at 2.02% in third-quarter 2017, versus 1.94% in second-quarter 2017, both close to 2.0%. Despite the initial strong headline November 2017 detail and revisions, third-quarter 2017 real year-to-year growth held 2.08%, still in recession territory.

With the initial December 2017 numbers, however, third-quarter 2017 real year-to-year growth held at 2.08%, but initial fourth-quarter 2017 real annual activity jumped to 3.30%. With the headline January 2018 detail, fourth-quarter 2017 real annual activity eased back to a still disaster-bloated 3.20%, while the initial indication for first-quarter real annual activity had fallen back to 1.78%.

Now, with the February 2018 detail in hand and seasonal-adjustment revision gimmicks in play one year ago, fourth-quarter 2017 real annual activity stands at a still-disaster-bloated 3.17%, while the early indication for first-quarter 2018 real annual activity has fallen further back to 1.69%.

Annualized Real Quarterly Growth/First-Quarter 2018 Growth on Track for a 3.12% (-3.12%) Contraction. Reflecting revisions, and inconsistent seasonal adjustments to retail sales, first-quarter 2017 annualized (year ago adjustment shifts) revised to 2.66% [previously 2.68%, prior 1.89%], second-quarter 2017 revised to 0.94% [previously 0.92%, prior 1.68%], third-quarter 2017 was unrevised at 2.30%, with

fourth-quarter 2017 revised to 6.88% [previously 6.99%, initially 7.31%]. Based on the latest headline detail through February 2018, first-quarter 2018 activity is on early track for an annualized quarterly contraction of 3.12% (-3.12%).

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind increasingly constrains retail sales activity (discussed in the Consumer Liquidity Watch). Without sustainable growth in real income (see the ensuing Consumer Price Index section), 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 ten-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad, inflation-adjusted U.S. economic activity, 73.1% of which (fourth-quarter 2017 real GDP activity) is dependent on personal spending and residential real estate.

As headline consumer inflation continues its upside climb in the year ahead, and as overall Retail Sales continue to suffer from the ongoing consumer liquidity squeeze, real Retail Sales growth should continue trending meaningfully lower. That likely still will gain recognition as a formal "new" recession, another down-leg in the economic collapse that began in 2006, known formally as the 2007 recession.

**Real Retail Sales Graphs.** The first of the four graphs following, *Graph 4* shows the level of real retail sales activity (deflated by the CPI-U) since 2000; *Graph 5* 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. Again, with recent volatility, including natural-disaster-recovery activity and the near-term peak in annual real growth in November 2017, that recession signal, had been put in temporary abeyance. Yet, with January and February 2018 real annual growth dropping to 1.7%, a solid recession signal has been restored. *Graphs 6* and 7 show the level of, and annual growth in, real retail sales (and its predecessor series) in full post-World War II detail.

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 had turned increasingly negative, before the hurricane-related spikes of recent months, and appears headed lower again as the disaster distortions have waned. 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.

Annual Benchmark Revision Set for May 25th. Noted in its March 14th <u>Press Release</u>, the Census Bureau will publish its annual benchmarking to the Retail Sales series on May 25, 2018 "to reflect the introduction of a new sample, new seasonal factors, and the results of the 2016 Annual Retail Trade Survey." As with the looming Industrial Production benchmarking on March 23rd, most series going through these benchmarkings suffer net downside revisions to the history of recent years, where underlying reality begins to catch up with usually overly-optimistic assumptions built into initial headline reporting (see the production benchmarking discussion in <u>Commentary No. 877</u>).

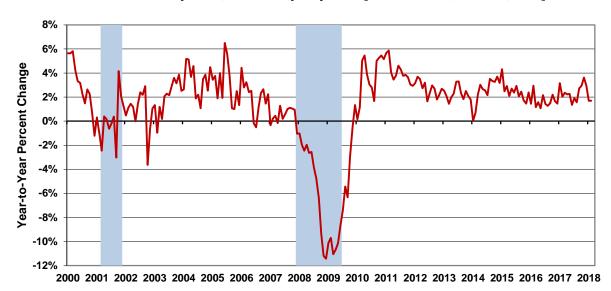
Graph 4: Level of Real Retail Sales (2000 to Date)

### Real Retail Sales Level (Deflated by CPI-U) To February 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



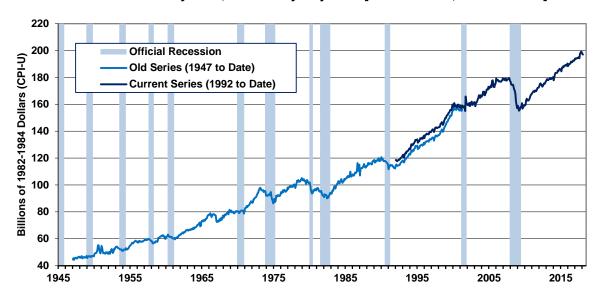
Graph 5: Real Retail Sales (2000 to Date), Year-to-Year Percent Change

#### Real Retail Sales Year-to-Year Percent Change To February 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



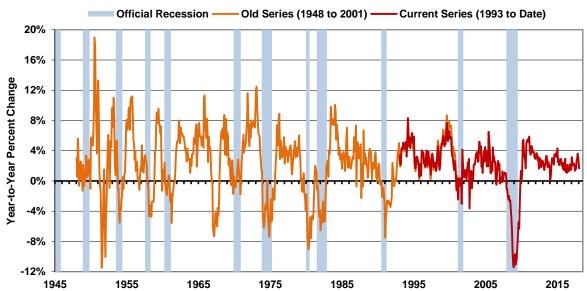
Graph 6: Level of Real Retail Sales (1947 to Date)

### Real Retail Sales (Deflated by the CPI-U) 1947 to February 2018, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



Graph 7: Real Retail Sales (1948 to Date), Year-to-Year Percent Change

#### Real Retail Sales Year-to-Year Percent Change 1948 to February 2018, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



#### **CONSUMER PRICE INDEX (February 2018)**

Headline CPI-U Inflation Gained 0.2% Month-to-Month; Unadjusted Annual Inflation Notched Higher to 2.2%; Fed's Targeted 2.0% "Core" Held Range-Bound at 1.8% for the 11th Month. Gasoline price volatility remained the driving force behind monthly consumer inflation, amidst unstable, related seasonal adjustments. The problem remains that extreme, monthly gasoline price volatility of recent years increasingly has been moved by factors other than regular, seasonal supply and demand issues.

Unadjusted annual growth notched higher to 2.21% in February 2018, versus 2.07% in January 2018 and 2.11% in December 2017, but still well shy of its 60-month high of 2.74% seen just a year ago, in February 2017. Intervening extremes include a subsequent near-term trough of 1.63% in June 2017, and an interim near-term peak of 2.23% in September 2017.

What had led to the inflation surge into the February 2017 CPI annual gain were rising gasoline prices, largely independent of near-term economic activity. The same has remained true in the current circumstance, heavily distorted by hurricane-disruptions, recovery from same, shifting political circumstances in the Middle East. Near-term inflation volatility usually reflects volatile gasoline prices, which can reflect the factors mentioned, as well as more-controllable factors, such as the U.S. dollar and Federal Reserve policies (see the *Hyperinflation Watch*).

Related inflation surges, past and present, rarely have been driven by an overheating economy, as claimed by some on the Fed's Federal Open Market Committee (FOMC). Indeed, the FOMC's favored charade, the targeted CPI-U inflation measure, the "Core" rate, net of food and energy, was at an unadjusted 1.85% in February 2018, where it has held for the last eleven months at 1.8% +/- 0.1%, otherwise tied as the lowest annual core inflation rate since 1.6% in December 2015. Such is a contrived number, from which "Inflation Scare" headlines rarely are made. The term charade is used here, since Alan Greenspan was instrumental in redefining the CPI-U series so that it would not show meaningful inflation (see the <u>Public Commentary on Inflation Measurement</u> for further detail).

Separately, with unadjusted annual February 2018 CPI-U inflation up by 2.2%, 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 February 2018 at 5.8%, based on 1990 methodologies, and at 10.0%, based on 1980 methodologies. Detailed in <u>Public Commentary on Inflation Measurement</u>, inflation based on common experience is much worse than the headlines, both as experienced by individual consumers, as well as within the business community.

Longer-Range Inflation Outlook. Despite U.S. dollar strength of recent years, what had been accelerating, then faltering dollar strength, subsequent to the post-2016 election euphoria, the dollar recently has continued under intensifying selling pressure. A tremendous threat to the dollar and systemic U.S. liquidity and market stability continues. That is tied to the U.S. Federal Reserve's fundamental inability to resolve the 2008 financial collapse, other than having bought limited time with emergency, stopgap measures. Also nearing extreme crisis are burgeoning, long-term U.S. sovereign-solvency issues.

Recent FOMC tightenings have been despite continued, intensifying "adverse" economic circumstances feared by the recent Fed Chair Janet Yellen. Circumstances had been masked, temporarily, by near-term

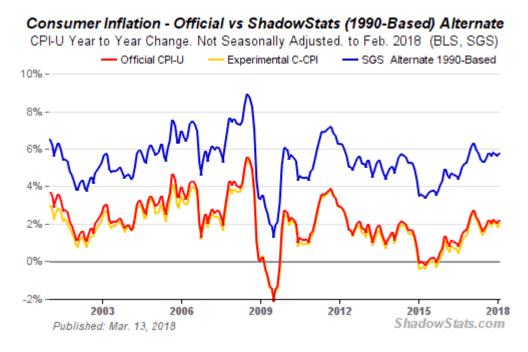
disaster-recovery boosts to economic activity, a now rapidly-crumbling façade (see the discussion in the *Opening Comments*). Those same "adverse circumstances" have acted as a drain on insurance-industry reserves and personal saving used to pay for disaster damages. With first-quarter 2018 GDP in an increasingly likely quarterly contraction (albeit not yet recognized), the financial markets, particularly the global currency markets versus the U.S. dollar should begin to pick up on U.S. Treasury solvency concerns. Fed Chairman Powell's initial response to that unfolding circumstance could come within the next 30 to 60 days.

