CONSUMER LIQUIDITY WATCH NUMBER 4

August 10, 2018

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**Seriously Negative Developments for July Real Average Weekly Earnings and
June Real Consumer Credit Outstanding**

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PLEASE NOTE: Along with the latest details on June Consumer Credit Outstanding, Sentier Research's monthly Real Median Household Income and the latest on July Consumer Optimism, today's (August 10th) *Consumer Liquidity Watch (CLW)* includes detail from the July Real Earnings analysis that will be updated later today or overnight in CPI *Commentary No. 965*. The *CLW* is posted a couple of times per month on www.ShadowStats.com, as advised by e-mail. Links are available otherwise directly on the ShadowStats homepage or in subsequent regular *Commentaries*.

Reflecting new detail or expanded coverage, updated sections are highlighted in the *Table of Contents* and in the regular text. Where consumer financial health and liquidity ultimately drive U.S. economic activity, major liquidity developments also are advised in the related, regular *Commentaries*.

Please contact me if you have any questions, suggestions or otherwise would like to talk, at (707) 763-5786 or by e-mail at johnwilliams@shadowstats.com.

— Best wishes, John Williams

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Today's (August 10th) *Consumer Liquidity Watch* is updated for July 2018 Real Average Weekly Earnings, June Real Consumer Credit Outstanding, Sentier Research's June Real Median Household Income and the initial estimate of July 2018 Consumer Confidence from the Conference Board, all in the context of tightening consumer liquidity and faltering consumption/investment environments.

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Contents – Consumer Liquidity Watch No. 4 Major Sections and Graphs

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CONSUMER LIQUIDITY, INCOME, CREDIT AND RELATIVE OPTIMISM

Updated: OPENING COMMENTS

Intensifying Consumer Liquidity Woes Increasingly Should Have Negative Impact on Economic Activity, Including Retail Sales, Housing and the GDP. Irrespective of the happy headline details in recent reporting of June Retail Sales (see *Commentary No. 963*, July detail is pending on August 15th) and initial reporting of second-quarter 2018 personal consumption in the GDP (see *Commentary No. 962*, with extended coverage in the week ahead), consumer liquidity conditions are deteriorating rapidly. Real earnings and credit growth have turned increasingly negative in the last month, along with faltering stagnation in relative consumer optimism.

Without positive real growth in income and credit, the consumer sector of the U.S. economy (a dwindling 72.7% of second-quarter 2018 GDP) is headed for a stall, irrespective of aggregate activity likely being somewhat off bottom. Covered here are this morning's (August 10th) reporting of mixed outright contractions in various measures of July 2018 real earnings. June consumer credit outstanding (August 7th) showed annual real growth falling rapidly towards zero, reflecting the continued tightening of Federal Reserve Policy. On the plus-side, Sentier Research's monthly real median household income gained for the third straight month. Signals have been mixed from the arena of those measuring relative consumer optimism, although the major measures remain off their recent peaks.

As consumer activity weakens in retail sales and housing, related areas including industrial production and the GDP should follow.

*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, meaningful recovery or meaningful 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 remain 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 limited positive actions out of the government to turn the economy meaningfully, so far, all have continued to remain shy of consumer hopes, despite some booming headline numbers (again, see *Commentary No. 962* and *Commentary No. 963*), yet those numbers are likely to begin to stumble anew in the months ahead.

The temporary liquidity boost fueled by the second-half 2017 natural-disaster effects, such as insurance payments or savings drawdowns to fund replacement of storm-damaged assets, was of a one-time nature and reasonably short-lived in terms of ongoing economic impact. Those affects largely now have passed. Underlying, fundamental longer-term liquidity issues remain in place and, again, appear to be faltering anew.

Including the various consumer-income stresses discussed in *Special Commentary No. 888*, broad, underlying consumer-liquidity fundamentals simply have not supported, and still do not support a broad turnaround in general economic activity—post "Great Recession" expansion—and broadly are more consistent with a "renewed" or continuing downturn in that non-recovered economic activity. Nonetheless, as discussed in *Commentary No. 963*, while the broad economy clearly remains well shy of recovery, it does appear to be off bottom and growing.

Indeed, never truly recovering post-Panic of 2008 levels, 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.

Again, 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 increasingly they should constrain broad consumer activity, including real retail sales in the months ahead and in related real GDP measures.

Anecdotal Evidence. The usual *Anecdotal Evidence* section here will be updated in the pending *Special Commentary* on the economy, and then renewed here. While anecdotal evidence remains mixed, some strongly positive signals are coming out of areas of the South and oil-producing regions, with increasingly negative signals from some fiscally-strapped states. Subscriber observations are invited. Please contact John Williams at johnwilliams@shadowstats.com or at (707) 763-5786. Many thanks in advance to those who participate.

Not Revised (Except for Links): As previously noted in *CLW No. 3*, signals of continuing broad 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 (see *Commentary No. 959-B*). 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 *Week, Month and Year Ahead* section of *Recent Commentaries*, along with links to background discussions on the more-politicized GDP (again in *Commentary No. 957*) and employment/unemployment details, again, as discussed in the *Supplemental Labor-Detail Background* of *Commentary No. 959-B*.

"Beyond assessing headline economic numbers, ShadowStats also looks at anecdotal evidence, including comments by subscribers and clients, who live in the real world (an update to the section and anecdotal surveying will follow in the next *CLW No. 4* [pending per earlier note]). 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. The latter circumstance has tended to become increasingly fleeting, except for Retail Sales, which is suffering other distortions (see *Commentary No. 963*). 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, albeit also faltering."

Updated: CONSUMER OPTIMISM

Consumer Confidence Rose While Sentiment Dropped in July 2018. Reflected in *Graphs CLW-1* and *CLW-2*, July 2018 details for the Conference Board's Consumer-Confidence Index® (July 31st) and the early-July 2018 estimates of University of Michigan's Index of Consumer Sentiment (July 13th) both show consumer optimism to be off recent peaks. Both measures are down from recent multi-year highs, with smoothed monthly averages generally trending flat-to-lower.

The initial-July 2018 headline level of the Consumer Confidence Index® (Confidence) increased by 0.3% from an upwardly-revised June 2018 level, but was down by 2.0% (-2.0%) from its February 2018 near-term high, which was the peak reading since 2000.

Initial-June 2018 Confidence had taken a sharp drop of 1.9% (-1.9%), in the context of an upside 0.6% revision to the previously-estimated level of May Confidence. With the initial-July estimate, however, June was revised higher by 0.5%, still down by 1.4% (-1.4%) from May. Against that upwardly revised June reading, again, July rose by 0.3%, where it was up by 0.8% from the initial June reading.

The final-June 2018 Index of Consumer Sentiment (Sentiment) number revised lower by 1.1% (-1.1%) from its initial estimate, holding 0.2% above its final-May reading, but it was down by 3.2% (-3.2%) from its near-term peak reading of March 2018, which had been the highest reading since 2004. The early-July

reading dropped another 1.1% (-1.1%), now down by 4.2% (-4.2%) from March 2018. The early-August 2018, final July 2018 readings are scheduled for release on August 17th.

