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Shadow Government Statistics

Analysis Behind and Beyond Government Economic Reporting

COMMENTARY NUMBER 916

September 2017 Retail Sales, Consumer and Producer Price Indices

October 20, 2017

Hurricane-Related Boost to September Production Followed
Sharp-Downside Revisions to Activity in the Months before the Hurricanes

September Housing Starts Took a Small Hit from the Tempests,
But No More than the Regular Series Volatility in a Given Month

Storm Disruptions Boosted September Retail Sales and Inflation, yet
Long-Range, Non-Recovering and Downtrending Economic Trends Remained in Play

Disaster-Spiked Economic Activity Usually Favors a Fed Easing, Not a Tightening

With Mixed Disaster Elements, September Retail Sales Jumped as Expected,
Due Particularly to Replacement of Storm-Damaged Automobiles

Hurricane-Spiked Oil/Gasoline Prices Drove September 2017 CPI and PPI Higher

September CPI-U Inflation Monthly Gain of 0.55%
Pulled Annual CPI-U Inflation Higher to 2.23% (Was 1.94%), with
CPI-W at 2.31% (Was 1.93%) and ShadowStats at 10.0% (Was 9.7%)

Fed's Targeted "Core" CPI-U Inflation Held at 1.7% for Fifth Month

September Final-Demand PPI Inflation Monthly Gain of 0.44%
Pulled Annual Gain to a 67-Month High of 2.62%, from 2.35% in August

Real Average Weekly Earnings Declined in September and Minimally in Third-Quarter 2017

Early-October Consumer Sentiment Highest Since 2004,
Still Shy of its 2000 High by 9.7% (-9.7%)

Consumers Accepting Limits on "Improving Prospects for Living Standards"
Was Responsible for the Jump in Optimism?

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NOTE TO SUBSCRIBERS ON WILDFIRE DISRUPTIONS: These Commentaries *usually are written at home in Sonoma Co., California. Heavy smoke from local wildfires, combined with the effects of a flu-like malady, disrupted the publication of planned* Regular Commentaries *in the last week. Those issues have resolved themselves, and I am catching up on the missives, which should be fully current in the week ahead. I apologize for the delays. Separately, the phone (707) 763-5786 works, but the messaging/voice mail still is out, along with local phone service damage. Accordingly, if you do not reach me at that number, please send an e-mail to* johnwilliams@shadowstats.com *or leave a message for me on the office line (415) 512-7701.*

The next regular Commentary, *Tuesday, October 24th, will review September 2017 Industrial Production and New Residential Construction (Housing Starts and Building Permits), touched upon here, followed by a* Commentary *on Friday, October 27th, covering the first-estimate of Third-Quarter 2017 GDP and September 2017 New Orders for Durable Goods and New- and Existing-Home Sales.*

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

Today's (October 20th) ***Opening Comments and Executive Summary*****.** The ***Opening Comments*** review the near-term economic data and surveys disrupted by the Hurricanes Harvey and Irma, in the context of broader, long-range economic prospects. The ***Executive Summary*** (page 5) reviews the highlights of September Retail Sales and the Consumer and Producer Price Indices (CPI and PPI).

The ***Reporting Detail*** (page 10) covers in greater detail the headline numbers for September 2017 Retail Sales and the CPI and PPI.

The ***Hyperinflation Watch***, the ***Consumer Liquidity Watch*** and the ***Week, Month and Year Ahead*** all will be updated fully in the next *Commentary*.

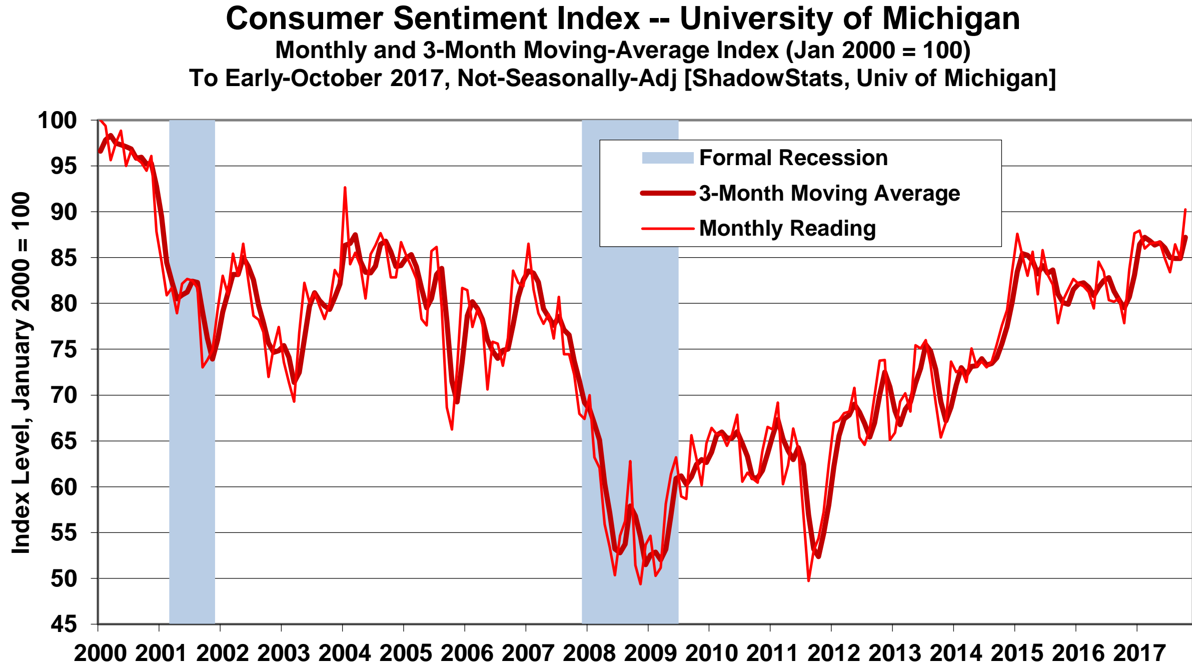
OPENING COMMENTS AND EXECUTIVE SUMMARY

Long-Range, Broad Economic Prospects Rarely Reflect Short-Term Boosts or Hits to Activity from Natural Disasters, While Near-Term Stresses on the Financial System Tend to Favor Fed Easing. Since Hurricane Harvey hit the Texas Gulf Coast region at the end of August, and Hurricane Irma traveled up the Florida Peninsula in September, impact of those two major storms on monthly economic data has begun to surface in the last month, with more to follow in the next several months.

First was a hit to August mining (oil and gas production) and utilities. Those areas still showed impact in the September detail (October 16th), with drilling down but extraction up; utilities gained but still were below July activity. Replacement of destroyed manufactured goods, such as automobiles, increasingly should flow into production in the next month or so. September Industrial Production detail will be detailed in the next *Commentary No. 917* of October 24th.

September employment detail was skewed heavily to the plus-side, as discussed shortly. September Retail Sales and the Consumer and Producer Price Indices (CPI and PPI) were spiked sharply. Sales were boosted particularly by replacement activity for damaged vehicles, along with building supplies, where the nominal gain for the month, before inflation, also reflected a sharp rise in gasoline prices. Those surging gasoline prices also drove monthly jumps in September CPI and PPI inflation, as discussed in the *Reporting Detail*. September Housing Starts (October 18th) declined in the month, including some negative hurricane impact, but the disruption was no more than as seen in the usual monthly volatility of this unstable series. New Construction detail will be detailed in *Commentary No. 917* of October 24th.

Opening Comments Graph OC-1: Consumer Sentiment (2000 to 2017)



The University of Michigan's headline, early October 2017 Index of Consumer Sentiment (published October 13th), which jumped to its highest level since January 2014, likely just joined the ranks of hurricane-influenced series, tied to, and on the back of, hurricane-disrupted reporting of September 2017 Household Survey employment and unemployment detail (see Commentary No. 915). In historical perspective, that October Sentiment reading still was shy of its 2000 High by 9.7% (-9.7%). In terms of its three-month moving-average, which helps to smooth this highly volatile series, the October 2017 reading was the same level as seen in February 2017, the post-election euphoric high.

The latest detail is updated in preceding *Graph OC-1*, otherwise shown regularly in the *Consumer Liquidity Watch* (again see *Commentary No. 915* and pending *Commentary No. 916*), where graphs of the Consumer Sentiment and Consumer Confidence measures are plotted on something of a comparable basis, reflecting both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the University of Michigan's Consumer Sentiment Index is set with January 1966 = 100.

The University of Michigan's monthly survey base for the United States is a relatively small 500-plus telephone calls. The early-month estimate reflects a still smaller survey. In contrast, the Conference Board's monthly survey is mail-based, with approximately 3,000 responses per month, yet both series reflect impact from media biases built into the general approach—the nature of their surveys—as described ahead.

As to the happy news on October Sentiment, the University of Michigan's Surveys of Consumers chief economist, Richard Curtin explained:

> This "as good as it gets" outlook is supported by a moderation in the expected pace of growth in both personal finances and the overall economy ... It is this acceptance of lackluster growth rates in personal income and in the overall economy that signifies that consumers have accepted, however reluctantly, limits on the pace of improving prospects for living standards.

Full comments are found here: *University of Michigan Consumer Confidence Index*.

Considering that headline real average weekly earnings just declined in September 2017 and minimally in Third-Quarter 2017 (see *Graph 3* in the *Executive Summary: CPI*), such could be viewed as perhaps a counterintuitive view on current consumer optimism.

Sentiment and Confidence Surveys Often Are Affected by Headline Reporting in the Press. Noted regularly in the *Consumer Liquidity Watch Section* (see *Commentary No. 915*, also to be updated in *Commentary No. 917*), "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." The detail from *No. 764,* includes:

> ***Public Response to the Leading Confidence and Sentiment Surveys Usually Reflects the Tone of the Popular Media.*** The confidence and sentiment surveys generally ask respondents to forecast the economy six months into the future. Where the average survey respondent is not an economist, responses most frequently tend to reflect the tone of the popular press. Professor David Fan, PhD, of the University of Minnesota, established such several decades ago. By indexing the relative positive or negative nature of the tone of press coverage towards the economy and the markets, he was able to predict the movements in the confidence and sentiment surveys with a high degree of accuracy.
>
> Both of the series here recently have continued to move lower or to hold off near-term peaks, on a monthly basis and as smoothed for their three-month and six-month moving-averages. Indeed, where the confidence and sentiment series do tend to mimic the tone of the popular media, the surveys often are highly volatile month-to-month, as a result. Where the surveys can rise in a period of overly-hyped economic reporting, they also face increasingly-negative, headline financial and economic developments at present [November 2015] and ahead. Accordingly, successive and continuing negative hits to both the confidence and sentiment readings remain highly likely in the quarters ahead.

