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

COMMENTARY NUMBER 908-B

August Labor Detail and Payroll Benchmarking, July Trade Deficit and Construction

September 6, 2017

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Benchmark Revision Added 95,000 Jobs to March 2017 Payrolls

Amidst Narrowed Revisions, July 2017 Real Merchandise Trade Deficit Widened; Most-Recent Four Quarters of Real Deficit to Second-Quarter 2017 Were Worst Since 2007; With That Trend Continuing into Early Third-Quarter

August 2017 Unemployment Rates Notched Higher: U.3 Rose to 4.44% versus 4.35%, U.6 Rose to 8.59% versus 8.57%, and the ShadowStats-Alternate Rose to 22.2% versus 22.1%

August Household Survey Employment Declined by 74,000 (-74,000); Full-Time Jobs Dropped by 166,000 (-166,000)

Weaker-Than-Expected August Payroll Jobs Gain of 156,000 was Just 115,000 Net of the July Revisions, Within Range of Statistical Insignificance

August Payroll and Full-Time Employment Annual Growth Rates Dropped to 1.45% and 1.16%, Levels Common at the Onset of Recessions

Deepening Real Annual Decline in July 2017 Construction Spending Continued in a Manner Last Seen During the 2006 Housing Collapse, Despite Upside Revisions to May and June Activity

Shy of Recovering Its Pre-Recession Peak by 23.1% (-23.1%), Real Construction Spending Continued in Intensifying Downtrend

Faltering Economic Activity and Intensifying Political Discord Increasingly Peril the Dollar and Intensify Risks of Market Turmoil

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PLEASE NOTE: The next regular Commentary *on Thursday, September 14th, will review the August Consumer and Producer Price Indices (CPI and PPI) and update the financial-market outlook, followed by a* Commentary *on Friday, September 15th, covering August Retail Sales and Industrial Production.*

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

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Today's *Opening Comments and Executive Summary* **(September 6th).** The *Opening Comments and Executive Summary* reviews the Payroll Employment benchmark revisions and the unfolding economic circumstance based on the latest economic reporting. The labor and construction-spending numbers published in Friday's (September 1st) *Advance Commentary No. 908-A* are repeated and expanded upon in today's *Commentary*, with the details, both new and as previously reported, covered in the *Reporting Detail*.

The *Reporting Detail* (page 4) provides the regular full analysis of the July 2017 Trade Deficit and Construction Spending and the August 2017 Employment and Unemployment numbers, including a reorganized *Supplemental Labor-Detail Background* section on page 21.

The *Hyperinflation Watch* (page 35) covers August 2017 monetary conditions, repeated from *Advance Commentary No. 908-A*, updated for the headline Saint Louis Fed reporting of the August 30th Monetary Base.

The *Consumer Liquidity Watch* (page 38) has been updated for the full-August reading of the University of Michigan's Consumer Sentiment measure.

The *Week, Month and Year Ahead* (page 48) provides links to recent *Commentaries* and previews next week's August 2017 CPI, PPI (including likely impact from Hurricane Harvey), Industrial Production and Retail Sales.

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OPENING COMMENTS AND EXECUTIVE SUMMARY

2017 Payroll Benchmark Revision Was to the Upside by 95,000 Jobs. This morning, September 6th, the Bureau of Labor Statistics (BLS) published its preliminary *2017 Benchmark Revision to Payroll Employment*, indicating an upside revision to the March 2017 jobs count of 95,000. March of each calendar year is the designated benchmark month.

Given the regular, overstated upside biases structured into the headline, monthly payroll gains (see the *Supplemental Labor-Detail Background* on page 21), the annual benchmark revisions usually are to the downside. The upside revision of 95,000 is a relatively minor change, and still could end up on the downside for the latest headline detail, in its final implementation (to be published in February 2018 in conjunction with the headline June 2018 payroll data). Conversely, the more-common negative benchmarkings often end up on the upside, in their final implementations. Detail of the announced revision is shown in *Table 1*.

The benchmarking is based on the BLS comparing its employment estimates with state unemployment insurance tax records. Discussed in the *Supplemental Labor-Detail Background,* these revisions have only minimal impact on the aggregate upside biases that the BLS publishes and uses, officially at 926,000

per year, as of July 2017, perhaps now destined to top 1,000,000 per year. The structural upside biases added in to account for the theoretical jobs-surveying shortfall that results from new companies being formed faster than those going out of business (Birth-Death Model), run counter to underlying evidence and experience. Accordingly, underlying aggregate upside payroll biases appear to run in excess of 2.5 million per year, more than 200,000 jobs per month, bloating headline monthly payroll jobs gains.

Table 1: Preliminary 2017 Benchmark Payroll Revisions (March 2017)

Table 1 Preliminary 2017 Payroll Benchmark Revisions For the Level of the March 2017 Jobs Count	
Major Industry Sector	**Revision**
Leisure and Hospitality	113,000
Information	77,000
Trade, Transportation and Utilities	74,000
Education and Health Services	54,000
Construction	50,000
Manufacturing	23,000
Financial Activities	9,000
Other Services	6,000
Government	-3,000
Mining and Logging	-32,000
Professional and Business Services	-276,000
Total Nonfarm Payrolls	**95,000**
Source: Bureau of Labor Statistics, ShadowStats	

Discussed in the regular *ShadowStats* coverage of monthly payroll-employment reporting, the headline payroll counts tally all part-time jobs the same as full-time jobs as "employment." Therefore, an individual who is holding two part-time jobs is counted twice in the Payroll Survey, where the Household Survey counts each individual only once, irrespective of the number of jobs held. There are other major differences between the surveys, where for example the Payroll Survey does not cover agriculture, otherwise covered in the Household Survey. That said, the headline August 2017 Payroll Survey showed a monthly "jobs" gain of 156,000, while Household Survey showed a monthly decline of 74,000 (-74,000) in "employed" individuals (see the *Reporting Detail* and related *Graphs 12* and *16*).

Table 1, reflects an upside revision of 113,000 jobs in March 2017 for the leisure and hospitality sector, which has been showing gains throughout the year, yet that sector's increases also could reflect heavily gains in part-time jobs, as likely would be the case for part of the 50,000 jobs upside revision in the construction sector. Hit on the downside was the professional and business services sector, which had

shown regular, strong growth, with big gains often seen in temporary-help services. The broad business services sector in March 2017 was revised lower by 276,000 (-276,000) jobs.

Economic Troubles Continued to Mount. Intensifying weakness in both the August 2017 labor data and the July 2017 real construction spending signaled recession, as discussed in the *Reporting Detail*. The headline July 2017 trade number was relatively neutral versus expectations. Previewed in the *Week, Month and Year Ahead* section, headline reporting of August industrial production and retail sales next week (September 15th), is a fair bet to come in on the downside of market expectations for both series. Combined with continuing domestic political discord, mounting global political tensions and what has begun to unfold as an absolutely horrendous hurricane season, pressures likely will continue to mount against the U.S. dollar and U.S. equities, with upside pressures on prices for precious metals and oil. Those circumstances will be updated and reviewed in *Commentary No. 909* of September 14th.

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REPORTING DETAIL

U.S. TRADE DEFICIT (July 2017)

Latest Four Quarters of Real Deficit Were Worst Since 2007, With the Trend Continuing into Third-Quarter 2017. In the context of the aggregate, first-half 2017 nominal trade deficit in goods and services narrowing in revision to $275.407 billion, from the headline $276.597 billion reported with the initial June 2017 detail (*Commentary No. 903*), and in the context of June 2017 deficit narrowing in revision to $43.543 billion from its initial headline reading of $43.642 billion, the July 2017 deficit widened minimally to $43.689 billion.

Adjusted for inflation, as shown in *Graph 1* and detailed in the *Real July 2017 Merchandise Trade Deficit* section, the fourth-quarter 2016 real merchandise trade deficit was the worst showing in ten years, with the subsequent first- and second-quarter 2017 shortfalls only minimally narrowed, and with the early third-quarter trend (July 2017) suggesting the same. Also seen in *Graph 1*, the four-quarter moving average of the annual real merchandise trade deficit, through the third-quarter 2017 early trend, was the worst trade shortfall since 2007, still a broadly-negative contributor to headline real GDP growth.

Nominal July 2017 Trade Deficit. The Bureau of Economic Analysis (BEA) and the Census Bureau reported this morning, September 6th, that the nominal (not adjusted for inflation), seasonally-adjusted monthly trade deficit in goods and services for July 2017 widened minimally on a balance-of-payments basis by $0.146 billion to $43.689 billion, versus a revised deficit of $43.543 [previously $43.642] billion in June. The minimal deterioration in the monthly deficit reflected a decrease of $0.565 (-$0.565) billion in monthly exports, which was shy of being offset fully by a decline of $0.418 (-$0.418) billion in imports. The headline July 2017 deficit deteriorated by $2.395 billion, versus the year-ago $41.294 billion trade shortfall for July 2016.

Factors affecting the changes to the July trade balance were declining exports of automobiles and cellphones and increasing exports of civilian aircraft, versus declining imports of automobiles and oil and increasing imports of computers. Again, changes in energy-sector activity were tied to declining imports (prices and volume).

Energy-Related Petroleum Products. July 2017 imported oil prices declined by 0.3% (-0.3%) to $43.20 per barrel, versus $44.68 in June 2017, but rose by 5.3% versus $41.02 per barrel in July 2016. Separately, not-seasonally-adjusted physical oil-import volume in July 2017 averaged 7.585 million barrels per day, down from 8.292 million in June 2017 but up from 7.277 million in July 2016.

Ongoing Cautions and Alerts on Data Quality. Monthly trade data can be influenced by irregular shipping patterns, affected by factors ranging from labor disruptions to unusual weather conditions. Damages from Hurricane Harvey should have negative near-term impact on trade-flow activity.

Separately, potentially heavy distortions in headline data continue from distorted and unstable seasonal adjustments. Similar issues affect other economic releases, such as labor conditions and retail sales, where the headline number reflects seasonally-adjusted month-to-month change. Discussed frequently (see *2014 Hyperinflation Report—Great Economic Tumble* for example), the extraordinary length and depth of the current business downturn and related, ongoing disruptions have distorted regular patterns of seasonality.

Real July 2017 Merchandise Trade Deficit. Discussed here and reflected in *Graph 1*, seasonally-adjusted and in real terms, net of oil-price swings and other inflation (2009 chain-weighted dollars, as used in GDP deflation), the July 2017 merchandise trade deficit (no services) widened to $61.600 billion, versus a revised $60.803 [previously $61.023 billion] in June 2017, and it narrowed minimally versus a deficit of $61.366 billion in July 2016.
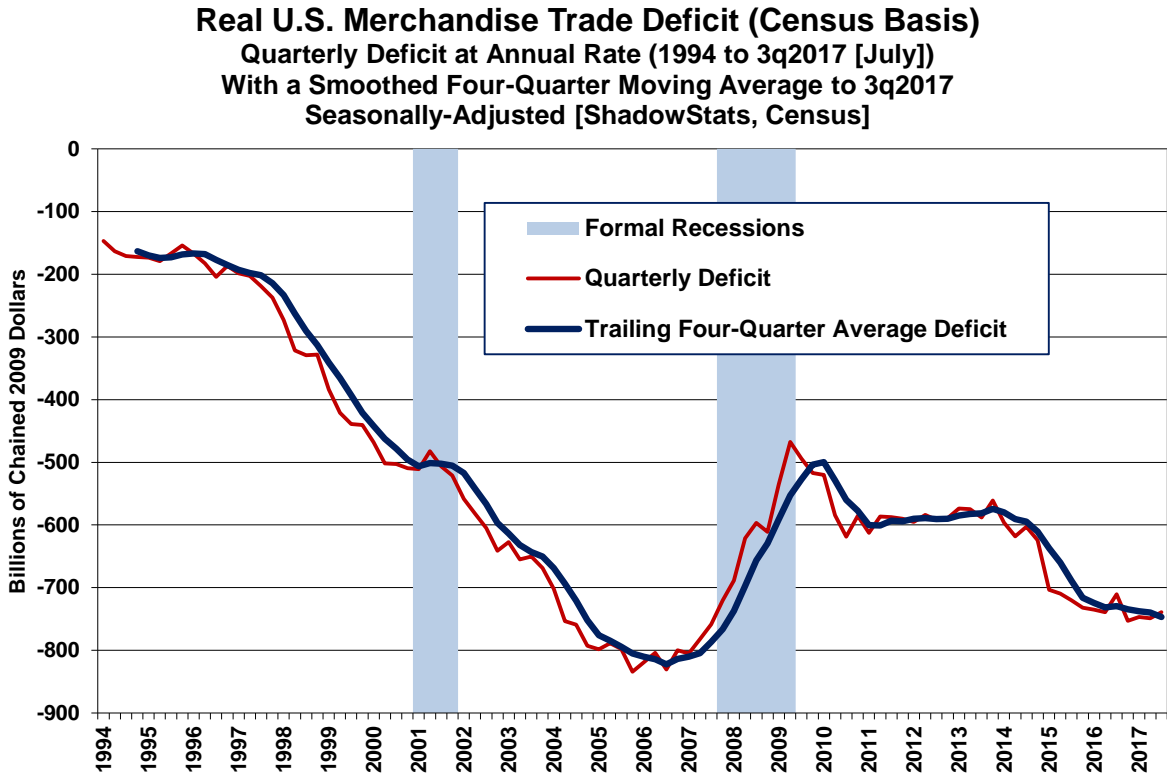
Last year, the annualized deficit was $735.3 billion for first-quarter 2016, $739.4 billion for second-quarter 2016, $710.4 billion for third-quarter 2016 and $753.1 billion for fourth-quarter 2016. The fourth-quarter 2016 deficit was the worst quarterly showing since third-quarter 2007. The annual real merchandise trade deficit widened for the year of 2016 to $747.2 billion, versus $716.4 billion in 2015. The 2016 annual trade shortfall was the worst since 2008.

The first-quarter 2017 deficit narrowed minimally to a revised annual rate of $747.1 billion, with the second-quarter 2017 deficit widening minimally to $749.2 [previously $750.0] billion. Where the fourth-quarter 2016 deficit remained the worst showing since 2007, as shown in *Graph 1*, the four-quarter moving annual average deficit through second-quarter 2017 was the deepest shortfall seen since 2007.

Based solely on the initial headline detail for July 2017, the early trend for the third-quarter 2017 deficit was $739.2 billion. At that level, the four-quarter trailing annual average deficit through third-quarter 2017 would be the deepest shortfall seen since 2007.

Irrespective of occasional, quarterly aberrations and increasingly irregular, headline month-to-month activity, headline deficits broadly should continue to deteriorate sharply in the months and quarters ahead, revising and intensifying the ongoing and commonly-negative impact on headline GDP.

Graph 1: Real Quarterly Merchandise Trade Deficit (1994-2017)

Real U.S. Merchandise Trade Deficit (Census Basis)
Quarterly Deficit at Annual Rate (1994 to 3q2017 [July])
With a Smoothed Four-Quarter Moving Average to 3q2017
Seasonally-Adjusted [ShadowStats, Census]

EMPLOYMENT AND UNEMPLOYMENT (August 2017)

Payrolls Took a Heavy Hit, as Did Full-Time Employment. Headline labor-market details released September 1st by the Bureau of Labor Statistics (BLS) reflected deteriorating circumstances in August 2017 for both the Household Survey (unemployment rate and related circumstances) and the Payroll Survey (payroll employment change), with declining employment in the household survey, and a well-below-consensus payroll gain on top of negative revisions.

In the context of continued, heavily biased reporting out of the BLS, discussed in *Special Commentary No. 885*, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play* (incorporated here by reference), underlying reality in labor conditions is much weaker than popularly touted. The usual major distortions continued in the underlying measurement, definition and reporting of the headline unemployment rate, with the effect that the related numbers remained well removed from common experience.

Specifically, the headline 4.4% August 2017 unemployment rate (up from 4.3% in July) remained far short of reflecting common experience. In contrast, the August 2017 ShadowStats-Alternate Unemployment Rate was estimated to have risen to 22.2% (up from 22.1% in July). At the same time, the headline monthly payroll jobs gain of 156,000 (115,000 net of revisions) in August 2017 likely was in monthly contraction, in reality, thanks to the regular, excessive upside monthly add-factors discussed later

in the *Supplemental Labor-Detail Background* along with the extended assessment of distortions in the household and payroll-employment survey reporting, again, found in *Special Commentary No. 885*.

Separately, annual year-to-year growth rates in both monthly payroll employment (Payroll Survey) and full-time employment (Household Survey) slowed to levels usually seen at the onset of a recession.

Household Survey: *Counting All Discouraged Workers, August 2017 Unemployment Notched Higher to 22.1%.* The headline detail on the employment/unemployment news was negative, with the seasonally-adjusted, U.3 unemployment rate notching higher to 4.44% in July 2017, from 4.35% in June and off its 16-year low of 4.29% in May. The number of unemployed increased by 151,000 in July, in context of the number of employed declining by 74,000 (-74,000). Where much of the variability in those numbers can be in changing part-time versus full-time employment status, full-time employment declined in the month by 166,000 (-166,000). With "declining" long-term discouraged workers, headline U.6 unemployment was little changed at 8.59%, versus 8.57% in July.

Adding back into the total unemployed and labor force the ShadowStats estimate of effectively displaced long-term discouraged workers—a broad measure of unemployment more in line with common experience—the ShadowStats-Alternate Unemployment Estimate for August 2017 was 22.2%, versus 22.1% in July, 22.1% in June, 22.0% in May, 22.1% in April, 22.5% in March and 22.7% in February. The ShadowStats estimate generally shows the toll of long-term unemployed leaving the headline labor force, effectively becoming long-term discouraged or displaced workers (see full description of the series in the *Supplemental Labor-Detail Background,* beginning page 21).
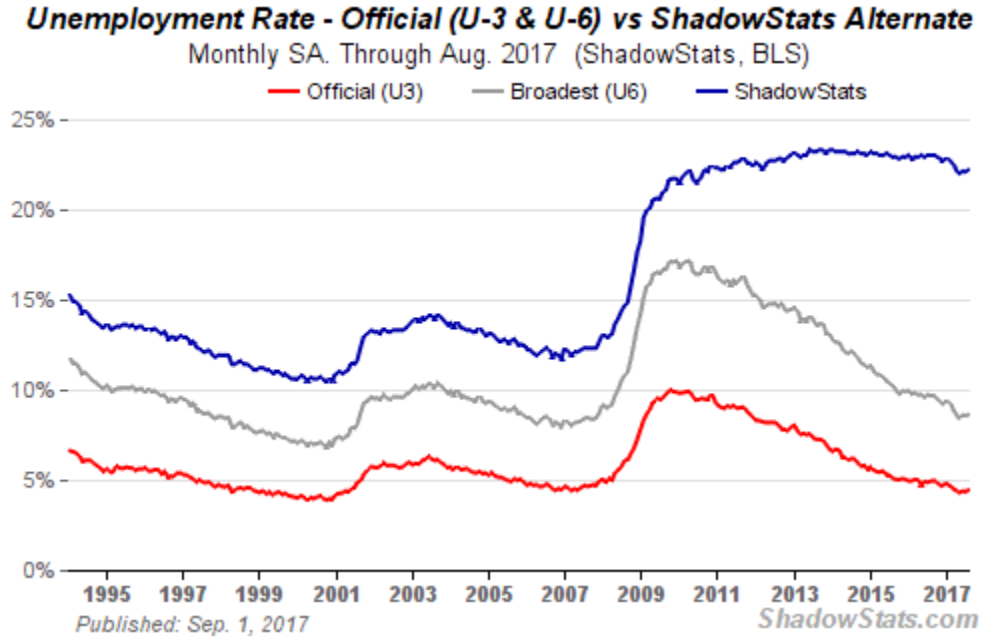
Where the BLS simply refuses to publish consistent monthly details, the seasonally-adjusted, month-to-month numbers reported with the household survey were neither directly comparable nor meaningful, specifically including comparisons of seasonally-adjusted month-to-month the levels of the unemployment rate and the counts of employed and unemployed. The problem remains that while the headline monthly data for August 2017 were calculated using new seasonal-adjustment patterns unique to August 2017, consistent data were not published historically. Standardly, the month-to-month comparisons of the seasonally-adjusted, headline Household Survey data simply are not comparable (again, see the *Supplemental Labor-Detail Background*).

Discussed frequently in these *Commentaries* on monthly unemployment conditions, what removes headline-unemployment reporting from common experience and broad, underlying economic reality, simply is definitional. To be counted among the headline unemployed (U.3), an individual has to have looked actively for work within the four weeks prior to the unemployment survey. If the active search for work was in the last year, but not in the last four weeks, the individual is considered a "discouraged worker" by the BLS and not counted in the headline labor force.

ShadowStats defines that group as "short-term discouraged workers," as opposed to those who, after one year, no longer are counted by the government. Instead, they enter the realm of "long-term discouraged workers," those displaced by extraordinary economic conditions, including regional/local business activity affected negatively by trade agreements or by other factors shifting U.S. productive assets offshore, as defined and estimated by ShadowStats (see the extended comments in the *Supplemental Labor-Detail Background* at the end of this section).

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Graph 2 reflects headline August 2017 U.3 unemployment at 4.44%, versus 4.35% in July and 4.36% in June; headline August 2017 U.6 unemployment at 8.59%, versus 8.57% in July and 8.59% in June; and the headline August 2017 ShadowStats unemployment estimate at 22.2%, versus 22.1% in July and 22.1% in June.

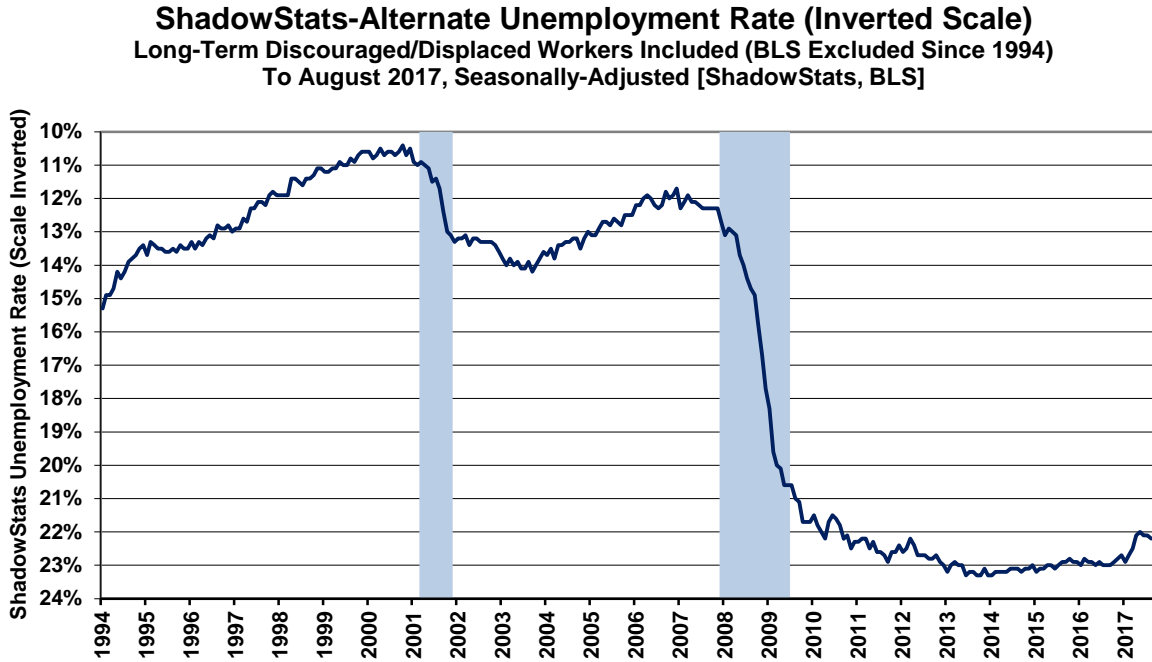**Graph 2: Comparative Unemployment Rates U.3, U.6 and ShadowStats**

Unemployment Rate - Official (U-3 & U-6) vs ShadowStats Alternate
Monthly SA. Through Aug. 2017 (ShadowStats, BLS)
— Official (U3) — Broadest (U6) — ShadowStats
Published: Sep. 1, 2017
ShadowStats.com

Dysfunctional, Seasonally-Adjusted Headline Detail from the Household Survey. With the headline U.3 unemployment rate not far off historic low levels, systemic imbalances and instabilities still are reflected in the labor-force participation rate (labor force/population) and the employment-to-population ratio (headline employment/population), which also are just off historical lows. Yet, in a purportedly healthy, growing economy, those ratios should be approaching historical highs, not near historic lows (see *Graphs 4* and *5*).

