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

COMMENTARY NUMBER 890
May Employment, April Construction Spending and Trade Deficit Revisions

June 5, 2017

Trade-Deficit Benchmarking Showed Deeper Deficits 2014-to-Date, with Implications for Downside Benchmark Revisions to the GDP

Second-Quarter 2017 Real Merchandise Trade Deficit Is on Track for Worst Showing Since Second-Quarter 2007

In Uptrending, Low-Level Stagnation, April Freight Index Gained Year-to-Year, Holding Shy of Recovering Pre-Recession Peak by 12.6% (-12.6%)

May Real-World Employment Conditions Continued in Annual Decline, at a Pace Not Seen Since the Depths of the 2009 Collapse

Monthly Payroll Gains Slowed on Top of Downside, Prior-Period Revisions

Slowing, Unadjusted Year-to-Year Payroll Growth Held at Low Levels Common to Periods Preceding Economic Recession

May 2017 Unemployment: U.3 Declined to 4.3% from 4.4%, U.6 Fell to 8.4% from 8.6% and the ShadowStats-Alternate Eased to 22.0% from 22.1%

Labor Numbers Out of Balance:
April 2017 Headline Unemployment of 4.3%, Lowest Since March 2001, Coincided with Weakening, Near-Historic Lows in the Participation Rate (Labor Force/Population) and Employment-to-Population Ratio

In Contrast, March 2001 Headline Unemployment of 4.3% Coincided with Participation Rates and Employment-Population Ratios Just Off Historic Highs

Real Construction Spending Remained 21.3% (-21.3%) Short of Recovering its Pre-Recession Peak, Still Holding in Low-Level Stagnation

Money Supply M3 Annual Growth Rose to 3.6% in May, versus 3.4% in April

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PLEASE NOTE: The next regular Commentary *scheduled for June 14, 2017 will review the May 2017 details for the Producer Price Index (PPI), the Consumer Price Index (CPI), Real Earnings and Retail Sales (nominal and real). Subsequent missives will follow on June 15th and June 16th, respectively covering April Industrial Production and New Residential Construction (Housing Starts).*

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

Today's *Commentary* (June 5th). In the context of non-recovering economic activity, reviewed in the ***Opening Comments*** are the 2017 annual benchmark revisions to the Trade Deficit, and reporting of the Conference Board's May 2017 Help-Wanted On-Line reporting and the Cass Freight Index for April 2017.

May 2017 employment and unemployment detail, and the April 2017 headline monthly trade deficit and construction spending are summarized in the ***Executive Summary*** (beginning page 9).

The ***Reporting Detail*** (beginning page 26) provides extended analysis and additional graphics of the new monthly labor, trade and construction reporting.

The ***Hyperinflation Watch*** (beginning page 23) updates monetary conditions with the initial estimate of annual growth in the May 2017 ShadowStats Ongoing Measure of Money Supply M3 and the latest detail for the Monetary Base.

The ***Week, Month and Year Ahead*** (beginning page 54) reviews recent *Commentaries* and previews next week's reporting of the May PPI, CPI, Retail Sales (nominal and real), Industrial Production and Housing Starts.

OPENING COMMENTS AND EXECUTIVE SUMMARY

Economy Continues in Deepening Trouble. In the context of meaningful, downside-benchmark revisions to the Trade Deficit (reviewed next in these *Opening Comments*), and the previous, recent downside benchmark revisions to Industrial Production and New Orders for Durable Goods (see respectively *Commentary No. 877* and *Special Commentary No. 888*), meaningful downside revisions should be pending for recent reporting of the Gross Domestic Product (GDP). The July 28th GDP benchmark revisions cover only the period 2014-to-date, and will be previewed by ShadowStats closer to the release date. The next comprehensive GDP benchmarking—back to 1929—is not due until July 2018.

Beyond the trade-deficit benchmarking, the latest headline details of The Conference Board Help Wanted OnLine® Advertising (May 2017) and the Cass Freight Index™ (April 2017) also are reviewed in these *Opening Comments*. Indications from private-sector surveying continue a pattern of deteriorating employment conditions, along with broad commercial activity remaining in low-level, non-recovered, albeit minimally-uptrending stagnation.

While those details are reasonably consistent with the low-level, non-recovered but minimally uptrending stagnation seen in April 2017 real Construction Spending, they are inconsistent with the heavily rigged Unemployment and Employment numbers, all as covered in the *Executive Summary* and *Reporting Detail*.

Indeed, where the headline unemployment rate suggests the best of economic times, with the headline unemployment rate falling happily towards historic lows, headline annual payroll growth patterns are slowing into activity commonly seen at the onset of formal recessions.

Special Commentary No. 885, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, reviewed the unusual nature of the headline April 2017 employment and unemployment details and is incorporated here by reference. Supplemental to *No. 885*, ShadowStats is examining historical distortions in a number of the household-survey measures, discussed briefly in the *Executive Comments* section, and shortly will publish new material there.

With the headline U.3 unemployment rate closing in on historical low levels, systemic imbalances and instabilities 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 healthy economy, those ratios should be approaching historical highs (see *Graphs 6* and *7* in the *Executive Summary*).

Benchmark-Revised Trade Deficit Showed a Deeper and Deepening Trade Shortfall, with Negative Implications for GDP Benchmark Revisions through First-Quarter 2017. The Commerce Department published its annual *Trade Deficit Benchmarking* (link is to the underlying data and the press release) of June 2nd, coincident with the release of the headline May 2017 trade data, which are covered separately in the *Executive Summary* and *Reporting Detail*. Before inflation adjustment, the nominal trade deficit in goods and services was revised from January 2014 forward. After inflation adjustment, the real Merchandise Trade Deficit reflected the nominal revisions since 2014, revised import and export prices of communications equipment (primarily cell phones) since 2002, and the revised historical chained-dollar (chain-weighted) series back to 1994 in the context of "recalculated statistics" in the inflation-index base year of 2009.

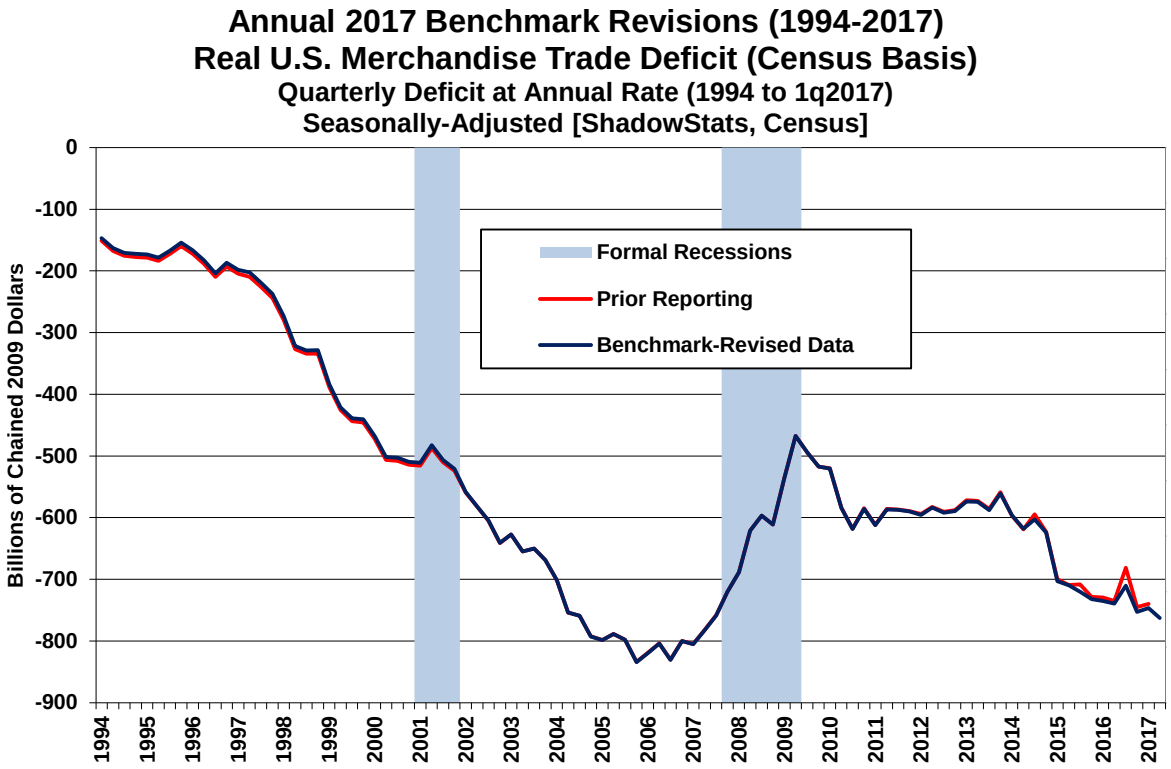
The ShadowStats assessment of the revisions concentrates on the inflation-adjusted series, where those revisions should flow through directly to the GDP benchmark revisions (2014-to-date), scheduled for July 28th. The revised, real headline data are plotted against prior reporting in the benchmark *Graphs BM-1* and *BM-2*. *Graph BM-1* shows a minimally-narrowed deficit from 1994 through base inflation year of 2009, reflecting minor net revisions to the annual 2009 circumstance. Post-2009, the series showed minimal revisions up to the revamped goods and services reporting up until 2014 and after. The period 2014-to-date is plotted in closer detail in *Graph BM-2*.

Graph BM-2 reflects deeper, real trade deficits in revision beginning in third-quarter 2014, and generally going forward, where relative, net-negative revisions to the quarterly real trade-deficit detail should translate into a direct, downside revision to corresponding headline real quarterly GDP growth for the same quarter.

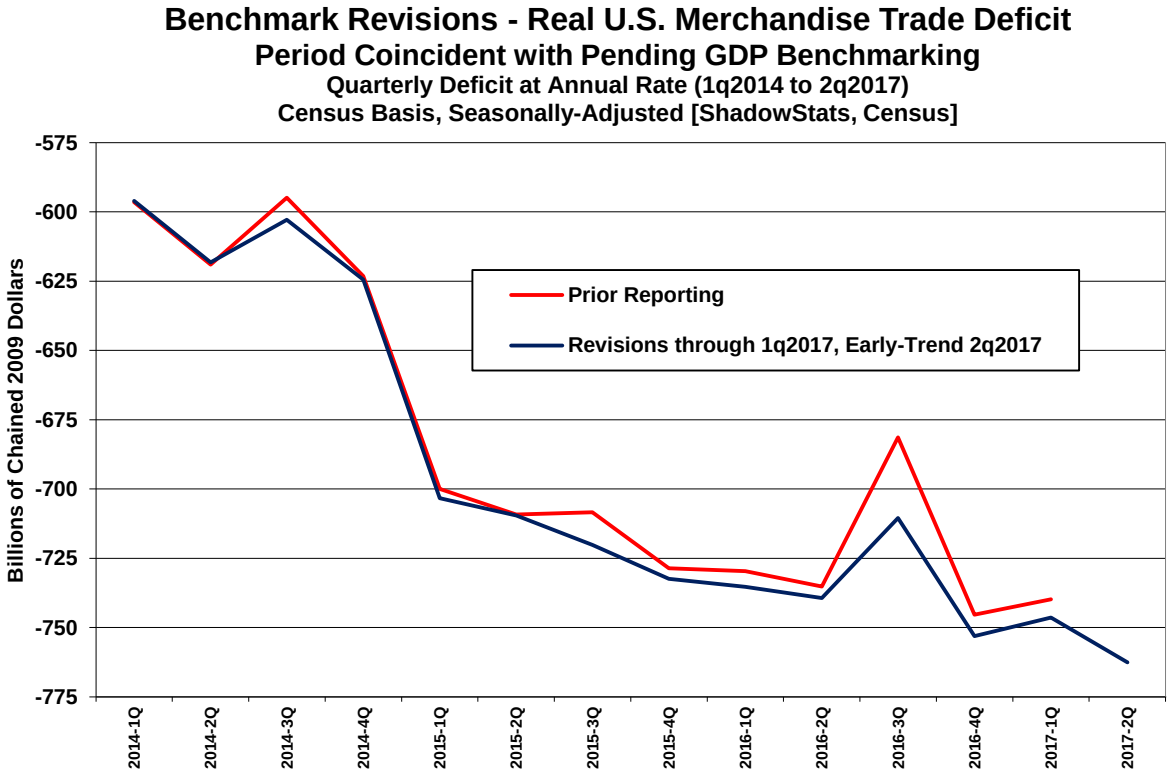
Of particular note is the relatively-sharp, revised widening of the headline trade deficit for third-quarter 2016. It had improved sharply in its initial headline detail, reflecting an unusually-massive surge in soybean exports. The resulting, narrowed headline quarterly deficit boosted initial third-quarter 2016 GDP reporting to annualized 2.9% real growth, more than double the headline pace of 1.4% in second-quarter 2016, all as reported the week before the 2016 presidential election. It turns out that those numbers were not as strong as had been indicated at the time.

GRAPHS OF THE BENCHMARKED REAL-MERCHANDISE TRADE DEFICIT REVISIONS

Graph BM-1: Annual Revisions, Real Merchandise Trade Deficit (1994-2017)



Graph BM-2: Revised Real Merchandise Trade Deficit (2014-2017) [Period of Pending GDP Revisions]



Otherwise, Real-World Business Conditions Continued to Signal an Intensifying Downturn/Non-Recovery—Help-Wanted Advertising and Freight Traffic Still Show Declining/Stagnating Broad Economic Activity. ShadowStats follows a number of economic indicators—both conventional and not—looking for reliable reporting of real-world economic activity and for indications of shifting patterns in same. Updates to two of the better indicators follow here.

Beyond various private and public alternative measures to the federal government's headline employment, unemployment and GDP reporting, discussed in *No. 859 Special Commentary*, The Conference Board's Help Wanted OnLine® (HWOL) simply is one of the best leading indicators—private or public—of economic activity, while another prime indicator is the Cass Freight Index™.

The Conference Board Help Wanted OnLine® Advertising, May 2017. In my experience and view, the HWOL, again, simply is one of the best leading indicators available. The concept certainly has proven itself over the last century. The current on-line series tracked the economic collapse into 2009, coincident with the last of the series based on newspaper advertising. The beauty and benefit of a good leading indicator is that it provides a meaningful "advance" signal of a shift in economic activity, before that shift may become obvious in other series. Such is a particularly valuable commodity, when headline data out of the federal government increasingly are politicized and unreliable (again, see *Special Commentary No. 885*, *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*).

With the preceding ShadowStats comments in mind, the following caution, posted recently on the Conference Board's web site, speaks for itself:

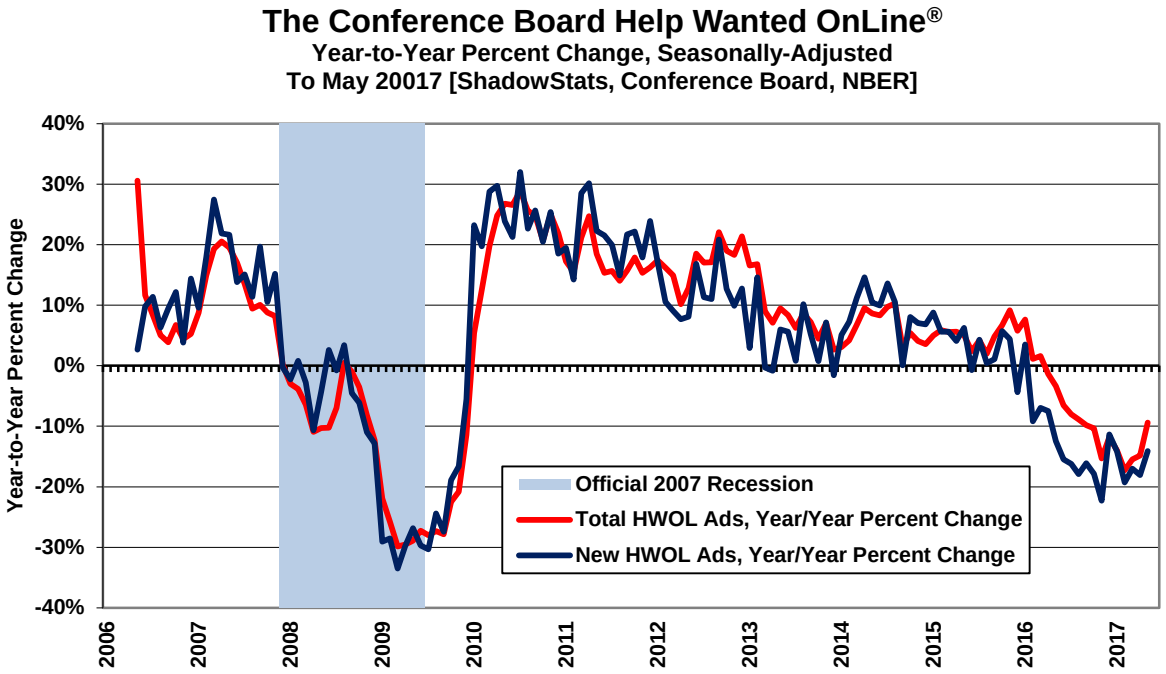
> NOTE: Recently, the HWOL Data Series has experienced a declining trend in the number of online job ads that may not reflect broader trends in the U.S. labor market. Based on changes in how job postings appear online, The Conference Board is reviewing its HWOL methodology to ensure accuracy and alignment with market trends.

First fully covered by ShadowStats in *Commentary No. 820* of July 16, 2016, the HWOL is updated here through May 2017 (published May 31st). As a leading economic indicator, help-wanted advertising had its roots as far back in time as the initial reporting of industrial production, post-World War I. The Conference Board has adapted the concept to reflect the fundamental shift of help-wanted advertising from printed newspapers to online advertising. The prior newspaper-based series simply was the best leading indicator of its day.

Many thanks to The Conference Board for permission to publish the following graph of year-to-year change in its *Help Wanted OnLine®* data. The annual percentage change is plotted for two series: Total Ads (red line) and New Ads (blue line). Where, "Total ads are all unduplicated [online] ads appearing during the reference period. This figure includes ads from the previous months that have been reposted as well as new ads." While, "New ads are all unduplicated ads which did not appear during the previous reference period. An online help wanted ad is counted as 'New' only in the month it first appears." Related background details and reporting are found here: The Conference Board Help Wanted OnLine®.

The tracked seasonally-adjusted monthly measures have declined year-to-year in each of the last fourteen months for the total ads, and in each of the last sixteen months (seventeen of the last eighteen months) for the new ads, including May 2017. Although showing some narrowing annual decline in the last several months, annual change generally has continued to sink, as seen in *Graph 1*, with annual growth beginning to slow in 2010 and turning negative year-to-year in late-2015 and early-2016.

Graph 1: The Conference Board Help Wanted OnLine® to May 2017



With May 2017 "Total Ads" and "New Ads" counts down year-to-year respectively by 9.4% (-9.4%) and 14.1% (-14.1%), respectively, the annual contractions still have hit depths last seen going into the trough of the business collapse into 2009. Month-to-month changes have been irregular, down in 11 of the last 17 months for the "Total" and down 9 out of the last 17 months for the "New." Both series showed month-to-month gains in the seasonally-adjusted May 2017 detail.

While much of this text is repetitive of prior discussions in *Commentary No. 884*, *No. 852* and *No. 820*, the detail is updated for the latest information. These comments and analysis remain mine alone, not those of The Conference Board.

Historical Background. Back in the days when help-wanted advertising was the primary source of classified-advertising revenue for the physically-printed, folding newspapers, the Conference Board's Help-Wanted Advertising Index (newspapers) simply was the most reliable leading indicator available of broad economic activity. It was a component of the Commerce Department's Index of Leading Economic Indicators. It led activity in employment as well as the Gross National Product (GNP) and the now-headline Gross Domestic Product (GDP), which is a subcomponent of the GNP (ex-trade flows in factor income such as interest and dividend payments).

The National Bureau of Economic Research (NBER) has published detail with the St. Louis Federal Reserve on help-wanted advertising indices constructed back to 1919. From the post-World War I era into the 2000s, year-to-year change in the various historical help-wanted series always signaled what would become recognized as a formal recession, when the annual change in the index contracted by 15% (-15%) or more.

Since formal tracking switched to help-wanted advertising on the Internet, around 2005, as seen with The Conference Board Help Wanted OnLine®, that series has been through only one, formally confirmed down-cycle in the economy. The year-to-year growth plots in the accompanying graph begin with the first annual-growth rate availability in May 2006. Even with a limited initial history, the new series tracked that headline downturn into 2009 (in tandem with the final surveys of newspaper help-wanted online advertising, which continued for a while), and it has tracked to the downside in the current environment of what appears to be a "new," still-unfolding recession (again, see *No. 859 Special Commentary*).

Time will establish new annual growth parameters that would signal a formal recession. My betting remains that they will look much like the earlier series, and much like the pattern seen in the present series in terms of year-to-year contraction. Those looking for independent confirmation of underlying economic conditions should find this series to be highly valuable. As for the BLS employment and unemployment series, which were updated for May 2017 in June 2nd reporting, they should begin to catch up with the Conference Board's high-quality, independent leading indicator, despite the heavy upside reporting biases deliberately structured into the BLS series, and expanded anew in the 2017 payroll-survey benchmarking. See the discussions, again in *Special Commentary No. 885*, *Commentary No. 864* and the *Birth-Death/Bias-Factor Adjustment (BDM)* section in today's *Reporting Detail*.

April 2017 CASS Freight Index - Annual Growth Is Picking Up, but the Series Remains in Low-Level Stagnation, Still Shy by 12.6% (-12.6%) of Its Pre-Recession Peak. Again, ShadowStats follows a number of economic indicators—both conventional and not—looking for reliable reporting of real-world economic activity and for indications of shifting business patterns. The Cass Freight Index™ is one such indicator.