So What Happened in Early October to Brighten Consumer Sentiment? Given the quirks of the Bureau of Labor Statistics (BLS) surveying methodology, as expressed in the ShadowStats headlines of *Commentary No. 915*, "September Household Survey Employment Jumped by 906,000, Including 1,500,000 Counted as Employed, Otherwise Unemployed by the Weather." That "headline" bloated jobs gain was a factor in the October Sentiment reading.

Add that positive statistic to the monthly jumps in September PPI and CPI, and some at the Fed would argue that the time for raising rates is at hand. They most certainly are aware of the tenuous nature of

those data. Separately, where systemic disruptions have the potential to impact banking-system operations, such could generate some near-term FOMC caution on promised rate hikes, at least briefly. That will be discussed in the next *Commentary No. 916*.

EXECUTIVE SUMMARY: Retail Sales, Nominal and Real—September 2017—Despite Big Boost from Hurricanes, Real Retail Sales Recession Signal Remained in Play. Hurricane-induced surges in replacement automobile sales and hurricane-spiked gasoline prices, boosted September 2017 nominal Retail Sales by 1.6%. That was in the context of upsides revisions to the levels of August sales of 0.3% and to July sales of 0.2%. September sales rose by 1.9% net of prior revisions, which was reasonably close to the 1.8% consensus.

Nominal Retail Sales—September 2017. Headline nominal activity rose by a statistically-significant 1.56% in September 2017, having declined by a revised 0.06% (-0.06%) in August and having gained an upwardly-revised 0.48% in July. The September 2017 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 4.44%, versus revised annual gains of 3.54% in August 2017 and 3.70% in July 2017.

Real Retail Sales—September 2017—In the Context of Hurricane-Boosted 1.56% Nominal Monthly Sales and Hurricane-Boosted Consumer Inflation of 0.55%, Real Retail Sales Gained 1.00%. Adjusted for the CPI-U, real month-to-month retail sales gained 1.00% in September 2017, versus a revised, narrowed decline of 0.46% (-0.46%) in August 2017 and an upwardly revised 0.37% July 2017. Real annual Retail Sales growth rose to 2.17% in September 2017, from an upwardly revised gain of 1.58% in August 2017 and 1.94% in July 2017. Further analysis is found in the *Reporting Detail*.

Despite Headline Monthly Inflation Surge, Recession Signal Remained in Play. During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal broadly has been in play since February 2015, suggesting a deepening, broad economic downturn. In sharply weakening real activity reported last month, the 1.22% annual growth estimated for August 2017 was the most-solid recession signal since the economy crashed anew into early-2015. That August number just revised higher to 1.58%, along with headline annual real growth in September 2017 reported at 2.17%, but such still is in the recession-signal range. More significantly, year-to-year real quarterly growth came in at 1.89% for third-quarter 2017, versus 1.94% in second-quarter 2017 and 2.42% in first-quarter 2017. Again, see the *Reporting Detail.*

Real Retail Sales Graphs, Corrected and Otherwise. In the *Reporting Detail*, *Graphs 4* and *6* show the level of real retail sales activity (deflated by the CPI-U), while *Graphs 5* and *7* show year-to-year percent change. The apparent "recovery" of headline real retail sales shown in the following *Graph 1* (again, see also *Graph 4* in the *Reporting Detail*) generally continued into late-2014. Although headline reporting turned down in December 2014, into first-quarter 2015, it turned higher into the third-quarter 2015, slowed to a near-standstill in fourth-quarter 2015 and contracted in first-quarter 2016, with an uptick in second-quarter 2016, with renewed slippage into third-quarter 2016, a further uptick in fourth-quarter 2016 and into early third-quarter 2017, but now it has taken a hurricane-induced jump in September.

Nonetheless, headline real growth in retail sales continues to be overstated heavily, due to the understatement of CPI-U inflation used in deflating the retail sales series. Discussed more fully in

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Chapter 9 of *2014 Hyperinflation Report—Great Economic Tumble* – *Second Installment* and *Public Commentary on Inflation Measurement*, deflation by too-low an inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted economic growth.

Both of the accompanying graphs are indexed to January 2000 = 100.0 to maintain consistency in the series of graphs related to corrected inflation-adjustment, including the regular plots of the "corrected" industrial production index, the "corrected" new orders for durable goods and the "corrected" GDP. Those "corrected" numbers are covered respectively in *Commentary No. 910*, *Commentary No. 912* and *Commentary No. 913*, and also in *No. 859 Special Commentary*.

The first graph here reflects the official real retail sales series, except that it is indexed, instead of being expressed in dollars. The plotted patterns of activity and rates of growth are exactly the same for the official series, whether the series is indexed or expressed in dollars, again, as is evident in a comparison of *Graph 1* with *Graph 4* in the *Retail Sales—Nominal and Real* in the *Reporting Detail* section.

Instead of being deflated by the CPI-U, the "corrected" real retail sales numbers—in *Graph 2*—use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation. With the higher inflation of the ShadowStats measure, the revamped numbers show a pattern of plunge and stagnation and renewed downturn. That pattern generally is consistent with consumer indicators such as real average weekly earnings (see *Graph 3*) and faltering consumer liquidity conditions (see the *Consumer Liquidity Watch* in *Commentary No. 915* and the *ECONOMY* section of *No. 859 Special Commentary*). Extended coverage is found in the *Reporting Detail*.

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

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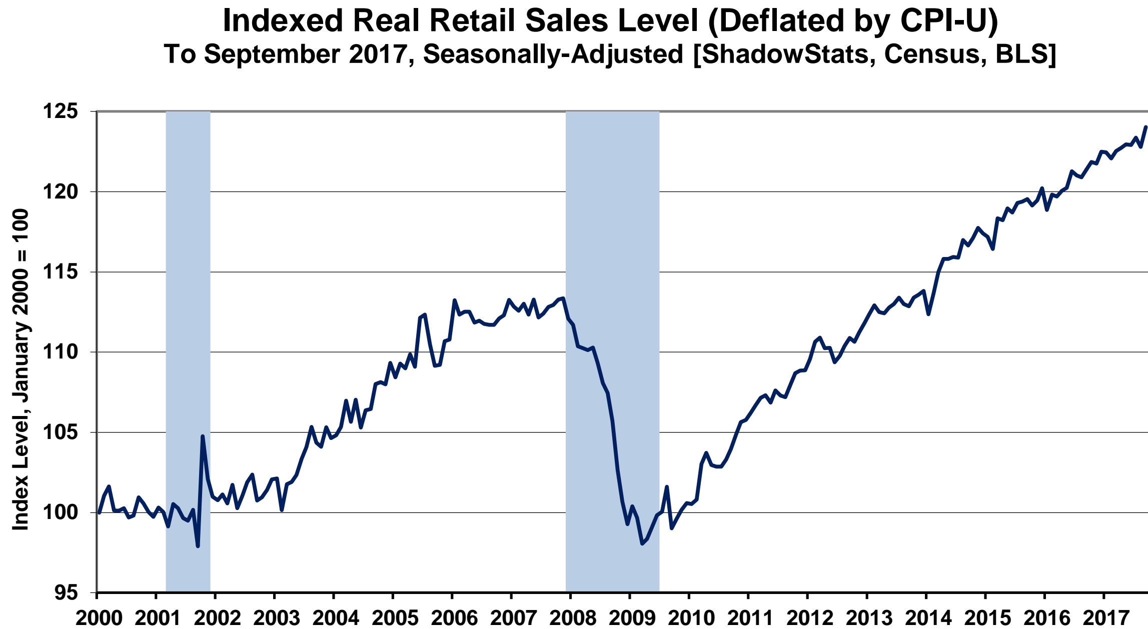
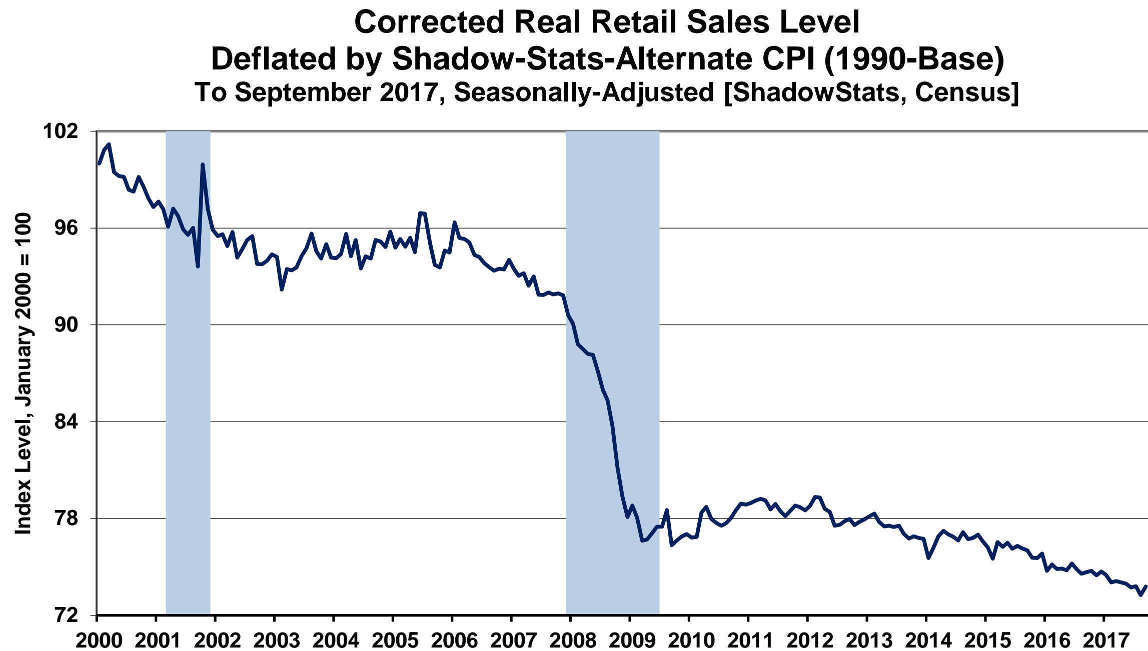
Graph 1: Headline Real Retail Sales Level, Indexed to January 2000 = 100



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



Consumer Price Index (CPI)—September 2017—CPI-U Rose 0.55% Month-to-Month, 2.23% Year-to-Year, But "Core" Inflation Stayed the Same. A sharp spike in monthly gasoline prices dominated the monthly gain in consumer inflation. The 13.08% seasonally-adjusted and 10.61%

unadjusted monthly gains in hurricane-spiked gasoline prices were of such large magnitudes to mask partially the usual, related seasonal differentials in the headline CPI-U, where the month-to-month gain was 0.55% adjusted, versus 0.53% unadjusted.