Graphs 3 to *5* reflect longer-term unemployment and discouraged-worker conditions. *Graph 3* is of the ShadowStats unemployment measure, with an inverted scale. The higher the unemployment rate, the weaker will be the economy, so the inverted plot tends to move visually in tandem with plots of most economic statistics, where a lower number means a weaker economy. The inverted-scale of the ShadowStats unemployment measure also tends to move with the employment-to-population ratio, which had turned slightly weaker in second-half 2016, but recently had been in an uptrend in 2017, along with monthly jumps and month-to-month inconsistencies in headline employment and the recently rejiggered population numbers (see *Commentary No. 864*). That ratio notched lower in August 2017 to 60.1%, versus 60.2% in July. Nonetheless, that ratio remains somewhat off its post-1994 record low, the historic low and bottom subsequent to the 2007 economic collapse (only the period following the series redefinition in 1994 reflects consistent reporting), as shown in *Graph 4*.
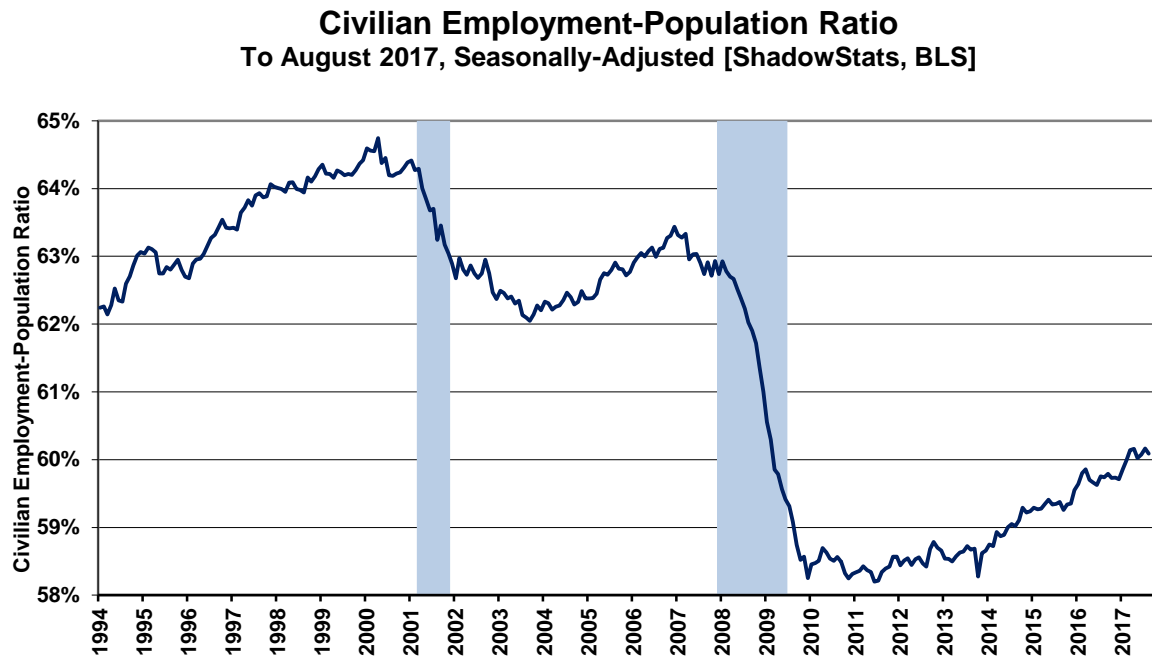
The labor force containing all unemployed (including total discouraged workers) plus the employed, however, tends to be correlated with the population, so the employment-to-population ratio remains

something of a surrogate indicator of broad unemployment, and it has a strong correlation with the ShadowStats unemployment measure.

*Graph 3: Inverted-Scale ShadowStats Alternate Unemployment Measure*

ShadowStats-Alternate Unemployment Rate (Inverted Scale)
Long-Term Discouraged/Displaced Workers Included (BLS Excluded Since 1994)
To August 2017, Seasonally-Adjusted [ShadowStats, BLS]

Graph 4: Civilian Employment-to-Population Ratio

Civilian Employment-Population Ratio
To August 2017, Seasonally-Adjusted [ShadowStats, BLS]

Shown in *Graph 5,* the August 2017 participation rate (the ratio of the headline labor force to the population) held about even at 62.9% having continued to fluctuate shy of the 63% mark for the last year. Both the Employment-to-Population Ratio and the Participation Rate appear to have suffered near-term spikes and volatility from the population redefinitions in January 2016, but fell off again in the second half of 2016, only to spike again in the environment of the January 2017 population redefinitions, again falling off thereafter.

Graph 5: Labor-Force Participation Rate

Participation Rate [Labor Force as a Percent of Population]
To August 2017, Seasonally-Adjusted [ShadowStats, BLS]
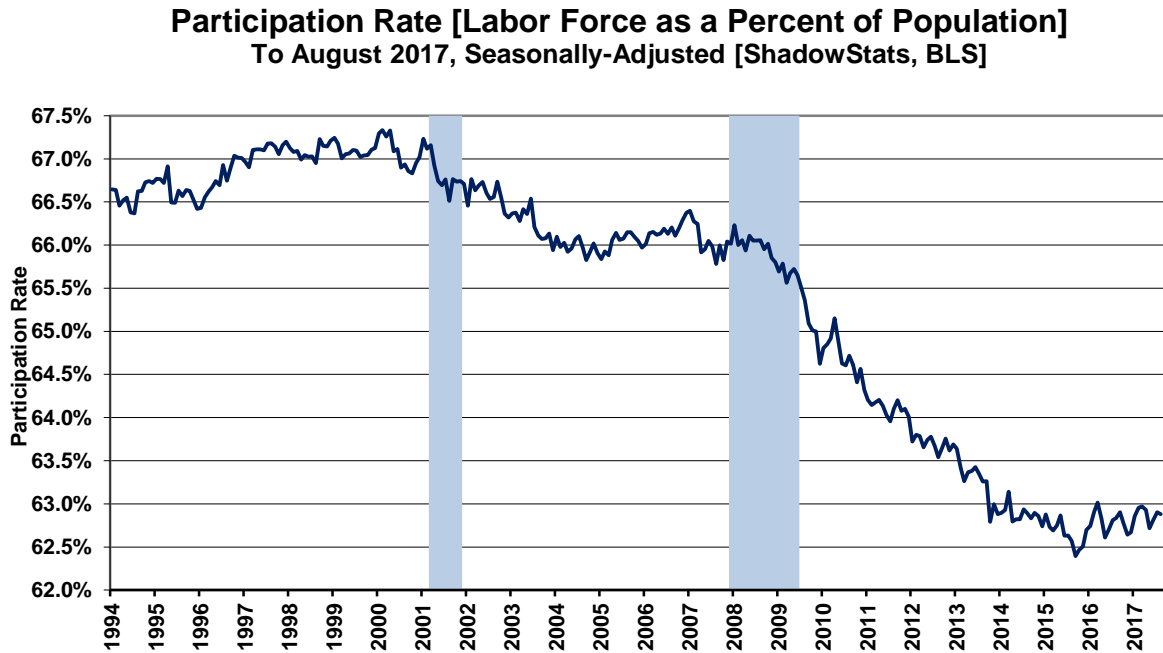
Graphs 3 through *5* reflect labor data available in consistent detail only back to the 1994 redefinitions of the Household Survey and the related employment and unemployment measures. Before 1994, employment and unemployment data consistent with the June 2017 Household-Survey reporting simply are not available, irrespective of any protestations to the contrary by the BLS.

The Economy Remains Far From Full-Employment. Discussed in the *Fedspeak* portion of the *Fed* section of *No. 859 Special Commentary* (see also the *Opening Comments* of *Commentary No. 870*), certain members of the Federal Reserve Board (see *Commentary No. 827*) have suggested that an unemployment rate near 5.0% (headline U.3 is at 4.4% at the moment) reflects full-employment conditions in the United States. As noted in, and updated from the earlier employment/unemployment *Commentary No. 845*, one would expect that "full employment" not only would be consistent with a certain headline unemployment rate, traditionally about 5.0%, but also with a coincident labor-force participation rate, traditionally of about 66%.

For example, at the formal onset of the recession in December 2007, the headline unemployment rate was 5.0%, with the participation rate at a 66.0% near-term peak (higher peaks in participation, in the early 2000's, were coincident with U.3 unemployment of about 4.0%). Full employment with unemployment at 5.0%, also minimally should be reflected at a near-term peak in the participation rate, not at a trough.

The August 2017 headline unemployment rate of 4.4%, for example was in the context of a 62.9% participation rate. That participation rate, though, was more consistent with a headline unemployment rate (U.3) of 9.0% instead of the headline 4.4%. Where the count of Household Survey employed generally is not gimmicked, that 66% full-employment participation rate—consistent with the latest hyped "full-employment" economy—generally was consistent with a U.3 unemployment 80% above the hyped 5.0% full-employment unemployment rate, and more than double the current headline U.3 number.[1]

The reason for the heavily distorted current unemployment detail remains that the numbers reflect the unusual nature of the post-recession drop in headline unemployment. The declining unemployment rate heavily has reflected discouraged, unemployed persons being defined out of the labor force, instead of the more-traditional and positive circumstance of the unemployed being reemployed.

Other Major Indicators Do Not Show a Growing, Expanding—Let Alone Recovered— Economy.
Regularly plotted here are various graphs that mirror the patterns of *Graphs 3* to *5* (1994-to-date where available), which do not confirm the purported headline recoveries in the GDP or relative employment. That detail was expanded upon and covered in *No. 859 Special Commentary*; see also *Commentary No. 907*. Some of those series are updated in this section.
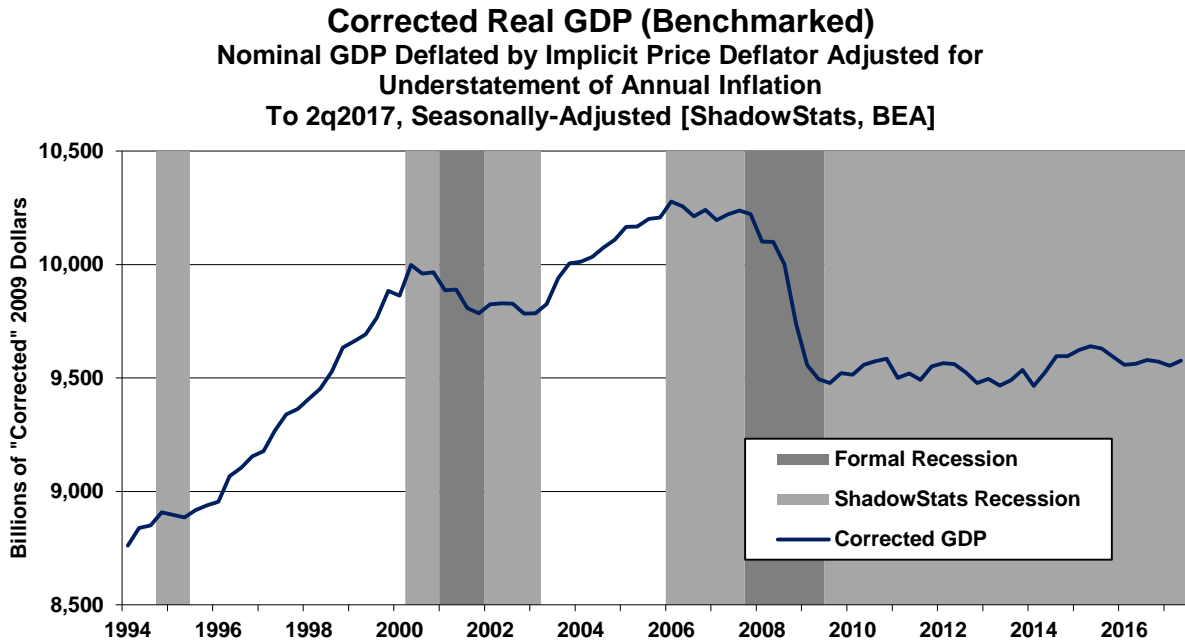
Consider *Graph 6*, which shows the ShadowStats version of the GDP, also plotted from 1994 but through the August 30th initial estimate of second-quarter 2017, where the GDP plot here has been corrected for the understatement of inflation used in deflating the headline GDP (see *Commentary No. 907* for details).

Other graphs (again, see *No. 859*) range from the Cass Freight Index (*Graph 7*) to Real S&P 500 Revenues adjusted for share buybacks (*Graph 8*), and include the just-released June 2017 U.S. Petroleum Consumption (*Graph 9*), the Consumer Goods sector out of July 2017 Industrial Production (*Graph 10*) and July 2017 Housing Starts (*Graph 11*), out of *Commentary No. 905*. A similar pattern is seen in real Construction Spending (see *Graph 20* in the following *Construction Spending* section).
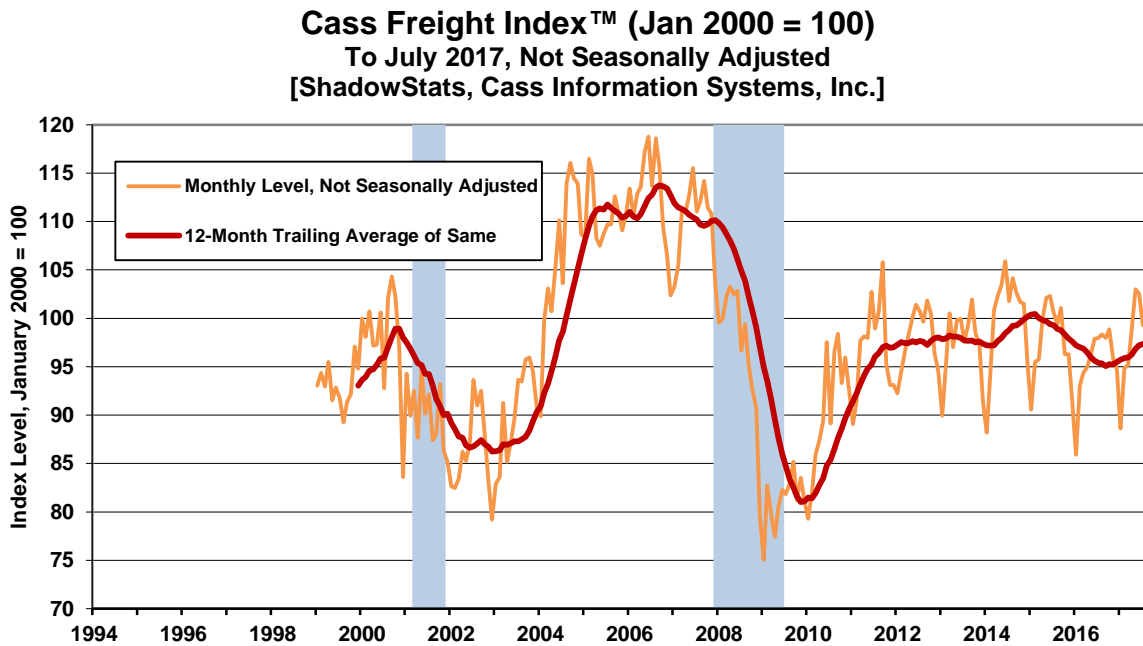
[Graphs 6 to 11 begin on the next page].

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[1] Consider with the August 2017 population of 255.357 million, that the implied labor force at a full-employment participation rate of 66.0% would be 0.66 x 255.151 = 168.536. That labor force less current headline employed, 168.536 - 153.439 = 15.097 million implied unemployed / labor force of 168.536 = 9.0% unemployment. The problem with the assumptions underlying these numbers and concept, again, remains that the economy is not at full employment, as has been claimed.
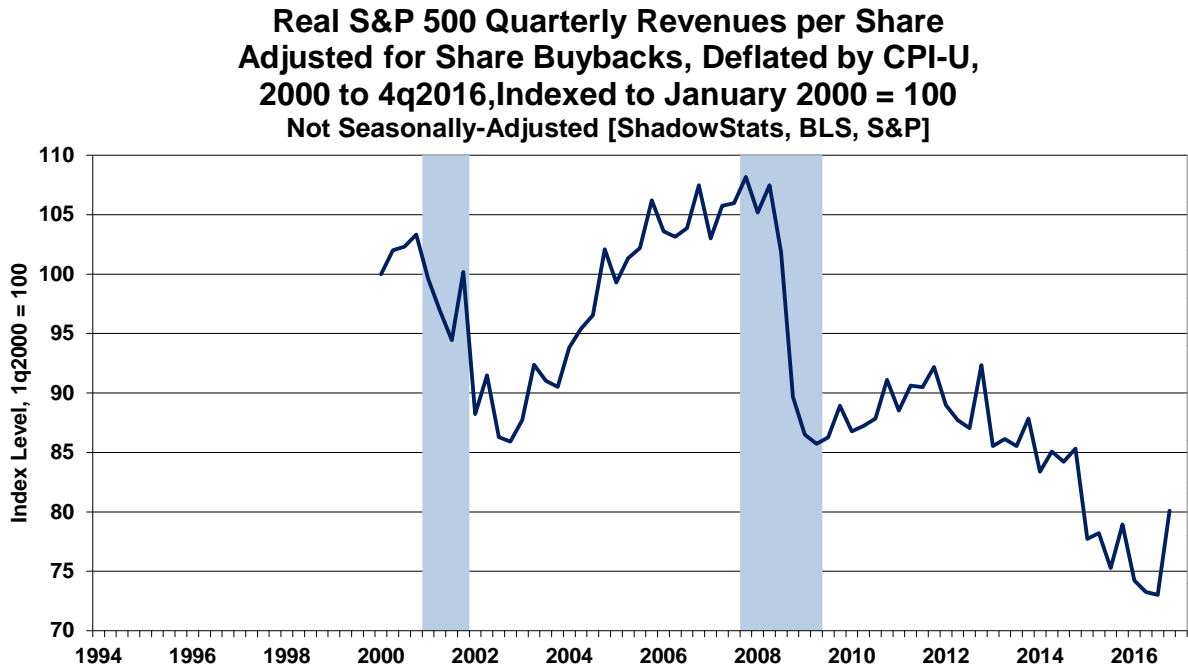
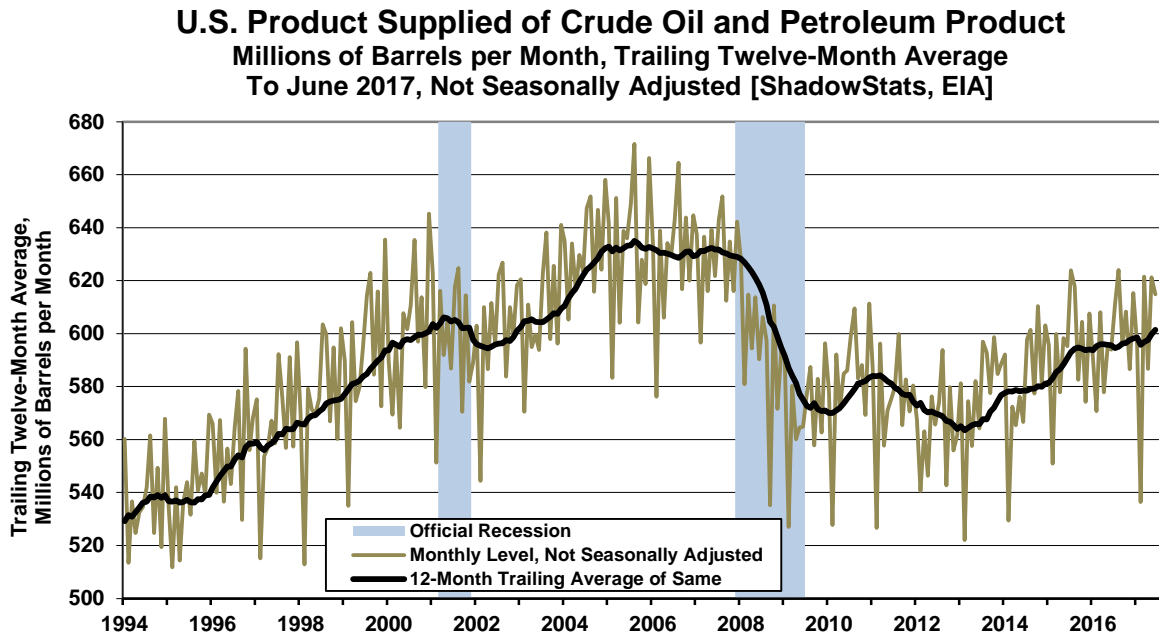**Graph 6: Corrected Real GDP through 2q2017, Second Estimate**

Corrected Real GDP (Benchmarked)
Nominal GDP Deflated by Implicit Price Deflator Adjusted for
Understatement of Annual Inflation
To 2q2017, Seasonally-Adjusted [ShadowStats, BEA]

Graph 7: Cass Freight Index for North America (2000 – July 2017), Indexed to January 2000 = 100

Cass Freight Index™ (Jan 2000 = 100)
To July 2017, Not Seasonally Adjusted
[ShadowStats, Cass Information Systems, Inc.]

Graph 8: Real S&P 500 Sales Adjusted for Share Buybacks (2000 - 2016), Indexed to January 2000 = 100

Real S&P 500 Quarterly Revenues per Share
Adjusted for Share Buybacks, Deflated by CPI-U,
2000 to 4q2016,Indexed to January 2000 = 100
Not Seasonally-Adjusted [ShadowStats, BLS, S&P]

Graph 9: U.S. Petroleum Consumption to June 2017

U.S. Product Supplied of Crude Oil and Petroleum Product
Millions of Barrels per Month, Trailing Twelve-Month Average
To June 2017, Not Seasonally Adjusted [ShadowStats, EIA]

Graph 10: Industrial Production – Consumer Goods Sector (1994 – July 2017)

Production - Consumer Goods (2012 = 100)
Level 1994 to July 2017, Seasonally-Adjusted [ShadowStats, FRB]
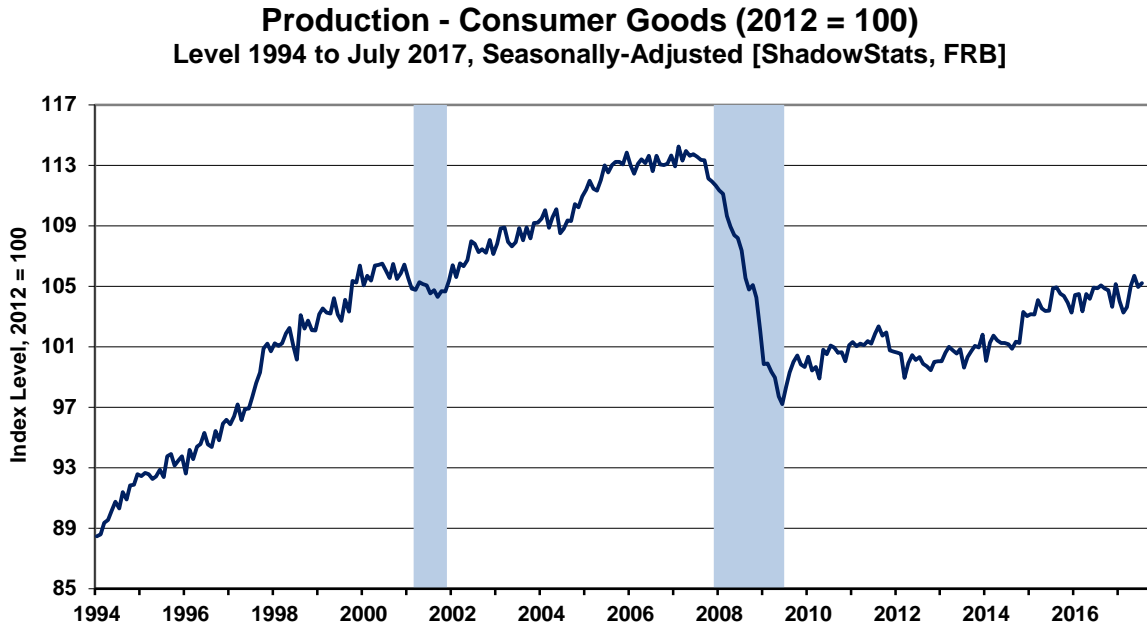
Graph 11: Housing Starts, Annual Rate by Month (1994 – July 2017)

Housing Starts (Annual Rate by Month)
To July 2017, Seasonally-Adjusted [ShadowStats, Census and HUD]
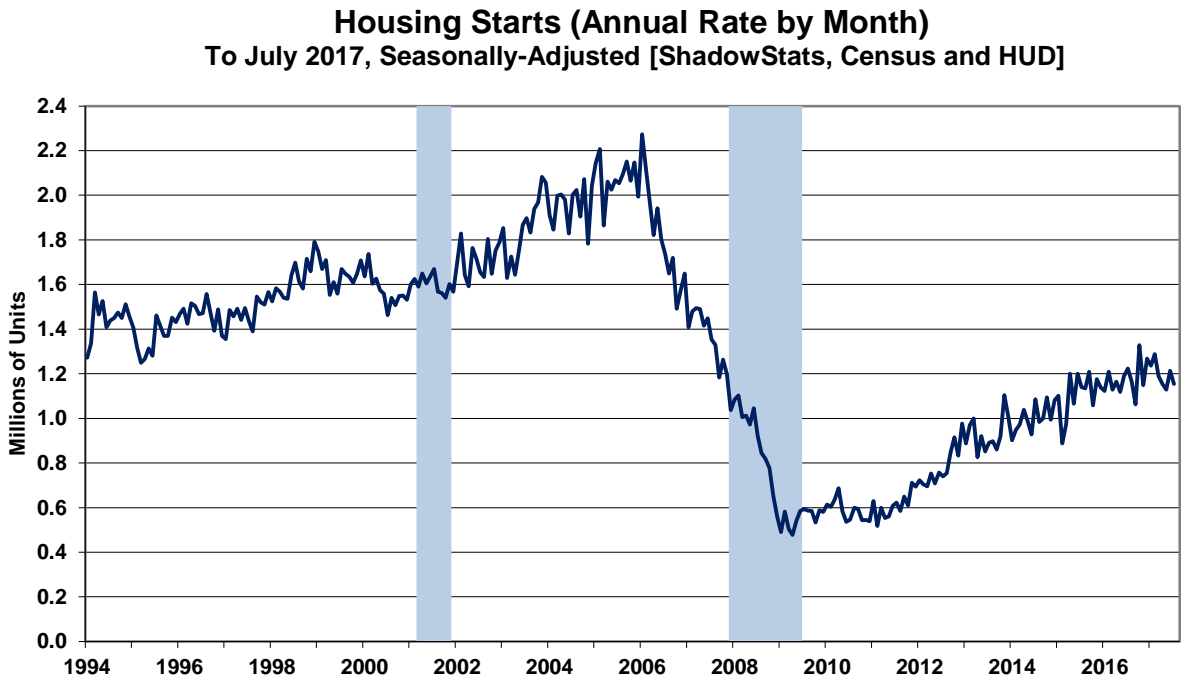
Headline Unemployment Rates. Again, in the context of the non-comparability of month-to-month changes in seasonally-adjusted unemployment detail, August 2017 U.3 unemployment rose to 4.4% [4.44% at the second decimal point], versus 4.3% [4.35%] in July, 4.4% [4.36%] in June, 4.3% [4.29%] in

May, 4.4% [4.40%] in April, 4.5% [4.50%] in March, 4.7% [4.70%] in February and 4.8% [4.78%] in January.

