

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

COMMENTARY NUMBER 325
CPI, PPI, Production, Household Income

September 17, 2010

August Annual Consumer Inflation: 1.1% (CPI-U), 8.5% (SGS)

Production Down Except for Boost from Prior-Period Revisions

Households Face Mounting Financial Stress

Income Variance at Record High

PLEASE NOTE: The next regular Commentary is scheduled for Friday, September 24th (posting may be on the 25th, depending on timing of planned travel), following the release of August new orders for durable goods and including the week's various August housing data, from starts to new and existing home sales.

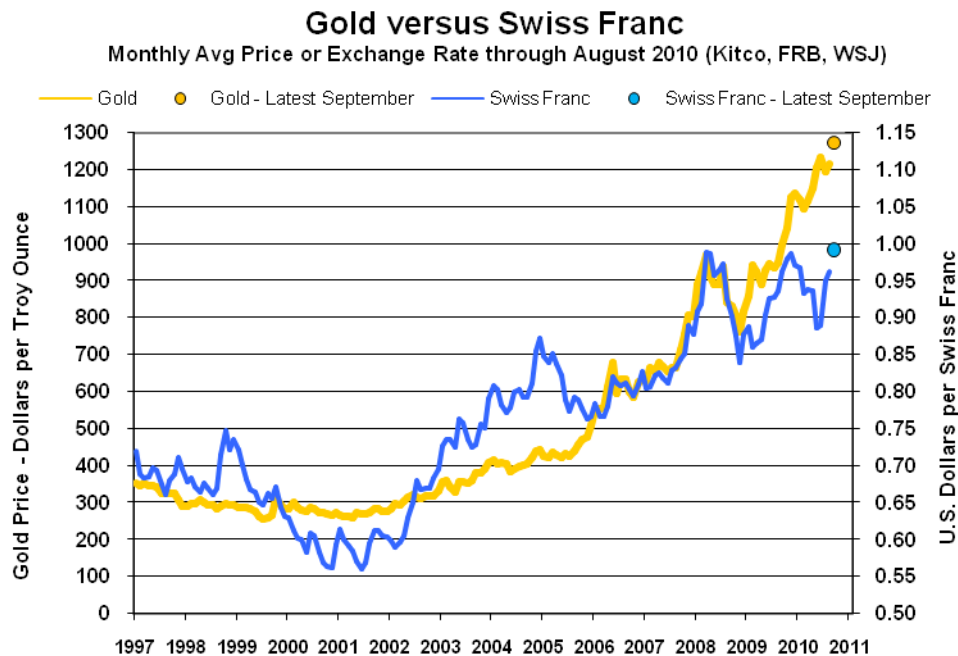
-- Best wishes to all, John Williams

U.S. Economy Continues to Falter as Investor Concerns Mount as to Soundness of U.S. Dollar.
Relative economic, political and fiscal strength and stability are key supports for any currency, and the U.S. dollar increasingly is in trouble. The latest numbers show faltering economic activity and mounting

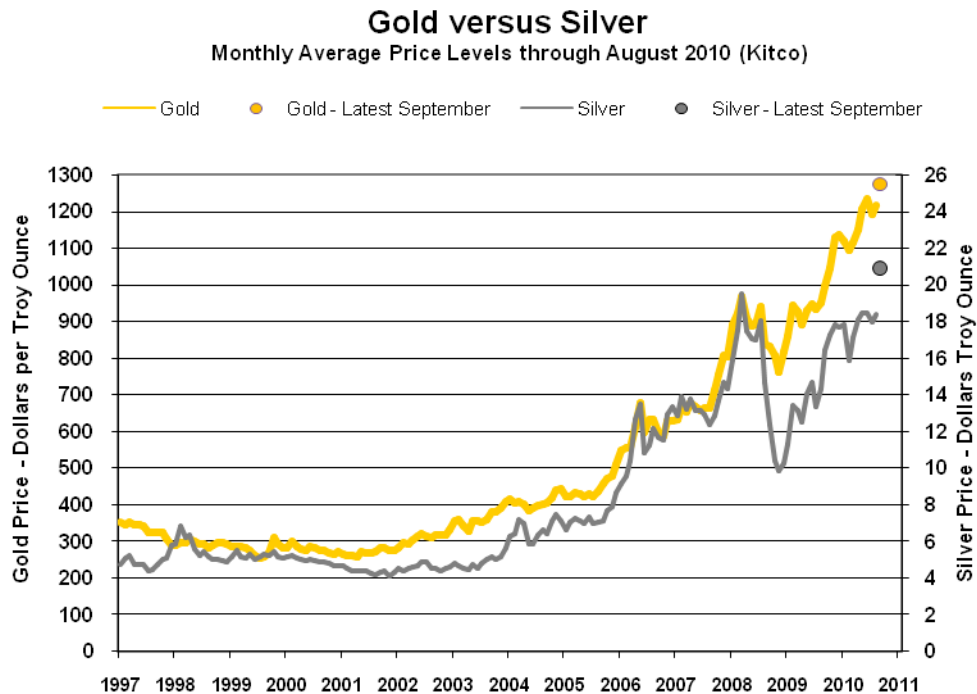
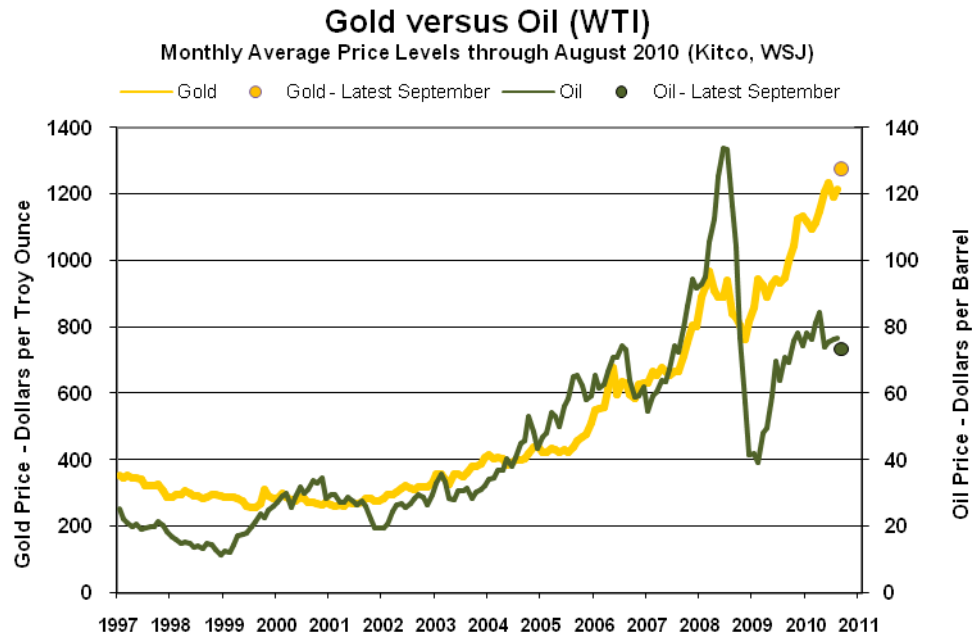
criticism of the sitting government (weak presidential approval ratings often lead dollar weakness). Presumptions of ongoing economic "recovery" are vanishing, and fears are increasing as to what the federal government and the Federal Reserve will have to do in order to maintain systemic stability. While actions taken may provide short-lived relative stability, the cost of same will be an extreme inflation problem. The broad outlook remains as outlined in [Commentary No. 323](#).