The Bureau of Labor Statistics (BLS) seasonally-adjusted 0.55% September 2017 monthly gain followed previously reported gains of 0.40% in August and 0.11% in July. Unadjusted year-to-year inflation rose by 2.23% in September 2017, versus 1.94% in August 2017 and 1.73% in July 2017.

Despite the month-to-month inflation jump, unadjusted year-to-year CPI-U September 2017 inflation remained off its 60-month high of 2.74% of February 2017, having hit a near-term trough of 1.63% in June 2017, with rebounds to 1.73% in July 2017, 1.94% in August 2017 and now to 2.23% in September 2017. What led the recent inflation surge into the February 2017 CPI annual gain was driven by rising gasoline prices, not by economic demand, and the same is true in the latest circumstance. The inflation surges, past and present have not been driven by an overheating economy, as claimed by some on the Fed's FOMC. Once again, the Fed's favorite CPI-U inflation measure, the "Core" rate, net of food and energy was as an unadjusted 1.69% in September 2017, the fifth straight month at 1.7% (rounded to the first decimal point), and the lowest annual core inflation rate since the end of 2015.

Still, with unadjusted annual August 2017 CPI-U inflation rising by 2.23%, year-to-year inflation is not and has not been quite as low as indicated, when considered in the context of traditional CPI reporting and common experience. Moving on top of the unadjusted annual changes to the CPI-U, the ShadowStats-Alternate Inflation Measures showed year-to-year inflation in September 2017 rising to 5.8%, based on 1990 methodologies, and to 10.0%, based on 1980 methodologies.

Where the Consumer Price Index for All Urban Consumers (CPI-U) is the broadest headline consumer-inflation number, used to adjust numerous economic measures such as retail sales for inflation effects, as discussed in the previous *Retail Sales Section*. The narrower Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used for deflating measures such as earnings for production and nonsupervisory employees on private nonfarm payrolls (see *Graph 3*). More heavily weighted for gasoline prices, the September 2017 seasonally-adjusted CPI-W rose month-to-month by 0.66%, up from 0.46%, in August. Unadjusted, year-to-year change in the September 2017 CPI-W was 2.31%, up from 1.93%, in August 2017.

September 2017—Monthly and Quarterly Real Earnings Declined. September 2017 real average weekly earnings was published along with the headline September 2017 CPI-W. In the production and nonsupervisory employees category—the only series for which there is a meaningful history, the regularly-volatile real average weekly earnings were down month-to-month by 0.25% (-0.25%) in September 2017, versus a deepened monthly decline of 0.53% (-0.53%) in August and a minimally, upwardly-revised gain of 0.17% in July. Seasonally-adjusted annual real growth in September 2017 slowed to 0.23%, versus a downwardly-revised 0.47% in August 2007 and an upwardly-revised gain of 0.67% in July 2017.

The initial estimate of annualized quarterly change in third-quarter 2017 real average weekly earnings contracted minimally by 0.01% (-0.01%). That followed an annualized real quarterly gain of 4.43% in second-quarter 2017 and contractions in first-quarter 2017 of 1.13% (-1.13%) and fourth-quarter 2016 of 1.36% (-1.36%).

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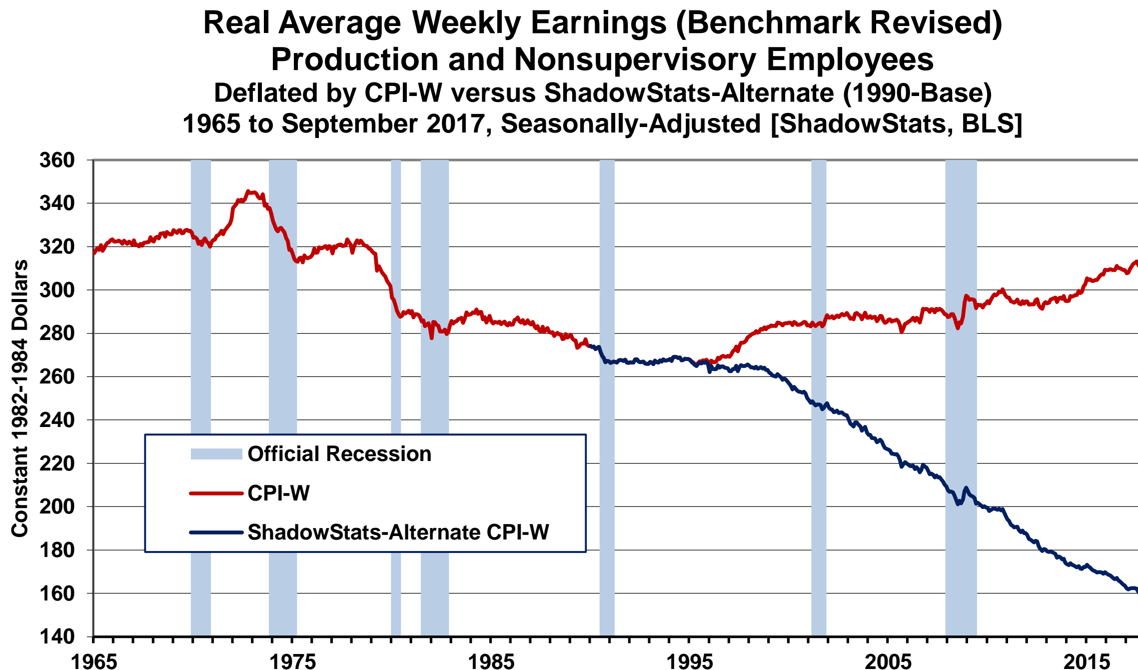
Year-to-year growth in the initial estimate of third-quarter 2017 real earnings slowed to 0.45%, versus 0.83% in second-quarter 2017 and against an annual contraction of 0.29% (-0.29%) in first-quarter 2017, which had been the first annual or year-to-year quarterly contraction since fourth-quarter 2012. Much of the volatility in near-term real activity remains tied to ongoing, irregular volatility in gasoline prices. The stronger gasoline prices and inflation, the weaker is real, inflation-adjusted growth.

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



Graph 3 shows the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened headline CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked 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.

Producer Price Index (PPI)—September 2017—Hurricane-Driven, Surging Energy Prices Boosted Annual Final Demand PPI Inflation to a 67-Month High. While the Bureau of Labor Statistics (BLS) indicated there were no effects on September PPI data collection due to hurricanes, the sharp headline jump in energy costs, which drove headline PPI inflation higher, was due to Hurricane Harvey's damage to oil refinery, production and exploration facilities. Energy sector costs again were the largest contributing factor to the monthly PPI gain. Such spiked the headline, aggregate Final Demand PPI annual inflation to a 67-month high of 2.62%.

Seasonally-adjusted, month-to-month, Producer Price Index Final-Demand (PPI-FD) inflation for September 2017 rose by 0.44%, versus a gain of 0.18% in August and deflation of 0.09% (-0.09%) in July. Not-seasonally-adjusted, year-to-year PPI-FD inflation in September 2017 jumped to a 67-month high of 2.62%, versus 2.35% in August 2017, 1.90% in July 2017.

For the three major subcategories of September 2017 PPI-FD, headline monthly Goods inflation rose by 0.72%, Services "inflation" (profit margins) rose by 0.35% and Construction inflation increased by 0.09%, with respective unadjusted annual growth rates of 3.32%, 2.06% and 3.43%.

Once again, the spike in annual headline PPI-FD inflation did not reflect an overheating economy. Where that monthly circumstance often has reflected heavily-orchestrated oil-price movements, the current circumstance was dominated by hurricane-disrupted supplies, production and oil and gas exploration. Details follow in the *Reporting Detail.*

[Extended analysis and graphics follow in the* Reporting Detail*.]

REPORTING DETAIL

RETAIL SALES—Nominal and Real (September 2017)

On Top of Upside Revisions to Activity in July and August, September Sales Saw a Hurricane-Induced Jump. Against consensus expectations for a monthly gain of 1.8%, tied largely to hurricane-induced surges in replacement automobile sales and hurricane-spiked gasoline prices, September 2017 nominal Retail Sales rose by 1.6%. That was in the context of upsides revisions to the levels of August sales of 0.3% and to July sales of 0.2%. September retail sales rose by 1.9% net of prior revisions.

Nominal Retail Sales—September 2017. The Census Bureau reported October 13th, its "advance" estimate of September 2017 Retail Sales. Headline nominal activity rose by 1.56% in September 2017, having declined a revised 0.06% (-0.06%) [previously down by 0.21% (-0.21%)] in August 2017 and having gained an upwardly-revised 0.48% [previously up by 0.26%, initially up by 0.60%] in July. Net of the prior-month's revision, September 2017 sales gained by 1.91% in the month.

The headline, seasonally-adjusted September 2017 nominal monthly gain of 1.56% +/- 0.59% was statistically-significant (all confidence intervals are expressed at the 95% level). The revised headline August 2017 monthly retail sales decline of 0.06% (-0.06%) +/- 0.23%, however, was not.

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Year-to-Year Annual Change. The September 2017 nominal year-to-year change in Retail Sales showed a statistically-significant increase of 4.44% +/- 0.82%, versus revised annual gains of 3.54% [previously 3.17%] in August 2017 and 3.70% [previously 3.50%, initially 4.22%] in July 2017.

September 2017 Core Retail Sales, Net of Food and Gasoline. Reflecting an environment that in theory should be seeing the plus-side of flat seasonally-adjusted food prices [up by 0.10% in the September CPI-U per the Bureau of Labor Statistics (BLS)] and surging gasoline prices [up by 13.08% for the month on a seasonally-adjusted basis, per the BLS], seasonally-adjusted grocery-store sales rose month-to-month by a headline 1.00%, with gasoline-station sales up by 5.83% in September 2017.