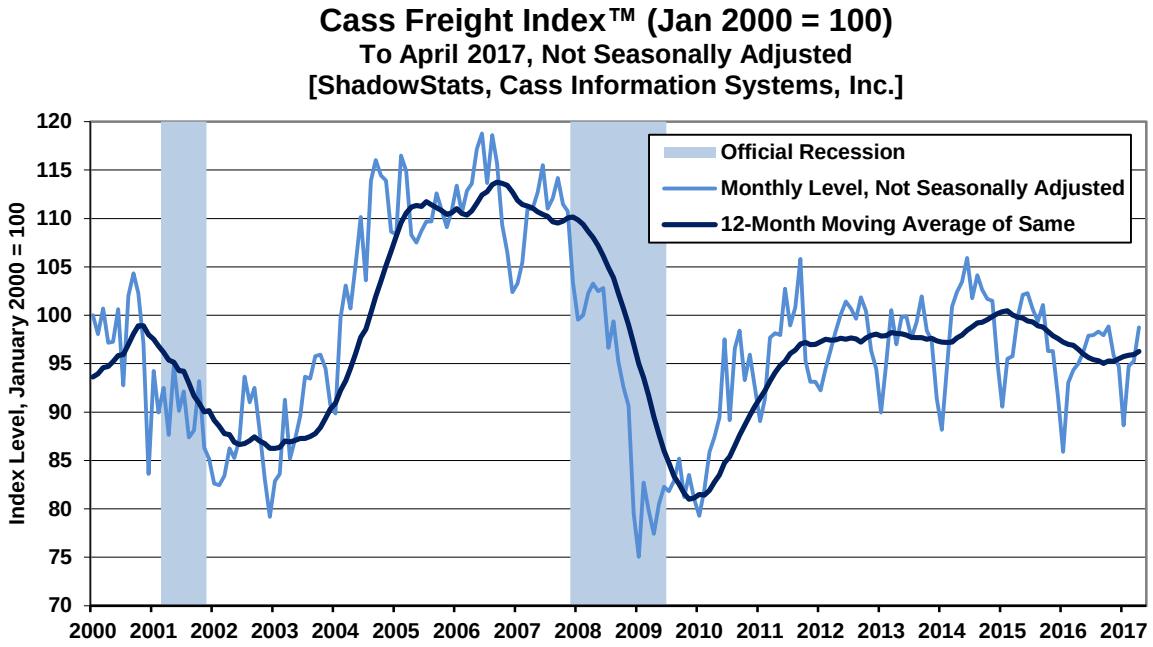
The patterns of continued low-level stagnation in the general economy and business activity were reflected once again in the headline detail of the April 2017 Cass Freight Index™, released May 30th. For the fifth consecutive month, the sixth month in the last seven, year-over-year monthly growth in the index was positive and picking up (see *Graph 3*). A consecutive string of nineteen months of annual contraction in the Freight Index began in March 2015, consistent with a "new" recession signal following the Industrial Production peak in November 2014. The industrial production series showed a string of twenty-one consecutive monthly annual contractions beginning April 2015, a pattern never seen outside of formal economic recessions in the 99-year history of the Industrial Production series (see *Commentary No. 887*).

The recent pattern of year-to-year monthly gains has excited industry speculation that the recession in freight activity may have hit bottom. Nonetheless, the current pattern of year-to-year gains has yet to break out of the non-recovery pattern of the last six years, again, as shown in *Graph 3*. Discussed in *Commentary No. 875* and expanded upon in *Commentary No. 876* on the business cycle, when activity recovers, such happy growth does not get clocked formally as a new economic expansion, until the series breaks above its pre-recession high.

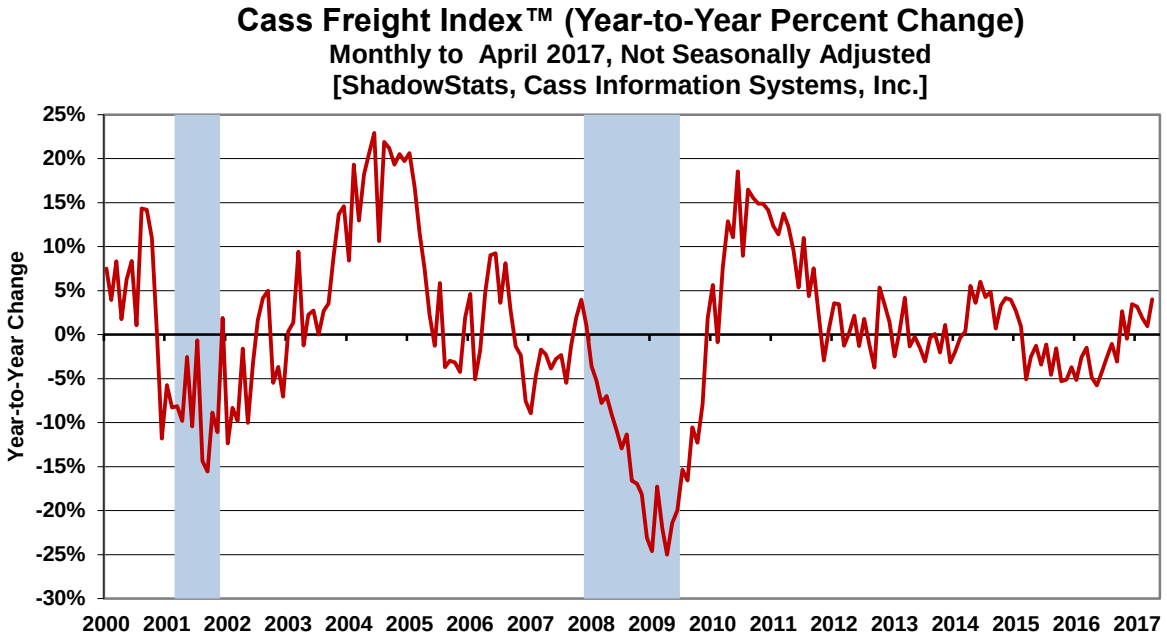
Specifically, the ShadowStats smoothed headline reading on the Cass Freight Index, through April 2017 (see *Graph 2*), remained down by 12.6% (-12.6%) from recovering its pre-recession peak of December 2007. While the "Recovery" receives the benefit of growth off low levels of activity, the deficit in activity versus the prior-peak level has to be overcome before formal, economic "Expansion" begins to be tallied.

Economic downturns eventually hit bottom, and the current circumstance likely will not be the exception. The economic collapse that formally has been recognized from peak activity in December 2007 to a trough in June 2009 is accurate in terms of timing the bottom.

Graph 2: CASS Freight Index ™ Moving-Average Level (2000-April 2017)



Graph 3: CASS Freight Index, Monthly Year-to-Year Percent Change, through April 2017



The official contention remains, though, that the headline economy (the real Gross Domestic Product) fully recovered thereafter, entering a period of new and ever-expanding economic growth in second- or third-quarter 2011. ShadowStats contends that the economy never fully recovered, moving instead into a period of protracted, low-level stagnation, which began to turn down anew in December 2014, as reflected (see the recent reporting and benchmark revisions to production and durable goods (*Special Commentary No. 888*, *Commentary No. 887* and *Commentary No. 877*).

General Background to the Freight Index. Beginning with *Commentary No. 782* (further detail available there), ShadowStats published the detail on the Cass Index, a measure of North American freight volume as calculated by, and used with the permission of Cass Information Systems, Inc. Freight activity is a basic, underlying indicator of commercial activity and broad GDP. Of the combined U.S. and Canadian (North American) GDP in 2014, roughly 91% was attributable to the United States. *Graph 2* reflects the monthly numbers updated through April 2017. While adjusted for factors such as days in a month, the headline monthly detail is not adjusted for broad seasonality patterns, such as retailers stocking for the holiday shopping season. Accordingly, ShadowStats plots the series using a trailing twelve-month average, which tends to neutralize regular seasonal patterns over the period of a year, along with the unadjusted monthly detail plotted in the background. ShadowStats also has re-indexed the series to January 2000 = 100, to be consistent with other graphs used here. The headline index published by Cass is based at January 1990 = 100.

The plot of the trailing twelve-month average of the freight index shows that it hit a near-term peak in February 2015, consistent with onset of a "new recession" in December 2014, and had been slowing since, through September 2016, then flattening out and turning minimally to the upside (see *Graph 2*).

Another approach to assessing not-seasonally-adjusted monthly detail is to look at year-to-year change by individual month, as plotted in *Graph 3*. The unadjusted monthly detail had been in continual year-to-year decline since March of 2015, down at an intensified annual rate of 3.05% (-3.05%) in September 2016. It rallied to an annual gain of 2.66% in October 2016, but fell back into year-to-year contraction of 0.05% (-0.05%) in November 2016, coming back to the plus-side by 3.46% in December 2016, but easing to 3.18% in January 2017, to 1.89% in February 2017 and 0.93% in March 2017, and now turning higher to 3.99% in April 2017.

Once again, with the headline smoothed reading through March 2017 down by 12.6% (-12.6%) versus its pre-recession high, that is the growth deficit that has to be overcome before formal economic expansion begins.

In combination, *Graphs 2* and *3* remain consistent with a pattern of collapsing economic and business activity into 2009, low-level stagnation thereafter and a renewed downturn effectively coincident with a "new" recession, which, again, likely will be timed from December 2014, whether or not it has bottomed.

Executive Summary—Employment and Unemployment—May 2017—Conditions Are Slowing Rapidly in Payroll Reporting and Are Warped Massively in the Household Data. In the context of the reporting distortions discussed in *Special Commentary No. 885*, and incorporated here by reference, labor circumstances are weakening rapidly. Headline annual growth in May 2017 payroll detail continued to signal a new recession, while the household survey continued to indicate a massive distortions in

underlying headline employment and unemployment details tied to measuring the unemployment rate versus underlying, impaired labor force reality.

The headline monthly payroll jobs gain of 138,000 in May 2017, likely was flat-to-minus in reality. Also, in the context of the *ShadowStats-Alternate Unemployment Rate Measure* discussion in the *Reporting Detail*, the headline 4.3% May 2017 U.3 unemployment rate was much closer to 22.0%, when viewed from the context of common experience. Extended assessment of headline reporting distortions in the payroll-employment and household survey detail, again is found in *Special Commentary No. 885*.

Payroll Survey: Continued Weakening Growth Signaling New Downturn. In the context of sharp, downside prior-period revisions, and in the continuing context of heavily-distorted bloating, unstable seasonal adjustments, and inconsistent benchmarking, seasonally-adjusted, headline May 2017 payrolls showed a barely-statistically-significant gain of 138,000. That followed sharply downwardly-revised monthly gains of 174,000 in April and 50,000 in March. The headline revised monthly gain in March of 50,000, however, was not reported on a comparable basis with the headline May 2017 and April 2017.

Net of prior-period revisions, May 2017 payrolls rose by 72,000, instead of the headline 138,000.

Collapsing Annual Growth at Levels Seen Only Going Into or Coming Out of Recession. The not-seasonally-adjusted, year-to-year growth in May 2017 nonfarm payrolls increased minimally to 1.54%, versus a downwardly revised 1.42% in April 2017 and a downwardly revised 1.49% in March 2017.

The annual growth of 1.42% 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. That same growth rate was last seen, as annual growth slowed going into the 2007 recession. Minor fluctuations around that April 2017 annual growth are not meaningful. 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 May's minimal uptick in annual growth did not alter the broad picture.

Household Survey: Counting All Discouraged Workers, May 2017 Unemployment Eased to 22.0%. The headline good news was that the unemployment rate declined from 4.4% to 4.3%, but the decline the unemployed count was 195,000 (-195,000), in context of a decline of 233,000 (-223,000) in the employed count. So, did the drop in the unemployed reflect a surge in new discouraged workers? More likely the headline details just were skewed, not comparable month-to-month, due to the regular non-comparability of seasonally adjusted detail, because the headline household survey data are not reported consistently, month-to-month, as discussed in *Headline Distortions from Shifting Concurrent-Seasonal Factors* in the *Reporting Detail.*

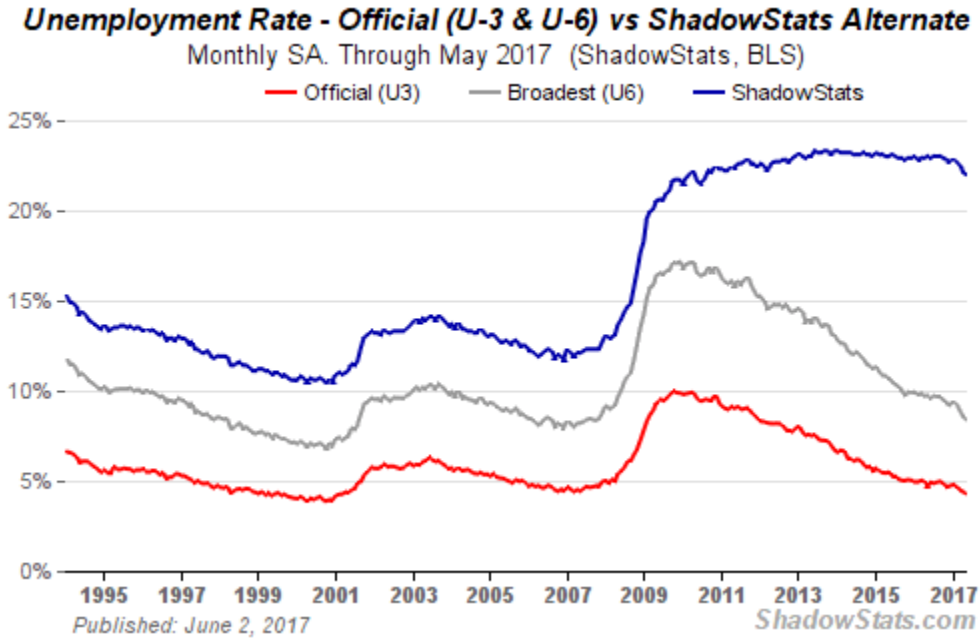
Despite what appeared to be reasonably-logical, offsetting moves in employment and unemployment numbers in the headline detail for March and April 2017, the seasonally-adjusted series remained hopelessly befuddled month-to-month, because the Bureau of Labor Statistics (BLS) refuses to publish consistent details. As usual, the seasonally-adjusted, month-to-month numbers reported with the household survey were neither directly comparable nor meaningful, including comparisons month-to-month of the levels of the unemployment rate and the counts of employed and unemployed. The problem

remains that while the headline monthly data for May 2017 were calculated using new seasonally-adjustment patterns unique to May 2017, and the new seasonally-adjusted and comparable data for April 2017 and the months before also were re-calculated, they were not published. Instead, the unique seasonal adjustments based on prior April 2017 calculations were left in place for April, unrevised for the May-based seasonals, and the unique seasonal adjustments based for initial the February 2017 calculations were left in place for March, unrevised for April or May. Standardly, the month-to-month comparisons of the seasonally-adjusted, headline Household Survey data simply are not comparable.

All that said, the latest seasonally-adjusted monthly unemployment readings were at multi-year lows. The primary headline unemployment rate of 4.29% for the headline U.3 hit its lowest reading since March 2001, going into the 2001 recession. The headline unemployment rate of 8.41% for the government's broadest measure U.6 was the lowest since October 2007, going into the headline 2007 recession, and the headline unemployment rate of 22.0% for the ShadowStats Alternate unemployment rate, including long-term discouraged workers, and which is built upon the U.6 number, was at its lowest level since August 2010, still before the official full recovery in the GDP, and the onset of the official, new economic expansion (see *Commentary No. 876*).

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.

Graph 4: Comparative Unemployment Rates U.3, U.6 and ShadowStats



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 *ShadowStats Alternate Unemployment Measure* in the *Reporting Detail*).

Graph 4 reflects headline May 2017 U.3 unemployment at 4.29%, versus 4.40% in April and 4.50% in March; headline May 2017 U.6 unemployment at 8.41%, versus 8.57% in April and 8.87% in March; and the headline May 2017 ShadowStats unemployment estimate at 22.0.%, versus 22.1% in April and 22.5% in March.

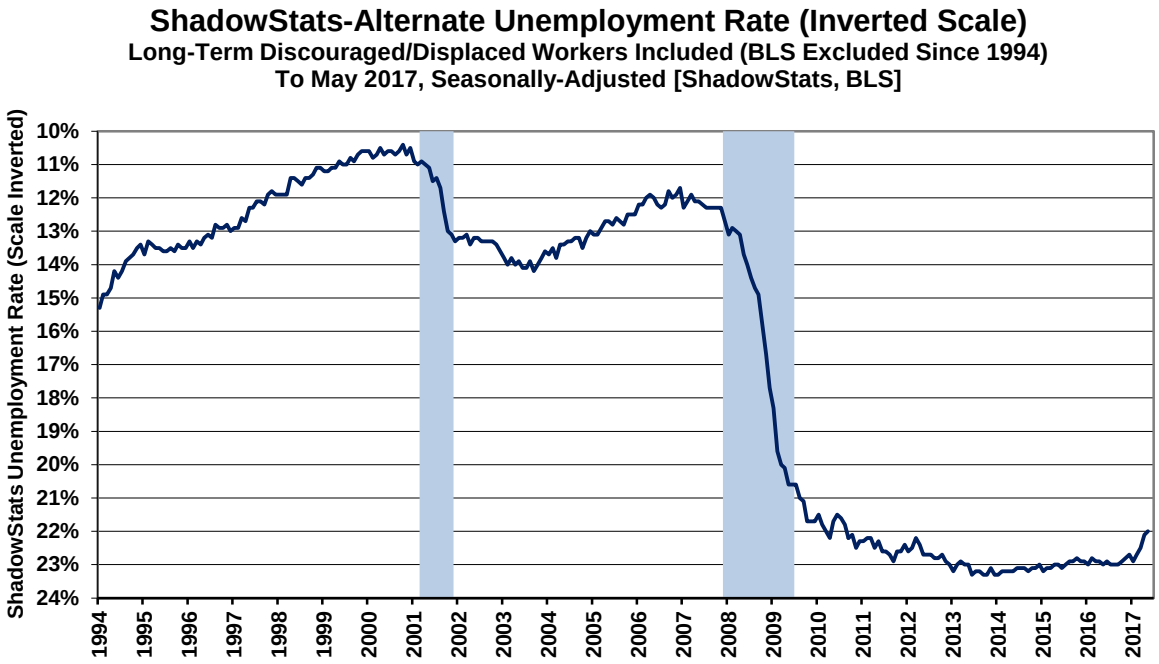
Dysfunctional, Seasonally-Adjusted Headline Detail from the Household Survey. Mentioned in the *Opening Comments,* ShadowStats is examining historical distortions in a number of the household-survey measures, and shortly will publish related new material. With the headline U.3 unemployment rate closing in on historic low levels, systemic imbalances and instabilities 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 purported, healthy economy, those ratios should be approaching historical highs (see *Graphs 6* and *7*).

Graphs 5 to *7* reflect longer-term unemployment and discouraged-worker conditions. *Graph 5* 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.

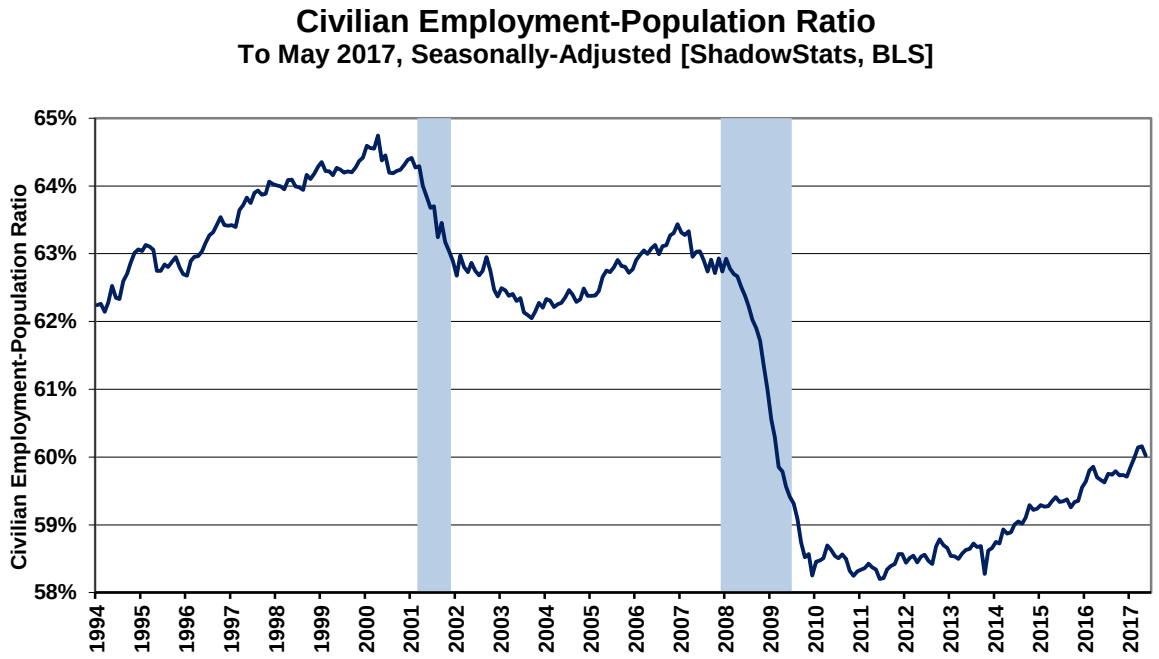
The inverted-scale of the ShadowStats unemployment measure also tends to move with the employment-to-population ratio, which had turned slightly weaker in second-half 2016, but recently had been in an uptrend in 2017, along with monthly jumps and month-to-month inconsistencies in headline employment and the recently rejiggered population numbers (see *Commentary No. 864*). That ratio declined anew in May 2017. Nonetheless, that ratio remains somewhat off its post-1994 record low, the historic low and bottom subsequent to the economic collapse (only the period following the series redefinition in 1994 reflects consistent reporting), as shown in *Graph 6*.

[Graphs 5 to 7 begin on the following page.]

Graph 5: Inverted-Scale ShadowStats Alternate Unemployment Measure



Graph 6: Civilian Employment-Population Ratio

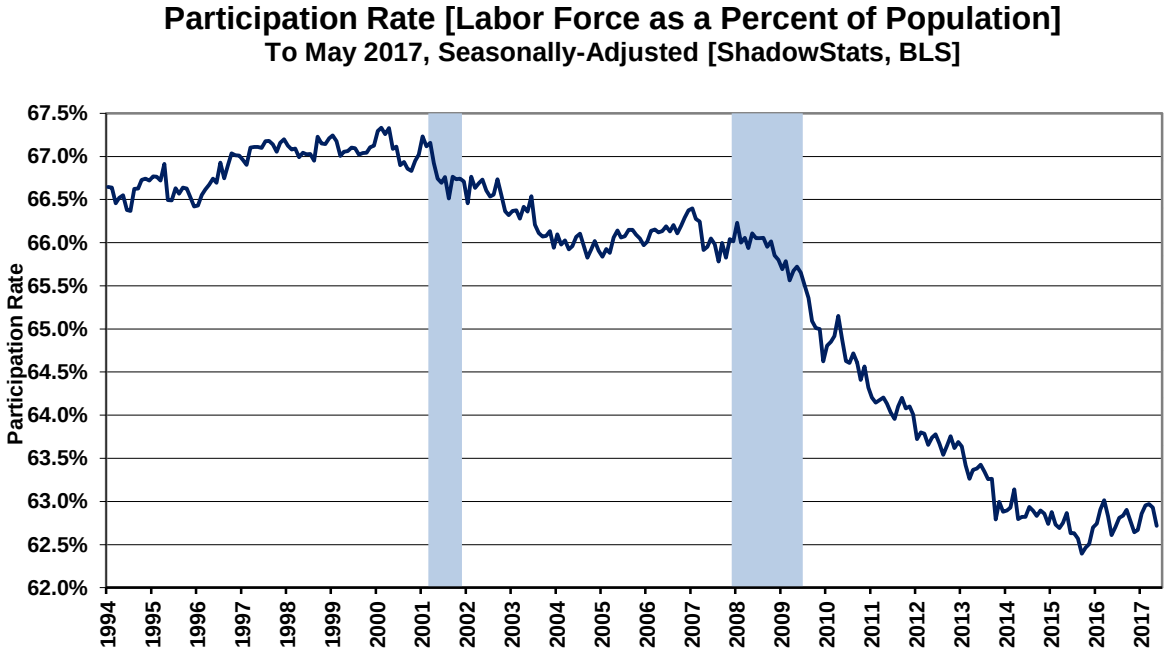


The labor force containing all unemployed (including total discouraged workers) plus the employed, however, tends to be correlated with the population, so the employment-to-population ratio remains something of a surrogate indicator of broad unemployment, and it has a strong correlation with the ShadowStats unemployment measure.