Although possibly independent of Fed Policy, money supply M2 -- the broadest money measure now formally tracked by the Fed -- has begun rising regularly (seasonally-adjusted) on a weekly basis since the 4th of July, at an annualized pace of 7.8%. The impact on M3 has been positive but muted, with year-to-year M3 change down 4.3% as of August. Going forward, the Fed will have no choice but to liquefy the system massively, as the federal government will have no choice but to spend well beyond its means in supporting the political, social and financial infrastructure threatened by ongoing economic collapse.

Selling pressure against the U.S. dollar, with a resulting dollar-supportive intervention by the Bank of Japan, and rallying gold and silver prices all suggest a shift in sentiment against the U.S. currency that has started to pick up momentum. A long-term debasement of the U.S. dollar remains inevitable, despite any near-term market volatility (possibly extreme) in the currencies and precious metals that could be triggered and/or encouraged by central banks.



As suggested by the graphs, the gold market continues to look beyond short-term volatility in the financial markets and consensus hype, with the upside distortions in the U.S. dollar's exchange rate beginning to reverse. The downside distortions to oil prices are likely to begin reversing, too, in tandem with any significant new weakness seen in the U.S. dollar.



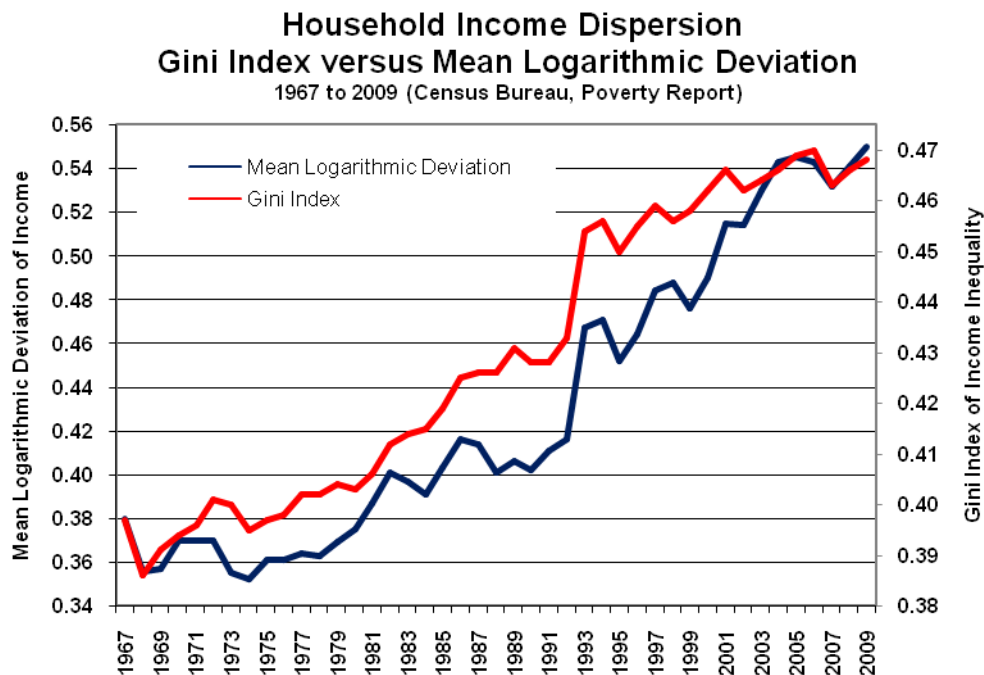
Fantasy Inflation Data Help Census Bureau to Obfuscate Ugly Income Story. The U.S. Census Bureau published [*Income, Poverty, and Health Insurance Coverage in the United States: 2009 \(Poverty Report\)*](#), yesterday, September 16th. The value of this report is in its estimates of household income and