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

Version I: Nominal September 2017 versus August 2017 seasonally-adjusted retail sales series—net of total grocery store and gasoline-station sales—rose by 1.22%, versus the official headline aggregate sales gain of 1.56%.

Version II: Nominal September 2017 versus August 2017 seasonally-adjusted retail sales series—net of the monthly *change* in grocery store and gasoline-station revenues—rose by 0.99%, versus the official headline aggregate sales gain of 1.56%.

Real Retail Sales—September 2017—In the Context of Hurricane-Boosted 1.56% Nominal Monthly Sales and Hurricane-Boosted Consumer Inflation of 0.55%, Real Retail Sales Gained 1.00%. September 2017 CPI-U inflation (released October 13th, discussed in the next section), showed a monthly jump in seasonally-adjusted consumer inflation of 0.55%, versus gains of 0.40% in August and 0.11% in July, with year-to-year seasonally-adjusted CPI-U inflation of 2.23% in September 2017, 1.94% in August 2017 and 1.73% in July 2017.

Accordingly, real month-to-month retail sales gained 1.00% in September 2017, versus a revised, narrowed decline of 0.46% (-0.46%) [previously 0.61% (-0.61%)] in August 2017 and an upwardly revised 0.37% [previously 0.18%, initially up by 0.50%] in July 2017. Real annual Retail Sales growth rose to 2.17% in September 2017, from an upwardly revised gain of 1.58% [previously 1.22%] in August 2017 and 1.94% [previously 1.74%, initially 2.45%] in July 2017.

Despite Headline Monthly Inflation Surge, Recession Signal Still Is in Place. During normal economic times, annual real growth in Retail Sales at or below 2.0% signals an imminent recession. That signal broadly had been in play since February 2015 (a "new" recession likely still will be timed from December 2014, based on industrial production, retail sales and other indicators), suggesting a deepening, broad economic downturn.

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

growth reported initially in August 2017 was the most-solid recession signal since the economy crashed anew into early-2015. That August number now has revised higher to 1.58%, along with headline annual real growth in September 2017 at 2.17% still in the recession-signal range. More significantly, year-to-year real quarterly growth came in at 1.89% in third-quarter 2017, versus 1.94% in second-quarter 2017, both below 2.0%

Annual and Annualized Real Quarterly. First-quarter 2017 annualized quarter-to-quarter real growth in Retail Sales slowed sharply to 1.05%, versus 3.34% in fourth-quarter 2016, with annual year-to-year real growth for first quarter-2017 at 2.42%, versus 2.03% in fourth-quarter 2016.

Second-quarter 2017, annualized real quarterly growth was unrevised at 1.68%, with year-to-year quarterly change at 1.94%.

Based on full third-quarter 2017 reporting, including hurricane-boosted September detail, what had been on track for an annualized quarterly-contraction of 0.37% (-0.37%), with year-to-year growth of 1.33%, based on just on July and August details, turned to annualized quarterly growth of 1.74%, and year-to-year growth of 1.89%.

Structural Liquidity Issues Continue to Impair Retail Sales. An extreme consumer-liquidity bind increasingly constrains retail sales activity (discussed in the *Consumer Liquidity Watch* see *Commentary No. 915*, also to be updated in *Commentary No. 917*). Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including retail sales, real or nominal. That circumstance—in the last nine-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad, inflation-adjusted U.S. economic activity, 73.1% of which is dependent on personal spending and residential real estate.

As headline consumer inflation generally resumes its upside climb in the year ahead (after a likely flat-to minimal-dip in October's detail), and as overall Retail Sales—net of natural-disaster impacts—continue to suffer from the ongoing consumer liquidity squeeze, the real Retail Sales data generally should resume trending meaningfully lower, in what should gain recognition shortly as a formal "new" recession, or down-leg in the economic collapse that began in 2006, formally the 2007 recession.

Real Retail Sales Graphs. The first of the four graphs following, *Graph 4* shows the level of real retail sales activity (deflated by the CPI-U) since 2000; *Graph 5* shows the year-to-year percent change for the same period. Annual real growth had slowed markedly into fourth-quarter 2015 and 2016, generating an intense recession signal. Despite some near-term volatility, the latest revisions to real annual real growth had been turning lower, anew, but now with a hurricane jump in September. *Graphs 6* and *7* show the level of, and annual growth in, real retail sales (and its predecessor series) in full post-World War II detail.

The relative strength seen in the real retail series since the economic trough in 2009 largely has reflected the understatement of the rate of inflation used in deflating the series. Discussed more fully in *Chapter 9* of *2014 Hyperinflation Report—Great Economic Tumble* – *Second Installment*, deflation by too low an inflation number (such as the CPI-U) results in the deflated series overstating inflation-adjusted, real economic growth. Shown in the latest "corrected" real retail sales—*Graph 2* in the *Executive Summary* section—with the deflation rates corrected for the understated inflation reporting of the CPI-U, the recent

pattern of real sales activity has turned increasingly negative, albeit with a small monthly upturn in September. The corrected graph shows that the post-2009 period of protracted stagnation ended, and a period of renewed and ongoing contraction began in second-quarter 2012 and continues to date. The corrected real retail sales numbers use the ShadowStats-Alternate Inflation Measure (1990-Base) for deflation instead of the CPI-U.

[Graphs 4 to 7 begin on the next page.]

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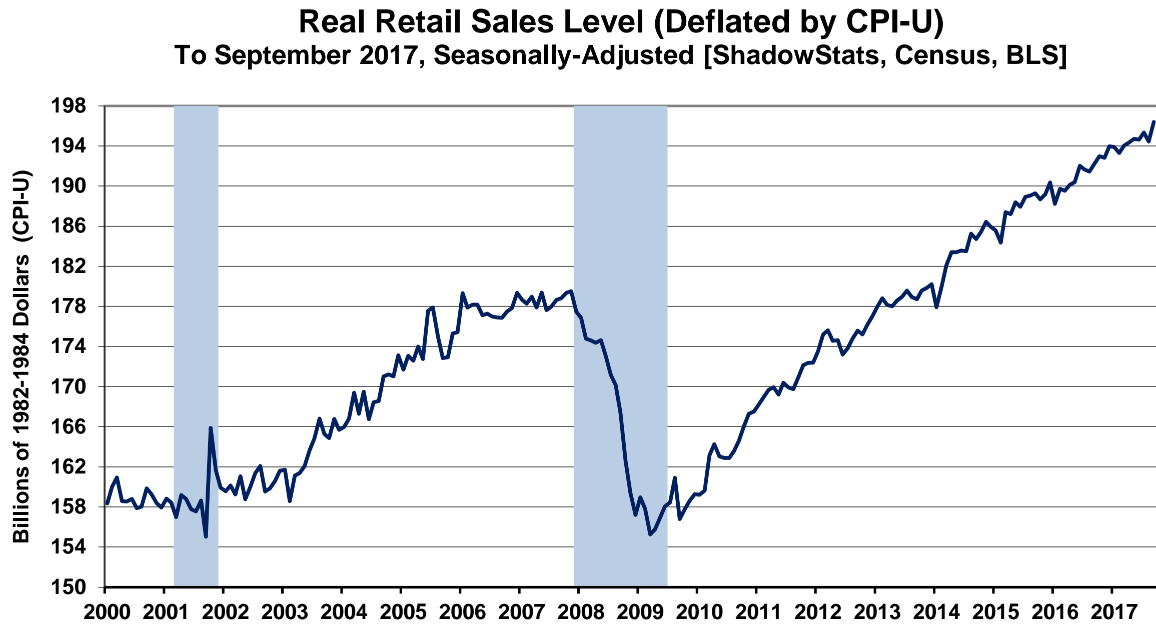
Graph 4: Level of Real Retail Sales (2000 to Date)



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

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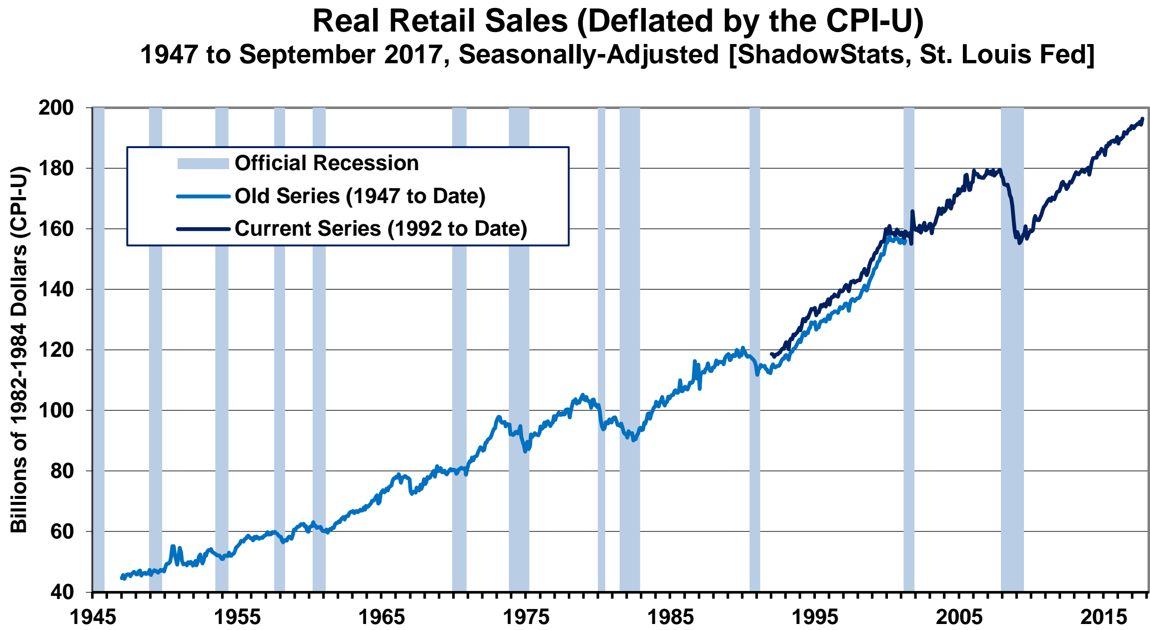
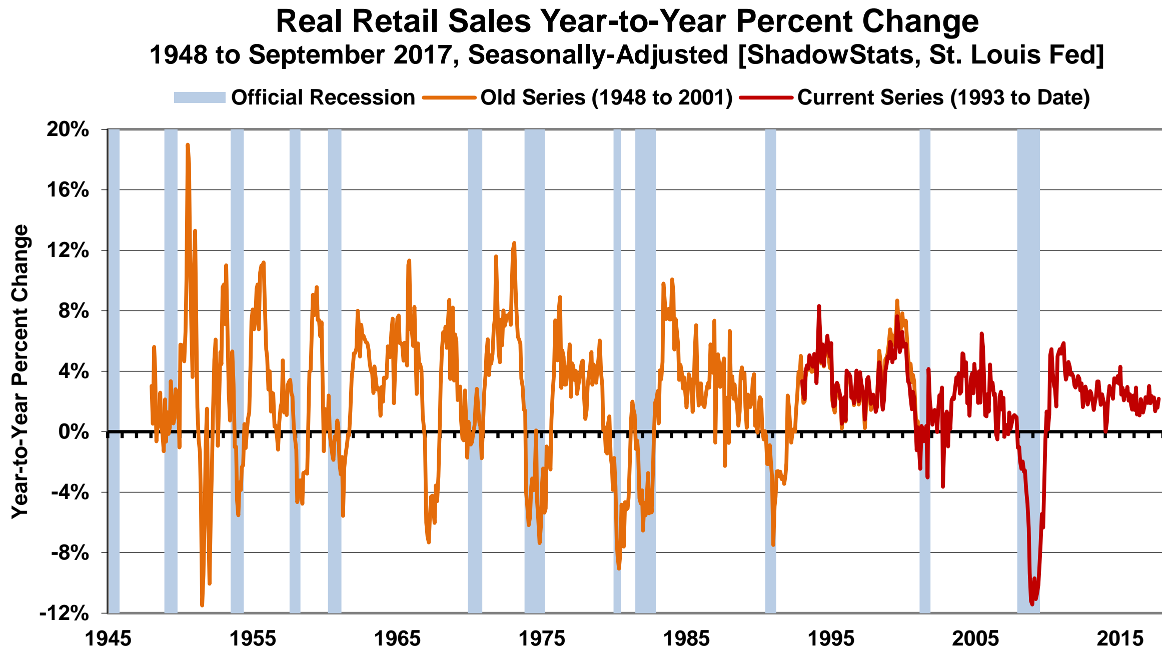
Graph 6: Level of Real Retail Sales (1947 to Date)



