

PUBLIC COMMENTARY ON UNEMPLOYMENT MEASUREMENT

June 8, 2016

The following material largely was excerpted from Regular Commentary No. 810 of June 5, 2016.

ALTERNATIVE UNEMPLOYMENT MEASUREMENT

Counting All Discouraged/Displaced Workers, May 2016 Unemployment Rose to About 23.0%.

Discussed frequently in the regular ShadowStats *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 U.S. government's headline unemployed (U.3), an individual has to have looked actively for work within the four weeks prior to the unemployment survey conducted for the Bureau of Labor Statistic (BLS). If the active search for work was in the last year, but not in the last four weeks, the individual is considered a "discouraged worker" by the BLS, and not counted in the headline labor force.

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

In the ongoing economic collapse into 2008 and 2009, and the non-recovery thereafter, the broad drop in the U.3 unemployment rate from its headline peak of 10.0% in 2009, to the May 2016 headline 4.7%, was due largely to the unemployed giving up looking for work (common in severe economic contractions and major economic displacements). Those giving up looking for work are redefined out of headline reporting and the labor force, as discouraged workers. The declines in the headline unemployment rate often reflect that, as opposed to unemployed individuals finding new and gainful employment, as was reflected in the headline May 2016 data.

As new discouraged workers move regularly from U.3 into U.6 unemployment accounting, those who have been "discouraged" for one year also are dropped from the U.6 measure. As a result, the headline

U.6 measure has been declining along with headline U.3 for some time, but those being pushed out of U.6 still are estimated in the ShadowStats-Alternate Unemployment Measure, which has remained relatively steady, near its historic-high rate for the last couple of years.

Moving on top of U.3, the broader U.6 unemployment rate—the government’s broadest unemployment measure—includes only the short-term discouraged workers (those marginally attached to the labor force). Separately, the U.6 measure also includes part-time workers for economic reasons, people looking for but unable to find full-time unemployment. The still-broader ShadowStats-Alternate Unemployment Measure includes an estimate of all discouraged workers, including those discouraged for one year or more—those who effectively have been displaced by circumstances beyond their control—as the BLS used to define and measure the series more broadly, before 1994.

Again, when the headline unemployed become “discouraged,” they are rolled over from U.3 into U.6. As the headline, short-term discouraged workers roll over into long-term discouraged status, they move into the ShadowStats measure, where they remain. Aside from attrition, they are not defined out of existence for political convenience, hence the longer-term divergence between the various unemployment rates. The resulting difference here is between headline-May 2016 unemployment rates of 4.7% (U.3) and 22.3% (ShadowStats).

Graph 1 reflects headline May 2016 U.3 unemployment at 4.69%, versus 4.98% in April 2016; headline May 2016 U.6 unemployment at 9.73%, versus 9.71% in April; and the headline May 2016 ShadowStats unemployment estimate holding at 23.0%, up from 22.9% in April.

Graphs 2 to 3 reflect longer-term unemployment and discouraged-worker conditions. *Graph 2* 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.