Formally, the month-to-month gain of 0.09% in the August 2017 U.3 was far shy of being statistically-significant (+/- 0.23% at the at the 95% confidence interval). Such consideration is nonsense, however, given that the monthly numbers are reported on an inconsistent basis and are not even comparable with each other, except once per year, in December, which disappears with the ensuing January reporting (see the *Supplemental Labor-Detail Background*).

On an unadjusted basis, unemployment rates are not revised and, in theory, are consistent in post-1994 methodology. The unadjusted unemployment rate U.3 declined to 4.53% in August 2017, versus 4.60% in July, 4.49% in June, 4.11% in May 2017, 4.11% in April, 4.56% in March, 4.95% (rounds to 4.9%) in February and 5.14% in January.

Unemployment rate U.6 is the broadest unemployment rate published by the BLS. It includes accounting for those marginally attached to the labor force (including short-term discouraged workers) and those who are employed part-time for economic reasons (*i.e.*, they cannot find a full-time job).

On top of a rising, seasonally-adjusted August 2017 U.3 unemployment rate, an unadjusted decline in the count of marginally-attached workers of 81,000 (-81,000) and a decline of 27,000 (-27,000) in the adjusted number of people working part-time for economic reasons, the adjusted August 2017 U.6 unemployment rate was 8.59%, versus 8.57% in July, 8.59% in June, 8.41% in May, 8.57% in April, 8.87% in March, 9.24% in February and 9.43% in January. The unadjusted U.6 unemployment rate was 8.64% in August 2017, versus 8.86% in July, 8.59% in June, 8.10% in May, 8.15% (rounds to 8.1%) in April, 8.94% in March, 9.54% in February and 10.08% in January.

Marginally-Attached and Displaced Workers. New discouraged and otherwise marginally-attached workers always are moving into U.6 unemployment accounting from U.3, while those who have been discouraged or otherwise marginally-attached for one year, continuously, are dropped from the U.6 measure. As a result, the U.6 measure has been easing along with U.3, for a while, but those being pushed out of U.6 still are counted in the ShadowStats-Alternate Unemployment Estimate, which has remained relatively stable, despite recent monthly declines.

The monthly count of short-term discouraged workers in August 2017 (never seasonally-adjusted) declined by 88,000 (-88,000) to 448,000, having risen by 22,000 in July to 538,000, having gained by 159,000 in June, having declined by 100,000 (-100,000) in May, 5,000 (-5,000) in April, 62,000 (-62,000) in March, and 10,000 (-10,000) in February [the headline monthly change in January 2017 was meaningless, in the context of annual population revisions]. Total marginally-attached workers declined in August 2017 by 81,000 (-81,000) to 1,548,000, having increased by 47,000 in July, 107,000 in June, having declined by 59,000 (-59,000) in May, 61,000 (-61,000) in April, 128,000 (-128,000) in March and 9,000 (-9,000) in February.

That latest, official "discouraged" number, again, reflected the flow of the headline unemployed—giving up looking for work—leaving the headline U.3 unemployment category and being rolled into the U.6 measure as short-term "marginally-attached discouraged workers," net of the further increase in the number of those moving from short-term discouraged-worker status into the netherworld of long-term discouraged-worker status.

It is the displaced workers—the long-term discouraged-worker category—that defines the ShadowStats-Alternate Unemployment Measure. There is a continuing rollover from the short-term to the long-term category, with the ShadowStats measure encompassing U.6 and the short-term discouraged workers, plus the long-term discouraged workers. In 1994, "discouraged workers"—those who had given up looking for a job because there were no jobs to be had—were redefined so as to be counted only if they had been "discouraged" for less than a year. This time-qualification defined away a large number of long-term discouraged and displaced workers. The remaining redefined short-term discouraged and redefined marginally-attached workers were included in U.6.

ShadowStats Alternate Unemployment Estimate. Adding back into the total unemployed and labor force the ShadowStats estimate of effectively displaced long-term discouraged workers—a broad measure of unemployment more in line with common experience—the ShadowStats-Alternate Unemployment Estimate for August 2017 was 22.2%, versus 22.1% in July, 22.1% in June, 22.0% in May, 22.1% in April, 22.5% in March and 22.7% in February. The ShadowStats estimate generally shows the toll of long-term unemployed leaving the headline labor force—effectively becoming long-term discouraged or displaced workers—as discussed in the *Supplemental Labor-Detail Background*.

Payroll Survey: ***Growth Weakened in Context of Downside Revisions.*** Headline payroll growth slowed to 156,000 in August 2017, versus 189,000 in July and 210,000 in June, but the prior months' payroll levels had revised lower. Net of those revisions, the headline August detail gained what would have been formally a statistically-insignificant 115,000 +/- 135,000 (a confidence interval more appropriately in the range +/- 300,000) at the 95% confidence interval (all confidence intervals used are at the 95% level). Those downside monthly revisions did not foreshadow the initial upside benchmark revision for March 2017, released this morning (see the *Opening Comments*).

As reported, headline year-to-year change in August 2017 payrolls dropped to 1.45%, versus a revised 1.48% [previously 1.50%] in July 2017, a level consistent with the onset of a new recession. More dramatically, a 166,000 (-166,000) drop in full-time employment (Household Survey) took annual growth there from 1.62% in July 2017 to 1.16% in August 2017, also consistent with a "new" recession. As of August 2017, that same growth rate was last seen as annual growth slowed going into the 2007 recession.

Annual growth of 1.43% in April 2017 hit a 68-month low, the weakest growth since August 2011, and at that time, the highest growth seen coming out of the economic collapse into 2009. As of August 2017 and April 2017, that same growth rate was last seen as annual growth slowed going into the 2007 recession.

Accordingly, contrary to claims by economists at the San Francisco Fed, far from being healthy or normal, such low-level annual growth rates are seen either coming out of recession, or going into recession, but never seen consistently in the regular variability of ongoing, normal economic activity, as discussed in [*Commentary No. 843*](). April 2017 annual growth hit that threshold on the downside, headed into recession, and subsequent minimal upticks in annual growth have not altered the broad picture.

Detail on August 2017 construction payroll employment is covered in the *Construction Spending Section* (see *Graph 26* there).

Confidence Intervals. Where the current employment levels have been spiked by misleading and inconsistently-reported concurrent-seasonal-factor adjustments, the reporting issues suggest that a 95% confidence interval around the modeling of the monthly headline payroll gain should be well in excess of

+/- 200,000, instead of the official +/- 135,000. Even if the data were reported on a comparable month-to-month basis, other reporting issues would prevent the indicated headline magnitudes of change from being significant. Encompassing Birth-Death Model biases, the confidence interval more appropriately should be in excess of +/- 300,000 (see *Supplemental Labor-Detail Background*).
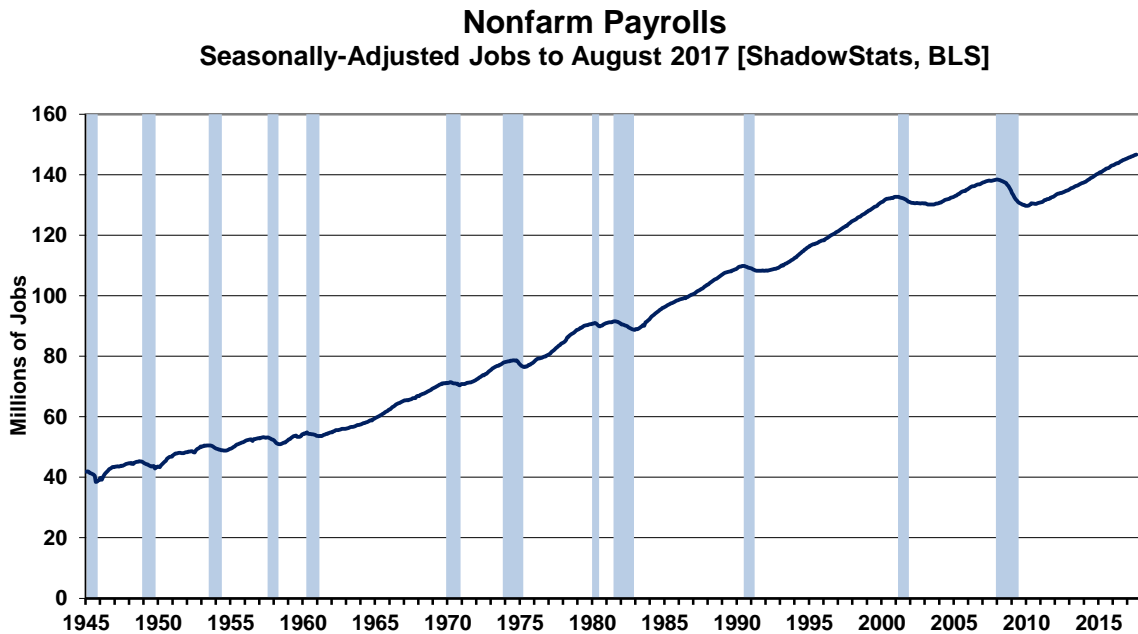
Graphs 12 to *15* show the headline payroll series, level and annual change, both on a shorter-term basis, since 2000, and on a longer-term historical basis, from 1945. In perspective, the longer-term graph of the headline payroll-employment levels shows the extreme duration of what had been the official non-recovery in payrolls, the worst such circumstance of the post-Great Depression era.

[Graphs 12 to 17 begin on the next page.]

Graph 12: Nonfarm Payroll Employment 2000 to Date

Nonfarm Payroll Employment
Seasonally-Adjusted Levels to August 2017 [ShadowStats, BLS]
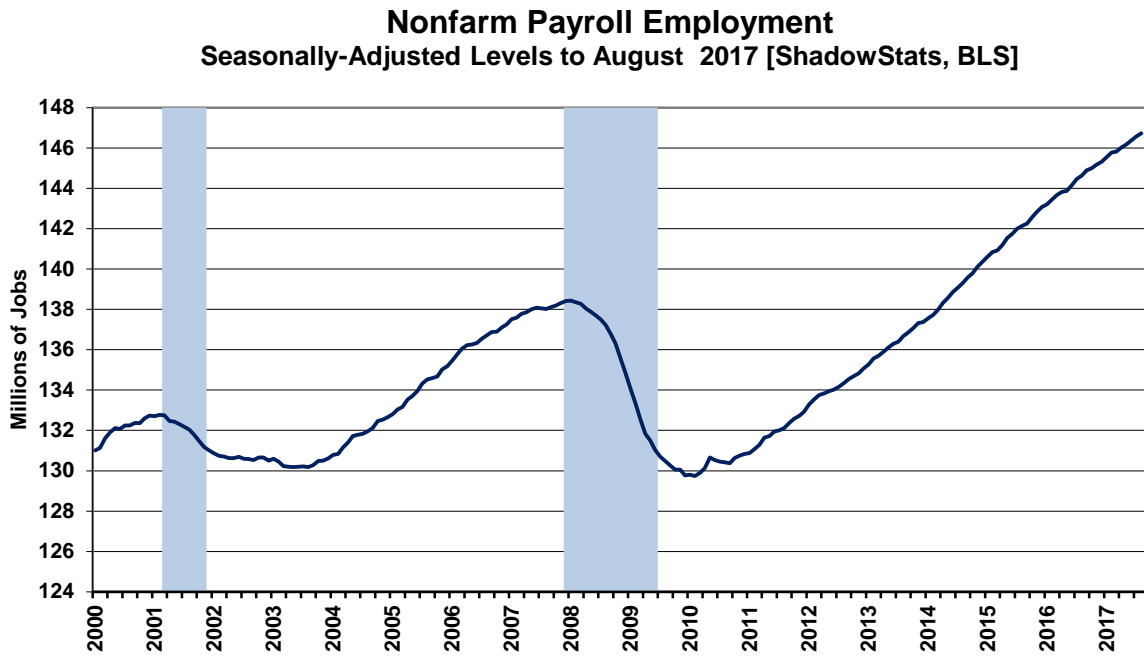
Graph 13: Nonfarm Payroll Employment 1945 to Date

Nonfarm Payrolls
Seasonally-Adjusted Jobs to August 2017 [ShadowStats, BLS]

Graph 14: Payroll Employment, Year-to-Year Percent Change, 2000 to Date

Nonfarm Payrolls Year-to-Year Percent Change
2000 to August 2017, Not Seasonally Adjusted [ShadowStats, BLS]
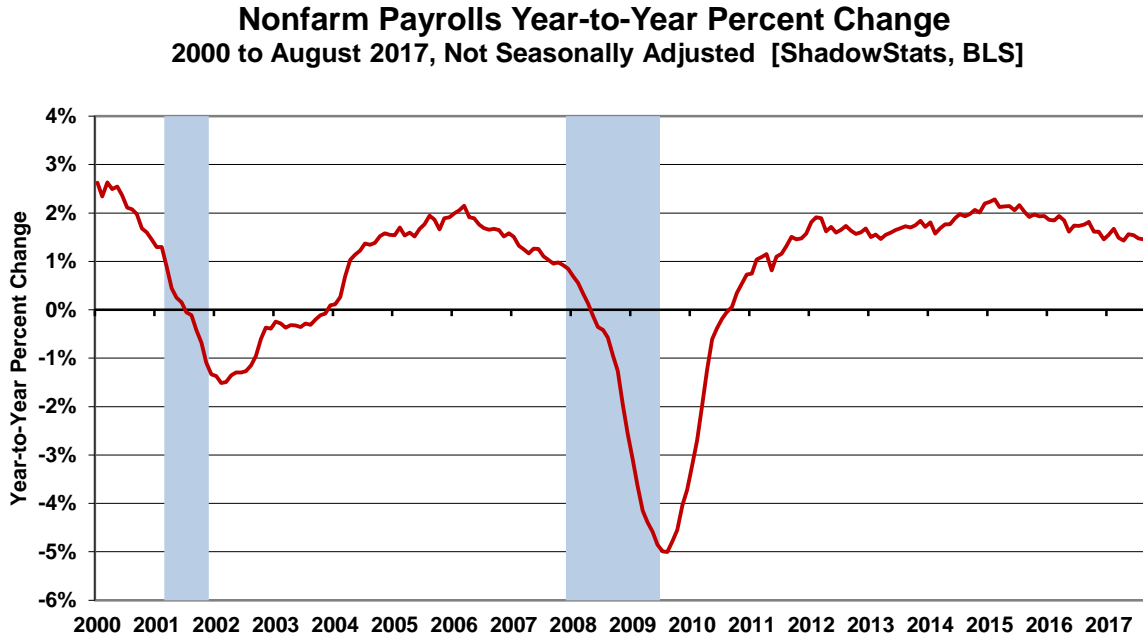
Graph 15: Payroll Employment, Year-to-Year Percent Change, 1945 to Date

Nonfarm Payrolls Year-to-Year Percent Change
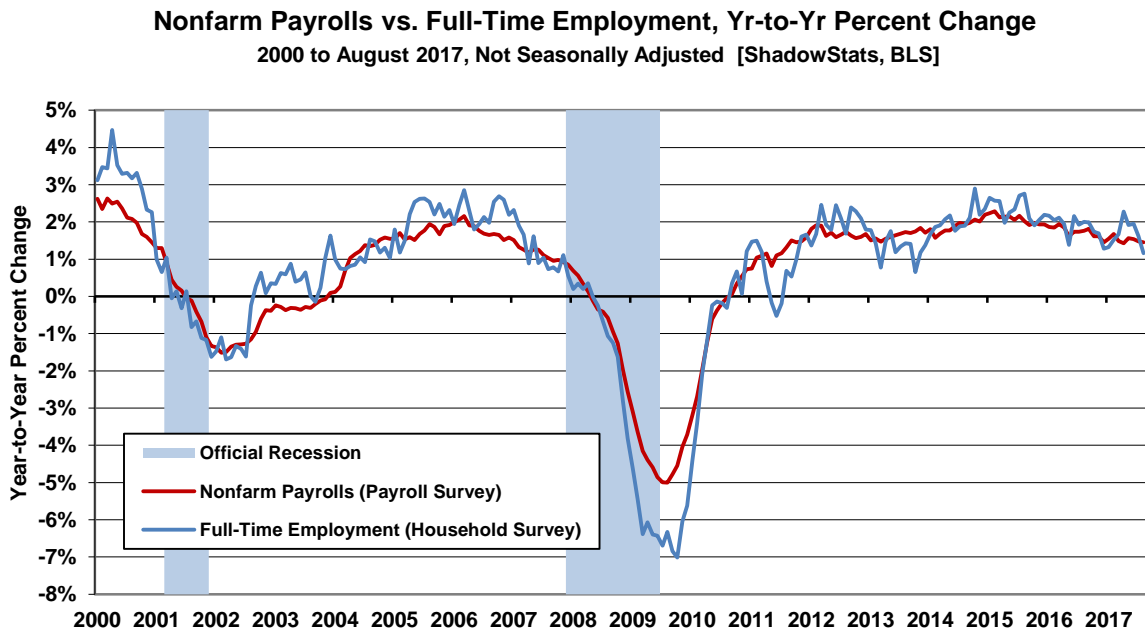**1945 to August 2017, Not Seasonally Adjusted [ShadowStats, BLS]**
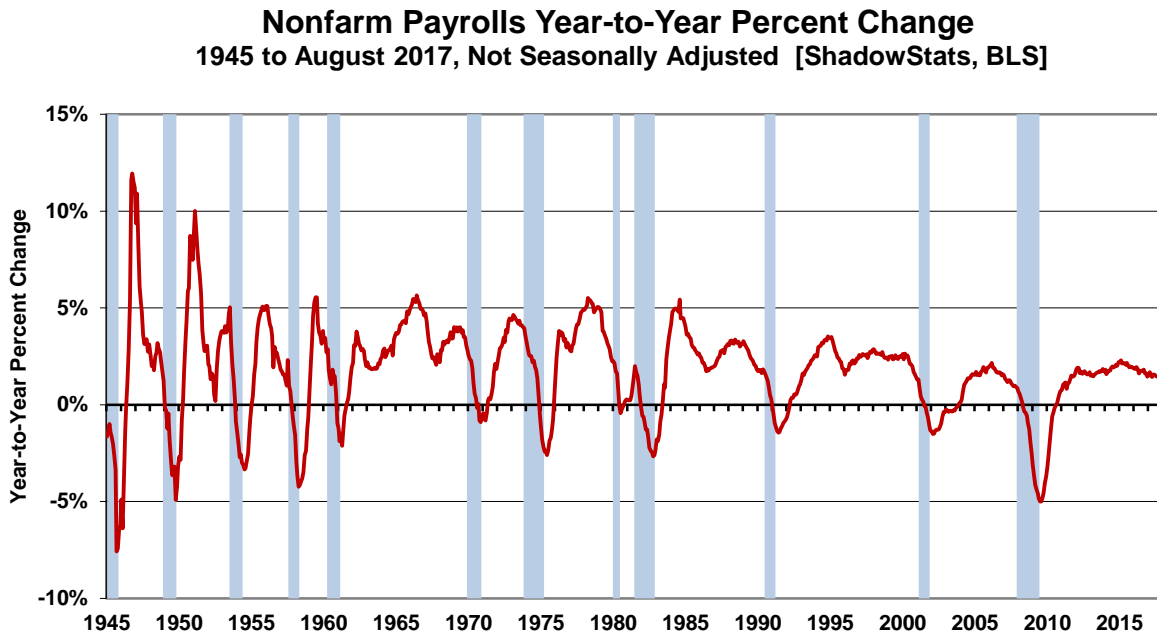
Unlike the Payroll Survey, which counts "employed" people with more than one job (such as part-time jobs) for each job counted, the Household Survey counts employed individuals only once, irrespective of

the number of jobs held, showed a monthly decline of 74,000 (-74,000) in August 2017 total employed, which encompassed a decline of 166,000 (-166,000) for the month in full-time employment. *Graphs 16* and *17*, show full-time employment in downtrend with annual growth also at pre-recession levels.

Graph 16: Full-Time Employment (Household Survey) to Date (2000 to Date)
(Plotted with Scale Proportional to Graph 12)

Civilian Full-Time Employment Level - (Household Survey)
Counts Number of People Who Are Employed (Not Number of Jobs Held)
Seasonally-Adjusted Levels to August 2017 [ShadowStats, BLS]
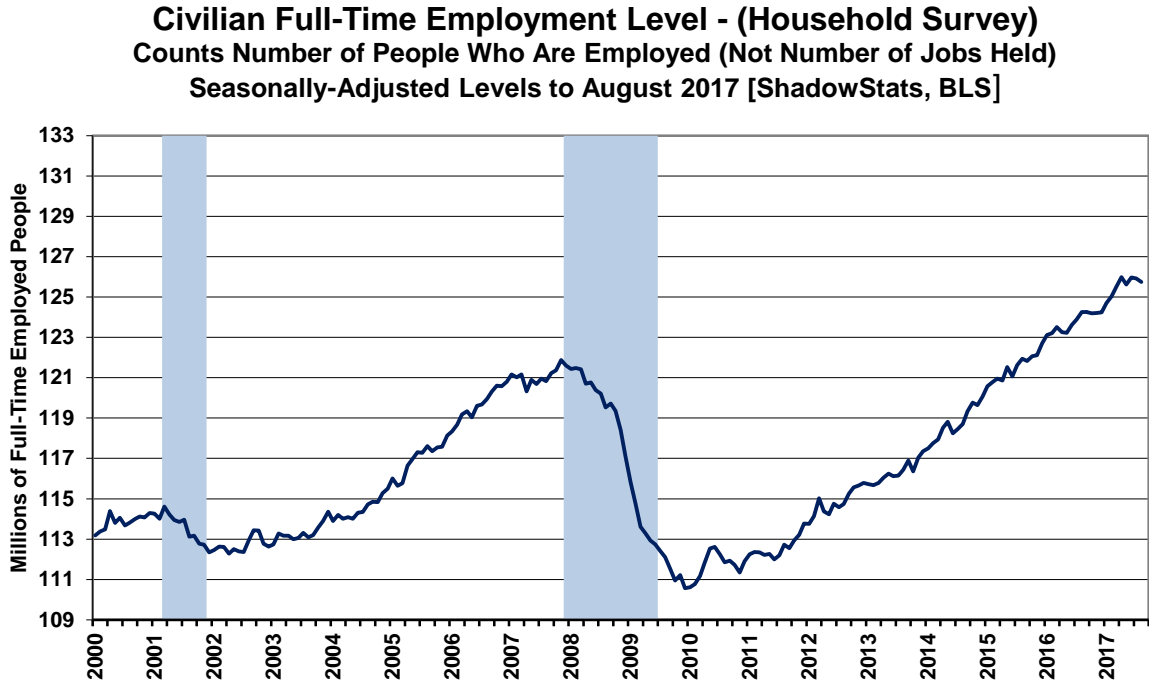
Graph 17: Full-Time Employment (Household), Year-to-Year Percent Change, 2000 to Date

Nonfarm Payrolls vs. Full-Time Employment, Yr-to-Yr Percent Change
2000 to August 2017, Not Seasonally Adjusted [ShadowStats, BLS]

Official Recession
Nonfarm Payrolls (Payroll Survey)
Full-Time Employment (Household Survey)

SUPPLEMENTAL LABOR-DETAIL BACKGROUND

(I.) Headline Distortions from Shifting Concurrent Seasonal-Adjustment Factors
(II.) Payroll-Employment Monthly Bias Factors (Birth-Death Modeling)
(III.) ShadowStats Alternate-Unemployment Rate (Accounting for Displaced Workers)

(I.) Headline Distortions from Shifting Concurrent Seasonal-Adjustment Factors. There remain serious and deliberate flaws with the government's seasonally-adjusted, monthly reporting of both employment and unemployment (there are parallel issues with the Retail Sales, New Orders for Durable Goods and Trade Deficit series). Each month, the BLS uses a concurrent-seasonal-adjustment process to adjust both the payroll and unemployment data for the latest seasonal patterns. As new headline data are seasonally-adjusted for each series, the re-adjustment process also revises the monthly history of each series. A new seasonally-adjusted history is recalculated for every month, going back five years, so as to be consistent with the new seasonal patterns generated for the current headline number. The problem remains that the historically-comparable revised data are not published along with the new headline detail.