Shown in *Graph 7*, the May 2017 participation rate (the ratio of the headline labor force to the population) notched lower for the second month, to 62.7%, from 62.9% in April and 63.0% in March, having been fluctuating 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.

The Participation-Rate—one measure that had been followed closely and touted frequently by Fed Chair Janet Yellen before the recent tightening actions by the Fed—remains off the historic low hit in September 2015 (again, pre-1994 estimates are not consistent with current reporting). The labor force used in the Participation-Rate calculation is the headline employment plus U.3 unemployment. As with *Graph 5* of employment-to-population ratio, its holding near a post-1994 low in current reporting indicates problems with long-term discouraged workers. Their swollen ranks generally have continued to depress the headline (U.3) labor force, and the plotted ratios.

Graph 7: Labor-Force Participation Rate



Graphs 4 through *7* 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 May 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 4.3% 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 May 2017 headline unemployment rate of 4.3%, for example was in the context of a 62.7% participation rate. That participation rate, though, was more consistent with a headline unemployment rate (U.3) of 9.1% instead of the headline 4.3%. 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 82% 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 5* to *7* (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. 889*. Some of those series are updated in this section.

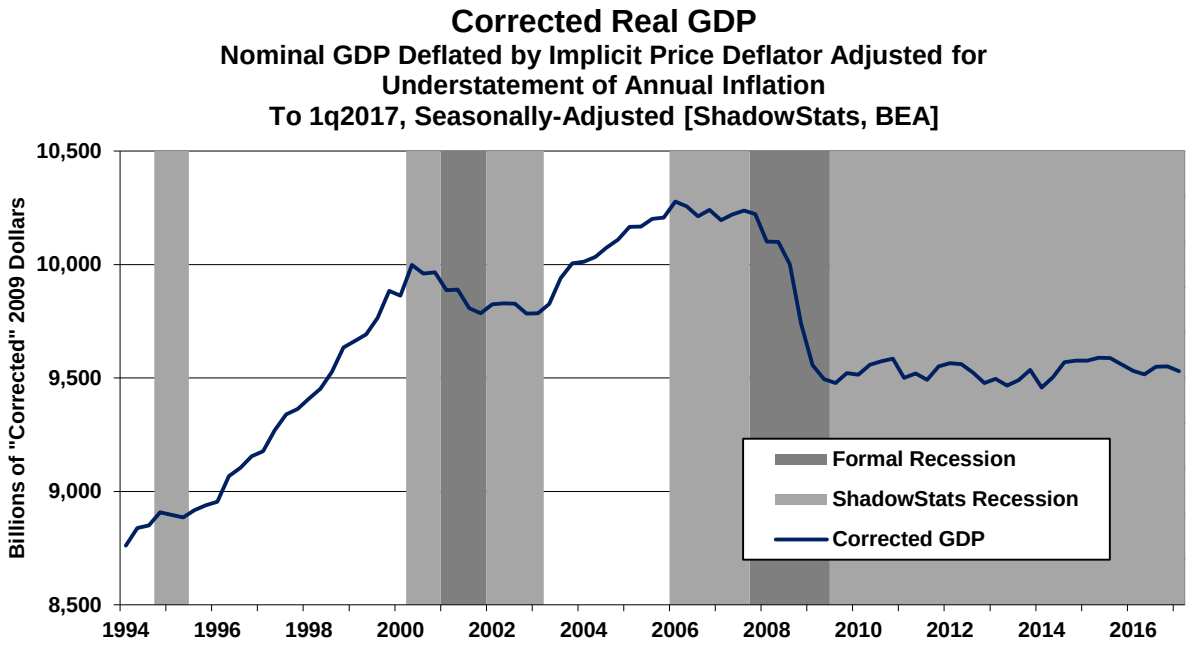
Consider *Graph 8*, which shows the ShadowStats version of the GDP, also plotted from 1994 but through the May 26th second estimate of first-quarter 2017 GDP, where the GDP plot here has been corrected for the understatement of inflation used in deflating the headline GDP series (further detail and a description of the approach and related links are found in *Commentary No. 889*).

Other graphs (again, see *No. 859*) range from the CASS Freight Index (*Graph 9*, see also the *Opening Comments*) to Real S&P 500 Revenues adjusted for share buybacks (*Graph 10*), and include just-updated U.S. Petroleum Consumption (*Graph 11*), the Consumer Goods sector out of April 2017 Industrial Production (*Graph 11*) and April 2017 Housing Starts (*Graph 13*), both out of *Commentary No. 887*). A similar pattern is seen with real Construction Spending, see *Graph 27* n the *Reporting Detail* section.

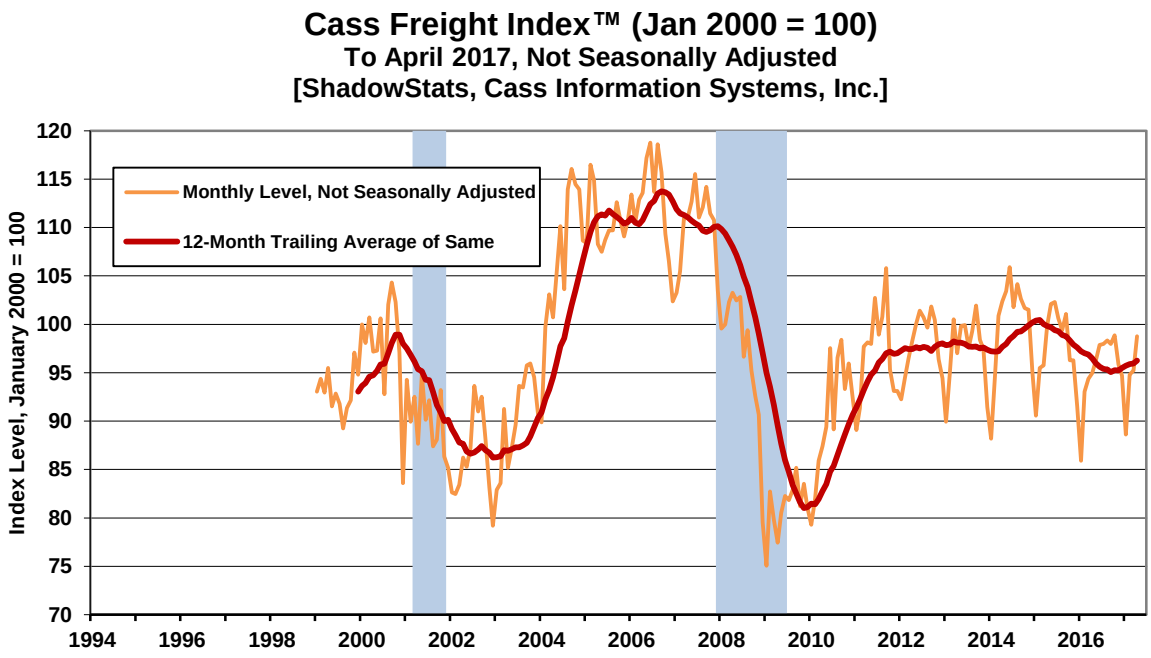
[Graphs 8 to 13 begin on the following page.]

[1] Consider with the May 2017 population of 254.767 million, that the implied labor force at the full-employment participation rate of 66.0% would be 0.66 x 254.767 = 168.146. That labor force less current headline employed, 168.146 – 152.923 = 15.223 million implied unemployed / labor force of 168.146 = 9.1% 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.

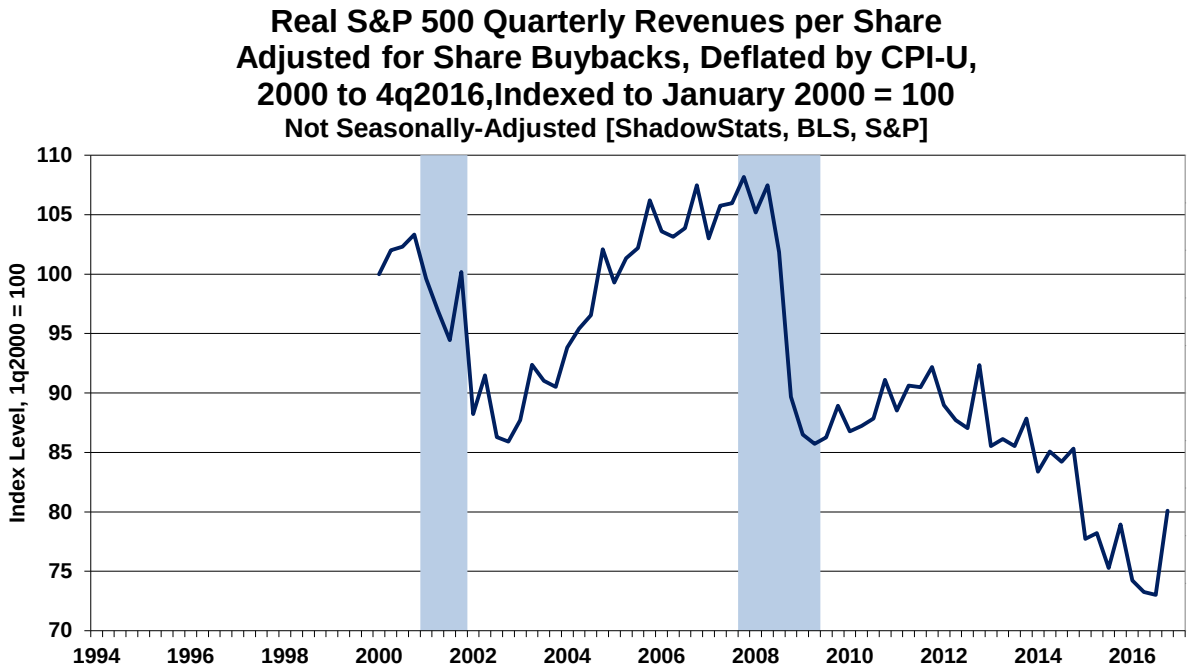
Graph 8: Corrected Real GDP through 1q2017, Second Estimate



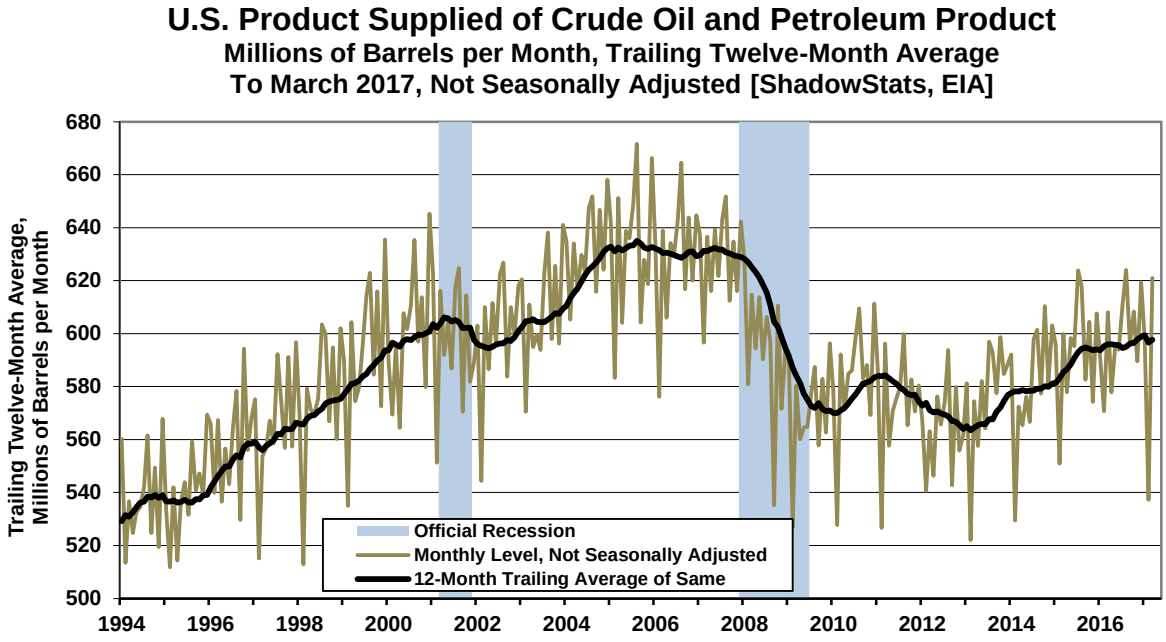
Graph 9: CASS Freight Index for North America (2000 - 2017), Indexed to January 2000 = 100



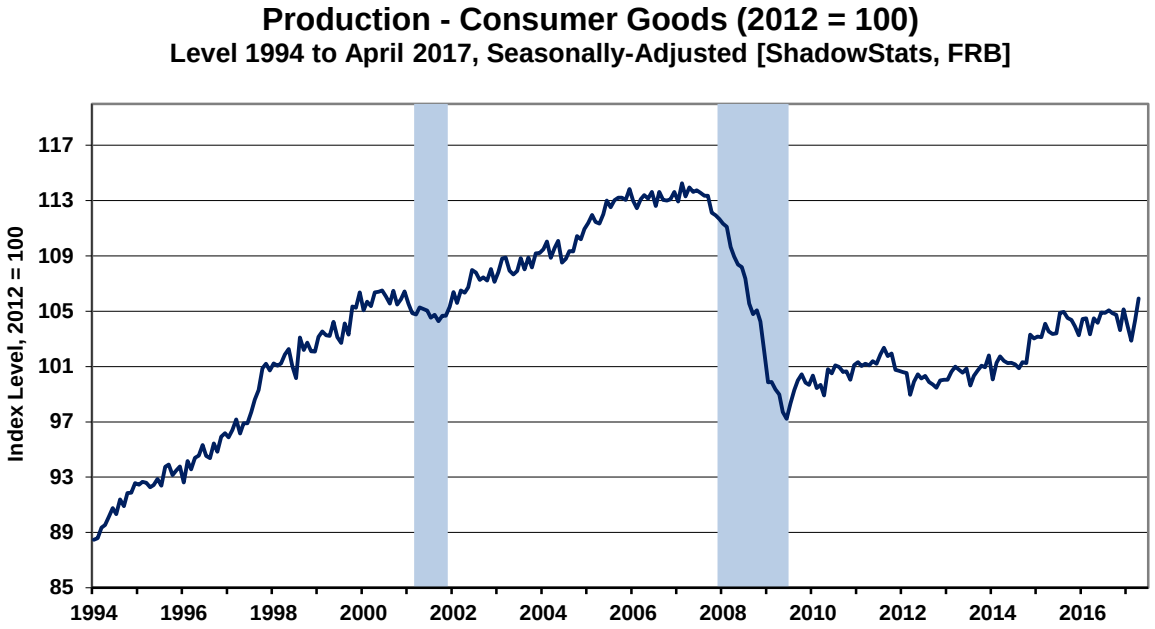
Graph 10: Real S&P 500 Sales Adjusted for Share Buybacks (2000 - 2016), Indexed to January 2000 = 100



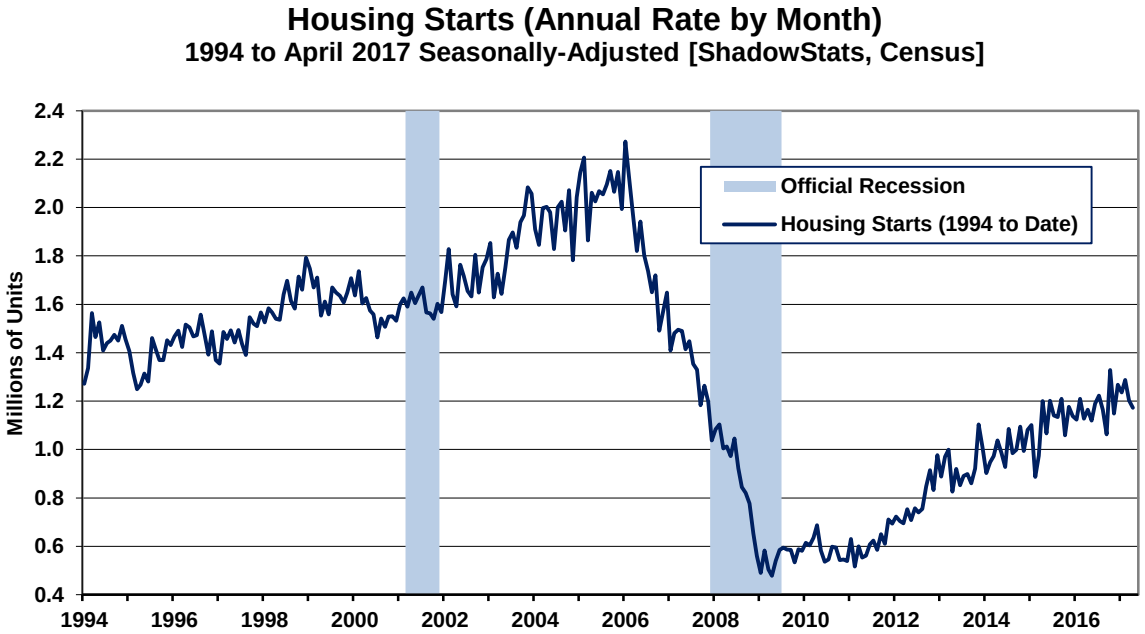
Graph 11: U.S. Petroleum Consumption to March 2017



Graph 12: Industrial Production – Consumer Goods Sector (1994 - 2017)



Graph 13: Housing Starts, Annual Rate by Month (1994 - 2017)



Headline Unemployment Rates. Again, in the context of the non-comparability of month-to-month changes in seasonally-adjusted unemployment detail, the May 2017 unemployment rate (U.3) declined to 4.29%, from 4.40% in April, 4.50% in March, 4.70% in February and 4.78% in January. On an unadjusted basis, unemployment rates are not revised and, in theory, are consistent in post-1994 methodology. The unadjusted unemployment rate U.3 held at 4.11% in May 2017, versus 4.11% in April, versus, 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 decline in the seasonally-adjusted May 2017 U.3 unemployment rate, an unadjusted decline in the count of marginally-attached workers of 59,000 (-59,000) and a decline of 53,000 (-53,000) in the adjusted number of people working part-time for economic reasons, the adjusted May 2017 U.6 unemployment rate eased to 8.41%, versus 8.57% in April, 8.87% in March, 9.24% in February and 9.43% in January. The unadjusted U.6 unemployment rate was 8.10% in May 2017, versus 8.15% (rounds to 8.1%) in April, 8.94% in March, 9.54% in February and 10.08% in January.

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 May 2017 declined to 22.0%, versus 22.1% in April, 22.5% in March, 22.7% in February and 22.9% in January.

U.S. Trade Deficit—May 2017—In the Context of the Annual Benchmarking, Historical Deficits Widened, While Headline May Activity Also Showed a Deepening Shortfall. In the context of annual benchmark revisions detailed in the *Opening Comments*, monthly and quarterly trade deficits generally deepened in revision, since January 2014. On a quarterly basis, initial headline detail for April 2017 showed the second-quarter 2017 on track for an annualized, inflation-adjusted real deficit of $762.6 billion, which would be the worst showing since second-quarter 2007, with ongoing negative implications for pending GDP reporting.

Nominal April 2017 Trade Deficit. The nominal (not adjusted for inflation), seasonally-adjusted monthly trade deficit in goods and services for April 2017 widened on a balance-of-payments basis by $2.334 billion, to $47.617 billion, versus a benchmark-revised deficit of $45.383 in March. The deterioration in the monthly deficit reflected a decline of $0.483 billion in monthly exports, exacerbated by a $1.851 billion increase in imports. The headline April 2017 deficit also widened sharply, by $9.195 billion, versus the benchmark-revised, year-ago $38.422 billion trade shortfall for April 2016.

See the *Reporting Detail* for more-comprehensive background.

Construction Spending—April 2017—In the Context of an Upside Revision to February and a Tumble in March Activity, Real Spending Remained 21.3% (-21.3%) Shy of Recovering Its Pre-Recession Peak. The construction spending series remains highly volatile and subject to unstable and extraordinarily-large monthly revisions. Nominal April 2017 activity declined by 1.4% (-1.4%) month-

to-month, on top of a large upside revision to March activity and a minimal revision to February, which moved initial March 2017 from year-to-year nominal growth of 3.6% to 5.0%, with an apparent, increased first-quarter 2017 quarterly real growth rate, while showing an early-trend for a second-quarter contraction. Those numbers likely are of little substance, where this series remains extraordinarily unstable and subject to large revisions.

Real construction spending has been broadly flat for the last year or so, holding in low-level, stagnating non-recovery. April 2017 activity remained shy of recovering its June 2006 pre-recession peak by 21.3% (-21.3%). Inflation adjustment here reflects the ShadowStats Composite Construction Deflator (CCD), as discussed in *Commentary No. 829* and as detailed in the *Construction Inflation* section of the *Reporting Detail*. Accompanying *Graphs 14* to *17* plot the levels of the aggregate Construction Spending series and major its major subcomponents, in both nominal (before inflation adjustment) and real (after inflation adjustment) terms.

Headline Reporting. In the context of a sharp upside revisions to the levels of March 2017 activity and a minimal revision to February 2017, the total value of construction put in place in the United States for April 2017 was $1,218.5 billion on a seasonally-adjusted but not-inflation-adjusted, annual-rate basis. That estimate was down month-to-month by a statistically-significant 1.4% (-1.4%), versus an upwardly-revised $1,235.5 in March 2017. Net of the highly-unstable, prior-period revisions, April activity would have been "unchanged" at 0.0% month-to-month. In turn, March 2017 showed a revised 1.1% gain, versus a minimally, upwardly revised February 2017, which showed a revised monthly gain of 1.9% versus an unrevised $1,198.8 billion in January 2017.

