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

#### No. 859 - SPECIAL COMMENTARY, YEAR-END, YEAR-AHEAD Economic and Financial Review and Preview

**January 8, 2017** 

Consumer Expectations Soar Along with Anticipated Changes to that Former Malarial Swamp on the Potomac

New Fiscal Stimuli Could Boost Economic Activity by Early-2018

Yet, the Near-Term Economy Continues in Renewed Tumble, Never Having Recovered Fully from Its Collapse into 2009

Intensifying, Headline Downturn Threatens Resurgent Fed Pressures for Expanded Quantitative Easing and Intensified Dollar Debasement

Budget-Deficit Issues Should Refocus Global Currency Markets on Long-Range U.S. Sovereign-Solvency Concerns

Sovereign-Solvency and Quantitative-Easing Issues Threaten to Crash the U.S. Dollar and Stocks, Roiling Financial Markets by Mid-2017

Long-Range Economic and Financial-Market Health and Stability Depend on Resolving Both the Misdirected Policies of the Federal Reserve and the Solvency Concerns of the Global Markets

Given Issues of Fed Independence and Ingrained, Systemic Intransigence, Early Resolutions of the Fed and Solvency Problems Are Not Likely

Accordingly, Massive U.S. Dollar Selling, Debasement and Hyperinflation Remain the Primary Risks to Domestic Economic and Political Stability; Precious Metals Remain the Proven and Established Primary Inflation Hedge

Difficult Times Ahead, Possibly Ameliorated by Shifting, Domestic Political Circumstances. This Year-End, Year-Ahead Special Commentary offers review and preview of the economy and financial markets heading into 2017. Such is in the context of historical activity and writings, as well as current, shifting political and economic conditions. It covers domestic fiscal and inflation circumstances, Federal Reserve behavior and continuing banking crises, including implications for the U.S. dollar, gold, silver and oil. Where the ShadowStats outlook of recent years has been bleak in terms of economic activity and hyperinflation, the incoming Administration offers potential for a positive shift in circumstances. Still, the following summary outlook for the economy in 2017 is not a happy one, constrained by the lead-time of stimulus in actually boosting economic activity. If the other systemic crises can be brought under control, though, aggregate business activity indeed could be turning to the upside in 2018.

The greatest crisis at hand remains risk of systemic collapse. In order to prevent a massive sell-off in the U.S. dollar and the onset of nascent hyperinflation, the new Administration has to resolve two massive and increasingly intractable problems. First is the long-range, sovereign-solvency issue of the United States. Second is the impotence of the Federal Reserve, which still is fighting the battle it lost in 2008: to restore normal solvency and functioning to the domestic banking system. Prospects for successes there remain bleak, given institutional intransigence that could take until after the 2018 congressional election to resolve, combined with the established political independence of the Fed. The system, however, likely does not have much more than six months in which to be brought under perceived control, let alone a couple of years. Yet, there always is potential for positive surprise with a creative, new Administration.

This missive still is not the long-intended, consolidated update to the Hyperinflation Reports, which will follow in the months ahead. This is a precursor to same, pending, among other issues, release of the U.S. Government's GAAP-based accounting for fiscal-year 2016, currently scheduled for January 12, 2017. The updated accounting will generate its own Special Commentary.

Prior Writings. Underlying this Special Commentary are the summary comments in the December 30th No. 858: Review and Preview, along with general background from regular Commentaries throughout 2016, as detailed in related text. This missive also is built upon writings of prior years, including 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. In turn, they 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, which will be refreshed in the near future. Regular weekly Commentaries will update the general outlook, as circumstances develop.

Reporting of the Week Ahead. Regular Commentaries resume with No. 860, covering releases of December 2016 labor conditions and the November trade-deficit and construction spending (all graphs in the ECONOMY section reflect the latest headline detail). Publication will be Monday January 9th. A subsequent Commentary on Friday, January 13th, will cover December nominal Retail Sales and the PPI.

Continued Best Wishes to All for a Very Healthy, Happy and Prosperous 2017! — John Williams

#### EXECUTIVE SUMMARY - ECONOMIC, FINANCIAL AND SYSTEMIC TURMOIL LOOM

**Underlying Economic Reality Remains Far Removed from Media Hype and the Consensus Outlook.** The euphoria reflected in recently surging consumer expectations (see *Graphs LIQ-1* and 2), U.S. stock prices and the dollar, following the election of Donald J. Trump as the next U.S. President, has been extraordinary. Indeed, positive changes to domestic economic activity appear to be on the horizon, along with some potential for relief from prior-systemic abuses as to fiscal policy and the banking system.

A variety of independent indicators confirm the nature of the ShadowStats alternate indicators of economic and inflation measures, with the economy weaker and inflation stronger than the headline governments indicators as discussed in the respective *ECONOMY* and *INFLATION* sections. As to the economy, the ShadowStats contention remains that broad business activity never fully recovered from its collapse into 2009. Instead, it entered a period of protracted low-level stagnation, and began turning down anew at the end of 2014.

Consider that in the history of the two major economic indicators that go back nearly 100 years, to the post-World War I era, current year-to-year contractions are of a nature never seen outside of what have been declared as formal recessions. Those series are industrial production and the current version of helpwanted advertising (The Conference Board's Help Wanted OnLine®), discussed respectively in *Commentary No.* 854 and in *Commentary No.* 820 and *Commentary No.* 852.

In particular, the results of the presidential election also provided fundamental confirmation that common experience has not been consistent with the U.S. government's headline reporting of economic recovery and renewed expansion.

An Unusual Presidential Election Highlighted Underlying, Weaker-than-Headline Economic Activity. Most commonly, actual pocketbook issues—not media hype—drive elections, and the 2016 U.S. presidential race was a classic example of Main Street, U.S.A. not being fooled by artificially-boosted economic reporting. Most people have a good sense of how they are doing personally, how their business conditions and local economy are faring. Noted in last year's year-end Commentary No. 777 of December 30, 2015:

Once again, current circumstances are sharply negative for personal finances (see the *Consumer Conditions—Liquidity Issues Plague the Electorate* [No. 777]). Donald Trump's success in early polling for the Republican nomination likely reflects the disgruntlement with the economy, among other factors. Mr. Trump looks like he could take the nomination, assuming he can get through the political machinery of the Republican convention. If nominated, background economic conditions suggest that Main Street, U.S.A. would put him in the White House.

Since the first availability of reasonably consistent data in 1930, in every U.S. presidential race since 1932 (held in years divisible by four), the incumbent party has lost the White House when annual growth in inflation-adjusted real annual disposable personal income (DPI) was below 3.10%. With the pre-election 2016 economy showing real DPI well below that threshold, the Democrats lost the White House, with Republicans also retaining control of Congress (see *Commentary No. 846*, *Commentary No. 841* and *Commentary No. 839*).

Noted in the *Economist* of November 12, 2016, as to the poor-quality of public-opinion polling, versus the generally "surprising" election results:

There is one family of forecasts that did better: those which ignore both polls and candidates and predict results based exclusively on structural factors like economic performance and incumbency. This approach suggested all along that the 2016 campaign was likely to be an extremely tight race. Yet because these models seemed unsophisticated, and because Mr Trump's campaign was so unusual, they were largely overlooked.

The element missed in that assessment—aside from a continuing sharp decline in the quality of many public-opinion polls—was that Mr. Trump recognized that the economy was weaker than reported by the government and that the average American was suffering financial pain. Trump campaigned with that theme and parlayed the underlying reality into winning the White House. Main Street, U.S.A. rarely is fooled by heavily gimmicked, overly-positive economic data. Discussed in *Commentary No.* 846:

Every time DPI growth has been below 3.10% [since 1932], the incumbent party has lost (six elections). In every election where the DPI has been above 3.10%, the incumbent party has won (fourteen elections), except for two elections, in 1952 when Eisenhower beat Stevenson (DPI = 3.46%), and in 1992 when Clinton beat Bush (DPI = 4.28%). That 1992 number, though, was in the circumstance of rigged data.

Indeed, the GDP and related National Income numbers were boosted artificially coming into 1992, by an external manipulation of the Bureau of Economic Analysis (BEA) and its GDP data, orchestrated by a senior Bush Administration official. The public usually has a good sense of underlying economic reality, irrespective of hyped, official numbers, to wit the Republicans still lost the White House in 1992, with Governor Clinton defeating President Bush.

Global Political Circumstances Are Shifting. The U.S. electorate was not alone in trying to alter the course of an ever-deteriorating, domestic economic quagmire and social circumstance, which reflected decades of central-government policies that had the effect of shifting domestic production and employment—U.S. productive wealth—offshore. In parallel, and usually at the behest of certain industries, the immigration floodgates were open for low-wage, "temporary" foreign workers, often targeted at replacing their better-trained, educated and more-competent, but more-highly-compensated counterparts. Such intensified economic stresses on a domestic populace already suffering declining, real household income.

In mid-2016, Brexit had Great Britain break from the European Union. Subsequently, indications of likely further sovereign exits from the EU continue to intensify.

Noted in *Commentary No. 841* (updated references to text and graphs):

The U.S. political system has been dominated by globalist (current establishment) interests since late-1980s, with the North American Free Trade Agreement (NAFTA) an early accomplishment for those looking for a political union of the Americas. That went into effect at the beginning of 1994. Similar efforts at a political union of Europe had resulted in the Maastricht Treaty in 1993.

Theoretical, mutual trade benefits for countries opening unfettered trade with each other are based on both parties being at full employment, a circumstance rarely in hand. Under such [not-full-employment] circumstances, trade flows to the low-cost producer. U.S. trade policies have had the effect of re-distributing U.S. productive capacity, employment, assets and wealth offshore, in recent decades.

While many have profited from those circumstances, the nation, on average, has not. The result for Main Street U.S.A. has been the loss of jobs and income. Other than for short-term monthly variability, the labor-force participation rate is at

its lowest level since before 1994 [see *Graphs ECON-10* and *FED-1*, and the comments in the *FED* section on *Fed Speak Redefines "Healthy" Labor Conditions*], when the employment and unemployment measures were recast so as to minimize the negative headline impact from NAFTA on domestic labor conditions (see ... [the *Public Commentary on Unemployment Measurement*]). As seen later here ... [*Graph LIQ-6*], real average weekly earnings of production workers [still have] held below their peak levels in the early-1970s, once the U.S. trade deficit began to explode. As discussed in ... [the *CONSUMER LIQUIDITY* section (see *Graph LIQ-5*)], real median household income in 2015 was below levels seen in the late-1980s and early-1970s. These are indications of pocketbook-issue frustrations that ... turned the 2016-presidential election on its head.

Mr. Trump Takes On a Highly Challenging and Systemically-Vulnerable Circumstance. Again, voting pocketbook issues, the electorate turned-out the incumbent party holding the White House. Recognizing that trend as he campaigned for the Presidency, Mr. Trump promised action on the economy, including fiscal stimulus—ranging from tax cuts to increased-federal spending—and to revamp trade agreements and immigration policies that have cost American workers jobs and income. Indeed, addressing those matters should boost the economy, but there generally is a lag between such actions and the beginnings of the desired positive economic impact, by nine months to a year or more. The world's largest economy usually does not turn to the upside, rapidly.

While increased economic growth and resulting higher tax revenues should help some with the deficit, again, there would be a lag, but there would be nothing of adequate substance to address the long-term U.S. sovereign-solvency issues. With any near-term boost to the U.S. fiscal deficit, even if short-lived, the global markets likely would return their focus to those sovereign-solvency problems, as was seen in the dollar crisis of August 2011.

With the current U.S. economy turning down anew, in reality (watch out for headline fourth-quarter 2016 GDP reporting, one week subsequent to Mr. Trump's inauguration, and for headline economic data of the months ahead), financial stresses should intensify or mount anew on the U.S. banking system. Discussed in recent *Commentaries*, despite the Federal Reserve's rate hike of December 14th, its Federal Open Market Committee (FOMC) likely will be forced by deteriorating economic activity and increasing banking-system stress into expanded quantitative easing, before mid-year 2017 The financial and currency markets should begin anticipating that, as the headline economy turns decisively lower.

Fed actions remain centered on maintaining banking-system solvency and liquidity, not necessarily in boosting domestic economic activity. Practically, there is little the Fed can do at present to help the economy. The Fed simply has used economic woes of the recent past as political cover for the quantitative easings used in bailing out the banking system.

The Fed's frequent "crying wolf" during 2016, and before, as to imminent rate hikes, and the eventual December action, largely were used to prop the U.S. dollar. A renewed shift in policy towards easing would pummel the U.S. dollar in the global markets, boosting oil prices and domestic inflation, along with increased repatriation of unwanted, foreign-held dollars that the Fed would end up absorbing. In 2008, when the Fed and the U.S. Treasury opted to save the U.S. banking system at any cost, they had to accept willingly that the cost eventually would include a sharp pickup in domestic inflation (see the *FED* section).