Detailed in the regular monthly BLS press release covering employment/unemployment BLS (second page of the *Technical Note*, subheading *Seasonal Adjustment*):

> For both the household [unemployment] and establishment [payroll] surveys, a concurrent seasonal adjustment methodology is used in which new seasonal factors are calculated each month using all relevant data, up to and including the data for the current month. In the household survey, new seasonal factors are used to adjust only the current month's data. In the establishment [payroll] survey, however, new seasonal factors are used each month to adjust the three most recent monthly estimates. The prior 2 months are routinely revised to incorporate additional sample reports and recalculated seasonal adjustment factors. In both surveys, 5-year revisions to historical data are made once a year.

Discussed in the following paragraphs, the historical data never are published on a consistent basis for the payroll survey, even when accompanying headline benchmark revisions. The household survey is published only once per year on a consistent basis, in December, but the numbers become inconsistent, once again, with the ensuing January reporting. Headline month-to-month inconsistencies in the household survey are highly variable every month, but that detail never is published and is not knowable by the public.

Effective Reporting Fraud. The problem remains that the BLS does not publish the monthly historical revisions along with the new headline data. As a result, current headline reporting is neither consistent nor comparable with published historical data, including the most-recent months, and the unreported actual monthly variations versus headline detail can be meaningful. The deliberately-misleading reporting effectively is a fraud. The problem is not with the BLS using concurrent-seasonal-adjustment factors; it is with the BLS not publishing the consistent data, where those data are calculated each month and are available internally to the Bureau. The BLS expressed reasons for not publishing the revised monthly numbers on a consistent basis: "Numerous revisions during the year, however, should be avoided, because they tend to confuse data users and to increase publication costs substantially."

Household Survey. In the case of the published Household Survey (unemployment rate and related data), the seasonally-adjusted headline numbers usually are not comparable with the prior monthly data or any month before. Accordingly, the published headline detail as to whether the unemployment rate was up,

down or unchanged in a given month is not meaningful in terms of statistical significance, and what actually happened is not knowable by the public. Month-to-month comparisons of these popular numbers are of no substance, other than for market hyping or political propaganda. The headline month-to-month reporting in the Household Survey is made consistent only in the once-per-year reporting of December data, with annual revisions back for five years. Again, though, all historical comparability disappears, though, again, with the ensuing headline January reporting, and with each monthly estimate thereafter.

Consider *Graphs SLD-1* and *SLD-2*, where data are available from the BLS to calculate the month-to-month seasonal-adjustment variability in the Payroll Survey. Similar detail is not available for the Household Survey, yet the monthly instability likely is of similar magnitude. Shown here as an example with the Payroll Survey, the headline January 2017 payroll level was prepared on a consistent basis with the levels of December 2016 and November 2016, but not with October 2016, with the result the headline monthly gains were consistent only for January and December. With the Household Survey, except for December, seasonally-adjusted monthly detail is not comparable with any other month, so seasonally-adjusted, month-to-month Household Survey comparisons have no meaning, even for the headline month.
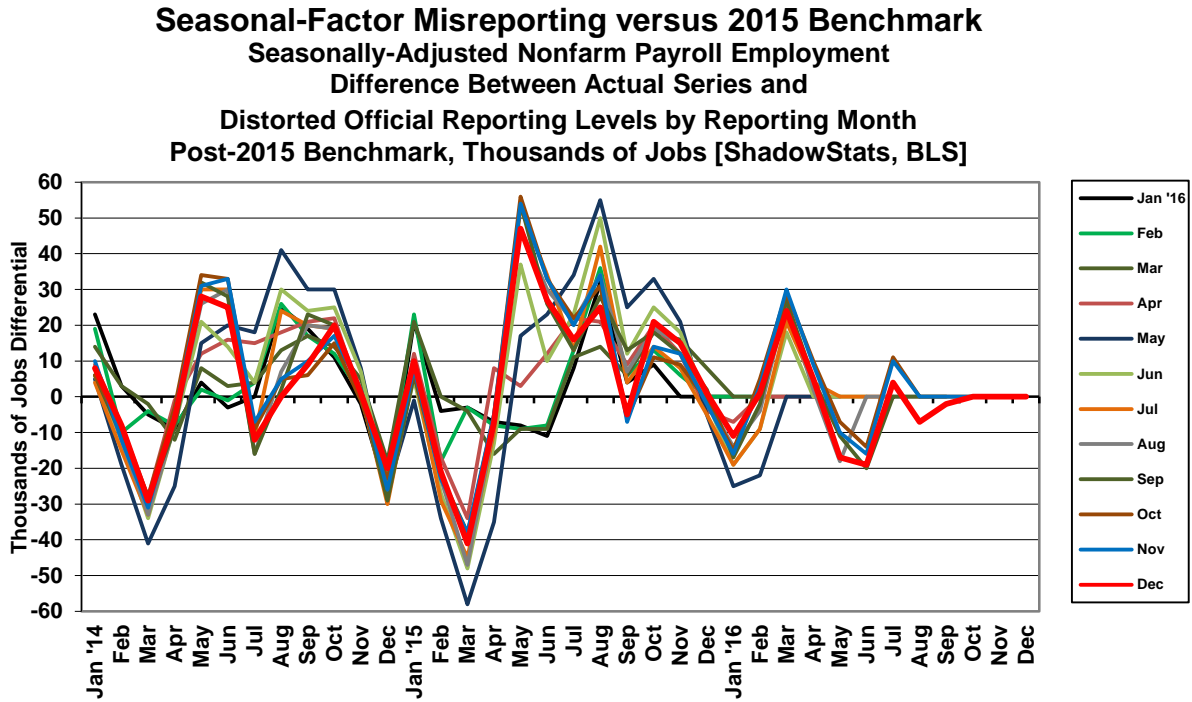
Payroll or Establishment Survey. In the case of the published Payroll Survey data (payroll-employment change and related detail), again, the current monthly changes in the seasonally-adjusted headline data are comparable only with the prior month's month-to-month reporting, not before. Due to the BLS modeling process, the historical data never are published on a consistent basis, even with publication of the annual benchmark revision (see the comments with *Graphs SLD-1* and *SLD-2*).

Where the BLS does provide modeling detail for the Payroll Survey, allowing for third-party calculations, no such accommodation has been made for the Household Survey. ShadowStats affiliate ExpliStats has done such third-party calculations for the payroll series, and the resulting detail of the differences between the current headline reporting and the constantly-shifting, consistent and comparable history are reflected here in *Graph SLD-1*, showing the full monthly variability in the 2016 historical seasonal adjustments in the period since the 2015 payroll benchmark revision. As seen here, consistent data never are published. The benchmark-revised system is run in the background for three months before the headline January publication, which allows the initial headline publishing to stray from the actual initial benchmarking. *Graph SLD-1* shows how far the system strayed from the initial 2016 benchmarking, in its formal benchmark reporting of January 2017.
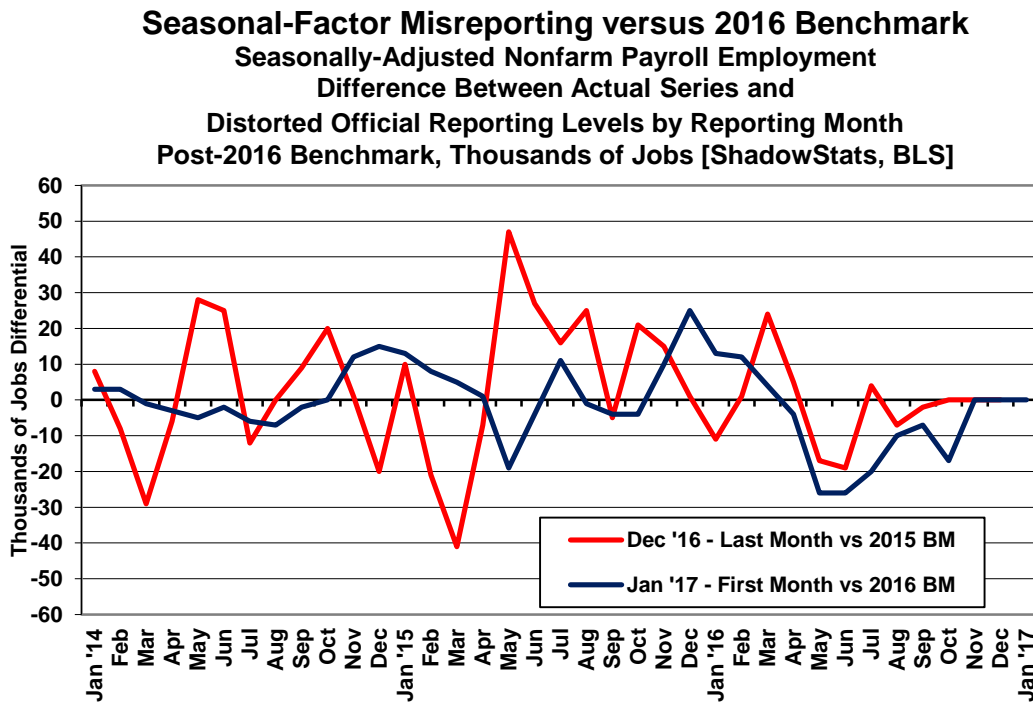
Where the red line reflected seasonal-factor straying through December 2016 from the 2015 benchmarking, the blue line indicates the straying in January 2017 versus the initial 2016 benchmarking. The January 2017 detail suggested a reversal of seasonal factors, consistent with the benchmarking detail and the new "selective" seasonal adjustment processes. Such variability in seasonal factors, though, rarely is seen in a stable economic series. These data again suggest heavily-gamed headline reporting.

As seen in the detail, the differences go both ways and often are much larger. Such was the case for November 2014, coming out of the 2014 benchmark revision, as detailed and discussed in the *Opening Comments* of *[Commentary No. 784](#)*. Subscribers interested in the modeling of specific industry payroll components on a consistent month-to-month basis—not otherwise available— should contact johnwilliams@shadowstats.com or at (707) 763-5786.

Graph SLD-1: Concurrent-Seasonal-Factor Irregularities – December 2016 Detail versus 2015 Benchmarking

Seasonal-Factor Misreporting versus 2015 Benchmark
Seasonally-Adjusted Nonfarm Payroll Employment
Difference Between Actual Series and
Distorted Official Reporting Levels by Reporting Month
Post-2015 Benchmark, Thousands of Jobs [ShadowStats, BLS]

Graph SLD-2: Concurrent-Seasonal-Factor Irregularities – January '17 Detail versus 2016 Benchmarking

Seasonal-Factor Misreporting versus 2016 Benchmark
Seasonally-Adjusted Nonfarm Payroll Employment
Difference Between Actual Series and
Distorted Official Reporting Levels by Reporting Month
Post-2016 Benchmark, Thousands of Jobs [ShadowStats, BLS]

(II.) Payroll-Employment Monthly Bias Factors (Birth-Death Modeling: BDM). Despite the ongoing, general overstatement of monthly payroll employment (see *Special Commentary No. 885*, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*), the BLS adds in upside monthly biases to the payroll employment numbers. The continual overstatement is evidenced usually by regular and massive, annual downward benchmark revisions (2011, 2012 and 2017 excepted), with the initial 2017 benchmark revisions to the upside by 95,000, as announced this morning, September 6th. Discussed in the *Opening Comments,* formal prior-period revisions will be detailed in the February 2018 release of the headline January 2018 payroll employment.

As a separate matter, though, when formalized, downside revisions increasingly have been more than offset by upside revisions to the monthly bias factors, going forward, as was the case in 2016 (see *Commentary No. 864*). The initial estimate (summary number) for the 2016 benchmarking was for a downside revision in total payrolls for March of 2016 by 150,000 (-150,000), down for March 2016 by 224,000 (-224,000) in just private-sector employment (see *Commentary No. 830*). Those changes, however, were massaged and recast to an aggregate downside revision of 81,000 (-81,000) jobs. That change then was used to impute adjustments back to April 2015, and it should have been carried forward to December 2016, but that did not happen, again, as discussed in the *Opening Comments* of *No. 864*.

Despite the published downside revision of 206,000 (-206,000) to March 2015 payrolls in the 2015 benchmarking (see *Commentary No. 784* and *Commentary No. 784-A*), the BLS upped its annual upside-bias factors since then by 65,000. Such discrepancies, however, are not unusual for the BLS.

Considering related actions of recent years, discussed in the benchmark detail of *Commentary No. 598*, the benchmark revision to March 2013 payroll employment was to the downside by 119,000 (-119,000), where the BLS had overestimated standard payroll employment growth.

With the March 2013 revision, though, the BLS separately redefined the Payroll Survey so as to include 466,000 workers who had been in a category not previously counted in payroll employment. The latter event was little more than a gimmicked, upside fudge-factor, used to mask the effects of the regular downside revisions to employment surveying, and likely was the excuse behind an increase then in the annual bias factor, where the new category could not be surveyed easily or regularly by the BLS. Elements here likely had impact on the unusual issues with the 2014 benchmark revision.

Abuses from the 2014 benchmarking were detailed in *Commentary No. 694* and *Commentary No. 695*. With the headline benchmark revision for March 2014 showing understated payrolls of 67,000 (-67,000), the BLS upped its annual add-factor bias by 161,000 for the year ahead.

Historically, the upside-bias process was created simply by adding in a monthly "bias factor," so as to prevent the otherwise potential political embarrassment to the BLS of understating monthly jobs growth. The creation of "bias factor" process resulted from such an actual embarrassment, with the underestimation of jobs growth coming out of the 1983 recession. That process eventually was recast as the now infamous Birth-Death Model (BDM), which purportedly models the relative effects on payroll employment of jobs creation due to new businesses starting up, versus jobs lost due to bankruptcies or closings of existing businesses.

August 2017 Add-Factor Bias. The not-seasonally-adjusted add-factor bias was a revised 103,000 in August 2017, following a positive 158,000 add-factor in July 2017 and a positive add-factor of 113,000 in

August 2016 reporting. The revamped, aggregate upside annual bias for the trailing twelve months through August 2017 is estimated from current headline bias reporting at 926,000 up by 85,000 or 10.1% from 841,000 in the December 2016 pre-benchmarking level, and up 145,000 or 18.6% from 781,000 in December 2015, the year before. That is a monthly average of 77,167, in August 2017 (versus 70,083 pre-2016 benchmarking) jobs created out of thin air, on top of some indeterminable amount of other jobs that are lost in the economy from business closings. Those losses simply are assumed away by the BLS in the BDM, as discussed below.

Problems with the Model. The aggregated upside annual reporting bias in the BDM reflects an ongoing assumption of a net-positive jobs creation by new companies versus those going out of business. Such becomes a self-fulfilling system, as the upside biases boost reporting for financial-market and political needs, with relatively good headline data, while often also setting up downside benchmark revisions for the next year, which traditionally are ignored by the media and the politicians. The BLS cannot measure meaningfully the impact of jobs loss and jobs creation from employers starting up or going out of business, on a timely basis (within at least five years, if ever), or by changes in household employment that were incorporated into the 2016 redefined payroll series. Such information simply is guesstimated by the BLS, along with the addition of a bias-factor generated by the BDM. Private surveying runs counter to the BLS contentions.

Positive assumptions—commonly built into government statistical reporting and modeling—tend to result in overstated official estimates of general economic growth. Along with these happy guesstimates, there usually are underlying assumptions of perpetual economic growth in most models. Accordingly, the functioning and relevance of those models become impaired during periods of economic downturn, and the current, ongoing downturn has been the most severe—in depth as well as duration—since the Great Depression.

Indeed, historically, the BDM biases have tended to overstate payroll employment levels—to understate employment declines—during recessions. There is a faulty underlying premise here that jobs created by start-up companies in this downturn have more than offset jobs lost by companies going out of business. Recent studies continue to suggest that there has been a net jobs loss, not gain, in this circumstance. Nonetheless, if a company fails to report its payrolls because it has gone out of business (or has been devastated by a hurricane), the BLS assumes the firm still has its previously-reported employees and adjusts those numbers for the trend in the company's industry.

The presumed net additional "surplus" jobs created by start-up firms are added on to the payroll estimates each month as a special add-factor. On top of that, the monthly BDM add-factors have been increased now to an average of 77,167 jobs per month for the current year. As a result, in current reporting, the aggregate average overstatement of employment change easily exceeds 200,000 jobs per month (the underlying positive base-assumption upside bias, plus the monthly Birth-Death Model add-factor).

(III.) ShadowStats Alternate-Unemployment Rate (Accounting for Displaced Workers). In 1994, the Bureau of Labor Statistics (BLS) overhauled its system for estimating unemployment, including changing survey questions and unemployment definitions. In the new system, measurement of the previously-defined discouraged or displaced workers disappeared. These were individuals who had given up looking for work, because there was no work to be had. These people, who considered themselves unemployed, had been counted in the old survey, irrespective of how long they had not been looking actively for work. These were individuals who were and would be considered displaced workers, due to circumstances of

severely-negative economic conditions or other factors such as changing industrial activity resulting from shifting global trade patterns.

The new survey questions and definitions had the effect of minimizing the impact on unemployment reporting for those workers about to be displaced by the just-implemented North American Free Trade Agreement (NAFTA). At the time, I (John Williams) had close ties with an old-line consumer polling company, whose substantial economic monthly surveys were compared closely with census-survey details. The new surveying changed the numbers, and what had been the discouraged-worker category soon became undercounted or effectively eliminated. Change or reword a survey question, and change definitions, you can affect the survey results meaningfully.

The post-1994 survey techniques also fell far shy of adequately measuring the long-term displacement of workers tied to the economic collapse into 2008 and 2009, and from the lack of subsequent economic recovery. In current headline reporting, the BLS has a category for those not in the labor force who currently want a job. Including the currently-defined level of "marginally attached workers," which incorporates the currently-defined and undercounted "discouraged workers" category used in the U.6 calculation, those not in the labor force currently wanting a job was an unadjusted 5.852 million in August 2017, versus 5.713 million in July 2017. Seasonally-adjusted the aggregate August 2017 number was 5.844 million, versus 5.420 million in July 2017.

While some contend that that number includes all those otherwise-uncounted discouraged workers, such is extremely shy of underlying reality due to the changed survey methodology.

The ShadowStats number—a broad unemployment measure more in line with common experience—is my estimate. The approximation of the ShadowStats "long-term discouraged worker" category—those otherwise largely defined out of statistical existence in 1994—reflects proprietary modeling based on a variety of private and public surveying over the last two-plus decades. Other than using the BLS U.6 estimate as an underlying monthly base, I have not found a way of accounting fully for the current unemployment circumstance and common experience using just the monthly headline data published by the BLS.

Some broad systemic labor measures from the BLS, though, are consistent in pattern with the ShadowStats measure, even allowing for the shifts tied to an aging population with retiring "baby boomers." Shown in the *Reporting Detail*, the graph of the inverted ShadowStats unemployment measure has a strong correlation with the employment-to-population ratio, in conjunction with the labor-force participation rate (see *Graphs 3* to *5*). Other measures, such as the ShadowStats-Alternate GDP Estimate, S&P 500 Real Revenues, the Cass Freight Index, U.S. Petroleum Consumption, etc. are highlighted in subsequent *Graphs 6* to *11* there and in the *Economy* section of *No. 859 Special Commentary*.

Headline August 2017 Detail. Adding back into the total unemployed and labor force the ShadowStats estimate of effectively displaced workers, of long-term discouraged workers—a broad unemployment measure more in line with common experience—the ShadowStats-Alternate Unemployment Estimate for August 2017 was 22.2%, versus 22.1% in July, 22.1% in June, 22.0% in May, 22.1% in April, 22.5% in March 2017, 22.7% in February, and 22.9% in January. Built upon the headline U.3 estimate, the August 2017 ShadowStats reading was down by 110 basis points or 1.1% (-1.1%) from the 23.3% series high last seen in December 2013.

In contrast, the August 2017 headline U.3 unemployment rate of 4.4% was down by 560 basis points or by 5.6% (-5.6%) from its peak of 10.0% in October 2009. The broader U.6 unemployment measure of 8.6% in August 2017, was down by 860 basis points or 8.6% (-8.6%) from its peak of 17.2% April 2010.

A subscriber raised the question as to why the ShadowStats Alternate Unemployment Estimate had been holding around 23%. Recalculated each and every month, the ShadowStats estimate generally picks up the net flows of headline "discouraged" workers, who have been redefined out of existence after having been inventoried in the BLS accounting of the U.6 rate for about eleven months (where individuals have not looked actively for a job in one year). In turn, U.6 picks up as "discouraged workers" those in U.3 who have not actively looked for work in the last four weeks. It is the resulting reduction in the U.3 and U.6 "unemployed" and the related labor forces used in calculating those respective headline unemployment rates that has accounted for the bulk of the reduction in those headline rates, with much of the difference flowing into and holding reasonably steady in the ShadowStats alternate measure.

Seen in the usual graph of the various unemployment measures (*Graph 2*), there indeed is a noticeable divergence in the ShadowStats series versus U.6 and U.3, with the BLS headline U.3 unemployment measures broadly heading lower recently against a down-trending U.6 and a higher-level, relatively stagnant, but minimally down-trending ShadowStats number, which also notched higher in August.

The reason for the longer-term divergence versus the ShadowStats measure, again, is that U.6 only includes discouraged and marginally-attached workers who have been "discouraged" for less than a year. As the discouraged-worker status ages, those that go beyond one year fall off the government counting, even as new workers enter "discouraged" status. A similar pattern of U.3 unemployed becoming "discouraged" or otherwise marginally attached, and moving into the U.6 category, also accounted for the early divergence between the U.6 and U.3 categories.

With the continual rollover, the flow of headline workers continues into the short-term discouraged workers category (U.6), and from U.6 into long-term discouraged worker or displaced-worker status (the ShadowStats measure). There was a lag in this happening as those having difficulty during the early months of the economic collapse, first moved into short-term discouraged status, and then, a year later they began moving increasingly into longer-term discouraged or displaced status, hence the lack of earlier divergence between the series. The movement of the discouraged unemployed out of the headline labor force had been accelerating. While there is attrition in long-term discouraged numbers, there is no set cut off where the long-term discouraged workers cease to exist. See the *Alternate Data* tab at www.ShadowStats.com for historical detail.

Generally, where the U.6 largely encompasses U.3, the ShadowStats measure encompasses U.6. To the extent that a decline in U.3 reflects unemployed moving into U.6, or a decline in U.6 reflects short-term discouraged workers moving into the ShadowStats number, the ShadowStats number continues to encompass all the unemployed, irrespective of the series from which they may have been ejected and correspondingly has been reasonably stable over a longer timeframe.

Great Depression Comparisons. Discussed in these regular *Commentaries* covering the monthly unemployment circumstance, an unemployment rate in the 22% to 23% range might raise questions in terms of a comparison with the purported peak unemployment in the Great Depression (1933) of 25%. Hard estimates of the ShadowStats series are difficult to generate on a regular monthly basis before 1994, given meaningful reporting inconsistencies created by the BLS when it revamped unemployment

reporting at that time. Nonetheless, as best estimated, the current ShadowStats level likely is about as bad as the peak actual unemployment seen in the 1973-to-1975 recession and the double-dip recession of the early-1980s.

The Great Depression peak unemployment rate of 25% in 1933 was estimated well after the fact, with 27% of those employed then working on farms. Today, less than 2% of the employed work on farms. Accordingly, a better measure for comparison with the ShadowStats number might be the Great Depression peak in the nonfarm unemployment rate in 1933 of roughly 34% to 35%.

CONSTRUCTION SPENDING IN THE UNITED STATES (July 2017)

Despite Upside Revisions, Downturns and Downtrends Held in Place; Real Construction Spending Remained 23.1% (-23.1%) Shy of Its Pre-Recession Peak, and Signaled Renewed Recession. The Construction Spending series remains highly volatile, subject to unstable and extraordinarily-large monthly revisions. Where June 2017 had seen prior months' downside revisions, the headline July 2017 data saw prior months' upside revisions. That said, the unfolding downside shift in trend in the inflation-adjusted real series continued, with year-to-year change still showing an annual contraction of a scope last seen during the housing collapse of 2006 (see *Graph 18)*. Separately, both the real second-quarter and early-trend in third-quarter 2017 activity showed steep quarterly, annualized contractions, while the headline real July 2017 monthly reading stood at 23.1% (-23.1%) below its pre-recession peak.   The broad housing and related construction sector remain severely constrained by ongoing consumer liquidity issues, discussed in the *Consumer Liquidity Watch*.

