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

COMMENTARY NUMBER 825
July Nominal Retail Sales, Producer Price Index, Consumer Conditions

August 12, 2016

Nominal Retail Sales Disappointed Expectations, Dropping by 0.04% (-0.04%) in July

July PPI Services Margins Declined by 0.27% (-0.27%), Goods Prices Fell by 0.37% (-0.37%),
Construction Costs Plunged by 0.61% (-0.61%),
Total Final Demand PPI Was Down by 0.36% (-0.36%)

Yet, Across-the-Board Deflation Generally Is Not the Common Experience

In What Will Become an Increasingly Regular Pattern,
Initial Market Response to the Intensifying Economic Downturn
Will Be a Weaker Dollar and Higher Gold, Silver and Oil Prices

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PLEASE NOTE: The next regular Commentary, *scheduled for Tuesday August 16th, will cover July Industrial Production, Housing Starts, the Consumer Price Index (PPI) and related real Retail Sales and Earnings. Given the amount of new detail being released, the August 16th missive minimally will be late-day and easily could run overnight to the 17th. That latter case would be advised in the "Latest Commentaries" box at the top left-hand column of* www.ShadowStats.com.

See the Opening Comments *section as to the pending* Special Report *and pending outlook*.

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Dimming Outlook for the Economy, for the Financial Markets and for Systemic Stability. Today's headline reporting hit the markets with weaker-than-expected retail sales activity and with lower-than-expected wholesale inflation. In combination, those headline numbers continued to soften the outlook for any pending, let alone aggressive, Federal Reserve monetary tightening. In initial response to the unexpected details, the U.S. dollar declined, while gold, silver and oil prices rallied. That pattern of bad economic news and intensifying flight from the dollar should intensify sharply in the weeks and month or so ahead, as the current downturn in U.S. economic activity spirals to the downside.

The *ShadowStats* general outlook remains unchanged, but it continues to evolve with underlying circumstances. The U.S. economy remains in intensifying crisis, with no chance of near-term recovery. A U.S. dollar collapse looms as the Fed inches closer to a highly likely, renewed and expanded quantitative easing, post-election. The dollar collapse and related dumping of dollar-denominated assets should trigger the early stages of serious domestic inflation, with spiking commodity prices. Heavily bloated U.S. equity markets should suffer along with heavy flight from the U.S. dollar and related assets. Flight-to-safety will spike the dollar prices of store-of-wealth assets such as physical gold and silver, the ultimate hedges for those living in a U.S. dollar-denominated world. These areas will be highlighted in *Hyperinflation Watch* section of next week's *Commentary No. 826*.

The U.S. economy collapsed into 2009 and never fully recovered, holding in low-level stagnation until it began turning down anew in December 2014. Facing horrendous long-term solvency issues, the U.S. government currently is committed to total net obligations—including federal debt and the net-present value of unfunded liabilities—well in excess of $100 trillion dollars, at more than 160% of current global GDP and at more than 650% of U.S. GDP.

Faced with the threat of a banking-system collapse in the Panic of 2008, the U.S. Treasury and the Federal Reserve took whatever stopgap measures were needed to buy time, to push the crisis into the future, irrespective of cost. Those stopgap measures, however, did nothing to address the underlying U.S. economic or long-term solvency issues.

With a primary mission of propping and salvaging the banking system, the Fed launched its active quantitative easing programs to liquefy the banks, not to save the economy. At the same time, the Fed's actions had the convenient effect of monetizing the equivalent of about 75% of new public debt issuance from the U.S. Treasury.

Talk and hype by the Fed in recent years of moving to reverse the quantitative easing, including actually stopping new purchases of securities (other than rolling over existing holdings at maturity) and a one-time 0.25% rate hike in December 2015, have been primary props behind the U.S. dollar. Yet that dollar strength has been, and increasingly will be fleeting, with the dollar props now no more than meaningless jawboning.

As the renewed and deepening economic downturn hits banking-system stresses and U.S. Treasury funding needs with intensified severity, the Fed most likely will have little choice but to renew and expand its active quantitative easing and, in the process, pummeling the U.S. dollar in the global markets. If it is able to do so, the U.S. central bank likely will avoid taking such actions until after the November 8th U.S. election.

Again, with heavy flight from the dollar and dollar-denominated assets, commodity prices, such as for oil and gasoline, will spike sharply, triggering a jump in domestic inflation and setting the stage for an evolving inflationary spiral into hyperinflation.

Could a meaningful change in government change the circumstance? Possibly. Whoever is President, though, likely still would have a great deal of political difficulty bringing the long-term solvency issues of the United States under control. The new President also would be saddled with a Federal Reserve that has lost control, or effectively is out of control of the system.

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

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

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

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

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

Today's *Commentary* (August 12th). The balance of these *Opening Comments* provides summary detail of July Retail Sales and the PPI, along with a fully updated *Consumer Conditions* section.

The most-recent *Hyperinflation Outlook Summary* is found in *Commentary No. 783*, with an updated outlook for Fed activity and the U.S. dollar in today's opening paragraphs and in the *Hyperinflation*

Watch of *Commentary No. 820*. The various background *Commentaries* will be updated and consolidated into one *Special Report*, as discussed in the opening paragraphs of these *Opening Comments*.

The *Week and Month Ahead* section previews next week's releases of the July CPI and related real Retail Sales and Average Weekly Earnings, Industrial Production and Housing Starts.

Nominal Retail Sales—July 2016—In the Context of Collapsing Annual Growth, the Monthly Sales Contraction Reflected Upside Revisions to June. The headline 0.04% (-0.04%) decline in nominal retail sales reporting for July 2016 was in the context of an upside revision to June 2016 activity, which now stands at a monthly gain of 0.83%. In turn, a downside revision to May 2016 sales growth, now at 0.16%, boosted revised the June gain. Net of prior-period revisions, the headline gain in July sales would have been 0.16%, still much weaker than consensus estimates for a headline monthly gain of 0.4%. Where the heavily massaged, gimmicked and bloated 1.13% gain in automobile sales was in line with the market hype, the rest of the retail sector's nominal activity dropped by 0.33% (-0.33%) for the month.

Of greater significance, the pace of nominal, annual year-to-year growth slowed sharply from 2.96% (previously 2.72%) in June to 2.26% in July. Net of inflation, that will be closing in again on annual real growth of one-percent, a level of inflation-adjusted activity rarely seen outside of formal recessions.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—July 2016. In the context of an upside revision to June 2016, and a downside revision to May 2016 activity, headline nominal Retail Sales for July 2016 contracted by 0.04% (-0.04%), against an upwardly-revised June gain of 0.83%, and a downwardly-revised gain of 0.16% in May.

That seasonally-adjusted, headline July contraction of 0.04% (-0.04%) was not statistically significant and, net of prior-period revisions, July sales rose by 0.16%. Where the revised 0.83% gain in June was boosted by a downside revision to May activity, that June increase was 0.78% net of prior period revisions. The revised headline June 2016 retail sales gain was a statistically-significant 0.83% [previously up by 0.58%]. In turn, the May 2016 monthly gain was a revised 0.16%, [previously up by 0.21%, initially up by 0.45%].

Year-to-Year Annual Change. July 2016 nominal year-to-year change was a statistically-significant increase of 2.26%, versus an upwardly-revised gain of 2.96% [previously up by 2.72%] in June 2016 and a downwardly-revised annual gain of 2.19% [previously up by 2.24%, initially up by 2.55%] in May 2016.

Real Retail Sales (July 2016). Coincident with the release of the July CPI on August 16th, today's headline nominal Retail Sales will be adjusted for inflation and recast as real Retail Sales, to be covered in the CPI *Commentary No. 826* of that date (see the *Week Ahead* section).