For the Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph CLW-1*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph CLW-2*), the monthly and three-month moving averages remain above pre-2007 recession highs, yet the still-high moving averages have begun to falter, topping out along with generally softening monthly details.

In July, the three-month moving average moved higher for Confidence and lower for Sentiment. At the six-month moving-average level, that pattern was reversed, with Confidence down but Sentiment up. Both series have begun to top out at high levels, as reflected in the accompanying *Graphs CLW-1* to *CLW-3*. While monthly readings for both measures remain at high levels, again, both remain shy of recent near-term peaks.

Before the 2016 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 scale, a scale comparable with almost all indexed ShadowStats graphs, *Graphs CLW-1* to *CLW-3* reflect both measures of the relative consumer optimism re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while the University of Michigan's Consumer Sentiment Index is set with January 1966 = 100.

The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see the discussion in *Commentary No. 764*), and often are highly volatile month-to-month, as a result. Recent press has been highly positive on the headline economic and employment news, particularly with recent GDP, unemployment and retail sales. As headline financial and economic numbers turn increasingly-negative and unstable, so too should the recently-contained "optimism." The downturn in consumer outlook easily could accelerate, despite any euphoric headlines, reflecting deep-seated consumer liquidity stresses.

Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong consumer growth suggested by GDP growth into second-quarter 2018. Consumer measures such as goods consumption and residential investment actual took hits in first-quarter 2018 GDP. In an environment of high-level optimism, beyond having happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

[Graphs CLW-1 to CLW-3 begin on the next page.]

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

Consumer Confidence Survey® -- Conference Board
Monthly and 3-Month Moving-Average Index (Jan 2000 = 100)
To July 2018, Seasonally-Adjusted [ShadowStats, Conference Board]
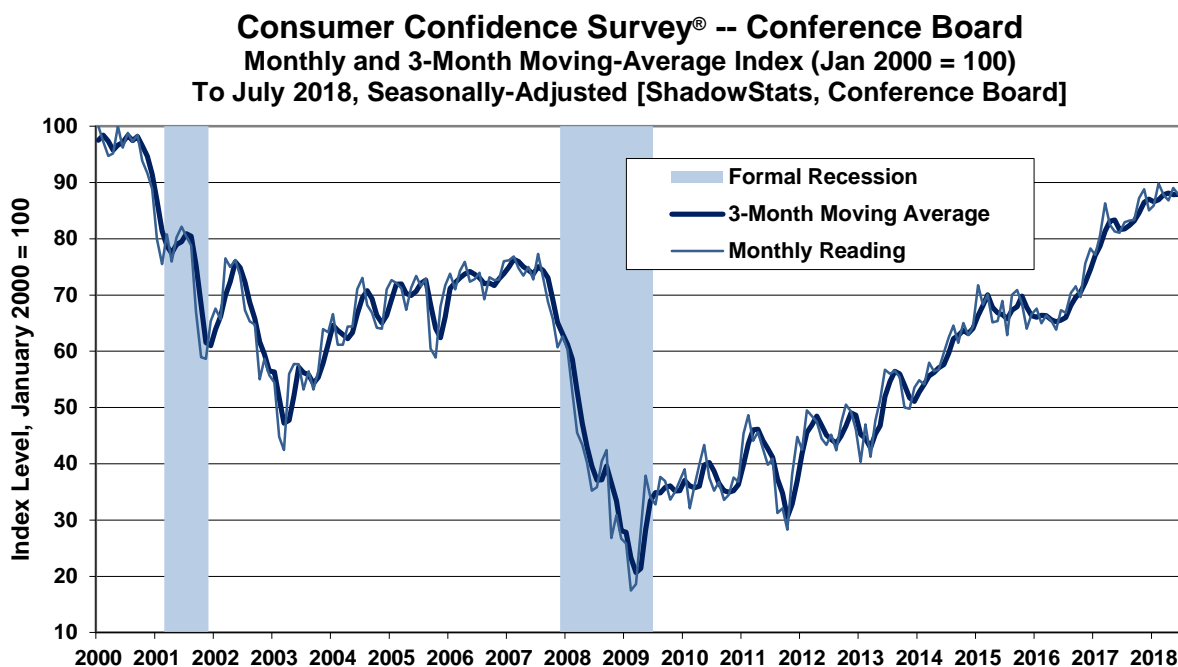
Graph CLW-2: Consumer Sentiment (2000 to 2018)

Consumer Sentiment Index -- University of Michigan
Monthly and 3-Month Moving-Average Index (Jan 2000 = 100)
To Early-July 2018, Not-Seasonally-Adj [ShadowStats, Univ of Michigan]
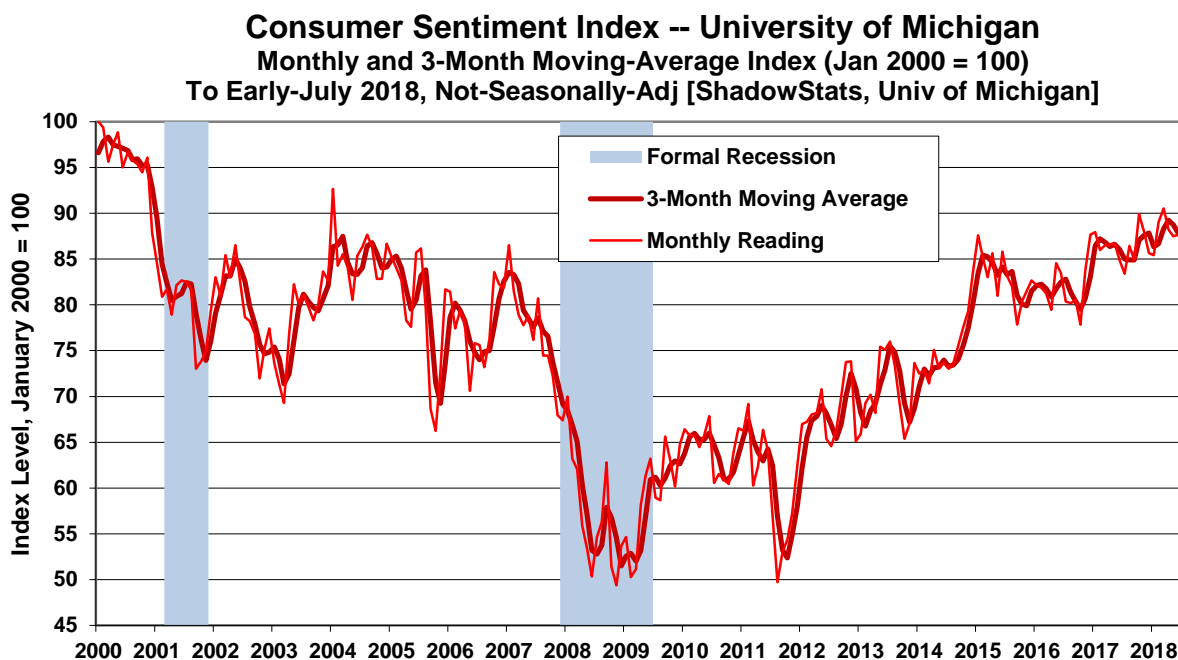
Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CLW-3*—plotted for the last 48 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods of normal, positive economic activity of the last four decades, with their six-month moving averages at levels last seen going into the 2001 recession, although increasingly, they appear to be topping out.