Graph 18: Total Real Construction Spending, Year-to-Year Percent Change
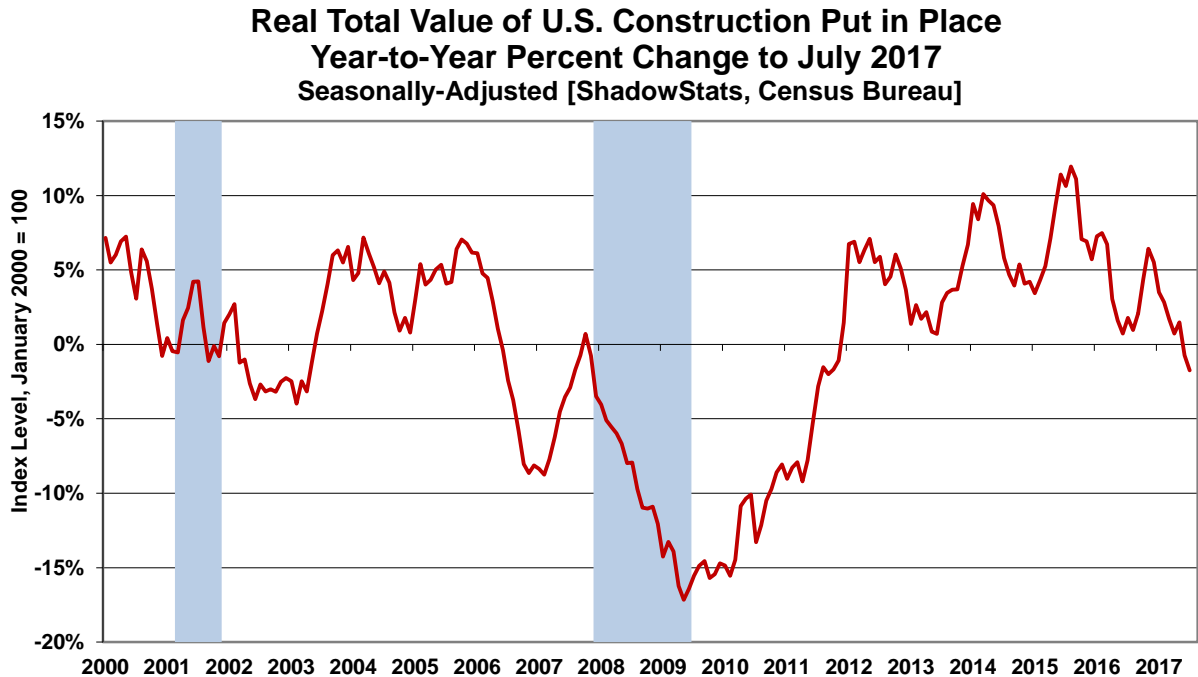
Headline detail saw upside revisions to monthly activity largely across-the-board in May and, June, with the new headline July nominal activity turning down month-to-month in all major categories except for residential construction.

The headline, seasonally-adjusted nominal July 2017 Value of Construction Put in Place in the United States declined to $1,211.5 billion, from an upwardly-revised $1,219.2 [previously $1,205.8] billion in June 2017, which was down from a revised $1,236.7 [previously $1,221.6] billion in May 2017, versus an unrevised $1,217.7 billion in April 2017.

In the context of upside revisions to May and June activity, nominal construction spending declined month-to-month in July 2017 by a statistically insignificant 0.6% (-0.6%) +/- 1.8% (all confidence intervals are at the 95% level), versus a decline of 1.4% (-1.4%) in June and a gain of 1.6% in May. Net of the Composite Construction Deflator inflation (see the next section), those were real changes of down by 1.1% (-1.1%) in July, down by 1.7% (-1.7%) in June and a gain of 1.3% in May.

Headline annual nominal growth rose by a statistically-insignificant 1.8% +/- 2.1% for July 2017, versus annual gains of 2.8% for June 2017 and 5.1% for May 2017. Net of inflation, July 2017 was down year-to-year by 1.7% (-1.7%), June 2017 was down by 0.7% (-0.7%), with May 2017 up by 1.5%.

These details are plotted in a sampling of the regular graphs (see *Graphs 19* to *26*). Traditional comparative graphs are found in *Commentary No. 903*.

The statistically-insignificant, nominal monthly decline of 0.6% (-0.6%) in aggregate July 2017 spending, versus a monthly decline of 1.4% (-1.4%) in June 2017 spending, included a headline monthly drop of 1.4% (-1.4%) in July 2017 public spending, which followed a monthly decline of 4.4% (-4.4%) in June 2017. Private construction spending declined July 2017 by 0.4% (-0.4%), having declined in June 2017 by 0.5% (-0.5%). Within total private construction spending, the residential-construction sector activity gained 0.8% in July 2017 having gained 0.4% in June 2017, while the nonresidential sector dropped by 1.9% (-1.9%) in July 2017, having declined by 1.6% (-1.6%) in June 2017.
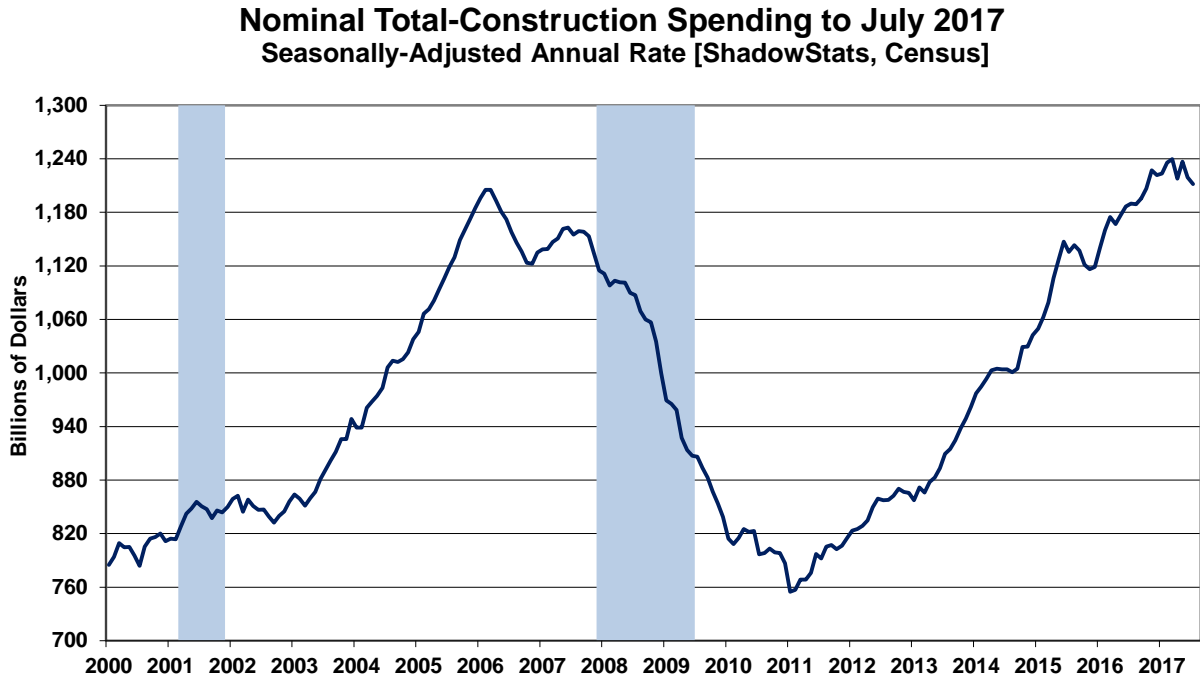
Construction Inflation—ShadowStats Composite Construction Deflator (CCD). ShadowStats produces a Composite Construction Deflator (CCD) for use in converting current-dollar or nominal (not-adjusted-for-inflation) headline construction spending into inflation-adjusted, real or constant-dollar terms. Detailed in *Commentary No. 829*, previously used measures from the Producer Price Index (PPI) lacked historical consistency and did not measure inflation appropriately for the construction-spending series.

CCD year-to-year inflation was 3.63% for July 2017, 3.53% for June 2017 and 3.54% for May 2017. Month-to-month inflation was 0.46% for July 2017, 0.24% for June and 0.26% for May.
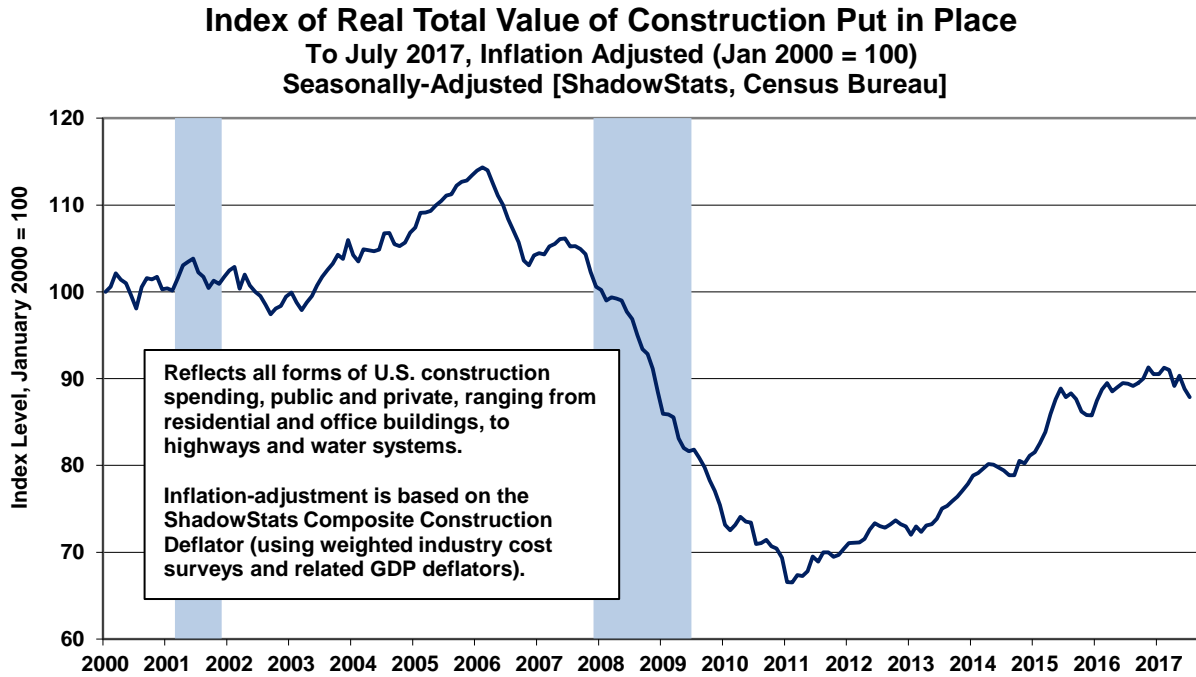
Second-Quarter and Early Third-Quarter 2017 Real U.S. Construction Spending Contracted Sharply Quarter-to-Quarter. In the context of upside revisions in May and June 2017 activity, and net of inflation, second-quarter 2017 growth contracted at an annualized pace of 6.4% (-6.4%) [previously down by 9.2% (-9.2%), versus first-quarter 2017 where growth slowed to 1.4% [previously 1.5%]. That was against an unrevised 5.4% gain in fourth-quarter 2016.

Based solely on headline July 2017 detail, third-quarter 2017 was on early track for an annualized quarterly contraction of 6.9% (-6.9%).
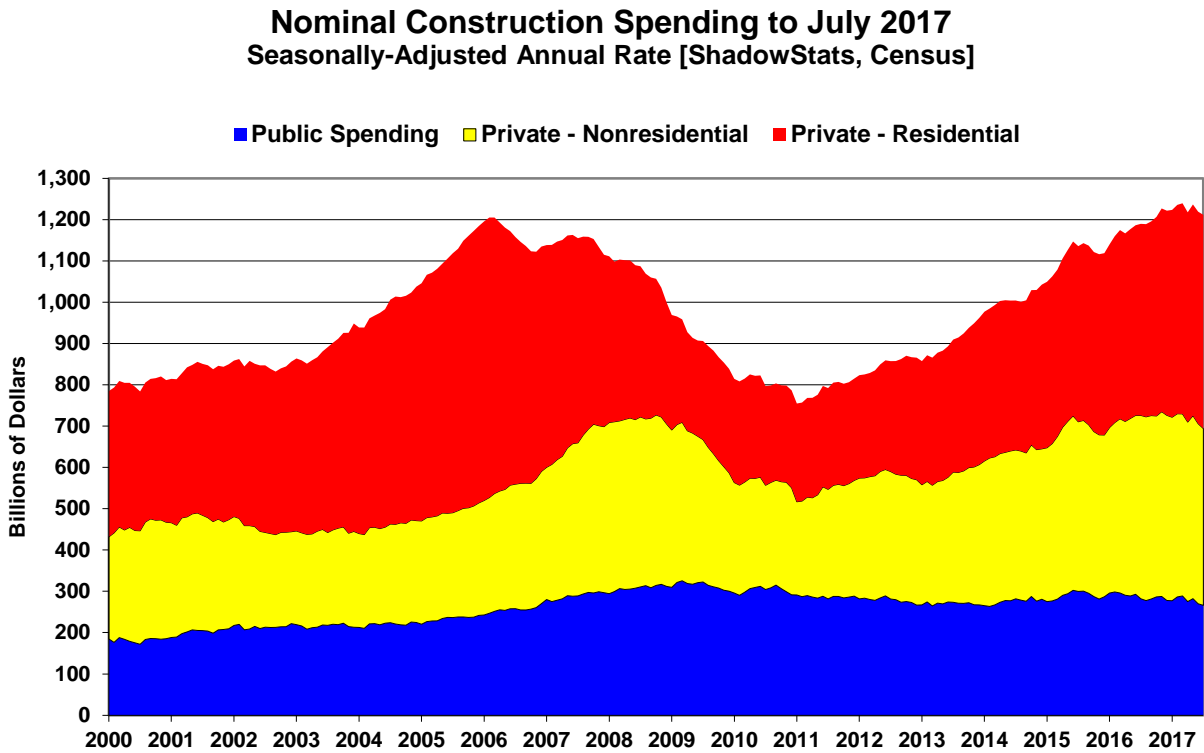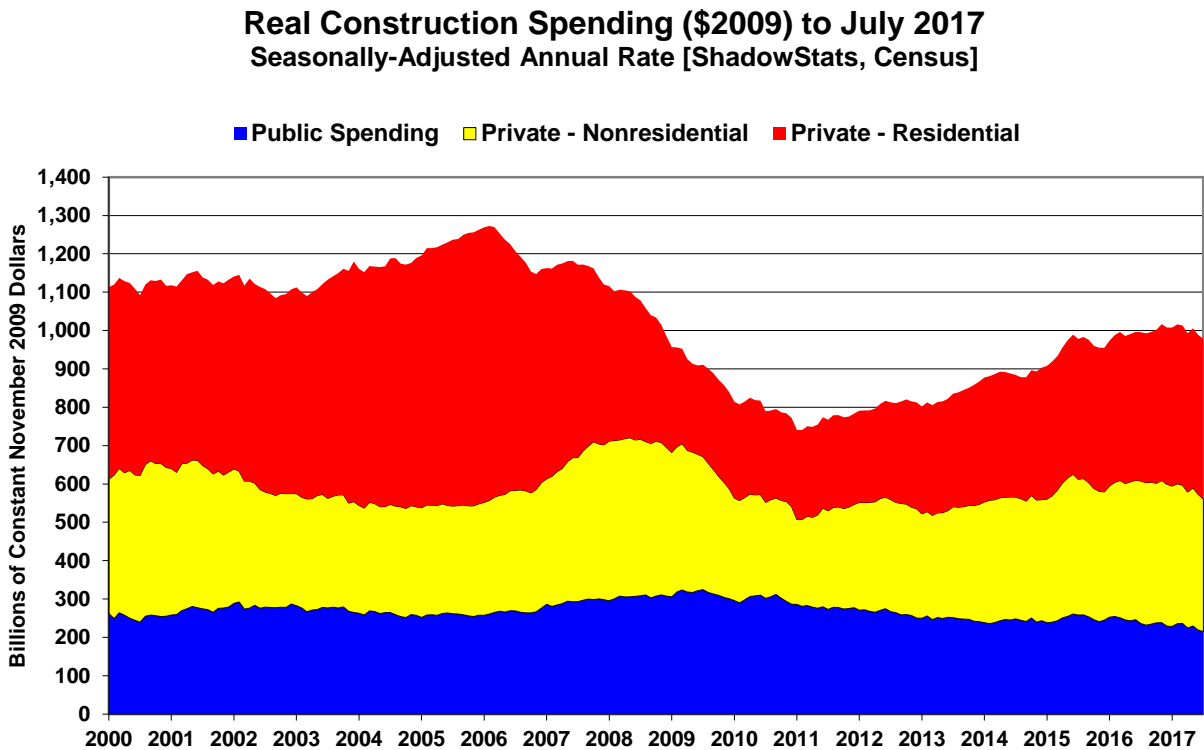
Graph 19: Total Nominal Construction Spending
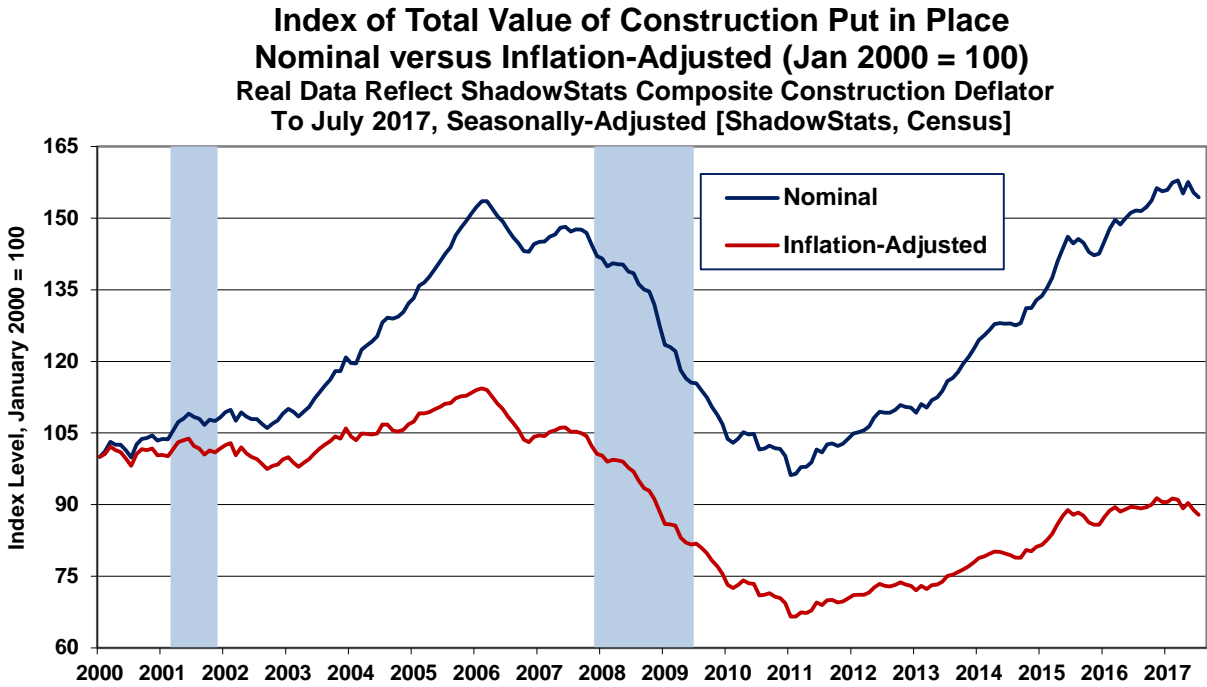
Nominal Total-Construction Spending to July 2017
Seasonally-Adjusted Annual Rate [ShadowStats, Census]

Graph 20: Index of Total Real Construction Spending

Index of Real Total Value of Construction Put in Place
To July 2017, Inflation Adjusted (Jan 2000 = 100)
Seasonally-Adjusted [ShadowStats, Census Bureau]

Reflects all forms of U.S. construction spending, public and private, ranging from residential and office buildings, to highways and water systems.

Inflation-adjustment is based on the ShadowStats Composite Construction Deflator (using weighted industry cost surveys and related GDP deflators).

Graph 21: Aggregate Nominal Construction Spending by Major Category to Date

Nominal Construction Spending to July 2017
Seasonally-Adjusted Annual Rate [ShadowStats, Census]

Graph 22: Aggregate Real Construction Spending by Major Category (Billions of November 2009 Dollars)

Real Construction Spending ($2009) to July 2017
Seasonally-Adjusted Annual Rate [ShadowStats, Census]

Graph 23: Index, Nominal versus Real Value of Total Construction

Index of Total Value of Construction Put in Place
Nominal versus Inflation-Adjusted (Jan 2000 = 100)
Real Data Reflect ShadowStats Composite Construction Deflator
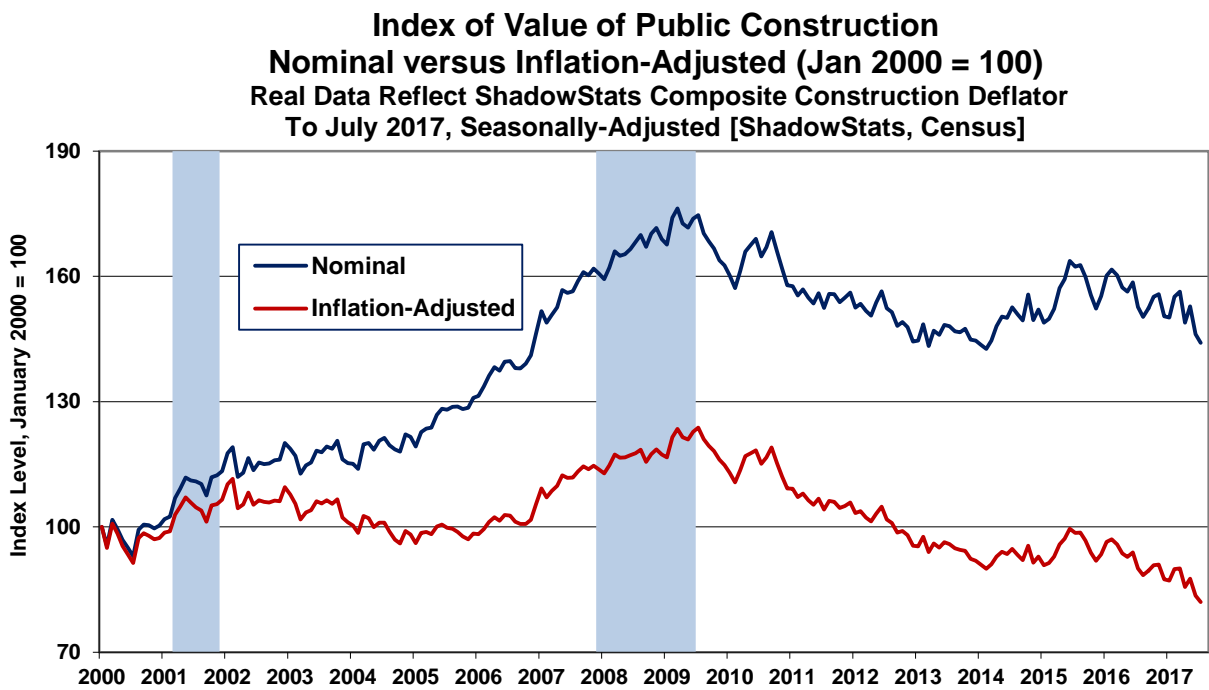**To July 2017, Seasonally-Adjusted [ShadowStats, Census]**

Graph 24: Index, Nominal versus Real Value of Private Residential Construction

Index of Value of Private Residential Construction
Nominal versus Inflation-Adjusted (Jan 2000 = 100)
Real Data Reflect ShadowStats Composite Construction Deflator
To July 2017, Seasonally-Adjusted [ShadowStats, Census]
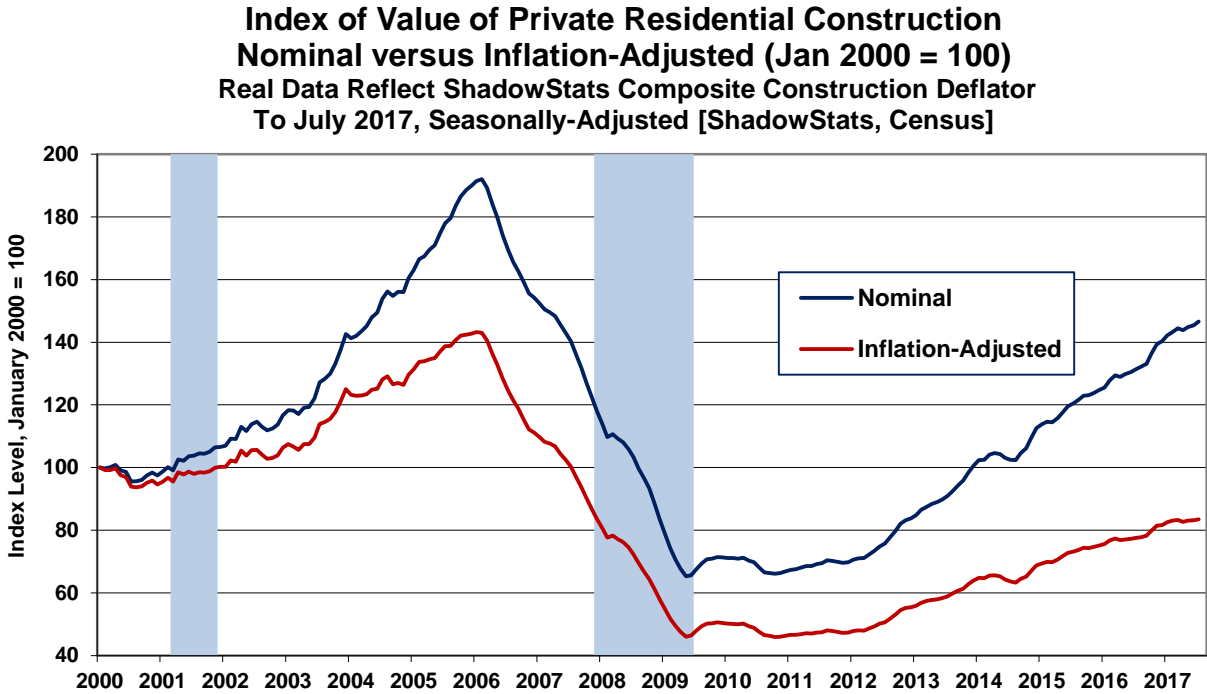
Graph 25: Index, Nominal versus Real Value of Private Nonresidential Construction

**Index of Value of Private Nonresidential Construction
Nominal versus Inflation-Adjusted (Jan 2000 = 100)
Real Data Reflect ShadowStats Composite Construction Deflator
To July 2017, Seasonally-Adjusted [ShadowStats, Census]**
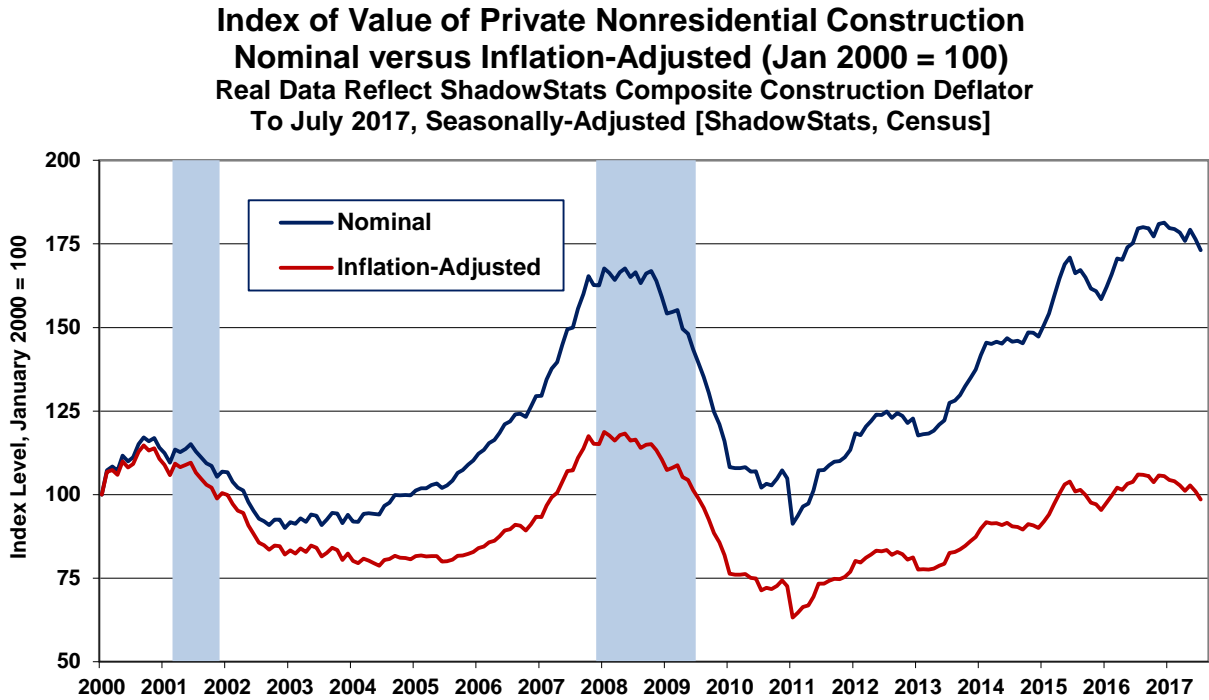
Graph 26: Index, Nominal versus Real Value of Public Construction

**Index of Value of Public Construction
Nominal versus Inflation-Adjusted (Jan 2000 = 100)
Real Data Reflect ShadowStats Composite Construction Deflator
To July 2017, Seasonally-Adjusted [ShadowStats, Census]**

Construction Payroll Gains in August 2017 Were Boosted by Downside Revisions to July, Still Down 10.4% (-10.4%) from Pre-Recession Peak. Construction employment in August 2017 rose by 28,000 jobs to 6.918 million, following a revised monthly decline of 3,000 (-3,000) [previously a gain of 6,000]

in July and an unrevised monthly gain of 15,000 in June. Net of prior-period revisions, the headline August gain would have been 19,000 instead of the headline 28,000.