*Crises in Hand.* Once the new Administration takes office January 20th, horrendous issues will face the new team. While quick action is likely from the standpoint of economic stimulus, again, there will be

some lag before the economy responds. Those economic woes and other threats to the banking, financial and economic systems were created and exacerbated by decades of operational malfeasance in the policies of, and banking-system oversight and guidance by the Federal Reserve, and from financial-system oversight and fiscal- and regulatory-policy malfeasance by prior Administrations. The resulting problems include:

- A stagnant economy that never recovered meaningfully from its collapse, which began somewhat before 2007, bottomed into 2009 and started to turn down anew at the end of 2014 (see the *ECONOMY* and *CONSUMER LIQUIDITY* sections).
- Domestic- and global-banking and financial systems that continue on the brink of insolvency, unable to function normally in circumstances that usually would be helpful to economic activity (see the *FED* section).
- A federal budget deficit that tops \$100 trillion, counting unfunded liabilities—obligations the government has taken on—on a net-present value basis (adjusted for the future value of money, effectively the cash needed in hand today to cover those obligations). If those aggregate obligations remain in place, the United States has zero chance of honoring them. The circumstance promises ultimate insolvency for the U.S. Treasury, or the more-likely full debasement of the U.S. dollar, as the government eventually just prints the money it needs to meet its obligations. Pending banking-system and currency turmoil could trigger an acceleration of that massive-dollar-debasement crisis into the immediate future (see the FEDERAL DEBT AND DEFICIT, INFLATION and MARKETS sections).

**Potential Positive Actions.** The new Administration has the opportunity not only to address near-term economic issues, but also the long-range U.S. sovereign-solvency and current banking-system solvency problems. Solutions to those latter concerns are extremely difficult, from both a political and practical standpoint, such as bringing the Medicare and Social Security programs into long-term, self-sustaining solvency, and perhaps even dissolving the Fed and nationalizing the banking system.

Irrespective of the desires of the new Administration, Congress will have to legislate most of the needed changes. Yet, Congress has been either unwilling or unable to address the fiscal crisis meaningfully, in recent decades, let alone ignore lobbying pressures from the banking and other industries.

If the system is not brought under long-term functional control now, it likely never will be, shy of a response to some form of systemic collapse. The long-term solvency issues of the government threaten domestic hyperinflation, sooner rather than later, given current global dollar imbalances and the related, high risk of massive flight out of the U.S. currency. Further, the banking-system problems can accelerate the onset of the hyperinflation issue into the immediate future.

Potentially, an extraordinary financial crisis looms for the new Administration by mid-year 2017; one that is not of Mr. Trump's creation, but rather a creation of the Federal Reserve and prior Administrations. Effective and creative use of Teddy Roosevelt's "bully pulpit" or perhaps the "bully twitter" here might help in addressing the otherwise politically un-addressable issues.

*Needed Perceptions of Progress.* The fiscal and banking-system crises most assuredly are not going to be resolved fully by mid-year, but they do not have to be. The new Administration needs to create a

perception that the problems are recognized, are being addressed credibly and will be resolved. If domestic and global perceptions remain that the fiscal and banking-system crises will not be addressed or resolved, then near-term economic boosts could be for naught, as the ensuing dollar, financial and economic turmoil likely would have people yearning for the halcyon days of 2008.

Market perceptions of credible solutions-in-progress by mid-year, though, are problematic, given the separation of powers between the Federal Reserve (a corporation owned by the banking system) and the government, and given the ingrained intransigence of political Washington in resolving the long-term budget problems. Nonetheless, Mr. Trump is one noted for his negotiating skills. If the system falls apart on his watch, he will receive the blame.

*Need for an Accurate Accounting.* ShadowStats assesses a variety of economic and inflation measures, including those published by the U.S. government. Over the decades, government statistics have undergone repeated changes in methodology that have had the effect of overstating economic growth and understating inflation. The general public—Main Street U.S.A.—has tended to recognize that over time, as headline reporting increasingly has varied from common experience and perceptions.

On January 12th, the GAO (Government Accountability Office, formerly known as the General Accounting Office) will publish the financial statements of the United States government for fiscal-year ended September 30, 2016, using GAAP (Generally Accepted Accounting Principles). An investigative arm of Congress, the GAO is independent of the Executive Branch, but audits its books. In recent fiscal years, the GAO has found it necessary to offer an alternative view from the Administration's as to the long-term liabilities to the federal government from the impact of the Affordable Care Act (order of magnitude \$10 trillion greater cost per the GAO, in terms of net present value). The GAO regularly notes financial issues within federal government operations, to the extent that it will not offer an opinion on the government's financial statements.

Coming in to turn around an insolvent operation, new management usually needs good-quality information in order assess where the company stands and what needs to be done to save it or otherwise to minimize losses. In like manner, the new Administration should be able to get realistic, in-house assessments of the federal government's financial operations and underlying domestic economic conditions, other than those commonly put forth as pabulum for the public and the financial markets. Where bankruptcy is not an option for the U.S. government, significant changes in federal-government operations, programs and economic policies are a virtual certainty.

*Physical Gold Remains the Primary Hedge Against Inflation.* Discussed in the *MARKETS* and *INFLATION* sections (see *Table INFLATION-1*), despite the extraordinary price volatility seen for gold in recent years, that precious metal has retained its hedge against inflation, irrespective of inflation measurement. Inflation is a common problem as the destroyer of real wealth.

In the event of a still-likely, massive debasement of the U.S. dollar—a hyperinflation—physical holdings of the precious metals gold and silver remain the primary hedges, stores of wealth that can maintain the purchasing power of the one's assets in a form that is both liquid and portable. For further approaches to handling these unusual circumstances ahead, see <u>2014 Hyperinflation Report—Great Economic Tumble</u>, beginning there on page 94.

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#### ECONOMY: NEVER RECOVERED, TURNING DOWN ANEW

**Underlying Real-World Activity Shows Non-Recovered Economic Growth That Has Turned Down Anew.** Despite reporting from the U.S. government's Bureau of Economic Analysis (BEA), Bureau of Labor Statistics (BLS) and Census Bureau (Census) that the U.S. economy just has been booming along since mid-2009, with sycophantic confirmation by many on Wall Street, by media heavily dependent on related Wall Street advertising revenues and by incumbent politicians, underlying reality remains that the economy crashed into 2009, never recovering fully. Not only that, but broad activity began to turn down anew, with a "new" recession likely to be timed from December 2014, as indicated by downturn in the Industrial Production series out of the Federal Reserve (Fed), as suggested in *Graphs ECON-12* and *13*. ShadowStats contends, however, that the new downturn is nothing more than a continuing down-leg of the economic collapse that began somewhat before 2007, bottomed out in mid-2009, never recovering its pre-recession high, holding in purgatory of variably stagnant and now down-trending activity.

Real GDP Recovery to 11.6% Above Its Pre-Recession High Is Not Found in Other Series. Headline real (inflation-adjusted), third-quarter 2016 U.S. Gross Domestic Product (GDP), the purported broadest measure of domestic activity—that flagship of domestic economic statistics—stood 11.6% above its pre-2007-recession peak (see Graphs ECON-1 and 3). No other standard measure of economic activity comes close to supporting that. Discussed in the EXECUTIVE SUMMARY, the upset victory for Mr. Trump in the 2016 presidential election would suggest the economy was not booming along, as advertised, while recession signals also were confirmed there from two of the oldest and most-reliable indicators of broad, domestic economic activity: industrial production (discussed further in this section) and help-wanted advertising.

Discussed in the *FED* section, the FOMC would not have been debating U.S. economic strength throughout 2016, if it really took the heavily gimmicked GDP numbers seriously. Noted in the regular GDP *Commentaries* (see *Commentary No. 851*, for example), this most-politically-sensitive of popularly followed economic series does not reflect properly or accurately the changes to the underlying economic fundamentals and measures that drive the broad economy.

Other Measures of Domestic Economic Activity. Consider again the headline 11.6% rally in real GDP (BEA) versus its pre-recession peak activity, in the context of what might be considered the next broadest measure of domestic economic activity, payroll employment (BLS). Although heavily bloated by upside bias factors (subject to a downside benchmark revision next month), the payroll series was up by just 4.7% through the third-quarter (4.9% through fourth-quarter 2016), versus its pre-recession peak, while full-time employment was up by 2.1% through the third-quarter (and still up by just 2.1% through fourth-quarter 2016). Such are not such happy circumstances when viewed in the context of the U.S. civilian population having increased by 9.3% in the same period (9.6% through fourth-quarter 2016).

The only other major, regular economic release from within the government agencies that shows a positive performance versus its pre-recession peak, is real retail sales (Census and BLS), which was up by 7.0% in November, as reflected in *Graph ECON-16*. Net of quality issues with the understatement of the

headline inflation used in deflating the real retail sales (understated inflation overstates real growth), as reflected in *Graph ECON-17*, and discussed in *Commentary No. 854*, the series is in contraction.

Other comparative and related government series, and private indicators, show a much-weaker-than-headline current economic picture.

GDP, ShadowStats-Alternate and "Supportive" Graphs. The GDP (or the broader GNP detail headlined in earlier decades) simply remains the most worthless of the popular government economic series, in terms of determining what really is happening to U.S. business activity. The series is the most-heavily-modeled, politically-massaged and gimmicked government indicator of the economy. It has been so since at least the 1960s, and that reporting quality deteriorated anew, sharply, with the 2016 benchmarking (see Commentary No. 823).

This section reviews circumstances surrounding a number of popular indicators, as well as some less-familiar but good-quality numbers. Where reported, real-world economic activity has shown that the general economy began to turn down in 2006 and 2007, plunged into 2009, entered a protracted period of stagnation thereafter—never recovering—and then began to turn down anew in late-2014, as reflected generally in the accompanying *Graphs ECON-2* and 4 of the ShadowStats Alternate GDP Measure, and generally in the ensuing *Graphs ECON-5* through 21, which help to tell that story.

*Official and Corrected GDP*. The economic recovery indicated by the official, real GDP numbers remains an illusion. It is a statistical illusion created at least partially by using a too-low rate of inflation in deflating (removing certain inflation effects) from the GDP series. The accompanying graphs tell that story, updated for the third estimate of third-quarter 2016, as well as reflecting other elements of economic reality.

The first set of graphs (*Graphs ECON-1 and 2*) updates the detail 1970-to-date, expressed in billions of 2009 dollars, as used with the headline GDP. The graphs show official periods of recession as shaded areas, with ShadowStats-defined recessions indicated by the lighter shading in *Graph ECON-2*, the second graph of the first set, as published initially in 2014 Hyperinflation Report—Great Economic Tumble.

The second set of graphs (2000-to-date) is the one that traditionally has been incorporated in the ShadowStats GDP *Commentaries*. *Graphs ECON-3* and 4 show short-term detail, expressed on an index base where first-quarter 2000 = 100.0.

Shown in the first graph of each set (*Graphs ECON-1* and 3) of official *Headline Real GDP*, GDP activity has been reported above pre-2007 recession levels—in full recovery—since second-quarter 2011, and headline GDP has shown sustained growth since (growth pauses or interruptions for second-half 2012 and first-quarter 2014 excepted). Adjusted for GDP inflation (the implicit price deflator - IPD), the third-estimate headline third-quarter 2016 GDP currently stands 11.6% above its pre-recession peak-GDP estimate of fourth-quarter 2007. As discussed below, no major traditional GDP indicators are showing recovery close to the GDP's; none of the series covered here have shown significant recoveries, and many remain well shy of ever having recovered.

In contrast, the "corrected" GDP, in the second graph of each set (*Graphs ECON-2* and 4), shows third-quarter 2016 GDP activity to be down from its pre-recession first-quarter 2006 peak by 7.1% (-7.1%).

Again, the second graph in each series (*Graphs ECON-2* and 4) plots the *Corrected Real GDP*, adjusted for the understatement inherent in official inflation estimates (see <u>Public Commentary on Inflation</u> <u>Measurement</u>), with the deflation by the implicit price deflator (IPD) adjusted for understatement of roughly two-percentage points of annual inflation in recent years. The inflation understatement has resulted from hedonic-quality adjustments, also as discussed in the *Hyperinflation Reports*.

The pattern of economic collapse into 2009, followed by some minimal recovery, low-level stagnation and renewed contraction is seen with many series. As shown broadly in many of graphs, better-quality independent numbers—including some U.S. government—put the lie to the gimmicked headline reporting that has been massaged for decades by government agencies and consulting academics.

Consider *Graph ECON-5* of the <u>Cass Freight Index</u><sup>TM</sup> (see <u>Commentary No. 782</u>), a measure of North American freight volume as calculated by, and used with the permission of Cass Information Systems, Inc. As background, 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. Through the smoothed November 2016 reading, it was down by 16.3% (-16.3%) from its pre-recession peak.

*Graph ECON-6* reflects U.S. aggregate consumption of crude oil petroleum product (<u>U.S. Energy Information Agency</u>), measured in physical barrel count. An extraordinarily broad indicator of general activity, its October 2016 smoothed reading is down by 5.7% (-5.7%) from its pre-recession high.

As with the CASS index, where the monthly data are not seasonally adjusted, ShadowStats has plotted the petroleum series using a trailing twelve-month average, through the latest headline monthly detail of October 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 first-half 2016. In contrast, the CASS index continues to turn down in its twelve-month trailing average, with monthly year-to-year contractions through November 2016 (fourth-quarter 2016), despite a minimal uptick in October 2016.

*Graph ECON-7* of S&P 500 revenues is plotted (not seasonally adjusted) on a quarterly basis, adjusted for the estimated impact of share buybacks and inflation. As of third-quarter 2016, the buyback- and inflation-adjusted revenues were down by 29.5% (-29.5%) from their pre-recession high.