The U.S. central bank has been forced to, and continues to prop banking-system liquidity against an ongoing gale of renewed, economically-driven, banking-system solvency and liquidity issues, with those pressures, masked and then intensified by recent natural disasters, increasing political discord in Washington and mounting global political instabilities. Again, despite strong speculation and protestations to the contrary, the FOMC should end up renewing/expanding quantitative easing.

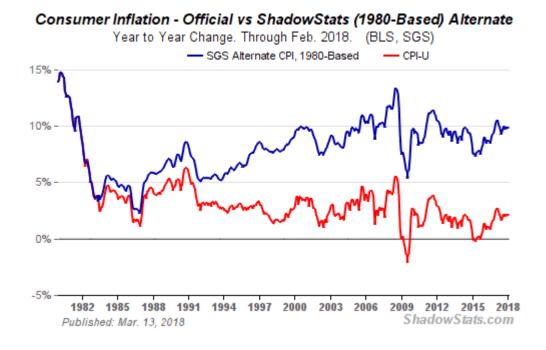
Compounding the high-risk of an increasing near-term run on the U.S. dollar remains mounting recognition in global markets of the Fed's conundrum, particular amidst mounting concerns as to U.S. fiscal stability. The Federal Reserve and other central banks still have no effective idea as to how to boost current economic activity, how to stabilize global banking-system solvency, or otherwise how to slog their way out of a self-generated quagmire. That circumstance only can be exacerbated by intensifying economic and political uncertainties (see the *Hyperinflation Watch* and *Special Commentary No. 935*).

[Graphs 8, 9 and "Notes on Different Measures of the Consumer Price Index" follow.]

Graph 8: Comparative Headline Year-to-Year Change, CPI-U vs. ShadowStats 1990-Based Alternate



Graph 9: Comparative Headline Year-to-Year Change, CPI-U vs. ShadowStats 1980-Based Alternate



#### 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) was an experimental measure—now set to go active, formally, with pending 2017 Tax Reform (see the Opening Comments)—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.

*CPI-U*. The Bureau of Labor Statistics (BLS) reported March 13th, that the headline, seasonally-adjusted February 2018 CPI-U inflation increased month-to-month by 0.2% [up by 0.15% at the second decimal point], having gained 0.5% [0.54%] in January, 0.2% [0.20%] in December 2017, 0.3% [0.34%] in November, 0.1% [0.08%] in October, 0.5% [0.46%] in September, 0.4% [0.40%] in August and 0.1% [0.11%] in July, "unchanged" at 0.0% [a gain of 0.05%] in June, a monthly decline of 0.1% (-0.1%) [0.07% (-0.07%)] in May, an increase in April of 0.2% [0.15%], a March drop of 0.2% [-0.16%], an "unchanged" 0.0% [0.03%] in February and 0.5% [0.51%] gain in January 2017.

Unadjusted monthly February 2018 CPI-U rose by 0.45%, having gained 0.54% in January, having declined 0.06% (-0.06%) in December 2017, having been unchanged at 0.00% in November, having declined in October by 0.06% (-0.06%), having gained by 0.53% in September and 0.30% in August, having declined in July by 0.07% (-0.07%), and having gained by 0.09% in June, 0.09% in May, 0.30% in April, 0.08% in March, 0.31% in February and 0.58% in January 2017.

Major CPI-U Groups. On a monthly basis, in the context of continuing, irregular gasoline price swings, post-hurricane impact in combination with other recent short-term gasoline price volatility, and reflecting gasoline-price seasonal adjustments turning negative in February, the seasonally-adjusted 0.15% gain in the February 2018 CPI-U monthly inflation was dominated by positive impact from "Core" inflation (everything but food and energy), a negligible increase in Energy costs (a contraction in adjusted gasoline) and "unchanged" Food inflation. On an unadjusted basis, the February CPI-U showed a 0.45% monthly gain, dominated by Energy and Core inflation, and muted by a minimal monthly contraction in Food inflation.

Encompassed by the February 2018 CPI-U seasonally-adjusted monthly inflation gain of 0.15% [up by 0.45% on an unadjusted basis], Food inflation was "unchanged" at 0.00% [down by an unadjusted 0.04% (-0.04%)], Energy inflation was 0.09% [up by 1.36% unadjusted], while the adjusted "Core" (ex-food and energy) inflation rate rose by 0.18% [up by 0.45% unadjusted].

Still running contrary to FOMC hopes and expectations, "Core" CPI-U inflation has yet to regain or hold 2.0% in the current cycle, holding now for the 11th straight month (since April 2017) at 1.8% +/- 0.1%. It showed an unadjusted year-to-year inflation rate of 1.85% in February 2018, versus 1.82% in January 2018, 1.78% in December 2017, 1.71% in November 2017, 1.77% in October 2017, 1.69% in September 2017, 1.68% in August 2017, 1.69% in July 2017, 1.70% in June 2017, 1.73% in May 2017, 1.88% in April 2017, 2.00% in March 2017, 2.22% in February 2017, 2.27% in January 2017 and versus 2.20% in December 2016.

February 2018 seasonal adjustments for monthly gasoline inflation—usually reflective of the dominant pressure in energy prices—turned down for month, coincident with the regular annual shift to negative, monthly seasonal adjustments for gasoline. Such took a February 2018 CPI-U unadjusted monthly gain of 1.61% in gasoline prices to an adjusted month-to-month decline of 0.89%. The Department of Energy (DOE) had estimated an unadjusted monthly gain for February 2018 of 1.27%.

With early-March 2018 retail gasoline prices (DOE) running higher month-to-month versus February 2018, by an order of magnitude of 1.0% (-1.0%), and given continued negative seasonal adjustments to March 2018 gasoline prices, there likely will net-negative monthly impact of gasoline prices on the headline March CPI, shy of a sharp rally in headline prices for the balance of March.

Year-to-Year CPI-U. Not seasonally adjusted, February 2018, year-to-year inflation for the CPI-U increased by 2.2% [2.21% at the second decimal point], versus gains of 2.1% [2.07%] in January, 2.1% [2.11%] in December 2017, 2.2% [2.20%] in November 2017, 2.0% [2.04%] in October 2017, 2.2% [2.23%] in September 2017, 1.9% [1.94%] in August 2017, 1.7% [1.73%] in July 2017, 1.6% [1.63%] in June 2017, 1.9% [1.87%] in May 2017, 2.2% [2.20%] in April 2016, 2.4% [2.38%] in March 2017, a 60-month high of 2.7% [2.74%] in February 2017, 2.5% [2.50%] in January 2017 and 2.1% [2.07%] in December 2016.

Year-to-year, CPI-U inflation would increase or decrease in next month's March 2018 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, headline decline of 0.16% (-0.16%) in the March 2017 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for March 2018, the difference in March's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the unadjusted February 2018 annual inflation rate

of 2.21%. Given an early guess of a seasonally-adjusted monthly contraction of about 0.2% (-0.2%) in March 2018 CPI-U, that would leave the annual CPI-U inflation rate for March 2018 at about 2.1%, plusor-minus.

<u>Quarterly CPI-U.</u> On a seasonally-adjusted annualized quarter-to-quarter basis, CPI-U rose by 3.31% in fourth-quarter 2017, having gained 2.13% in third-quarter 2017, 0.10% in second-quarter 2017 and 2.96% in first-quarter 2017.

On an unadjusted, year-to-year basis, headline annual inflation by quarter was up by 2.12% in fourth-quarter 2017, versus 1.97% in third-quarter 2017, 1.90% in second-quarter 2017 and 2.54% in first-quarter 2017.

<u>Annual Average CPI-U.</u> The unadjusted annual average CPI-U inflation rate was 2.13% in 2017, versus 1.26% in 2016 and 0.12% in 2015.

*CPI-W*. The February 2018 seasonally-adjusted, headline CPI-W, which is a narrower series and traditionally has had greater weighting for gasoline than does the CPI-U, rose month-to-month by 0.11%, following monthly gains of 0.62% in January, 0.19% in December 2017, 0.43% in November, 0.05% in October, 0.55% in September, 0.49% in August, 0.06% in July, 0.04% in June and a decline in May of 0.10% (-0.10%) in May, a monthly gain of 0.15% in April, declines in March of 0.22% (-0.22%) and 0.05% (-0.05%) in February and a gain of 0.59% in January 2017.

On an unadjusted basis, year-to-year CPI-W rose to 2.32%, versus 2.14% in January 2018, 2.18% in December 2017, 2.32% in November 2017, 2.05% in October 2017, 2.31% in September 2017, 1.93% in August 2017, 1.64% in July 2017, 1.50% in June 2017, 1.78% in May 2017, 2.14% in April 2017, 2.35% in March 2017, 2.82% in February 2017 and 2.51% in January 2017.

Quarterly CPI-W. On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-W rose by 3.75% in fourth-quarter 2017, having gained 2.26% in third-quarter 2017, having declined by 0.26% (-0.26%) in second-quarter 2017 and having gained by 3.04% in first-quarter 2017.

On an unadjusted year-to-year basis, annual inflation by quarter rose by 2.18% in fourth-quarter 2017, versus 1.96% in third-quarter 2017, 1.80% in second-quarter 2017 and 2.56% in first-quarter 2017.