In theory, construction payroll levels should move closely with the inflation-adjusted aggregate construction spending series (see *Graph 20*) and the Housing Starts series (see *Graph 11*), where starts are measured in units rather than dollars. August employment details are plotted in *Graph 27*. The recent general pattern of activity has softened and flattened out, albeit with a revision-enhanced monthly uptick, yet it remains shy of recovering its pre-recession high by 10.4% (-10.4%). That broadly is consistent with continuing weakness seen in real construction spending and other construction measures.

Headline month-to-month construction employment rose by 0.41% in August 2017, having declined in July by 0.04% (-0.04%), and having gained by 0.22% in June. Unadjusted year-to-year growth was 2.95% in August 2017, versus 2.59% in July 2017 and versus 2.95% in June 2017.

Headline construction-payroll numbers remain heavily biased to the upside (officially bloated by 7,600 jobs per month, and likely be higher, post-2017 benchmarking, unofficially at an order of magnitude of 21,000 jobs per month). Despite downside revisions to recent activity, the headline August 2017 level of construction jobs was the highest seen since October 2008, but, again, it remained down from the April 2006 pre-recession series peak by 10.45% (-10.45%).

Graph 27: Construction Payroll Employment to Date

Construction Payroll Employment to August 2017
Seasonally-Adjusted [ShadowStats, BLS]
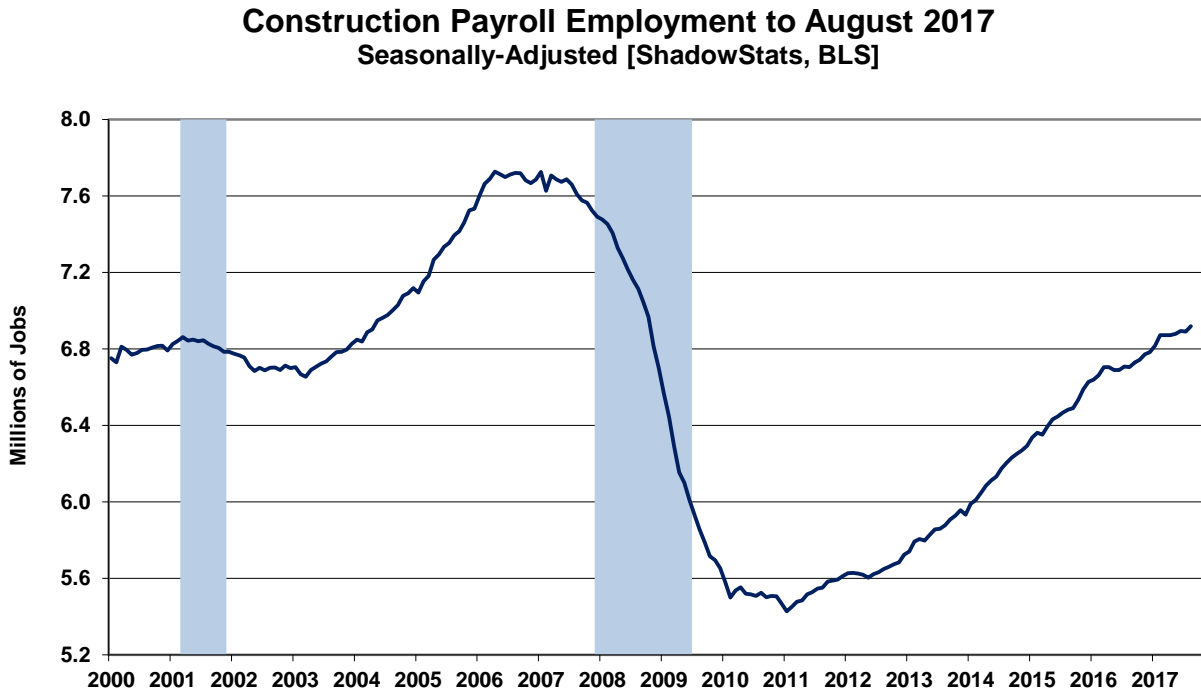
HYPERINFLATION WATCH

MONETARY CONDITIONS

M3 Jumped and the Monetary Base Level and Growth Hit Highest Levels in More than 16-Months.
[This material has been revised minimally from Friday's (September 1st) Advance Commentary No. 908-A*, reflecting new detail of the Saint Louis Fed's estimate of the Monetary Base for the two weeks ended August 30th, as reflected in* Graphs HW-2 *and* HW-3*].*

August 2017 annual growth in the ShadowStats Ongoing M3 Money Supply M3 measure rose to 3.6% from an upwardly-revised 3.3% [previously 3.2%] in July 2017, based on three-plus weeks of reporting, and in the context of continued softening growth in both the narrower M2 and M1. The July 2017 gain of 3.3% was against unrevised annual growth of 3.1% in June 2017, 3.5% in May 2017, 3.4% in April 2017 and 3.0% in March 2017. The March 2017 showing was the weakest year-to-year change since July 2012. Separately, nominal year-to-year growth for M2 eased to 5.3% in August 2017, versus 5.6% in July 2017, 5.5% in June 2017 and 5.9% in May 2017, with annual nominal growth in August 2017 M1 easing to 7.7%, versus 8.7% in July 2017, versus 7.7% in June 2017 and 7.9% in May 2017.

Graph HW-1: Comparative Money Supply M1, M2 and M3 Yr-to-Yr Changes through August 2017
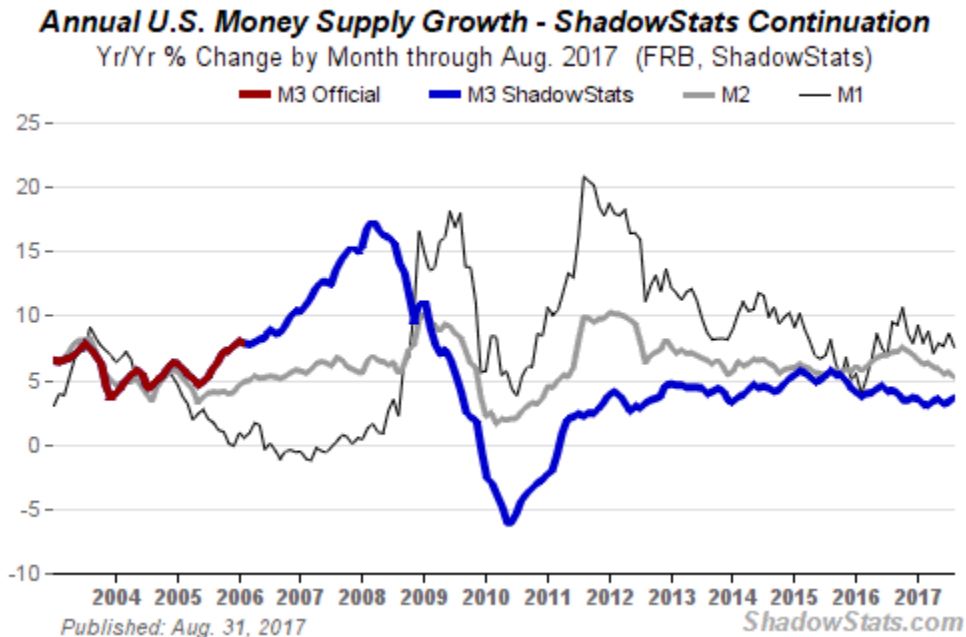
For those living in the headline money-supply world comprised of just the Fed's M1 and M2, money growth still has been relatively stronger for both M1 and M2, than for M3, although that difference has

narrowed further. The relative weakness in annual M3 growth, versus M2 and M1 (M2 includes M1; M3 includes M2) still had reflected a shift over time in funds from accounts included just in M3, such as large time deposits and institutional money funds, into accounts in M2 and M1. August 2017 M3 growth and the July upside revision reflected a returning of flow of cash from M1 and M2 back into M3 accounts, again, such as large-time deposits and institutional money funds.

The latest estimates of level and annual changes for August 2017 M3, M2 and M1, and for earlier periods, are detailed in the Alternate Data tab of www.ShadowStats.com. See the *Money Supply Special Report* for full definitions of those measures.

As M3 Jumped, So Has the Monetary Base. In the wake of near-term volatility surrounding recent rate hikes by the FOMC, and the related market efforts by New York Fed to establish or maintain stable trading-range activity for the targeted federal funds rate, the level of the monetary base had been reasonably stable, with annual percentage change fluctuating around zero, but now it has moved up in recent weeks to the highest levels in more than a year.

Aside from short-term gyrations around a change in the targeted federal funds rate, circumstances generally should remain relatively stable, until the Fed moves meaningfully either to sell its excess Treasuries and Mortgage-Backed Securities as part of a planned, eventual "balance sheet normalization," or to embark upon expanded quantitative easing, amidst increasing liquidity stresses in the banking system from deteriorating economic conditions. What is happening will be reviewed in detail in *Commentary No. 904*, planned for September 14th.

Where the Saint Louis had not updated its August 30th Monetary Base estimate when we went to press with *Advance Commentary No. 908-A*, that detail now is available. Based on the Saint Louis Fed estimates, the Monetary Base stood at its highest level for the two weeks ended August 16, 2017, since March of 2016. That level basically held for the two weeks ended August 30, 2017, down by just 0.09% (-0.09%) from the prior period, with annual growth jumping to 3.0%, its highest level since December 2015. Accompanying *Graphs HW-2* and *HW-3*, reflect those August 30th details.
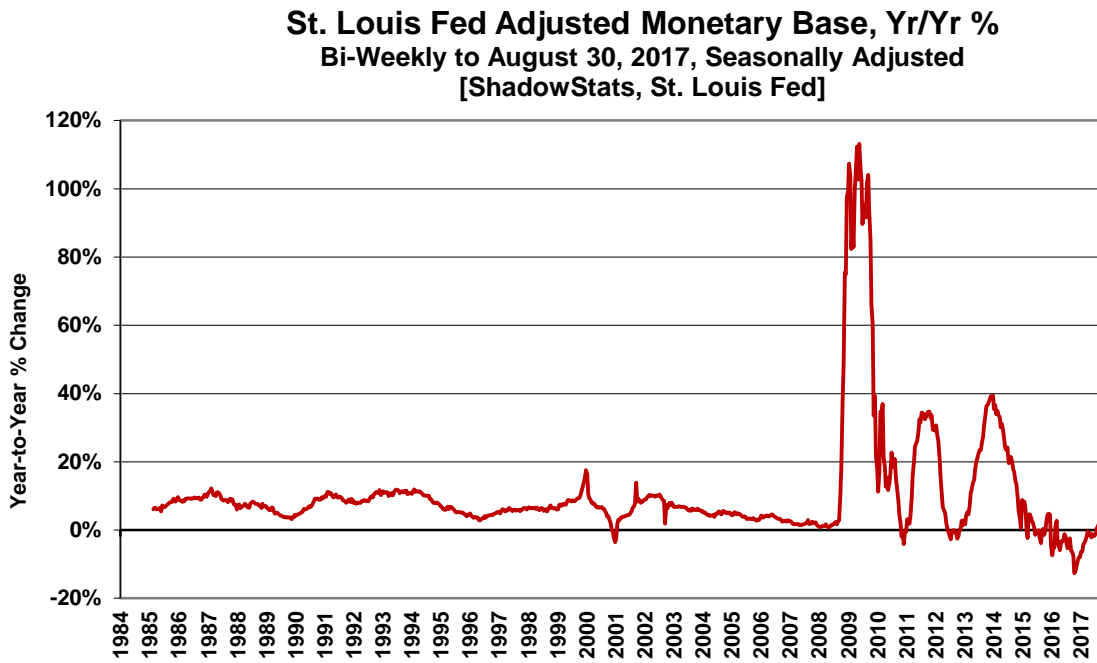
The level of the Monetary Base remains well within the bounds of activity seen in the last several years. That said, prior to the Quantitative Easing, changing the level of the Monetary Base had been the primary tool of the Federal Reserve Board's Federal Open Market Committee (FOMC) for targeting growth in the money supply. If the current upside movement in both M3 and the Monetary growth continues, on a regular basis, questions as to a potential covert shift in FOMC policy (towards easing) might arise.

[Graphs HW-2 and HW-3 follow on the next page.]

Graph HW-2: Saint Louis Fed Monetary Base, Billions of Dollars (1984-August 30, 2017)

St. Louis Fed Adjusted Monetary Base
Bi-Weekly to August 30, 2017, Seasonally Adjusted
[ShadowStats, St. Louis Fed]
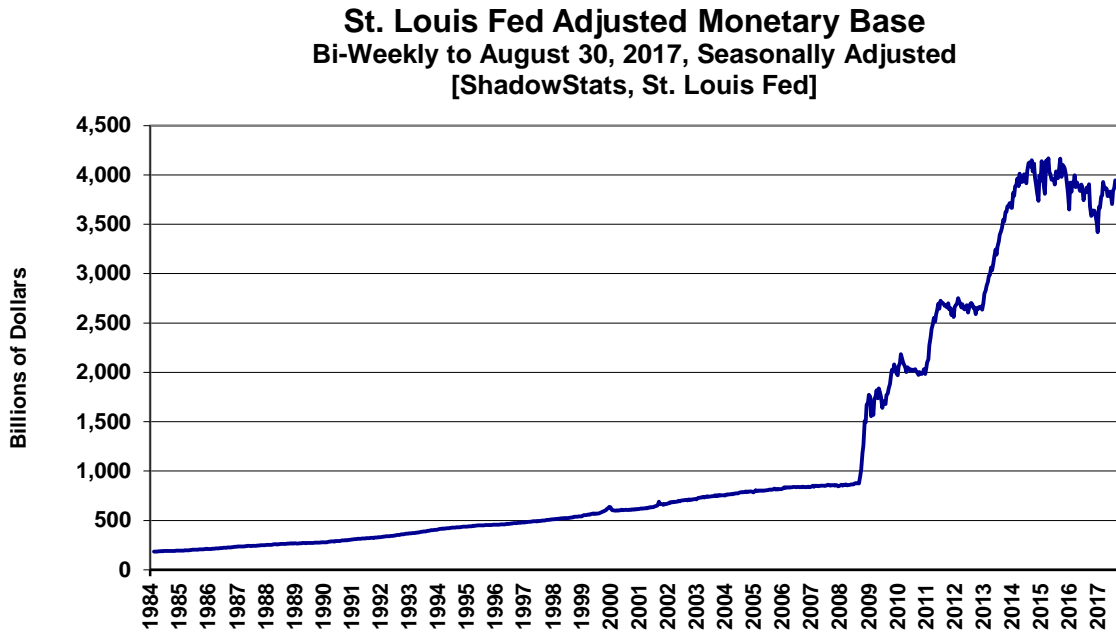
Graph HW-2: Year-to-Year Percent Change, Saint Louis Fed Monetary Base (1985-August 30, 2017)

St. Louis Fed Adjusted Monetary Base, Yr/Yr %
Bi-Weekly to August 30, 2017, Seasonally Adjusted
[ShadowStats, St. Louis Fed]

CONSUMER LIQUIDITY WATCH

CONSUMER LIQUIDITY CONDITIONS: INCOME, CREDIT AND RELATIVE OPTIMISM.
[The Consumer Liquidity Watch *has been updated for the full-August Consumer Sentiment measure.]*

Liquidity Stresses Mounted Amidst Faltering Optimism. The U.S. consumer faces continuing financial stress, increasingly reflected in the renewed softening of headline economic activity, including Real Retail Sales, Home Sales and impacted construction series and as reflected ultimately in affected broader-based economic series such as Industrial Production.

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

These same pocket-book issues contributed to the anti-incumbent electoral pressures in the 2016 presidential race. The post-election environment showed a near-term surge in both the consumer confidence and sentiment measures to levels generally not seen since before the formal onset of the recession in 2002, let alone 2007. Yet, underlying liquidity conditions, economic reality and lack of positive actions out of the government to turn the economy meaningfully, all have continued to remain shy of consumer hopes. Not surprisingly, consumer optimism has begun to falter anew.

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

The combined issues here have driven the housing-market collapse and ongoing, long-term stagnation in consumer-related real estate sales and construction activity, and have constrained both nominal and real retail sales. Related, personal-consumption-expenditure and residential-construction categories accounted for 73.1% of the headline real (73.0% of nominal), second-quarter 2017 U.S. GDP.

With the better-quality economic indicators and underlying economic reality never having recovered fully from the collapse into 2009, consumers increasingly should pull back on consumption in the months ahead. Underlying reality is evident in more-meaningful economic indicators—not the GDP—

irrespective of the transient, gimmicked boosts to, and current headline slowing in, that most worthless of economic series, discussed most recently in *Commentary No. 902-B*.

Consumer Optimism: August Consumer Confidence and Sentiment Measures Both Jumped in the Month, Sentiment Pulled Back from Its "Advance" Estimate. This detail incorporates the August 2017 reading of The Conference Board's Consumer-Confidence Index® (Confidence) of August 29th, as well as the full-August 2017 reading for the University of Michigan's Consumer Sentiment Index (Sentiment) of September 1st. Reflected in *Graphs CL-1* and *CL-2*, both Confidence and Sentiment rose in September 2016 and plunged in October, likely reflecting concerns as to the direction of the presidential race. Post-election, both measures rallied sharply, reflecting a surge in consumer optimism into early 2017. Both series appeared to have topped and pulled back in June, but the July Confidence number rebounded anew, with August continuing to rebound, yet with each rebound being on top of a lesser downside revision to the prior month. Where the full-July Sentiment number pulled back, the August Sentiment reading jumped anew, although the just released full-month estimate revised lower from its "advance" estimate for the month. Nonetheless, both the latest Confidence and Sentiment levels remained off their respective post-election, euphoric peaks of March 2017 (Confidence) and January 2017 (Sentiment).

The Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index® (*Graph CL-1*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph CL-2*), again, both soared post-election, into early 2017, with Confidence booming into and topping in March and with sentiment booming into and topping in January 2017. The three-month moving averages in both series also had broken to pre-recession highs, with the Confidence hitting levels not seen since before the 2001 recession, yet the still-high moving averages also have begun to falter.
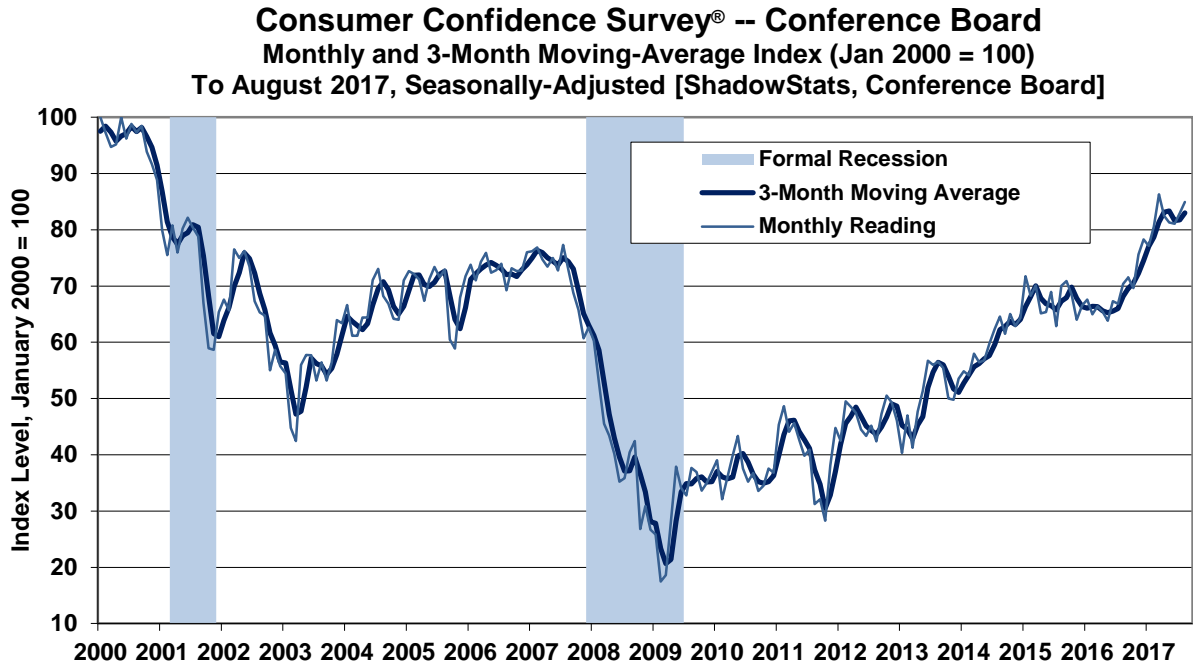
Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs CL-1* to *CL-3* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while the University of Michigan's Consumer Sentiment Index is set with January 1966 = 100.