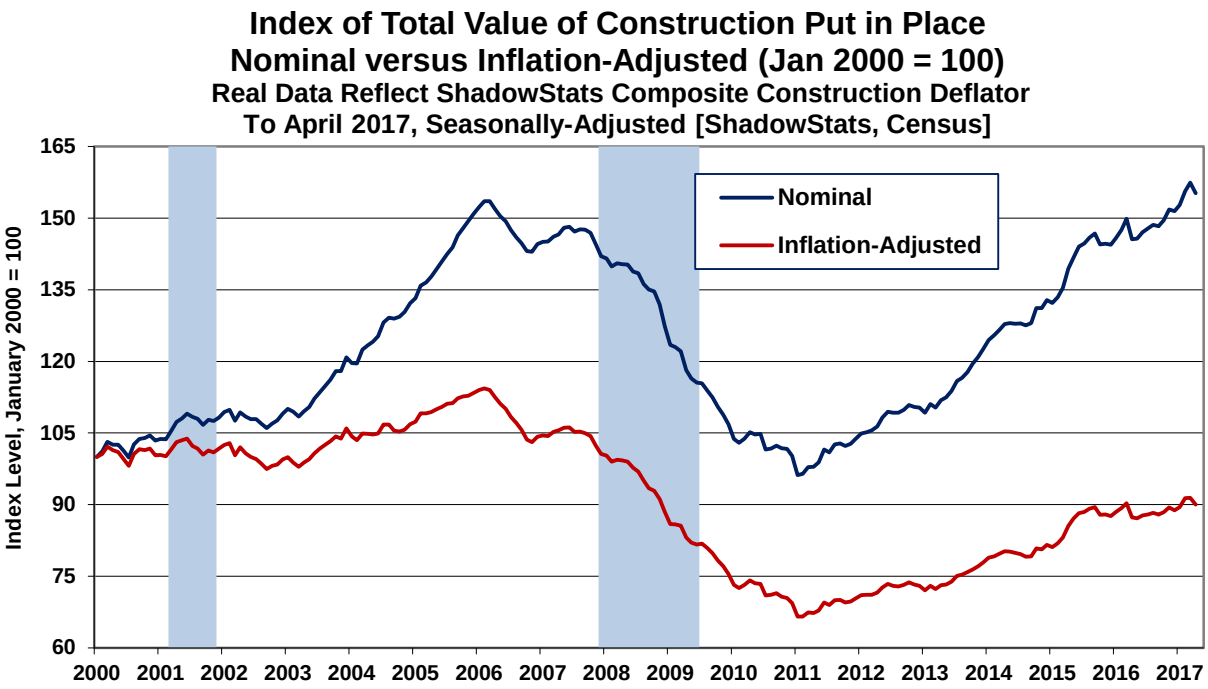
Adjusted for CCD inflation, total real spending in April 2017 fell by 1.6% (-1.6%), versus a revised monthly gain of 0.1% in March and an unrevised February gain of 2.0%.

On a year-to-year annual-growth basis, April 2017 nominal construction spending rose by a statistically-significant 6.7%, following revised annual gains of 5.0% in March 2017 and 5.5% in February 2017. Net of construction costs indicated by the CCD, the annual growth in total real construction rose by 3.1% in April 2017, against upwardly revised gains of 1.3% in March 2017 and 2.3% in February 2017.

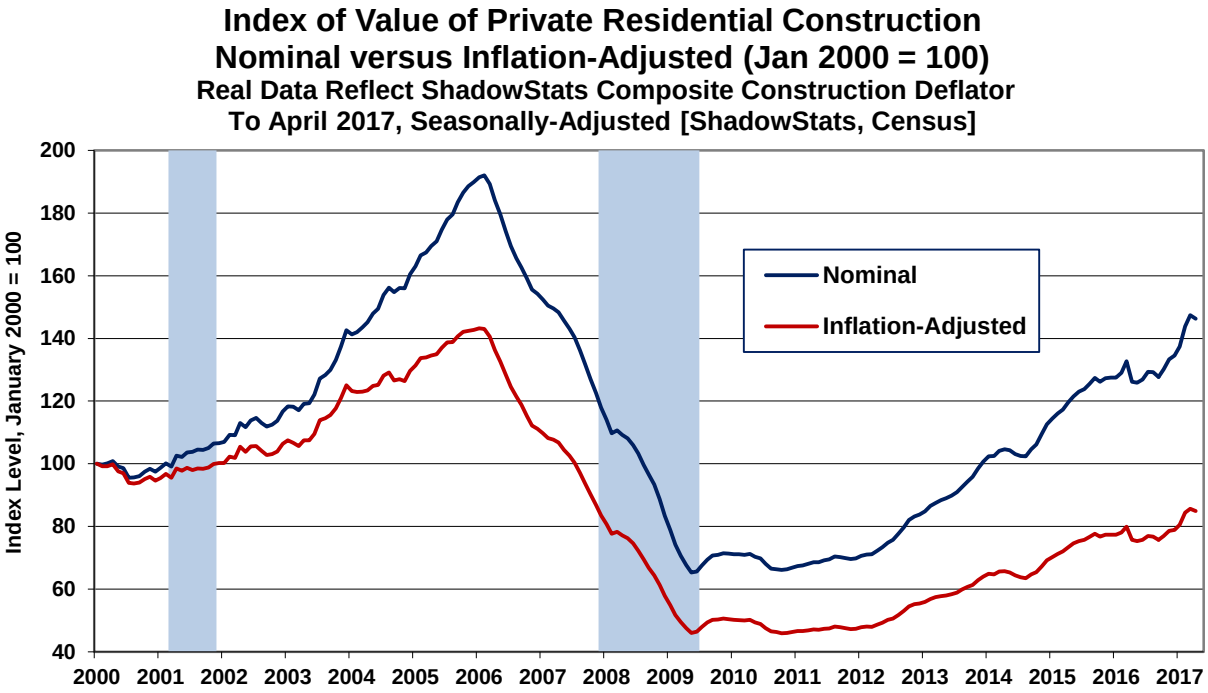
See the *Reporting Detail* for the full analysis, including expanded graphs.

[Graphs 14 to 17 begin on the next page.]

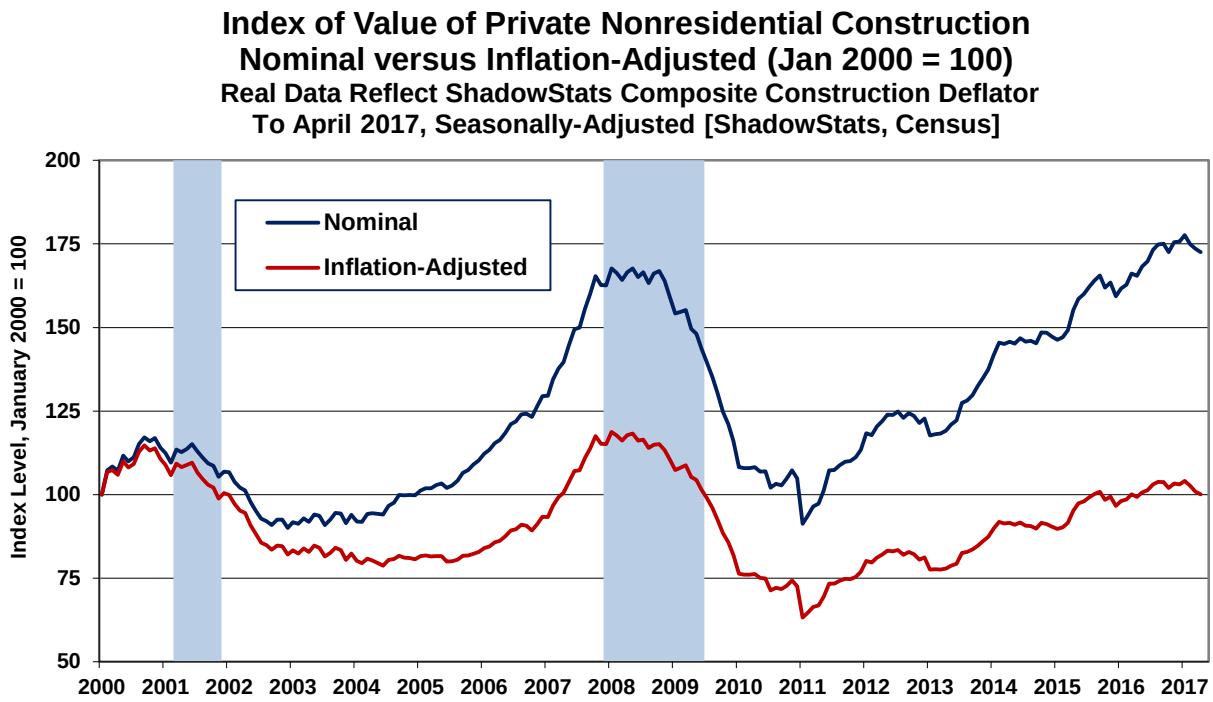
Graph 14: Index, Nominal versus Real Value of Total Construction



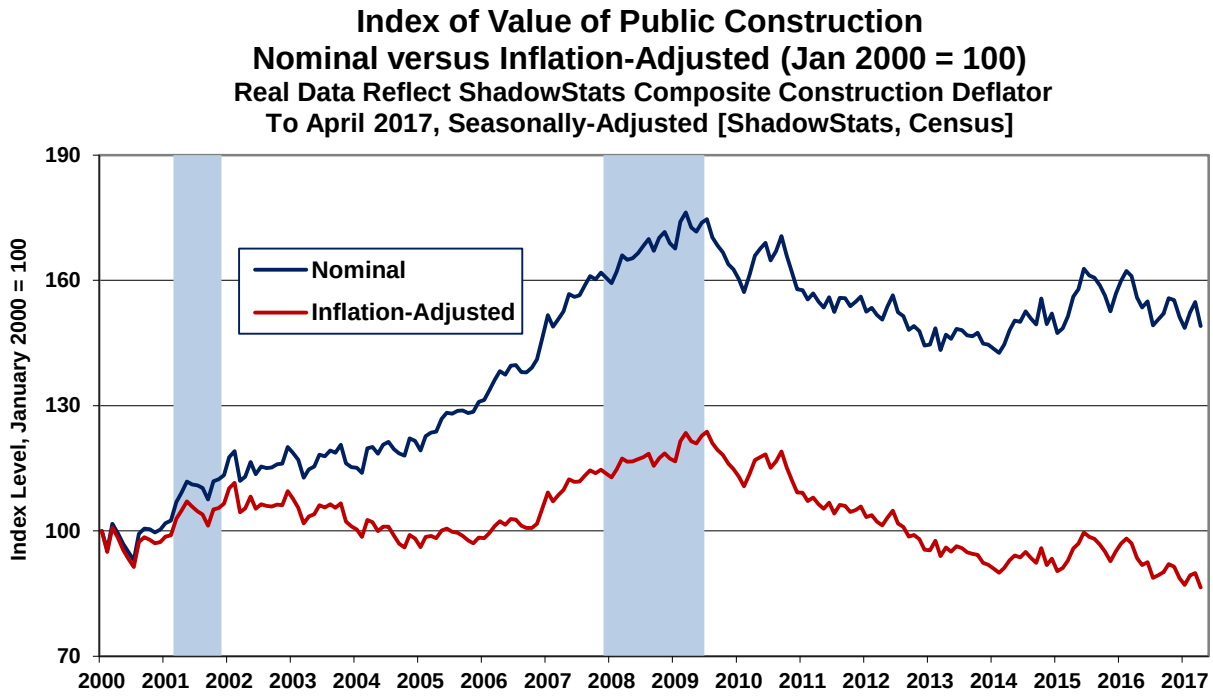
Graph 15: Index, Nominal versus Real Value of Private Residential Construction



Graph 16: Index, Nominal versus Real Value of Private Nonresidential Construction



Graph 17: Index, Nominal versus Real Value of Public Construction



[The* Reporting Detail *contains extended analysis and graphs.]

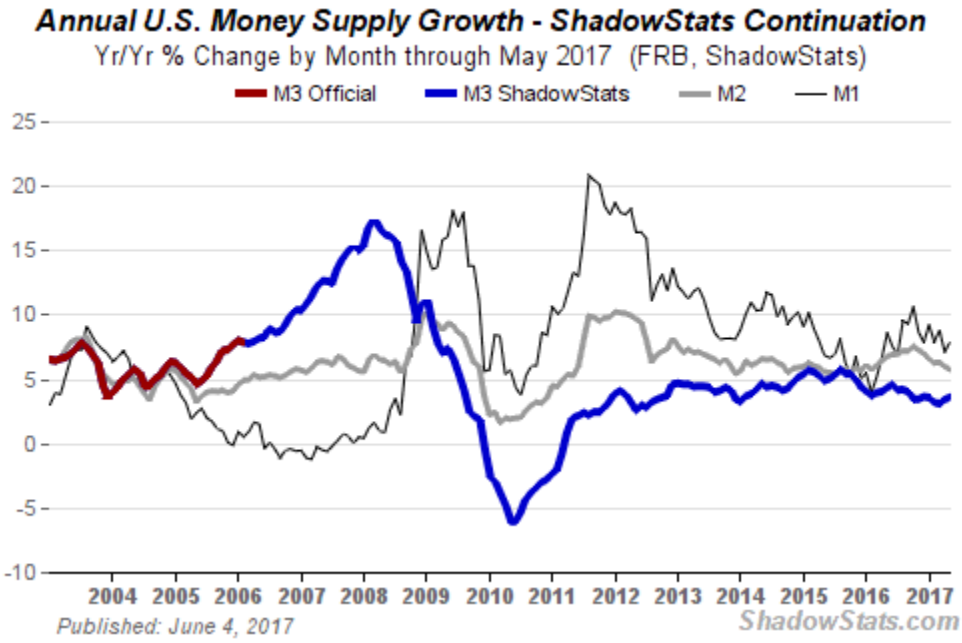
HYPERINFLATION WATCH

MONETARY CONDITIONS

May 2017 Annual Growth Rate in M3 Continued to Bounce Back, Minimally, from its 5-Year Low in March. Based on three-plus weeks of reporting, and in the context of softened flight to cash, estimated nominal May 2017 annual growth for the ShadowStats Ongoing M3 Money Supply rose to 3.6% from an upwardly revised 3.4% in April and an unrevised 3.1% in March 2017. The March showing had been the weakest year-to-year change in fifty-five months.

Separately, nominal year-to-year growth for M2 notched lower to 5.8% in May 2017, from 6.0% in April 2017, with annual nominal growth in May 2017 M1 rising to 8.0%, versus a revised 7.1% (previously 7.3%) in April 2017.

Graph 14: Comparative Money Supply M1, M2 and M3 Yr-to-Yr Changes through May 2017



Where the trend towards relatively weaker M3 annual growth in recent months reflected a general shift from the large time deposits and institutional money funds in M3, into accounts in the subsidiary M2 and M1 series (M2 includes M1; M3 includes M2), with relatively stronger growth in M1 indicating an increased flight to cash or near-cash, those patterns have begun to reverse slightly in the headline April and May 2017 details.

For those living in the headline money-supply world comprised of just the Fed's M1 and M2, money growth still has been relatively much stronger for both M1 and M2. Yet, that growth has not necessarily implied a pending inflation surge, since it generally has reflected a flow of funds down from the more-inclusive M3 category, not due to any apparent Fed effort to boost the basic money supply. The relative weakness in annual M3 growth through March 2017, versus M2 and M1 (again, M2 includes M1; M3 includes M2) 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. Again, that pattern reversed slightly in the April and May 2017 headline details.

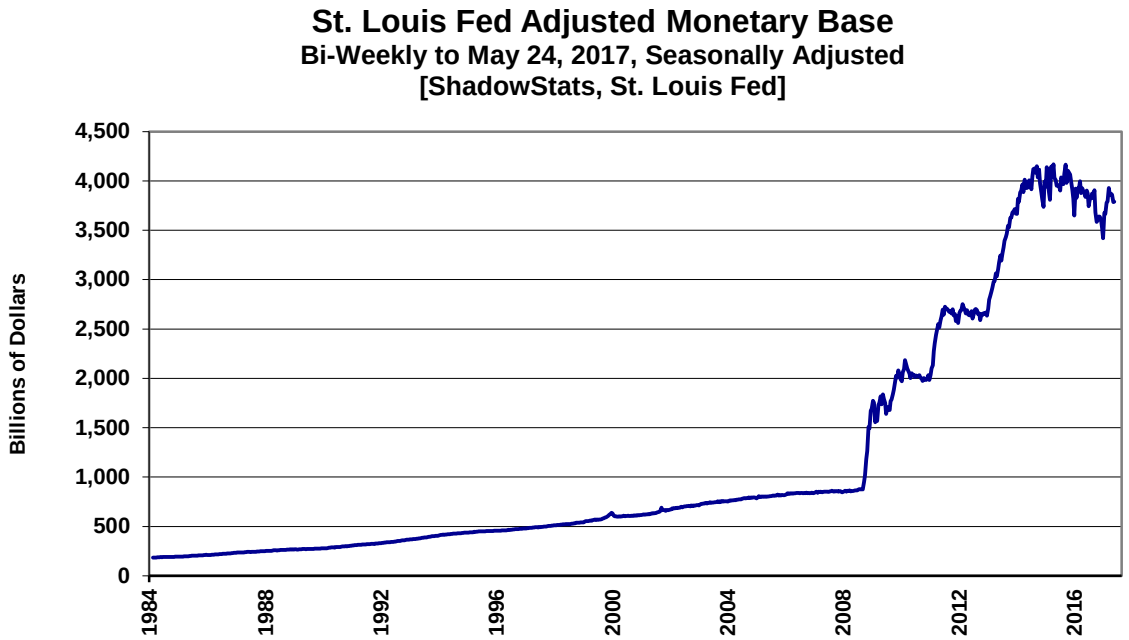
The latest estimates of level and annual changes for May 2017 M3, M2 and M1, and for earlier periods, are detailed in the Alternate Data tab of www.ShadowStats.com. See the *Money Supply Special Report* for full definitions of those measures. A full review of Monetary Conditions and unfolding developments with the Federal Reserve's Federal Open Market Committee (FOMC) will follow in *Commentary No. 892* of June 15th, along with prospects for U.S. dollar exchange rates and the price of gold.

Monetary Base Has Moved Closer to Regaining Its Recent Peaks. 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 stable trading-range activity for the upwardly revised target rates for federal funds, the level of the monetary base has moved back towards its historic highs, with annual percentage change effectively at zero. Aside from short-term gyrations around a change in the targeted federal funds rate, circumstances generally should stay there 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.

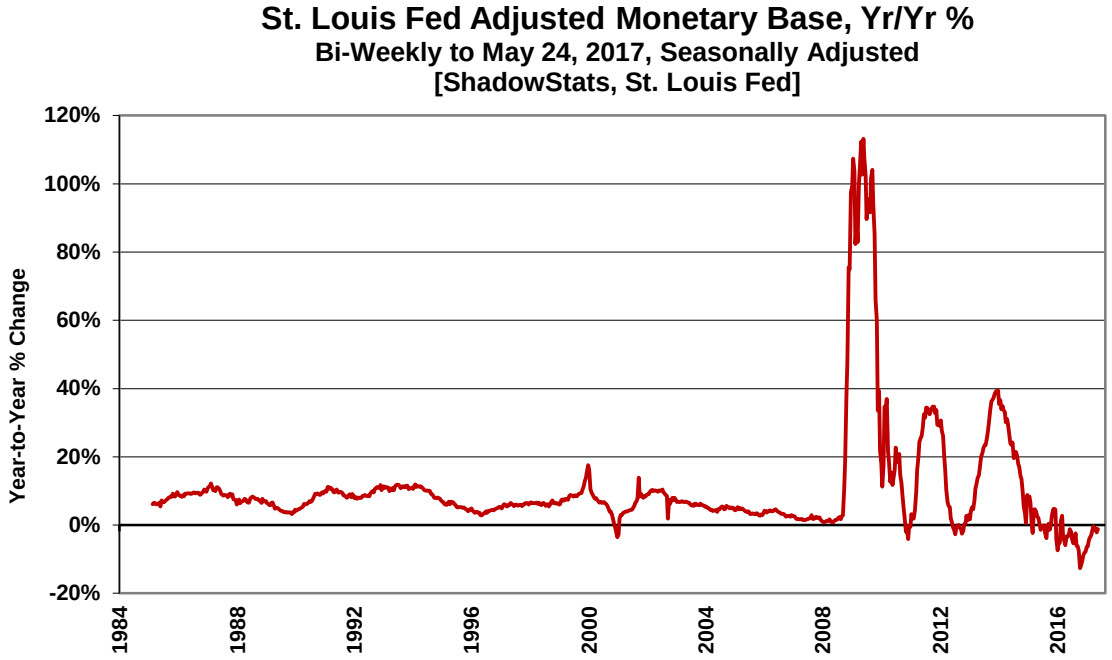
Before the Panic of 2008, adjustment to the level of the Monetary Base was the FOMC's primary tool for targeting growth in the money supply. The introduction of Quantitative Easing altered that approach, where the effects of massive purchases of U.S. Treasuries and Mortgage Backed Securities were neutralized in terms of money supply impact, where banks selling those securities generally had to deposit the resulting cash with the Fed as excess reserves, earning interest. That was instead of lending some increased cash into the normal flow of commerce, which would have increased money supply growth, along with some badly-needed economic stimulus.

[Graphs 15 and 16 follow on the next page.]

Graph 15: Saint Louis Fed Monetary Base, Billions of Dollars (1984-May 2017)



Graph 16: Year-to-Year Percent Change, Saint Louis Fed Monetary Base (1985-May 2017)



REPORTING DETAIL

EMPLOYMENT AND UNEMPLOYMENT (May 2017)

Underlying Recession Remained in Play; Headline Annual Growth Rates Are Slowing Rapidly in Payroll Reporting, with Massively-Warped Indicators in the Household Data. In the context of the reporting distortions discussed with the April 2017 headline employment and unemployment detail, and incorporated here by reference as *Special Commentary No. 885*, entitled *Numbers Games that Statistical Bureaus, Central Banks and Politicians Play*, labor circumstances increasingly are weak. Headline May 2017 detail continued to signal a new recession, given the low level of year-to-year growth in the Payroll Survey, and to indicate a massive distortions in underlying headline employment and unemployment details in the headline Household Survey.

The headline monthly payroll jobs gain of 138,000 in May 2017, likely was flat-to-minus in reality. Also, in the context of the *ShadowStats-Alternate Unemployment Rate Measure* discussion later on page 40, the headline 4.29% May 2017 U.3 unemployment rate likely was much closer to 22.0%, when viewed from the perspective of common experience. Extended assessment of headline distortions in the payroll-employment and household survey detail, again is found in *Special Commentary No. 885*.

PAYROLL SURVEY DETAIL. The Bureau of Labor Statistics (BLS) published the May 2017 headline payroll-employment on June 2nd. In the context of sharp, downside prior-period revisions, and in the continuing context of heavily-distorted bloating, unstable seasonal adjustments, and inconsistent benchmarking, seasonally-adjusted, headline May 2017 payrolls showed formally a marginally statistically-significant gain of 138,000 +/- 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). That followed a downwardly-revised monthly gain of 174,000 [previously 211,000] in April and a downwardly-revised gain of 50,000 [previously 79,000, initially 98,000] in March. The headline revised monthly gain in March of 50,000, however, was not reported on a comparable basis with the headline May 2017 and April 2017 details, as discussed in the *Headline Distortions from Shifting Concurrent-Seasonal Factors*.

Net of prior-period revisions, May 2017 payrolls rose by 72,000, instead of the headline 138,000.

***Collapsing Annual Growth Hit a Level Seen Only Going Into or Coming Out of Recession*.** The not-seasonally-adjusted, year-to-year growth in May 2017 nonfarm payrolls increased minimally to 1.54%, versus a downwardly revised 1.42% [previously 1.45%] in April 2017 and a downwardly revised 1.49% [previously 1.50%, initially 1.49%] in March 2017.