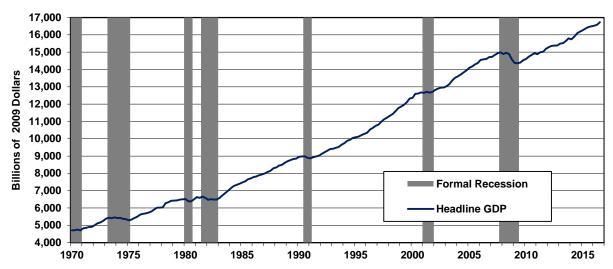
*Graphs ECON-8*, 9 and 10 reflect employment conditions from the BLS Household Survey through December 2016. *Graph ECON-8* of an inverted-scale plot of the ShadowStats-Alternate Unemployment Measure (with the inverted scale, the lines tend to move in coincident direction with plots showing the level of economic activity (see discussion in *Commentary No. 852*).

*Graphs ECON-9* and *10* of the Employment-to-Population ratio, and the Labor-Force Participation Rate are solid indicators of underlying labor conditions in the context of the broad population and long-term discouraged and displaced workers. The data here show these ratios of employment/labor-force activity versus employment to be holding close to their historic low-levels of 1994 (see also *Graph FED-1*).

[Graphs ECON-1 to 10 begin on the next page]

Graph ECON-1: "The Headline Illusion" Real GDP (1970 to 2016), Third Estimate of Third-Quarter 2016

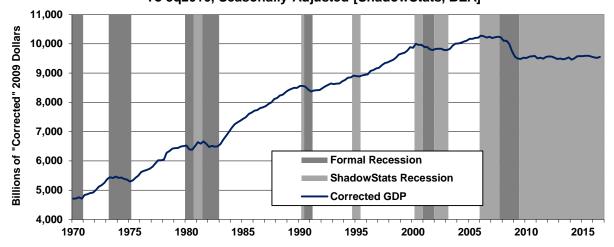
## Headline Real GDP Nominal GDP Deflated by Implicit Price Deflator To 3q2016, Seasonally-Adjusted [ShadowStats, BEA]



Graph ECON-2: "Corrected" Real GDP (1970 to 2016), Third Estimate of Third-Quarter 2016

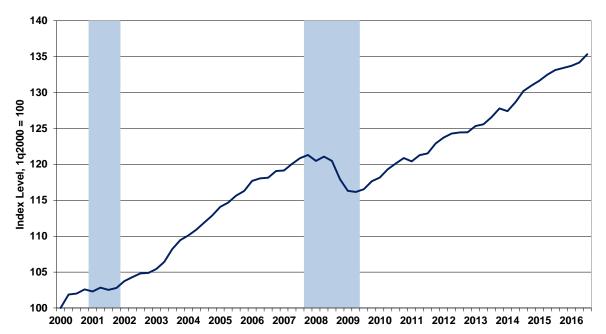
#### **Corrected Real GDP**

Nominal GDP Deflated by Implicit Price Deflator Adjusted for Understatement of Annual Inflation
To 3q2016, Seasonally-Adjusted [ShadowStats, BEA]



Graph ECON-3: "The Headline Illusion" Real GDP Index (2000 to 2016) Third Estimate of Third-Quarter 2016

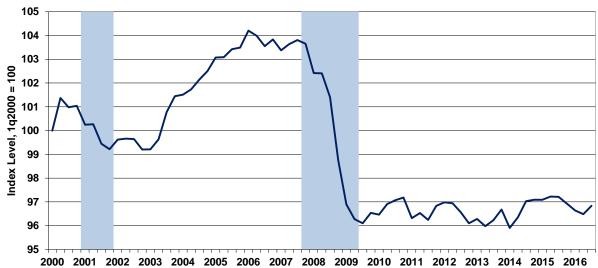
#### Headline Real GDP -- Index Level (1q2000 = 100) GDP Deflated by Official Implicit Price Deflator To 3q2016, Seasonally-Adjusted [ShadowStats, BEA]



Graph ECON-4: "Corrected" Real GDP Index (2000-to-2016), Third Estimate of Third-Quarter 2016

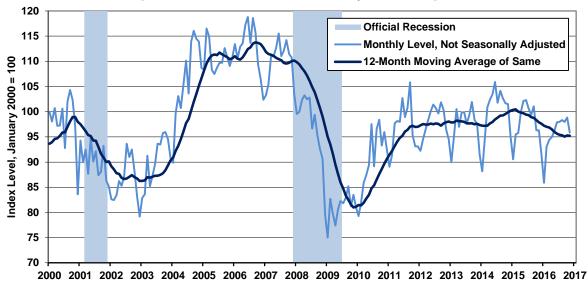
### Corrected Real GDP Index (1q2000 = 100)

Nominal GDP Deflated by Implicit Price Deflator Corrected for Roughly Two-Percentage Point Understatement of Annual Inflation Quarterly to 3q2016, Seasonally-Adjusted [ShadowStats, BEA]



Graph ECON-5: Cass Freight Index TM (January 2000 to November 2016)





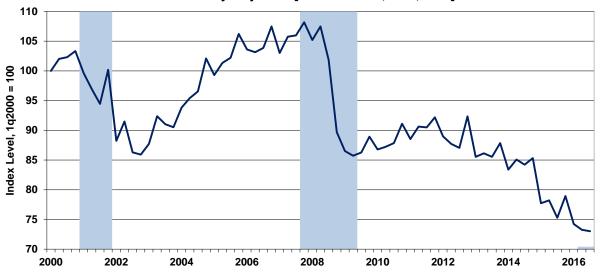
Graph ECON-6: U.S. Petroleum Consumption (January 2000 to October 2016)

### U.S. Product Supplied of Crude Oil and Petroleum Product To October 2016, Not Seasonally Adjusted,

Millions of Barrels per Month, Trailing Twelve-Month Average [ShadowStats, Energy Information Agency] 680 Official Recession 660 Monthly Level, Not Seasonally Adjusted Frailing Twelve-Month Average, Millions of Barrels per Month 640 12-Month Moving Average of Same 620 600 580 560 540 520 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

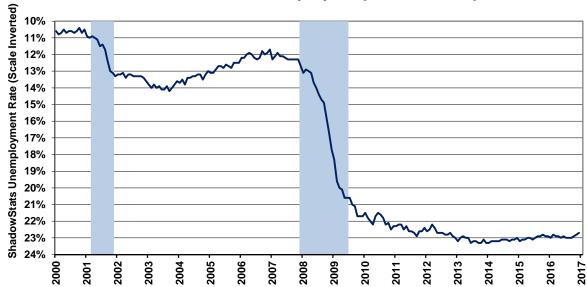
Graph ECON-7: Real S&P 500 Sales Adjusted for Share Buybacks (2000 to 2016), Indexed to January 2000 = 100

### Real S&P 500 Quarterly Revenues per Share Adjusted for Share Buybacks, Deflated by CPI-U, 2000 to 3q2016,Indexed to January 2000 = 100 Not Seasonally-Adjusted [ShadowStats, BLS, S&P]



Graph ECON-8: ShadowStats-Alternate Unemployment Measure—Inverted Scale (2000 to 2016)

### ShadowStats-Alternate Unemployment Rate (Inverted Scale) Long-Term Discouraged/Displaced Workers Included (BLS Excluded Since 1994) To December 2016, Seasonally-Adjusted [ShadowStats, BLS]



Graph ECON-9: Civilian Employment-Population Ratio (2000 to 2016)





Graph ECON-10: Labor Force Participation Rate (2000 to 2016)

### Participation Rate [Labor Force as a Percent of Population] To December 2016, Seasonally-Adjusted [ShadowStats, BLS]



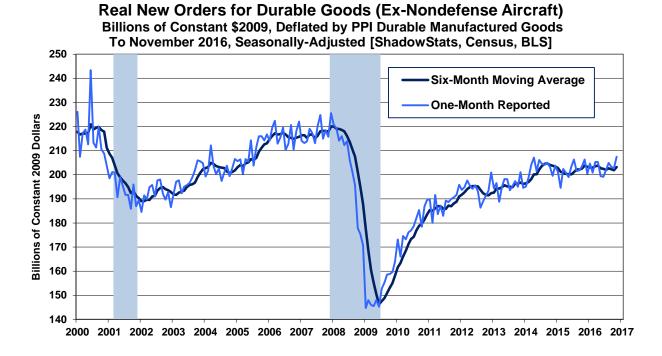
*Indicators of Production, Sales, Trade and Construction.* Graph ECON-11 of Real New Orders for Durable Goods, net of the highly-volatile and long-term delivery area of commercial aircraft, show activity down by 8.0% (-8.0%) from the pre-recession high (see *Commentary No. 857*).

Graphs ECON-12, 14 and 15 respectively show the Fed's aggregate industrial production measure in November 2016 (valued at 61% of GDP) down by 1.8% (-1.8%) from its pre-recession high, manufacturing production down by 6.1% (-6.1%) and consumer goods manufacturing—ranging from bread to automobiles—down by 7.6% (-7.6%). Graph ECON-13 shows a ShadowStats-Alternate measure of industrial production, corrected for the understatement of inflation used in calculating elements of production (see Commentary No. 854), parallel to the "corrected" real retail sales Graph ECON-17, discussed earlier. Separately, year-end, incentivized boosts to auto sales purportedly were high, boosting headline retail sales activity in Graph ECON-16, yet domestic auto production does reflect same in its the L-shaped "recovery" of consumer goods in Graph ECON-15. Sales borrowed from the future—taken into the current month for year-end sales hype and bonuses—deplete later sales activity.

Post-election, third-quarter GDP upside revisions to 3.2% and then 3.5% (marginally, statistically-significant, but never credible) followed an initial estimate of 2.9%, closing out the Obama Administration on a happy note. The initial estimate of fourth-quarter 2016 GDP likely will slow sharply versus third-quarter activity, but its publication is scheduled for January 27th, the first major economic release of the Trump Administration, one week following the Inauguration. A primary factor behind the weakening fourth-quarter growth should be a sharp deterioration in the fourth-quarter trade deficit, as reflected in early-data through November 2016 in *Graph ECON-18*, showing a sharp reversal of a highly-suspect, trade-deficit narrowing in third-quarter 2016, which bloated that quarter's headline activity.

Real construction and housing measures (sampled in *Graphs ECON-19* to 21) are down by 22% (-22%) to 57% (-57%) from their pre-recession peaks, which generally preceded the headline GDP pre-recession peak by a year or two, with the formal recession was timed from December or fourth-quarter 2007.

Graph ECON-11: Real New Order for Durable Goods Orders – Ex-Commercial Aircraft



Graph ECON-12: Indexed Headline Level of Industrial Production (Valued at 61% of 2015 Real GDP)

### Headline Industrial Production (Jan 2000 = 100) Through November 2016, Seasonally-Adjusted [ShadowStats, FRB]

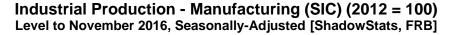


Graph ECON-13: Headline ShadowStats-Corrected Level of Industrial Production (Jan 2000 = 100)

## ShadowStats-Corrected Industrial Production (Jan 2000 = 100) Hedonic-Adjusted Inflation Understatement Removed, Level Through November 2016, Seasonally-Adjusted [ShadowStats, FRB]



Graph ECON-14: Industrial Production - Manufacturing (78% of Aggregate Production in 2015)





Graph ECON-15: U.S. Industrial Production – Manufacturing, Consumer Goods (2000 to 2016)

### Manufacturing - Consumer Goods (2012 = 100) Level to November 2016, Seasonally-Adjusted [ShadowStats, FRB]



Graph ECON-16: Headline Real Retail Sales Level, Indexed to January 2000 = 100

### Indexed Real Retail Sales Level (Deflated by CPI-U) To November 2016, Seasonally-Adjusted [ShadowStats, Census, BLS]



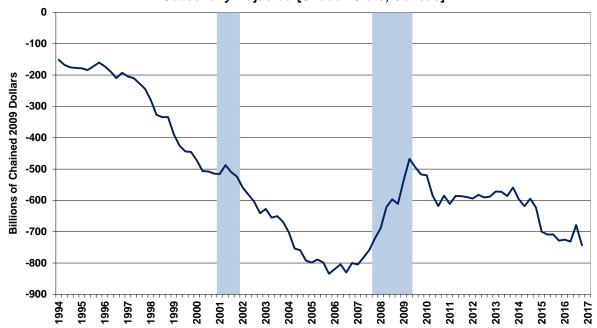
Graph ECON-17: "Corrected" Real Retail Sales Level, Indexed to January 2000 = 100

## Corrected Real Retail Sales Level Deflated by Shadow-Stats-Alternate CPI (1990-Base) To November 2016, Seasonally-Adjusted [ShadowStats, Census]



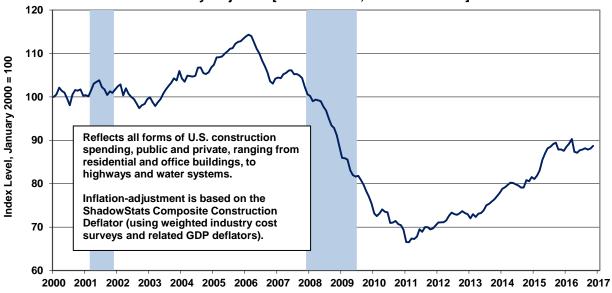
Graph ECON-18: Inflation-Adjusted, Quarterly U.S. Merchandise Trade Deficit through November of 4q2016

## Real U.S. Merchandise Trade Deficit (Census Basis) Quarterly Deficit at Annual Rate (Billions of Chained 2009 Dollars) To 4q2016 (Based on November Detail) Seasonally-Adjusted [ShadowStats, Census]

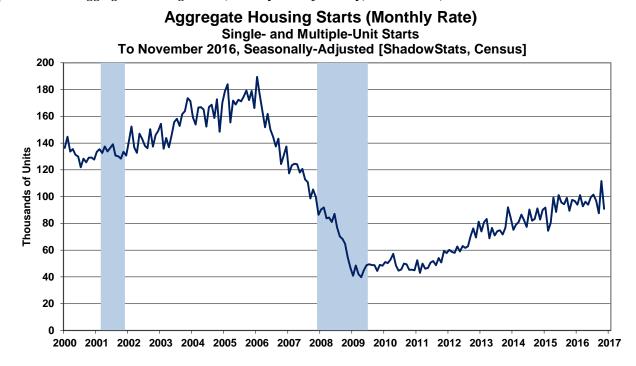


Graph ECON-19: Index of Total Real Construction Spending (2000 to 2016)

### Index of Real Total Value of Construction Put in Place To November 2016, Inflation Adjusted (Jan 2000 = 100) Seasonally-Adjusted [ShadowStats, Census Bureau]



Graph ECON-20: Aggregate Housing Starts (Monthly Rate of Activity, 2000 to 2016)



Graph ECON-21: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity, 2000 to 2016)



Again, while Mr. Trump likely will take early action to boost actual economic activity, given basic economic lead times, likely new fiscal stimulus should have its first major impact in early-2018, not much before. Despite recent headline gimmicks bloating key data, and the post-election surge in consumer

expectations, the 2017 GDP benchmark revisions on July 28th likely will reflect downside revisions to prior years' activity, as usually is the case.