income variance, not in its poverty estimates. Annual poverty reporting *per se* is not too meaningful, where the structure of the reporting is highly subjective. Measuring "poverty" is difficult, at best, when few can agree on a definition. There are many who do not consider themselves to be poor, even though they meet the government's standards, while others think they are poor but are not so defined. Separately the whole process has been heavily influenced by politics, with even some short-term efforts at impacting the numbers. For example, the survey's inner-city sampling size was reduced (with Congressional oversight) during the Clinton Administration, and re-expanded at the end of the Clinton era.

The actual survey usually is piggy-backed on the March household unemployment survey of the year following the reported data. So the March 2010 survey of 2009 data is what was published yesterday. The household income data from the 2008 *Poverty Report* were used in last year's SGS [Consumer Liquidity Special Report](#). What follows is brief update of the numbers and related text in the *Special Report*. The full report will be updated eventually, but the story told last year has not changed.

Rising Income Dispersion Usually Foreshadows Economic and Financial Market Turmoil. Measures of income dispersion, or variance, indicate how income is distributed 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 deviation of income is as shown in the graph, the greater is the income dispersion.

Generally, the more moderate the income variance is, the stronger the middle class is, and the healthier the economy will be. Conversely, the greater the variance in income is, the more negative are the longer term economic implications. A person earning \$100,000,000 per year is not going to buy proportionately more automobiles that someone earning \$100,000 per year.



Conditions surrounding extremes in income variance usually help to fuel financial-market bubbles, followed by financial panics and economic depressions. The sequence of those factors tends to redistribute income in a manner that usually lowers income variance. Other than for a brief dip following the 1987 stock-market crash, however, 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.

Shown in the preceding graph are the Gini Index of Income Inequality and the Mean Logarithmic Deviation of Income (MLD), two of the more popular income dispersion series. Some of the finer points and mathematics behind several of the income variance measures are covered in the Census Bureau's article: [*The Changing Shape of the Nation's Income Distribution*](#).

The increase of income dispersion in 2009 (to a record high for the MLD), despite the ongoing economic and systemic liquidity crises, suggests that 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 crises still ahead.

Income Fell in 2009; Real Household Income Never Has Recovered Its Pre-2001 Recession Peak. Consumer liquidity remained in contraction during 2009, with both household income and consumer credit (a later topic) both tumbling in nominal and real terms (not adjusted and adjusted for inflation).

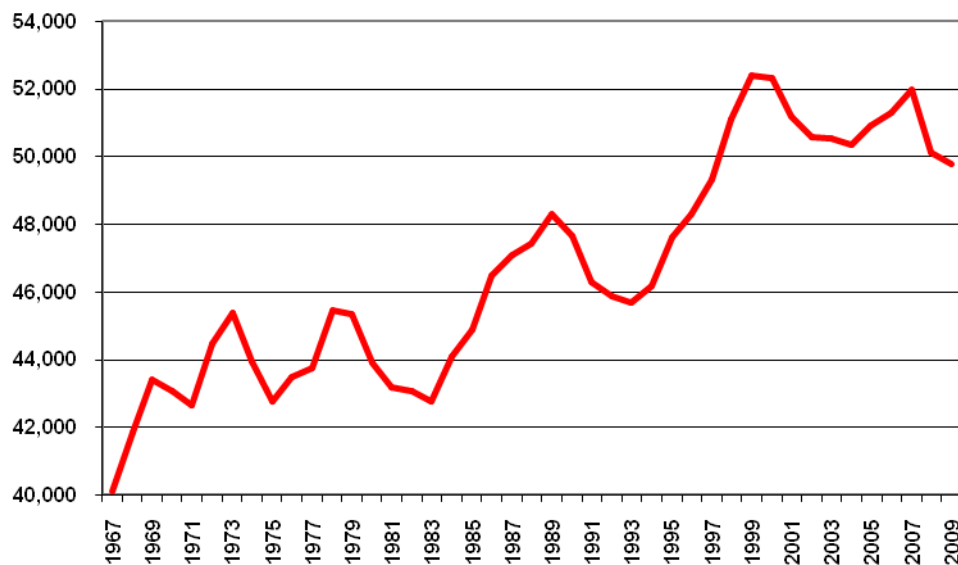
The next two sets of graphs show inflation-adjusted median and mean levels of household income from 1967 through 2009. The median measure is the middle measure of the survey and likely is a better reflection of how most households are doing. When the income dispersion measure is high, the mean, or average, measure tends to be skewed (in this case to the upside). Nonetheless, both measures showed sharp declines in 2009, on both nominal and real bases. On a real basis, neither series has topped the annual high levels seen before the 2001 recession, with real median and mean household incomes hitting their respective tops in 1999 and 2000. On a real basis using the CPI-U, median household income in 2009 was below its peak going into the 1973 to 1975 recession.