The annual growth of 1.42% 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. That same growth rate was last seen, as annual growth slowed going into the 2007 recession. Minor fluctuations around that April 2017 annual growth are not meaningful. 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 May's minimal uptick in annual growth did not alter the broad picture.

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.

Construction-Payrolls Rose Minimally in April, Revised Lower in March. In the context of a continuing downside revisions to prior months' reporting, May 2017 construction payroll employment rose by 11,000 to 6.881 million jobs. Revised lower to 6.870 [previously 6.877] million, April construction jobs fell by 1,000 (-1,000) [previously gained 5,000] against a downwardly revised level of 6.871 million [previously 6.872, initially 6.882] million in March. Net of prior-period revisions, the headline May monthly change would have been a gain of 4,000, instead of a gain of 11,000.

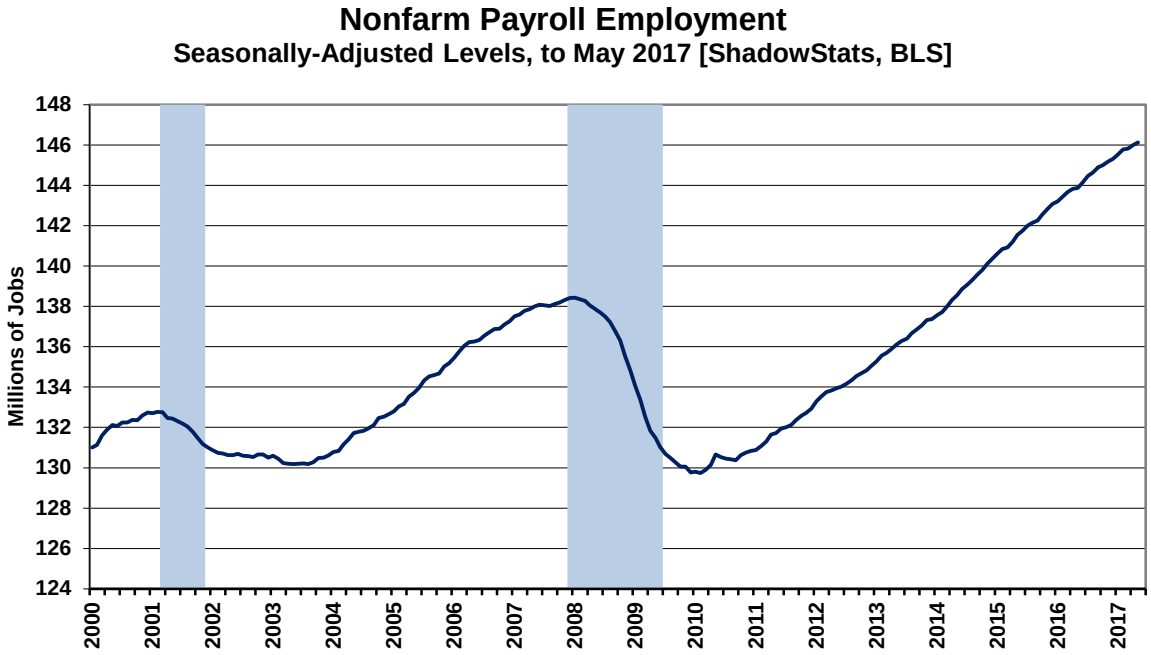
In theory, construction payroll levels should move closely with the inflation-adjusted aggregate construction spending series and the Housing Starts series (the latter measured in units rather than dollars). May details are plotted accompanying *Graph 29* in the following *Construction Spending* section. The recent general pattern of activity has softened and flattened out, and remains shy of recovering its pre-recession high. That broadly is consistent with continuing weakness seen in real construction spending and other construction measures.

Headline month-to-month construction employment rose by 10.16% in May 2017, versus a revised decline of 0.01% (-0.01%) [previously a gain of 0.07%] in April 2017, and a revised "unchanged" at 0.00% [previously up by 0.01%, initially 0.09%] in March. Unadjusted year-to-year growth gained 2.85% in May 2017, versus a revised 2.25% [previously 2.48%] in April 2017 and a revised 2.81% [previously 2.78%, initially] in March 2017.

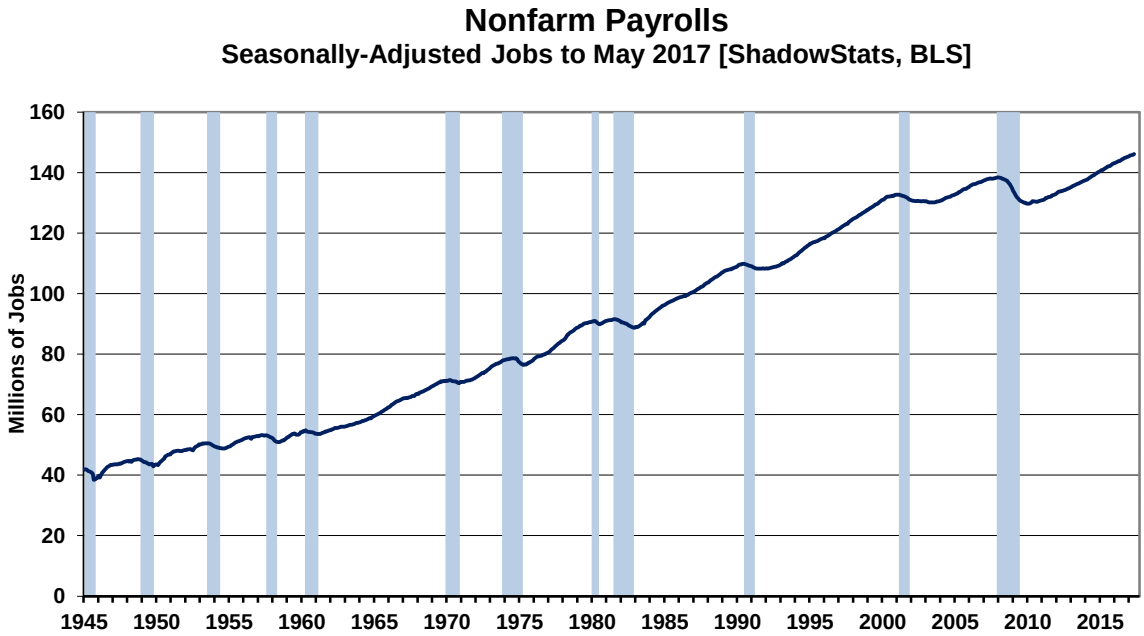
Headline construction-payroll numbers remain heavily biased to the upside (officially bloated by 7,600 jobs per month, unofficially at an order of magnitude of 21,000 jobs per month). Despite downside revisions to recent activity, the headline May level of construction jobs was the highest seen since October 2008, but it remained down from the April 2006 pre-recession series peak by 10.94% (-10.94%).

Historical Payroll Levels. Payroll employment (Payroll Survey) is a coincident indicator of economic activity, and irrespective of all the reporting issues with the series, payroll employment formally regained its pre-recession high in 2014, despite the GDP purportedly having done the same somewhat shy of three years earlier, back in 2011 (see quarterly detail *Commentary No. 876*). Reflected in the next two graphs, headline payroll employment moved to above its pre-recession high in May 2014, as of the 2015 and 2016 benchmarkings. Previously that had been April 2014, as of the 2014 benchmarking. Payroll employment generally has continued to rise since. May 2017, headline payroll employment was 7.71-million jobs above its pre-recession peak.

Graph 17: Nonfarm Payroll Employment 2000 to Date



Graph 18: Nonfarm Payroll Employment 1945 to Date



Graphs 17 and *18* show the headline payroll series, 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.

Beyond excessive upside add-factor biases built into the monthly calculations (see the *Birth-Death Model* section), the problem remains that payroll employment counts the number of jobs, not the number of people who are employed. Much of the payroll "jobs" growth has been in multiple part-time jobs—many taken on for economic reasons—where full-time employment was desired but could not be found.

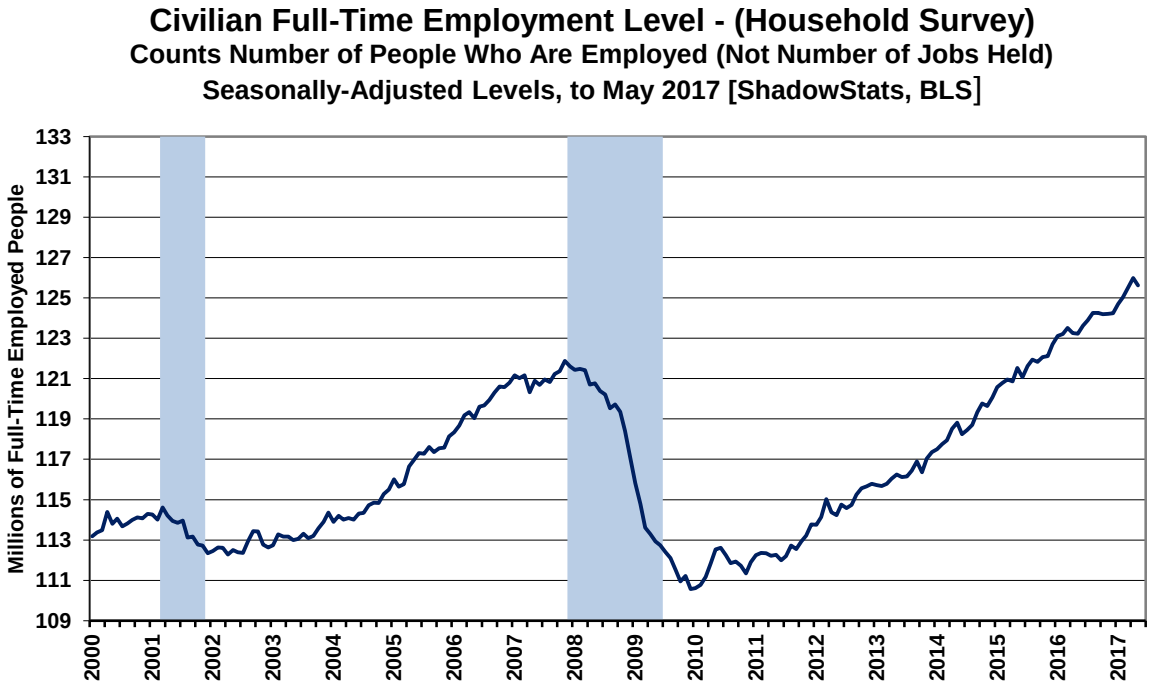
The headline patterns had appeared to have shifted some in April 2017, but reversed again in May 2017. Consider that May 2017 payroll jobs, which count each part-time job as an employed individual, gained an aggregate 138,000 jobs in the month.

The Household Survey, which counts employed individuals only once, showed a decline in total employed of 233,000 (-233,000). Such was in the context of a decline of 367,000 (-367,000) in full-time employed, versus a gain of 133,000 part-time employed. Separately, the number of employed holding multiple jobs declined by 94,000 (-94,000) [these summary details never add up].

Further, and separately reported in the household survey, those working part-time for economic reasons declined by 53,000 (-53,000), while those working part-time for non-economic reasons rose by 320,000, for a total gain in part-time employment there of 267,000.

While those numbers do not add up—they rarely come close to adding up—and are not comparable on a seasonally-adjusted basis, month-to-month, there is nonetheless a fair suggestion of a shift back from full-time to part-time employment, in the headline detail, reversing the trend seen in April.

Graph 19: Full-Time Employment (Household Survey) to Date (2000 to Date)



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

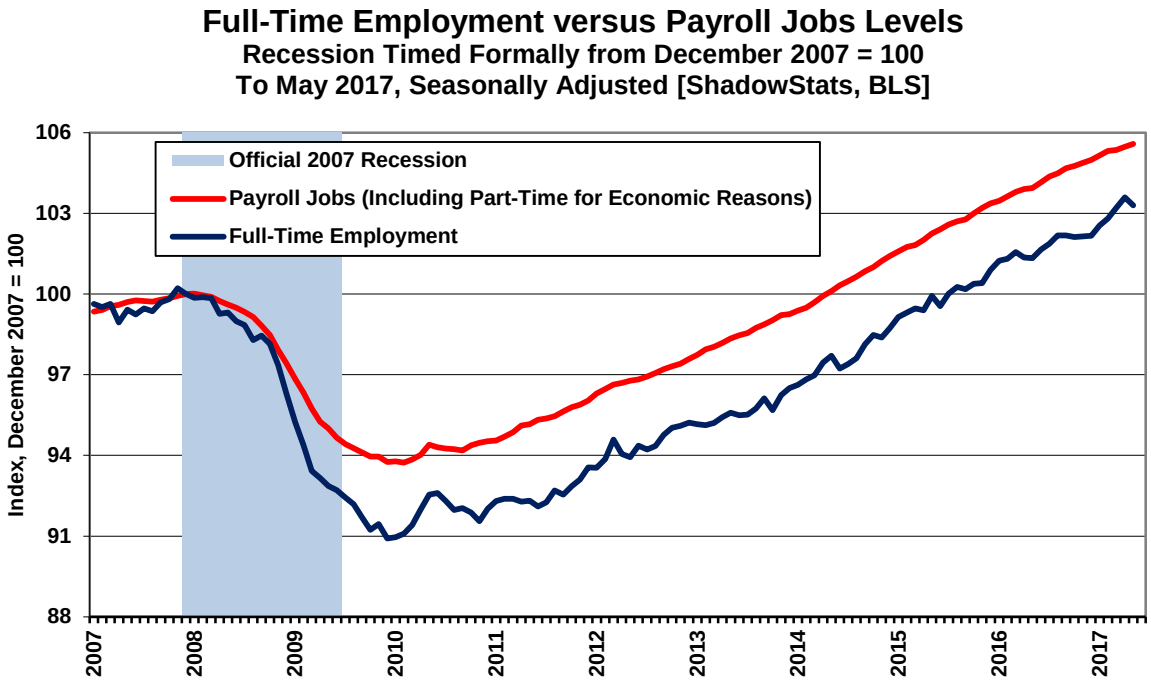
> The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll are counted separately for each appearance.

Full-Time Employment versus Part-Time Payroll Jobs. Shown in *Graph 19* (using a roughly-proportionate scale to *Graph 17*), the level of full-time employment (Household Survey) recovered its pre-recession high in August 2015 (see quarterly detail in *Commentary No. 876*). Headline May 2017 full-time employment reversed its recent unbelievable upside trend in monthly gains, dropping moth-to-month by 367,000 (-367,000), following monthly gains of 480,000 in April, 476,000 in March, 326,000 in February and 457,000 [an implied nonsensical 865,000 if the population revisions were to be believed] gain January 2017, having gained 35,000 in December 2016, 23,000 in November, and having declined by 63,000 (-63,000) in October and by 3,000, (-3000) in September.

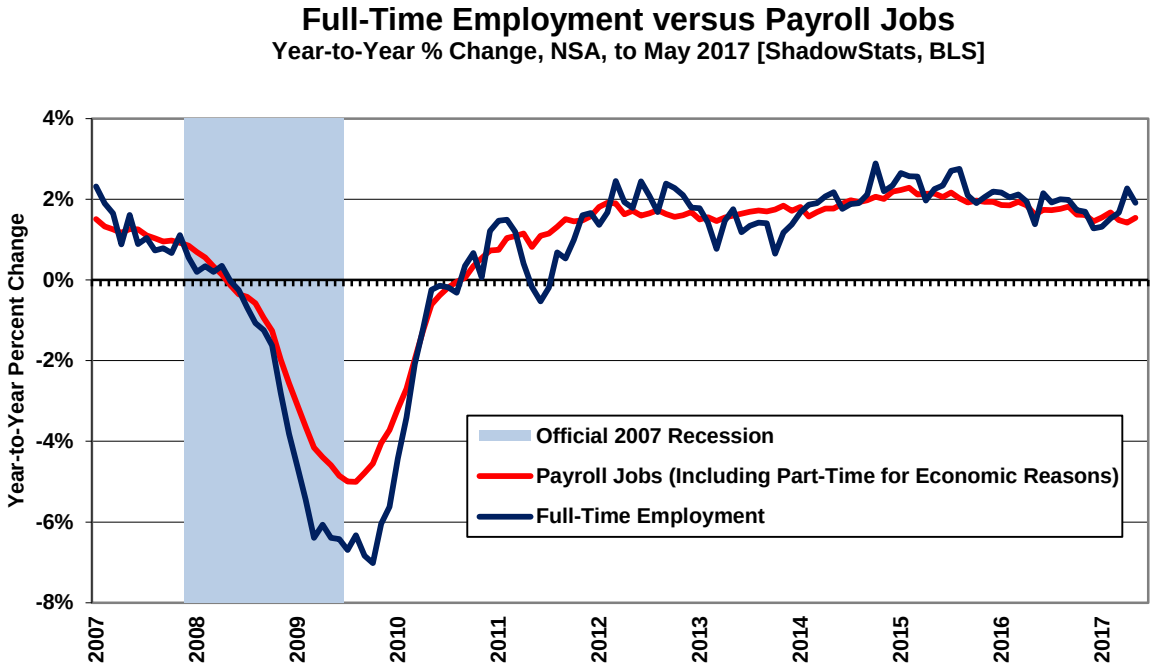
Nonetheless, as shown in *Graphs 20* and *21*, full-time employment had shown a sudden a pick-up in growth relative to payroll employment. Putting aside comparability and data-quality issues, those patterns otherwise were suggestive of shift from multiple part-time jobs to full-time employment.

[Graphs 20 and 21 follow on the next page.]

Graph 20: Full-Time Employment (Household Survey) versus Jobs Count (Payroll Survey)



Graph 21: Full-Time Employment (Household Survey) versus Jobs Count (Payroll Survey), Year-to-Year



Headline full-time employment detail now stands at 3.75-million above that pre-recession high for the series. That gain is due in particular to irregularly-volatile monthly gains in the seasonally-adjusted data

of the last year or so, and with particularly strong growth the first four months of 2017. Again, month-to-month seasonally-adjusted details simply are not comparable.

Still the 3.75-million gain compares with the headline payroll-employment level that is 7.71-million above its pre-recession high, regained some 35-months ago. Again, the payroll count is of jobs, not people, where much of that payroll "jobs" growth has been in part-time, and in multiple part-time jobs, many still taken on for economic reasons, where full-time employment was desired but could not be found.

As a separate consideration and an indication of the level of nonsensical GDP reporting, where employment traditionally is a coincident indicator of broad economic activity, again the GDP purportedly recovered its pre-recession high some five years ago, more than two years before similar payroll activity, and more than four years before the likely temporary, lesser recovery in full-time employment. *Graphs 20* and *21* plot comparisons of activity in full-time employment versus payroll jobs, post-economic collapse. Full-time employment was hit hardest, with headline employment "recovery" coming largely from individuals having to settle for part-time work (again, see quarterly detail *Commentary No. 876*).

Headline month-to-month volatility in the full-time employment reporting usually is more a function of the instabilities from the non-comparability of the headline, seasonally-adjusted monthly data (see the discussion in the *Headline Distortions from Shifting Concurrent Seasonal Factors* section).

The graph of full-time employment excludes the count of those employed with only part-time jobs, one or more. Total employment, including those employed with part-time work, has recovered its pre-recession high, but it is not close to the payroll reporting and has been irregular in pattern. Once more, the Household-Survey numbers count the number of people who have at least one job. The Payroll Survey simply counts the number of jobs (see *Commentary No. 686* for further detail).

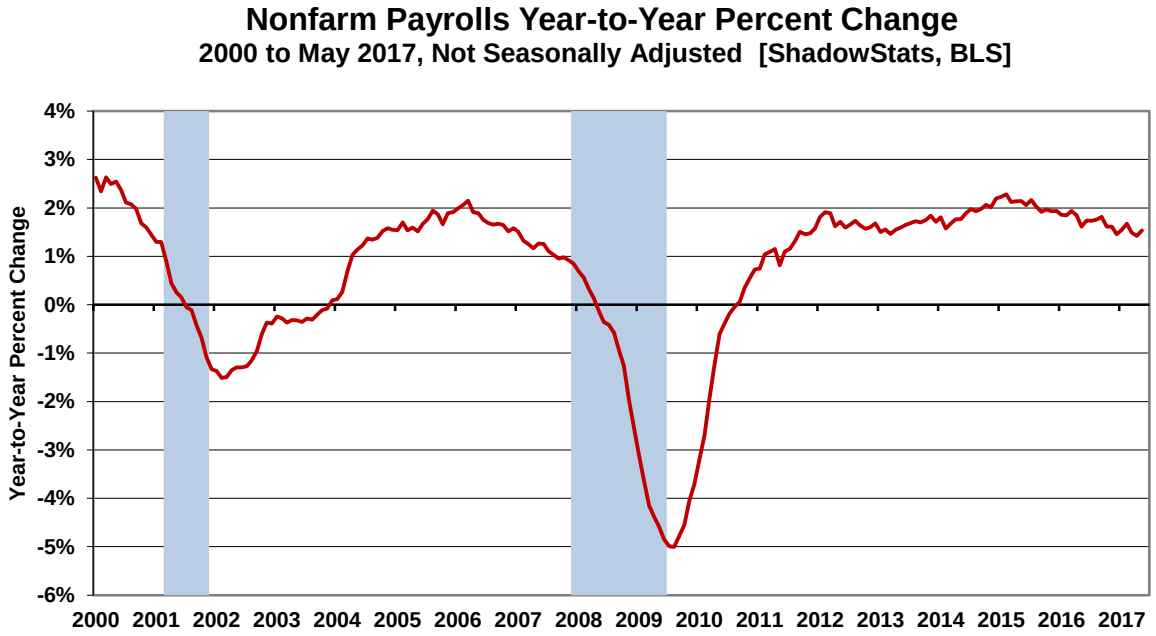
Annual Percent Changes in Headline Payroll Employment. Not-seasonally-adjusted, year-to-year change in payroll employment is untouched by the concurrent-seasonal-adjustment issues, so the monthly comparisons of year-to-year change at least are reported on a consistent basis, although they are, in theory, the basis for the core annual benchmarking of payroll employment.

Year-to-year growth in unadjusted payrolls hit a post-recession peak of 2.29% in February 2015, reflected in the headline detail of *Graphs 22* and *23*. Such remains the strongest annual growth since June 2000 (another recession), but subsequent annual growth has slowed sharply. Year-to-year nonfarm payroll growth in January and February 2017 notched higher respectively to 1.55% and 1.66%, then dropped back to 1.49% in March 2017 and to a 68-month low of 1.42% in April 2017. Annual growth notched minimally higher to 1.54% in May 2017. That level of growth was last hit on the downside going into the 2007 recession, and on the upside, coming out of the recession, as discussed earlier, again see recent discussions of "healthy" annual payroll growth in *Commentary No. 843* and the FOMC discussion in *Commentary No. 870*.