Discussed in <u>Commentary No. 823</u>, the 2016 GDP benchmark revisions effectively were neutral in aggregate, with the business-cycle reporting "smoothed" by the BEA. The revisions were not of a nature to trigger formal immediate recognition of a "new" recession, which likely still will be clocked from December 2014. While that should happen eventually, the focus now should be on the rapidly weakening economy in the next several months (fourth-quarter 2016 and first-quarter 2017 GDP), which could trigger the "formal" recession recognition.

Beyond the smoothing gimmicks of the 2016 benchmarking, last year's 2015 GDP annual benchmark revisions (covered in *Commentary No. 739*) indicated that annual benchmarkings increasingly were reshaping the GDP-reporting history into a post-2007 collapse pattern of successive multiple dips. By the next "comprehensive" GDP benchmark revision in July 2018 (a restatement of activity back to 1929), post-2007 historical GDP reporting should be confirming a non-recovering, multiple-dip economic collapse including a "new" or ongoing recession.

Either the GDP reporting is wrong, or most other major economic series are wrong. While the GDP is heavily modeled, imputed, theorized and gimmicked, it also encompasses reporting from those various major economic series and private surveys, which still attempt to measure real-world activity. Flaws in the GDP inflation methodologies and simplifying reporting assumptions have created the headline post-2009 "recovery."

#### CONSUMER LIQUIDITY: UNABLE TO SUSTAIN REAL ECONOMIC GROWTH

Despite a Post-Election Confidence Surge, Impaired Consumer Liquidity Constrains Consumption. Consumer liquidity has been impaired severely in the last decade or so, driving economic activity into collapse and preventing meaningful or sustainable economic rebound, recovery or ongoing growth. The limited level of, and growth in, sustainable real income, and the ability and willingness of the consumer to take on new debt have remained at the root of the liquidity crisis and ongoing economic woes.

These same pocket-book issues contributed to the anti-incumbent electoral pressures in the presidential race. Where the post-election environment has reflected a continuing near-term surge in consumer optimism, underlying liquidity conditions and reality have not yet caught up with consumer hopes. The details here are updated for the full-December readings of the University of Michigan's Consumer Sentiment Index on December 22nd, and for the Conference Board's Consumer Confidence Survey® on December 27th (see *Graphs LIQ-1 to LIQ-3*). Also, on the consumer-liquidity front, updated detail is shown for November 2016 Real Median Household Income from <a href="www.SentierResearch.com">www.SentierResearch.com</a>, as published on December 29th (see *Graph LIQ-4*). The details update previous consumer-liquidity coverage in <a href="mailto:Commentary No. 854">Commentary No. 854</a> and full coverage of household income issues in <a href="mailto:Commentary No. 833">Commentary No. 833</a>.

As previously published, Real Credit Market Debt Outstanding (Federal Reserve's flow-of-funds analysis [Z.1]) of December 8th, and October 2016 Consumer Credit Outstanding of December 7th, are shown in *Graphs LIQ-9* to *LIQ-12*.

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

Still, the broad underlying consumer liquidity fundamentals simply have not supported, and still do not support a turnaround in broad economic activity. Never truly recovering in the post-Panic of 2008 era, limited growth in household income and credit, have eviscerated and continue to impair broad, domestic U.S. business activity, which feeds off the financial health and liquidity of consumers. This circumstance remains in play in the context of a post-election surge in consumer expectations that generally still is shy of pre-recession levels.

The combined issues here have driven the housing-market collapse and ongoing stagnation in consumer-related real estate sales and construction activity, and have constrained both nominal and real retail sales activity and the related, personal-consumption-expenditure and residential-construction categories of the Gross Domestic Product (GDP). Those sectors account for more than 70% of total U.S. GDP activity.

Now, with the economy never having recovered fully from the collapse into 2009, consumers again have been pulling back on consumption, as evidenced by a renewed slowdown in broad economic activity,

where that reality is evident in more-meaningful series—not the GDP—irrespective of the transient, gimmicked boosts to third-quarter 2016 GDP activity.

Consumer Confidence and Sentiment. This detail incorporates the full December 2016 readings for the Conference Board's Consumer-Confidence the University of Michigan Consumer-Sentiment measures. Reflected in *Graphs LIQ-1* to *LIQ-3*, both confidence and sentiment rose in September and plunged in October, likely reflecting concerns as to the direction of the presidential race. The November measures rallied sharply, reflecting post-election consumer optimism and continued to explode in December, generally consistent with post-election reaction in the domestic stock-market and U.S. dollar. As with the markets, though, the initial surge in early-November consumer sentiment was all pre-election (see *Commentary No. 849* for comments on the post-election market rallies).

Again, the Conference Board's seasonally-adjusted [unadjusted data are not available] Consumer-Confidence Index<sup>®</sup> (*Graph LIQ-1*), and the University of Michigan's not-seasonally-adjusted Consumer-Sentiment Index (*Graph LIQ-2*) both rose in September, only to collapse in October and then soar in November and December. While the three-month moving average in sentiment in December still held below its February 2015 near-term peak, the three-month moving average in confidence as of December continued to a new post-recession high.

Showing the Consumer Confidence and Consumer Sentiment measures on something of a comparable basis, *Graphs LIQ-1* to *LIQ-3* reflect both measures re-indexed to January 2000 = 100 for the monthly reading. Standardly reported, the Conference Board's Consumer Confidence Index® is set with 1985 = 100, while the University of Michigan's Consumer Sentiment Index is set with January 1966 = 100.

Consumer Sentiment continued to hold off its June 2015 near-term peak, smoothed for its six-month moving-average reading, but Confidence, again, broke to a new post-recession high (*Graph LIQ-3*), still below pre-recession levels.

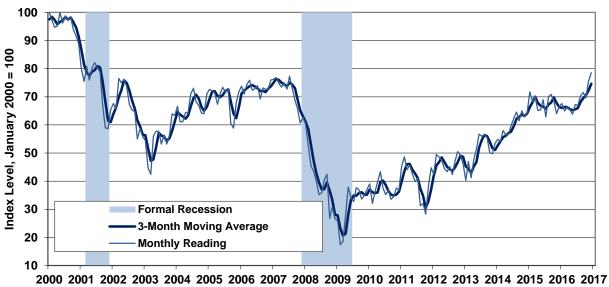
The Confidence and Sentiment series tend to mimic the tone of headline economic reporting in the press (see discussion in <u>Commentary No. 764</u>), and often are highly volatile month-to-month, as a result. With what should become increasingly-negative, unstable and uncertain headline financial and economic reporting early into this New Year—beyond the immediate post-election euphoria—successive negative hits to both the confidence and sentiment readings remain increasingly likely in the early months of 2017.

Smoothed for irregular, short-term volatility, the two series remain at levels seen typically in recessions. Suggested in *Graph LIQ-3*—plotted for the last 45 years—the latest readings of Confidence and Sentiment generally have not recovered levels preceding most formal recessions of the last four decades. Broadly, the consumer measures remain well below, or are inconsistent with, periods of historically-strong economic growth as suggested by headline GDP growth in 2014, for second-and third-quarter 2015 and the last third-quarter 2016 estimate.

[Graphs LIQ-1 to LIQ-3 begin on the following page.]

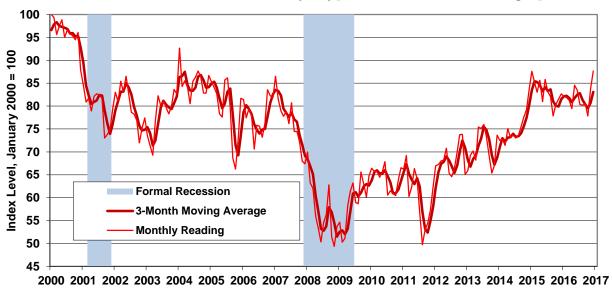
Graph LIQ-1: Consumer Confidence (2000 to 2016)

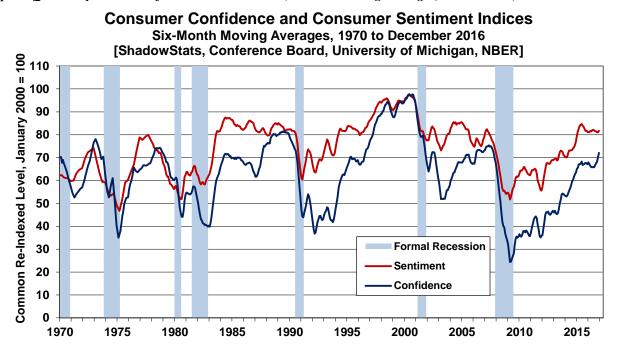
## Consumer Confidence Survey® -- Conference Board Monthly and 3-Month Moving-Average Index (Jan 2000 = 100) To December 2016, Seasonally-Adjusted [ShadowStats, Conference Board]



Graph LIQ-2: Consumer Sentiment (2000 to 2016)

## Consumer Sentiment Index -- University of Michigan Monthly and 3-Month Moving-Average Index (Jan 2000 = 100) To December 2016, Not-Seasonally-Adj [ShadowStats, Univ of Michigan]





Graph LIQ-3: Comparative Confidence and Sentiment (6-Month Moving Averages, 1970 to 2016)

Despite Near-Term Optimism, Monthly Household Income Continued to Signal Broadly-Based Economic Difficulties. Beyond the happy expectations building up in anticipation of the Trump Administration, November 2016 real median U.S. household income still indicated liquidity problems. Shown in Graph LIQ-4 headline November income detail, published by <a href="www.SentierResearch.com">www.SentierResearch.com</a>, remained virtually stagnant, having been through a statistically-significant monthly decline in May 2016, after several months of statistically-insignificant flutterings around its near-term January 2016 peak. Still stagnating at present, statistically-insignificant flutterings have continued from June through the headline November 2016 detail, although they have trended to the upside.

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

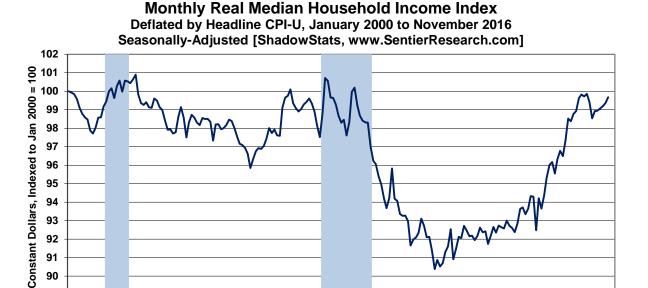
Where lower gasoline prices had provided some minimal liquidity relief to the consumer, indications are that any effective extra cash generally was used to help pay down unsustainable debt or other obligations, not to fuel new consumption. Again, the effects of lower gasoline prices have bottomed out and have begun to reverse, pushing headline consumer inflation higher.