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as fully updated in the *Opening Comments* section, which follows shortly.

Producer Price Index (PPI)—July 2016—Goods Inflation Declined by 0.37% (-0.37%); Construction Inflation Tumbled by 0.61% (-0.61%); Profit Margins in the Dominant Services Sector Fell by 0.27% (-0.27%); with Aggregate PPI Inflation Contracting by 0.36% (-0.36%). The headline month-to-month decline of 0.36% (-0.36%) in the July PPI generally has not been reflected in real world activity, or common experience. Beyond the broad issues with general inflation measurement (see *Public Commentary on Inflation Measurement*), the bulk the headline PPI is dominated by the "services" sector, where inflation is determined by shifting profit margins.

Discussed in the *Inflation that Is More Theoretical than Real World* section in the *Reporting Detail*, 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. The conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily or meaningfully in the current version of the PPI.

While, the dual measures are more meaningfully viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand—ShadowStats separates the analyses of those sectors in by sub-category—the aggregate headline series here also is reviewed and covered within the headline reporting conventions of the Bureau of Labor Statistics (BLS).

Separately, the sudden collapse in headline construction inflation apparently was due to a quarterly adjustment to guesstimated contractor profit margins. The headline result should have positive impact on inflation-adjusted, real construction spending going into the election. Yet, narrowing profit margins usually are inflationary, not deflationary, where the suffering party traditionally increases prices in order to regain the lost margins.

July 2016 Headline PPI Detail. The seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for July 2016 was a negative 0.36% (-0.36%), versus a monthly gain of 0.54% in June. The impact of seasonal adjustments on the headline PPI reporting was negative, where the unadjusted monthly July measure was a decline of 0.27% (-0.27%).

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in July 2016 showed a contraction of 0.18% (-0.18%), versus an annual gain of 0.27% in June 2016.

For the three major subcategories of July 2016 Final Demand PPI, headline monthly Goods inflation fell by 0.37% (-0.37%), Services inflation declined by 0.27% (-0.27%) and Construction inflation plummeted by 0.61% (-0.61%).

Final Demand Goods (Weighted at 33.63% of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in July 2016 declined by 0.37% (-0.37%), following a monthly gain of 0.84% in June. There was neutral impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, July Final Demand Goods inflation also fell by 0.37% (-0.37%). Unadjusted, year-to-year goods inflation in July 2016 declined by 2.34% (-2.34%), having declined by 2.16% (-2.16%) in June 2016.

Headline seasonally-adjusted monthly changes by major components of the July 2016 Final Demand Goods:

- “Foods” inflation (weighted at 5.56% of the total index) fell month-to-month in July 2016 by 1.11% (-1.11%), having gained by 0.87% in June. Seasonal adjustments were a negative factor for the July headline change, which was down by 1.02% (-1.02%) unadjusted. Unadjusted and year-to-year, annual July 2016 foods inflation dropped by 2.61% (-2.61%), where June 2016 had declined on an annual basis by 2.25% (-2.25%).
- “Energy” inflation (weighted at 5.24% of the total index) fell by 0.98% in July, versus a gain of 4.07% in June 2016. Where seasonal adjustments usually turn positive in July, they held negative, instead, with unadjusted monthly energy inflation falling by 0.63% (-0.63%). Unadjusted and year-to-year, the July 2016 annual contraction in energy prices widened, to 11.73% (-11.73%), versus an annual decline of 11.41% (-11.41%) in June 2016.
- “Less foods and energy” (“Core” goods) monthly inflation (weighted at 22.83% of the total index) was “unchanged” at 0.00% in July 2016, for the second month. Seasonal adjustments were positive for monthly core inflation, with an unadjusted monthly decline of 0.09% (-0.09%). Unadjusted and year-to-year, July 2016 was up by 0.36%, versus a 0.45% annual gain June 2016.

Final Demand Services (Weighted at 64.28% of the Aggregate Index). Headline monthly Final Demand Services inflation declined by 0.27% (-0.27%) in July 2016, having gained 0.45% in June 2016. The overall seasonal-adjustment impact on headline July services inflation was negative, with an unadjusted monthly contraction of 0.18% (-0.18%). Year-to-year, unadjusted July 2016 services rose by 1.00%, versus an annual gain of 1.55% in June 2016.

The headline monthly changes by major component for July 2016 Final Demand Services inflation:

- “Services less trade, transportation and warehousing” inflation, or the “Other” category (weighted at 38.96% of the total index), rose by 0.18% in July 2016, having gained 0.36% in June. Seasonal-adjustment impact on the adjusted July detail was neutral, where the unadjusted monthly reading also was a gain of 0.18%. Unadjusted and year-to-year, July 2016 “other” services inflation was 1.47%, unchanged from 1.47% in June 2016.
- “Transportation and warehousing” inflation (weighted at 4.99% of the total index) gained month-to-month in July 2016 by 0.09%, having gained 0.53% in June. Seasonal adjustments were neutral on the headline July gain, where the unadjusted monthly reading had been an increase of 0.09%. Unadjusted and year-to-year, July 2016 transportation inflation fell by 2.32% (-2.32%), having declined by 2.49% (-2.49%) in June 2016.
- “Trade” inflation (weighted at 20.34% of the total index) sank month-to-month in July 2016 by 1.31% (-1.31%), having gained 0.70% in June. Seasonal adjustments had a neutral impact here, where unadjusted monthly inflation also fell by 1.31% (-1.31%). Unadjusted and year-to-year, July 2016 trade inflation slowed to an annual gain of 0.71%, from 2.79% in June 2016.

Final Demand Construction (Weighted at 2.09% of the Aggregate Index). Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Nonetheless, headline numbers are published, although they are running directly opposite of industry indications. Month-to-month construction inflation sank in July 2016 by 0.61% (-0.61%), having gained 0.09% in June. The impact of seasonal factors on the July reading was neutral, where the unadjusted monthly change also was a drop of 0.61% (-0.61%). The issues here likely are a combination of monthly headline cost changes along with a quarterly estimate of contractor profit-margin changes. The latter circumstance will be addressed in a later *Commentary*.

On an unadjusted basis, year-to-year construction inflation rose by 0.80% in July 2016, versus 1.96% in June 2016. At present, private surveys are showing much higher construction-related inflation than is reported by the government, by an order of magnitude of a couple of hundred basis points.

Further details on construction related PPI subcomponents and PPI for manufactured durable goods see the *Reporting Detail.*

Consumer Liquidity Conditions Still Constrain Sustainable Economic Recovery. Consumer liquidity conditions are updated fully here from *Commentary No. 822*, with more-extensive background detail available in *No. 777 Year-End Special Commentary*. The latest detail incorporates the University of Michigan's Consumer Sentiment Index for early-August 2016 (*Graphs 4* and *5*) and the Federal Reserve's estimate of Consumer Credit Outstanding (*Graph 7*).

Underlying fundamentals to consumer economic activity, such as liquidity, have been severely impaired in the last decade or so, driving economic activity into collapse and preventing meaningful or sustainable economic rebound, recovery or ongoing growth. The level of and growth in sustainable real income, and the ability and willingness of the consumer to take on new debt remain at the root of the liquidity issues.

Generally, the higher and stronger those measures are, the healthier is consumer spending. Most measures of consumer liquidity and attitudes remain off their lows, and one—real monthly median household income—actually had spiked recently to pre-recession levels, reflecting the temporary collapse in gasoline prices and deflation by the otherwise underestimated headline CPI-U inflation. Real monthly median income, however, generally has begun to move lower, again, along with a pickup in consumer inflation (see *Graph 1*).