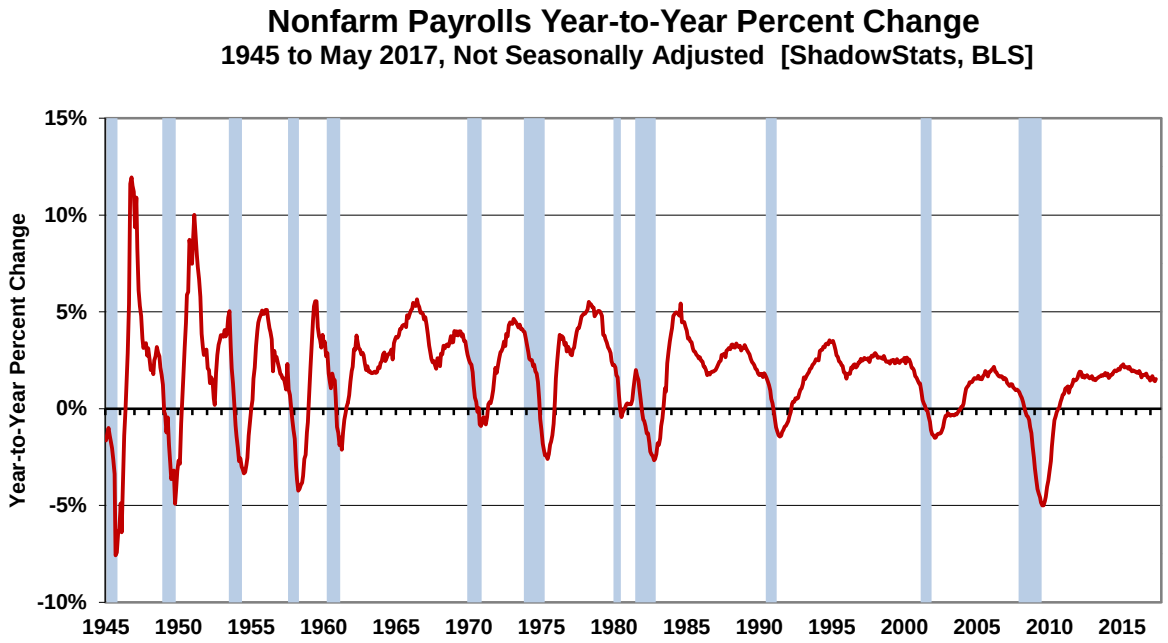
With bottom-bouncing patterns of recent years, current headline annual growth has recovered from the post-World War II record benchmarked decline of 5.01% (-5.01%) seen in August 2009, as shown in the accompanying graphs. That decline remains the most severe annual contraction since the production shutdown at the end of World War II [a trough of a 7.59% (-7.59%) annual contraction in September

1945]. Disallowing the post-war shutdown as a normal business cycle, the August 2009 annual decline was the worst since the Great Depression.

Graph 22: Payroll Employment, Year-to-Year Percent Change, 2000 to Date



Graph 23: Payroll Employment, Year-to-Year Percent Change, 1945 to Date



Headline Distortions from Shifting Concurrent-Seasonal Factors. *[PLEASE NOTE: This section has not been revised from prior reporting.]* There remain serious and deliberate flaws with the government's seasonally-adjusted, monthly reporting of both employment and unemployment. 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, again, even with the headline benchmark revision. 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, 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 24* and *25*, 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 month-to-month instability likely is of similar magnitude. At least 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 are consistent only for January and December. With the Household Survey, except for December, the seasonally-adjusted monthly detail is not comparable with any other month, so seasonally-adjusted, month-to-month comparisons have no meaning in the Household Survey, 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 on *Graphs 24* and *25*).

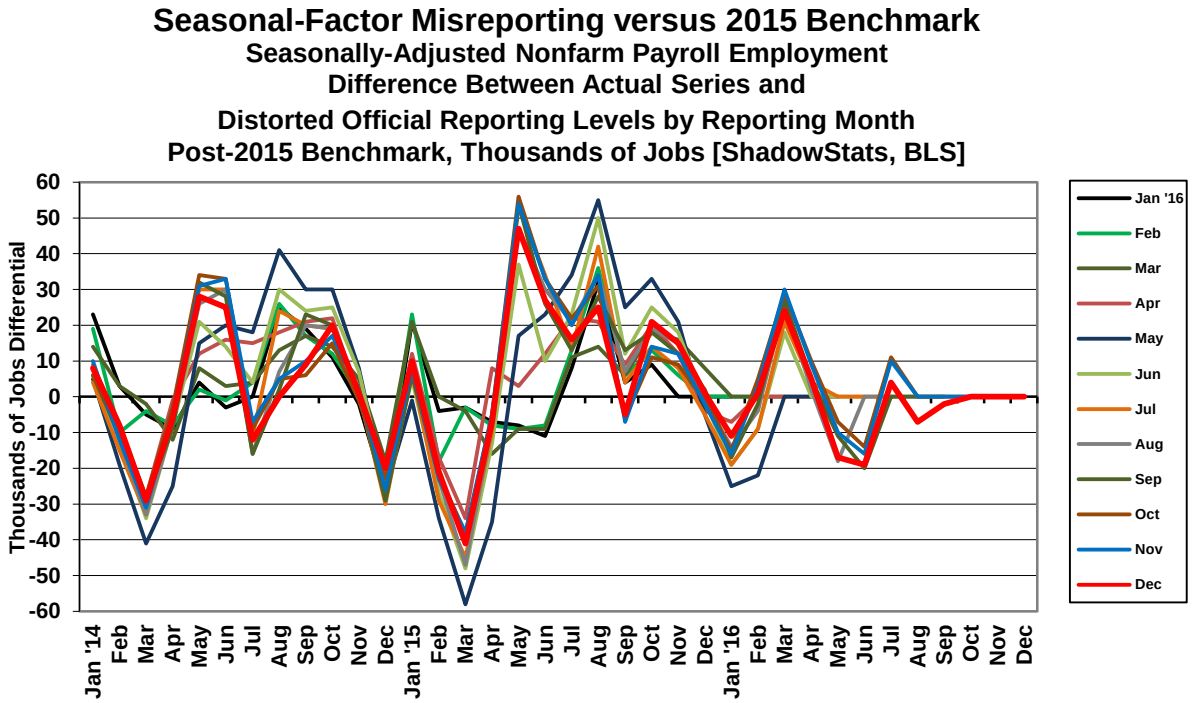
Where the BLS does provide modeling detail for the Payroll Survey, allowing for third-party calculations, no such accommodation has been made for the Household Survey. Again, ShadowStats affiliate ExpliStats has done such third-party calculations for the payroll series, and the resulting detail of the differences between the current headline reporting and the constantly-shifting, consistent and comparable history are reflected here in *Graph 24*, 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 initial benchmarking. *Graph 24* 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.

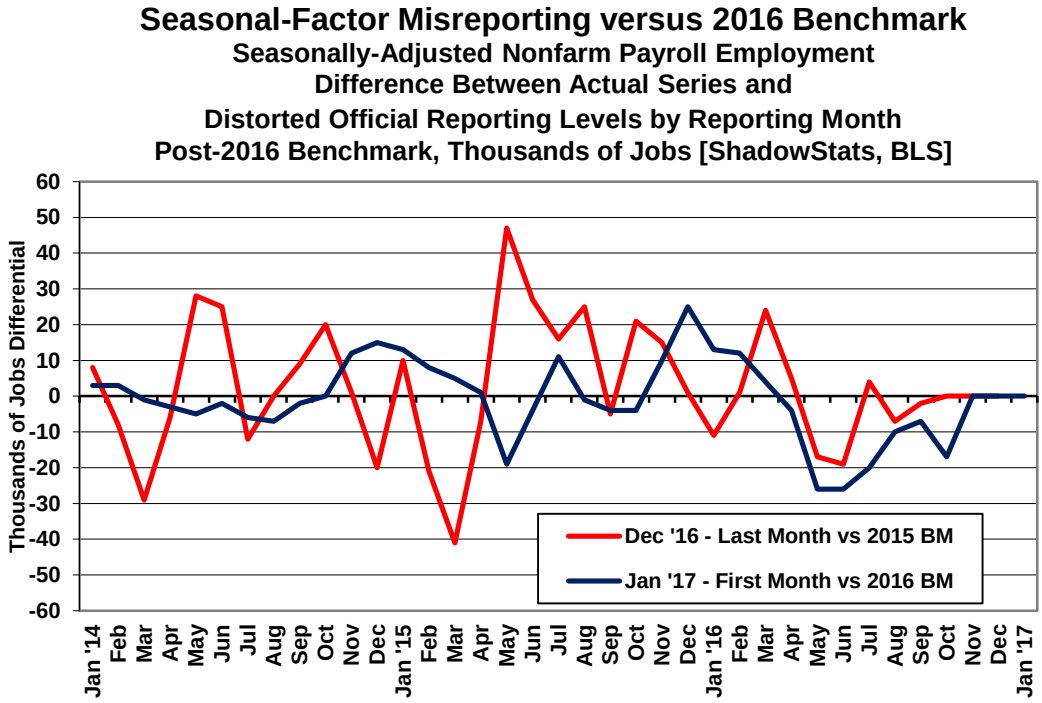
As seen in the recent detail, the differences go both ways and often are much larger. Such was the case for November 2014, coming out of the 2014 benchmark revision, as detailed and discussed in the *Opening Comments* of *Commentary No. 784*. Subscribers interested in the modeling of specific industry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

[Graphs 24 and 25 are shown on the next page]

Graph 24: Concurrent-Seasonal-Factor Irregularities – December 2016 Detail versus 2015 Benchmarking



Graph 25: Concurrent-Seasonal-Factor Irregularities – January '17 Detail versus 2016 Benchmarking



Birth-Death/Bias-Factor Adjustment (BDM). Despite the ongoing, general overstatement of monthly payroll employment, 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 and 2012 excepted), although increasingly the downside revisions, when formalized are 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 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.

May 2017 Add-Factor Bias. The not-seasonally-adjusted May 2017 add-factor bias was an upwardly-revised 230,000, following a positive 255,000 in April and a positive 224,000 add-factor in May 2016 reporting. The revamped, aggregate upside annual bias for the trailing twelve months through May 2017 is estimated from current headline bias reporting at 958,000 up by 117,000 or 13.9% from 841,000 in the December 2016 pre-benchmarking level and up 177,000 or 22.7% from 781,000 in December 2015, the year before. That is a monthly average of 79,833, in May 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.

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 79,833 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).

HOUSEHOLD SURVEY DETAIL. Discussed in the December 2016 labor-conditions reporting (see *Commentary No. 860*), the headline details in the counts of the employed and unemployed, from the seasonally-adjusted, month-to-month Household-Survey detail, usually are nonsense, particularly egregious examples of the BLS misreporting practices, in its use of concurrent seasonal factors (detailed in the *Headline Distortions from Shifting Concurrent-Seasonal Factors*). Only in the December 2016 reporting were most of the headline Household Survey details last historically consistent, but only for that one month. With the January 2017 and subsequent headline detail, all the monthly inconsistencies first returned and subsequently have been increasingly scrambled. Separately, the regular annual break in January detail, based on the introduction of new population controls left many of the headline numbers—January versus December—in a circumstance where they never are fully consistent or compatible (see *Commentary No. 864*).

Another issue, detailed in *Commentary No. 669*, and with links (Crudele) in the *Note on Reporting-Quality Issues and Systemic-Reporting Biases* in the *Week Ahead* section, significant issues as to falsification of the data gathered in the monthly Current Population Survey (CPS), conducted by the Census Bureau, have been raised in the press and investigated by the House Committee on Oversight and Government Reform and the U.S. Congress Joint Economic Committee. That investigation still is unfolding. The CPS is the source of the Household Survey used by the BLS in estimating monthly unemployment, employment, etc. Accordingly, the statistical significance of the headline reporting detail here remains open to serious question.

Headline Unemployment Rates. Again, in the context of the non-comparability of month-to-month changes in seasonally-adjusted unemployment detail, the May 2017 unemployment rate (U.3) declined to 4.3% [4.29%], versus 4.4% [4.40%] in April, 4.5% [4.50%] in March and 4.7% [4.70%] in February. Formally, the decline of 0.11% (-0.11%) in the May U.3 was 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.

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 held at 4.11% in May 2017, versus 4.11% in April, 4.56% in March and 4.95% (rounds to 4.9%) in February.

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 decline in the seasonally-adjusted U.3 unemployment rate, an unadjusted decline in the count of marginally-attached workers of 59,000 (-59,000) and a decline of 53,000 (-53,000) in the adjusted number of people working part-time for economic reasons, the adjusted May 2017 U.6 unemployment rate declined to 8.41% in May 2017, versus 8.57% in April, 8.87% in March and 9.24% in February. The unadjusted U.6 unemployment rate was 8.10% in May 2017, versus 8.15% (rounds to 8.1%) in April, 8.94% in March and 9.54% in February.

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.

The monthly count of short-term discouraged workers in May 2017 (never seasonally-adjusted) declined by 100,000 (-100,000) to 355,000, having declined in April declined by 5,000 to 455,000, having declined by 62,000 (-62,000) to 460,000 in March and having dropped 10,000 (-10,000) to 522,000 in February, with total marginally-attached workers declining by 59,000 (-59,000) in May 2017, versus drops of 61,000 (-61,000) in April 2017, 128,000 (-128,000) to 1,595,000 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 May 2017 declined to 22.0%, versus 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 detail in the following section.

SHADOWSTATS-ALTERNATE UNEMPLOYMENT RATE MEASURE. 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 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. Net of the currently-defined level of "marginally attached workers," which includes the currently-defined and undercounted "discouraged workers" category used in the U.6, which declined

to 1.475 million in May 2017, those not in the labor force currently wanting a job, exclusive of the marginally attached, was 4.501 million in May 2017, versus 4.036 million in April, (a total of 5.976 million in May 2017, versus 5.560 million in April). Seasonally-adjusted the aggregate May 2017 number was 5.561 million, versus 5.707 million in April.

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. Beyond 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 *Executive Summary*, 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 5* to *7*). 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 8* to *13* there and in the *ECONOMY* section of *No. 859 Special Commentary*.

Headline May 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 May 2017 declines to 22.0%, from 22.1% in April, versus 22.5% in March 2017, 22.7% in February, and 22.9% in January. Built upon the headline U.3 estimate, the May 2017 ShadowStats reading was at its lowest reading since August 2010, down by 130 basis points or 1.3% (-1.3%) from the 23.3% series high last seen in December 2013.

In contrast, the April 2017 headline U.3 unemployment rate of 4.3% was down by 570 basis points or by 5.7% (-5.7%) from its peak of 10.0% in October 2009, back to pre-2000 recession levels. The broader U.6 unemployment measure of 8.4% in May 2017, was down by 880 basis points or 8.8% (-8.8%) from its peak of 17.2% April 2010, back to pre-2007 recession levels.

A subscriber recently 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 4* in the *Executive Summary*), there indeed is a noticeable divergence in the ShadowStats series versus U.6 and U.3, with the BLS headline U.3 unemployment measures generally headed lower against a down-trending U.6 and a higher-level, relatively stagnant, but minimally down-trending ShadowStats number.

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% 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%.

TRADE DEFICIT (April 2017)

Revised Trade Numbers of Recent Years Showed Deeper Deficits, While the May 2017 Deficit Widened Sharply. In the context of annual benchmark revisions detailed in the *Opening Comments*, monthly and quarterly trade deficits generally deepened in revision, since January 2014. On a quarterly

basis, the real merchandise trade deficit, which directly impacts headline reporting of Gross Domestic Product (GDP), widened minimally to a revised annualized deficit of $745.4 [previously $739.8] billion in first-quarter 2017, versus $753.1 [previously $746.4] billion in fourth-quarter 2016, where both quarters were worse than any other quarter back to third-quarter 2007. That said, based on initial headline detail for April 2017, second-quarter 2017 is on track for an annualized real deficit of $762.6 billion, which would be the worst showing since second-quarter 2007 (see *Graph BM-2* in the *Opening Comments*).

Nominal April 2017 Trade Deficit. Again, in the context of the annual benchmark revisions, the Bureau of Economic Analysis (BEA) and the Census Bureau reported June 2nd, that the nominal (not adjusted for inflation), seasonally-adjusted monthly trade deficit in goods and services for April 2017 widened on a balance-of-payments basis by $2.334 billion, to $47.617 billion, versus a benchmark-revised deficit of $45.383 [pre-benchmark $43.706] in March. The deterioration in the monthly deficit reflected a decline of $0.483 billion in monthly exports, exacerbated by a $1.851 billion increase in imports. The headline April 2017 deficit also widened sharply, by $9.195 billion, versus the benchmarked, year-ago $38.422 billion trade shortfall for April 2016.

The dominant factors in the net monthly changes to the April trade balance were increasing imports of consumer goods (cell phones) and capital goods, with some offset from declining crude oil imports. Export detail showed a decline in consumer goods (largely automotive).

Energy-Related Petroleum Products. Also revised, April 2017 imported oil prices declined by 1.9% to $45.40 per barrel, versus $46.26 per barrel in March 2017, and up by 53.7% from $29.53 per barrel in April 2016. Separately, not-seasonally-adjusted physical oil-import volume in April 2017 averaged 7.641 million barrels per day down from 8.383 million in March 2017, but up from 7.629 million in April 2016.

Ongoing Cautions and Alerts on Data Quality. Potentially heavy distortions in headline data continue from 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. Separately, the monthly trade data can be influenced by irregular shipping patterns, affected by factors ranging from labor disruptions to unusual weather conditions.

Real April 2017 Trade Deficit. Again, in the context of annual revisions discussed in the *Opening Comments* (see *Graphs BM-1* and *BM-2*), seasonally-adjusted and in real terms, net of oil-price swings and other inflation (2009 chain-weighted dollars, as used in GDP deflation), the April 2017 merchandise trade deficit (no services) widened to $63.549 billion, versus a benchmarked $60.680 [previously $59.991] billion in March 2017, and $58.400 [previously $57.746] billion in April 2016.

Last year, the benchmarked-revised annualized deficit was $735.3 [previously $729.6] billion for first-quarter 2016, $739.4 [$735.2] billion for second-quarter 2016, $710.4 [$681.4] billion for third-quarter 2016 and $753.1 [$745.4] 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 [previously $722.9] billion, versus $716.4 [$711.5] billion in 2015. The 2016 annual trade shortfall was the worst since 2008.

The revised First-quarter 2017 deficit narrowed minimally to an annual rate of $746.4 [$739.8] billion. Based solely on initial April 2017 reporting, the second-quarter 2017 deficit is on an early track for $762.6 billion, which would be the worst quarterly showing since second-quarter 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.

CONSTRUCTION SPENDING (April 2017)

In the Context of an Upside Revision to February and a Tumble in March Activity, Real Spending Remained 21.3% (-21.3%) Shy of Recovering Its Pre-Recession Peak. The construction spending series remains highly volatile and subject to unstable and extraordinarily-large monthly revisions. Nominal April 2017 activity declined by 1.4% (-1.4%) month-to-month, on top of a large upside revision to March activity and a minimal revision to February, which moved initial March 2017 from year-to-year nominal growth of 3.6% to 5.0%, with an apparent, increased first-quarter 2017 quarterly real growth rate, while showing an early-trend for a second-quarter contraction. Those numbers likely are of little substance, though, all subject to next month's annual benchmark revision on July 3rd, coincident with headline reporting for May 2017. Again, this series remains extraordinarily unstable and subject to large revisions.

Real construction spending has been broadly flat for the last year or so, holding in low-level, stagnating non-recovery. April 2017 activity remained shy of recovering its June 2006 pre-recession peak by 21.3% (-21.3%). As shown in accompanying *Graph 28*, annual real change in the headline March 2017, detail, which had been slightly negative, revised into the plus column, along with an annual gain in the April 2017, a negative year-to-year change was seen last in 2016 and otherwise not since the economic collapse into 2009. With the upside revision to March, however real quarterly activity remained positive on both a quarterly and annual basis.

Ongoing Consumer Liquidity Issues Constrain Residential Construction Spending. Last updated in *Special Commentary No. 888* and fully reviewed in *No. 859 Special Commentary*, the extreme liquidity bind besetting consumers continues to constrain personal-consumption expenditures and related residential real-estate activity, including construction. Without sustainable growth in real income, and without the ability and/or willingness to take on meaningful new debt, in order to make up for the income shortfall, the U.S. consumer remains unable to support regularly-positive growth in broad economic activity.

Where the private housing sector never recovered from the business collapse of 2006 into 2009, there remains no chance of a near-term, sustainable turnaround in the dominant residential-construction category of construction spending—irrespective of stronger, recent upside revisions to the series—without a fundamental upturn in consumer and banking-liquidity conditions.

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.

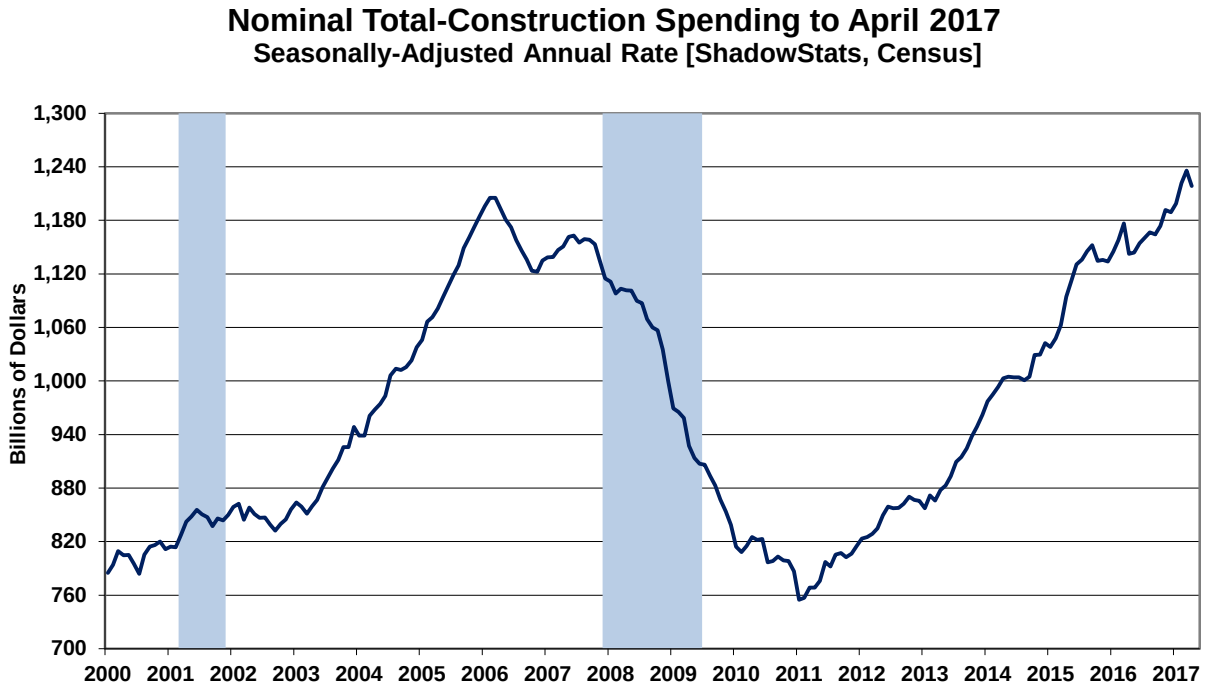
Detailed in *Commentary No. 829*, previously used measures from the Producer Price Index (PPI) lacked historical consistency and did not measure inflation appropriately for the construction-spending series.