This measure of real monthly median household income generally can be considered as a monthly version of the annual detail shown in *Graph LIQ-5*, which was updated recently for 2015 detail (see the full analysis of the 2015 annual household income reporting in *Commentary No. 833*). The relative jump seen in 2015 median income, despite formal adjustment for discontinuities in the most-recent annual reporting,

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

Graph LIQ-4: Monthly Real Median Household Income (2000 to 2016)

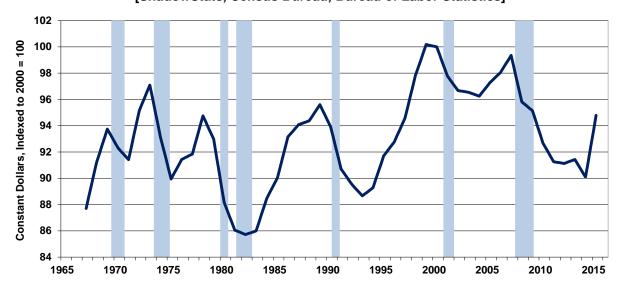
89



Graph LIQ-5: Annual Real Median U.S. Household Income (1967 to 2015, with 2013-2014 Discontinuities Removed)

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

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

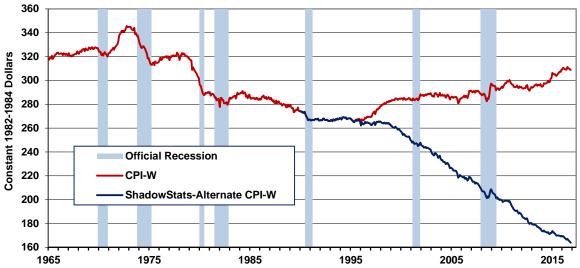


Differences in the Monthly versus Annual Median Household Income. The general pattern of relative historical weakness also has been seen in the headline reporting of the annual Census numbers, shown in *Graph LIQ-5*, with 2014 real annual median household income having hit a ten-year low, and, again, with the historically consistent 2015 annual number still holding below that seen when the collapsing economy hit its purported trough in 2009. The Sentier numbers had suggested a small increase in 2014 versus 2013 levels. Still, the monthly and annual series remain broadly consistent, although based on separate questions within the monthly Consumer Population Series (CPS), as conducted by the Census Bureau. Where Sentier uses monthly questions surveying current annual household income, the headline annual Census detail is generated by a once-per-year question in the March CPS survey, as to the prior year's annual household income.

The Median Household Income surveying results generally are broadly consistent with Real Average Weekly Earnings through November 2016, as shown in *Graph LIQ-6* and as reported by the Bureau of Labor Statistics (see *Commentary No. 852*). Detail for December 2016 will be published January 18th, updated in *Commentary No. 862* of that date.

Graph LIQ-6: Real Average Weekly Earnings, Production and Nonsupervisory Employees (1965 to 2016)

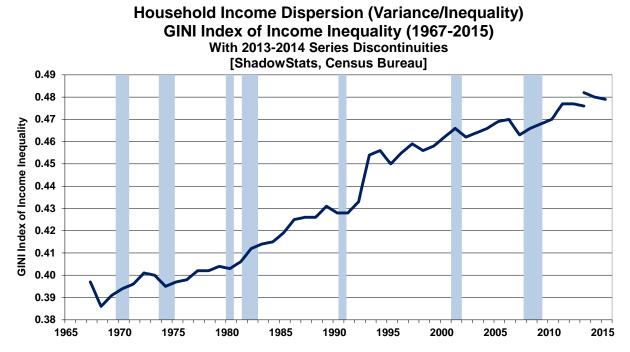




*Increasing Income Variance?* Repeated from <u>Commentary No. 833</u>, the most-recent estimates of income dispersion, or inequality, are shown through 2015 in *Graphs LIQ-7* and *LIQ-8*. Measures of income dispersion, or variance, indicate the distribution of income within a population. A low level of income dispersion indicates that income tends to be concentrated in the middle, while a high level of dispersion indicates heavier income concentrations in the extremes of low and high income, with less in the middle. The higher the variance of income, the greater is the income dispersion. Generally, economies with income concentrated in the middle tend to enjoy stronger and broader economic growth. The recent changes (discontinuities) and redefinitions in the survey have shifted household incomes more into the

"upper" categories, resulting in increased income inequality. With the 2015 discontinuities shown in *Graphs LIQ-7* and *LIQ-8*, these series now have been broken, in terms of internal, historical consistency.

Graph LIQ-7: Annual GINI Index of Income Inequality (1967 to 2015), with Discontinuities



Graph LIQ-8: Annual Mean Logarithmic Deviation of Income (1967 to 2015), with Discontinuities

#### Mean Logarithmic Deviation of Income (1967-2015) With 2013-2014 Series Discontinuities [ShadowStats, Census Bureau] 0.63 Mean Logarithmic Deviation of Income 0.60 0.57 0.54 0.51 0.48 0.45 0.42 0.39 0.36 0.33 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015

**Household Income Dispersion (Variance/Income Inequality)** 

Rising and near-record income dispersion levels usually foreshadow economic and financial-market turmoil. Despite—or perhaps due to—the ongoing nature of the economic and systemic-solvency crises, and the effects of the 2008 financial panic, income dispersion—the movement of income away from the middle towards both high- and low-level extremes—held near record highs in 2013, instead of moderating, as often seen during periods of financial distress, and is suggested to have moved to even greater extremes in 2014 and 2015.

Conditions surrounding extremes in income variance usually help to fuel financial-market bubbles, which frequently are followed by financial panics and economic depressions. The sequence of those factors tends to redistribute income in a manner that usually lowers income variance, helping economic recovery. Other than for a brief dip following the 1987 stock-market crash, U.S. income variance since 1987 has been higher than has been estimated for the economy going into the 1929 stock-market crash and the Great Depression, and its current reading remains nearly double that of any other "advanced" economy. Instead of being tempered by the 2008 financial panic and the ongoing economic and systemic-solvency crises, variance increased to further record levels subsequent to 2011. That suggests the greatest negative impact of the systemic turmoil, so far, has been on those in the middle-income area. It also is suggestive of even greater financial and economic crises still ahead.

Again, shown in *Graphs LIQ-7* and *LIQ-8*, the current circumstance is at a record extreme, well above levels estimated to have prevailed before the 1929 stock-market crash and the Great Depression. Increasingly difficult times are likely for at least the next several years.

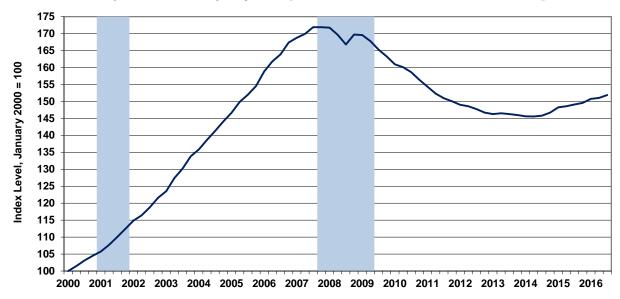
Consumer Credit Has Remained Constrained. The final four graphs here address consumer borrowing. Debt expansion can help make up for a shortfall in income growth. Shown in *Graph LIQ-9* of *Household Sector, Real Credit Market Debt Outstanding*, household debt declined in the period following the Panic of 2008, and it has not recovered, based on the Federal Reserve's flow-of-funds accounting through third-quarter 2016. In the context of Federal Reserve upside technical revisions to outstanding mortgages, back into 2008, Household Sector, Real Credit Market Debt Outstanding in third-quarter of 2016 had declined by 11.6% (-11.6%) from its pre-recession peak in third-quarter 2007.

The series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., all deflated by the headline quarterly CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce. The slight upturn seen in the series through 2015 and into 2016 was due primarily to gasoline-price-driven, negative CPI inflation, which continued to impact the system through second-quarter 2016. Current activity also has reflected surging student loans, as shown in the *Graphs LIQ-10* to *LIQ-12*.

Shown through October 2016 reporting, *Graph LIQ-10* of monthly Consumer Credit Outstanding is a subcomponent of *Graph LIQ-9* on real Household Sector debt. Where *Graph LIQ-10* reflects the nominal reporting, not adjusted for inflation, inflation-adjusted real activity for Consumer Credit Outstanding is shown both in terms of level (Graph *LIQ-11*) and in terms of year-to-year change (*Graph LIQ-12*).

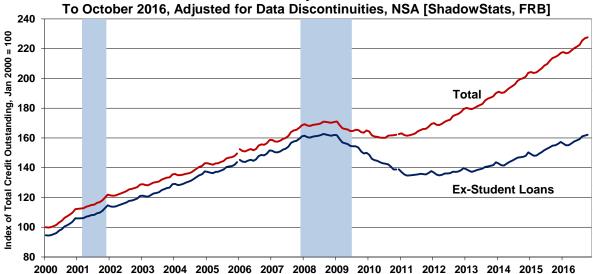
Graph LIQ-9: Household Sector, Real Credit Market Debt Outstanding (2000 through Third-Quarter 2016)

## Household Sector, Real Credit Market Debt Outstanding Deflated by CPI-U. Indexed to January 2000 = 100 To 3q2016, Seasonally-Adjusted [ShadowStats, FRB Flow-of-Funds, BLS]



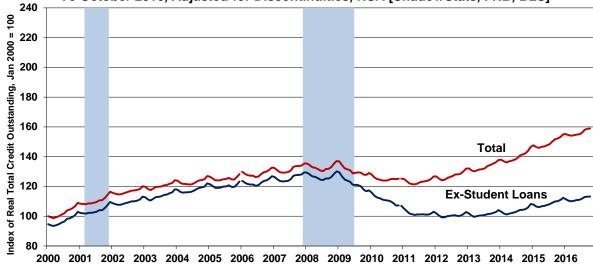
Graph LIQ-10: Nominal Consumer Credit Outstanding (2000 to 2016)

### ShadowStats Index of Nominal Consumer Credit Outstanding Total and Ex-Federally Held Student Loans



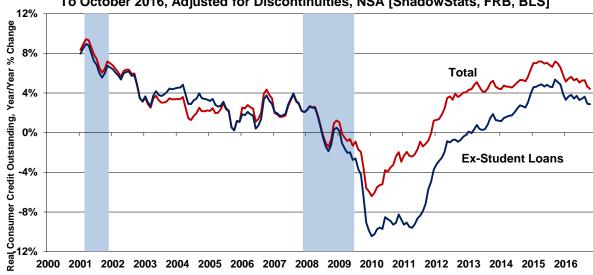
Graph LIQ-11: Real Consumer Credit Outstanding (2000 to 2016)





Graph LIQ-12: Year-to-Year Percent Change, Real Consumer Credit Outstanding (2000 to 2016)

### Real Consumer Credit Outstanding, Yr-to-Yr Percent Change Total and Ex-Federally Held Student Loans (Deflated by CPI-U) To October 2016, Adjusted for Discontinuities, NSA [ShadowStats, FRB, BLS]



Post-2008 Panic, outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel broad consumption or housing growth. Although in slow uptrend, the nominal level of Consumer Credit Outstanding (ex-student loans) has not recovered since the onset of the recession. These disaggregated data are available and plotted only on a not-seasonally-adjusted basis, with the pattern of monthly levels over one year reflecting some regular, unadjusted seasonal dips or jumps.

Adjusted for inflation, the lack of recovery in the ex-student loan area is more obvious. Adjusted for discontinuities and inflation, ex-student loans, consumer credit outstanding in October 2016 was down from its December 2007 pre-recession peak by 12.5% (-12.5%). Year-to-year growth in *Graph LIQ-12* tends to resolve most of the monthly distortions in not-seasonally-adjusted data.

#### FED: INTERNAL TERROR, BEFUDDLEMENT, DECEIT AND MANIPULATION

**Deceit and Manipulation, and Internal Terror and Befuddlement over a Financial System Out of Control.** The Panic of 2008 likely still dominates U.S. central-bank concerns. With the U.S. banking-system then on the brink of collapse, the Federal Reserve and the U.S. Treasury did everything in their power to prevent a collapse, irrespective of short- or long-term costs (including inflation). Systemic collapse simply was not an option.

Whatever money had to be created, spent or loaned, whatever liabilities had to be guaranteed, whatever bad assets had to be absorbed, whatever entities (inefficient, crooked or otherwise) had to be bailed out, whatever markets had to be manipulated, whatever had to be done as a stop-gap measure was done. What was not done was to address any of the underlying fundamental issues that led to the crisis, including the long-term sovereign-solvency issues of the United States (see the *FEDERAL DEBT AND DEFICIT* section), or needed meaningful economic stimulus, such as addressing faltering consumer income and finances (see the *ECONOMY* section). Discussed in the *EXECUTIVE SUMMARY*, those issues still need to be addressed, along with a long-overdue overhaul of the Federal Reserve System.

Subsequent to quelling the Panic of 2008, the Fed concentrated its efforts on propping the domestic and global banking systems—if the global banking system failed, such also would encompass the U.S. system—yet, nearly a decade after the onset of the crisis, the Fed still has not succeeded in fully reestablishing banking-system health and normal, commercial functionality. The Fed certainly did little to stimulate domestic commerce—such as fueling lending activity—other than to prevent a banking-system collapse. Nonetheless, the banking industry remains at risk of further, intensified solvency or liquidity issues from an intensifying, renewed domestic economic downturn, one that continues in a system that never really recovered from its collapse into 2009.

Having taken little but stop-gap measures in 2008, which pushed much of the banking-solvency crisis into the future, the Federal Reserve (and the U.S. Treasury) face continuing systemic insolvency or instability issues as that future closes in. Therein lies the Federal Reserve's internal terror. It cannot find a way out of its ongoing crisis, with similar issues affecting other central banks. Again, a solution may lie with the Congress and the new Administration looking to overhaul the Fed and the domestic banking system.