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

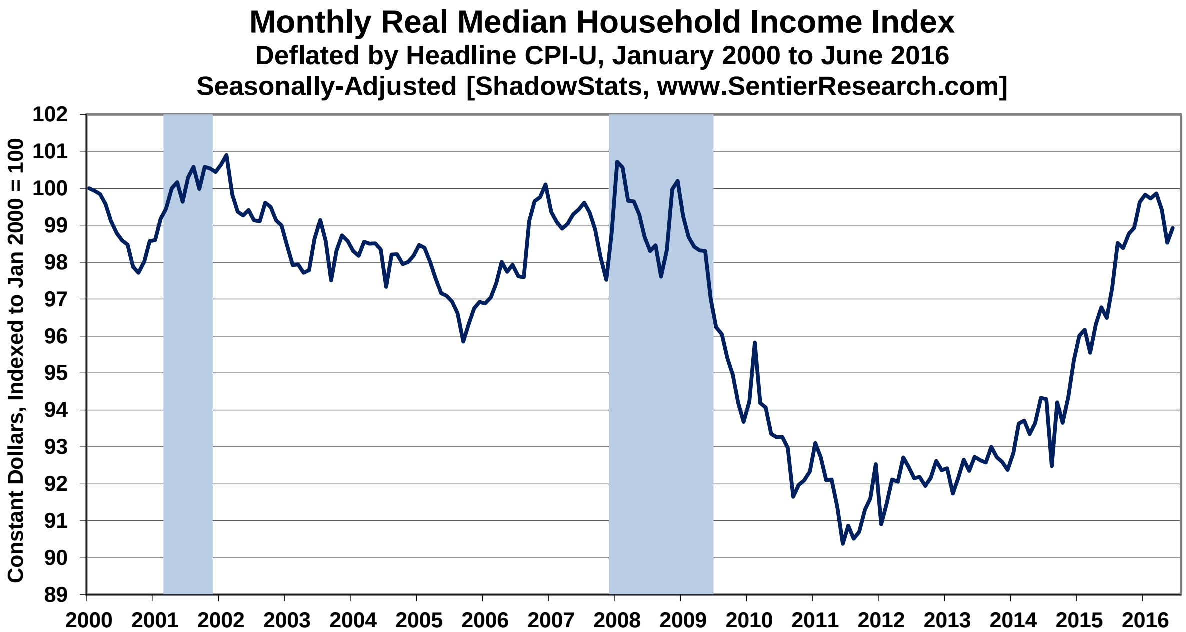
Such has driven the housing-market collapse and ongoing stagnation in consumer-related real estate sales and construction activity, as well as constrained both nominal and real retail sales activity and the related, personal-consumption-expenditures and residential-construction categories of the Gross Domestic Product (GDP). Together, those sectors account for more than 70% of total GDP activity in the United States.

Now, with the economy never having recovered fully from the collapse into 2009, consumers again are pulling back on consumption, as evidenced by a renewed slowdown in broad economic activity. There has been no economic recovery, and there remains no chance of meaningful, broad economic growth, without a meaningful, fundamental upturn in consumer- and banking-liquidity conditions.

Household Income Measures Still Signal Broad-Based Economic Difficulties. Discussed and graphed in *Commentary No. 752* are the Census Bureau's most-recent (2014) annual measures of household income. Unexpected weakness in some of the headline annual income data, though partially masked by changes in survey questions, signaled increasing liquidity difficulties for U.S. households. The headline 2015 detail is planned for release on September 13, 2016.

Shown first in *Graph 1* is the latest monthly real median household income detail through June 2016, as reported by www.SentierResearch.com. The headline reporting had turned down anew, with a statistically-significant monthly decline in May 2016, after several months of statistically-insignificant flutterings around its near-term January 2016 peak, and with a statistically-insignificant monthly uptick in June 2016.

Graph 1: Monthly Real Median U.S. Household Income through June 2016



This measure of real monthly median household income generally can be considered as a monthly version of the annual detail shown in *Graph 2* but the monthly specifics are generated from separate surveying and questioning by the Census Bureau.

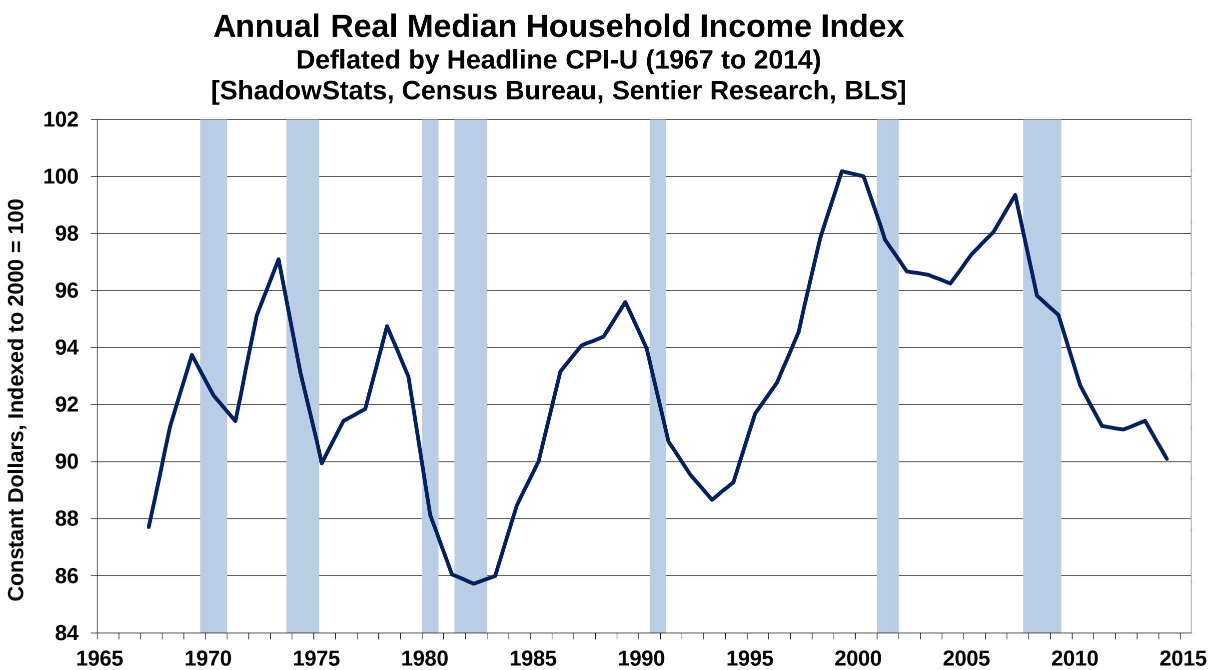
On a monthly basis, when headline GDP purportedly started its solid economic recovery in mid-2009, the monthly household income number nonetheless plunged to new lows. Generally, the income series had been in low-level stagnation, with the recent uptrend in the monthly index boosted specifically by collapsing gasoline prices and the related, negative headline CPI-U consumer inflation. The index reached pre-recession levels in the December 2015 reporting, but it remains minimally below the pre-recession highs for both the formal 2007 and 2001 recessions. It should continue to turn down anew, as headline monthly consumer inflation continues to pick-up in the months ahead.

Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash generally has been used to help pay down unsustainable debt or other obligations, not to fuel new consumption. Again, the effects of lower gasoline prices have begun to reverse with prices increasing anew, an effect muted by negative seasonal-adjustment impact on rising gasoline prices rising into June 2016. Those seasonal patterns will reverse in pending July detail, adding a more-positive boost (or a less-negative hit) to the inflation impact of gasoline prices, for the next several months.