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

Consumer Confidence and Consumer Sentiment Indices
Six-Month Moving Averages, 1970 to July, Early-July 2018
[ShadowStats, Conference Board, University of Michigan, NBER]
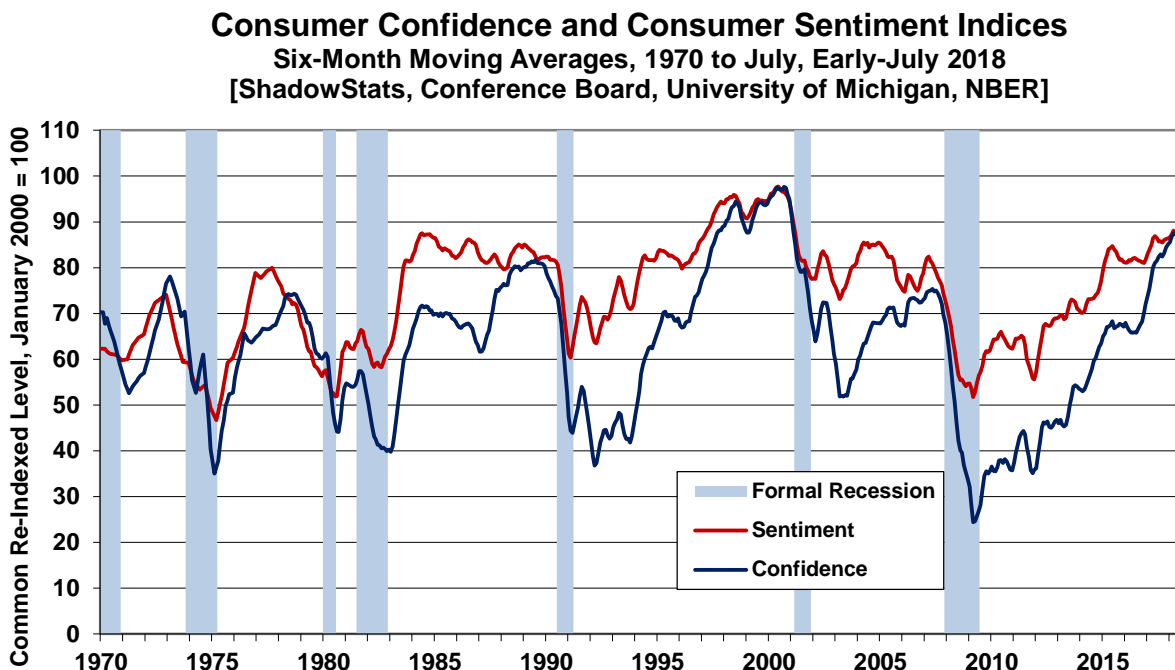
REAL MEDIAN HOUSEHOLD INCOME

Updated: Sentier Research Monthly Real Median Household Income

Monthly Real Median Household Income Rose in June 2018, Up for the Third Consecutive Month.
The June 2018 monthly Real Median Household Income rose for the third straight month, as reported by Sentier Research (www.SentierResearch.com) on July 24th. Sharply slowing annual growth in the series appears to flattening out at around one-to-two percent, with the series showing a long-range pattern of month-to-month stagnation, adjusted for CPI-U inflation, albeit uptrending since mid-2017. The current monthly series is plotted, both as to level (*Graph CLW-4*) and as to year-to-year change (*Graph CLW-5*).

Discussed in *Opening Comments* of *Commentary No. 948*, Sentier Research (www.SentierResearch.com) reinstituted its monthly reporting of Real Median Household Income (the Household Income Index or HII), where publication had been suspended, temporarily, following the release of the May 2017 detail.

Sentier's series generally can be considered a monthly version of the annual detail shown in *Graphs CLW-6* and *CLW-7* in the next section, based on the most-recent (2016) release by the Census Bureau in September 2017, and, again as discussed in *Commentary No. 948* (see also *Commentary No. 909*).

Graph CLW-4: Monthly Real Median Household Income (2000 to June 2018) Index, January 2000 = 100

Monthly Real Median Household Income Index
Deflated by Headline CPI-U, January 2000 to June 2018
Seasonally-Adjusted [ShadowStats, www.SentierResearch.com]
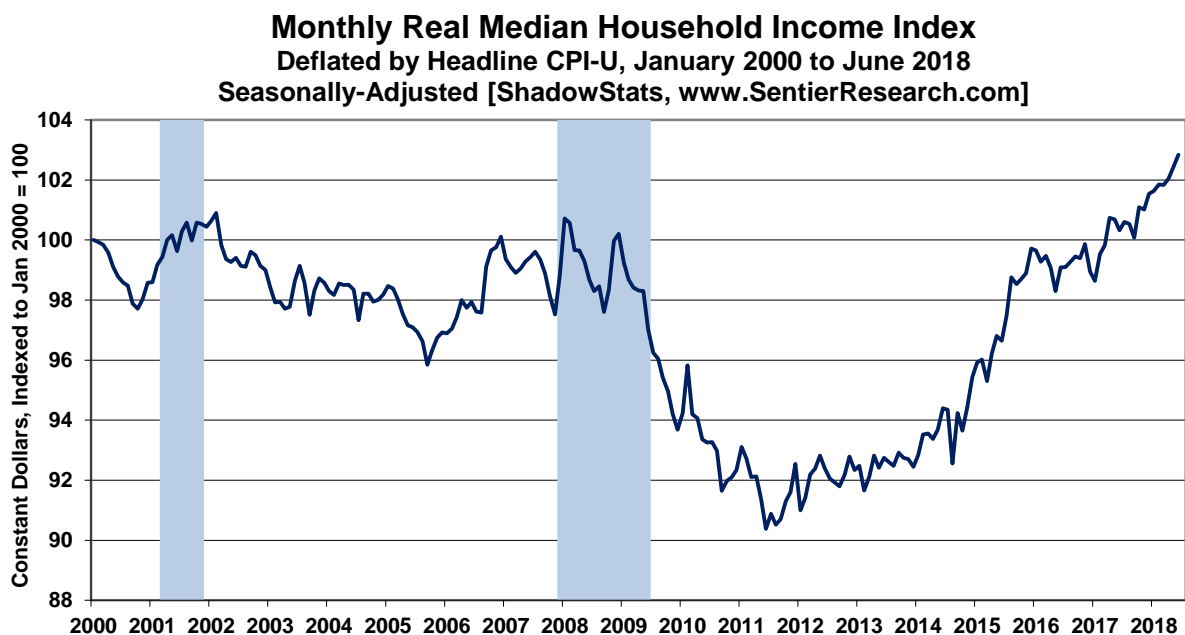
Graph CLW-5: Monthly Real Median Household Income (2000 to June 2018) Year-to-Year Change