<u>Annual CPI-W.</u> The unadjusted annual average CPI-W inflation rate was 2.13% in 2017, versus an average gain of 0.98% in 2016 and an 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 quarterly for the prior year, as was seen last with the January 2018 reporting, in which year-to-year inflation rates revised lower by 0.09% (-0.09%) for each month back through March 2017.

The headline annual inflation rate for the C-CPI-U in February 2018 was 2.04%, versus 1.86% in January 2018, 1.93% in December 2017, 2.02% in November 2017, 1.80% in October 2017, 2.08% in September 2017, 1.68% in August 2017, 1.37% in July 2017, 1.26% in June 2017, 1.53% in May 2017, 1.89% in April 2017, 2.07% in March 2017, 2.56% in February 2017, and 2.27% in January 2017.

<u>Quarterly C-CPI-U, Year-to-Year.</u> On an unadjusted, year-to-year basis, annual inflation by quarter was up by 1.92% in fourth-quarter 2017, versus 1.71% in third-quarter 2017, versus 1.56% in second-quarter 2017, 2.30% in first-quarter 2017.

Annual Average C-CPI-U. The annual average C-CPI-U inflation rate was 1.87% in 2017, versus an annual gain of 0.93% in 2016 and an annual contraction of 0.12% (-0.12%) in 2015.

See the *Opening Comments* of <u>Commentary No. 920</u> as to the impact of the adoption of this measure and its costs to the tax-paying public in the recent overhaul of federal income taxes, also see discussions in the earlier <u>Commentary No. 721</u> and in the opening notes in the <u>CPI Section</u> of <u>Commentary No. 699</u> as to the most-recent changes in the series. More-frequent revisions and earlier finalization of monthly detail broadly have been designed to groom the C-CPI-U series as the new Cost of Living Adjustment (COLA) index of choice for the increasingly budget-deficit-strapped federal government, as discussed in the <u>Public Commentary on Inflation Measurement</u>.

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 <u>Commentary No. 841</u>) 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 5.8% in February 2018, versus 5.6% in January 2018, 5.7% in December 2017, 5.8% in November 2017, 5.6% in October 2017, 5.8% in September 2017, 5.5% in August 2017, 5.3% in July 2017, 5.2% in June 2017, 5.5% in May 2017, 5.8% in April 2017, 6.0% in March 2017, 6.3% in February 2017 and 6.1% in January 2017.

The February 2018 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, was at about 10.0% (9.96% at the second decimal point) in February 2018, versus 9.8% (9.81% at the second decimal point) in January 2018, 9.8% (9.85%) in December 2017, versus 9.9% (9.95%) in November 2017, 9.8% (9.78%) in October 2017, 10.0% (9.98%) in September 2017, 9.7% (9.67%) in August 2017, 9.4% (9.44%) in July 2017, 9.3% (9.34%) in June 2017, 9.6% (9.60%) in May 2017, 10.0% (9.95%) in April 2017, 10.1% (10.14%) in March 2017, 10.5% (10.53%) in February 2017 and 10.3% (10.27%) in January 2017. Historic monthly detail, along with an inflation calculator will be found in the CPI section of the Alternate Data tab of the ShadowStats home page: <a href="www.ShadowStats.com">www.ShadowStats.com</a>.

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 February 2018 CPI-U/ShadowStats Inflation

CPI-U: GOLD at \$2,720 per Troy Ounce, SILVER at \$158 per Troy Ounce ShadowStats: GOLD at \$15,375 per Troy Ounce, SILVER at \$894 per Troy Ounce

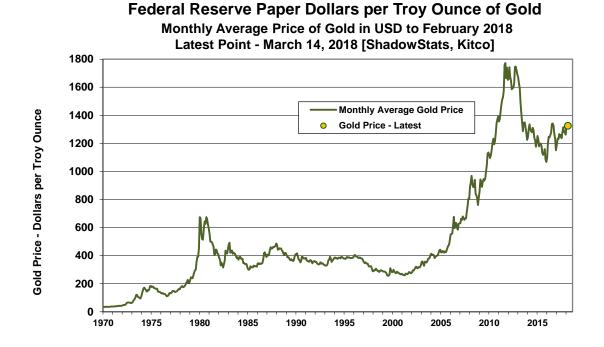
Despite the September 5, 2011 historic-high gold price of \$1,895.00 per troy ounce (London afternoon fix), and despite the multi-decade-high silver price of \$48.70 per troy ounce (London fix of April 28, 2011), gold and silver prices have yet to re-hit their 1980 historic levels, adjusted for inflation. The earlier all-time high of \$850.00 (London afternoon fix, per Kitco.com) for gold on January 21, 1980 would be \$2,720 per troy ounce, based on February 2018 CPI-U-adjusted dollars, and \$15,375 per troy ounce, based on February 2018 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 February 2018 CPI-U inflation, the 1980 silver-price peak would be \$158 per troy ounce and would be \$894 per troy ounce in terms of the February 2018 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (again, all series not seasonally adjusted).

Accompanying *Graph 10* shows the regular gold plot published with monthly CPI detail, with further detail and graphs found in the *Hyperinflation Watch*. As economic expectations take a likely hit in the week ahead, the dollar should lose ground against both gold and the stronger currencies such as the Swiss France (CHF). Implications are highly inflationary for those living in a U.S. dollar-denominated world.

Shown in *Table 1* on page 47 of *No. 859 Special Commentary*, and in *Table INFLATION-1* on page 46 of *Special Commentary No. 935*, 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. The precious metals also (particularly gold in the last year) 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 10: Monthly Average Gold Price in Dollars (Federal Reserve Notes)



Real Retail Sales—February 2018—Sales Dropped for Third Month, Down by 0.22% (-0.22%), Quarterly Contraction Looms, Annual Growth of 1.70% Held Deep in Recession-Signal Territory. See the details in the previous Retail Sales section.

Real Average Weekly Earnings—February 2018—First-Quarter 2018 Real Average Weekly Earnings Continued on Track for the Third Consecutive Quarter-to-Quarter Contraction. [Note: Details are plotted in the Executive Summary, Graph 3 on page 7, and in the Consumer Liquidity Watch, Graph CLW-7.] For the production and nonsupervisory employees category (deflated by the CPI-W)—the only series for which there is a meaningful history, back to 1964, the regularly-volatile, real average weekly earnings gained month-to-month in February 2018 by 0.8%, having declined in January 2018 by a revised, deeper monthly drop of 1.1% (-1.1%). In the context of an upside revision to December activity, that still left first-quarter 2018 activity on early-track for the third, consecutive annualized quarterly contraction in real average weekly earnings, the fifth such quarterly decline in the last six quarters.

Production and Nonsupervisory Employee Details. The headline estimate for February 2018 real average weekly earnings was published along with the release of the headline February 2018 CPI-W on March 13th. In the production and nonsupervisory employees category, again, the only series for which there is a meaningful history, the regularly-volatile real average weekly earnings rose month-to-month by 0.76% in February 2018, having drooped by a revised 1.08% (-1.08%) [previously 0.78% (-0.78%)] in January 2018, and having gained a revised 0.46% month-to-month [previously 0.17%, initially 0.18%] in December 2017, all against an unrevised decline of 0.20% (-0.20%) in November, an unrevised gain of 0.16% in October, and monthly declines of 0.14% (-0.14%) in September, 0.55% (-0.55%) in August and a gain of 0.12% in July.

Year-to-year, the adjusted February 2018 real change strengthened to a gain 0.78%, following an unrevised annual gain of 0.20% in January 2018, versus a revised 0.84% [previously 0.54%, initially 0.69%] in December 2017, and unrevised gains of 0.33% in November 2017, 0.46% in October 2017, 0.27% in September 2017, 0.65% in August 2017 and 0.86% in July 2017.

With first-quarter 2018 earnings still on track for an annualized quarterly contraction of 1.83% (-1.83%), based just on January and February detail, such would follow an annualized fourth-quarter 2017 contraction of 0.39% (-0.39%) [previously down by 0.78% (-0.78%), initially down by 0.94% (-0.94%)], versus a minimal, unrevised annualized decline of 0.03% (-0.03%) in third-quarter 2017, an annualized gain of 3.48% in second-quarter 2017, an annualized contraction of 0.84% (-0.84%) in first-quarter 2017 and an annualized contraction of 0.18% (-0.18%) in fourth-quarter 2016.

Discussed in the *Consumer Liquidity Watch*, the government's headline data remained suggestive of continuing/intensifying income and liquidity issues for the consumer.

Again, *Graph 3* in the *Executive Summary* and *Graph CLW-7* in the *Consumer Liquidity Watch*, plot 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.

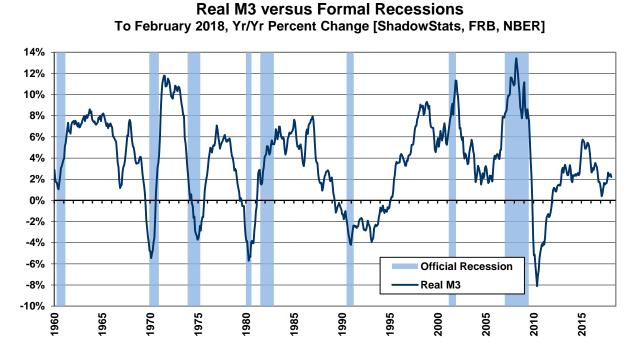
A Leading Indicator to Broad Economic Activity, Real (Inflation-Adjusted) Money Supply M3—February 2018—Annual Change Turned Down Anew to a Five-Month Low. The signal for a double-dip, multiple-dip or simply protracted, ongoing recession, based on annual contraction in the real (inflation-adjusted) broad money supply (M3), had been re-triggered/intensified one year ago, in February 2017, but that signal then softened or flattened out with contrary bounce since May 2017. The previous signal had been, and has remained in place, despite real annual M3 growth having rallied into positive territory post-2010.