Differences in the Monthly versus Annual Median Household Income. The general pattern of relative historical weakness also has been seen in the headline reporting of the annual Census numbers, shown in *Graph 2*, with the latest 2014 real annual median household income at a ten-year low. The Sentier numbers had suggested a small increase in 2014 versus 2013 levels. Still, the monthly and annual series remain broadly consistent, although based on separate questions within the monthly Consumer Population Series (CPS), as conducted by the Census Bureau. Where Sentier uses monthly questions surveying current annual household income, the headline annual Census detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income.

Again, discussed in *Commentary No. 752*, the Census Bureau changed its annual income questionnaire for 2014, with the effect of boosting income levels reported in 2014. The details on changes between 2013 and 2014, however, also were available on a consistent and comparable basis, and the consistent aggregate annual percentage change of median household income in 2014, versus 2013, was applied to the otherwise consistent historical series to generate *Graph 2*.

Graph 2: Annual Real Median U.S. Household Income through 2014



In historical perspective from *Graph 2*, the annual real median household-income levels in 2011, 2012 and 2013 were below levels seen in the late-1960s and early-1970s, with the 2014 income level below the readings through most of the 1970s, aside from being at a ten-year low. Such indicates the long-term nature of the evolution of the major structural changes squeezing consumer liquidity and impairing the current economy (see related discussions in *2014 Hyperinflation Report—The End Game Begins* and particularly *2014 Hyperinflation Report—Great Economic Tumble*).

Consumer Confidence, Sentiment and Credit. The respective July and early-August 2016 readings for the Conference Board's Consumer-Confidence and University of Michigan's Consumer-Sentiment measures are reflected in *Graphs 3* to *5*, where both series pulled back from prior readings (the June Conference Board reading was revised lower in conjunction with the headline July release).

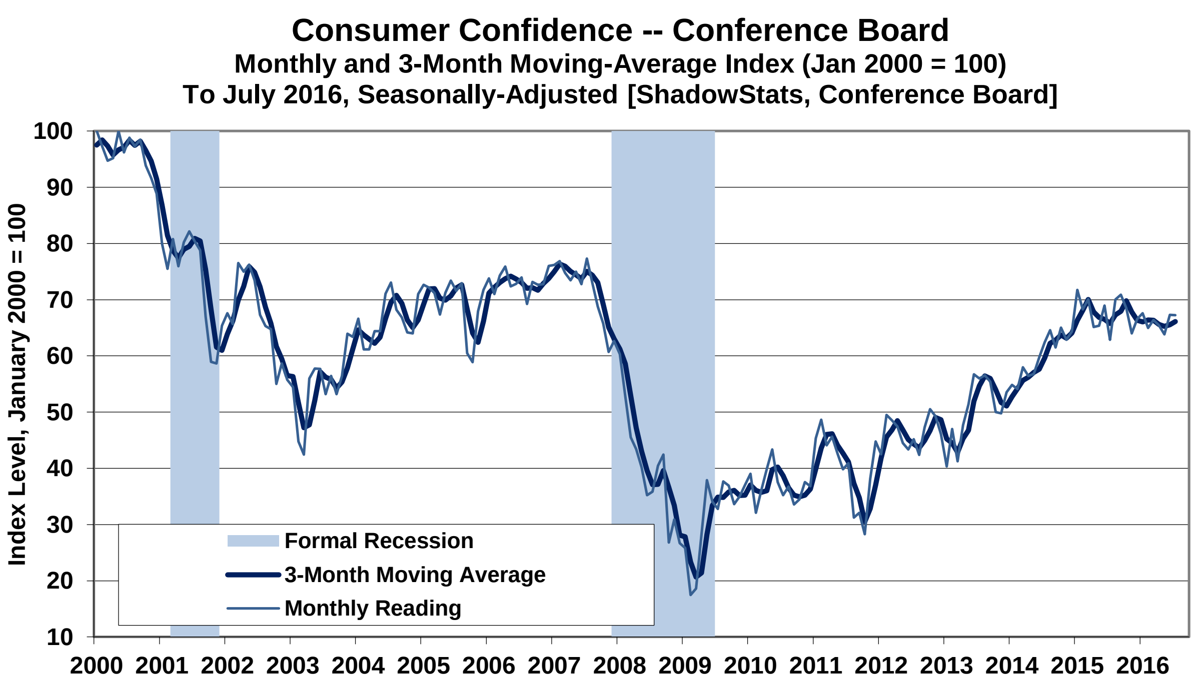
The Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph 3*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph 4*) jumped in their respective June/May 2016 readings. They eased some in July, and the early-August Sentiment released this morning (August 12th), notched higher versus July, but the three-month moving averages in both series continue to hold below their respective March/February 2015 near-term peaks.

Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs 3* to *5* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while the University of Michigan's Consumer Sentiment Index is set with January 1966 = 100.

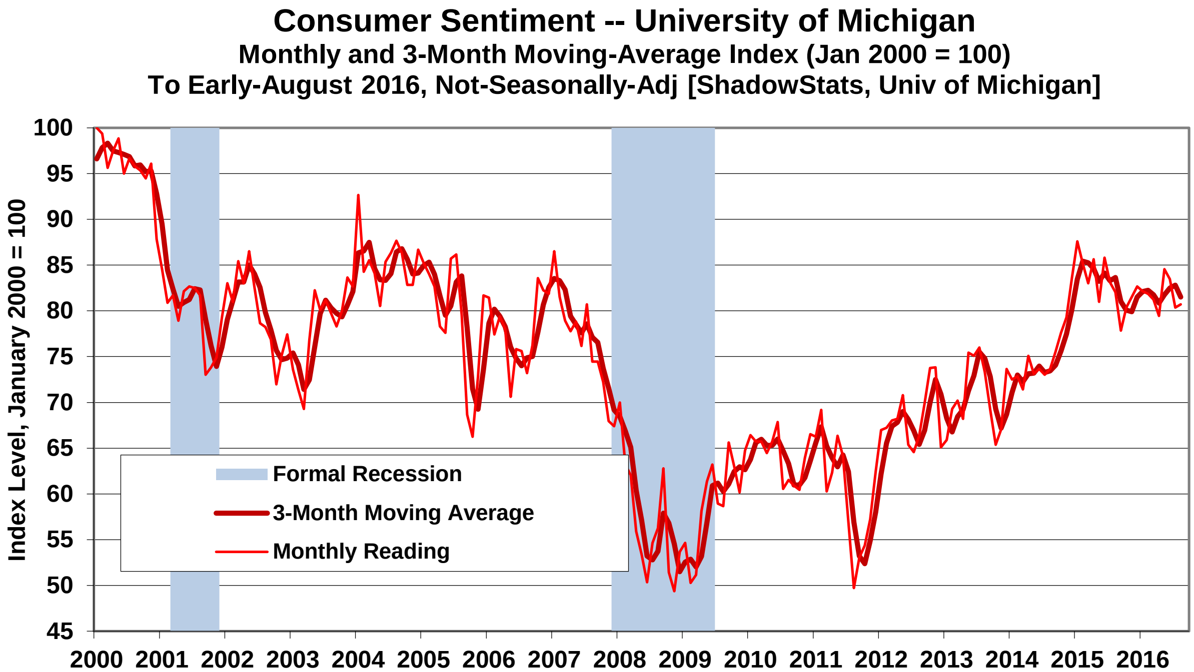
Both series also have continued to hold off near-term peaks, as smoothed for six-month moving-average readings (*Graph 5*), with both measures down from June 2015 near-term highs.

The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in [*Commentary No. 764*](#)), and often are highly volatile month-to-month, as a result. With increasingly-negative, unstable and uncertain headline financial and economic reporting and shifting political developments at hand and ahead, successive negative hits to both the confidence and sentiment readings remain increasingly likely in the months ahead, primarily from the faltering economy.