Monthly Real Median Household Income Yr/Yr Change
Deflated by Headline CPI-U, January 2001 to June 2018
Seasonally-Adjusted [ShadowStats, www.SentierResearch.com]
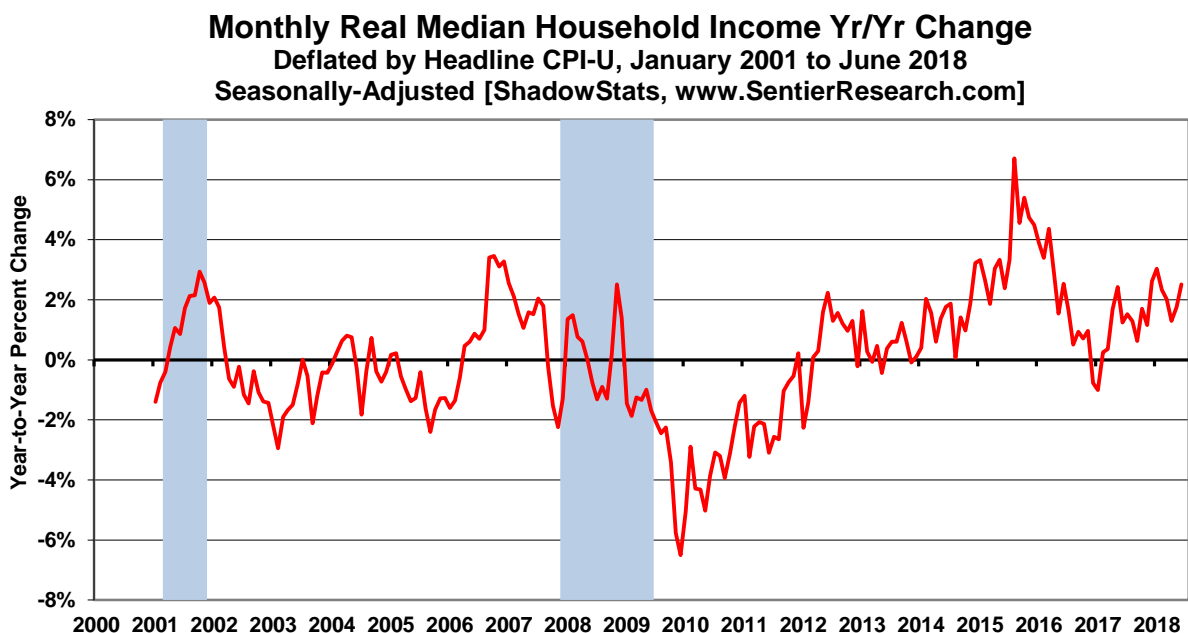
Methodological understatement of the CPI-U by the Bureau of Labor Statistics (BLS) broadly has had the effect of overstating the growth in headline real or inflation-adjusted income series (see the *Public Commentary on Inflation Measurement*). In a related area, recent extreme volatility in monthly gasoline prices has had varying impact on the headline monthly detail data.

Details of the monthly series were reviewed the *Opening Comments* of *Commentary No. 948*, where annual average growth in the series since its January 2000 onset has been roughly 0.1% per year. Given the independence and quality of the Sentier research, and the known definitional biases and gimmicks used by Bureau of Economic Analysis (BEA) in its income and economic measures, the Sentier numbers suggest that actual domestic economic activity is not and has not been as robust as suggested by the BEA's headline reporting of Gross Domestic Product (GDP), for example.

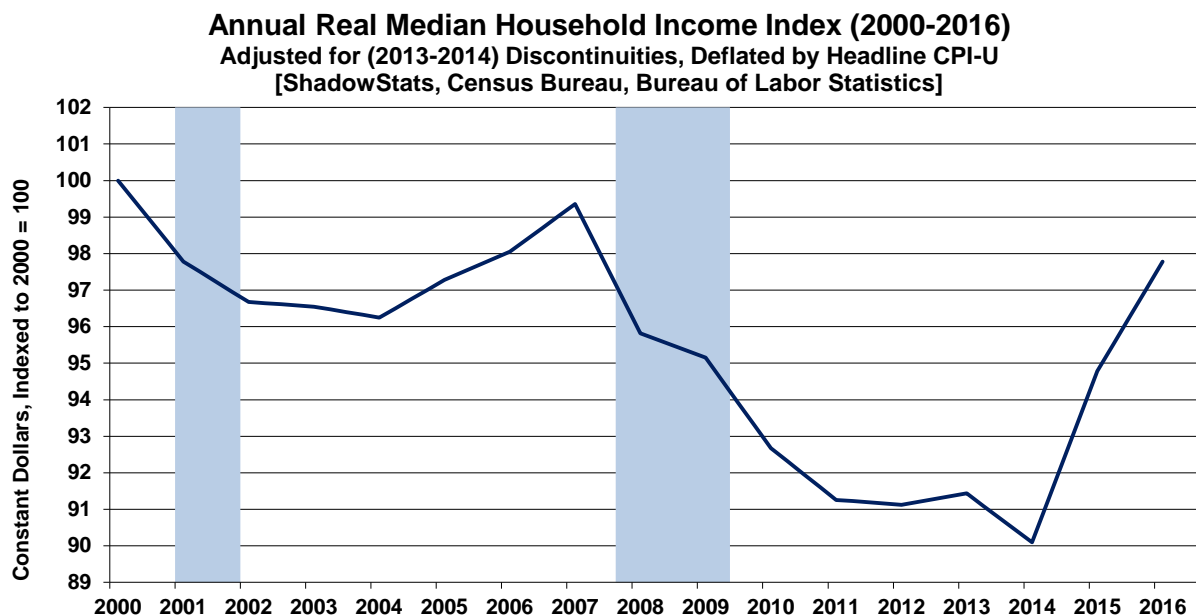### *Not Updated:* U.S. Census Bureau Annual Real Median Household Income

2016 Annual Real Median Household Income in 2016 Held Below Its 2007 Pre-Recession Peak, Below Late-1990s Activity and About Even with the Mid-1970s, Monthly Activity Has Been Broadly Stagnant.
Following *Graphs CLW-6* (time scale consistent with Sentier Research) and *CLW-7* plot headline annual real median income, as reviewed and discussed in *Opening Comments* of *Commentary No. 909*. That *Commentary* also reviews various measures of Annual Household Income dispersion, variance and inequality, all general historically-negative extremes.