In the context of downwardly revised annual growth in M3, and some pick-up in annual CPI inflation, a renewed recession signal may be unfolding. Shown in *Graph 11*—based on the February 2018 CPI-U reporting and the latest ShadowStats-Ongoing M3 Estimate (see *Commentary No. 939*)—annual inflation-adjusted growth in February 2018 M3 dropped to a five-month low of 2.21% versus 2.48% in January 2018, reflecting continued downside benchmark revisions to the Federal Reserve's money measures and upside movement in annual CPI-U inflation. Those levels of activity remained were against an upwardly revised peak growth of 5.75% [previously 5.71%] in February 2015.

The recent stagnation in annual growth still likely reflected a temporary reversal in the pattern of plunging annual growth, which has held at levels last seen in plunging growth into the 2009 economic collapse, a level always seen going into, or already in a recession.

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* and *Commentary No. 902-B*). The initial economic downturn never evolved into a meaningful or sustainable recovery. The current level and pattern of real annual M3 growth generally has been followed by annual contraction and recession signal.

Graph 11: Real M3 Annual Growth versus Formal Recessions



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, from which it has backed off 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, separate from what short-lived activity generated by the destruction and resulting recovery from particularly-severe hurricane and California wildfire seasons. Actual post-2009 economic activity has remained at relatively low levels—in protracted stagnation—with no actual recovery (see the *ECONOMY* section of *Special Commentary No. 935* and *Commentary No. 936*).

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 full recovery from or end to the official 2007 recession, no new economic expansion—where the unfolding "new" downturn remains nothing more than a continuation and re-intensification of a downturn that began unofficially in 2006.

#### PRODUCER PRICE INDEX—PPI (February 2018)

February 2018 Final Demand Annual PPI Inflation Notched Higher to 2.77%, but the Monthly Gain Slowed to 0.17% from 0.44%, With Heavily Negative Seasonal Adjustments More than Offsetting Rising Energy Costs. As with the CPI, unstable gasoline costs continued to dominate energy costs and monthly wholesale inflation. Nonetheless, the Final Demand Producer Price Index (FD-PPI) is dominated in its weighting by the services sector, where somewhat nebulous, shifting profit margins often counter price movements in the lower-weighted hard costs of the goods sector.

That unadjusted 2.77% annual gain for February 2018 encompassed 2.76% in the Services sector, 3.00% in the Goods sector (Energy was up by 9.12%), and 3.48% in the Construction sector. The headline, seasonally-adjusted 0.17% monthly gain in the aggregate FD-PPI series encompassed 0.26% in Services, a contraction of 0.09% (-0.09%) in Goods and 0.08% in Construction.

Irrespective of inflation reporting out of the Bureau of Labor Statistics (BLS), which runs well shy of common experience for consumers, as well as businesses (see the CPI comments), the Federal Reserve tends to ignore energy and food inflation in its headline polices, concentrating instead on "core" inflation, net of those "problem" energy and food areas.

Goods Detail. Separate from the service-sector definitional issues, the old-fashioned, headline seasonally-adjusted monthly PPI-FD Goods inflation in February 2018 declined by 0.09% (-0.09%), having gained 0.71% (mostly in energy) in January. The February composite reflected an adjusted (also unadjusted) monthly drop of 0.43% (-0.43%) in foods, an adjusted 0.46% (-0.46%) monthly drop (an unadjusted monthly gain of 0.76%) in energy and an adjusted (also unadjusted) 0.17% monthly gain in "core" goods. For the PPI-FD Goods sector, unadjusted annual inflation of 3.00% in February 2018 had eased from 3.28% in January 2018.

Construction Detail. Generally not headlined, the construction sector reflects elements of both cost and margins. The headline seasonally-adjusted (and unadjusted) monthly PPI-FD Construction inflation in February 2018 rose by 0.08%, having gained 0.76% in January thanks largely to new quarterly margins estimates. For the PPI-FD Construction sector, unadjusted annual inflation of 3.48% in February 2018, picked up from 3.39% in January 2018.

Services-Side Detail. The headline monthly PPI Final-Demand aggregate inflation generally reflects neither real-world activity, nor common experience, except by possible coincidence. As structured, the aggregate, wholesale inflation rate remains dominated by the services sector, which is of negligible common-experience or theoretical value, as discussed in the following Bulk of Headline PPI Reporting Is of Little Practical Use section.

That said, headline, seasonally-adjusted monthly PPI-FD Services inflation in February 2018 rose by an adjusted 0.26% (an unadjusted 0.44%), versus 0.35% (0.52% unadjusted) in January. Within the February 2018 composite was an adjusted gain of 0.35% (0.52% unadjusted) "other" or "less trade, transportation and warehousing" category, an adjusted gain of 0.93% (0.85% unadjusted) in "transportation and warehousing" and an adjusted decline of 0.17% (-0.17%) in "trade" (up 0.26% unadjusted). For the PPI-FD Services sector, unadjusted annual inflation of 2.76% in February rose from 2.32% in January 2018.

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, rather than as the hybrid measure of the headline Producer Price Index Final Demand, the aggregate headline series here (ShadowStats separates the analyses of those sectors by sub-category) 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 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. When 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 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 eight years of post-2008-panic data) to establish any meaningful relationship to general inflation or other economic or financial series.

*February 2018 Headline PPI Detail.* The Bureau of Labor Statistics (BLS) reported March 14th, that the seasonally-adjusted, month-to-month, headline Producer Price Index Final-Demand (PPI-FD) inflation for February 2018 rose by 0.17%, having gained 0.44% in January 2018 versus "unchanged" at 0.00% in December 2017.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI-FD inflation in February 2018 was 2.77%, versus 2.69% in January 2018 and 2.61% in December 2017, still down from a 70-month high (since January 2012) of 3.07% in November 2017.

For the three major subcategories of the February 2018 PPI-FD, which, again, showed a monthly gain of 0.17% and 2.77% annual inflation, headline monthly Goods inflation declined by 0.09% (-0.09%) month-

to-month, up by 3.08% year-to-year, Services "inflation" (profit margins) rose month-to-month by 0.26%, up by 2.76% year-to-year, and Construction inflation rose in the month by 0.08%, up by 3.48% year-to-year.

<u>Final Demand Goods (weighted at 33.01% of the Aggregate Index).</u> Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in February 2018 declined by 0.09% (-0.09%), having gained 0.71% in January and 0.09% in December 2017. There was negative impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, January inflation was up by 0.09%.

Unadjusted, year-to-year goods inflation in February 2018 showed an annual gain of 3.00%, following gains of 3.28% in January 2018 and 3.50% in December 2017.

Headline seasonally-adjusted monthly changes by major components of February 2018 Final Demand Goods:

- "Foods" inflation (weighted at 5.72% of the total index) fell month-to-month by 0.43% (-0.43%) in February 2018, having declined by 0.17% (-0.17%) in January 2018 and by 0.43% (-0.43%) in December 2017. Seasonal adjustments were neutral the February headline change, which was an unadjusted monthly contraction also of 0.43% (-0.43%). Unadjusted and year-to-year, annual February 2018 foods inflation rose by 0.61%, having gained by 1.84% in January 2018 and by 2.11% in December 2017.
- "Energy" inflation (weighted at 5.58% of the total index) declined by 0.46% (-0.46%) month-to-month in February 2018, having gained 3.40% January 2018 and 0.47% in December 2017. Seasonal adjustments were strongly negative in February, with unadjusted energy showing a monthly gain of 0.76%. Unadjusted and year-to-year, February 2018 energy prices gained 9.12%, versus 9.19% in January 2018 and 10.12% in December 2017.
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 21.71% of the total index) gained month-to-month by 0.17% in February 2018, versus 0.17% in January 2018 and 0.18% in December. Seasonal adjustments were neutral for monthly core inflation, with the unadjusted monthly February inflation up by 0.17%. Unadjusted and year-to-year, February 2018 "core" inflation eased to 2.13%, versus 2.14% in January 2018 and 2.33% in December 2017.

<u>Final Demand Services</u> (weighted at 65.35% of the Aggregate Index). Headline Final Demand Services inflation rose by 0.26% in February 2018, having gained 0.35% in January and having declined by 0.09% (-0.09%) in December. The overall seasonal-adjustment impact on headline services inflation was negative, with an unadjusted monthly gain of 0.44%. Year-to-year, unadjusted February 2018 services inflation was 2.76%, versus 2.32% in January 2018 and 2.24% in December 2017.

The headline monthly changes by major component for February 2018 Final Demand Services inflation:

• "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 40.53% of the total index) monthly rose monthly by 0.35% in February 2018, having gained 0.44% in January and 0.18% in December 2017. Seasonal-adjustment impact on the February detail was negative, where the unadjusted monthly reading was a gain of 0.52%. Unadjusted and year-to-year, February 2018 "other" services inflation was up by 2.77%, versus 2.51% in January 2018 and 2.34% in December 2017.