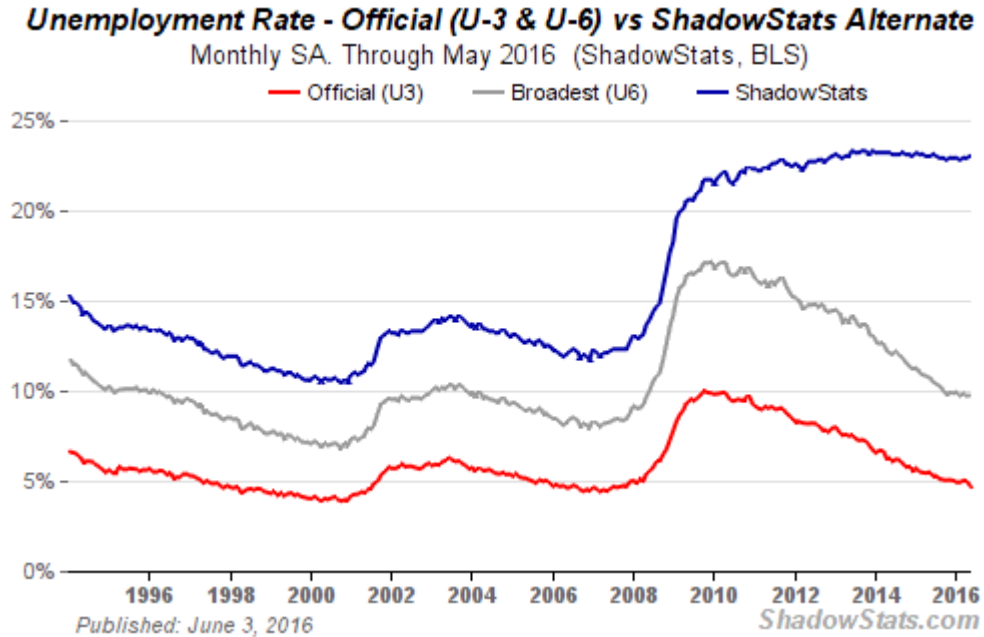
The inverted-scale of the ShadowStats unemployment measure also tends to move with the employment-to-population ratio, which has turned lower in April and May 2016. That ratio still remains near its post-1994 record low, the historic low and bottom since economic collapse (only the period following the series redefinition in 1994 reflects consistent reporting), as shown in *Graph 4*. The labor force containing all unemployed (including total discouraged/displaced 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 estimate.

Shown in *Graph 4*, the May 2016 participation rate (the ratio of the headline labor force to the population) also turned lower for the second month. Both the near-term Employment-to-Population Ratio and the Participation Rate appear to have suffered near-term spikes and volatility from a combination of population redefinition in January 2016 and specifically the lack of any consistency or comparability in the seasonally adjusted monthly detail from the source Household Survey so far through May 2016. Unadjusted ratios for these series are running respectively about 0.2% below and 0.1% above the adjusted numbers, with the differences having narrowed in May.

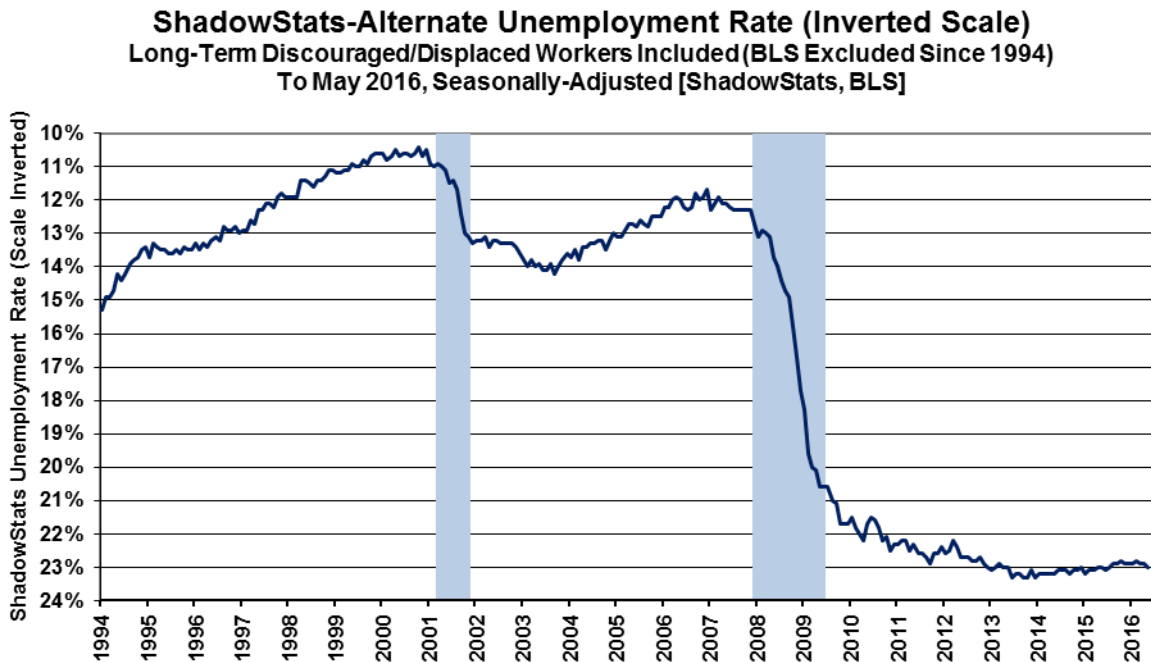
The Participation-Rate remains off the historic low hit in September 2015 (again, pre-1994 estimates are not consistent with current reporting), but it also notched lower again in May. The labor force used in the

Participation-Rate calculation is the headline employment plus U.3 unemployment. As with *Graph 3* of employment-to-population, its holding near a post-1994 low in current reporting indicates problems with long-term discouraged workers, the loss of whom generally continues to shrink the headline (U.3) labor force, and the plotted ratio.