The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in *Commentary No. 764*), and often are highly volatile month-to-month, as a result. With what should become increasingly-negative, unstable and uncertain headline financial and economic reporting in the months ahead—beyond the early change-in-government euphoria—continued, successive negative hits to both the confidence and sentiment readings remain increasingly likely in the near future.
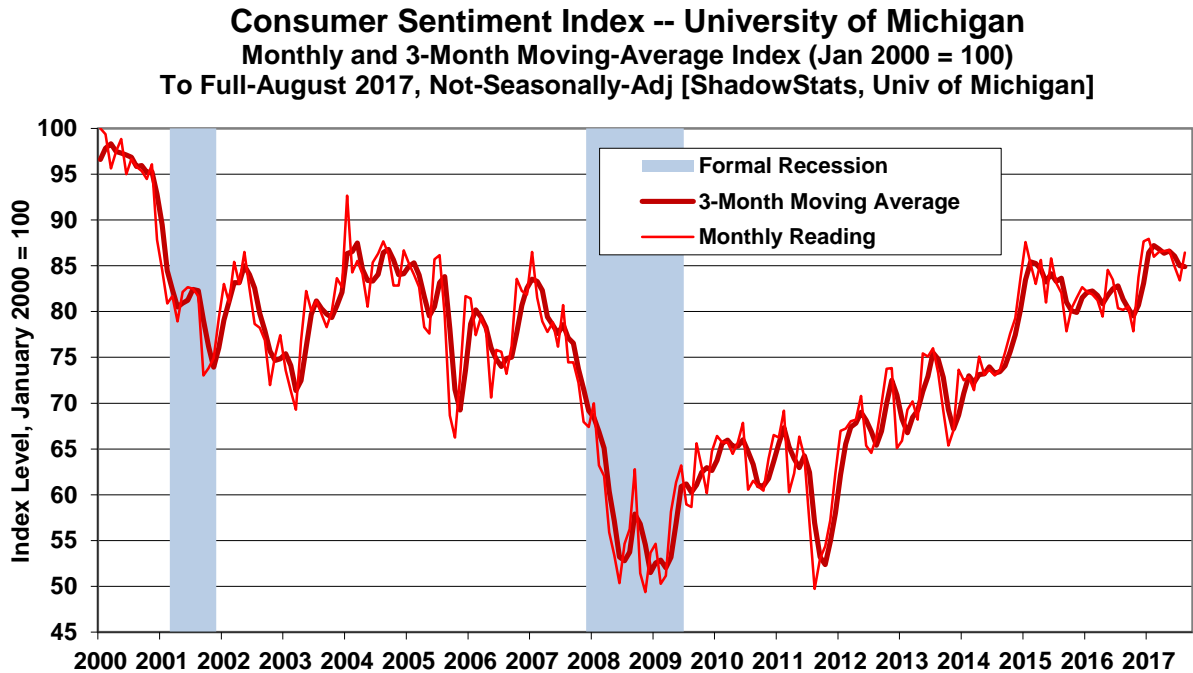
Smoothed for irregular, short-term volatility, the two series still generally had held at levels seen typically in recessions, until the post-2016 election circumstance. Suggested in *Graph CL-3*—plotted for the last 47 years—the latest readings of Confidence and Sentiment recently have recovered levels seen in periods of normal, positive economic activity of the last four decades, with their six-month moving averages at levels last seen going into the 2001 recession, although they appear to be topping out.
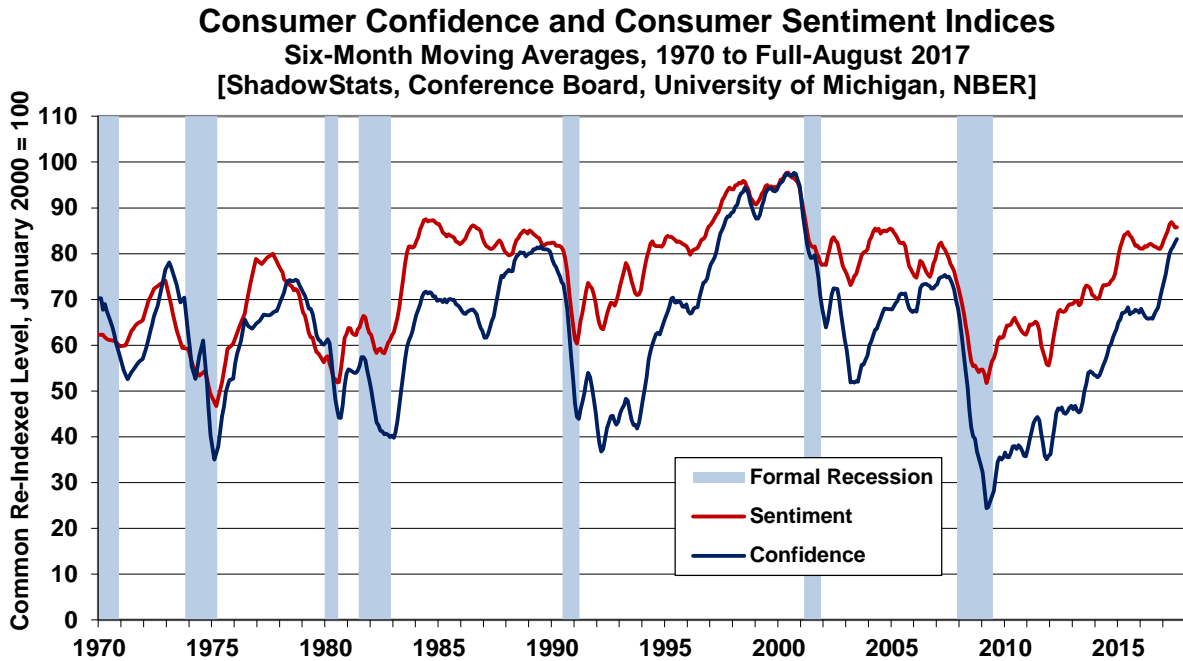
Broadly, though, the harder, financial consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and for third-quarter 2016. Beyond having happy feelings about the future, consumers still need actual income, cash-in-hand or credit in order to increase their spending.

Graph CL-1: Consumer Confidence (2000 to 2017)

Consumer Confidence Survey® -- Conference Board
Monthly and 3-Month Moving-Average Index (Jan 2000 = 100)
To August 2017, Seasonally-Adjusted [ShadowStats, Conference Board]

Graph CL-2: Consumer Sentiment (2000 to 2017)

Consumer Sentiment Index -- University of Michigan
Monthly and 3-Month Moving-Average Index (Jan 2000 = 100)
To Full-August 2017, Not-Seasonally-Adj [ShadowStats, Univ of Michigan]

Graph CL-3: Comparative Confidence and Sentiment (6-Month Moving Averages, 1970 to 2017)

Consumer Confidence and Consumer Sentiment Indices
Six-Month Moving Averages, 1970 to Full-August 2017
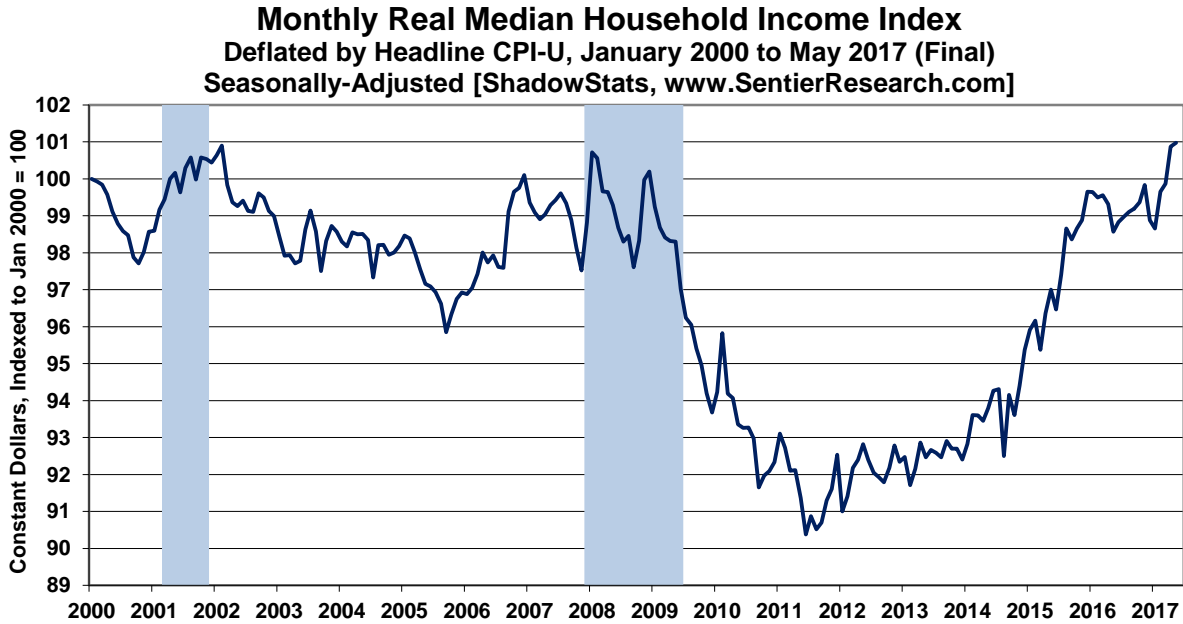**[ShadowStats, Conference Board, University of Michigan, NBER]**

Consumer Income: May 2017 Real Median Household Income Was Statistically Unchanged, Despite a Boost from Falling Gasoline Prices. Discussed in *General Commentary No. 894*, and in the contexts of continued, faltering gains in post-election consumer optimism, and inflation-adjusted activity boosted by declining headline Consumer Price Index (CPI-U) inflation (weakened by seasonally-adjusted gasoline price declines), May 2017 Real Median Monthly Household Income was "statistically unchanged" (a statistically-insignificant monthly gain of 0.10%), as reported by www.SentierResearch.com. That followed a statistically-significant monthly gain of 1.00% in April 2017. Shown in *Graph CL-4*, such enabled May 2017 real monthly median household income to hold a level regained in April and otherwise last seen in February 2002. Year-to-year real median household income rose to 2.44% in May 2017, the highest level since June 2016, following an annual gain of 1.57% in April 2017 (see *Graph CL-5*). The May detail, however, may be the final reporting of the monthly series (see the following *Special Note*).

Where real median income plunged into the headline trough of the economic collapse in 2009, it did not then rebound in tandem with the headline GDP activity. When the GDP purportedly started its solid economic recovery in mid-2009, the monthly household income numbers nonetheless plunged to new lows, hitting bottom in 2011. The income series then held in low-level stagnation, until collapsing gasoline prices and the resulting negative CPI-U inflation drove a post-2014 uptrend in the inflation-adjusted monthly income index. The index approached pre-recession levels in the December 2015 reporting, but it remained minimally below the pre-recession highs for both the formal 2007 and 2001 recessions until recent months. Real median household income had the potential to resume turning down anew, as the headline pace of monthly consumer inflation picked up anew, with the July 2017 CPI.
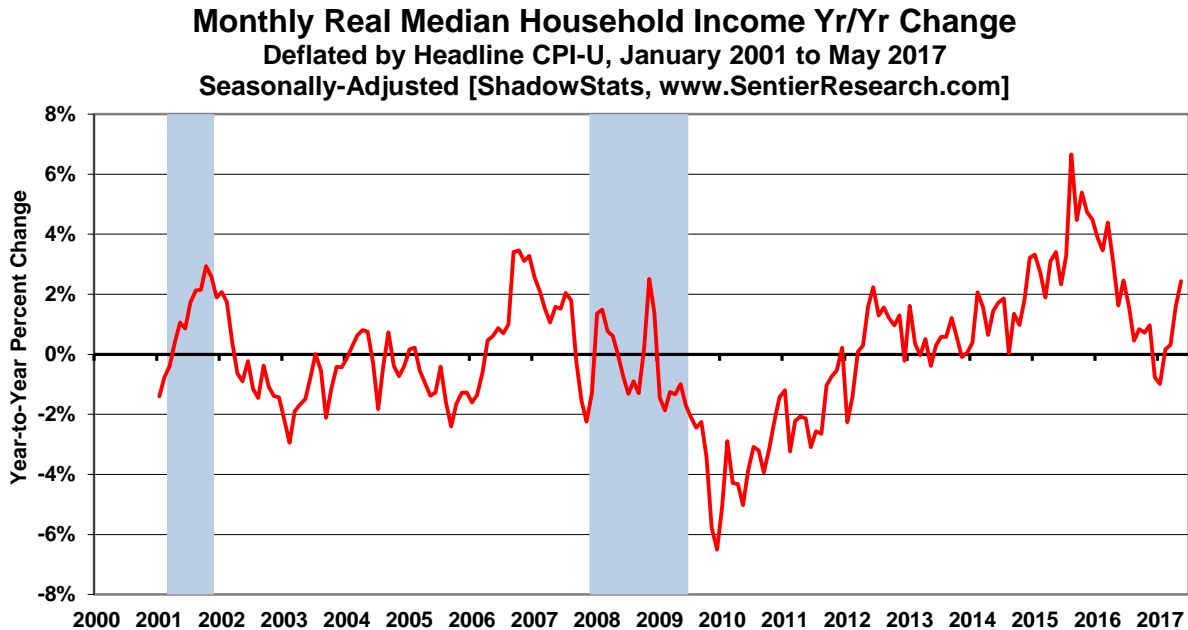
Nonetheless, the most-recent recent "rebound" reported in the series still left consumers financially strapped. Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash largely was used to help pay down unsustainable debt or other

obligations, not to fuel new consumption. Except for mixed gyrations in first-half 2017, the effects of changing gasoline prices in the headline CPI-U generally had reversed, pushing headline consumer inflation higher and beginning to push real income lower.

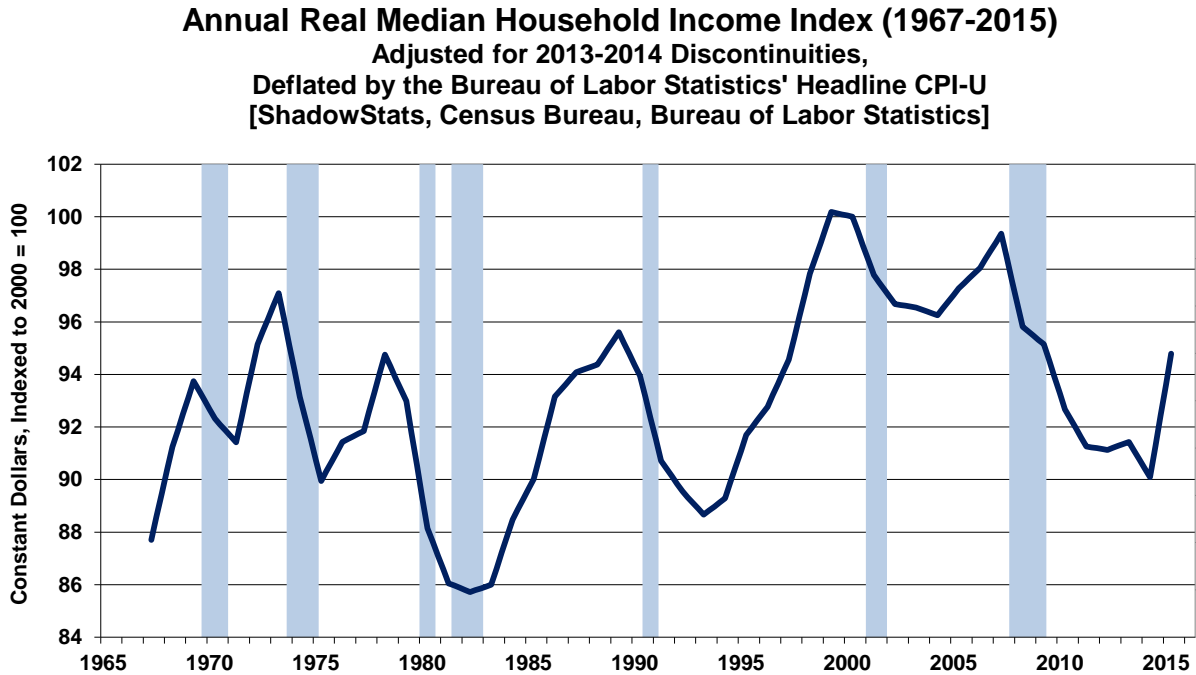*Graph CL-4: Monthly Real Median Household Income (2000 to 2017) Index, January 2000 = 100*

Monthly Real Median Household Income Index
Deflated by Headline CPI-U, January 2000 to May 2017 (Final)
Seasonally-Adjusted [ShadowStats, www.SentierResearch.com]

Graph CL-5: Monthly Real Median Household Income (2000 to 2017) Year-to-Year Change

Monthly Real Median Household Income Yr/Yr Change
Deflated by Headline CPI-U, January 2001 to May 2017
Seasonally-Adjusted [ShadowStats, www.SentierResearch.com]

This measure of real monthly median household income generally can be considered as a monthly version of the annual detail shown in *Graph CL-6*, which was updated ten months ago for 2015 detail (see the full analysis of the 2015 annual household income reporting in *Commentary No. 833*, including an analysis of annual detail on income variance or "inequality"). The relative jump seen in the headline annual 2015

median income, despite formal adjustment for discontinuities in the recent annual reporting, was due largely to series redefinitions, not due to a sudden change in consumer liquidity, other than as tied to the collapse in gasoline prices and a related spike in the inflation-adjusted numbers. The level of real annual median household income for 2015, not only was below that seen at the purported trough of the economic collapse into 2009, but also it was below levels seen in the early-1970s and the late 1980s.

Graph CL-6: Annual Real Median U.S. Household Income (1967 to 2015)

Annual Real Median Household Income Index (1967-2015)
Adjusted for 2013-2014 Discontinuities,
Deflated by the Bureau of Labor Statistics' Headline CPI-U
[ShadowStats, Census Bureau, Bureau of Labor Statistics]

Special Note: Accompanying the release of the May 2017 data by Sentier Research was this Notice of Final Report:

> Dear Friends, This will be our final report in the monthly series of median household income. We can no longer afford to provide these estimates given our current level of resources. We believe, as we hope you do, that these estimates provided an important new dimension regarding the economic situation of American households as we slowly climbed out of the Great Recession. The story continues but we must move on. Our hope is that someone will be able to continue this work. Should you or someone you know be interested please contact us. Thanks to all of you for your kind support.. John and Gordon

ShadowStats hopes a circumstance will unfold that enables continued reporting of this extraordinarily valuable and timely indicator of consumer liquidity. Gordon Green and John Coder, the authors of the monthly report, both are former senior officials at the U.S. Census Bureau and have a unique understanding of the underlying monthly data. The Census Bureau publishes a broadly-similar series on an annual basis, but with an extraordinary time lag. The 2016 Census annual detail is due for release and publication in September 2017. Again, see *Commentary No. 833* for the 2015 detail published in 2016.

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 Bureau numbers,

again, shown in preceding *Graph CL-6*, with 2014 real annual median household income having hit a ten-year low, and, again, with the historically-consistent 2015 annual number still holding below that seen when the collapsing economy hit its purported trough in 2009. 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 used monthly questions surveying current annual household income, the headline annual Census Bureau detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income. The Median Household Income surveying results are broadly consistent with Real Average Weekly Earnings.

Real Average Weekly Earnings—July 2017—Month-to-Month Real Earnings Rose. For the production and nonsupervisory employees category—the only series for which there is a meaningful history (see the full discussion on page 12 of *Special Commentary No. 904*), the regularly-volatile real average weekly earnings were up by 0.18% in July 2017 (as reported by the Bureau of Labor Statistics on August 11th). That was against a downwardly-revised 0.27% monthly gain in June and a revised 0.34% gain in May. The adjusted July 2017 year-to-year real change slowed to 0.71%, versus a revised 1.14% in June 2017 and a revised 0.89% gain in May 2017.

Graph CL-7: Real Average Weekly Earnings, Production and Nonsupervisory Employees, 1965-to-Date
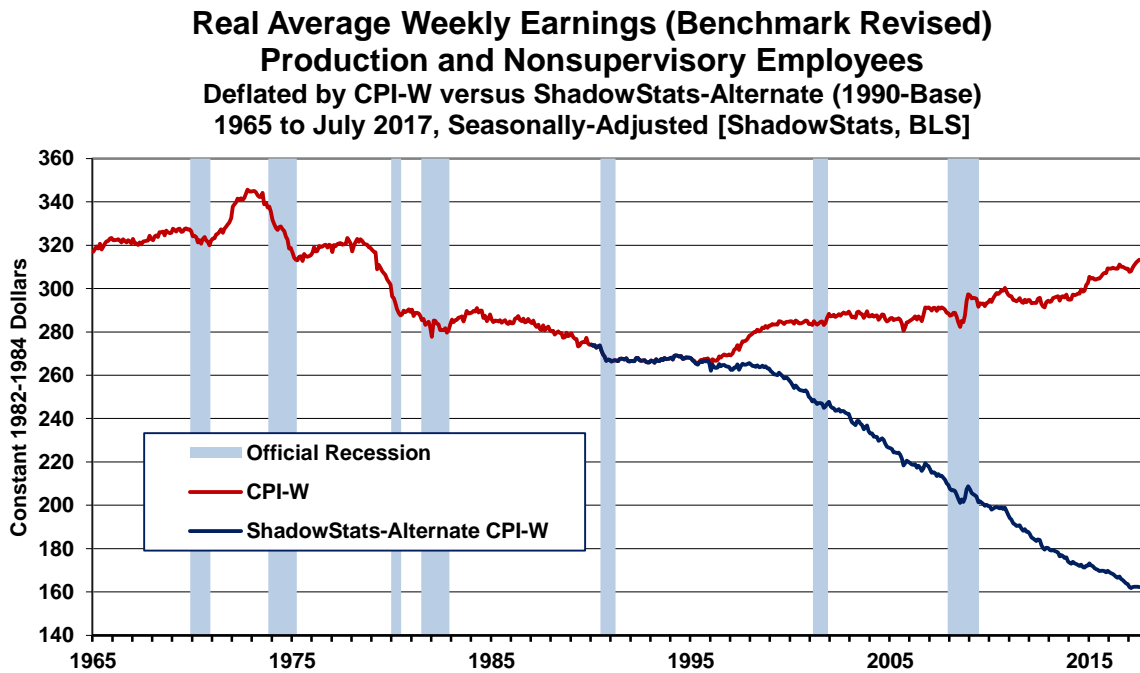
Based solely on volatile initial reporting for July 2017, the early-trend for real third-quarter 2017 activity was for an annualized real quarterly gain of 1.89%. Second-quarter 2017 activity reflected a revised, annualized real quarterly gain of 4.49%, following unrevised contractions in first-quarter 2017 of 1.13% (-1.13%), in fourth-quarter 2016 of 1.36% (-1.36%), 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%.
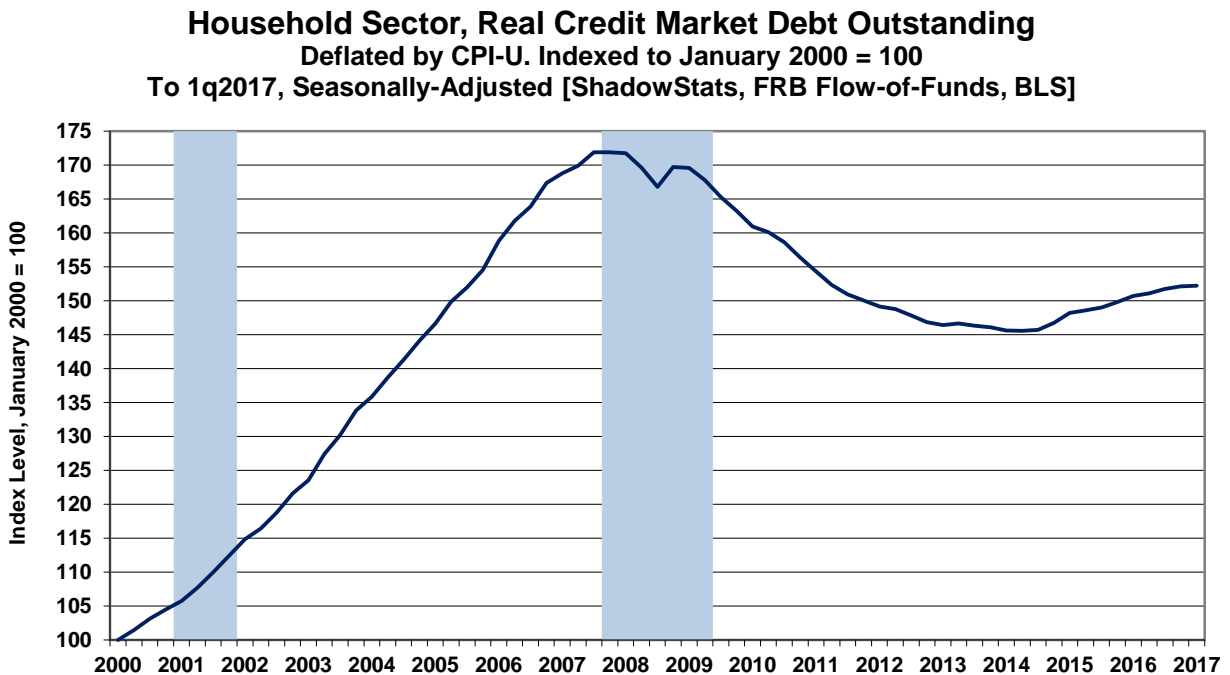
The early-trend for third-quarter 2017 year-to-year real earnings growth was 0.94%, while second-quarter 2017 earnings rose by a revised 0.84%, following an unrevised annual contraction of 0.29% (-0.29%) in first-quarter 2017, the first annual or year-to-year quarterly contraction since fourth-quarter 2012, when the real GDP effectively was unchanged quarter-to-quarter. The signal there highlighted financial stresses on the consumer and major downside risk to headline real GDP reporting.

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

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

Consumer Credit: Lack of Meaningful Real Consumer Credit Growth Remains an Economic Constraint. The final four graphs on consumer conditions address consumer borrowing. Where debt expansion can help make up for a shortfall in income growth, adequate expansion of consumer debt, which would help fuel growth in personal consumption, has been lacking.