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



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CONSUMER PRICE INDEX—CPI (September 2017)

Headline CPI-U Rose 0.55% Month-to-Month, 2.23% Year-to-Year, but the Fed's Targeted "Core" Did Not Change. A sharp spike in monthly gasoline prices dominated the monthly gains in consumer inflation measures. With no special seasonal adjustments made by the Bureau of Labor Statistics (BLS), the 13.08% seasonally-adjusted and 10.61% unadjusted monthly gains in hurricane-spiked gasoline prices were of such large magnitudes to mask partially the usual, related seasonal differentials in the headline CPI-U monthly gain (0.55% versus 0.53%).

Repeating patterns of recent years, more-positive seasonal adjustment factors, beginning in July 2017, start to boost the headline reporting of CPI-inflation in the second-half of the calendar year, reversing the negatively-biased reporting of the seasonally-adjusted monthly inflation in the first-half of 2017. Yet, of July through December, headline September monthly inflation usually is the least upwardly-biased number in that regular pattern.

Despite the month-to-month inflation jump, unadjusted year-to-year CPI-U September 2017 inflation remained off its 60-month high of 2.74% of February 2017, having hit a near-term trough of 1.63% in June 2017, with rebounds to 1.73% in July 2017, to 1.94% in August 2017 and now to 2.23% in September 2017. What led the recent inflation surge into the February 2017 CPI annual gain was driven by rising gasoline prices not driven by economic demand, and the same is true in the latest circumstance. These inflation surges, past and present have not been driven by an overheating economy, as claimed by some on the Fed's FOMC. Indeed, the Fed's favorite CPI-U inflation measure, the "Core" rate, net of food and energy, was as an unadjusted 1.69% in September 2017, the fifth straight month at a rounded 1.7%, and the lowest annual core inflation rate since 1.6% in December 2015.

Separately, with unadjusted annual September 2017 CPI-U inflation rising by 2.23%, year-to-year inflation is not and has not been quite as low as indicated, when considered in the context of traditional CPI reporting and common experience. Moving on top of the unadjusted annual changes to the CPI-U, the ShadowStats-Alternate Inflation Measures showed year-to-year inflation in September 2017 rising to 5.8%, based on 1990 methodologies, and to 10.0%, based on 1980 methodologies.

Longer-Range Inflation Outlook. Despite U.S. dollar strength of recent years, and what had been accelerating, now increasingly faltering dollar strength, subsequent to the post-election euphoria and the last rate hike, a tremendous threat to the dollar and systemic liquidity and stability continues, tied to the U.S. Federal Reserve's ongoing inability to resolve fundamentally the 2008 financial collapse, other than having bought limited time with its emergency, stopgap measures. Recent Fed tightening action has been despite continued, intensifying "adverse" economic circumstances. The U.S. central bank has been forced to prop banking-system liquidity against the ongoing gale of renewed, economically-driven, banking-system solvency and liquidity issues, with pressures intensified by recent systemic disruptions from natural disasters, increasing political discord in Washington and mounting global political instabilities. Despite strong speculation and protestations to the contrary, the FOMC likely still will end up reverting to renewed and expanded quantitative easing.

Compounding the high-risk of a near-term run on the U.S. dollar remains mounting recognition in global markets of same. The U.S. Federal Reserve and other central banks still have no effective idea as to how

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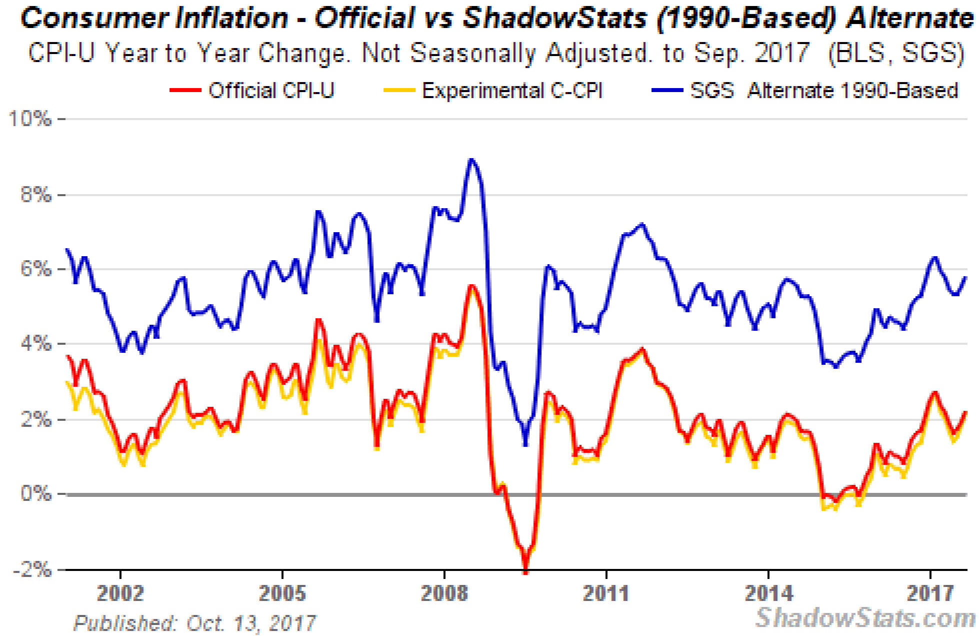
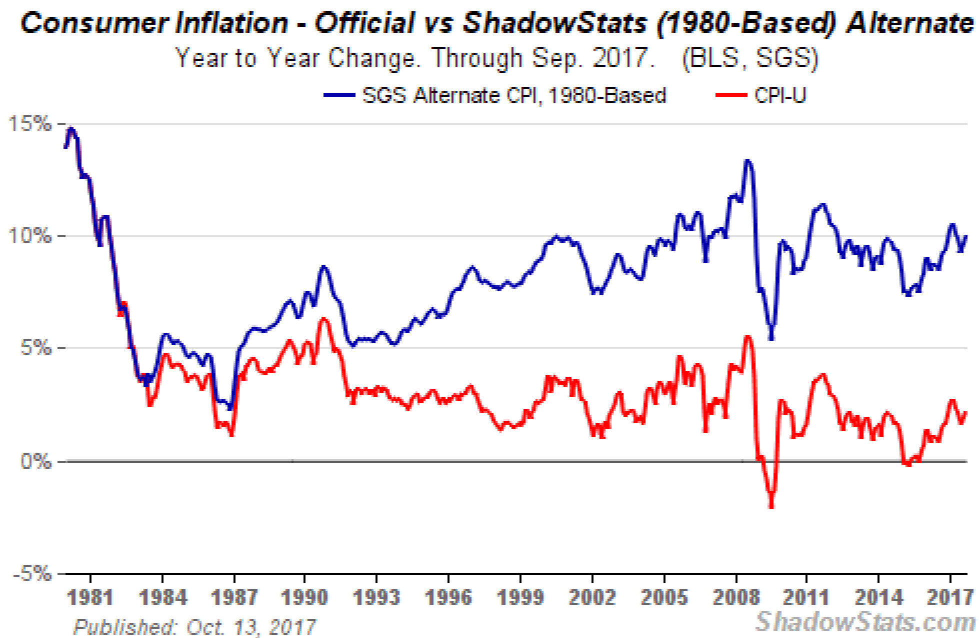
to boost current economic activity, how to stabilize global banking-system solvency, or otherwise how to slog their way out of a self-generated quagmire. That circumstance only can be exacerbated by intensifying economic and political uncertainties.

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



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



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Notes on Different Measures of the Consumer Price Index

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

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

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

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

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

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CPI-U. The Bureau of Labor Statistics (BLS) reported October 13th, that headline, seasonally-adjusted September 2017 CPI-U inflation increased month-to-month by 0.5% [up by 0.55% at the second decimal point], following gains of 0.4% [up by 0.40%] in September and 0.1% [up by 0.11%] in July, "unchanged" at 0.0% [actual decline of 0.02% (-0.02%)] in June, a monthly decline of 0.1% (-0.1%) [0.13% (-0.13%)] in May, an increase in April of 0.2% [up by 0.17%], a March drop of 0.3% (-0.3%) [down by 0.29% (-0.29%)], and monthly gains of 0.1% [up by 0.12%] in February, 0.6% [0.55%] in January, and 0.3% [0.26%] in December 2016.