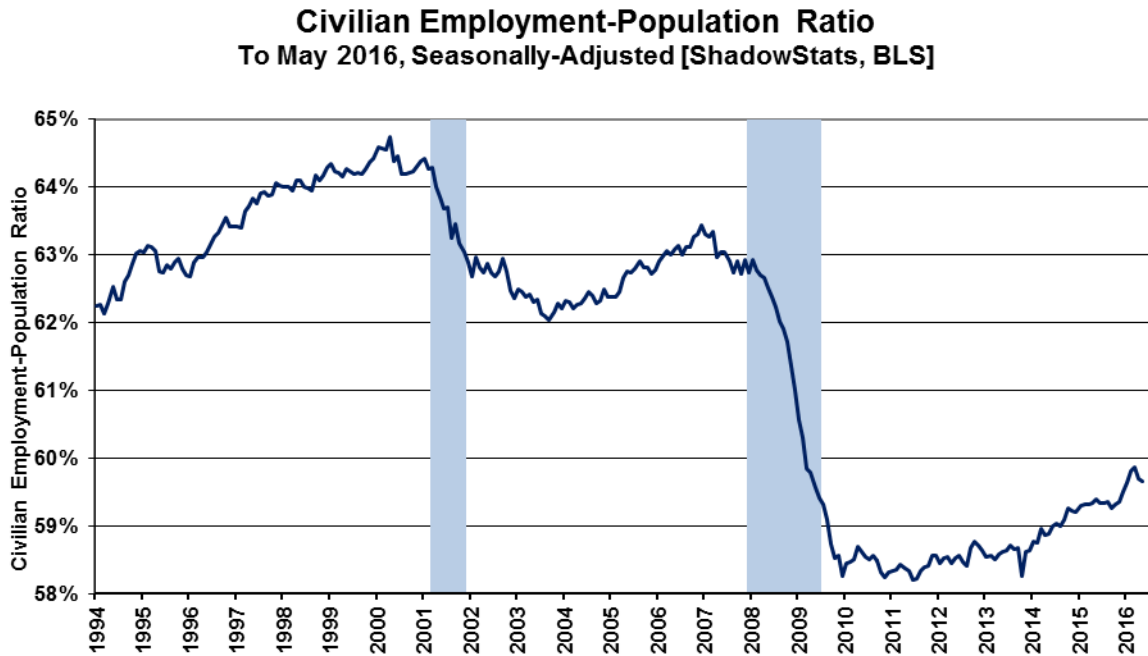
Graph 1: Comparative Unemployment Rates U.3, U.6 and ShadowStats