- "Transportation and warehousing" inflation (weighted at 4.47% of the total index) rose month-to-month by 0.93% in February 2018, having gained 0.43% in January and having declined by 0.59% (-0.59%) in December 2017. Seasonal adjustments were positive for the headline February reading, versus an unadjusted monthly gain of 0.85%. Unadjusted and year-to-year, February 2018 transportation inflation rose by 3.21%, versus 2.52% in January 2018 and 1.83% in December 2017.
- "Trade" inflation (weighted at 20.35% of the total index) declined by 0.17% (-0.17%) month-tomonth in February 2018, having gained 0.35% in January and declined by a 0.43% (-0.43%) in December. Seasonal adjustments had a negative impact, where the unadjusted monthly change was up by 0.26%. Unadjusted and year-to-year, February 2018 trade inflation rose to 2.57%, versus 1.67% in January 2018 and 2.12% in December 2017.

Final Demand Construction (weighted at 1.64% 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 increased by 0.08% in February 2018, having gained 0.76% in January and declined by 0.08% (-0.08%) in December. The impact of seasonal factors on the January reading was neutral, as usual, where the unadjusted monthly gain also was 0.08%. 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.

On an unadjusted basis, year-to-year construction inflation rose to 3.48% in February 2018, versus 3.39% in January 2018 and 2.97% in December 2017. The PPI annual change here recently had moved closer to the estimates of private surveying and other government estimates (GDP deflators), which usually show much higher construction-related inflation than the PPI. The headline annual PPI inflation, however, still generally is shy by an order of magnitude of at least a hundred basis points from private and other surveying. Annual inflation in those measures generally appears to be on the rise. Discussed in <a href="Commentary No. 829">Commentary No. 829</a>, ShadowStats 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 (see <a href="Commentary No. 938">Commentary No. 938</a>).

*PPI-Inflation Impact on Pending Reporting of February 2018 New Orders for Durable Goods.* As to the upcoming reporting of February 2018 New Orders for Durable Goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods in February 2018 increased by 0.23%, having gained 0.41% in January 2018 been "unchanged" at 0.00% in December 2017. Year-to-year annual inflation was 1.72% in February 2018, versus 1.79% in January 2018 and 1.67% in December 2017. February 2018 durable goods orders (both nominal and real) will be reported and calculable on March 23rd, with coverage in the *Commentary 942* of that date.

[The Hyperinflation Watch begins on the next page.]

.\_\_\_\_\_

#### HYPERINFLATION WATCH

#### THE U.S. DOLLAR AND THE FINANCIAL MARKETS

Intensified Selling of the U.S. Dollar and Negative Stock-Market Turmoil Are Likely, Soon.

Continuing the discussion from today's *Opening Comments*, the headline economic boom that helped to drive the major U.S. stock indices to recent all-time highs, has begun to fall apart. That process should accelerate in the next several weeks, as underlying economic detail increasingly re-stabilizes at lower levels of downtrending activity, as seen with the February Retail Sales reporting. With headline numbers faltering anew, selling of the U.S. dollar should intensify, with both factors likely to begin turning stock prices lower. With a full-fledged dollar selling panic a fair bet, stock prices likely would tank in tandem, as foreign as well as domestic investors increasingly sought safer havens in other currencies.

**Federal Reserve Still is Unable to Extricate Itself from the Panic of 2008.** Today's *Opening Comments* largely provided some background economic context for this *Hyperinflation Watch*. Despite consensus expectations of fully recovered economy booming, underlying economic activity never has fully recovered. While natural-disaster-recovery activity boosted late-2017 economic numbers, the system has begun to re-stabilize in its prior, non-recovery, intensifying downturn mode.

The increasing, fundamental disconnection between the happy hype in the media, the financial markets and the FOMC pronouncements as to a rapidly expanding U.S. economy, and the underlying reality of broad U.S. economic activity never having recovered its pre-recession 2007 peak, promises to disrupt FOMC policy and financial-market tranquility in the months ahead. Oncoming headline economic detail increasingly should confirm a renewed economic contraction (see *Special Commentary No. 935*).

In response to likely renewed liquidity stresses on the banking system from an "unexpected" economic downturn, the FOMC remains likely to abandon its current path of policy tightening, for a renewed and expanded quantitative-easing program to bolster the still liquidity-challenged domestic banking system. The market response to, or anticipation of a shift in policy, should pummel the value of the U.S. dollar in the global markets, spiking gold, silver and oil prices. Again, in turn, domestic equity and credit-market prices should fall sharply, as significant capital flees the weakening U.S. dollar and the domestic markets.

Holding physical gold and silver remain the ultimate hedges—stores of wealth—for preserving the purchasing power of one's U.S. dollar assets, in the context of liquidity and portability, during the difficult and highly inflationary times that lie ahead.

The usual graphs in this section reflect New York closing prices of March 14th.

*U.S. Dollar. Graphs HW-1* and *HW-2* reflect plots of the Federal Reserve Board's (FRB) Major-Market Trade-Weighted Dollar (TWD), which reflects the U.S. dollar exchange rate weighted versus the Euro, Yen, Pound Sterling, Australian Dollar, Swiss Franc and the Canadian Dollar; and the ShadowStats Financial-Weighted Dollar (FWD), which reflects the U.S. dollar exchange rate weighted versus same currencies based of respective currency trading volume in the markets, instead of merchandise trade.

ShadowStats modified the FWD to add the Chinese Yuan, at such time as it was recognized as a global reserve currency by the Bank for International Settlements, but there was no resulting visual difference in the ShadowStats plot, given the relatively low weighting of the CNY at present, and the closely tied movement of the CNY to USD over time. The plots of the FWD versus the TWD both show recent weakness in the U.S. dollar, with the declining year-to-year change intensifying.

Gold and Silver, and Gold versus Stocks. Graphs HW-3 and HW-4 show plots of the price level of the S&P 500 Total Return Index (all dividends reinvested) versus the price of physical gold, with both series indexed to January 2000 =100, with the first plot showing both series in nominal terms and the second plot in real, inflation-adjusted terms, deflated by the CPI-U. While Gold has outperformed the S&P 500 since the beginning of millennium, it is interesting to note that the S&P 500, net of inflation, did not break above parity until 2013.

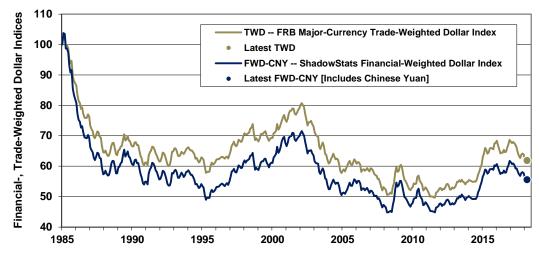
*Graphs HW-5* to *HW-7* are the traditional ShadowStats gold graphs, respectively versus the Swiss Franc, versus Silver and versus Oil (Brent).

Again, the final price points in the various graphs reflect the closing or late-day March 14, 2018 New York prices.

[Graphs HW-1 to HW-7 begin on the next page.]

Graph HW-1: Financial- versus Trade-Weighted U.S. Dollar

Financial- vs. Trade-Weighted U.S. Dollar
Monthly Average Dollar Indices through February 2018
Last Point is Late-Day New York for March 14, 2018
ShadowStats FWD-CNY and FRB Major Currency TWD Indices
Indices, January 1985 = 100 [ShadowStats, FRB, WSJ]



Graph HW-2: Year-to-Year Change, Financial- versus Trade-Weighted U.S. Dollar

#### Financial- vs. Trade-Weighted U.S. Dollar Monthly Average Year-to-Year Percent Change, to February 2018 Last Point is Late-Day New York for March 14, 2018

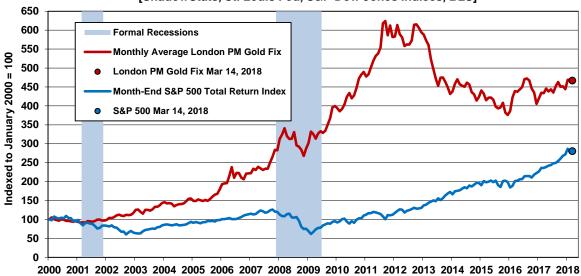
ShadowStats FWD-C and FRB Major Currency TWD Indices [ShadowStats, FRB, WSJ]



Graph HW-3: Nominal Gold versus the Nominal Total Return S&P 500

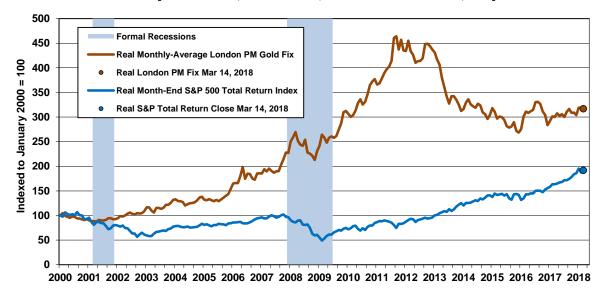
### Nominal London P.M. Gold Fix versus the Total Return S&P 500® Index (Reinvested Dividends)

2000 to March 14, 2018, Indexed to January 2000 = 100 [ShadowStats, St. Louis Fed, S&P Dow Jones Indices, BLS]



Graph HW-4: Real Gold versus the Real Total Return S&P 500

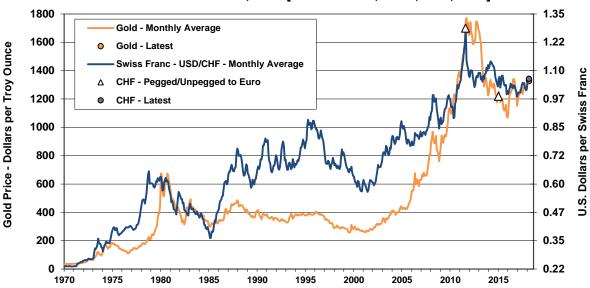
### Real London P.M. Gold Fix versus the Total Return S&P 500® Index Deflated by the Unadjusted CPI-U, Monthly to February 2018 [ShadowStats, St. Louis Fed, S&P Dow Jones Indices, BLS]