Please note in the second of each graph series, that both median and mean income are shown with household income deflated using two Bureau of Labor Statistics (BLS) inflation measures, the CPI-U and the CPI-U-RS. By using the CPI-U-RS, an "experimental" series, the Census Bureau is able to reduce historical inflation levels in its official reporting, with the result of showing a stronger inflation-adjusted pattern of income change (red line), than what usually would be the official weaker picture (blue line) based on the traditional CPI-U reporting.

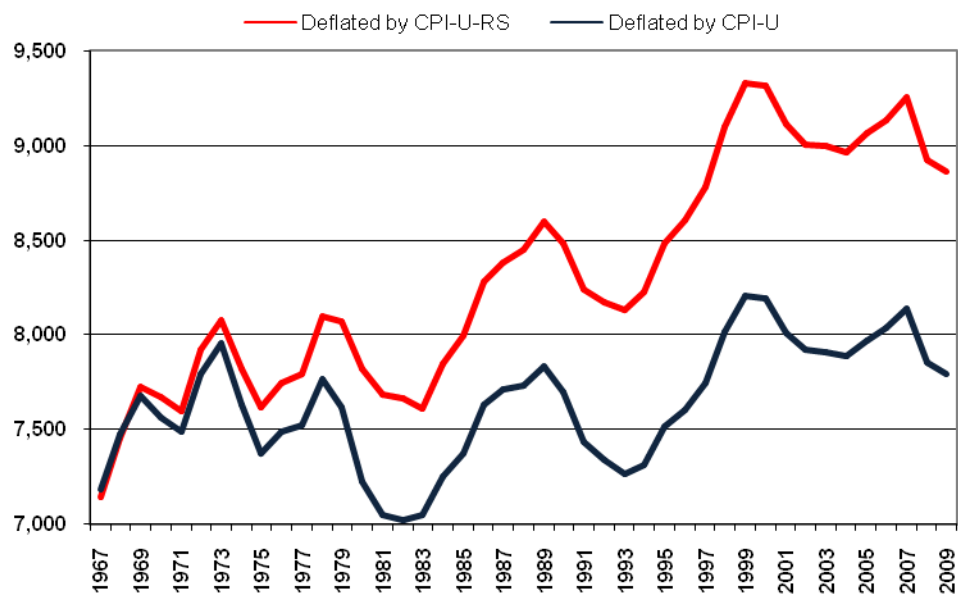
The CPI-U (All Urban Consumers) is the headline consumer inflation number published by the BLS and the one most commonly used in deflating consumer-related dollars. The Census Bureau appears to have used the CPI-U in its data up until 2003.

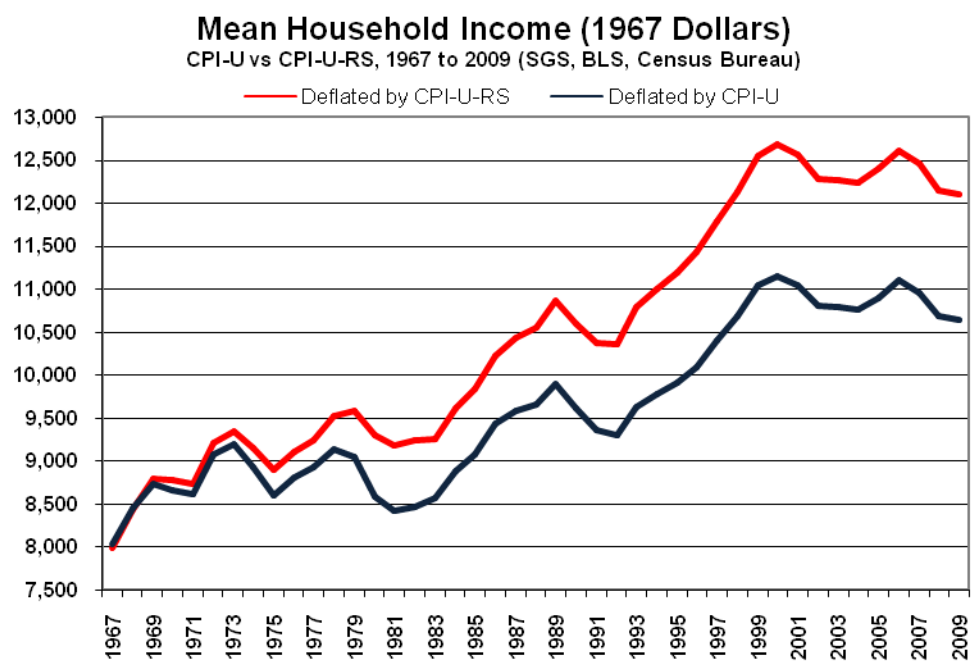
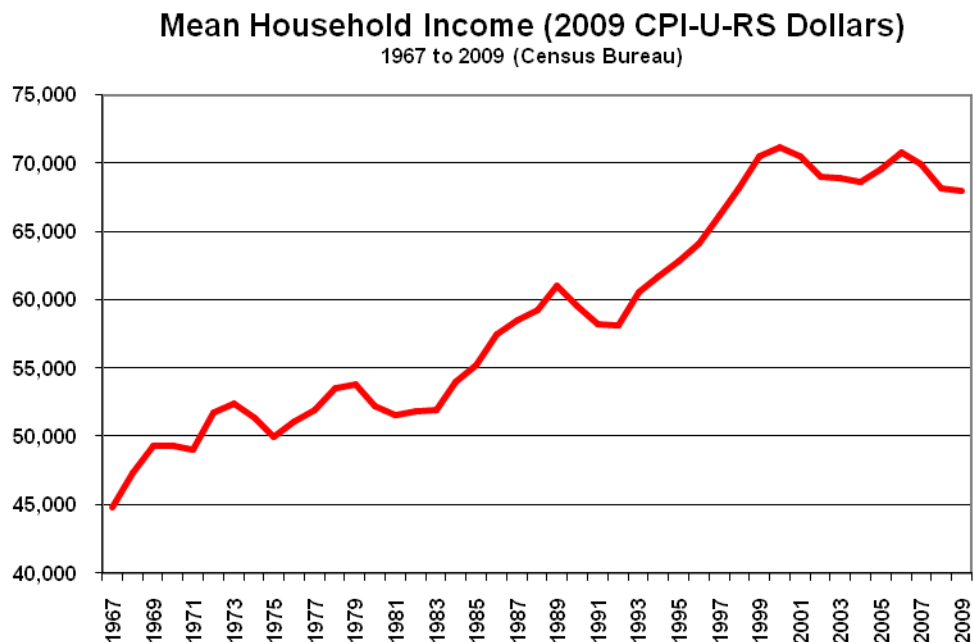
The CPI-U-RS (Current Methods) is a special version of the CPI-U with its history restated so as to reduce earlier-year inflation by imputing what it would have been using today's "advanced" CPI reporting methodologies. The CPI-U-RS is the index used by the Census Bureau in deflating income numbers in the Poverty Report since 2003. It also is the series reverse-engineered by ShadowStats.com for constructing the SGS Alternate CPI estimates.