Graph CL-8: Household Sector, Real Credit Market Debt Outstanding (2000 through First-Quarter 2017)

Household Sector, Real Credit Market Debt Outstanding
Deflated by CPI-U. Indexed to January 2000 = 100
To 1q2017, Seasonally-Adjusted [ShadowStats, FRB Flow-of-Funds, BLS]

Consider *Graph CL-8* of *Household Sector, Real Credit Market Debt Outstanding*. The level of real household debt declined in the period following the Panic of 2008, reflecting loan defaults and reduced banking lending, and it has not recovered fully, based on the Federal Reserve's flow-of-funds accounting through first-quarter 2017. Household Sector, Real Credit Market Debt Outstanding in first-quarter of 2017 still was down by 11.5% (-11.5%) from its pre-recession peak of third-quarter 2007, the same as in fourth-quarter 2016.

The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce. The slight upturn seen in the series through 2015 and into 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016. Current activity also has reflected continued relative strength from student loans, as shown in the *Graphs CL-9* to *CL-11*.

The ShadowStats analysis usually focuses on the particular current weakness in monthly levels of consumer credit, net of what has been rapidly expanding government-sponsored student loans. Where detail on that series is only available not-seasonally-adjusted, the following graphs are so plotted.
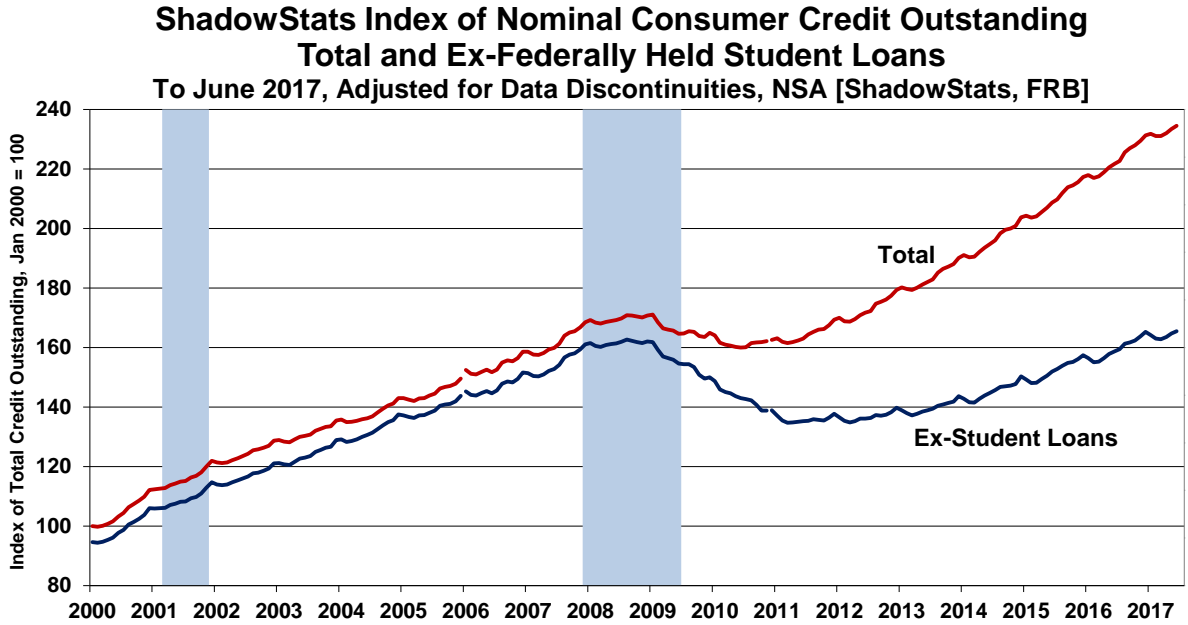
Shown through the latest reporting (June 2017), *Graph CL-9* of monthly Consumer Credit Outstanding is a subcomponent of *Graph CL-8* on real Household Sector debt. Where *Graph CL-9* reflects the nominal reporting, not adjusted for inflation, inflation-adjusted real activity for monthly Consumer Credit Outstanding is shown in terms of both level (Graph CL-10) and year-to-year change (*Graph CL-11*).

Post-2008 Panic, growth in outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel broad consumption or housing growth. Although in slow uptrend, the nominal level of Consumer Credit Outstanding (ex-student loans) has not recovered since the onset of the recession. These disaggregated data are available and plotted only on a not-seasonally-adjusted basis, with the pattern of monthly levels during one year reflecting some regular, unadjusted seasonal dips or jumps.
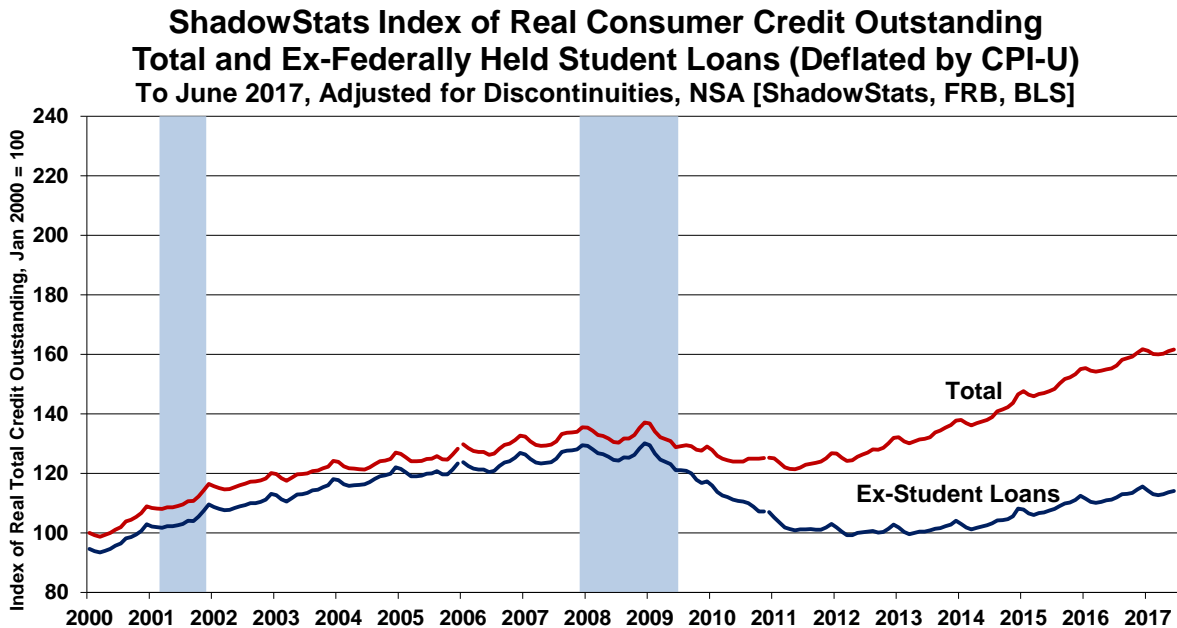
Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Although the recent monthly dips in the not-seasonally-adjusted consumer credit reflect a seasonal pattern, the pace of year-to-year growth continues to slow, suggesting some tightening of credit conditions. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in June 2017 (released August 7th) was down from its December 2007 pre-recession peak by 12.3% (-12.3%). Year-to-year growth in *Graph CL-11* tends to resolve most of the monthly distortions in the not-seasonally-adjusted data.

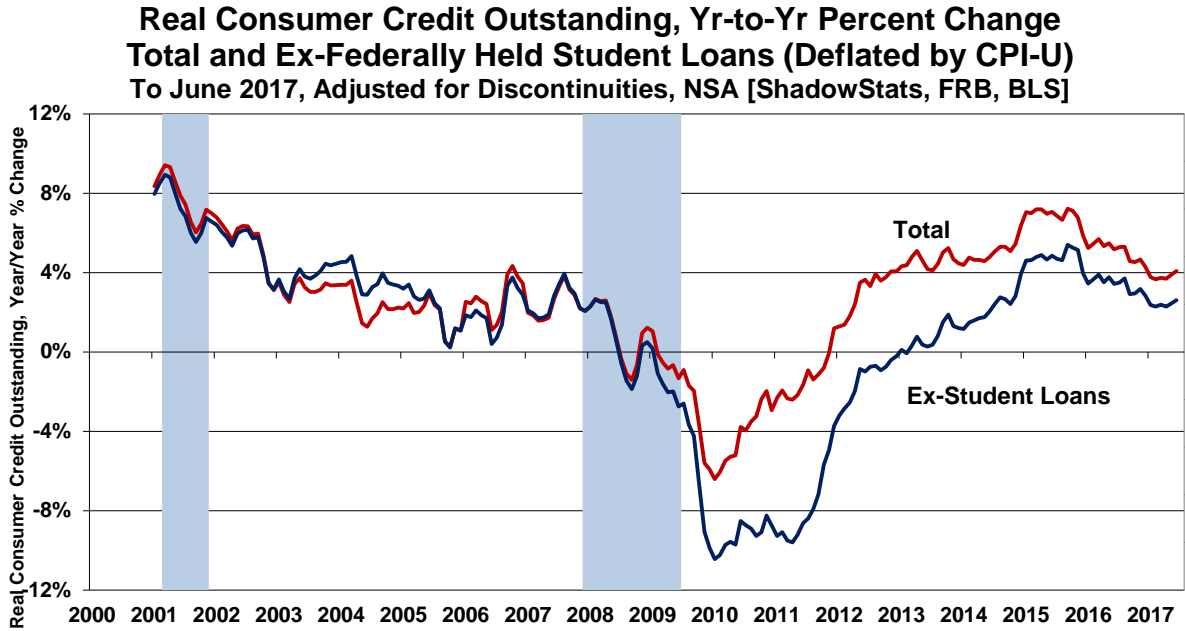[Graphs CL-9 to CL-11 begin on the next page.]

Graph CL-9: Nominal Consumer Credit Outstanding (2000 to 2017)

ShadowStats Index of Nominal Consumer Credit Outstanding
Total and Ex-Federally Held Student Loans
To June 2017, Adjusted for Data Discontinuities, NSA [ShadowStats, FRB]

Graph CL-10: Real Consumer Credit Outstanding (2000 to 2017)

ShadowStats Index of Real Consumer Credit Outstanding
Total and Ex-Federally Held Student Loans (Deflated by CPI-U)
To June 2017, Adjusted for Discontinuities, NSA [ShadowStats, FRB, BLS]

Graph CL-11: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2017)

Real Consumer Credit Outstanding, Yr-to-Yr Percent Change
Total and Ex-Federally Held Student Loans (Deflated by CPI-U)
To June 2017, Adjusted for Discontinuities, NSA [ShadowStats, FRB, BLS]

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WEEK, MONTH AND YEAR AHEAD

Exacerbated by Deteriorating Domestic and Global Political Circumstances, Continued Softening of Underlying Economic Activity Increasingly Should Pummel the Dollar, Boost the Price of Gold and Foster Financial-Market Turmoil. In the context of the *Opening Comments* and *Hyperinflation Watch* of the August 14th *Special Commentary No. 904* and the *Opening Comments* of *Commentary No. 905*, underlying reality remains a weakening and vulnerable, seriously-impaired U.S. economy, as seen, for example with the latest employment and construction detail, and in likely weak data in the week ahead, all amidst continuing domestic and global political instabilities and unfolding natural disasters. The *Hyperinflation Watch*, pending for the September 14th *Commentary No. 909*, will and update these circumstances. With a variety of key economic releases in the month ahead at high risk of disappointing market expectations, an intensifying and accelerating the negative shift in market economic outlook is likely in the near-term. Accordingly, this section is minimally revised other than for the *Pending Economic Releases* section.

Unfolding circumstance threaten a shift in FOMC policy, combined with the mounting political discord discussed in *Special Commentary No. 904* (see also the *Opening Comments* of *Commentary No. 901* and *Special Commentary No. 888*), odds continue to mount for intensifying financial-market turmoil in the near future, particularly as would be triggered by a market-related, intensifying heavy sell-off in the U.S. Dollar.

Broad economic activity never recovered fully recovered from its crash into 2009, and it has started to turn down anew. As explored previously in the *Hyperinflation Watches* of *Commentary No. 899* and *General Commentary No. 894*, and further to the *Opening Comments* and *Hyperinflation Watch* of *Commentary No. 892*, headline economic reporting during June, July and early August of 2017, had shown a marked downturn versus consensus forecasts. While these circumstances usually signal an unfolding, major downshift in underlying economic reality, at present, they also forewarn of a potential shift in FOMC activity. Where such an event remains well removed from consensus expectations, at this time, in terms of Fed policy, that would mean a cessation of incremental rate hikes and a shift back towards expanded quantitative easing.

Immediate effects of such a policy change likely would include a massive sell-off in the U.S. dollar, which otherwise has been propped by recent FOMC rate hikes and continual jawboning for same. In parallel, heavy selling in the U.S. equity and credit markets would follow. As consensus economic forecasts have begun to soften, so too has the U.S. dollar exchange rate, while gold prices generally have firmed.

The circumstances here and the outlook still remain as broadly outlined in *No. 859 Special Commentary*; currently shifting headlines only reflect the continued movement and evolution forward in time of the Fed's difficulties discussed in that missive.

The problem for the Federal Reserve remains that faltering domestic economic activity stresses banking-system solvency. Aside from formal obligations of the Fed to maintain healthy domestic economic and inflation conditions, the central bank's primary function (in practice) always has been to keep the banking system afloat. The near-absolute failure of that function in 2008 remains the primary ongoing and unresolved problem for the Fed, and it continues as one of the ongoing primary issues preventing the return of U.S. economic activity to normal functioning. Contrary to the recent purported headline comments of "not in our lifetime" by Federal Reserve Chair Janet Yellen, the continued unfolding of "unexpected" economic deterioration suggests that the next major systemic financial crisis is likely to break in the next several months.

Separately, recent benchmark revisions to Construction Spending (see *Commentary No 897*), the Trade Deficit (*Commentary No. 890*), Industrial Production (*Commentary No. 877*), Manufacturers' Shipments (*Special Commentary No. 888*), Housing Starts (*Commentary No. 887*) and Retail Sales (*Commentary No. 882*), and reporting subsequent to the benchmarks, broadly have confirmed that historical activity in recent years has been overstated and/or that it is turning down anew, particularly in 2015, with the availability of better-quality historical detail. Again, that is despite recent near-term improvement in some headline details, such as the headline unemployment rate, which increasingly suffers from dysfunctional definitional and sampling issues, and the latest headline GDP detail.

The reporting patterns of the better-quality, less-gimmicked series likely will continue to weaken with increasing intensity in the weeks and months ahead. Adding a negative uncertainty to unfolding financial-

market risks remains potential political surprise, discussed in *Special Commentary No. 888*. Otherwise, the broad outlook has not changed. Reflected in common experience, actual U.S. economic activity generally continues in stagnation or downturn, never having recovered its level of pre-economic-collapse (its pre-2007-recession peak), while the latest GDP reporting shows an otherwise unconfirmed economic expansion of 13.7%.

Discussed in *No. 859 Special Commentary*, the Trump Administration continues to face extraordinarily difficult times, but still has a chance to turn the tide on factors savaging the U.S. economy and on highly negative prospects for long-range U.S. Treasury solvency and stability. Any forthcoming economic stimulus faces a nine-month to one-year lead-time, once in play, before it meaningfully affects the broad economy. Increasing delays from political discord continue to push targeted programs back in time. Needed at the same time are a credible plan for bringing the U.S. long-term budget deficit (sovereign solvency issues) under control and action to bring the Federal Reserve under control and/or to reorganize the banking system. These actions broadly are necessary to restore domestic-economic and financial-system tranquility (see *No. 859*), but they cannot happen without the meaningful participation and cooperation of Congress. The financial crisis at hand likely will intensify well before the 2018 Congressional Election will have a chance to stabilize the outlook for economic policy objectives.

No. 859 Special Commentary updated the post-election, near-term economic and inflation conditions, including general economic, inflation and systemic distortions, which had evolved out of the Panic of 2008, have continued in play and, again, need to be addressed by the Trump Administration and Congress (see also the *Hyperinflation Watch* of *Commentary No. 862* and *Commentary No. 869*).

Contrary to the official reporting of an economy that collapsed from 2007 into 2009 and then recovered strongly into ongoing expansion, underlying domestic reality remained and remains that the U.S. economy started to turn down somewhat before 2007, collapsed into 2009 but never recovered fully. While the economy bounced off its 2009 trough, it entered a period of low-level stagnation and then began to turn down anew in December 2014, a month that eventually should mark the beginning of a "new" formal recession (see *General Commentary No. 867*). Formal economic expansion does not begin until economic recovery breaks above its pre-recession high.

Coincident with and tied to the economic crash and the Panic of 2008, the U.S. banking system moved to the brink of collapse, a circumstance from which U.S. and global central-bank policies never have recovered. Unwilling to admit its loss of systemic control, the Federal Reserve has made loud noises in the last year or so of needing to raise interest rates, in order to contain an "overheating" economy, but that "overheating" activity—never recognized by Main Street, U.S.A.—has been fading quickly. As this ongoing crisis evolves towards its unhappy end, the U.S. dollar ultimately should face unprecedented debasement with a resulting runaway domestic inflation.

Broad economic and systemic conditions are reviewed regularly, with the following *Commentaries* of particular note: *Commentary No. 902-B*, *General Commentary No. 894*, *Special Commentary No. 885*, *Commentary No. 869*, *No. 859 Special Commentary*, *No. 777 Year-End Special Commentary* (December 2015*)*, *No. 742 Special Commentary: A World Increasingly Out of Balance* (August 2015) and *No. 692 Special Commentary: 2015 - A World Out of Balance* (February 2015*)*. Those publications updated hyperinflation and economic outlooks published in *2014 Hyperinflation Report—The End Game Begins* – *First Installment Revised* (April 2014) and *2014 Hyperinflation Report—Great Economic Tumble* – *Second Installment* (April 2014). The two *Hyperinflation* installments remain the primary background

material for the hyperinflation circumstance. Other references on underlying economic reality are the *Public Commentary on Inflation Measurement* and the *Public Commentary on Unemployment Measurement*.

Recent Commentaries. *[Listed here are* Commentaries *of the last month, plus recent* Special Commentaries *and others covering a variety of non-monthly issues, including annual benchmark revisions, dating back through the beginning of 2017. Please Note: Complete ShadowStats archives back to 2004 are found at www.ShadowStats.com (left-hand column of home page).]*

Advance Commentary No. 908-A (September 1st) provided summary coverage of the headline reporting on August 2017 Labor and Monetary conditions and July 2017 Construction Spending, with the labor and construction detail expanded upon in today's *No. 908-B.*

Commentary No. 907 (August 30th) reviewed the second estimate of, first revision to Second-Quarter 2017 GDP and initial quarterly reporting of the related GDI and GNP series.

Commentary No. 906 (August 25th) covered July 2017 New Orders for Durable Goods and New- and Existing-Home Sales, with further discussion of the unfolding "new" downturn in economic activity.

Commentary No. 905 (August 17th) reviewed the headline detail of for July 2017 Industrial Production, Retail Sales (Nominal and Real), New Residential Construction and the Cass Freight Index[TM].

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

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

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

Commentary No. 901 (July 27, 2017) discussed possible financial-market impact on continuing political discord in Washington, and reviewed the June 2017 Cass Freight Index, New Orders for Durable Goods and New- and Existing Home Sales.

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

Commentary No. 899 (July 17, 2017) covered headline June 2017 Retail Sales, Industrial Production, the Consumer Price Index (CPI) and the Producer Price Index (PPI), along with a review of current circumstances affecting the markets, U.S. dollar, gold and silver and the FOMC.

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

Commentary No. 896 (June 29, 2017) reviewed the third estimate of first-quarter 2017 GDP.

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

Commentary No. 892 (June 15, 2017) reviewed May 2017 Industrial Production and assessed current circumstances and likely pending shifts in FOMC policy, in the context of rapidly-deteriorating, headline economic data.

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

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

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

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

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

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

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

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

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

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

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

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

Note on Reporting-Quality Issues and Systemic-Reporting Biases. In the context of historical background provided in *Special Commentary No. 885*: *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, 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 both to understate inflation and to overstate economic activity meaningfully—as generally viewed in the common experience of Main Street, U.S.A.—ongoing, near-term headline reporting issues often reflect systemic distortions of monthly seasonal adjustments.

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

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

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

PENDING ECONOMIC RELEASES: A Note on Hurricane Harvey. The horrendous damage wreaked on the Texas Gulf Coast by Hurricane Harvey and its catastrophic flooding, disrupted the production, refining and delivery of petroleum and its related products, with the immediate effect of boosting oil and gasoline prices, in addition to major disruption to near-term commerce and business activity in the affected area. Correspondingly, that circumstance will spike headline domestic inflation reporting of the next several months, or so, beginning with the headline August PPI and CPI data next week. Impact also should begin to show up in August retail sales and production, where—unlike the

labor-market details—included surveying should have extended into the storm's timeframe. Physical destruction and property losses are not counted in the government's measures of economic activity, but rebuilding activity certainly is estimated.

Producer Price Index—PPI (August 2017) The Bureau of Labor Statistics (BLS) will release the August 2017 PPI on Wednesday, September 13th, with detail covered in *Commentary No. 909* of Thursday, September 14th. Odds favor positive wholesale inflation on the goods side of the reporting, perhaps up by 0.3%, plus-or-minus, due to positive seasonal-factor adjustments intensifying the unadjusted monthly-price increases of petroleum-related products. The dominant services sector, however, often provides some counter-move to the hard-inflation estimate on the goods side. Such comes particularly from counterintuitive "deflation" or "inflation," reflecting falling or rising "margins," in turn reflecting rising or falling costs. Guesstimation in that services sector remains highly problematic, as discussed in *Inflation that Is More Theoretical than Real World?* in *Special Commentary No. 904*, where, again, the services component could offset some of the weakness in the headline goods inflation.

Unadjusted oil prices increased in August 2017, as did wholesale gasoline prices. Based on the two most-widely-followed oil contracts, monthly-average oil prices rose by 3.0% and 6.6%. That was accompanied by a 5.6% increase in unadjusted, monthly-average wholesale gasoline prices (Department of Energy). Where PPI seasonal adjustments for energy costs in August are positive, a petroleum-related monthly gain should lead a month-to-month rise in the adjusted Final Demand Goods component of the PPI.

Consumer Price Index—CPI (August 2017). The Bureau of Labor Statistics (BLS) will release the August 2017 CPI on Thursday, September 14th, which will be covered in *Commentary No. 909* of that date. The headline August CPI-U likely will be positive, perhaps 0.3%, plus-or-minus, in the context of a month-to-month gain in gasoline prices boosted by seasonal adjustments. Headline, unadjusted year-to-year annual inflation for August 2017 could firm to 1.8%, versus the 1.7% in prior July 2017 reporting.

Upside Monthly Inflation Impact from Rising Gasoline Prices Exaggerated by Positive Seasonal Adjustments. Average gasoline prices increased in August 2017 by 3.31% for the month on a not-seasonally-adjusted basis, per the Department of Energy. Where BLS seasonal adjustments to gasoline prices in August also are to the upside, that should lead to seasonally-adjusted numbers offering a net-positive contribution of roughly plus 0.1% to the headline monthly change in the CPI-U. Based on early-September gasoline prices and positive monthly seasonal adjustments, gasoline is on track to contribute 0.4% to the headline, seasonally-adjusted monthly CPI-U gain in September 2017.

Likely boosted also some by higher food and "core" (net of food and energy) inflation, the headline monthly CPI-U reading could come in around 0.3% in August 2017, 0.6% in September 2017.

Annual Inflation Rate. Noted in *Special Commentary No. 904*, year-to-year, CPI-U inflation would increase or decrease in August 2017 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, headline gain of 0.20% in August 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 August 2017, the difference in August's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the July 2017 annual inflation rate of 1.73%. Given an early guess of a seasonally-adjusted 0.3% gain in the monthly August

2017 CPI-U, that would leave the annual CPI-U inflation rate for August increasing to about 1.8%, plus-or-minus, depending on rounding. That annual rate could jump to 2.2% or 2.3% in September 2017, based on current gasoline prices.

Retail Sales—Nominal and Real (August 2017).   The Census Bureau will release its "advance" estimate of August 2017 nominal (not-adjusted-for-inflation) Retail Sales on Friday, September 15th, one day following the BLS's release of the August CPI. Accordingly, the detail on both the nominal and real (adjusted-for-inflation) Retail Sales will be discussed in *Commentary No. 910* of that date.

Where consensus expectations likely will favor a flat-to-minimal nominal monthly gain, underlying weakness continues to mount in anecdotal evidence tied particularly to automobile sales, suggestive of an outright nominal month-to-month contraction. With consumer inflation likely to be 0.3% or so, headline real retail sales activity should take an inflation-adjusted hit. Nonetheless, headline nominal sales for August should be weaker than expected, with a fair bet for renewed downside revisions to recent headline activity, irrespective of any impact on the industry from Hurricane Harvey.

Per the *Consumer Liquidity Watch*, without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for an income shortfall, the liquidity-strapped U.S. consumer remains unable to sustain growth in broad economic activity, including personal-consumption expenditures and retail sales, real or otherwise.

Index of Industrial Production (August 2017). The Federal Reserve Board will publish its estimate of August 2017 Industrial Production activity also on Friday, September 15th, again with coverage in *Commentary No. 910* of that date. In the context of continued, previously-weakening reporting, with mounting indications of faltering demand for new automobiles (see today's headline trade deficit detail), production is a good bet to show further month-to-month weakness in August 2017, as well as some continued downside revision to activity in recent months. Consensus expectations likely will favor a monthly gain. Weakness should be seen here, nonetheless, separate from any late-month hit to production from Harvey.

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