Graph HW-5: Gold versus the Swiss Franc

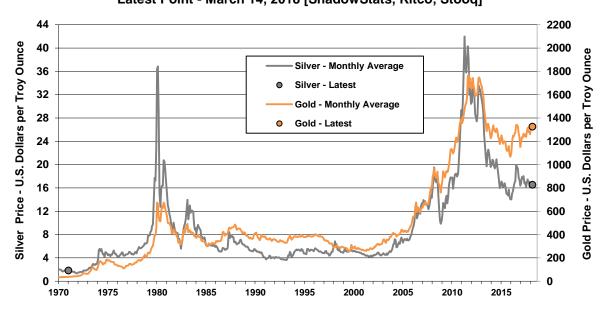
#### Gold versus Swiss Franc (CHF)

Monthly Average Price or Exchange Rate to February 2018 Latest Point - March 14, 2018 [ShadowStats, Kitco, FRB, WSJ]



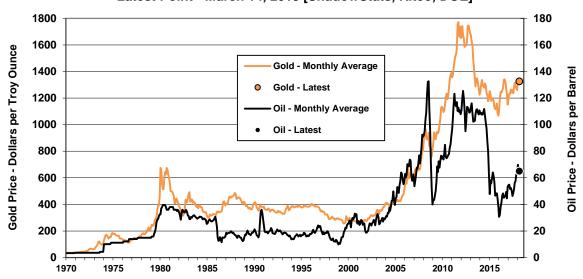
Graph HW-6: Gold versus Silver

## Gold versus Silver Monthly Average Price Levels to February 2018 Latest Point - March 14, 2018 [ShadowStats, Kitco, Stooq]



Graph HW-7: Gold versus Oil

# Gold versus Oil (Brent/WTI Pre-1987) Monthly Average Prices to February 2018 Latest Point - March 14, 2018 [ShadowStats, Kitco, DOE]



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

Copyright 2018 American Business Analytics & Research, LLC, www.shadowstats.com

#### **CONSUMER LIQUIDITY WATCH**

**CONSUMER LIQUIDITY, INCOME, CREDIT AND RELATIVE OPTIMISM.** [Updated for February 2018 Real Average Weekly Earnings, opening paragraphs and links.]

Continuing Consumer Liquidity Stresses Constrain Broad Economic Activity. The U.S. consumer faces increasing financial stress, which recently had been mirrored in renewed softening of fundamental headline economic activity, including Payroll-Employment, Real Retail Sales, Housing and Construction, and the Manufacturing/Production sector, all pre-hurricane activity. Net of what have been mixed, but significant, near-term hurricane distortions, initial hits to activity were followed by related and transient economic boosts from recovery, replacement and restoration activity. Funded by insurance payments and savings liquidation, those distortions broadly should pass from headline data by the February/March reporting of January/February 2018-headline detail now underway. Indeed hurricane-boosted activity appears to be passing, as early first-quarter economic activity continues to turn down (see the *Opening Comments*, *Commentary No. 936* and *Commentary No. 937*). Such effects have been, and will continue to be discussed in the separate analyses of relevant series in covered in the regular *ShadowStats Commentaries*. While there have been recent signals of faltering consumer liquidity (see Consumer Credit Outstanding and Real Earnings), headline consumer optimism has remained strong, despite rapidly softening activity.

Monthly series that have faced the most severe, disaster-triggered reporting disruptions, where headline details have yet to stabilize or correct, still include in particular Household Survey Employment and Unemployment (see <u>Commentary No. 939</u>). Retail Sales and Industrial Production appear to have stabilized, and are beginning to turn down anew, but they still need to subside to levels stable with normal consumption activity and inventories. Despite the initial slowing in Fourth-Quarter 2017 GDP growth, the series remains heavily bloated from the disaster-distortions (see <u>Commentary No. 933</u>), a downside revision still could loom for the fourth-quarter detail, along with increasing odds for an outright quarterly contraction in real First-Quarter 2018 GDP (see today's *Opening Comments* and <u>Commentary No. 937</u>).

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

These underlying pocketbook issues contributed to the anti-incumbent electoral pressures in the 2016 presidential race. The post-election environment showed a near-term surge in both the consumer confidence and sentiment measures to levels generally not seen since before the formal onset of the recession in 2001, let alone 2007. Yet, underlying liquidity conditions, economic reality and lack of

positive actions out of the government to turn the economy meaningfully, so far, all have continued to remain shy of consumer hopes, and those numbers have begun to stumble in recent detail.

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

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

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

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

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

Similar signals of such economic stress are seen in patterns of activity that move along with the real-world broad economy. They range from indicators such as freight volume and domestic consumption of petroleum to factors such as levels of real consumer debt outstanding, real average weekly earnings and measures of employment stress in the broad economy. Those stresses are reflected in historically-low levels of the employment-population ratio and the labor-force participation rate. With the liquidity-starved U.S. consumer driving three-quarters of the GDP, there is no way for the broad economy to boom—happy Retail Sales headlines aside—without some meaningful shift in underlying consumer circumstances. Links to background discussions in these various areas are found in the *Recent* 

Commentaries section of the Week, Month and Year Ahead, along with links to background discussions on the quality of the more-politicized GDP (<u>Commentary No. 928</u>) and employment/unemployment details discussed in the <u>Supplemental Labor-Detail Background</u> of <u>Commentary No. 930-B</u>.

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

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

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

Consumer Optimism: Consumer Sentiment and Confidence Boom. On top of the December 2017 readings pulling back sharply for both The Conference Board's Consumer-Confidence Index<sup>®</sup> (Confidence), and the University of Michigan's Consumer Sentiment Index (Sentiment), January 2018 Confidence and Sentiment (February 2nd) readings were minimally-positive and down, with the February numbers rising anew. Such is despite faltering home sales in January (see Commentary No. 937 Reporting Detail). The February 2018 consumer numbers were just updated for Confidence (February 27th) and Sentiment (March 2nd).

Reflected in *Graphs CLW-1* and *CLW-2*, Confidence and Sentiment monthly readings had jumped sharply, respectively to multi-year highs in November and October. Yet, the December Confidence reading plunged, more than offsetting the November gain and most of the October gain, in context of a downside revision to the November reading. Similarly, November and December Sentiment readings, and now January also pulled back sharply or only minimally recovered, largely offsetting the October surge there.

Nonetheless, both measures turned higher in February 2018, despite mounting economic and financial-market uncertainties. Following a downside revision to the January 2018 reading, Confidence jumped to its highest level since November 2000, when both series were then falling into the 2001 recession. The rising numbers here for both Confidence and Sentiment are at their highest levels since 2000, above their pre-2007 recession peaks. They remain down from their early-2000 peaks, however, by 9.6% (-9.6%) for Confidence and by 11.0% (-11.0%) for Sentiment.

For both the Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index (*Graph CLW-1*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph CLW-2*), the three-month moving averages also were above pre-2007 recession highs, yet the still-high moving averages have flattened out, having begun to falter in September 2017, before the storm-distorted, unusual headline surges in October and November activity.

On a monthly as well as smoothed bases (see *Graphs CLW-1 to CLW-3*), both series continued above their pre-2007 recession peaks. On a monthly basis, the Confidence measure at its highest level since May 2000, as it had been plummeting into the onset of 2001 recession, with the current February 2018 reading down from its interim May 2000 peak level by 9.6% (-9.6%).

On a monthly basis, aside from its near-term peak of October 2017, the Sentiment measure is at its highest level since January 2004, currently down by 3.9% (-3.9%) from that interim January 2004 peak.

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

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

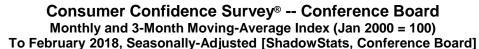
The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in <u>Commentary No. 764</u>), and often are highly volatile month-to-month, as a result. Recent press has been highly positive on the headline economic and employment news, reflecting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

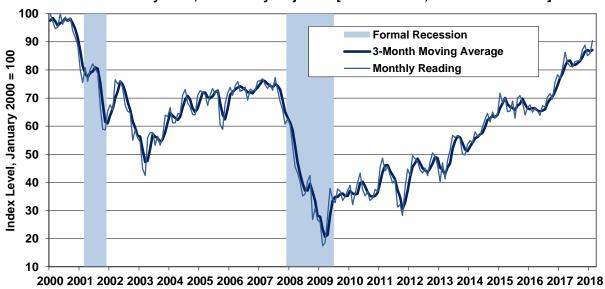
Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and for third-quarter 2016 and into third-quarter 2017. In current environment of surging optimism, beyond having happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CLW-3*—plotted for the last 48 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods

of normal, positive economic activity of the last four decades, with their six-month moving averages at levels last seen going into the 2001 recession, although increasingly, they appear to be topping out.