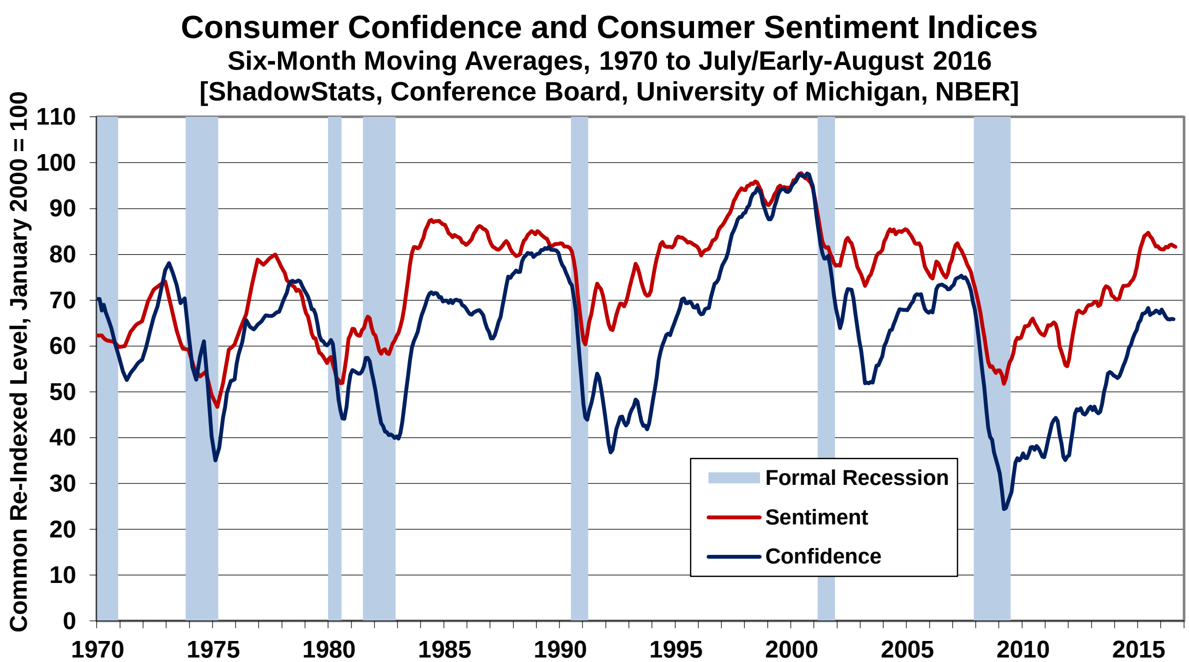
Graph 3: Consumer Confidence to July 2016



Graph 4: Consumer Sentiment to Early-August 2016



Graph 5: Comparative Confidence and Sentiment (6-Month Moving Averages) since 1970



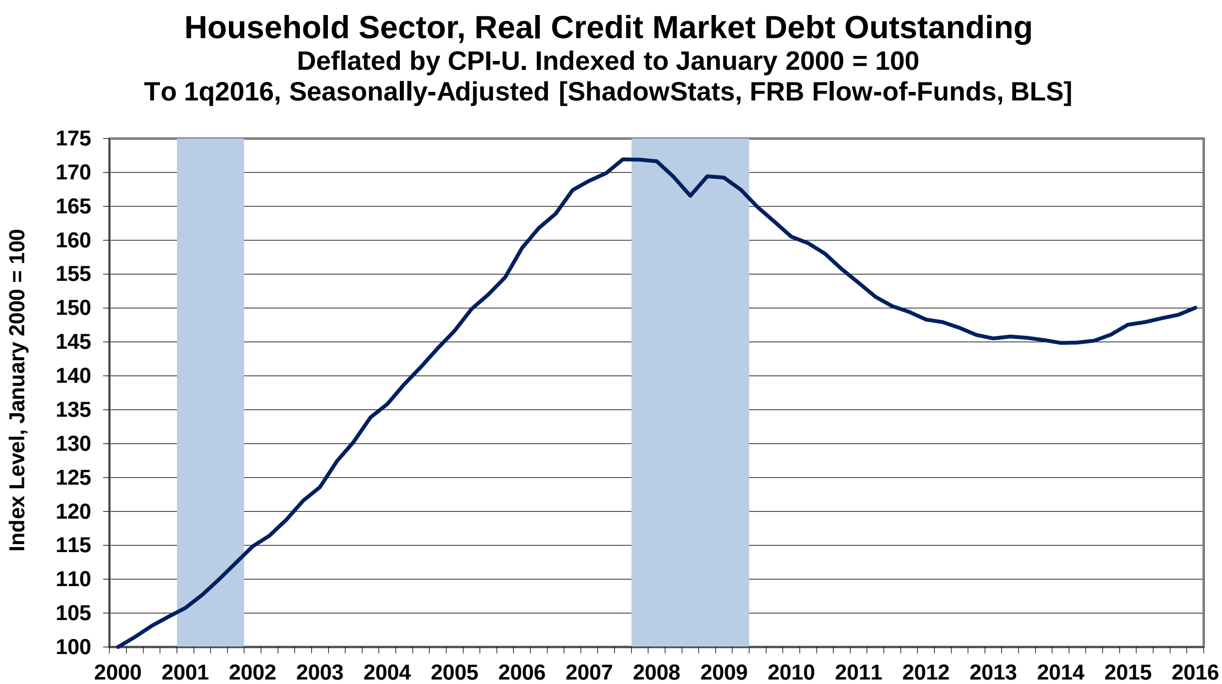
Smoothed for irregular, short-term volatility, the two series remain at levels seen typically in recessions. Suggested in *Graph 5*—plotted for the last 45 years—the latest readings of Confidence and Sentiment generally have not recovered levels preceding most formal recessions of the last four decades. Broadly, the consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth seen in 2014 and as indicated for second-and third-quarter 2015 GDP growth.

The final two graphs address consumer borrowing. Debt expansion can help make up for a shortfall in income growth. Shown in *Graph 6* of *Household Sector, Real Credit Market Debt Outstanding*, household debt declined in the period following the Panic of 2008, and it has not recovered, based on the Federal Reserve's flow-of-funds accounting for first-quarter 2016.