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 *Graphs CLW-6* and *CLW-7*, with 2014 real annual median household income having hit a ten-year low, and, again, with the historically-consistent 2015 and 2016 annual number still holding below the 2007 pre-recession high.
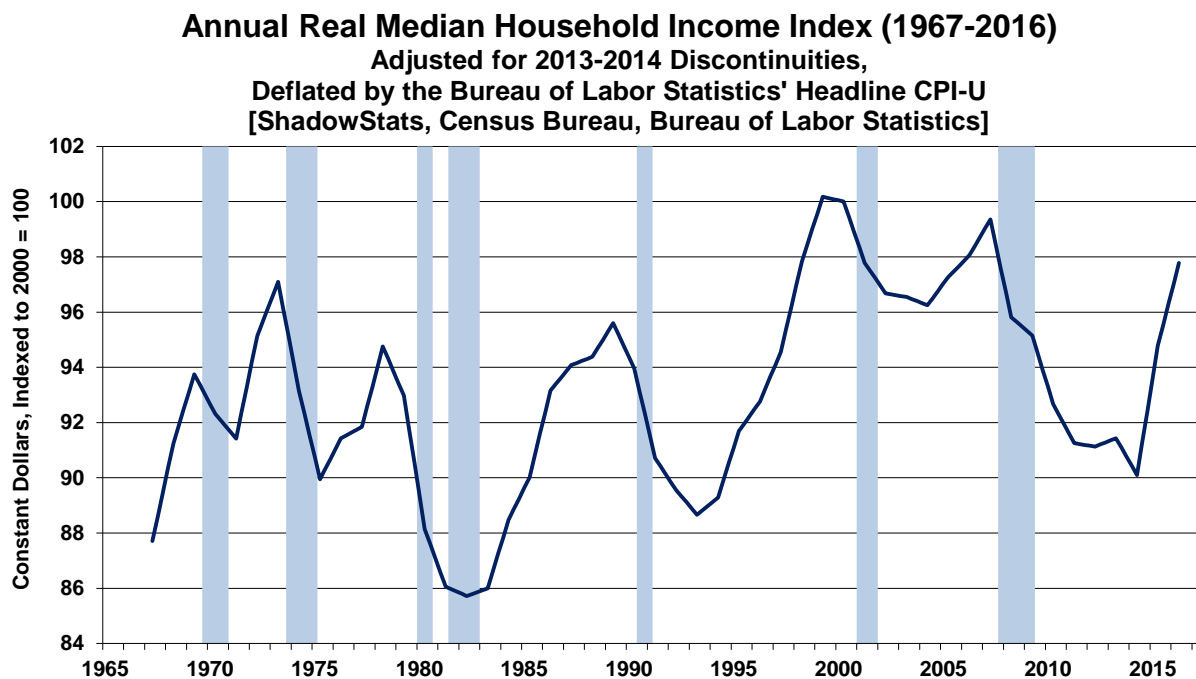
The Sentier numbers have suggested a small increase in 2014 versus 2013 levels, low-inflation induced real increases in 2015 and 2016. Allowing for the direction difference in 2014, and continual redefinitions and gimmicks in the annual series (again, see the *Opening Comments* of *Commentary No. 909*) the monthly and annual series had remained broadly consistent, although based on separate questions within the Consumer Population Series (CPS), as conducted by the Census Bureau.

Where Sentier uses monthly questions surveying current annual household income, the headline annual Census Bureau detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent with Real Average Weekly Earnings. Separately, Sentier Research deflates its income measures using the headline CPI-U, standardly used by economists and the Saint Louis Fed, for example, for such measures. In contrast, the Census Bureau uses the CPI-U-RS, which heavily understates economic activity (overstating inflation-adjusted activity), as detailed and discussed specifically in the *Public Commentary on Inflation Measurement*.

Graph CLW-6: Annual Real Median U.S. Household Income (2000 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]

Graph CLW-7: Annual Real Median U.S. Household Income through 2016, 2013-2014 Discontinuities Removed

Annual Real Median Household Income Index (1967-2016)
Adjusted for 2013-2014 Discontinuities,
Deflated by the Bureau of Labor Statistics' Headline CPI-U
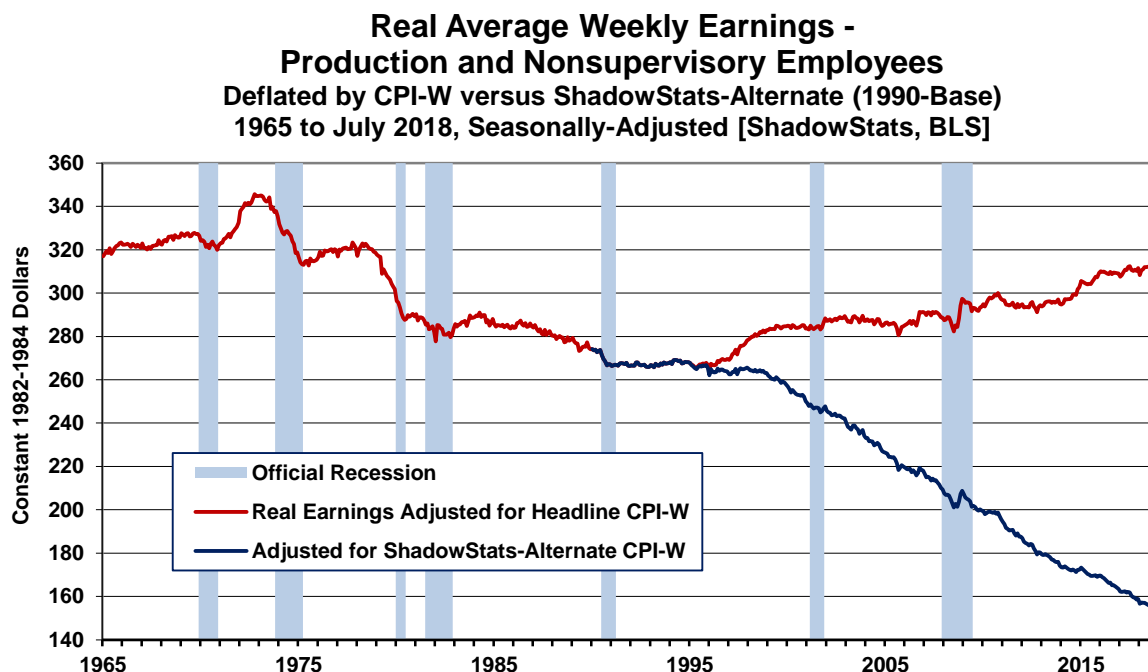[ShadowStats, Census Bureau, Bureau of Labor Statistics]

Updated: REAL AVERAGE WEEKLY EARNINGS

Real Average Weekly Earnings—July 2018—Faltered Sharply for Both the "All Employees" and "Production and Nonsupervisory Employees" Categories. Real average weekly earnings for the production and nonsupervisory employees category—the only series for which there is a meaningful history—was reported this morning (August 10th) by the Bureau of Labor Statistics (BLS) and is plotted here in *Graph CLW-8*. July 2018 real average weekly earnings eased month-to-month by 0.01% (-0.01%) and declined year-to-year by 0.22% (-0.22%), as deflated by the CPI-W. Further detail follows in the ensuing *Commentary No. 965*.