Unadjusted September 2017 CPI-U gained by 0.53% and 0.30% in August, having declined in July by 0.07% (-0.07%), and having gained by 0.09% in June, 0.09% in May, 0.30% in April, 0.08% in March, 0.31% in February, 0.58% in January and 0.03% in December 2016.

Major CPI-U Groups. The adjusted September 2017 CPI-U monthly inflation gain was dominated by surging energy costs, along with gains in food and in the "core" inflation (everything but food and energy) sectors. On an unadjusted basis, a similar pattern of month gains was seen.

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Encompassed by the September 2017 CPI-U seasonally-adjusted monthly gain of 0.55% [up by 0.53% unadjusted], September 2017 food inflation rose by 0.10% [up by 0.20% unadjusted], energy inflation jumped by 6.05% in September [up by an unadjusted 4.77%], while the adjusted August “Core” (ex-food and energy) inflation rate rose by 0.13% [up by 0.19% unadjusted].

Running contrary to FOMC hopes and expectations, “Core” CPI-U inflation has yet to regain 2.0% in the current cycle, showing unadjusted year-to-year inflation of 1.69% in September 2017, versus 1.68% in August 2017, 1.69% in July 2017, 1.70% in June 2017, 1.73% in May 2017, 1.88% in April 2017, 2.00% in March 2017, 2.22% in February 2017, 2.27% in January 2017 and versus 2.20% in December 2016.

September 2017 seasonal adjustments for monthly gasoline inflation—usually reflective of the dominant pressure in energy prices—turned positive in July, August and September, having been heavily negative since February, turning a September 2016 CPI-U unadjusted monthly gain of 10.61% in gasoline prices to an adjusted monthly gain of 13.08%. The Department of Energy (DOE) had estimated an unadjusted monthly gain in September of 10.71%.

While early-October 2017 retail gasoline prices (DOE) are running lower month-to-month versus September, by an order of magnitude of 4% (-4%), reflecting some recovery from the production and delivery disruptions of Hurricane Harvey, positive seasonal adjustments to October 2017 gasoline suggest a still net-negative monthly impact of gasoline on the headline CPI, both before and after positive seasonal adjustment.

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

Year-to-year, CPI-U inflation would increase or decrease in next month’s October 2017 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, headline gain of 0.29% in October 2016 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for October 2017, the difference in October’s headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the September 2017 annual inflation rate of 2.23%. Given an early guess of a seasonally-adjusted, flat-to-minus monthly October 2017 CPI-U, that would leave the annual CPI-U inflation rate for October holding at about 2.2%, plus-or-minus.

[Corrections to Estimated Quarterly, Year-to-Year and Annualized Quarter-to-Quarter CPI Inflation Rates as Previously Reported Here.] Due to an error in computation of some annualized and year-to-year quarterly CPI growth rates (numbers used by ShadowStats only in this *Commentary* text), some headline details have been misreported in recent months. The correct rates of quarterly change are reflected in the following detail. The monthly details all have been accurate, as have been any calculations tied to real retail sales, real average weekly earnings, real consumer credit outstanding, real Money Supply M3, the Alternate ShadowStats CPI calculation, etc., all of which are estimated separately using just the appropriate headline, monthly CPI detail, direct from the BLS numbers. I apologize to subscribers for the error and shall do my utmost to prevent recurrence. – *John Williams]*

Quarterly CPI-U. On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-U rose by 2.01% in third-quarter 2017, declined by 0.31% (-0.31%) in second-quarter 2017, having gained by 3.15% in first-quarter 2017, 3.04% in fourth-quarter 2016, 1.78% in third-quarter 2016, 2.33% in second-quarter 2016 and 0.11% in first-quarter 2016.

On an unadjusted, year-to-year basis, annual inflation by quarter was up by 1.97% in third-quarter 2017, versus 1.90% in second-quarter 2017, versus 2.54% in first-quarter 2017, 1.80% in fourth-quarter 2016, 1.12% in third-quarter 2016, 1.05% in second-quarter 2016 and 1.08% in first-quarter 2016.

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

CPI-W. The September 2017 seasonally-adjusted, headline CPI-W, which is a narrower series and has greater weighting for gasoline than does the CPI-U, rose month-to-month by 0.66% in September 2017, following monthly gains of 0.46% in August 2017 and 0.10% in July, declines of 0.05% (-0.05%) in June and 0.20% (-0.20%) in May, a monthly gain of 0.18% in April, a decline of 0.37% (-0.37%) in March, and gains of 0.06% in February, 0.61% in January and 0.29% in December 2016.

On an unadjusted basis, year-to-year CPI-W rose to 2.31% in September, versus 1.93% in August 2017, 1.64% in July 2017, 1.50% in June 2017, 1.78% in May 2017, 2.14% in April 2017, 2.35% in March 2017, 2.82% in February 2017, 2.51% in January 2017 and 1.99% in December 2016.

Quarterly CPI-W. On an annualized quarter-to-quarter basis, seasonally-adjusted CPI-W rose by 2.14% in third-quarter 2017, having declined by 0.77% (-0.77%) in second-quarter 2017, having gained by 3.22% in first-quarter 2017, by 3.30% in fourth-quarter 2016, 1.54% in third-quarter 2016 and 2.35% in second-quarter 2016, having declined in first-quarter 2016 by 0.55% (-0.55%). On an unadjusted year-to-year basis, annual inflation by quarter was up by 1.96% in third-quarter 2017, versus 1.80% in second-quarter 2017, versus 2.56% in first-quarter 2017, 1.65% in fourth-quarter 2016, 0.76% in third-quarter 2016, 0.71% in second-quarter 2016 and 0.79% in first-quarter 2016.

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

Chained-CPI-U. The headline C-CPI-U is not seasonally adjusted, but it is revised quarterly for the prior year, as was seen last in the headline July 2017 reporting. Year-to-year change for the headline September 2017 C-CPI-U annual inflation came in at 2.22%, versus 1.82% in August 2017, 1.51% in July 2017, 1.39% in June 2017, 1.66% in May 2017 and 2.02% in April 2017.

Quarterly C-CPI-U, Year-to-Year. On an unadjusted, year-to-year basis, annual inflation by quarter was up by 1.85% in third-quarter 2017, versus 1.69% in second-quarter, 2.41% in first-quarter 2017, 1.51% in fourth-quarter 2016, 0.74% in third-quarter 2016, 0.73% in second-quarter 2016 and 0.76% in first-quarter 2016.

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

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

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

Alternate Consumer Inflation Measures. The ShadowStats-Alternate Consumer Inflation Measures are constructed on top of the unadjusted CPI-U series. Adjusted to 1990 methodologies—the ShadowStats-Alternate Consumer Inflation Measure (1990-Base)—year-to-year annual inflation was roughly 5.8% in September 2017, versus 5.5% in August 2017, 5.3% in July 2017, 5.2% in June 2017, 5.5% in May 2017, 5.8% in April 2017, 6.0% in March 2017, 6.3% in February 2017, 6.1% in January 2017 and 5.7% in December 2016.

The September 2017 ShadowStats-Alternate Consumer Inflation Measure (1980-Base), which reverses gimmicked changes to official CPI reporting methodologies back to 1980, was at about 10.0% (9.98% at the second decimal point), versus 9.7% (9.67%) in August 2017, 9.4% (9.44%) in July 2017, 9.3% (9.34%) in June 2017, 9.6% (9.60%) in May 2017, 10.0% (9.95%) in April 2017, 10.1% (10.14%) in March 2017, 10.5% (10.53%) in February 2017, 10.3% (10.27%) in January 2017 and 9.8% (9.81%) in December 2016. Detail, along with an inflation calculator will be found in the CPI section of the Alternate Data tab of the www.ShadowStats.com home page.

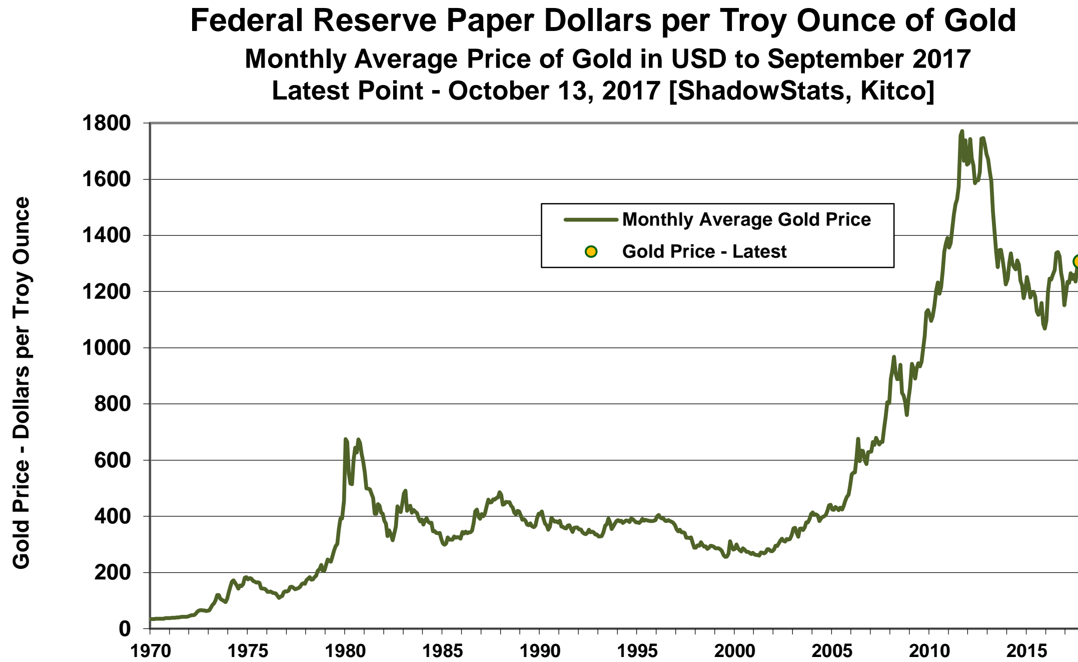
Note: The ShadowStats-Alternate Consumer Inflation Measures largely have been reverse-engineered from BLS estimates of the anticipated impact on annual CPI inflation from various changes made to CPI reporting methodology since the early 1980s, as also incorporated in the CPI-U-RS series. That series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

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

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

inflation from what it would have been otherwise (See [Public Commentary on Inflation Measurement](#) *for further details.)*

Graph 10: Monthly Average Gold Price in Dollars (Federal Reserve Notes)



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

CPI-U: GOLD at $2,697 per Troy Ounce, SILVER at $157 per Troy Ounce
ShadowStats: GOLD at $14,617 per Troy Ounce, SILVER at $850 per Troy Ounce

Despite the September 5, 2011 historic-high gold price of $1,895.00 per troy ounce (London afternoon fix), and despite the multi-decade-high silver price of $48.70 per troy ounce (London fix of April 28, 2011), gold and silver prices have yet to re-hit their 1980 historic levels, adjusted for inflation. The earlier all-time high of $850.00 (London afternoon fix, per Kitco.com) for gold on January 21, 1980 would be $2,697 per troy ounce, based on September 2017 CPI-U-adjusted dollars, and $14,617 per troy ounce, based on September 2017 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (all series here are not seasonally adjusted).