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

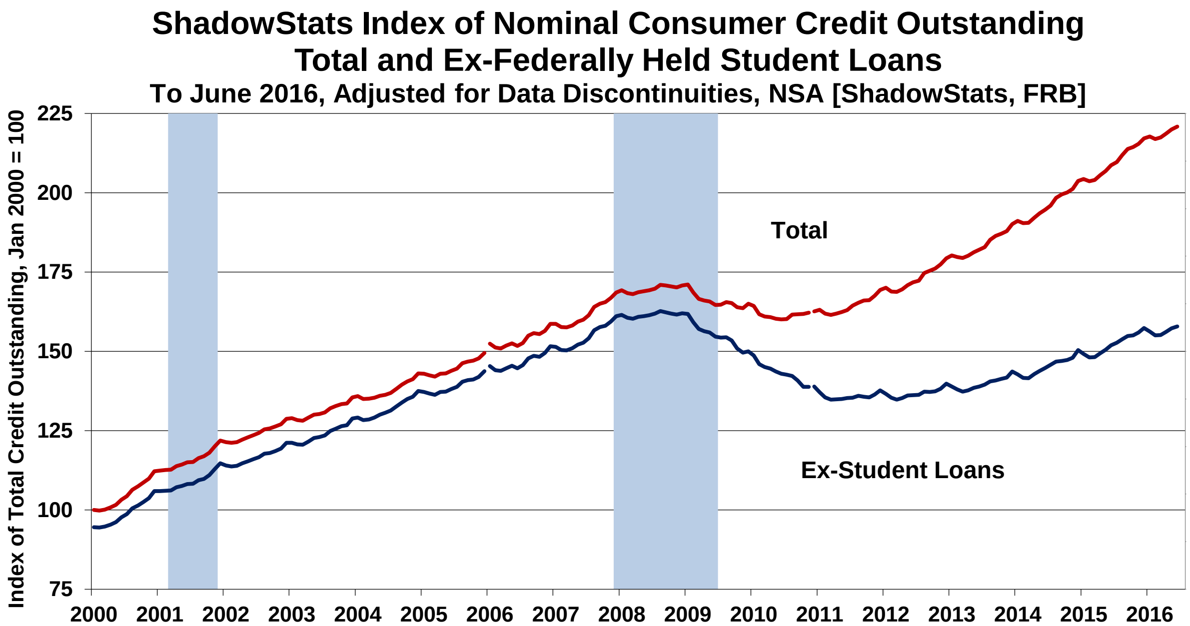
The slight upturn seen in the series through 2015 and into first-quarter 2106, as also seen in the patterns of the real monthly median household income survey, was due primarily to gasoline-price-driven, negative CPI inflation, which had continued impact on the system through the first quarter (see discussion on *Median Household Income*). Current activity has also reflected surging student loans, as shown in the *Graph 7*.

Graph 6: Household Sector, Real Credit Market Debt Outstanding through First-Quarter 2016



Shown through June 2016 reporting, *Graph 7* of monthly Consumer Credit Outstanding is a subcomponent of *Graph 7* on real Household Sector debt, but *Graph 7* is not adjusted for inflation. Post-2008 Panic, outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel broad consumption or housing growth. Although in slow uptrend, the nominal level of Consumer Credit Outstanding (ex-student loans) has not recovered since the onset of the recession. These disaggregated data are available and plotted only on a not-seasonally-adjusted basis, with the June 2016 and other recent monthly levels reflecting some irregular, unadjusted seasonal dips or jumps. The series is unstable enough that the Federal Reserve has the apparent inability to post consistent, unadjusted monthly data without revising the last couple of years of monthly data, each month.

Graph 7: Nominal Consumer Credit Outstanding through June 2016



[The* Reporting Detail *section contains additional Retail Sales and PPI reporting.]

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REPORTING DETAIL

NOMINAL RETAIL SALES (July 2016)

In the Context of Collapsing Annual Growth, the Monthly July Nominal Retail Sales Contraction Reflected Upside Revisions to June Activity. The headline 0.04% (-0.04%) decline in nominal retail sales reporting for July 2016 was in the context of an upside revision to June 2016 activity, which now stands at a monthly gain of 0.83%. In turn, the June gain was boosted by a downside revision to May 2016 sales growth, now at 0.16%. Net of prior-period revisions, the headline gain in July sales would have been 0.16%, still much weaker than consensus estimates for a headline monthly gain of 0.4%. Even so, the heavily massaged, gimmicked and bloated 1.13% gain in automobile sales was in line with the market hype, while the rest of the retail sector's nominal activity dropped by 0.33% (-0.33%) for the month.

Perhaps of greater significance, the pace of nominal, annual year-to-year growth slowed sharply from 2.96% (previously 2.72%) in June to 2.26% in July. Net of inflation, that will be closing in again on annual real growth of one-percent, a level of inflation-adjusted activity rarely seen outside of formal recessions.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—July 2016. In the context of an upside revision to June 2016, and a downside revision to May 2016 activity, the Census Bureau reported today (August 12th) that headline nominal Retail Sales for July 2016 was "unchanged" at 0.0%. At the second decimal point, the headline July activity was down by 0.04% (-0.04%), against an upwardly revised 0.8%, up by 0.83% at the second decimal point, in June 2016, which in turn had been boosted by a downside revision in May to a headline gain of 0.2%, up by 0.16% at the second decimal point.

That seasonally-adjusted, headline July contraction of 0.04% (-0.04%) +/- 0.59% was not statistically significant (this and all other confidence intervals are expressed at the 95% level). Net of prior-period revisions, July sales rose by 0.16%. Where the revised 0.83% gain in June was boosted by a downside revision to May activity, that June increase was 0.78% net of prior period revisions.

Again, that revised headline June 2016 retail sales gain was a statistically-significant 0.83% +/- 0.23% [previously up by 0.58%]. In turn, the May 2016 monthly gain was a revised 0.16%, [previously up by 0.21%, initially up by 0.45%].

Year-to-Year Annual Change. July 2016 nominal year-to-year change was a statistically-significant increase of 2.26% +/- 0.82%, versus an upwardly-revised gain of 2.96% [previously up by 2.72%] in June 2016 and a downwardly-revised annual gain of 2.19% [previously up by 2.24%, initially up by 2.55%] in May 2016.

June 2016 Core Retail Sales, Net of Food and Gasoline. Reflecting an environment that should be seeing rising, seasonally-adjusted food prices and declining gasoline prices [an unadjusted July 2016 monthly drop of 4.95% (-4.95%) per the Department of Energy in gasoline prices], seasonally-adjusted monthly grocery-store sales declined by 0.87% (-0.87%) in July 2016, with gasoline-station sales down by 2.73% (-2.73%) for the month.

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 preference for ignoring food and energy prices when "core" inflation is lower than full inflation—are estimated using two approaches:

<u>Version I:</u> July 2016 versus June 2016 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—reflected a monthly gain of 0.33%, versus the official headline aggregate sales decline of 0.04% (-0.04%).

Version II: July 2016 versus June 2016 seasonally-adjusted retail sales series—net of the monthly change in the level of revenues for grocery stores and gas stations—reflected a month-to-month gain of 0.27%, versus the official headline aggregate sales decline of 0.04% (-0.04%).

Real Retail Sales (July 2016). Coincident with the release of the July CPI on August 16th, the headline nominal July Retail Sales will be adjusted for inflation and recast as real Retail Sales. Such will be covered in *Commentary No. 826* of that date (see the *Week Ahead* section).

Headline July CPI-U likely will be flat, plus or minus, with a parallel chance for real growth in July retail sales to adjust minimally the headline monthly decline of 0.04% (-0.04%) in nominal retail sales activity in the opposite direction from the headline inflation rate. The pace of annual CPI-U inflation, however, should remain positive enough to generate a significantly deepened recession signal in historically low-level, annual Real Retail Sales growth.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind continues to constrain retail sales activity, as fully updated in the *Opening Comments*. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending.

As official consumer inflation resumes its upside climb in the year ahead, and as overall retail sales continue to suffer from the ongoing consumer liquidity squeeze, these data should continue trending meaningfully lower, in what should gain recognition in the very near future as a formal "new" recession.

PRODUCER PRICE INDEX—PPI (July 2016)

Headline July PPI Goods Inflation Declined by 0.37% (-0.37%); Construction Inflation Tumbled by 0.61% (-0.61%); Profit Margins in the Dominant Services Sector Fell by 0.27% (-0.27%); with Aggregate PPI Inflation Contracting by 0.36% (-0.36%). The headline month-to-month decline of 0.36% (-0.36%) in the July PPI generally has not been reflected in real world activity, or common experience. Beyond the broad issues with general inflation measurement (see *Public Commentary on Inflation Measurement*), the bulk of the PPI is covered by the "services" sector, where inflation is determined by shifting profit margins. Discussed in the *Inflation that Is More Theoretical than Real World* section, 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.