The seasonally-adjusted monthly decline of 0.01% (-0.1%) in July, followed monthly gains of 0.04% in June and 0.03% in May. The unadjusted year-to-year decline of 0.22% (-0.22%) in July 2018 followed an annual contraction of 0.04% (-0.04%) in June 2018 and an annual gain of 0.34% in in May 2018.

Graph CLW-8: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date
(Same as Graph 4 of Commentary No. 965)

Real Average Weekly Earnings -
Production and Nonsupervisory Employees
Deflated by CPI-W versus ShadowStats-Alternate (1990-Base)
1965 to July 2018, Seasonally-Adjusted [ShadowStats, BLS]

Against an unrevised first-quarter 2018 annualized quarterly contraction of 1.22% (-1.22%) and unadjusted 0.06% year-to-year growth, second-quarter 2018 showed an annualized quarterly gain of 2.81%, with annual growth of 0.34%. That first-quarter 2018 contraction remained the third-consecutive annualized quarterly contraction in real average weekly earnings, the fifth quarterly decline in the last six quarters.

Fourth-quarter 2017 earnings showed an annualized contraction of 0.39% (-0.39%), versus a minimal decline of 0.03% (-0.03%) in third-quarter 2017, a gain of 3.48% in second-quarter 2017, and contractions of 0.84% (-0.84%) in first-quarter 2017 and 0.18% (-0.18%) in fourth-quarter 2016.

All Employees Detail. In the broader "All Employees" category (deflated by the CPI-U), which has a more-limited history than the production and non-supervisory category, July 2018 real average weekly earnings declined by 0.20% (-0.20%) in the month, having gained a revised 0.31% [previously 0.06%] in June, having gained a revised 0.09% [previously 0.05%] in May 2018 and having been an unrevised "unchanged" at 0.00% in April. Unadjusted, annual growth slowed to "no change" or 0.00% in July 2018, from 0.44% in June 2018, versus 0.25% in May 2018 and 0.76% in April 2018.

Second-quarter 2018 real earnings gained at an annualized pace of 1.78%, where first-quarter 2018 real earnings contracted at an annualized pace of 0.44% (-0.44%), versus an annualized 0.03% (-0.03%) decline in fourth-quarter 2017 and against an annualized gain of 3.48% in third-quarter 2017.

Graph CLW-8 plots the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much closer to common experience than the pattern suggested by the CPI-W. See the *Public Commentary on Inflation Measurement* for further detail.

Graph CLW-9: Annual Average of Weekly Earnings, Annual Percent Change (2000 to 2017)

Annual Average Real Weekly Earnings, Percent Change
To December 2017, Seasonally-Adjusted [ShadowStats, BLS]
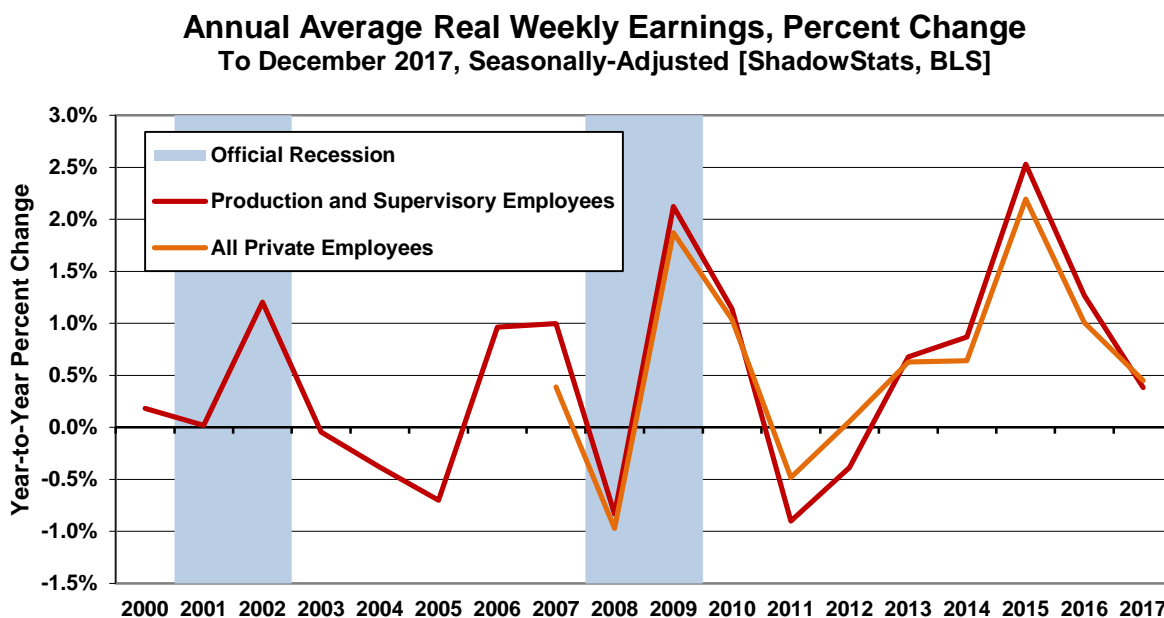
When income growth is inadequate to support consumption growth, consumers often make up the difference in debt expansion. Yet, real Consumer Credit Outstanding has shown a pattern of declining

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-14.*

Updated: HOUSEHOLD DEBT AND CONSUMER CREDIT OUTSTANDING

Household Debt and Consumer Credit Outstanding: Stagnation/Lack of Expansion and Rapidly Slowing Annual Real Growth in Consumer Credit Constrains Economic Growth. The final five graphs on consumer conditions address consumer borrowing. In the absence of real income growth, debt expansion can help to fuel growth in personal consumption, but personal debt expansion has been nonexistent, following the 2008 banking crisis. On top of downside revisions to the last several years of quarterly activity, seasonally-adjusted, first-quarter 2018 real household credit-market debt outstanding contracted for the first time since 2015. While the quarterly credit-market reporting has not been updated since *Consumer Liquidity Watch – No. 3*, the unadjusted monthly Consumer Credit Outstanding through June 2018, was released on August 7th and is updated here. The significant decelerating pace of real annual growth in the monthly series has continued.