In like manner, the all-time high nominal price for silver in January 1980 of $49.45 per troy ounce (London afternoon fix, per silverinstitute.org)—although approached in 2011—still has not been hit since 1980, including in terms of inflation-adjusted dollars. Based on September 2017 CPI-U inflation, the 1980 silver-price peak would be $157 per troy ounce and would be $850 per troy ounce in terms of the September 2017 ShadowStats-Alternate-CPI (1980-Base) adjusted dollars (again, all series not seasonally adjusted).

Shown in *Table 1*, on page 47 of *No. 859 Special Commentary*, over the decades, the increases in gold and silver prices have compensated for more than the loss of the purchasing power of the U.S. dollar as

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reflected by CPI inflation. They also effectively have come close to fully compensating for the loss of purchasing power of the dollar based on the ShadowStats-Alternate Consumer Price Measure (1980-Methodologies Base).

Real Retail Sales—September 2017—In the Context of Hurricane-Boosted 1.56% Nominal Monthly Sales and Hurricane-Boosted Consumer Inflation of 0.55%, Real Sales Gained 1.00%. (See the prior *RETAIL SALES* Section.)

Real Average Weekly Earnings—September 2017—Month-to-Month Real Earnings Declined, So Did the Quarterly Numbers. *[Note: Details are plotted in today's Executive Summary, Graph 3.]* The headline estimate for September 2017 real average weekly earnings was published along with the release of the headline September 2017 CPI-W. In the production and nonsupervisory employees category—the only series for which there is a meaningful history, the regularly-volatile real average weekly earnings were down month-to-month by 0.25% (-0.25%) in September 2017, versus a revised monthly drop of 0.53% (-0.53%) [previously down by 0.28% (-0.28%) in August and a minimally, upwardly-revised gain of 0.17% [previously 0.13%, initially 0.18%] in July.

Year-to-year, the adjusted September 2017 real change slowed to 0.23%, versus a downwardly-revised 0.47% [previously 0.68%] in August and an upwardly-revised gain of 0.67% [previously 0.62%, initially 0.71%] in July 2017.

The first full estimate of annualized quarterly change in third-quarter 2017 real average weekly earnings contracted minimally by 0.01% (-0.01%) [based solely on the initial reporting for July and August 2017, the early-trend for real third-quarter 2017 activity had been for an annualized quarterly gain of 1.01%].

Second-quarter 2017 activity reflected a revised, annualized real quarterly gain of 4.43%, following contractions in first-quarter 2017 of 1.13% (-1.13%), in fourth-quarter 2016 of 1.36% (-1.36%), and third-quarter 2016 growth of 1.48%, a second-quarter 2016 contraction of 0.11% (-0.11%) and first-quarter 2016 annualized growth of 1.81%.

Year-to-year growth in the initial estimate of third-quarter 2017 real earnings slowed to 0.45% [based solely on the initial reporting for July and August 2017, the early-trend for real third-quarter 2017 activity had been for an annual gain of 0.71%].

Year-to-year change in second-quarter 2017 real earnings was unrevised at revised 0.83%, following an annual contraction of 0.29% (-0.29%) in first-quarter 2017, which had been the first annual or year-to-year quarterly contraction since fourth-quarter 2012, when the real GDP effectively was unchanged quarter-to-quarter. The signal there highlighted financial stresses on the consumer and continuing major downside risk to headline real GDP reporting.

The 2015 rally in real annual income and the subsequent slowdown in latter 2016 and pickup, now slowdown in 2017 pickup remain tied directly to the impact of irregularly-collapsing/rising gasoline prices, and intermittent, subsequent rebound/decline in inflation-adjusted income.

While these usually heavily-revised and seasonally-adjusted monthly changes are without much, if any, meaning in the near-term—effectively reporting garbage—over the longer term and quarterly, and particularly the benchmarked trends tend to be of some substance. As with the BLS reporting tied to the nonfarm payrolls, the headline seasonally-adjusted monthly data here are not comparable due to reporting

issues with concurrent seasonal factor adjustments (see *Headline Distortions from Shifting Concurrent-Seasonal Factors* on page 21 of *Commentary No. 908-B*).

Separately, the CPI-W-deflated reporting here also is biased versus the CPI-U-deflated series, where the CPI-W—more heavily weighted with gasoline prices—tends to have much deeper, negative headline inflation, with resulting stronger headline, real growth than would be seen with the CPI-U, when gasoline prices are falling, and vice versa. Such was seen in September 2017 detail, where stronger, seasonally adjusted gasoline prices helped to generate a headline, seasonally-adjusted CPI-W gain of 0.66% month-to-month, versus the parallel CPI-U gain of 0.55%.

Again, *Executive Summary, Graph 3* plots this series, showing the seasonally-adjusted earnings as officially deflated by the BLS (red-line), and as adjusted for the ShadowStats-Alternate CPI Measure, 1990-Base (blue-line). When inflation-depressing methodologies of the 1990s began to kick-in, the artificially-weakened headline CPI-W (also used in calculating Social Security cost-of-living adjustments) helped to prop up the reported real earnings. Official real earnings today still have not recovered their inflation-adjusted levels of the early-1970s, and, at best, have been in a minimal uptrend for the last two decades (albeit spiked recently by negative headline inflation). Deflated by the ShadowStats (1990-Based) measure, real earnings have been in fairly-regular decline for the last four decades, which is much closer to common experience than the pattern suggested by the CPI-W. See the *Public Commentary on Inflation Measurement* for further detail.

Real (Inflation-Adjusted) Money Supply M3—September 2017—Annual Growth Notched Higher, Reflecting a Stronger Uptick in Nominal M3 Growth Than Seen in the CPI-U. The signal for a double-dip, multiple-dip or simply protracted, ongoing recession, based on annual contraction in the real (inflation-adjusted) broad money supply (M3), recently had been re-triggered/intensified, but that signal then softened with a continuing, contrary bounce in May 2017. The previous signal had been, and has remained in place, despite real annual M3 growth having rallied into positive territory post-2010, and the real growth pattern turned down anew, with annual nominal M3 growth slowing faster than CPI-U annual inflation in June 2017, with a reversal of trend, again, in July, August and September 2017.

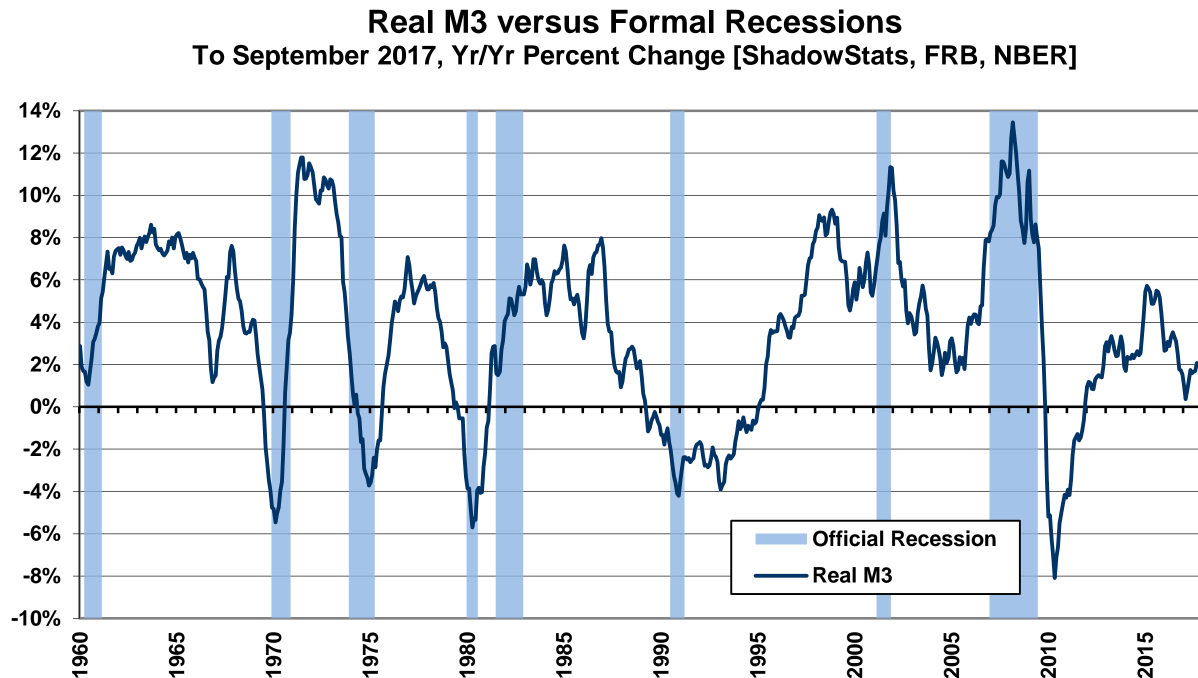
Shown in *Graph 11*—based on the September 2017 CPI-U reporting and the latest ShadowStats-Ongoing M3 Estimate—annual inflation-adjusted growth in September 2017 M3 moved higher to 2.07%, versus a revised 1.70% [previously 1.62%] in August and a revised 1.67% [previously 1.59%]. Those levels of activity remained down from unrevised peak growth of a 5.71% in February 2015. The firming in the September versus August number, reflected an increase in nominal September 2017 M3 annual growth to 4.30%, from 3.64% [previously 3.56%] in August 2017 and from a revised 3.39% [previously 3.32%] in July 2017 (see prior *Commentary No. 915*), with an offset from a gain in unadjusted headline CPI-U annual inflation from 1.73% in July 2017 to 1.94% in August 2017 and to 2.23% in September (see the September CPI-U headline detail).