Separately, the sudden collapse shown in headline construction inflation apparently was due to a quarterly adjustment to guesstimated contractor profit margins. The result should have positive impact on inflation-adjusted, real construction spending going into the election. Again, narrowing profit margins usually are inflationary, not deflationary, where the suffering party traditionally increases prices in order to regain the lost margins.

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

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

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

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

July 2016 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported this morning, August 12th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for July 2016 was a negative 0.36% (-0.36%), versus a monthly gain of 0.54% in June. The impact of seasonal adjustments on the headline PPI reporting was negative, where the unadjusted monthly July measure was a decline of 0.27% (-0.27%).

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in July 2016 showed a contraction of 0.18% (-0.18%), versus an annual gain of 0.27% in June 2016.

Not an extraordinarily stable series, the PPI index is revised each month, for one month, four months back in time, but there were no headline revisions evident in the aggregate series, as released with the July 2016 detail.

For the three major subcategories of July 2016 Final Demand PPI, headline monthly Goods inflation fell by 0.37% (-0.37%), Services inflation declined by 0.27% (-0.27%) and Construction inflation plummeted by 0.61% (-0.61%).

The following detail reflects minor revisions to the relative weightings of the different PPI components, as they were updated with the May 2016 data release.

Final Demand Goods (Weighted at 33.63% [previously 33.60%] of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in July 2016 declined by 0.37% (-0.37%), following a monthly gain of 0.84% in June. There was neutral impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, July Final Demand Goods inflation also fell by 0.37% (-0.37%).

Unadjusted, year-to-year goods inflation in July 2016 declined by 2.34% (-2.34%), having declined by 2.16% (-2.16%) in June 2016.

Headline seasonally-adjusted monthly changes by major components of the July 2016 Final Demand Goods:

- “Foods” inflation (weighted at an unrevised 5.56% of the total index) fell month-to-month in July 2016 by 1.11% (-1.11%), having gained by 0.87% in June. Seasonal adjustments were a negative factor for the July headline change, which was down by 1.02% (-1.02%) unadjusted. Unadjusted and year-to-year, annual July 2016 foods inflation dropped by 2.61% (-2.61%), where June 2016 had declined on an annual basis by 2.25% (-2.25%).
- “Energy” inflation (weighted at 5.24% [previously 5.23%] of the total index) fell by 0.98% in July, versus a gain of 4.07% in June 2016. Where seasonal adjustments usually turn positive in July, they held negative, instead, with unadjusted monthly energy inflation having declined by 0.63% (-0.63%). Unadjusted and year-to-year, the July 2016 annual contraction in energy prices widened anew, to 11.73% (-11.73%), versus an annual decline of 11.41% (-11.41%) in June 2016.
- “Less foods and energy” (“Core” goods) monthly inflation (weighted at 22.83% [previously 22.81%] of the total index) was “unchanged” at 0.00% in July 2016, for the second month. Seasonal adjustments were positive for monthly core inflation, with an unadjusted monthly decline of 0.09% (-0.09%). Unadjusted and year-to-year, July 2016 was up by 0.36%, versus a 0.45% annual gain June 2016.

Final Demand Services (Weighted at 64.28% [previously 64.32%] of the Aggregate Index). Headline monthly Final Demand Services inflation declined by 0.27% (-0.27%) in July 2016, having gained 0.45% in June 2016. The overall seasonal-adjustment impact on headline July services inflation was negative, with an unadjusted monthly contraction of 0.18% (-0.18%). Year-to-year, unadjusted July 2016 services rose by 1.00%, versus an annual gain of 1.55% in June 2016.

The headline monthly changes by major component for July 2016 Final Demand Services inflation:

- “Services less trade, transportation and warehousing” inflation, or the “Other” category (weighted at 38.96% [previously 38.97%] of the total index), rose by 0.18% in July 2016, having gained 0.36% in June. Seasonal-adjustment impact on the adjusted July detail was neutral, where the unadjusted monthly reading also was a gain of 0.18%. Unadjusted and year-to-year, July 2016 “other” services inflation was 1.47%, unchanged from 1.47% in June 2016.
- “Transportation and warehousing” inflation (weighted at an unrevised 4.99% of the total index) gained month-to-month in July 2016 by 0.09%, having gained 0.53% in June. Seasonal

adjustments were neutral on the headline July gain, where the unadjusted monthly reading had been an increase of 0.09%. Unadjusted and year-to-year, July 2016 transportation inflation fell by 2.32% (-2.32%), having declined by 2.49% (-2.49%) in June 2016.

- "Trade" inflation (weighted at 20.34% [previously 20.36%] of the total index) sank month-to-month in July 2016 by 1.31% (-1.31%), having gained 0.70% in June. Seasonal adjustments had a neutral impact here, where unadjusted monthly inflation also fell by 1.31% (-1.31%). Unadjusted and year-to-year, July 2016 trade inflation slowed to an annual gain of 0.71%, from an annual gain of 2.79% in June 2016.

Final Demand Construction (Weighted at 2.09% [previously 2.08%] of the Aggregate Index). Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Nonetheless, headline numbers are published, although at present they are running directly opposite of industry indications. Month-to-month construction inflation sank in July 2016 by 0.61% (-0.61%), having gained 0.09% in June. The impact of seasonal factors on the July reading was neutral, where the unadjusted monthly change also was a drop of 0.61% (-0.61%). The issues here likely are a combination of monthly headline cost changes along with a quarterly estimate of contractor profit-margin changes. The latter circumstance will be addressed in a later *Commentary*.

On an unadjusted basis, year-to-year construction inflation rose by 0.80% in July 2016, versus 1.96% in June 2016. At present, private surveys are showing much higher construction-related inflation than is reported by the government, by an order of magnitude of a couple of hundred basis points. For example, year-to-year inflation reflected in the privately-published Building Cost and Construction Cost Indices [Dodge Data and Analytics (McGraw Hill) *Engineering News-Record*] currently are running well above the headline pace of annual inflation in the PPI's Final Demand Construction Index.

- "Construction for private capital investment" headline monthly inflation (weighted at 1.41% [previously 1.40%] of the total index) fell by 0.44% (-0.44%) in July 2016, versus a monthly gain of 0.09% in June 2016. As usual, seasonal adjustments had neutral impact here, where the unadjusted July monthly inflation also was down by 0.44% (-0.44%). Unadjusted and year-to-year, July 2016 private construction inflation was up by 0.89%, down sharply from an annual gain of 1.96% in June 2016.
- "Construction for government" inflation (weighted at an unrevised 0.68% of the total index) fell month-to-month by 0.96% (-0.96%) in July 2016, having gained 0.09% in June. Seasonal adjustments had neutral impact, where unadjusted monthly inflation also fell by 0.96% (-0.96%). Unadjusted and year-to-year, July 2016 government construction inflation was 0.44%, down from an annual growth rate of 1.87% in June 2016.

Discussed in prior *Commentary No. 824*, ShadowStats uses the Final Demand Construction index for deflating headline activity in the monthly construction-spending series. The September 1st release of July 2016 U.S. Construction Spending will be covered in ShadowStats *Commentary No. 829* of September 2nd. The month-to-month declines seen here in headline construction inflation should boost the inflation-adjusted real July 2016 construction numbers. Nonetheless, the softening headline annual inflation numbers are running contrary to the direction of, and minimally are 200 basis points (2.00%) below, real-world experience (again, see *No. 824*).

PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods. As to the upcoming reporting of July 2016 new orders for durable goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods was rose by 0.18%, versus "unchanged" at 0.00% in June 2016 and having gained 0.18% in May. The decline in annual inflation continued to narrow, to a contraction in July 2018 of 0.18% (-0.18%), versus 0.42% (-0.42%) in June 2016 and an annual decline of 0.60% (-0.60%) in May 2016. July 2016 durable goods orders will be reported on August 25th and covered in ShadowStats *Commentary No. 827* of that date.