Median Household Income (2009 CPI-U-RS Dollars)
1967 to 2009 (Census Bureau)



Median Household Income (1967 Dollars)
CPI-U vs CPI-U-RS, 1967 to 2009 (SGS, BLS, Census Bureau)





Notes on Different Measures of the Consumer Price Index

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

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

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

*The **C-CPI-U (Chain-Weighted CPI-U)** is an experimental measure, where the weighting of components is fully substitution based. It generally shows lower annual inflation rate than the CPI-U and CPI-W. The latter two measures once had fixed weightings -- so as to measure the cost of living of maintaining a constant standard of living -- but now are quasi-substitution-based.*

*The **SGS Alternative CPI-U Measures** are attempts at adjusting reported CPI-U inflation for the impact of methodological change of recent decades designed to move the concept of the CPI away from being a measure of the cost of living needed to maintain a constant standard of living.*

No Increase in Social Security COLA Likely, Again, Despite Higher Inflation. Although annual inflation in the CPI-W has averaged around 1.5% for July and August (two of the three months used in the annual cost-of-living-adjustment for Social Security payments) there likely will be no adjustment this year, shy of an act of Congress. The problem is that last year's CPI-W was lower in third-quarter 2009 than it was in third-quarter 2008. Although the inflation was negative, the COLA was unchanged -- not reduced -- and the COLA will not kick in again until the base period once more exceeds third-quarter 2008. As best I can figure it, the CPI-W would have to jump about 2%, seasonally-adjusted, from August to September, just to get the CPI-W measure to par, and such a monthly change is not likely at present. Nonetheless, August CPI reporting was a little stronger than consensus.

CPI-U. The BLS reported Friday (September 17th) that the seasonally-adjusted August CPI-U rose by 0.25% (up by a statistically-significant 0.14%, unadjusted) +/- 0.12% (95% confidence interval, not seasonally adjusted) for the month, after a 0.31% gain (up 0.02% unadjusted) in July. Seasonally-adjusted, the CPI-U annualized rate of inflation for the three months ended August 2010 (August versus May) was 1.72%, against July's virtually flat gain of 0.03%. As the three-month spread crossed the changeover in monthly seasonal-adjustment impact on gasoline prices, unadjusted, the CPI-U annualized rate of inflation for the three months ended August 2010 was 0.25%, against July's flat reading.

Unadjusted, August's year-to-year inflation was 1.15% +/- 0.20% (95% confidence interval) against a 1.24% annual increase in July.

Year-to-year inflation would increase or decrease in next month's September 2010 reporting, dependent on the seasonally-adjusted monthly change, versus the 0.06% adjusted monthly gain seen in September 2009. I use the adjusted change here, since that is how consensus expectations are expressed. To approximate the annual inflation rate for September 2010, the difference in September's headline monthly change (or forecast of same) versus the year-ago monthly change should be added to or subtracted directly from August 2010's reported annual inflation rate of 1.15%.

CPI-W. The narrower, seasonally-adjusted August CPI-W rose by 0.35% (up 0.14% unadjusted) for the month, following a gain of 0.37% (0.03% unadjusted) in July. Seasonally-adjusted, the annualized rate of CPI-W inflation for the three months ended August 2010 (August versus May) was a gain of 2.15%, versus a contraction of 0.37% in July. Unadjusted, the CPI-W annualized rate of inflation for the three months ended August 2010 was a gain of 0.15%, against a July loss of 0.11%.

Unadjusted year-to-year CPI-W inflation rose by 1.44% in August, versus a 1.60% July increase.