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

The signal for a downturn or an intensified downturn is generated when annual growth in real M3 first slows sharply, approaches zero and turns negative in a given cycle; the signal is not dependent on the depth of the downturn or its duration. Breaking into positive territory does not generate a meaningful

signal one way or the other for the broad economy. The previous "new" downturn signal was generated in December 2009, even though there had been no upturn since the economy purportedly hit bottom in mid-2009. The ongoing issue here confounding the regular signal is that the U.S. economy never has recovered fully from its collapse into 2009 (see *Commentary No. 877* and *Commentary No. 902-B*). The initial economic downturn never evolved into a meaningful or sustainable recovery. The current level and pattern of real annual M3 growth generally has been followed by annual contraction and recession signal.

Graph 11: Real M3 Annual Growth versus Formal Recessions



Again, when real M3 growth breaks above zero, there is no signal; the signal is generated only when annual growth moves to zero and into negative territory, from which it has backed off at present. The broad economy tends to follow in downturn or renewed deterioration roughly six-to-nine months after the signal. Weaknesses in a number of economic series have continued to the present, with significant new softness in recent reporting. Actual post-2009 economic activity has remained at relatively low levels—in protracted stagnation—with no actual recovery (again, see *Commentary No. 907*, and the *ECONOMY* section of *No. 859 Special Commentary*).

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

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PRODUCER PRICE INDEX—PPI (September 2017)

September 2017 Final Demand PPI: Hurricane-Driven, Surging Energy-Inflation Boosted Annual Inflation to a 67-Month High. The Bureau of Labor Statistics (BLS) indicated there were no effects on PPI data collection here, due to hurricanes. That said, the sharp headline jump in energy costs, which drove headline PPI inflation higher, largely was due to Hurricane Harvey's damage to oil refinery, production and exploration facilities. Energy sector costs again were the largest contributing factor to the monthly PPI gain. Such spiked the headline, aggregate Final Demand PPI annual inflation to a 67-month high of 2.62%.

Renewed Annual Inflation Spike Still Is Not Due to an Overheating Economy. Where headline year-to-year inflation had hit a 62-month high of 2.45% in April 2017, backed off to 1.90% July 2017, and jumped back to 2.35% in August 2017 and now to 2.62% in September 2017—previously discussed here—recent relative strength in annual headline PPI-FD inflation has not reflected an overheating economy, as claimed by some at the Fed. The headline issue remains energy-price distortions in the last several years that have been rigged heavily through the Federal Reserve's interest-rate jawboning and dollar-propping gimmicks, combined with recent OPEC-supply jawboning. That said, headline September 2017, seasonally-adjusted monthly energy prices jumped sharply for month, with August prices also having rebounded sharply but having declined sharply for the three prior months.

Separate from the definitional issues of the dominant services sector, the old-fashioned, headline seasonally-adjusted monthly goods inflation in September 0.72%, reflected food prices "unchanged" at 0.00%, with energy prices up by 3.36% and "core" inflation (ex-food and energy) up by 0.27%. Before seasonal adjustments, goods inflation gained by 0.54% in the month, with food inflation down by 0.17% (-0.17%) and with energy prices up by 3.27% and "core" inflation up by 0.09%.

Massive PPI Overhaul Due for Publication in February 2018. Announced initially the August 10th *Press Release*, all PPI weightings will undergo significant revisions (updating current weightings, based on 2007, to weightings based on 2012 detail.). Final Demand Producer Price Index and its key component indices such as Final Demand Goods and Final Demand Services only go back to November 2009. Current starting-month index levels of 100.0 will be maintained at 100.0.

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

For the May 2017 PPI revision, released with the September 2017 reporting, the seasonally-adjusted headline index level revised lower by 0.09% (-0.09%), with the monthly change revising from a month-to-month gain of 0.09% to an "unchanged" 0.00%. Net negative revisions of 0.09% (-0.09%) were seen in each of the goods and services, with the minimally-weighted construction sector inflation revising higher by 0.09%. As usual, though, the internal numbers did not add up to provide a consistent picture, particularly in the context of seasonal adjustments. Where the data-consistency issues often are across-the-board, they were reasonably tame in September. Most frequently the consistency issues are generated on the dominant services-side of the reporting (see *Inflation That Is More Theoretical than Real World*).

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

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

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

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

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

September 2017 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported October 12th, that the seasonally-adjusted, month-to-month, headline Producer Price Index Final-Demand (PPI-FD) inflation for September 2017 rose by 0.44%, versus a gain of 0.18% in August, deflation of 0.09% (-0.09%) July, versus a revised gain of 0.18% [previously 0.09%] in June, due to the five-month revision to May, which now stands at a revised "unchanged" of 0.00% [previously a gain of 0.09%, initially "unchanged" at 0.00%].

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI-FD inflation in September 2017 jumped to a 67-month high of 2.62%, versus 2.35% in August 2017, 1.90% in July 2017, 1.99% in June 2017 and a revised 2.27% [previously 2.36%] in May 2017.

For the three major subcategories of September 2017 PPI-FD, headline monthly Goods inflation rose by 0.72%, Services "inflation" (profit margins) rose by 0.35% and Construction inflation increased by 0.09%, with respective unadjusted annual growth rates of 3.32%, 2.06% and 3.43%.

Final Demand Goods (weighted at 33.81% of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in September 2017 rose by 0.72%, following a gain of 0.45% in August and a decline of 0.09% (-0.09%) in July. There was positive impact on the aggregate goods headline reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, September inflation gained 0.54% month-to-month.

Unadjusted, year-to-year goods inflation in September 2017 showed an annual gain of 3.32%, following gains of 3.06% in August 2017 and 2.30% in July 2017.

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

- "Foods" inflation (weighted at 5.40% of the total index) was "unchanged" at 0.00% in September 2017, having declined month-to-month in August by 1.28% (-1.28%) and having been "unchanged" at 0.00% in July. Seasonal adjustments were positive for the September headline change, which declined by 0.17% (-0.17%) unadjusted. Unadjusted and year-to-year, annual September 2017 foods inflation rose by 1.22%, having gained by 1.75% in August 2017 and by 1.90% in July 2017.
- "Energy" inflation (weighted at 5.50% of the total index) gained month-to-month by 3.36% in September 2017, having gained by 3.26% in August and having declined by 0.31% (-0.31%) in July. Seasonal adjustments were positive in September, with unadjusted monthly energy inflation up by 3.27%. Unadjusted and year-to-year, September 2017 energy prices gained 10.62%, versus annual gains of 8.61% in August 2017 and 4.13% in July 2017.
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 22.91% of the total index) gained by 0.27% in September 2017, having gained 0.18% in August and having declined by 0.09% (-0.09%) in July. Seasonal adjustments were positive for monthly core inflation, with unadjusted monthly September inflation up by 0.09%. Unadjusted and year-to-year, September 2017 "core" inflation rose to 2.17%, versus 1.99% in August 2017 and 1.90% in July 2017.

Final Demand Services (weighted at 64.12% of the Aggregate Index). Headline Final Demand Services inflation increased by 0.35% in September 2017, having gained 0.09% in August and having declined by 0.18% (-0.18%) in July. The overall seasonal-adjustment impact on headline services inflation was positive, with an unadjusted monthly gain also at 0.18%. Year-to-year, unadjusted September 2017 services inflation held at 2.06%, versus 2.06% in August 2017 and versus 1.79% in July 2017.

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

- "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 38.87% of the total index) monthly inflation here rose by 0.09% for a second month in

September 2017, same as in August, having gained 0.18% in July. Seasonal-adjustment impact on the adjusted September detail was positive, where the unadjusted monthly reading was unchanged at 0.00%. Unadjusted and year-to-year, September 2017 "other" services inflation was up by 1.98%, having gained 1.89% in August 2017 and 2.07% in July 2017.

- "Transportation and warehousing" inflation (weighted at 4.99% of the total index) rose by 0.96% in September 2017, having gain 0.35% in August 2017 and having declined month-to-month by 0.78% (-0.78%) in July. Seasonal adjustments were positive for the headline September reading, versus an unadjusted monthly decline of 0.09% (-0.09%). Unadjusted and year-to-year, September 2017 transportation inflation rose by 3.31%, versus 1.58% in August 2017 versus 1.05% in July 2017.
- "Trade" inflation (weighted at 20.26% of the total index) rose by 0.79% month-to-month in in September 2017 having been "unchanged" at 0.00% August having and having declined by 0.52% (-0.52%) in July. Seasonal adjustments had a negative impact, where the unadjusted monthly change was 0.96%. Unadjusted and year-to-year, September 2017 trade inflation rose to an annual gain of 2.21%, versus 2.14% in August 2017 and 1.42% in July 2017.

Final Demand Construction (weighted at 2.07% of the Aggregate Index). Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Month-to-month construction inflation rose by 0.09% in September, following gains of 0.26% in August and 1.21% in July. The impact of seasonal factors on the September reading was neutral, as usual, where the unadjusted monthly gain also was 0.09%. The issues here are a combination of monthly headline cost changes along with a quarterly estimate of contractor profit-margin changes that have little connection to real-world activity. The latter circumstance was addressed in *Commentary No. 829*.

On an unadjusted basis, year-to-year construction inflation rose to 3.43% in September 2017, versus 3.34% in August 2017 and 3.17% in July 2017. For the first time recent memory, the PPI annual change has moved closer to the estimates of private surveying and other government estimates (GDP deflators), which usually show much higher construction-related inflation than the PPI, by an order of magnitude of a couple of hundred basis points. Annual inflation in those measures, however also appears to be on the rise. Discussed in *Commentary No. 829*, ShadowStats has constructed a Composite Construction Deflator (CCD) now used by ShadowStats in deflating the Census Bureau's monthly estimates of Construction Spending Put in Place in the United States (see *Commentary No. 914*).

PPI-Inflation Impact on Pending Reporting of August 2017 New Orders for Durable Goods. As to the upcoming reporting of September 2017 New Orders for Durable Goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods in September 2017 gained 0.06% month-to-month, having gained 0.06% in August and having been unchanged at 0.00% in July. Year-to-year annual inflation rose to 1.74% in September 2017, having gained at 1.56% in August 2017 as well as 1.56% in July 2017. September 2017 durable goods orders (both nominal and real) will be reported and calculable on October 25th, with coverage in *Commentary No. 918* of that date.

Fully updated *Hyperinflation Watch*, *Consumer Liquidity Watch* and *Week, Month and Year Ahead* sections return with the next *Regular Commentary No. 917*

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