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

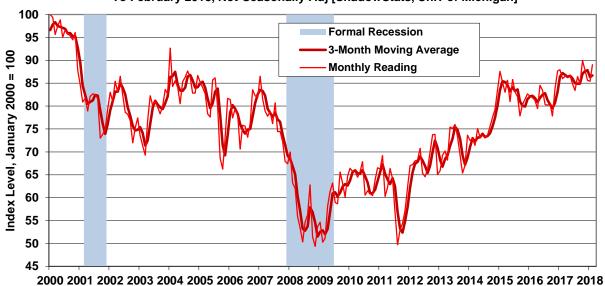




Graph CLW-2: Consumer Sentiment (2000 to 2018)

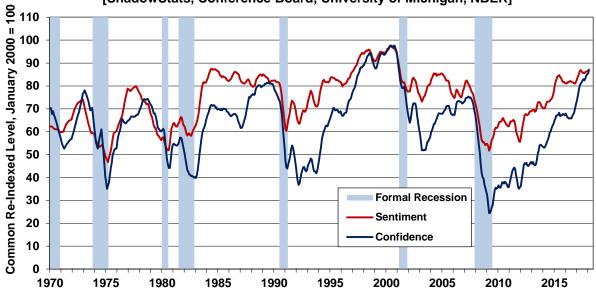
### Consumer Sentiment Index -- University of Michigan

Monthly and 3-Month Moving-Average Index (Jan 2000 = 100)
To February 2018, Not-Seasonally-Adj [ShadowStats, Univ of Michigan]



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

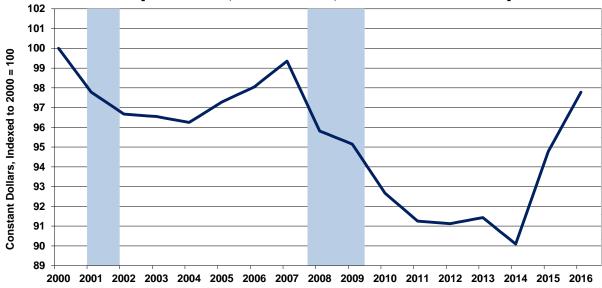
## Consumer Confidence and Consumer Sentiment Indices Six-Month Moving Averages, 1970 to February 2018 [ShadowStats, Conference Board, University of Michigan, NBER]



2016 Annual Real Median Household Income Still Was Below Its 2007 Pre-Recession High, Below Activity in the Late-1990s, About Even with the Mid-1970s. The measure of real monthly median household income, which was provided by <a href="https://www.SentierResearch.com">www.SentierResearch.com</a>, generally can be considered as a monthly version of the annual detail shown in Graph CLW-4, based on the most-recent annual detail released by the Census Bureau and as discussed the Opening Comments of <a href="https://www.SentierResearch.com">Commentary No. 909</a>.

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

### Annual Real Median Household Income Index (2000-2016) Adjusted for (2013-2014) Discontinuities, Deflated by Headline CPI-U [ShadowStats, Census Bureau, Bureau of Labor Statistics]



Last Monthly Estimate Showed Stagnating Monthly Real Growth. Last reported by Sentier Research, in what appears to have been the final estimate for the series, May 2017 Real Median Household Income was statistically unchanged, despite a boost from falling gasoline prices. Discussed in General Commentary No. 894, and in the contexts of then-faltering gains in post-election consumer optimism, and inflation-adjusted activity boosted by declining headline Consumer Price Index (CPI-U) inflation (weakened by seasonally-adjusted gasoline price declines), May 2017 Real Median Monthly Household Income was "statistically unchanged" (a statistically-insignificant monthly gain of 0.10%). That followed a statistically-significant monthly gain of 1.00% in April 2017. Shown in Graph CLW-4, such enabled May 2017 real monthly median household income to hold a level regained in April and otherwise last seen in February 2002. Year-to-year real median household income rose to 2.44% in May 2017, the highest level since June 2016, following an annual gain of 1.57% in April 2017 (see Graph CLW-5).

Where real monthly median income plunged into the headline trough of the economic collapse in 2009, it did not then rebound in tandem with the headline GDP activity. When the GDP purportedly started its solid economic recovery in mid-2009, the monthly household income numbers nonetheless plunged to new lows, hitting bottom in 2011. The income series then held in low-level stagnation, until collapsing gasoline prices and the resulting negative CPI-U inflation drove a post-2014 uptrend in the inflation-adjusted monthly income index. The index approached pre-recession levels in the December 2015 reporting, but it remained minimally below the pre-recession highs for both the formal 2007 and 2001 recessions until recent months. Real median household income had the potential to resume turning down anew, as the headline pace of monthly consumer inflation picked up anew, with the August 2017 CPI.

Nonetheless, the most-recent recent "rebound" reported in the series still left consumers financially strapped. Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash largely was used to help pay down unsustainable debt or other obligations, not to fuel new consumption. Except for mixed gyrations in first-half 2017, the effects of changing gasoline prices in the headline CPI-U generally had reversed, pushing headline consumer inflation higher and beginning to push real income lower.

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

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

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

**Monthly Real Median Household Income Index** 

Graph CLW-5: Monthly Real Median Household Income (2000 to May 2017) Index, January 2000 = 100

#### Deflated by Headline CPI-U, January 2000 to May 2017 (Final) Seasonally-Adjusted [ShadowStats, www.SentierResearch.com] 102 Constant Dollars, Indexed to Jan 2000 = 100 101 100 99 98 97 96 95 94 93 92 91 90

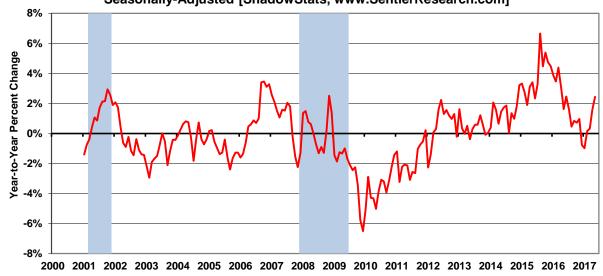
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Graph CLW-6: Monthly Real Median Household Income (2000 to May 2017) Year-to-Year Change

Monthly Real Median Household Income Yr/Yr Change

Deflated by Headline CPI-U, January 2001 to May 2017

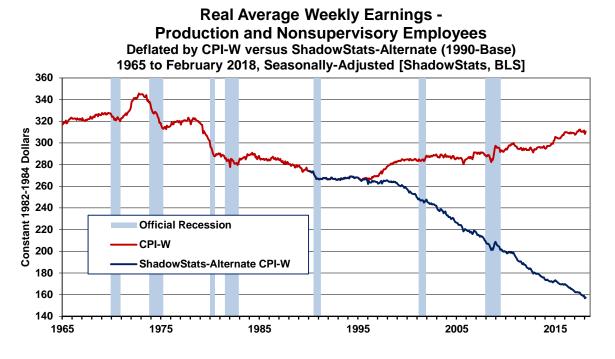
Seasonally-Adjusted [ShadowStats, www.SentierResearch.com]



**Real Average Weekly Earnings—February 2018—Headed for a Third-Consecutive, Quarterly Contraction.** For the production and nonsupervisory employees category—the only series for which there is a meaningful history (see today's *Executive Summary* comments and *Graph 3* on page 6), real average weekly earnings gained by 0.8% in February 2018, but declined in January 2018 by a deeper, revised 1.1% (-1.1%), setting up first-quarter 2018 as a likely, third-consecutive quarter of contraction in real earnings. Based on the latest detail, the early trend for first-quarter 2018 is for an annualized

contraction pace of 1.8% (-1.8%). That also would be the fifth real quarterly contraction of the last six quarters. See the *Reporting Detail* for further information.

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



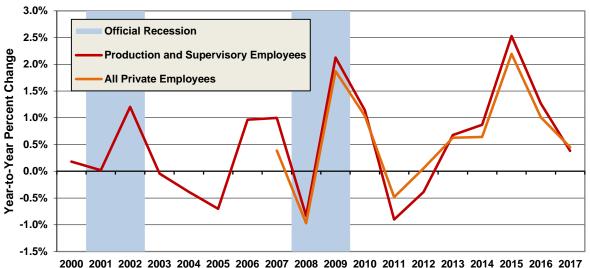
Graph CLW-7 plots the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating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

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

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

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





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

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

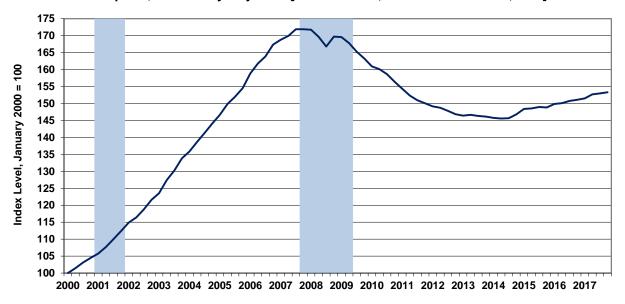
Quarterly Series. Consider Graph CLW-9 of Household Sector, Real Credit Market Debt Outstanding. The level of real household debt declined in the period following the Panic of 2008, reflecting loan defaults and reduced banking lending, and it has not recovered fully, based on the Federal Reserve's flow-of-funds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

The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system

into the regular flow of commerce. The slight upturn seen in the series through 2015 and into 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016 and intermittently into fourth-quarter 2017. Current activity also has reflected continuing relative strength from student loans, as shown in the *Graphs CLW-10* to *CLW-13*.