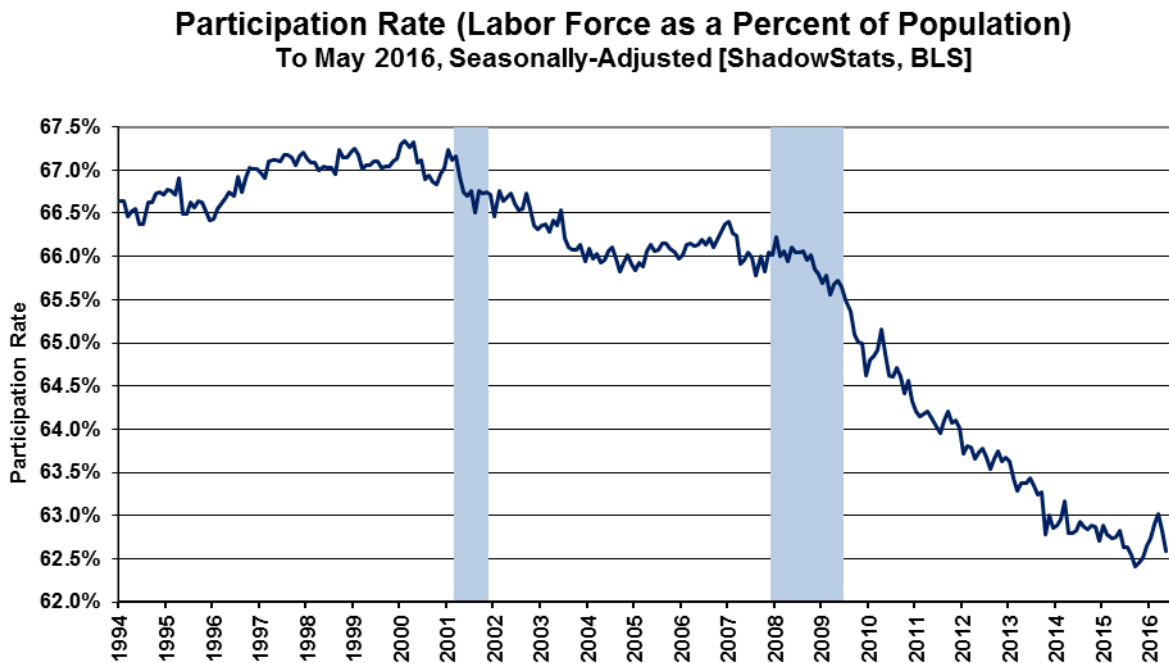
Graph 2: Inverted-Scale ShadowStats Alternate Unemployment Measure