Control of the Post-Election Federal Reserve Likely Will Not Shift Quickly. Given the existing laws, Mr. Trump will not be able to gain effective control of the Federal Reserve until 2018, if then, unless the Fed Chair and/or the Board of Governors move to cooperate with the new Administration. The seven members of Board of Governors of the Federal Reserve System are nominated by the President and confirmed by the Senate, for fourteen-year terms. The Chairman of the Board is appointed from the sitting Governors by the President and, again, confirmed by the Senate, but for a four-year term. The Governors and Chairman cannot be removed from office, except for cause; once confirmed, they do not serve at the pleasure of the President. At present, there are only five sitting Governors, all appointed by President Obama. Two other Obama nominees have been either scuttled or were delayed in Senate confirmation hearings, so presumably they will be replaced by the new President.

Janet Yellen's four-year term as Chairman of the Board of Governors of the Federal Reserve System runs through February 3, 2018. Although appointed by the President, the position of Federal Reserve Chairman was designed to be politically independent. Again, the Chairman does not serve at the pleasure of the President.

**Inflation Instead of Deflation.** Some analysts still look for the current global situation to evolve into a deflationary collapse of debt. While meaningful insolvencies in the global financial system likely still loom, the process becomes hyper-deflationary only in the circumstance where the banking system collapses and money supply disappears, as happened in the United States in the 1930s.

With the precedent of the Panic of 2008 in hand, much more likely are continuing bailouts, wherever needed, very possibly in the extreme, ultimately with hyperinflationary consequences. When those controlling the system made the decision to prevent systemic collapse at any and all costs, in 2008, they made clear their desire in answering the question raised by Robert Frost in his poem *Fire and Ice*; their choice appears solidly to be for the world to end in the fire of inflation (2014 Hyperinflation Report—The End Game Begins page 26, see also the INFLATION section).

Fed Speak Downgrades Definitions of "Healthy" Labor Conditions and Misdirects the Public as to Central-Bank Motivations. Listening regularly to pronouncements out of the Federal Reserve's Open Market Committee (FOMC), or from various members of the Federal Reserve's Board in recent years, one easily might conclude that current Fed policy primarily and simply was to maintain the economy and inflation at "healthy" levels. That is nonsense. While there is little doubt the Fed would like to see those circumstances, there has been little the U.S. central bank could do to stimulate the economy. At least that was the frequent protestation from former Fed Chairman Ben Bernanke, although a little increased lending to the public lending might have been encouraged. As to inflation, the Fed can increase inflation easily, any time it wishes, as Mr. Bernanke knew all too well. Fed Chair Yellen and her band of merry economists know that as well.

The Mission Is to Maintain Banking-System Stability. Simply put, the Federal Reserve's actions of the last decade have centered on propping the banking system, not the economy. As public sentiment shifted against bailing out large banks, the Fed used the weak and non-recovered economy as political cover for the introduction and later expansion of its Quantitative Easing (QE) programs.

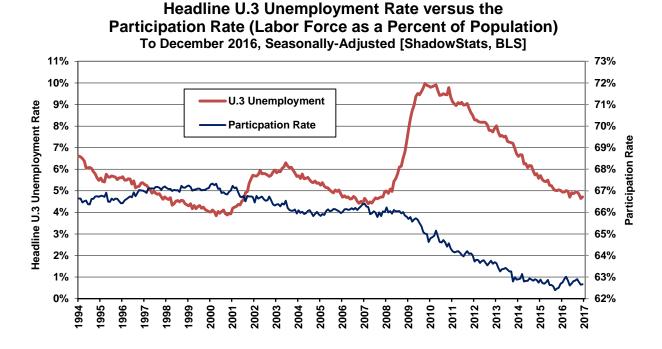
Discussed in the *ECONOMY* section, the headline real (inflation-adjusted), third-quarter 2016 U.S. Gross Domestic Product (GDP), the purported broadest measure of domestic activity—that flagship of domestic economic statistics—stood at 11.6% above its pre-2007-recession peak. No other standard measure of economic activity comes close to supporting that. Do you think the FOMC internally would have been debating U.S. economic strength throughout 2016, and not raising rates until December, if they believed the GDP reporting, if they took that number seriously?

Now, with the non-recovered U.S. economy faltering anew, the Fed started to raise rates not for the purported "overheating economy" concerns, but most likely to resolve questions raised as to "Fed credibility." It could be some time before the next rate hike. Indeed, there is a serious lack of credibility

for the U.S. central bank. They declared victory over the recession, exaggerated simply by downgrading their definitions of healthy and normal labor conditions to levels that otherwise should be unthinkable.

Ignoring the Public's Economic Distress in Stagnant, Non-Recovering Economic Activity, the Fed Moved Recently to Redefine Much-Weaker Levels of "Normal" Employment Activity. After one year of "crying wolf," the Federal Reserve Board's Federal Open Market Committee (FOMC) actually hiked the targeted federal funds rate by 0.25% on December 14, 2015, much as expected by the markets, despite ongoing signs of deteriorating economic activity. Coming into the meeting, Federal Reserve Chair Janet Yellen previously had expressed overt and legitimate concerns, as to labor-market health, specifically the labor-force participation rate (see Graphs ECON-10 and FED-1), but such issues apparently were overridden by a desire to raise interest rates. Then, again, headline FOMC actions for "addressing" the weak economy generally have been no more than window dressing, providing political cover for quantitative easing.

Graph FED-1: Headline U.3 Unemployment versus the Labor Force Participation Rate (1994 to 2016)



Consider *Graph FED-1*. While the headline December 2016 U.3 unemployment rate (red line) was reported at 4.7% (at 4.6% in November 2016, pre-FOMC), down from its recession peak of 10.0%, the greater than 50% decline in headline unemployment had been due heavily to a large number of unemployed being defined out of existence in the headline labor force as discouraged workers. That was as opposed to the more happy circumstance of a declining unemployment rate reflecting the unemployed finding new employment.

As a result of that general circumstance, the labor-force participation rate (blue line), which is calculated as headline employed plus unemployed as a percent of the population, had declined to its lowest level since 1994, the onset of consistent, current reporting. Despite the recent declines in headline

unemployment, the participation rate also declined month-to-month. Ms. Yellen regularly expressed concern about non-recovery of the participation rate as a reason for forestalling raising interest rates.

The interest rate "hawks," however, ignoring underlying economic reality, argued that such a low level of unemployment is the sign of an economy that is near full employment, an economy that is at risk of overheating. An economy at full employment, however, also usually would be accompanied by a record high participation rate, not one at an historic trough (see discussion in *Commentary No.* 852).

In similar manner, Fed Speak perhaps reached a new nadir in <u>Commentary No. 843</u> (see accompanying discussion there), where Fed economists went far beyond the argument that the economy was at full employment, trying to sell the concept that weak labor circumstances—seen usually only in recession-related circumstances—really represented normal healthy economic activity:

Such is amidst faux concerns of an "overheating" economy. Some Federal Reserve Board members have warned that recent headline U.3 unemployment readings around 5.0% show the economy to be near full employment (see *Commentary No. 838*); they know better. The latest nonsense, however, comes from research at Fed Chair Janet Yellen's home base of the San Francisco Federal Reserve Bank. The new story is that monthly jobs growth of 50,000 to 110,000 is adequate "to maintain a healthy labor market."

The implied annual growth rates for the levels proffered there, for healthy monthly jobs growth, historically have never been seen outside of a recession (either going into or coming out of), never in a sustainable, healthy economy.

The December 14th rate hike did not preclude renewed quantitative easing. Legitimate, headline economic data in the next several months increasingly should indicate an intensifying "new" recession, with sharply negative implications for further, near-term FOMC rate hikes. It is not that the FOMC would to ease in an effort to boost the economy, but a weakening economy does stress banking-system health. Happily, from the Fed's standpoint of their political cover—appearing to fight the economic downturn—new liquidity can be pumped into the banking system. Again, in this circumstance, market sentiment and FOMC action should revert to expanded quantitative easing relatively early in this New Year (see *Commentary No. 851*).

Purported "Focus" on the Economy Was Used Only to Support Quantitative Easing. Despite oft-cited Congressional mandates for the Fed to maintain stable economic growth, the Fed's primary mission in life always has been to keep the banking system afloat. It failed miserably there, with misguided policies leading into and fueling the Panic of 2008. The decision to prevent a systemic collapse, irrespective of short-term or long-term cost, included pushing inflation and economic concerns into positions subservient to preserving the banking system.

Again, the various QE programs were used to prop banking system liquidity, under the political cover of a weak economy. The Fed's buying up Treasuries and Mortgage-Backed Securities (MBS) provided liquidity and balance-sheet improvement to the banking system, with a resulting surge in the Monetary Base (see *Graphs FED-4* and 5), which formerly had been used to target the rate of growth in the money supply (see *Graph FED-3*). Had the banking system leant some of that added liquidity into the regular flow of commerce, such would have spiked money supply growth, supplying some boost to economic growth and inflation. Instead, the banks had to deposit the new cash back with the Fed, as excess reserves, on which the Fed paid the banks interest. The happy news for the U.S. Treasury, faced with

declining global demand for its securities, was that the Federal Reserve effectively monetized (and still holds) \$2.5 trillion in Treasury debt during its active QE expansion.

Such dollar debasement weakens the dollar and spikes oil prices and inflation. Raising rates (or threatening to do so) boosts the dollar, as seen recently, drawing in foreign funds to support the system, strengthening the dollar and weakening oil prices and inflation, but oil production cutbacks are being used temporarily to prop oil prices. Ahead, at such time as the Fed reverts to expanded QE, the U.S. dollar should sell off sharply, spiking oil prices and domestic inflation; the high correlation between movements in the U.S. dollar and oil prices is reflected in *Graph FED-7*. The Fed can create inflation any time it wishes, well detailed by Mr. Bernanke.

We Always Can Create Inflation. Excerpted from "Helicopter Ben" on Preventing Deflation in <u>2014</u> Hyperinflation Report—The End Game Begins:

Former Federal Reserve Chairman Ben Bernanke picked up his various helicopter nicknames and references as the result of a November 21, 2002 speech he gave as a Fed Governor to the National Economists Club entitled <u>Deflation: Making Sure 'It' Doesn't Happen Here</u>. The phrase that the former-Fed Chairman Bernanke likely wishes he had not used was a reference to "Milton Friedman's famous 'helicopter drop' of money."

Attempting to counter concerns of another Great Depression-style deflation, Bernanke outlined what he would introduce as Fed policy six years later as "quantitative easing." The future Fed Chairman explained in his remarks: "I am confident that the Fed would take whatever means necessary to prevent significant deflation in the United States …"

As expounded upon by Bernanke, "Indeed, under a fiat (that is, paper) money system, a government (in practice, the central bank in cooperation with other agencies) should always be able to generate increased nominal spending and inflation, even when the short-term nominal interest rate is at zero."

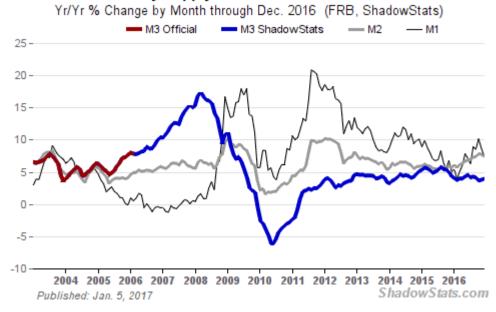
"Like gold, U.S. dollars have value only to the extent that they are strictly limited in supply. But the U.S. government has a technology, called a printing press (or, today, its electronic equivalent), that allows it to produce as many U.S. dollars as it wishes at essentially no cost. By increasing the number of U.S. dollars in circulation, or even by credibly threatening to do so, the U.S. government can also reduce the value of a dollar in terms of goods and services, which is equivalent to raising the prices in dollars of those goods and services. We conclude that, under a paper-money system, a determined government can always generate higher spending and hence positive inflation."

The Fed fears it has lost control of the system; it did in 2008. The Fed claims it is concerned about the economy and too-low inflation; it needs a weak economy for QE political cover, and it can create inflation any time it wishes. In 2008, the Fed moved to salvage the banking system at all costs, including sacrificing economic recovery and setting the stage for future inflation. The economy is tanking anew, inflation is spiking and the banking is far from recovery and normal activity. After nearly a decade of misguided "corrective" policies, perhaps the time is at hand to reconsider the nature of the Federal Reserve and the domestic banking system.

[Federal Reserve related *Graphs FED-2 to 7* begin on the following page.]