Accordingly, ShadowStats constructed the CCD specifically for deflating construction spending. The CCD is a composite of pricing series, weighted by broad industry segment as compiled in the headline construction spending, with consistent historical tabulation back to before 2000. The combined indices reflect price deflators out of National Income (GDP) reporting, with quarterly numbers there interpolated into a smoothed monthly series, in conjunction with privately surveyed monthly cost indicators.

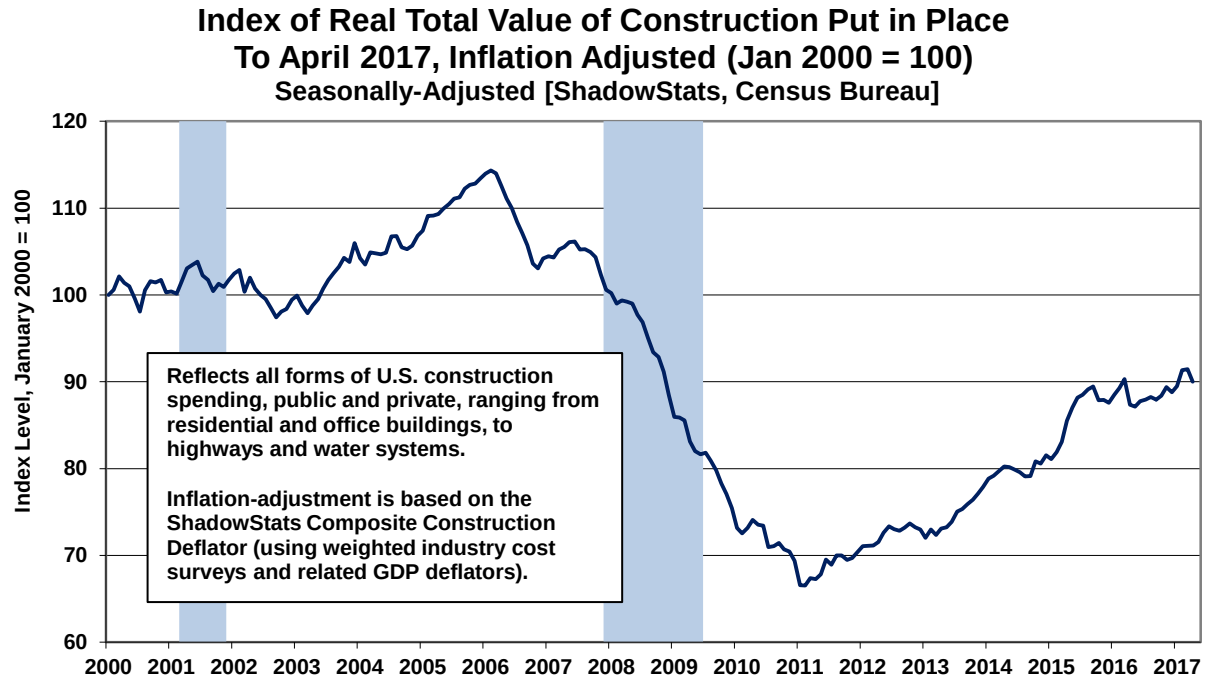
There is no perfect inflation measure, public or private, for deflating construction. For the historical series in the accompanying plots, as shown in *Graphs 14* to *17* in the *Executive Summary*, and in the accompanying *Graphs 27* and *31* in this section, the inflation-adjusted numbers are deflated by the CCD.

[Graphs 26 and 27 follow on the next page]

Graph 26: Total Nominal Construction Spending



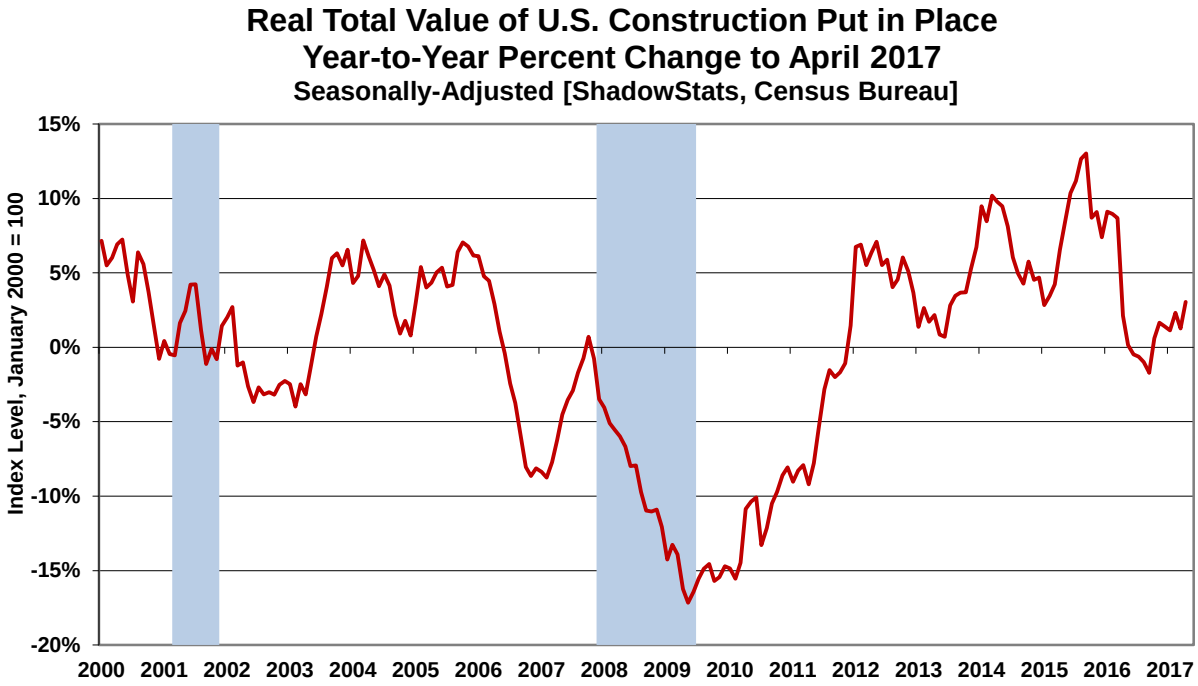
Graph 27: Index of Total Real Construction Spending



Seasonally-adjusted April 2017 CCD month-to-month inflation rose by 0.18%, having gained 1.00% in March 2017 and having declined in February by 0.13% (-0.13%). In terms of year-to-year inflation, the

April 2017 CCD gained 3.48%, following annual gains of 3.17% in March 2017 and 3.14% in February 2017.

Graph 28: Total Real Construction Spending, Year-to-Year Percent Change



The Data and Graphs Here Reflect Monthly Levels, Not Smoothed, Moving Averages. Unlike the housing-starts and home-sales series—where ShadowStats smooths the irregular and continually-revised monthly data with accompanying plots of smoothed, six-month moving averages—the construction spending series is shown here only on a monthly basis, as published. While the spending series is extremely volatile in its monthly revisions, it tends to remain reasonably smooth in the residual month-to-month change. Note the comparative monthly volatilities in the non-smoothed *Graphs 31* and *32*.

Headline Reporting for April 2017. In the context of a sharp upside revisions to the levels of March 2017 activity and a minimal revision to February 2017, the Census Bureau reported June 1st that the headline, total value of construction put in place in the United States for April 2017 was $1,218.5 billion on a seasonally-adjusted but not-inflation-adjusted, annual-rate basis.

That estimate was down month-to-month by a statistically-significant 1.4% (-1.4%) +/- 1.2% (all confidence intervals are at the 95% level), versus an upwardly-revised $1,235.5 [previously $1,218.3] billion in March 2017. Net of the highly-unstable, prior-period revisions, April activity would have been "unchanged" at 0.0% month-to-month.

In turn, March 2017 showed a revised 1.1% gain [previously a decline of 0.2% (-0.2%)] versus a minimally, upwardly revised February 2017. In turn, February 2017 showed a revised monthly gain of 1.9% [previously 1.8%, initially a gain of 0.8%], versus an unrevised $1,198.8 billion in January 2017.

Adjusted for CCD inflation, total real spending in April 2017 fell by 1.6% (-1.6%), versus a revised monthly gain of 0.1% in March and an unrevised February gain of 2.0%.

On a year-to-year annual-growth basis, April 2017 nominal construction spending rose by a statistically-significant 6.7% +/- 1.5%, following revised annual gains of 5.0% [previously 3.6%] in March 2017 and a revised 5.5% [previously 5.4%, initially 3.0%] in February 2017. Net of construction costs indicated by the CCD, the annual growth in total real construction rose by 3.1% in April 2017, against upwardly revised gains of 1.3% in March 2017 and 2.3% in February 2017.

The statistically-significant, nominal monthly contraction of 1.4% (-1.4%) in aggregate April 2017 spending, versus the revised 1.1% gain in aggregate March 2017, included a headline monthly contraction of 3.7% (-3.7%) in April 2017 public spending, versus an upwardly-revised gain of 1.6% [previously a contraction] in March 2017. Private construction spending was down by 0.7% (-0.7%) for the month in April 2017, versus an upwardly revised gain of 1.0% [previously "unchanged"] for the month in March 2017. Within total private construction spending, the residential-construction sector activity declined by 0.7% (-0.7%) in April 2017, having increased by an upwardly-revised 2.5% in March 2017, while the nonresidential sector showed a monthly decline of 0.6% (-0.6%) in April 2017, having declined by a somewhat narrower 0.7% (-0.7%) than previously estimated for March 2017.

Quarterly Real Trends. In the context that the following is subject to benchmark revisions next month, based only on initial April 2017 reporting, second-quarter 2017 annualized real quarterly activity was on early track for a quarterly contraction of 3.2% (-3.2%), up by 3.0% year-to-year.

First-quarter 2017 of this highly unstable series showed a revised annualized quarterly real gain of 8.8% [previously 6.7%], following an unrevised gain of 3.8% in fourth-quarter 2016. First-quarter 2017 real construction spending showed an initial year-to-year gain of 1.6% [previously 1.1%], having gained a 1.2% in fourth-quarter 2016.

Third-quarter 2016 reporting showed annualized real quarter-to-quarter growth of 2.9%. That followed a second-quarter 2016 contraction of 8.4% (-8.4%), with first-quarter 2016 real construction spending rising at a pace of 7.3%. Going back into 2015, fourth-quarter real construction spending contracted at an annualized pace of 5.4% (-5.4%), following annualized quarterly gains of 10.1% in third-quarter 2015, 26.0% in second-quarter 2015 and 5.3% in first-quarter 2015.

Graphs 14 to *17* in the *Executive Summary* show comparative nominal and real construction activity for the aggregate series as well as for private residential- and nonresidential-construction and public-construction. Seen after adjustment for inflation, the real aggregate series generally have remained in low-level stagnation, now effectively flat from mid-2015 through first-quarter 2017. Areas of recent relative strength in the major subcomponents generally have flattened out or have begun to turn down anew, after inflation adjustment.

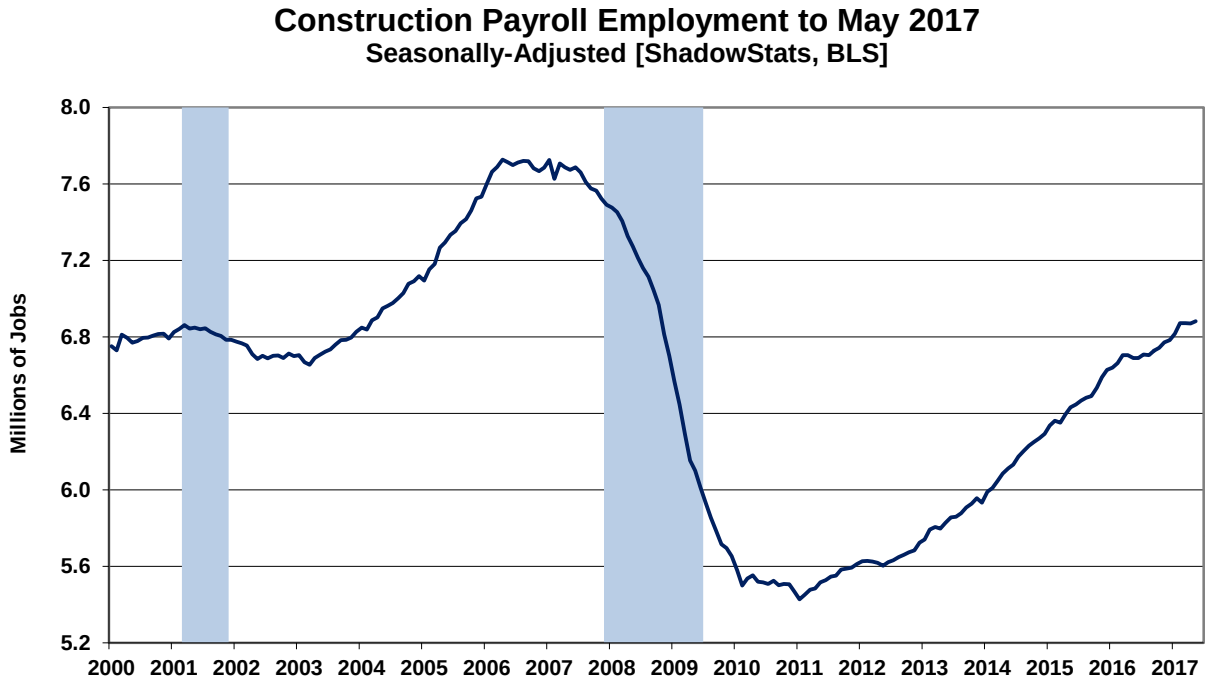
The general pattern of real activity had been one of low-level, up-trending stagnation that now has turned generally flat for a number of quarters. The aggregate nominal detail, before inflation adjustment, is shown in *Graph 26* of this *Reporting Detail*, with the real, inflation-adjusted activity plotted in *Graph 27*, while *Graphs 30* and *31* show the relative patterns of nominal and real activity aggregated by sector.

Construction and Related Graphs. Earlier *Graphs 26* and *27*, and later *Graphs 30* and *31* reflect total construction spending through April 2017, both in the headline nominal dollar terms, and in real terms,

after inflation adjustment. *Graph 27* is on an index basis, with January 2000 = 100.0, where *Graph 28* reflects the same detail in terms of annual change. Adjusted for the CCD, real aggregate construction spending showed the economy slowing in 2006, plunging into 2011, then turning minimally higher in an environment of low-level stagnation, trending lower from late-2013 into mid-2014, then with some boost into early-2015. Activity declined in fourth-quarter 2015, with a fluttering trend that generally flattened and fluttered into late in 2016 to date, with annual growth holding at low levels, as indicated in *Graph 28*.

The pattern of non-recovered, inflation-adjusted activity here—net of the CCD inflation estimates—does not confirm the economic recovery indicated by the headline GDP series (see prior *Commentary No. 889* and the *ECONOMY* section of *No. 859 Special Commentary*). To the contrary, the broad construction reporting, both before (nominal) and after (real) inflation adjustment, generally still shows low-level activity, where aggregate activity never recovered pre-recession highs and, again, has flattened-out anew.

Graph 29: Construction Payroll Employment to Date



Construction-Payrolls Rose Minimally in May, Offset by Downside Revisions to March and April, Activity Still Down 10.9% (-10.9%) from Pre-Recession Peak. Discussed in the earlier section detailing May employment, in the context of largely offsetting downside revisions to construction employment in March and April, May 2017 construction payroll employment rose by 11,000 to 6.881 million jobs. *Graph 29* reflects the just-released headline May 2017 detail. April 2017 employment previously had been estimated at 6.877 million. Net of prior-period revisions, the headline May monthly gain would have been 4,000.

In theory, construction payroll levels should move closely with the inflation-adjusted aggregate construction spending series and the Housing Starts series (the latter measured in units rather than dollars). The recent general pattern in construction has become one of uptrending activity that still

remains shy of recovering its pre-recession high, still broadly consistent with continuing weakness seen in real construction spending and other construction measures, again, albeit uptrending at the moment. While the headline May 2017 level of construction jobs was the highest seen since October 2008, it still remained down from its April 2006 pre-recession series peak by 10.94% (-10.94%).

Where construction payrolls generally had flattened out, albeit somewhat more up-trending post-payroll-benchmarking, such generally has been broadly consistent with patterns of stagnating non-recovery seen in various residential real estate sales and construction activity measures, and with faltering growth patterns seen here in headline real construction spending.

Graphs of Construction Activity. *Graph 30* shows total nominal construction spending, broken out by the contributions from total-public (blue), private-nonresidential (yellow) and private-residential (red) spending. *Graph 31* shows the same breakout as in *Graph 30*, but the detail is in real, inflation-adjusted terms, reflected in constant November 2009 dollars (base month for the PPI), deflated by the *ShadowStats Composite Construction Deflator (CCD)*, as discussed in the earlier *Construction Inflation* section.

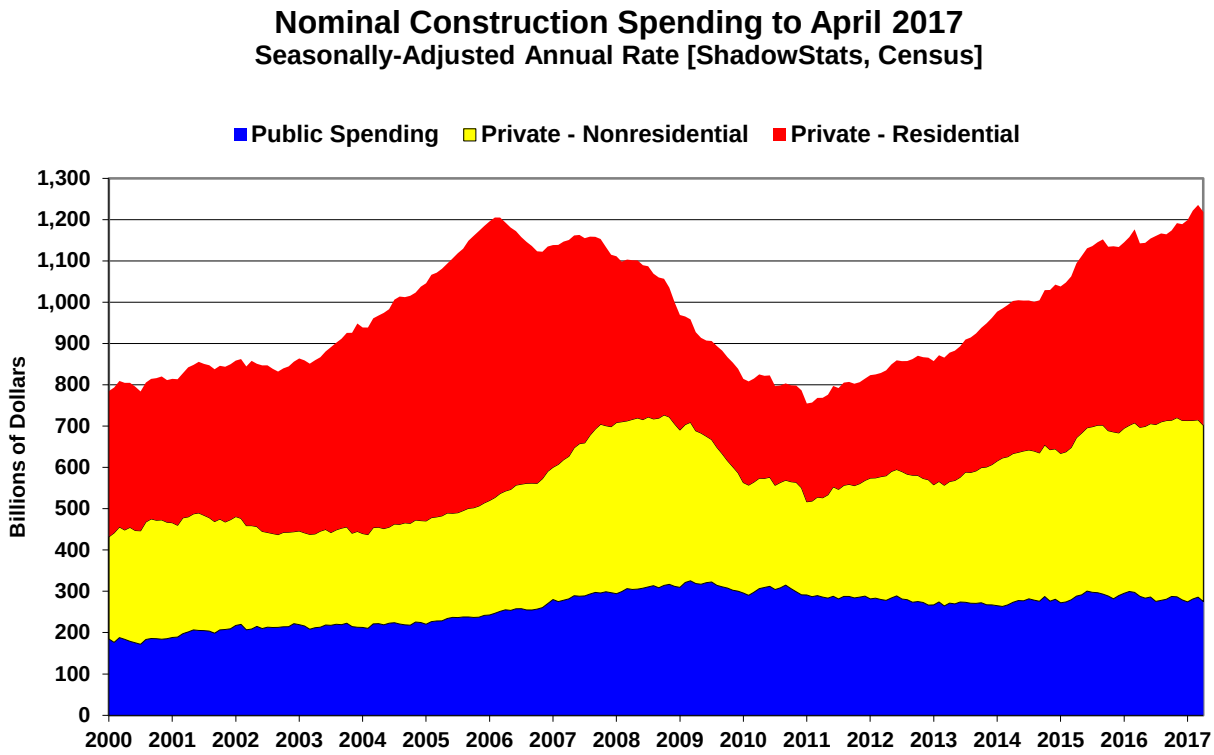
Graphs 32 and *33* cover private residential construction spending, along with housing starts (combined single- and multiple-unit starts) for April 2017 (see *Commentary No. 887*. Keep in mind that the construction spending series is in nominal terms, while housing starts reflect unit volume, which should be parallel with the inflation-adjusted series shown in *Graph 15* of the *Opening Comments* section, *Graph 31* and presumably with the headline construction-payroll data in *Graph 29*.

The final two graphs (*Graphs 34* and *35*) show the patterns of the monthly level of activity in nominal private nonresidential-construction spending and in public-construction spending. Private Non-Residential Construction spending surged beyond its pre-recession nominal peak in 2016, hitting a new high on January 2017, and backing off same through April 2017.

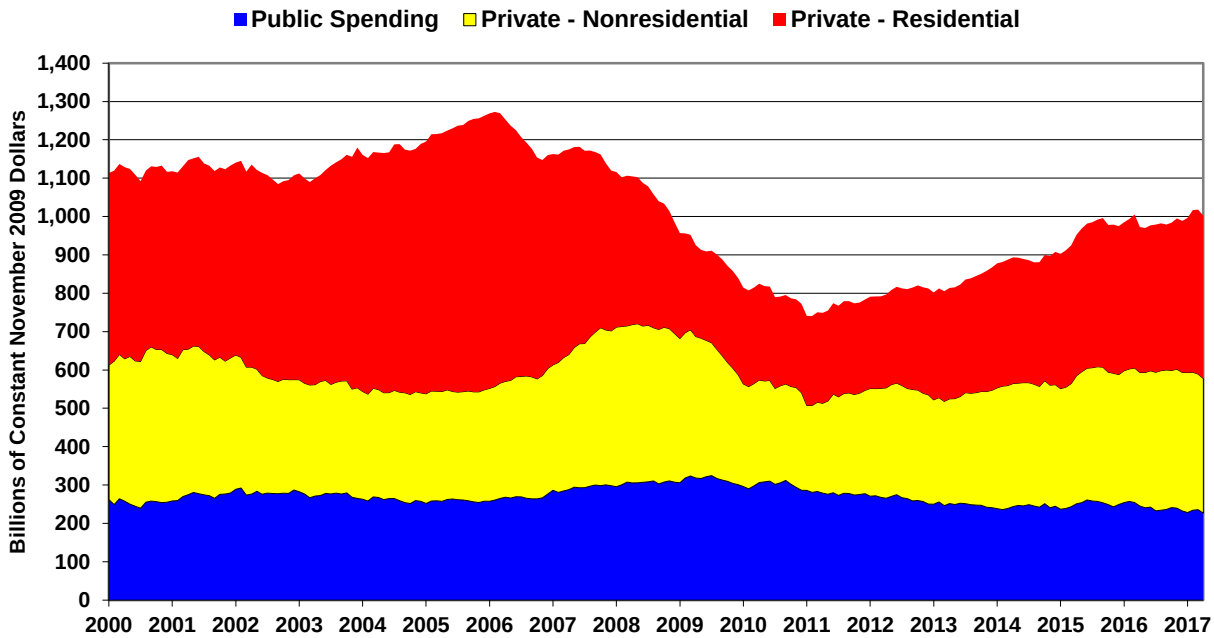
Public Construction spending, which is 98% nonresidential, had continued in a broad downtrend into 2014, with intermittent bouts of fluttering stagnation and then some upturn in 2015. In 2016 and into 2017, the nominal series still appeared to have fluttered into and out of a low-level top, now generally lower, still shy of its pre-recession peak. Viewed net of inflation, in *Graphs 16*, *17* and *31*, both series still appear stalled shy of their pre-recession peaks.