Graph 3: Civilian Employment-Population Ratio



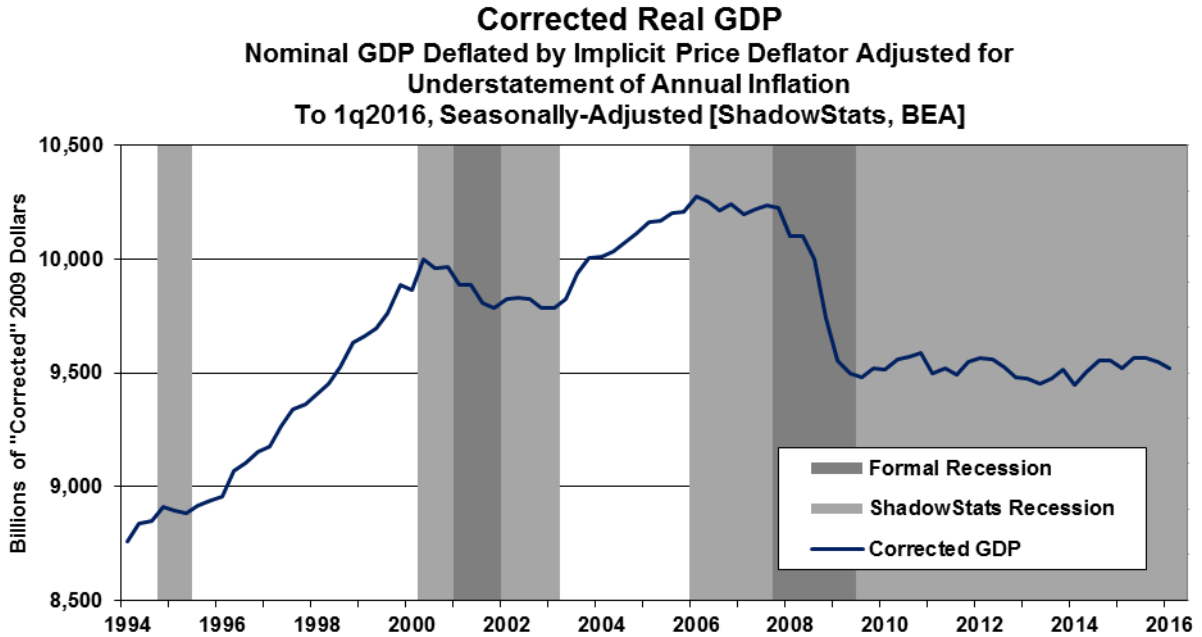
Graph 4: Participation Rate



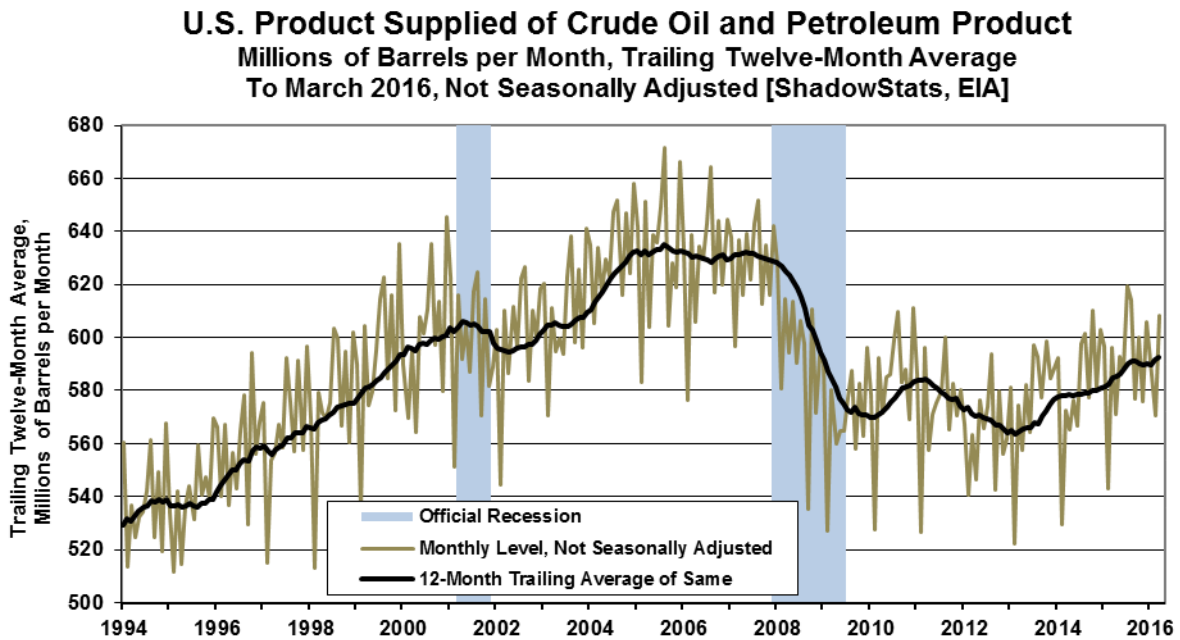
Graphs 1 through 4 reflect data available in consistent detail only back to the 1994 redefinitions of the Household Survey and the related employment and unemployment measures. Before 1994, employment and unemployment data consistent with the May 2016 Household-Survey reporting simply are not available, irrespective of any protestations to the contrary by the BLS. Separately, consider Graph 5,

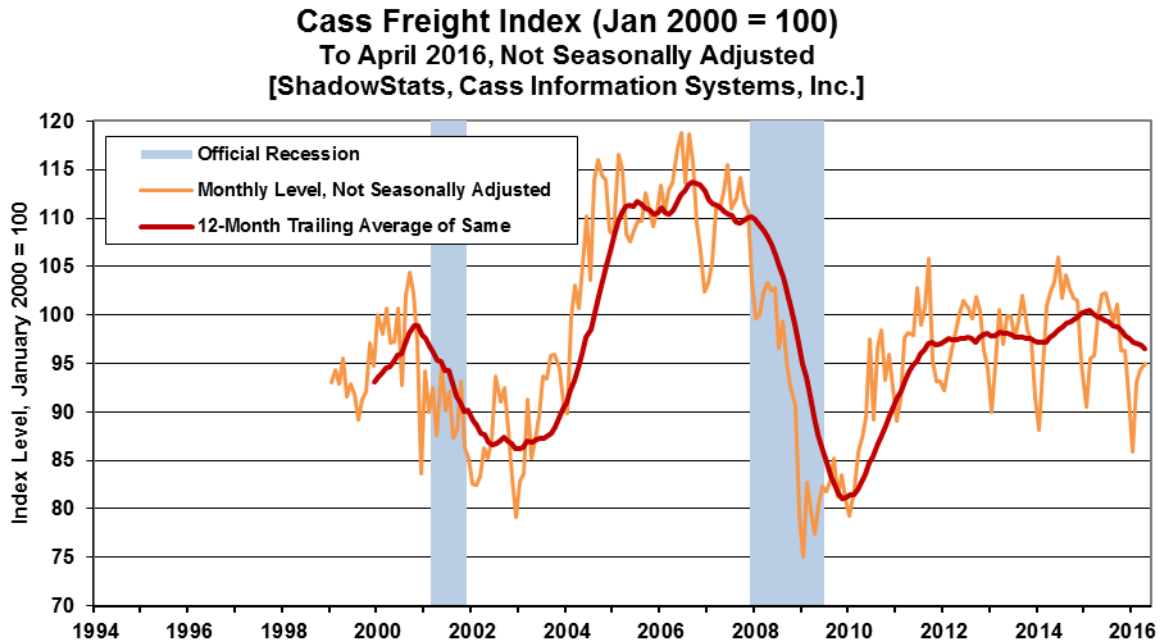
which shows the ShadowStats version of the GDP, also from 1994 but through the May 27th second estimate of first-quarter 2016 activity, where the GDP plot has been corrected for the understatement of inflation used in deflating the headline GDP series (a description of approach and related links are found in [No. 777 Year-End Special Commentary](#)).