Not-Updated: Quarterly Series. Consider *Graph CLW-10* 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 bank lending, and it has not coming close to recovering fully, based on the Federal Reserve's flow-of-funds accounting through first-quarter 2018 (released June 7th). Household Sector, Real Credit Market Debt Outstanding in first-quarter 2018 still was down by 11.0% (-11.0%) from its pre-recession peak of third-quarter 2007. That was against a fourth-quarter 2017 decline of 10.9% (-10.9%). The visually flattened-to-down latest point in *Graph CLW-10* reflected a slowing in real year-to-year change to 1.1% in first-quarter 2018, versus 1.5% in fourth quarter 2017, along with the first seasonally-adjusted quarterly contraction in real consumer debt since fourth-quarter 2015, down at an annualized 0.3% (-0.3%) in first-quarter 2018, versus a real gain of 0.9% in fourth-quarter 2017. Such completes 42 straight quarters—a full decade-plus—of credit non-expansion, versus its pre-recession peak.
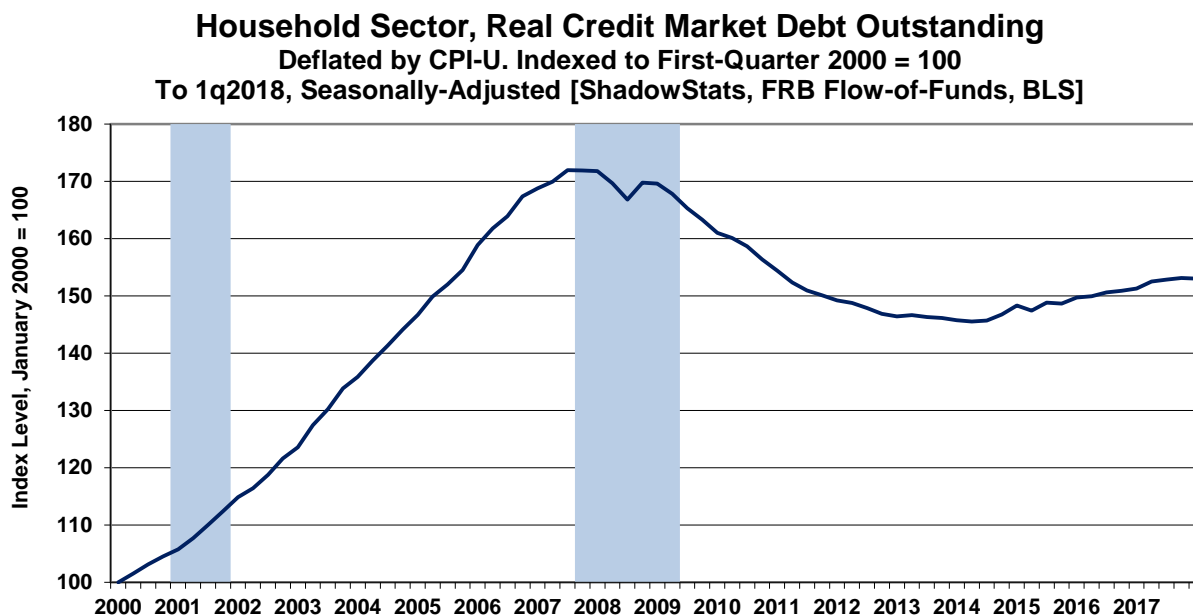
This series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce (FOMC Quantitative-Easing Policy). 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 first-quarter 2018. Activity also reflects relative strength from student loans, as shown in the *Graphs CLW-11* to *14*.

Shown for comparative purposes is *Graph CLW-11* of real not-seasonally-adjusted Consumer Credit Outstanding, Ex-Federally-Held Student Loans. That series has never recovered on a monthly, let alone the 12-month trailing-average basis used as a surrogate here or seasonal adjustment. Discussed in the next section, this measure of consumer credit now has been through 124 months 41-plus quarters of non-expansion. That is reflected on a parallel basis through first-quarter 2018 reporting shown in *CLW-10*. Please note that the scale in *Graph CLW-11* is indexed to Consumer Credit Outstanding Ex-Federal Student Loans equal to 100 in January 2000. In *Graphs CLW-12* to *14*, that indexing is applied to the
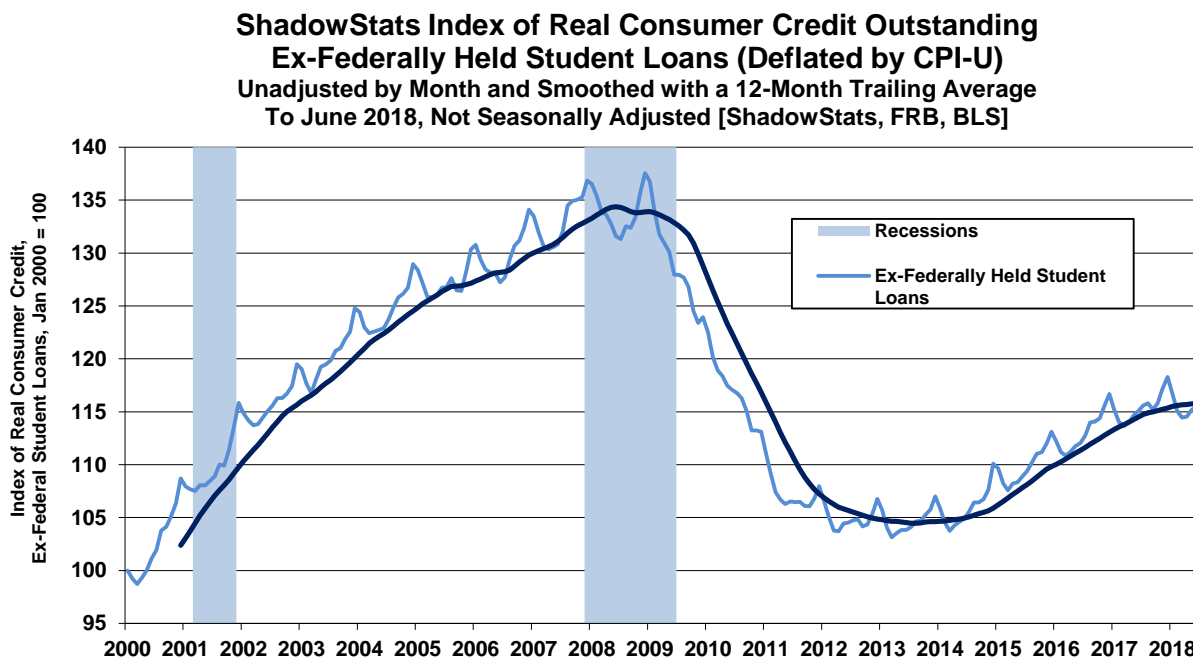
total Consumer Credit Outstanding number, which is greater than the dominant Ex-Federal Student Loans subcomponent.