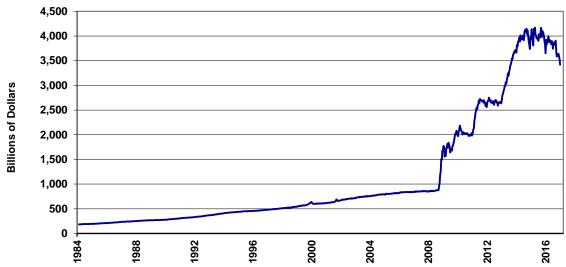
Graph FED-2: M3 Money Supply - Year-to-Year Change (2004 to 2016)

Annual U.S. Money Supply Growth - ShadowStats Continuation

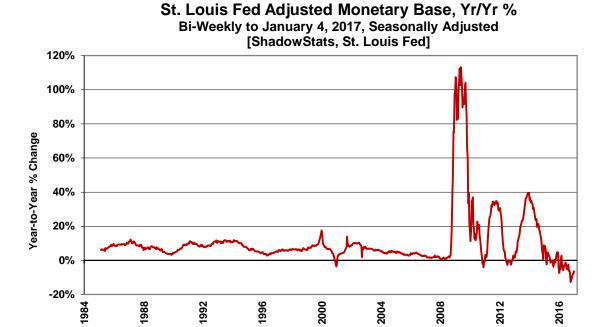


Graph FED-3: Monetary Base – Level (1984-2017)

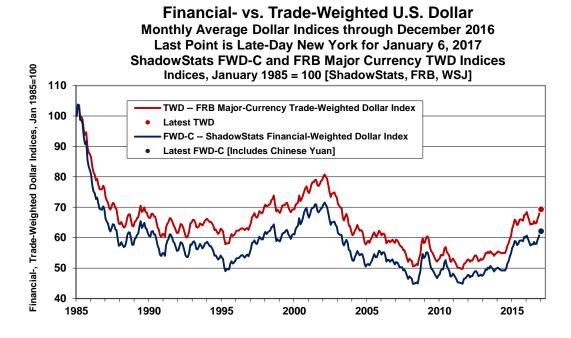
St. Louis Fed Adjusted Monetary Base Bi-Weekly to January 4, 2017, Seasonally Adjusted [ShadowStats, St. Louis Fed]



Graph FED-4: Monetary Base – Year-to-Year Change (1984 to 2017)



Graph FED-5: Financial- versus Trade-Weighted U.S. Dollar (1985 to 2016)



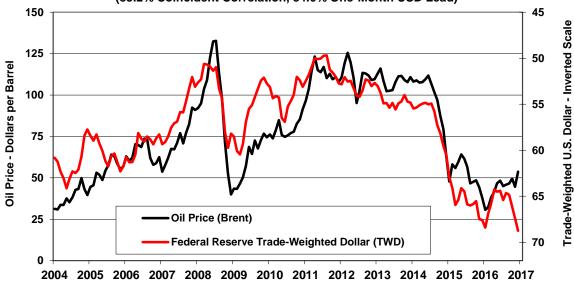
Graph FED-6: Year-to-Year Change, Financial- versus Trade-Weighted U.S. Dollar (1986 to 2016)

# Financial- vs. Trade-Weighted U.S. Dollar Monthly Average Year-to-Year Percent Change, to December 2016 Last Point is Late-Day New York for January 6, 2017 ShadowStats FWD-C and FRB Major Currency TWD Indices [ShadowStats, FRB, WSJ]



Graph FED-7: Oil Prices versus the Federal Reserve's Major-Currency Trade-Weighted U.S. Dollar (2004 - 2016)

#### Oil (Brent) vs Inverted FRB Trade-Weighted U.S. Dollar Monthly Average Price or Exchange Rate through December 2016 FRB Major-Currency TWD Index, Jan 1985 = 100 [ShadowStats, St. Louis Fed, WSJ] (83.2% Coincident Correlation, 84.6% One-Month USD Lead)



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#### FEDERAL DEBT AND DEFICIT: CONTINUING OUT OF CONTROL

"We Can Always Print Money." At the time of Standard & Poor's ratings downgrade of U.S. Treasury debt instruments in August 2011, former Federal Reserve Chairman Alan Greenspan noted to NBC's *Meet the Press:* 

"The United States can pay any debt it has because we can always print money to do that. So there is zero probability of [U.S. Treasury] default."

With the net-present value of total U.S. government obligations, including unfunded liabilities, well in excess of \$100 trillion, such a circumstance guarantees hyperinflation. The outlook there will depend largely on whether or not the new Administration will take action to bring the long-term sovereign-solvency issues of the United States under control. That will not be accomplished easily, as discussed in the *EXECUTIVE SUMMARY*. Those issues will be pursued as well in a related, forthcoming *Special Commentary*, subsequent to the January 12th release of the fiscal-year 2016 GAAP (Generally Accepted Accounting Principles)-based reporting of the government's financial statements.

Various Reporting and Fiscal Shenanigans Continue to Obscure Some Growth in the Headline Federal Debt and Deficit. There was a time, before the Panic of 2008, when the headline federal deficit really was cash-based, cash-in less cash-out, although it still had its own reporting gimmicks. In the wake of the Panic of 2008, however, the government opted to "capitalize" some of its bailout money, instead of reflecting it as cash-out. Not being consolidated in the federal government's financial statements, for example, Fannie Mae and Freddie Mac ended up paying "dividends" to the investing U.S. Treasury, based on accounting gimmicks that would have no place otherwise in an entity owned by the Federal Government.

A separate complication was the effective monetization of roughly 78% of the U.S. Treasury's net-public-debt issuance in 2014 in the Federal Reserve's quantitative easing programs. Independent of the Federal Government, the Fed continues to hold outright some \$2.5 trillion of Treasury debt, refunding the interest it receives on that debt to the Treasury. The Fed also effectively has been helping to prop Fannie Mae and Freddie Mac with its holdings of agency and mortgage-backed securities.

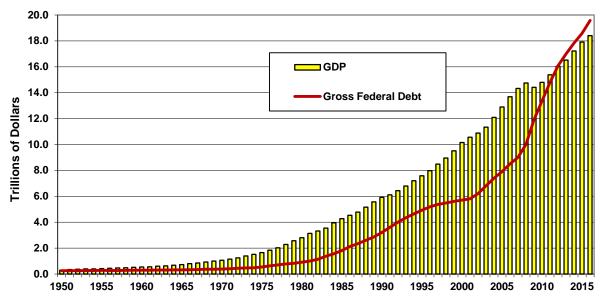
Consistent annual accounting recently has been complicated further by intermittent debt-ceiling crises that have run across federal government fiscal years, such as seen in the fiscal-year ended September 30, 2015. Consider that headline cash-based budget deficits in fiscal years 2014, 2015 and 2016 ran respectively at \$483 billion, \$349 billion and \$587 billion, but annual debt grew by \$1,086 billion, \$327 billion and \$1,423 billion. Details here were skewed by the government shutdown and should be reflected reasonably accurately in the GAAP statements.

Again, the General Accountability Office (GAO)—where at one time the "A" stood for "Accounting"—has raised issues, in its financial statements of the federal government, as to the appropriateness of underlying assumptions made by the Administration as to the Affordable Care Act (ACA) in annual reporting. Generally, ShadowStats has used the GAO's alternative assumptions in assessing the annual financial results for the U.S. Government. Even so, those assumptions have been shifting.

Graph FISCAL-1: Fiscal-Year-End Gross Federal Debt versus Nominal GDP (1950 to 2016)

### **Gross Federal Debt versus Nominal U.S. GDP**

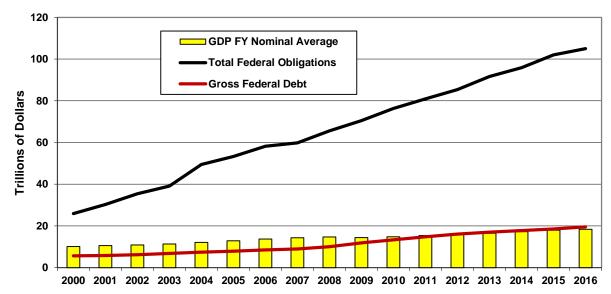
Fiscal-Year-End Debt versus Fiscal-Year GDP to FY2016 Adjusted for Year-End Debt-Ceiling Distortions [Sources: ShadowStats, U.S. Treasury, BEA]



Graph FISCAL-2: Fiscal-Year-End Total Federal Obligations versus Nominal GDP (2000 to 2016)

### **Total Federal Obligations versus Nominal GDP**

Fiscal-Year-End Obligations versus GDP, Include Gross Federal Debt, Net-Present Value of Unfunded Liabilities and Other GAAP Adjustments Total Obligations Estimated 2014 to 2016 [Sources: ShadowStats, U.S. Treasu



Preceding *Graphs FISCAL-1* and 2, reflect actual numbers in *FISCAL-1*, but in *FISCAL-2*, total federal obligations are ShadowStats estimates, which will be updated from the GAO accounting and estimates for fiscal years 2014 to 2016, reflecting new detail available on January 12th. The latest broad, detailed ShadowStats assessment is found in 2014 Hyperinflation Report—The End Game Begins page 45.

#### INFLATION: DESTROYER OF REAL WEALTH AND PURCHASING POWER

**Gold Still Hedges Inflation Risks.** In a world where "The United States can pay any debt it has because we can always print money to do that," per Alan Greenspan (see the *FEDERAL DEBT AND DEFICIT* section), and where "Indeed, under a fiat (that is, paper) money system, a government (in practice, the central bank in cooperation with other agencies) should always be able to generate increased nominal spending and inflation, even when the short-term nominal interest rate is at zero," per Ben Bernanke (see the *FED*) section, real world inflation is not about to disappear.

The Federal Reserve has created a great deal of inflation in the past century, as noted in *Table INFLATION-1* and in considering the location of the blue points in *Graphs INFLATION-2 to 5*.

Table INFLATION-1: Historical Comparisons of Measures and Hedges (1914 to 2016)

# Change in Purchasing Power of the U.S. Dollar Through December 2016

Versus 1914 (Year the Federal Reserve-FRB Became Active), 1933 (Year that Roosevelt Abandoned Domestic Gold Standard), 1970 (Year Leading into Nixon's Closing the Gold Window), and December 2006, the Last Decade

USD versus	Since January of			In 10 Years
	1914 FRB	1933 FDR	1970 Nixon	Since Dec 2006
CPI-U	-95.9%	-94.7%	-84.4%	-16.4%
Silver	-97.1%	-97.2%	-89.4%	-22.0%
Gold	-98.2%	-98.2%	-96.4%	-66.8%
ShadowStats CPI 2	-99.2%	-98.9%	-96.7%	-58.3%
<b>Broad Money Supply</b> <sup>3</sup>	-99.9%	-99.8%	-96.5%	-36.0%

Data points reflect monthly averages.

- (1) Annual averages used for silver prices in 1914, 1933 and 1970.
- (2) ShadowStats alternate CPI measure based on 1980 methodologies.
- (3) Broadest money measure, closest equivalent of M3, including ShadowStats.com Ongoing Estimate of M3, post-February 2006.

Sources: ShadowStats, BLS, FRB, Kitco, St. Louis Fed.

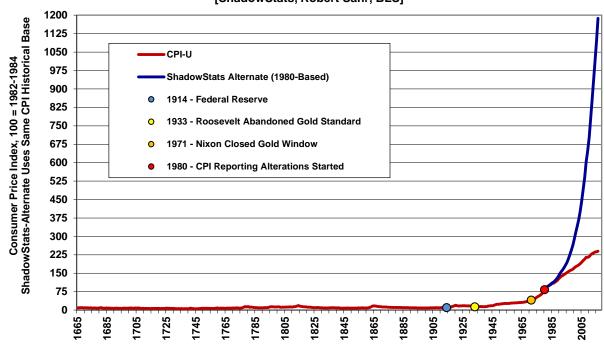
Shown in *Table INFLATION-1*, the U.S. dollar has lost 95.9% of its purchasing power since the Federal Reserve opened its doors in 1914, based on today's headline CPI-U. Based on the ShadowStats Alternate CPI Estimate (1980-Based), as described in the *Public Commentary on Inflation Measurement*, the U.S. dollar's purchasing power as declined by 99.2%, more in line with a 98.2% decline in the purchasing power of the dollar as measured by the price of gold, and a 99.9% decline in dollar's purchasing power as measured against the broadest measure of the money stock. In terms of potential assets for hedging against inflation, despite recent extreme selling pressures, gold still has more than covered headline CPI-U inflation (also silver) and gold closely has offset or more than covered the broadest ShadowStats inflation estimate.

Consider as well accompanying *Graphs INFLATION-1* to 4. There are two sets of plots. Each set is shown with inflation plotted first using an arithmetic scale and then a logarithmic scale. The second set includes a plot of year-end gold prices, not specifically fit to the inflation plots. Looking at the log scales, inflation tended to rise during various periods of war, then fall back, until the founding of the Fed in 1914. Headline CPI inflation began to accelerate and never looked back after Roosevelt abandoned the domestic gold standard, and further after Nixon abandoned international convertibility of the dollar for gold.