Graph 5: Corrected Real GDP through 1q2016, Second Estimate



Graph 6: U.S. Petroleum Consumption to March 2016



Graph 7: CASS Freight Index for North America (2000 - 2016), Indexed to January 2000 = 100

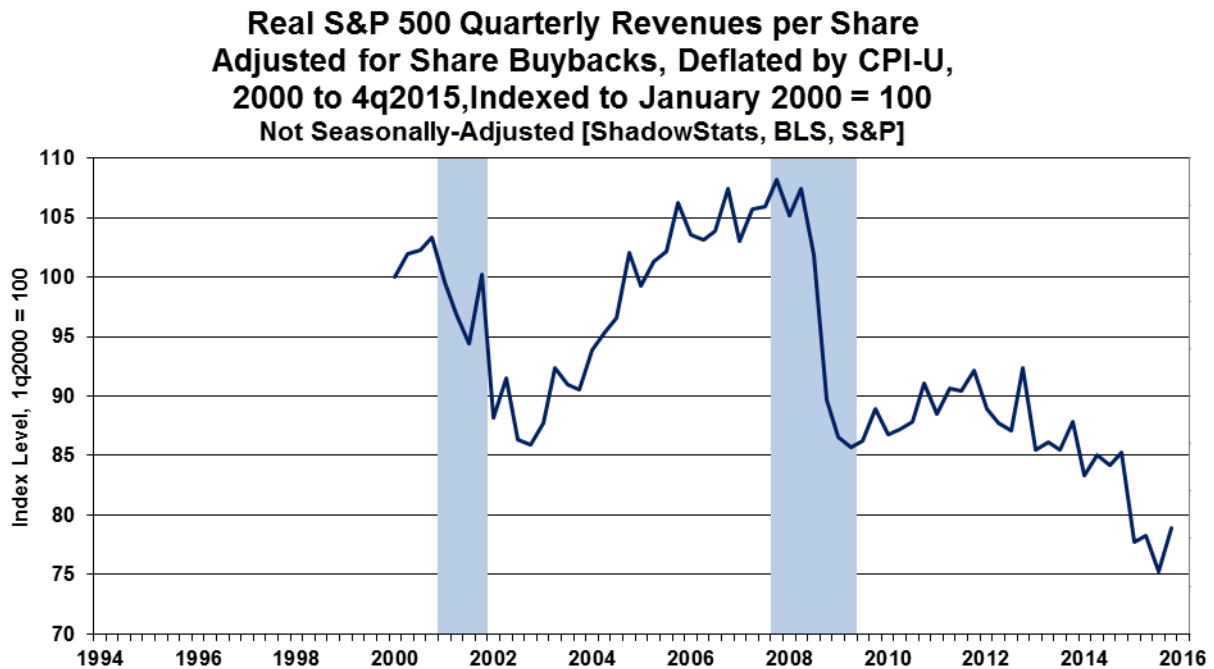
ShadowStats also regularly publishes less biased series from a variety of sources. Shown in *Graph 6*, for example, is the U.S. aggregate consumption of crude oil petroleum product, measured in physical barrel count, is an extraordinarily broad indicator of general activity. The [U.S. Energy Information Agency](#) (EIA), Department of Energy, publishes this detail on a monthly basis.