C-CPI-U. The Chain-Weighted CPI-U -- the fully substitution-based series that gets touted by CPI opponents and inflation apologists as the replacement for the CPI-U -- is reported only on an unadjusted basis. Unadjusted, the C-CPI-U annualized rate of inflation for the three months ended August 2010 (August versus May) was a 0.31% contraction, against July's 0.54% contraction. Year-to-year, or annual inflation, was plus 0.90% in August 2010, versus a 1.02% gain in July.

Alternative Consumer Inflation Measures. Adjusted to pre-Clinton (1990) methodology, annual CPI inflation was roughly 4.5% in August 2010, the same level as in July, while the SGS-Alternate Consumer Inflation Measure, which reverses gimmicked changes to official CPI reporting methodologies back to 1980, was about 8.5% (8.50% for those using the extra digit) in August, versus 8.6% in July.

The SGS-Alternate Consumer Inflation Measure adjusts on an additive basis for the cumulative impact on the annual inflation rate of various methodological changes made by the BLS (the series is not recalculated). Over the decades, the BLS has altered the meaning of the CPI from being a measure of the cost of living needed to maintain a constant standard of living, to something that no longer reflects the constant-standard-of-living concept. Roughly five percentage points of the additive SGS adjustment reflect the BLS's formal estimate of the annual impact of methodological changes; roughly two percentage points reflect changes by the BLS, where SGS has estimated the impact not otherwise published by the BLS.

Gold and Silver Highs Adjusted for CPI-U/SGS Inflation. Despite today's (September 17th) historic high gold price of \$1,274.00 per troy ounce (London afternoon fix), gold and silver prices have yet to approach their historic high levels, adjusted for inflation. The earlier all-time high of \$850.00 (London afternoon fix, per Kitco.com) of January 21, 1980 would be \$2,385 per troy ounce, based on August 2010 CPI-U-adjusted dollars, and would be \$7,758 per troy ounce in terms of SGS-Alternate-CPI-adjusted dollars (all series not seasonally adjusted).

In like manner, the all-time high price for silver in January 1980 of \$49.45 per troy ounce (London afternoon fix, per silverinstitute.org) has not been hit since, including in terms of inflation-adjusted dollars. Based on August 2010 CPI-U inflation, the 1980 silver price peak would be \$139 per troy ounce and would be \$451 per troy ounce in terms of SGS-Alternate-CPI-adjusted dollars (again, all series not seasonally adjusted).

As shown on page 22 in the [Hyperinflation](#) report, over the decades, the price of gold has compensated for more than the loss of the purchasing power of the U.S. dollar as reflected by CPI-U inflation, while it has effectively fully compensated for the loss of purchasing power of the U.S. dollar based on the SGS-Alternate CPI.

Real Money Supply M3. The signal of the still unfolding intensification of the economic downturn, based on annual contraction in the real (inflation-adjusted) broad money supply (M3), most recently was discussed and graphed in [Commentary No. 323](#). The real contraction in August M3 (SGS-Ongoing) estimated for that *Commentary* was 5.5%. Based on today's CPI-U report and final estimate on the August SGS-Ongoing M3 Estimate, that annual contraction was 5.4%, narrower than July's 6.6% contraction, and May's post-World War II record annual decline of 7.9%.

The signal for a downturn or an intensified downturn is generated when annual growth in real M3 first turns negative in a given cycle; the signal is not dependent on the depth of the downturn or its duration. The current downturn signal was generated in December 2009. The broad economy tends to follow in downturn or intensification roughly six to nine months after the signal.

Real Retail Sales. Based on August 2010 CPI-U reporting, inflation- and seasonally-adjusted monthly August retail sales increased by 0.16%, where before inflation adjustment the current number was up by 0.42%, versus a revised real monthly 0.03% contraction (was a gain of 0.10%) in July. Despite the small monthly real gain in August retail sales -- other than July's weakened reporting -- the August level of activity was the lowest since March 2010.

August real retail sales rose at a softer year-to-year pace of 2.47%, versus the downwardly revised 4.07% (was 4.15%) annual gain initially reported for July.

On a quarter-to-quarter basis, real retail sales in second-quarter 2010 expanded at a 5.3% annualized pace, down from annualized growth of 6.6% in the first-quarter. Adjusted for inflation, seasonally-adjusted monthly retail sales in July and August were down at annualized pace of 1.1% versus the second-quarter, increasing the odds of a quarterly contraction in third-quarter retail sales.

Since November 2008, monthly real retail sales (CPI-U deflated) have been fluctuating around an average of \$162.4 billion (the deflated August number was \$166.7 billion). The first graph below reflects the relatively volatile monthly levels of real retail sales, as reported.

Smoothed for the monthly volatility on a six-month moving-average basis, as shown in the second graph, the pattern of activity here has been one of bottom-bouncing in terms of the level of inflation-adjusted sales. The recent bounce from short-lived stimulus factors and warped-seasonals appears largely to have run its course, with the average close to rolling over, and with continued lower real sales levels likely in the months ahead. There has been no change in underlying fundamentals that would support a sustainable turnaround in personal consumption or in general economic activity -- no recovery -- just general bottom-bouncing.