Graph CLW-10: Household Sector, Real Credit Market Debt Outstanding (2000 through First-Quarter 2018)

Household Sector, Real Credit Market Debt Outstanding
Deflated by CPI-U. Indexed to First-Quarter 2000 = 100
To 1q2018, Seasonally-Adjusted [ShadowStats, FRB Flow-of-Funds, BLS]

Graph CLW-11: 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 June 2018, Not Seasonally Adjusted [ShadowStats, FRB, BLS]

Updated: 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

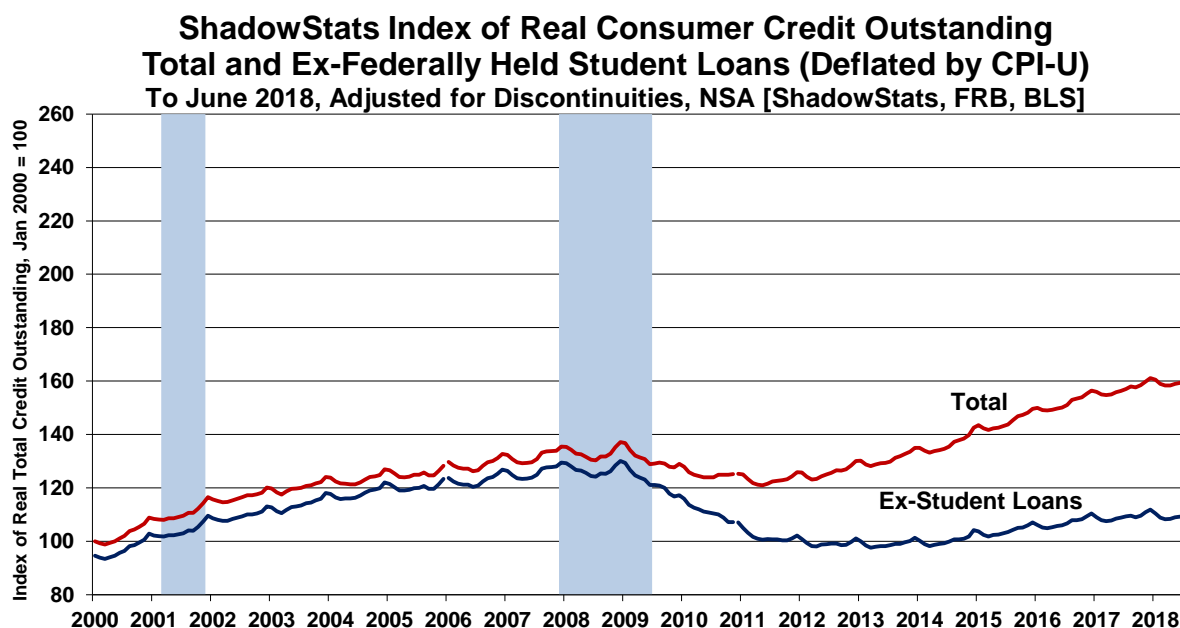government-sponsored student loans. Where detail on that series only is available not-seasonally-adjusted, the following three related graphs and the preceding *Graph CLW-11* are so plotted. Shown through the June 2018 reading (released August 7th), the headline nominal monthly Consumer Credit Outstanding (*CLW-12*) is a subcomponent of the nominal Household Sector debt. Where *Graph CLW-13* reflects the real or inflation-adjusted activity for monthly Consumer Credit Outstanding terms of both level (*Graph CLW-13*) and year-to-year change (*Graph CLW-14*). *Graphs CLW-13* and *CLW-11* are comparable to the inflation-adjusted Household Sector plot in *Graph CLW-10*.

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

ShadowStats Index of Nominal Consumer Credit Outstanding
Total and Ex-Federally Held Student Loans
To June 2018, Adjusted for Data Discontinuities, NSA [ShadowStats, FRB]
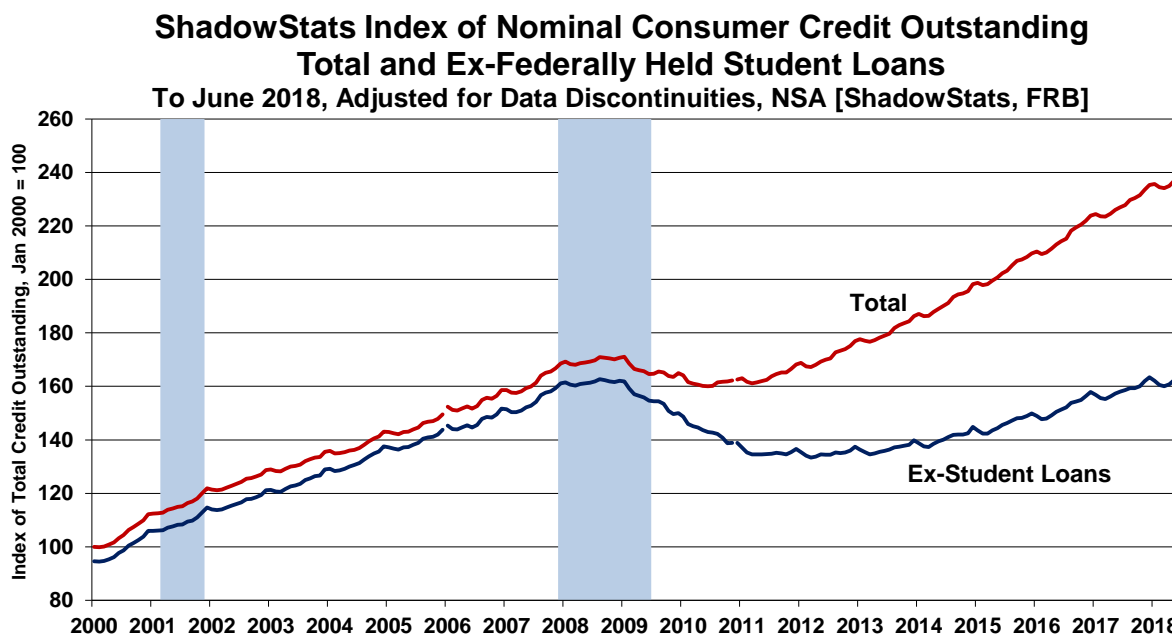
Graph CLW-13: Real Consumer Credit Outstanding (2000 to 2018)

ShadowStats Index of Real Consumer Credit Outstanding
Total and Ex-Federally Held Student Loans (Deflated by CPI-U)
To June 2018, Adjusted for Discontinuities, NSA [ShadowStats, FRB, BLS]

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 unadjusted CPI-U inflation, the lack of recovery in the ex-student loan area is more obvious. Where the slight monthly firming in the level of not-seasonally-adjusted real consumer credit reflected a seasonal pattern, the pattern of both real and nominal year-to-year growth has been in an intensifying downtrend, suggesting tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in June 2018 was down from recovering its pre-recession peak of December 2007 by 15.6% (-15.6%). That is 124 straight months, 42 quarters or 10-½ years of non-expansion of consumer credit. Year-to-year real growth shown in *Graph CLW-14* tends to resolve most monthly seasonal distortions in the not-seasonally-adjusted data. Ex-federally held student loans, annual real growth slowed to 0.3% in June 2018, versus 0.4% in May 2018

Graph CLW-14: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2018)

Real Consumer Credit Outstanding, Yr-to-Yr Percent Change
Total and Ex-Federally Held Student Loans (Deflated by CPI-U)
To June 2018, Adjusted for Discontinuities, NSA [ShadowStats, FRB, BLS]