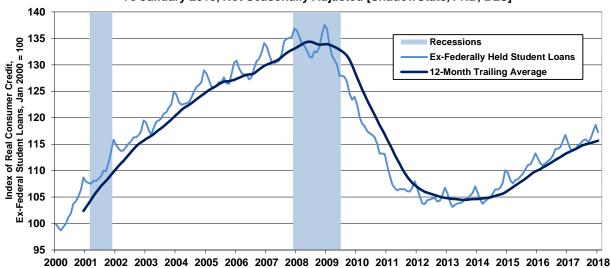
Graph CLW-9: Household Sector, Real Credit Market Debt Outstanding (2000 through Fourth-Quarter 2017)

### Household Sector, Real Credit Market Debt Outstanding Deflated by CPI-U. Indexed to First-Quarter 2000 = 100 To 4q2017, Seasonally-Adjusted [ShadowStats, FRB Flow-of-Funds, BLS]



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

# ShadowStats Index of Real Consumer Credit Outstanding Ex-Federally-Held Student Loans (Deflated by CPI-U) Unadjusted by Month and Smoothed with a 12-Month Trailing Average To January 2018, Not Seasonally Adjusted [ShadowStats, FRB, BLS]



Shown for comparative purposes is *Graph CLW-10*, real, not-seasonally-adjusted Consumer Credit Outstanding, Ex-Federally-Held Student Loans, has not recovered on a monthly, let alone the 12-month trailing-average basis used as a surrogate for seasonal adjustment. Discussed in the next section, this measure of consumer credit now has been through 121 months 40-plus quarters of non-expansion. That is reflected on a parallel basis through fourth-quarter 2017 reporting shown in *CLW-9*. Please note that the scale in *Graph 10* is indexed to Consumer Credit Outstanding Ex-Federal Student Loans equal to 100 in January 2000. In *Graphs 11* to *13*, that indexing is applied to the total Consumer Credit Outstanding number, which is greater in amount than its dominant Ex-Federal Student Loans subcomponent.

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

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

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

Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Where the recent monthly downside move in the not-seasonally-adjusted real consumer credit reflected a seasonal pattern, the pattern of year-to-year growth has been in downtrend, suggesting some tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in January 2018 was down from recovering its December 2007 pre-recession peak by 14.3% (-14.3%). That is 121 months or a full, ten-plus years of non-expansion of credit. Year-to-year real growth shown in *Graph CLW-13* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

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

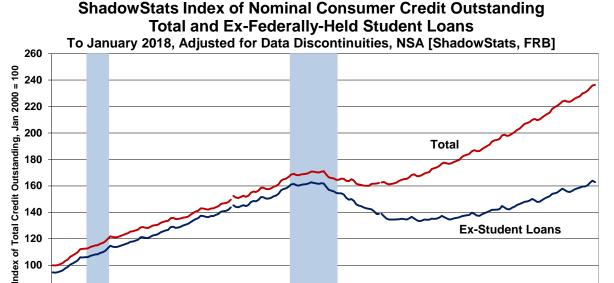
Graph CLW-11: Nominal Consumer Credit Outstanding (2000 to 2018)

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

160 140

120 100

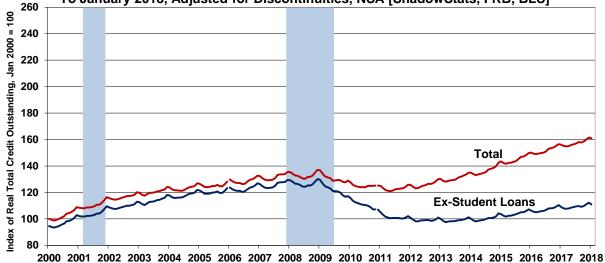
80



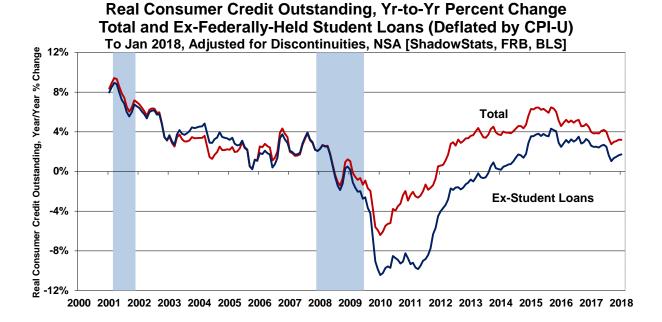
**Ex-Student Loans** 

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018





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



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

#### WEEK, MONTH AND YEAR AHEAD

Instabilities and Turmoil in the U.S. Dollar and the Financial-Markets Remain at High Risk, in the Context of an Increasingly-Faltering, Non-Expanding Real-World Broad Economic Activity.

Updated outlooks for the U.S. economy, the U.S. dollar, gold, silver and the financial markets were reviewed in *Special Commentary No. 935*, covered there in the *Executive Summary* beginning on page 2, with *Contents* and links to *Major Sections* and *Graphs* beginning on page 6. Renewed economic faltering also was discussed in *Commentary No. 936*, *Commentary No. 937*, *Commentary No. 938* and *Commentary No. 939*, and discussed particularly in today's *Opening Comments* and *Reporting Detail*, in the context of unexpectedly-weak retail sales. Financial market vulnerabilities are reviewed in today's *Opening Comments* and *Hyperinflation Watch*.

Conditions Take a Turn for the Worse. Natural-disaster-impact from late-2017 continued to unwind in most headline monthly economic reporting of January, and in a pattern that already has started to intensify for February reporting. These elements suggested not only some downside revision for the third estimate of Fourth-Quarter 2017 GDP, but also meaningful risk for an outright quarterly contraction in the initial estimate of First-Quarter 2018 GDP on April 27th, particularly with the deteriorating trade deficit discussed in Commentary No. 937. Increasingly, headline economic details are likely to disappoint consensus expectations (again, see today's Opening Comments and Hyperinflation Watch).

The real-world economy is not recovering or booming as advertised, despite heavy hype in the press of a booming, full-employment economy, and in the context recent FOMC tightening actions.

If not already there, reporting in most series should be back to normal (allowing for hurricane disruptions and recovery) in the headline reporting of February 2018 economic activity, as discussed in <u>General</u> <u>Commentary No. 929</u>, and which has started. Most series increasingly should reflect "unexpected" downtrending economic activity. Where misleading, recent headline details had contributed to a manic stock market, the mania also should be starting to unwind. The process should accelerate as market perceptions increasing shift towards renewed economic downturn.

An unhappy period of market readjustment to underlying real-world circumstances looms, where Wall Street's proponents of a never-ending stock-market rally have parlayed temporary, nonrecurring economic boosts from natural disasters into a year-end 2017 economic boom. Negative economic "surprises" increasingly should shock the markets and the U.S. dollar on the downside. As the reported economic downturn intensifies in the months ahead, the FOMC—under its new Chairman Jerome H. Powell—eventually should face an "unexpected" policy retrenchment, moving back towards quantitative easing.

In these circumstances, the U.S. dollar and financial markets remain at extraordinarily-high risk of intensified panicked declines, likely in the very near term (see the *Opening Comments* and *Hyperinflation* 

*Watch*). Holding physical gold and silver remain the ultimate hedges—stores of wealth—for preserving the purchasing power of one's U.S. dollar assets, during times of high inflation and currency debasement, and/or political- and financial-system upheaval, Please call (707) 763-5786, if you would like to discuss current circumstances, or otherwise.

Best wishes - John Williams

**PENDING ECONOMIC RELEASES: Industrial Production (February 2018)**. The Federal Reserve Board will publish its estimate of February 2018 Industrial Production, tomorrow, Friday, March 16th, with coverage in *Commentary No. 941* of that date. Discussed in *Commentary No. 936*, net of surging utility usage, induced by extreme winter-weather conditions, production appeared to have peaked in November 2017, following heavy, recovery distortions from hurricane disruptions to petroleum production and by factors such as production of replacement automobiles for storm-destroyed vehicles.

Those distortions have begun to unwind in a process that likely accelerated in February 2018, with production having a good shot of a monthly pullback, net of revisions. That is despite recent oil-production-boosted mining strength, along with continuing non-recovery and non-expansion in the dominant manufacturing sector and net of extreme, continued irregular volatility in winter-related utility consumption. Consensus expectations for a monthly gain of about 0.4% likely will be disappointed.

New Residential Construction—Building Permits and Housing Starts (February 2018). The Census Bureau and the Department of Housing and Urban Development will release the February 2018 estimate of New Residential Construction, including Housing Starts and Building Permits, tomorrow, Friday, March 16th, with detail covered in *Commentary No. 941* of that date. While this series remains wildly unstable and statistically-insignificant in its monthly reporting, given the extreme monthly gains and revisions in January 2018 reporting, consensus expectations are for headline decline in February.

Accordingly, in line with the common-reporting experience of extreme volatility and unstable revisions, February's monthly results also likely will be unstable, heavily revised and not statistically meaningful, holding in a general pattern of stagnation. That said, given those frequent extreme monthly gyrations, almost anything is possible in this unstable series, in a given month. Such is despite the likely negative consensus outlook for headline February reporting.

Irrespective of the usual lack of headline-reporting significance, the broad pattern of Housing Starts should remain consistent with the low-level, stagnant-to-downtrending activity seen in the last year. Both Housing Starts and Building Permits showed patterns of continuing non-recovery in the context of respective January 2018 activity being down by 41.7% (-41.7%) and by 38.3% (-38.3%) from recovering pre-recession highs (see *Commentary No. 936*). Such low-level stagnation is evident particularly with headline detail viewed in the context of a six-month moving average. Again, these series remains subject to regular and extremely large, prior-period revisions.

The liquidity bind besetting consumers continues to constrain residential real estate activity, as updated in today's *Consumer Liquidity Watch* section. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including

residential real estate activity and related demand for residential construction. That circumstance—in the last eleven-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. In the context of historical background provided in <u>Special Commentary No. 885</u>: Numbers Games that Statistical Bureaus, Central Banks and Politicians Play, significant reporting-quality problems remain with most major economic series. Beyond pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended both to understate inflation and to overstate economic activity meaningfully—as generally viewed in the common experience of Main Street, U.S.A.—ongoing, near-term headline reporting issues often reflect systemic distortions of monthly seasonal adjustments.

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

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

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

#### LINKS TO PRIOR COMMENTARIES AND SPECIAL REPORTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Copyright 2018 American Business Analytics & Research, LLC, www.shadowstats.com