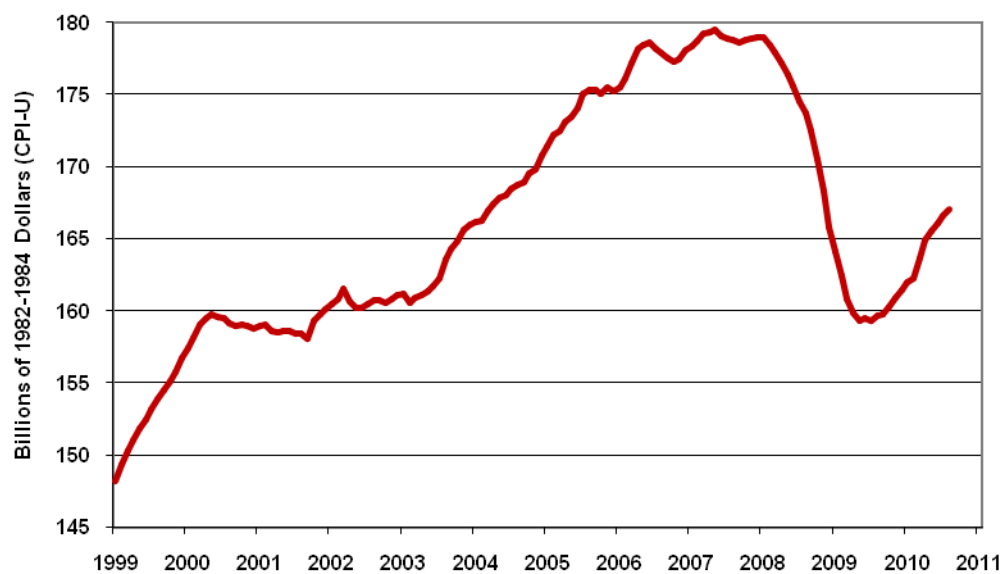
Inflation-Adjusted Retail Sales (Monthly Level)

Through August 2010, Seasonally-Adjusted (SGS, Census, BLS)



Inflation-Adjusted Retail Sales (6-Mo Moving Avg)

Through August 2010, Seasonally-Adjusted (SGS, Census, BLS)



August PPI Inflation Boosted as Energy Seasonal Factors Reverse. Seasonally-adjusted inflation at the wholesale and production level also rose month-to-month in August, slightly above expectations, helped by catch-up in seasonal factors that now are spiking monthly energy inflation, instead of suppressing same, as seen in recent months.

As reported yesterday (September 16th) by the Bureau of Labor Statistics (BLS), the regularly-volatile, seasonally-adjusted finished-goods producer price index (PPI) in August rose by 0.4% (down by 0.1% before seasonal adjustment) month-to-month, following July's gain of 0.2% (up by 0.3% unadjusted). Unadjusted and year-to-year, August's annual PPI inflation was 3.1%, somewhat softer than the annual inflation rate of 4.2% reported for July.

On a monthly basis, seasonally-adjusted August intermediate goods rose by 0.3% (down by 0.4% in July), with August crude goods rising by 2.3% (up by 2.7% in July). Year-to-year inflation in August intermediate goods was up by 5.0% (a 6.4% gain July), with August annual inflation in crude goods up by 18.3% (up by 20.5% in July).

Downside Revisions Dominate August Production Reporting. As was seen in August industrial production and retail sales reporting, weaker economic activity increasingly is being revised into prior-period reporting, with the effect that the current month's headline number gets a relative boost it would not have had otherwise. Similar reporting patterns were seen when the current downturn began to deepen seriously but went unrecognized by consensus forecasters. While this pattern of activity helps the data come in closer to generally overly-optimistic economic consensus estimates, at fault likely are underlying assumptions of ongoing economic "recovery," assumptions that provide an upside bias in initial reporting, with some correction in near-term revisions. Specifically, with headline August production growth of 0.2% for the month, it was a contraction of 0.2% before the revisions to July and earlier. In like manner, August's headline [retail sales](#) gain of 0.4% was 0.3% before revisions to July and earlier. These patterns likely will become increasingly common in the months ahead.

The Federal Reserve Board reported Wednesday (August 15th) that seasonally-adjusted August 2010 industrial production rose by 0.16% (down by 0.21% before revisions to July's initial reporting), versus a downwardly revised monthly gain of 0.63% (previously a 0.99% increase) for July.

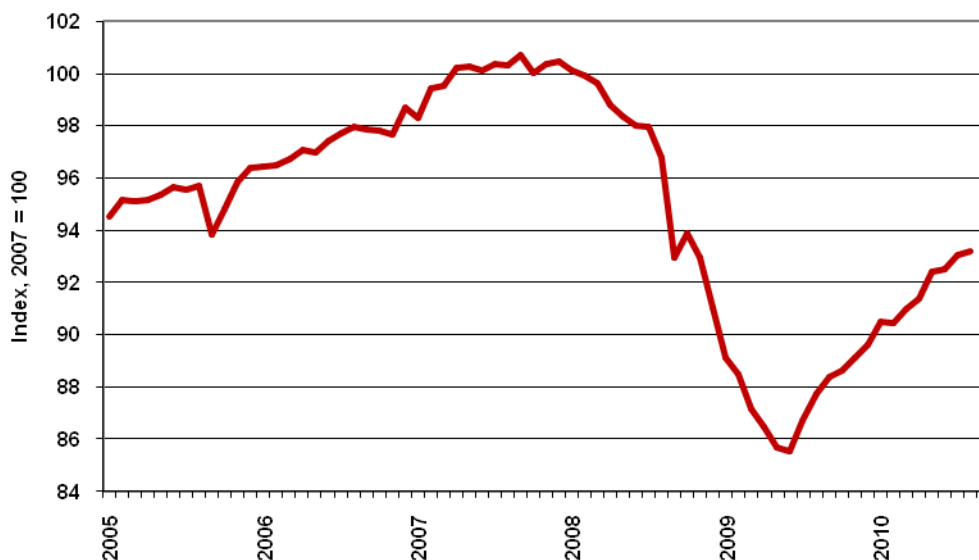
The year-to-year change in August production eased back to 6.21% from July's downwardly revised 7.35% (previously a 7.74% pace). The relatively high volatility in annual growth is due largely to the pattern of collapsing activity a year ago (a May 2009 trough), followed by cash-for-clunkers boosted production. The year-to-year contraction of 12.86% seen in May 2009 was the steepest annual decline in production growth since the shutdown of war-time production following World War II.