[Graphs INFLATION-1 to 2 begin on the next page]

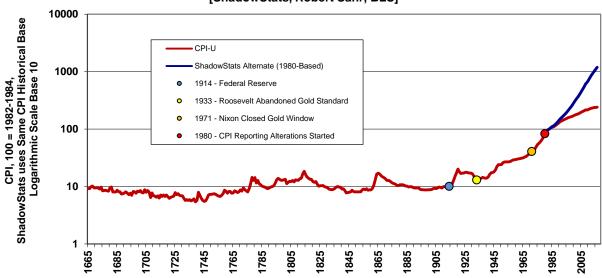
Graph INFLATION-1: Consumer Inflation (1665 to 2016)

# Consumer Inflation in the American Colonies and the United States, 1665 to 2016, CPI versus ShadowStats-Alternate Inflation [ShadowStats, Robert Sahr, BLS]



Graph INFLATION-2: Consumer Inflation (1665 to 2016) - Logarithmic Plot

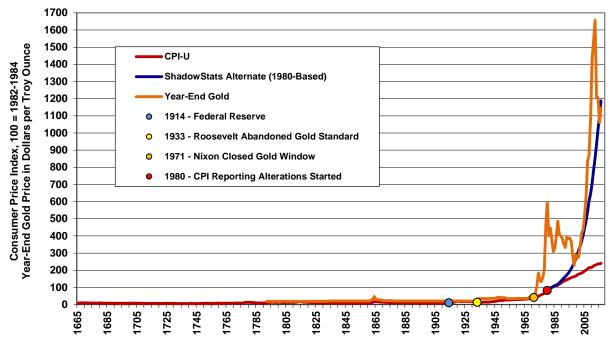
# Consumer Inflation in the American Colonies and the United States, 1665 to 2016, CPI versus ShadowStats-Alternate Inflation [ShadowStats, Robert Sahr, BLS]



Graph INFLATION-3: Consumer Inflation (1665 to 2016) versus Gold

## American Colonies and United States Inflation (1665-2016) CPI and ShadowStats vs. Year-End Gold (1792 to 2016)

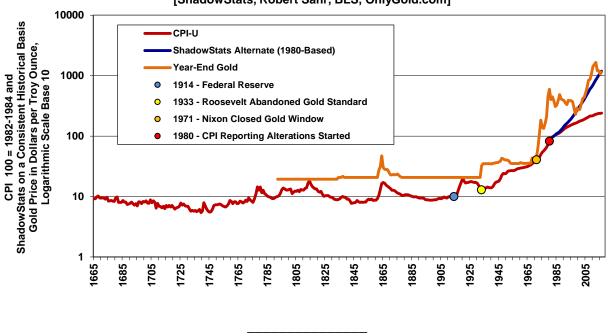
[ShadowStats, Robert Sahr, BLS, OnlyGold.com]



Graph INFLATION-4: Consumer Inflation (1665 to 2016) versus Gold – Logarithmic Plot

## Consumer Inflation, 1665 to 2016, CPI and ShadowStats-Alternate versus Year-End Gold Price

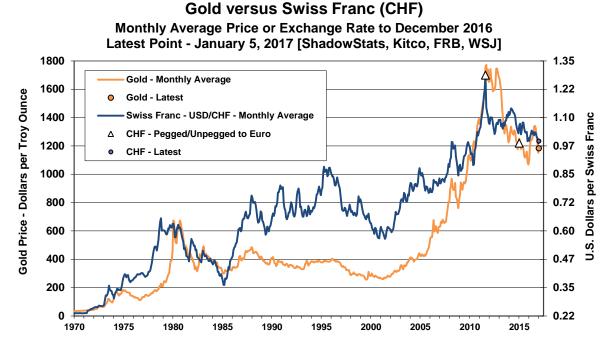
[ShadowStats, Robert Sahr, BLS, OnlyGold.com]



### MARKETS: PENDING DOLLAR AND STOCK CRASHES, PRESERVING WEALTH

Despite Sharp Year-End Rallies in Equities and the Dollar, and Sharp Sell-Offs in Gold and Silver, the Precious Metals Still Have Prevailed over Time. *Graphs MARKETS-1* to 8 in this section show the regular year-end plots of relative performance of various asset classes, ranging from precious metals and oil to equities, Treasury yields and home prices. The first three graphs involving gold, silver, oil and the Swiss franc are in nominal terms (as were *Graphs FED-5* to 7 covering the dollar indices and oil).

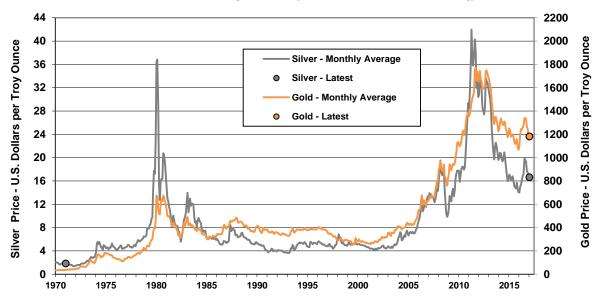
Graph MARKETS-1: Nominal Gold Price versus the Swiss Franc (1970 to 2016)



[Graphs MARKETS-2 to 3 are found on the next page]

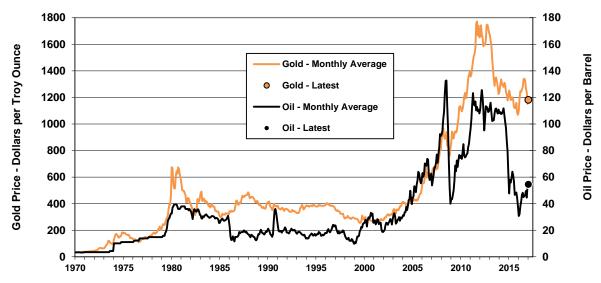
Graph MARKETS-2: Nominal Gold Price versus Silver Price (1970 to 2016)

Gold versus Silver
Monthly Average Price Levels to December 2016
Latest Point - January 5, 2017 [ShadowStats, Kitco, Stooq]



Graph MARKETS-3: Nominal Gold Price versus Oil Price (1970 to 2016)

# Gold versus Oil (Brent/WTI) Monthly Average Prices to December 2016, Pre-1987 is WTI Latest Point - January 5, 2017 [ShadowStats, Kitco, DOE]



*Graphs MARKETS-4* to 8 are in real terms, deflated by the headline CPI-U. In a year of unusual developments, including obvious intervention knocking gold and silver prices lower, separate from post-election selling, which also could have been encouraged by central banks' games playing, consider *Graph* 

*MARKETS-4*, which suggests that physical holdings of precious metals provide a meaningful store-of-wealth function against inflation.

## Physical Holdings of Gold and Silver Provide a Practical Inflation Hedge and Store-of-Wealth.

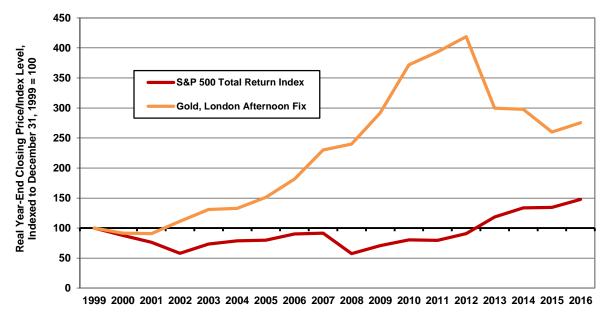
Although there is a chance for a reprieve from the pending, massive debasement of the U.S. dollar, ingrained institutional pressures favor not addressing the long-term U.S. fiscal imbalances or fundamental issues within the domestic banking system. Those pressures are strong and will be difficult to overcome before the 2018 congressional election, an event likely still much too far into the future to help the dollar meaningfully. That means that the ShadowStats fundamental analysis of a potential hyperinflation crisis in the United States remains in play, and should be viewed in the context of continuing high risk.

Please review *Chapter 10*, <u>2014 Hyperinflation Report—Great Economic Tumble</u> for detailed discussion on approaches to handling a hyperinflation crisis and the effects on various asset groups including equities and TIPS (neither asset class would do well in the difficult times ahead). The best hedges here remain holding physical gold and silver, as well as holding some assets outside of the U.S. dollar.

The protective hedges work, however, only if they are held through the financial crisis. As seen in recent trading, gold and silver prices can be pummeled in the open markets, often by apparent central bank interventions. Once serious dollar debasement or inflation kicks in, however, gold's store-of-wealth effect should become the dominant factor driving the gold price, as also would be the case for silver.

Graph MARKETS-4: Real Gold Price versus Real S&P 500 Total Return Index (2000 to 2016)

## Real Gold Price versus Real S&P 500 Total Return Index Year-End Close Indexed to December 31, 1999 = 100, Deflated by CPI-U, Not Seasonally Adjusted [ShadowStats, BLS, Kitco, S&P]



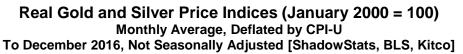
The current post-election surges in U.S. stocks and the U.S. dollar are not sustainable. In like manner, the related, recent sharp declines in gold and silver prices are not sustainable. When the dollar and stock

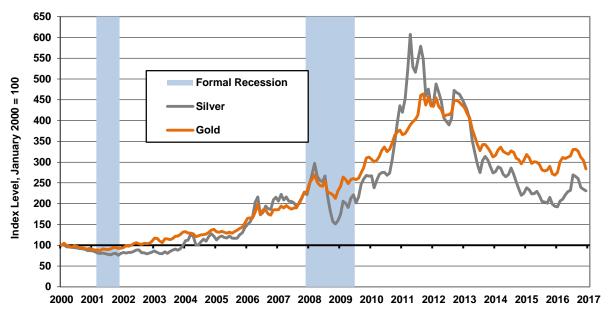
prices break, the downside adjustment likely will be rapid, along with a corresponding upside reversal in precious metals, with domestic- and foreign-flight capital seeking safety in physical gold and silver.

Given likely heavy U.S. dollar selling or debasement, inflationary pressures should mount rapidly, with the inflation surge beginning with upside spikes to oil and gasoline prices, which, in turn, would tend to fuel a self–feeding cycle. In what would evolve rapidly into a major inflation problem—the early stages of hyperinflation—physical gold (primary) and silver remain the best hedges, stores of wealth that preserve the purchasing power of the invested assets, as well as being highly liquid and portable. They work as solid hedges, only if held through the currency/inflation crisis.

Shown in the preceding graph, despite the most-popular U.S. stock indices having rallied sharply recently, trading now at or near all-time highs, and despite heavy selling of gold this year, particularly, post-election, gold still has outperformed both the S&P 500 (graphed) and the Dow Jones Industrial Average, since the beginning of the new millennium. The plotted points reflect year-end closing prices, with the indexed prices adjusted for CPI-U inflation, and with the stock-index values adjusted to reflect the reinvestment of dividends.

Graph MARKETS-5: Real Gold and Silver Price Indices (2000 to 2016)





**Real or Inflation-Adjusted Markets.** In an environment with the Federal Reserve supporting the banking system and the stock market, domestic investors have found their investment options severely limited in recent years, in terms of finding safe and livable returns. The accompanying graphs show the monthly average levels of equity market values (S&P 500 and the Dow Jones Industrial Average), short-term Treasury yields, home values and gold and silver prices, all adjusted for headline CPI-U inflation.

Not too surprisingly, despite the sharp declines in gold and silver prices of the last several years, the precious metals—traditional inflation hedges—stilled showed the strongest real returns since 2000, up well in excess of 100%.

The stock indices (*Graph MARKETS-6*), adjusted for the CPI-U just broke solidly above par in the last couple of years. Such excludes consideration of dividends. An average reinvested, dividend yield of two-percent would add about 37% to aggregate real return, still well shy of the precious metals, again as shown in *Graph MARKETS-4* of inflation-adjust gold versus the Total Return S&P Index, with reinvested dividends.

Net of annual CPI-U inflation, real yields on the "risk-free" three-month Treasury bill and the five-year and ten 10-year Treasury notes have been negative for the better part of the post-2010, with 10-year just holding in positive real yield territory (see *Graph MARKETS-7*), pushed lower by rising inflation. With Treasury yields forced to artificially-low levels by the Fed's quantitative easing programs, longer-term maturities will crash in price, as yields increasingly move higher, in response to inflation and or to shifting Federal Reserve policies. Despite the recent hike in the federal funds rate and with rising inflation, both the three-month and five-year Treasuries closed out 2016 in with negative real yields.

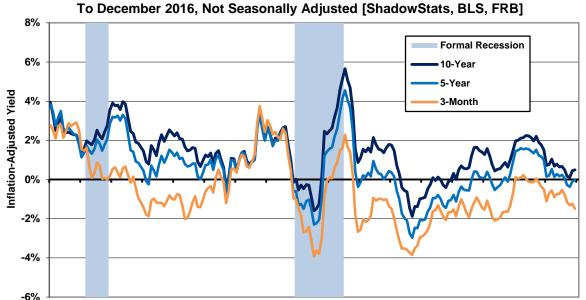
Graph MARKETS-6: Real S&P 500 and Dow Jones Industrial Average Indices (2000 to 2016)





Graph MARKETS-7: Real U.S. Treasury Yields—3-Month, 5- and 10-Year (2000 to 2016)

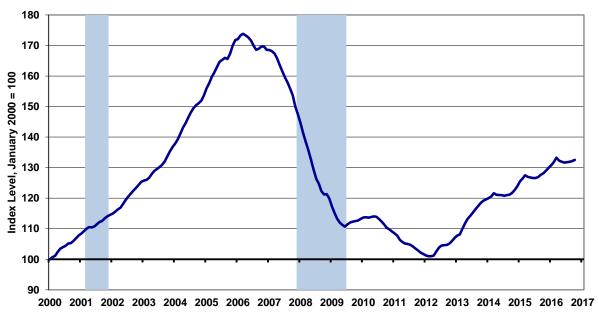
# Monthly Average Real Interest Rates -- U.S. Treasury Securities 3-Month, 5- and 10-Year Constant-Maturity Yields Minus Headline CPI-U Annual Inflation



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Graph MARKETS-8: Real Home Value Index (2000 to 2016)

# Real Home Value Index (January 2000 = 100) S&P Case-Shiller 20-City Home Index Deflated by CPI-U To October 2016, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



Real home values (S&P Case-Shiller) had gained more than 70% by 2006 (*Graph MARKETS-8*), from 2000, but then crashed back to, but not below, 2000 levels in 2012, and now are up by something above

30% (again, these numbers are net of CPI-U inflation). Real estate is a hard asset and does tend to hold its value against inflation, as a long-term store of wealth. Against the precious metals, however, it generally is not quite as liquid, and certainly is not portable.