As with the CASS freight index (*Graph 7*), where the monthly data are not seasonally adjusted, ShadowStats has plotted the petroleum series using a trailing twelve-month average, through headline monthly detail of April 2016. The resulting smoothed pattern reflects the economic collapse into 2009, followed by a protracted period of variable, low-level stagnation, and an upside notch into March 2016. In contrast, the CASS index currently (through April 2016) continues to turn down in its twelve-month trailing average, with deepening year-to-year contractions on a monthly basis.

In particular, the broad patterns of activity seen in the weakened employment measures in *Graphs 2* and *3* generally are mirrored in *Graph 5* of the “corrected” GDP. They also are largely consistent with the post-1994 period shown in *Graph 6* of petroleum consumption, *Graph 7* of the CASS Freight Index and *Graph 8* of real S&P 500 revenues, as estimated by ShadowStats and previously published and described in [No. 777 Year-End Special Commentary](#).

The graphic detail on the [Cass Freight Index](#)[™], a measure of North American freight volume, is calculated by, and used with the permission of Cass Information Systems, Inc. Few measures better reflect the actual flow of goods in commerce than freight activity. *Graph 8* of S&P 500 revenues usually is plotted with quarterly data beginning in 2000, but the time scale of the graph was shifted here back to 1994 to show the S&P 500 revenue detail on roughly a comparative, coincident basis with the related detail in *Graphs 2* to *6*. A similar re-plotting of the monthly time scale was used for the freight index detail in *Graph 7*.

Graph 8: Real S&P 500 Sales Adjusted for Share Buybacks (2000 - 2015), Indexed to January 2000 = 100



THE 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 workers disappeared. These were individuals who had given up looking for work, no longer 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 been “discouraged.” 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 patterns 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 and contrasted carefully 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 “marginally attached workers,” which includes the currently-defined and undercounted “discouraged workers” category used in the U.6 (1.713 million in

May 2016), those not in the labor force currently wanting a job increased to 4.736 million in May 2016 (a total of 6.449 million). That net of 4.736 million was against 3.956 million in April 2016, 3.726 million in March 2016, 4.146 million in February 2016, 4.077 million in January 2016, 3.872 million in December 2015 and 3.608 million in November 2015 (those numbers are counted only on an unadjusted basis). While some contend that that number includes all those otherwise-uncounted discouraged workers, such is extremely shy of underlying reality—order of magnitude 20 million—due to the cumulative effects of changed surveying 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 from the BLS.

As shown earlier, some broad systemic labor measures from the BLS, though, are consistent in pattern with the ShadowStats measure, even allowing for shifts tied to an aging population. 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, as well as with the ShadowStats-Alternate GDP Estimate and S&P 500 Real Revenues, the CASS Freight Index and petroleum consumption. Those economic- and labor-related series all are plotted with a time scale subsequent to the 1994 overhaul of unemployment surveying (see *Graphs 2 to 8*).

Headline May 2016 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 2016 notched higher to 23.0%, from 22.9% in April 2016. The April 2016 reading remained down by 30 basis points or 0.3% (-0.3%) from the 23.3% series high last seen in December 2013.

Again, In contrast, the May 2016 headline U.3 unemployment reading of 4.7% was down by a 530 basis points or 5.3% (-5.3%) from its peak of 10.0% in October 2009. The broader U.6 unemployment measure of 9.7% in May 2016, was down from its April 2010 peak of 17.2% by 750 basis points or 7.5% (-7.5%).

Seen in the *Graph 1* of the various unemployment measures, there continues to be a noticeable divergence in the ShadowStats series versus U.6 and U.3, with the BLS headline U.3 unemployment measures headed lower again against a stagnant U.6 and an up-ticking, high-level 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 long-term discouraged status, hence some of 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 for historical detail.

Generally, where the U.6 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.

Great Depression Comparisons. Discussed in the regular ShadowStats *Commentaries* covering the monthly unemployment circumstance, an unemployment rate around 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%.