The first graph following shows recent monthly detail, with a fair chance that the August number -- net of eventual revisions -- will mark the turning point of renewed decline in the production series.

The "recovery" in production is shown in the second graph, where month-to-month volatility is smoothed using a six-month moving average. For the last 20 months, the production index has averaged 89.35, around which the series has been fluctuating, with August's six-month moving average reading at 92.26 versus 93.21 for the single month. Production activity had leveled off at a low-level plateau of activity that effectively wiped out the last eight years of growth in industrial production; the current rally almost reclaimed the pre-2001 recession high (six-month moving average).

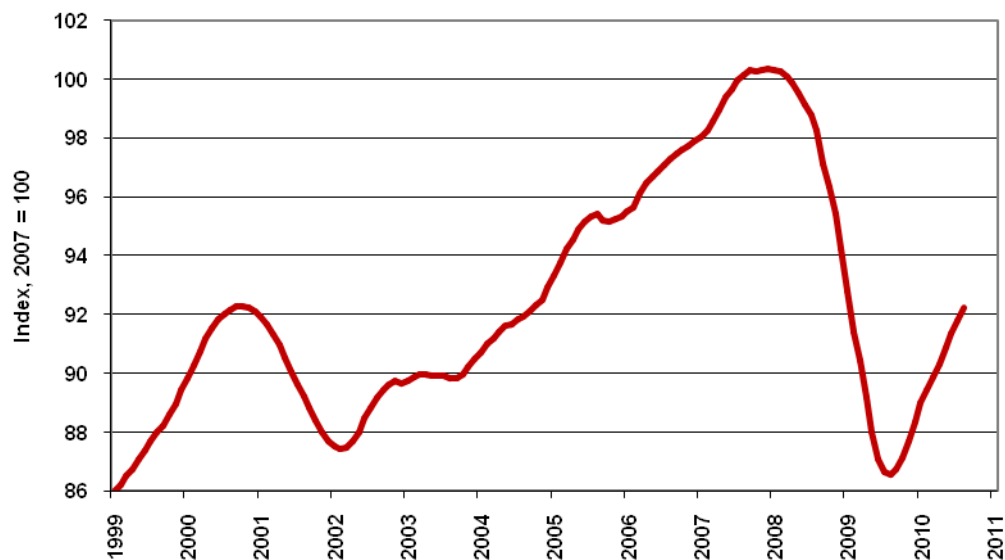
Industrial Production Index (Monthly Level)

Through August 2010, Seasonally-Adjusted (FRB)



Industrial Production Index 6-Mo Moving Avg

Through August 2010, Seasonally-Adjusted (SGS, FRB)



Despite the near-term upside gains generated by short-lived stimulus and seasonal-factor distortions, the series likely still is bottom-bouncing and should begin to soften anew, significantly, in the next several months. The six-month moving-average series remains 9.19% below its December 2007 historic high.

Week Ahead. Given the unfolding reality of a weaker economy (or re-intensifying downturn) and more-serious inflation problems than generally are expected by the financial markets, risks to reporting will tend towards higher-than-expected inflation and weaker-than-expected economic reporting in the months ahead. Increasingly, previously unreported economic weakness is showing up in prior-period revisions.

Residential Construction (August 2010). Due for release on Tuesday, September 21st, August housing starts likely will remain extremely weak, with any reported seasonally-adjusted monthly change likely to be statistically insignificant -- indistinguishable from no change at the 95% confidence interval.

New and Existing Homes Sales (August 2010). August existing home sales (National Association of Realtors) are due for release on Thursday, September 23rd, followed by new home sales (Census Bureau) on Friday, September 24th. As with housing starts, these volatile series should remain extremely weak, with any monthly change (new homes) again lacking statistical significance. Briefing.com is showing consensus estimates of gains in both series. Yet, with extreme volatility, reporting error and revisions in these series, with poor-quality seasonal adjustments, with extremely negative anecdotal evidence, and with massive distortions from what should be increasing foreclosure activity. Any significant market reaction to these otherwise meaningless numbers likely would be little more than the unthinking response of some heavily addicted numbers junkies.

New Orders for Durable Goods (August 2010). Where September's new orders for durable goods included a one-time spike from airplane orders, odds favor a monthly contraction in aggregate orders for August, due for release on Friday, September 24th. This somewhat randomly volatile series, however, remains at general risk of surprising consensus forecasts on the downside.