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WEEK AND MONTH AHEAD

Headline Economic Deterioration Should Continue to Intensify in the Weeks and Month Ahead, Increasingly Pummeling the U.S. Dollar and Boosting Gold, Silver and Eventually Oil Prices. Market expectations for business activity should continue to deteriorate at an accelerating pace, amidst intensifying, negative headline economic reporting, and with Fed-policy retrenchment likely shifting towards renewed quantitative easing in the months ahead. The general trend in weakening expectations for business activity and movement towards looming recession recognition, reflect a broad spectrum of market-disappointing headline data. Unfolding circumstances are discussed in today's *Opening Comments* and *Commentary No. 824*, *Commentary No. 823*, *Commentary No. 822*, *Commentary No. 821*, *Commentary No. 820*, *Commentary No. 818*, *Commentary No. 817*, *General Commentary No. 811*, *Supplemental Commentary No. 807-A*, *Commentary No. 800*, *Commentary No. 799*, *Commentary No. 796-A*, *Commentary No. 796* and *No. 777 Year-End Special Commentary*.

Negative market reactions surfaced in trading of the U.S. dollar and in related financial markets, with some upside pressure on gold, silver and oil prices, subsequent to the weaker-than-expected headline and annualized real growth in second-quarter 2016 GDP and downside GDP revisions to recent quarters, and again with today's weaker-than-expected retail sales. Such reflects the impact of perpetual U.S. economic non-recovery and a renewed, intensifying downturn.

Market activity in oil has been mixed, due partially to some irregular U.S. dollar strength, as discussed in *No. 818*. These market reactions reflect an intensifying sense of Federal Reserve impotence, with bleak longer-term implications for the U.S. dollar. Further Fed tightening prior to the election is unlikely, while renewed quantitative easing could become a target of intensified market speculation, as the deepening recession unfolds and becomes increasingly obvious in the next month or two (see *No. 820*).

Rapidly weakening, regular monthly economic reporting should be accompanied by much worse-than-expected—increasingly negative—reporting for at least the next several quarters of GDP (and GDI and

GNP). That was seen minimally with a small first-quarter 2016 contraction in the Gross National Product (GNP)—the broadest measure of U.S. economic activity reflected in the recent GDP benchmarking.

CPI-U consumer inflation—intermittently driven lower in 2015 and early-2016 by collapsing prices for gasoline and other oil-price related commodities—likely has seen its near-term, year-to-year low. Headline monthly March to June 2016 detail moved into positive headline territory, in tandem with rising gasoline prices. CPI inflation is on track for a minimal monthly change (plus or minus) in July, with a switch to positive seasonal adjustments for gasoline prices offsetting partially an unadjusted monthly drop in gasoline prices (see *Pending Releases*). Going forward, inflation broadly should increasingly be boosted by a weakening U.S. dollar, with a related upturn in oil prices, gasoline and other commodities. Fundamental reporting issues with the headline CPI are discussed here: *Public Commentary on Inflation Measurement*.

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

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

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

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

PENDING RELEASES:

Consumer Price Index—CPI (July 2016). The Bureau of Labor Statistics (BLS) will release the July 2016 CPI on Tuesday, August 16th, which will be covered in *Commentary No. 826* of that date. The headline July CPI-U basically should be flat month-to-month, plus-or-minus, reflecting declining gasoline prices offset partially by a swing to the positive side in monthly seasonal adjustments, plus higher non-energy inflation. Headline year-to-year annual inflation in July 2016 likely will be shy of 1.0%.

Negative Inflation Impact from Gasoline Prices. Average gasoline prices declined in July 2016, down by 4.95% (-4.95%) for the month on a not-seasonally-adjusted basis, per the Department of Energy (DOE). Where BLS seasonal adjustments to gasoline prices in July traditionally turn to the plus-side, they would offset some of the unadjusted price decline in gasoline, but still leave it in negative territory. Adjusted gasoline prices should contribute roughly a negative 0.14% (-0.14%) to the headline monthly change in the CPI-U. Again, though, boosted by higher food and "core" (net of food and energy) inflation, a headline monthly CPI-U reading of flat, plus or minus, is a reasonable expectation.

***Annual Inflation Rate*.** Noted in *Commentary No. 820*, year-to-year, CPI-U inflation would increase or decrease in July 2016 reporting, dependent on the seasonally-adjusted monthly change, versus the adjusted, headline gain of 0.13% in July 2015 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for July 2016, the difference in July's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the June 2016 annual inflation rate of 1.01%. For example, a seasonally-adjusted, headline monthly change of 0.0% in the July 2016 CPI-U would bring in the annual CPI-U inflation rate for July 2016 around 0.9%, plus-or-minus, depending on rounding.

Real Retail Sales (July 2016). Coincident with the release of the July CPI, today's headline nominal Retail Sales decline of 0.04% (-0.04%) will be adjusted for inflation and recast as real Retail Sales, also to be covered in the CPI *Commentary No. 826* of August 16th.

With the headline July CPI-U likely to be flat, plus or minus, there is a parallel chance for real sales growth in July to adjust minimally in the opposite direction, again, reflecting today's headline detail. The pace of annual CPI-U inflation should remain positive enough, though, to generate a significantly deepened recession signal in historically low-level, annual real Retail Sales growth.

Continuing to constrain personal-consumption and retail sales is the extreme liquidity bind besetting consumers. The circumstance is updated fully in today's *Opening Comments*. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise.

Index of Industrial Production (July 2016). The Federal Reserve Board will publish its estimate of July 2016 Industrial Production activity on Tuesday, August 16th, with coverage in *Commentary No. 826* of that date. Headline monthly reporting likely will continue in contraction, year-to-year, despite early indications of positive month-to-month expectations. Monthly gains in excess of 1.3% against the current headline June production activity would be needed to turn either the headline July 2016, or early-trend third-quarter 2016 annual growth to the plus-side. Such remains highly unlikely. Given more-realistic reporting by the Fed against consensus-bloated estimates of automobile sales and production, a headline monthly production change that is flat-to-minus is more likely, in the context of continuing downside revisions to the last six months of data.

Accordingly, headline reporting and monthly revisions remain good bets to offer negative surprises against wherever the consensus expectations settle.

Residential Construction—Housing Starts (July 2016). The Census Bureau will release July 2016 residential construction detail, particularly Housing Starts, on Tuesday, August 16th, which also will be covered in *Commentary No. 826* of that date. In line with common-reporting experience of recent years, monthly results are likely to be unstable and not statistically meaningful, holding in a general pattern of down-trending stagnation. Wherever consensus estimates settle—most frequently on the upside—they are virtually certain be well shy of any meaningful, statistically-significant change.

Irrespective of the generally meaningless headline detail, the broad pattern of housing starts should remain consistent with the low-level, stagnant activity, seen at present, where June 2016 activity remained down by 48% (-48%) from the pre-recession high of the series. Such is particularly evident with the headline detail viewed in the context of a six-month moving average. Again, this series remains subject to regular and extremely-large, prior-period revisions.

Discussed in *Commentary No. 660* on the August 2014 version of this most-unstable of major monthly economic series, the headline detail here simply is worthless. The series best is viewed in terms of a six-month moving average. Again, not only is month-to-month reporting volatility frequently extreme, but also those headline monthly growth rates rarely come close to being statistically significant.

The extreme liquidity bind besetting consumers continues to constrain residential real estate sales and construction activity. Discussed in today's *Opening Comments*, without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the U.S. consumer is unable to sustain growth in broad economic activity.