[Graphs 30 to 35 begin on the following page]

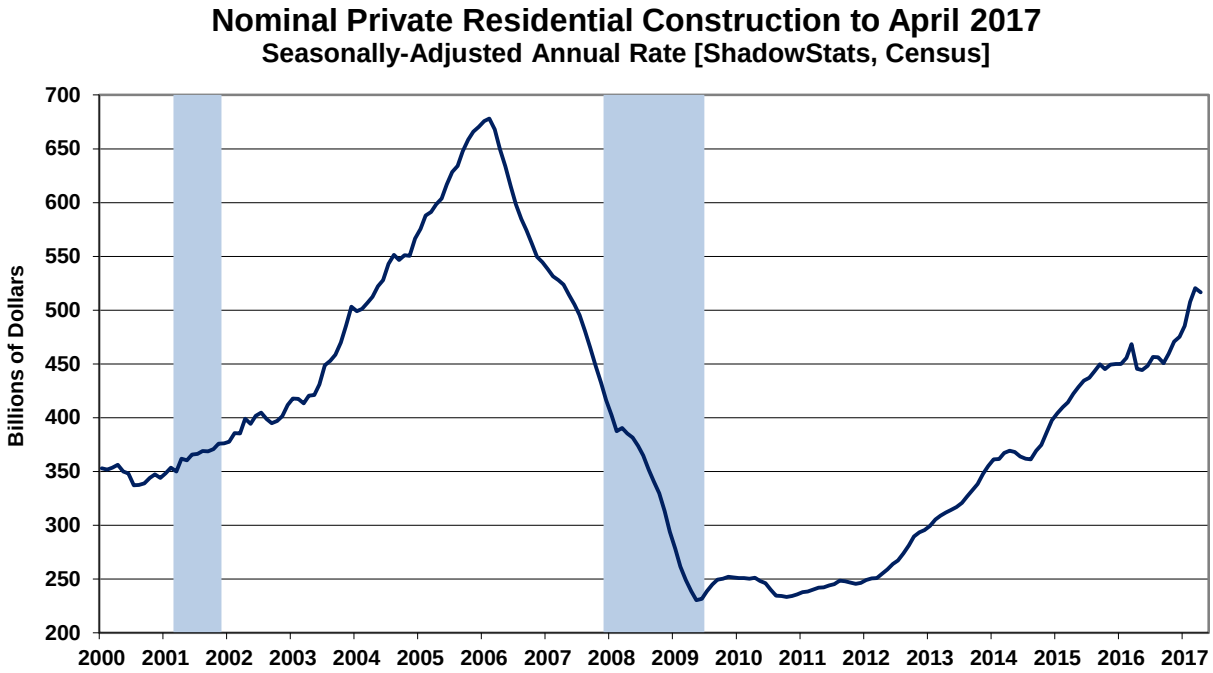
Graph 30: Aggregate Nominal Construction Spending by Major Category to Date



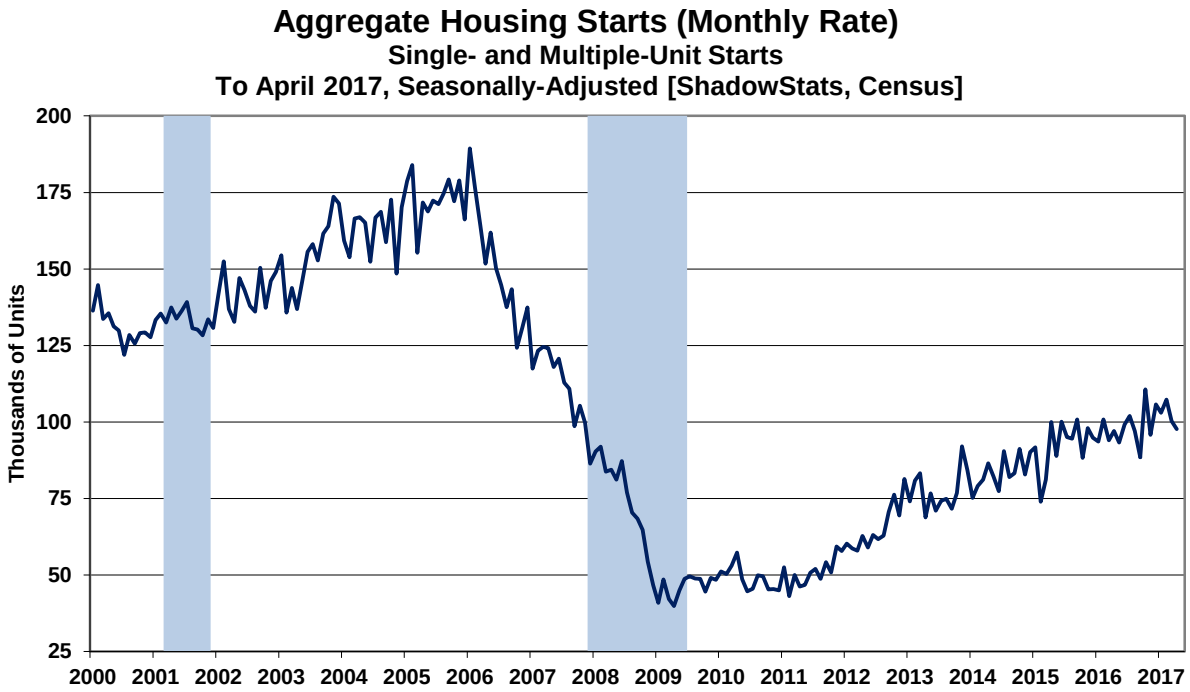
Graph 31: Aggregate Real Construction Spending by Major Category (Billions of November 2009 Dollars)



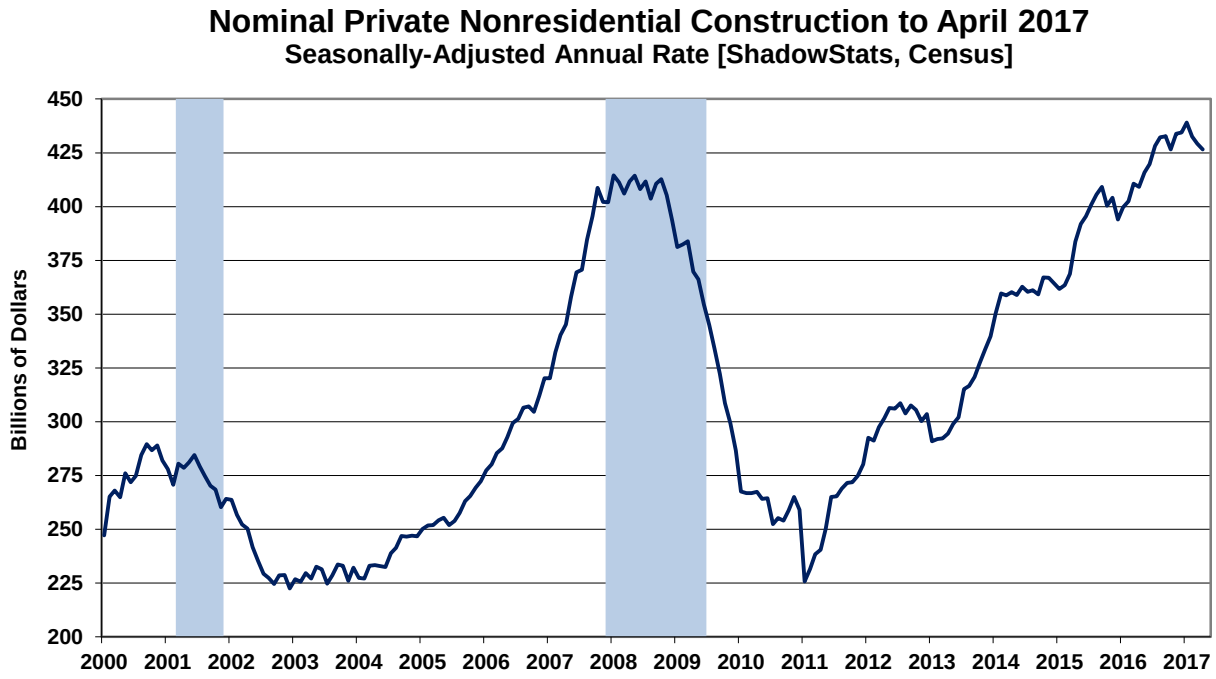
Graph 32: Nominal Private Residential Construction Spending to Date



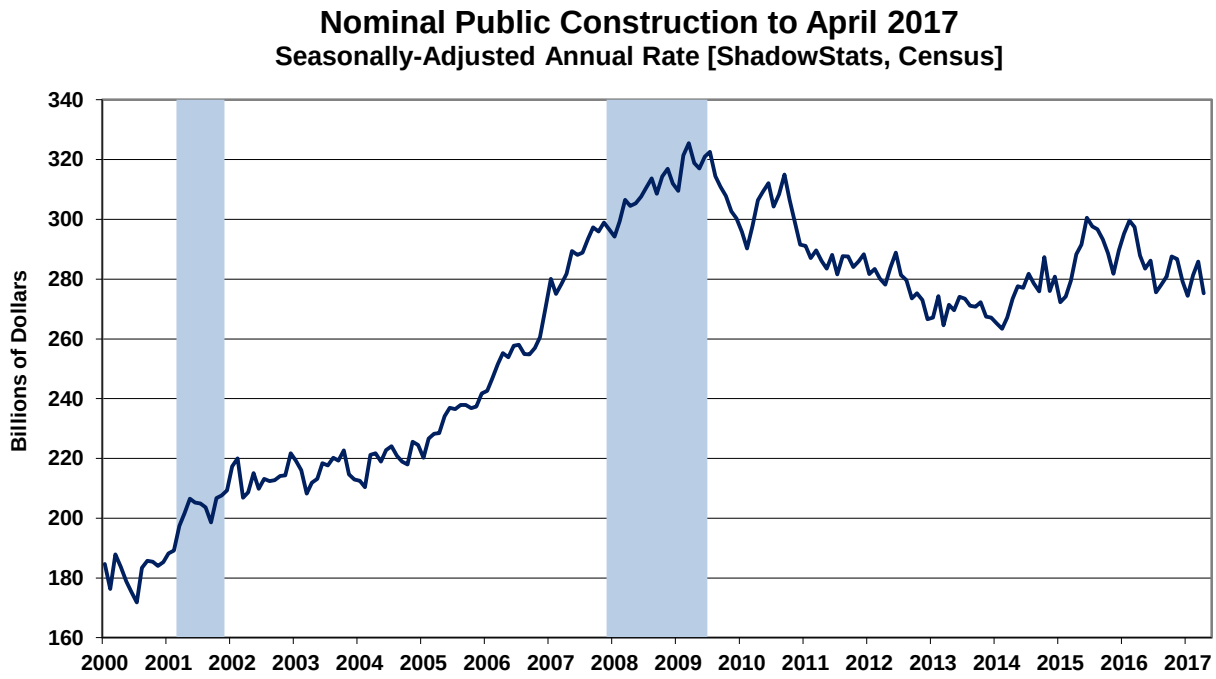
Graph 33: Combined Single- and Multiple-Unit Housing Starts to Date



Graph 34: Nominal Private Nonresidential Construction Spending to Date



Graph 35: Nominal Public Construction Spending to Date



WEEK, MONTH AND YEAR AHEAD

Continued Economic Weakening, Stagnation and Downturn Should Compromise Fed Policies, Pummeling the U.S. Dollar and Boosting the Price of Gold. *[Please Note: Other than for the* Pending Economic Releases *section and the next paragraph, text here has not been changed meaningfully from prior Commentary No. 889* and *Special Commentary No. 888.]* Developing circumstances for the U.S. dollar and related market activity, and for policy out of the Federal Reserve's Federal Open Market Committee (FOMC), will be reviewed in the next *Commentary No. 891* of June 14th.

Otherwise, recent benchmark revisions to the Trade Deficit (see *Opening Comments*, Industrial Production (*Commentary No. 877*), Manufacturers' Shipments (*Special Commentary No. 888*), Housing Starts (*Commentary No. 887*) and Retail Sales (*Commentary No. 882*) broadly have confirmed that recent historical activity has been overstated and/or that it is turning down anew, despite near-term improvement in some headline details, such as the May unemployment rate (see comments in the *Executive Summary*) and April industrial production. Reporting patterns likely will continue to weaken in the next month or so, which should trigger anew financial-market concerns as to the direction of pending Fed policy actions. Adding uncertainty are risks of political surprise, as discussed in *Special Commentary No. 888*. Otherwise, the broad outlook has not shifted.

In the context of the *Opening Special Comments* of *Special Commentary No. 885*, and as discussed in the *Opening Comments* of *Commentary No. 883*, the still-unfolding downshift in economic expectations increasingly should move market expectations for Federal Reserve policy away from rate hikes and the normalization of the Fed's balance sheet, towards renewed quantitative easing. The problem for the U.S. central bank 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 is one of the ongoing primary issues preventing the return of U.S. economic activity to normal functioning.

The outlook for future FOMC activity was updated in the *Hyperinflation Watch* of *Commentary No. 886*, and remains otherwise as reviewed in the *Opening Comments* and *Hyperinflation Watch* of *Commentary No. 880*, and as previously reviewed in *Commentary No. 873*. The circumstances and outlook remain as broadly outlined in *No. 859 Special Commentary*.

As reflected in common experience, actual U.S. economic activity generally continues in stagnation or downturn, never having recovered fully its level of pre-economic-collapse (its pre-2007-recession peak). While the latest headline GDP shows economic expansion of 12.5% since that series purportedly recovered its 2007-pre-recession high in 2011, no other "recovered" economic series has come close to showing that expansion either in terms of magnitude or in the purported brevity of the depression. Most of the better-quality series have remained in continuing, not-recovered status, in a period of protracted downturn that now rivals that of the Great Depression (see *Commentary No. 887*, and *Commentary No.*

869). With intensifying signals, near-term economic woes, the FOMC soon should come under pressure to shift policies, once again, reverting to some form of quantitative easing, in an effort to address related, intensifying solvency risks in the domestic banking system.

Discussed in *No. 859 Special Commentary*, the Trump Administration continues to face extraordinarily difficult times, but 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 and strength in the U.S. dollar. Any forthcoming economic stimulus faces a nine-month to one-year lead-time, once in play, before it meaningfully affects the broad economy. 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 will not happen without the cooperation of Congress.

Prior General Background. *No. 859 Special Commentary* updated near-term economic and inflation conditions, and the outlook for same, including the general economic, inflation and systemic distortions evolving out of the Panic of 2008 that have continued in play, and which, again, need to be addressed by the new Administration in the immediate future (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 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*).

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 had been making loud noises of continuing to raise interest rates, in order to contain an overheating economy, but that "overheating" activity has started to fade. 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: *Special Commentary No. 885*, *Commentary No. 869*, *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 the long-standing 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 (Recent Coverage of Specific Series or with Special Features):

Commentary No. 889 reviewed the second-estimate, first-revision to first-quarter 2017 GDP, and the April 2017 estimates of New Orders for Durable Goods and New- and Existing Home Sales.

Special Commentary No. 888 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 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.

Commentary No. 886 reviewed the headline details of the April 2017 CPI and PPI detail, along with headline reporting of nominal and real Retail Sales, real Average Weekly Earnings and regular monthly review of U.S. dollar conditions and prospects.

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

Commentary No. 884 reviewed the March 2017 details for the U.S. Trade Deficit and Construction Spending and the Conference Boards' reporting of April 2017 Help Wanted OnLine.

Commentary No. 883 covered the headline detail for the "advance" or first-estimate of first-quarter GDP, along with an update to *Consumer Liquidity Conditions*.

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

Commentary No. 881 reviewed the prior March 2017 Industrial Production, Housing Starts and the Cass Freight Index™, along with an economic update in advance of the initial first-quarter 2017 GDP estimate.

Commentary No. 880 detailed the prior March 2017 headline reporting the of both Real and Nominal Retail Sales, Real Earnings, the CPI, the PPI and updated Consumer Liquidity, where mounting stresses on consumer income and credit are signaling major economic issues ahead.

Commentary No. 879 covered March 2007 Employment and Unemployment, Help-Wanted Advertising and an update on monetary policy and Money Supply M3 (the ShadowStats Ongoing Measure).

Commentary No. 877 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 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 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™.

Commentary No. 873 discussed prospects for future tightening and/or a return to quantitative easing by the FOMC, along with the prior review of the February 2017 Residential Construction reporting.

Commentary No. 872 offered some initial comment on the FOMC rate hike, in conjunction with the review of last month's February 2017 Retail Sales (real and nominal), Real Earnings and the CPI and PPI.

Commentary No. 871 covered prior reporting of February Labor Conditions, updated Consumer Liquidity and the ShadowStats Ongoing M3 Measure for February 2017, and a revised FOMC outlook.

General Commentary No. 867 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 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 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. The GAAP-detail will be reviewed in a *Special Commentary*.

No. 859 Special Commentary reviewed and previewed economic, financial and systemic developments of the year passed and the year or so ahead.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. With some historical detail updated recently *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 to understate inflation and to overstate economic activity—as generally viewed in the common experience of Main Street, U.S.A.—ongoing headline reporting issues are tied largely to systemic distortions of monthly seasonal adjustments.

Data instabilities—induced partially by the still-evolving economic turmoil of the last 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). 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 year or two of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series (see *Commentary No. 669*). John Crudele of the *New York Post* has continued his investigations in reporting irregularities: *Crudele Investigation*, *Crudele on Census Bureau Fraud* and *John Crudele on Retail Sales* (worth a review in the context of the recently-published 2017 retail sales benchmarking).

PENDING ECONOMIC RELEASES: Producer Price Index—PPI (May 2017). The Bureau of Labor Statistics (BLS) will release the May 2017 PPI on Tuesday, June 13th, with detail covered in *Commentary No. 891* of June 14th. Odds favor negative wholesale inflation on the goods side of the reporting, perhaps down by 0.3% (-0.3%), plus-or-minus, due to negative seasonal-factor adjustments softening the already negative unadjusted monthly-price gains of petroleum-related products. The dominant services sector, however, often provides a counter-move to the hard-inflation estimate on the goods side. Such comes 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 *Commentary No. 887*, where, again, the services component could offset any weakness in the headline goods inflation.

Unadjusted oil prices declined in May 2017, as did wholesale gasoline prices. Based on the two most-widely-followed oil contracts, monthly-average oil prices rose fell by 3.7% (-3.7%) and 4.9% (-4.9%). That was accompanied by a 4.5% (-4.5%) decline in unadjusted, monthly-average wholesale gasoline prices (Department of Energy). Where PPI seasonal adjustments for energy costs in May are negative, a petroleum-related monthly decline should lead a drop month-to-month drop in the adjusted Final Demand Goods component of the PPI.

Consumer Price Index—CPI (May 2017). The Bureau of Labor Statistics (BLS) will release the May 2017 CPI on Wednesday, June 14th, which will be covered in *Commentary No. 891* of that date. The headline May CPI-U likely will be unchanged month-to-month, plus-or-minus, in the context of the month-to-month decline in gasoline prices largely being exacerbated by sharply negative seasonal adjustments. Headline, unadjusted year-to-year annual inflation for May 2017 likely will notch lower to about 2.0%, versus 2.2% in April 2017.

Downside Monthly Inflation Impact from Easing Gasoline Prices and Negative Seasonal Adjustments. Average gasoline prices decline in May 2017 by 1.00% (-1.00%) for the month on a not-seasonally-adjusted basis, per the Department of Energy. Where BLS seasonal adjustments to gasoline prices in May are sharply negative, that should lead to seasonally-adjusted numbers offering a net-negative contribution of roughly 0.2% (-0.2%) to the headline monthly change in the CPI-U. Boosted, though, by higher food and "core" (net of food and energy) inflation, a headline monthly CPI-U reading "unchanged" is a reasonable estimate, plus-or-minus.

***Annual Inflation Rate*. Noted** in *Commentary No. 886*, year-to-year, CPI-U inflation would increase or decrease in May 2017 reporting, dependent on the seasonally-adjusted month-to-month change, versus the adjusted, headline gain of 0.19% in May 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 May 2017, the difference in May's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the April 2017 annual inflation rate of 2.20%. Given an estimate of a seasonally-adjusted "unchanged" monthly May 2017 CPI-U, that would leave the annual CPI-U inflation rate for May 2017 at about 2.0%, plus-or-minus, depending on rounding.

Nominal and Real Retail Sales (May 2017). The Census Bureau will release its "advance" estimate of May 2017 nominal (not-adjusted-for-inflation) Retail Sales on Wednesday, June 14th, coincident with the BLS's release of the May CPI. Accordingly, the detail on both the nominal and real (adjusted-for-inflation) Retail Sales both will be discussed in *Commentary No. 891* of that date.

Where consensus expectations likely will favor a nominal monthly gain, underlying weakness continues to mount in anecdotal evidence. With consumer inflation likely to be flat, plus-or-minus, headline real retail sales activity could go minimally either way against the nominal reporting. Nonetheless, headline nominal sales for May should be weaker than expected, with a fair bet for downside revisions to recent headline activity.

Per the updated *Consumer Liquidity Conditions* in *Special Commentary No. 888*, 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 (May 2017). The Federal Reserve Board will publish its estimate of May 2017 Industrial Production activity on Thursday, June 15th, with coverage in *Commentary No. 892* of that date. In the context of negative benchmark revisions to New Orders for Durable Goods and soft April reporting of same (see *Special Commentary No. 888* and *Commentary No. 889*), production is a good bet to show a month-to-month decline in May 2017 as well as some downside revision to activity in recent months. Consensus expectations are likely to be on the upside of flat.

Residential Construction—Housing Starts (May 2017). The Census Bureau will release May 2017 residential construction detail, including Housing Starts, on Friday, June 16th, to be covered in *Commentary No. 893* of that date. In line with common-reporting experience of recent years, monthly results are likely to be unstable and not statistically meaningful, holding in a general pattern of down-trending stagnation. That said, in the wake of the nonsensical extreme swings in recent months and relatively meaningless annual benchmark revisions, almost anything remains possible in this unstable series, despite what likely still will be positive consensus expectations for the headline detail.

Irrespective of the generally meaninglessness of that headline detail, the broad pattern of housing starts still should remain consistent with the low-level, stagnant activity, as seen at present, where last month's April 2017 activity was down by 48% (-48%) from recovering the pre-recession high of the series. That stagnation is particularly evident with the headline detail viewed in the context of a six-month moving average. Again, this series remains subject to regular and extremely-large, prior-period revisions.

Per the updated *Consumer Liquidity Conditions* in *Special Commentary No. 888*, 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 demand for residential construction.

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