John Williams'
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COMMENTARY NUMBER 421
GDP Revision, January PCE Deflator and Durable Goods Orders

March 1, 2012

GDP Revision Was Little More than Statistical Noise,
Yet 4th-Quarter No Longer Is Comparable with Prior Periods

Income Revised to Show Ongoing Surging Salaries and Wages of "Unknown" Nature

Fed's Inflation Target (PCE Deflator) Is A Poorly Regurgitated CPI Measure

Durable Goods Orders Fell Net of Plunging Aircraft Orders

PLEASE NOTE: The next regular Commentary *is scheduled for Friday, March 9th, covering the January payroll employment and unemployment reporting.*

Best wishes to all — John Williams

Opening Comments and Executive Summary. GDP estimates out of the Bureau of Economic Analysis (BEA) have been little more than junk reporting for the last two decades. The BEA uses understated inflation in deflating the GDP, which overstates real or inflation-adjusted growth; it targets early GDP growth estimates at the consensus estimate, falsely assuming that consensus forecasters have a better view than the BEA does of where the economy stands; and it uses overly optimistic assumptions, where no

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hard data are available. Then, there are occasional GDP releases—such as the just-published first revision to the fourth-quarter 2011 GDP—that highlight the ongoing deterioration of GDP reporting quality.

Have you ever wondered what the not-seasonally-adjusted GDP and deflator measures looks like? They simply do not exist; they never are calculated. The BEA compiles and adjusts all sorts of reported series, using the seasonally-adjusted series as they are and seasonally adjusting any series that are not already adjusted, to come up with its seasonally-adjusted GDP composite.

GDP Inflation, PCE Deflator Go Awry. To that aggregated seasonally-adjusted GDP estimate, the BEA removes inflation. It uses the seasonally-adjusted CPI-U components to adjust personal consumption expenditures (PCE) and to generate the seasonally-adjusted PCE deflator. In theory, the Chain-Weighted CPI-U (C-CPI-U) is the same thing as the PCE deflator, fully weighted for actual expenditure patterns, but C-CPI-U inflation runs above that of the PCE deflator (see *Commentary No. 419* for detail on the various inflation measures).

Accordingly, using the higher C-CPI-U inflation to deflate PCE would have resulted in average annual 2011 GDP growth of 1.4%, instead of the official 1.7%. The CPI-U, however, although regularly showing higher inflation than the C-CPI, already has been reduced by some substitution-like effects that give the PCE deflator an artificially-low, somewhat double-counted substitution-weighted inflation, as the CPI gets re-distributed on a substitution basis in the PCE.

The issue in the current reporting, though, is that the fourth-quarter 2011 GDP and PCE deflators were revised to reflect revisions to the seasonally-adjusted CPI series (the unadjusted CPI series and related year-to-year inflation never are revised). The changes in the seasonal factors, however, do change the relationships of adjusted quarterly inflation, but while the BLS publishes its full history of CPI revisions, the BEA only revises the current quarter. This means that the current quarterly and annual GDP/PCE inflation rates, and the resulting inflation-adjusted GDP growth rates are not comparable with prior reporting.

Concurrent Seasonal Factors at Work. The same issue of lack of comparability holds with underlying series, such as retail sales, where concurrent seasonal adjustments are used. Here the seasonal factors are readjusted each month, revising for years back in time. The current unstable economic environment has resulted in significant quarterly shifts in growth on a monthly basis. Again, all the BEA can do is to revise the current quarter, and, accordingly, the current quarter then no longer is on a comparable basis with prior reporting.

Indefinable Surges in Third- and Fourth-Quarter Wages and Salaries. As a separate issue, the BEA just revised its estimates of salaries and wages significantly higher in the third-quarter and fourth-quarter of 2011. The BEA upped inflation-adjusted annualized salary and wage change in third-quarter 2011 from a 1.0% contraction to 4.0% growth, with fourth-quarter growth being boosted from 3.2% to 4.6%.

The problem here is that neither the BEA nor the BLS knows where the wage and salary surge came from. Technically, per the BEA, "the revisions reflected newly available wage and salary tabulations for the third quarter from the BLS quarterly census of employment and wages."

Per further query of the BEA, the revisions appear to have been in irregular pay (such as bonuses, stock options), but the detail is not known. As noted recently in the SGS analysis of U.S. Treasury's daily tax receipts of payroll taxes withheld by employers, however, tax receipts growth is below what would be expected, not above, as would be suggested by the revised income measurements (see *Commentary No. 419* and Payroll Tax Withholding Analysis).

An irregular event, by definition, usually is not seen on a regular basis. True to form, though, not only has the BEA upped its income estimates for the third-quarter, but also it has imputed the continuing happy and unknown irregular wage and salary boost on into and for the fourth-quarter.

Thank Goodness for Annual Benchmark Revisions. Some of these issues will get worked out in the annual benchmark revisions that tend to be published each year at the end of July, but the interim reporting quality on the GDP—with a 95% confidence interval around the early reporting of the headline growth rate at +/- 3% — simply is horrendous, and the numbers here truly are worthless in this most heavily-politicized of economic series. In fairness to the BEA, it is physically impossible to put together meaningful numbers on the full U.S. economy within a month of a quarter's close.

These circumstances, however, have little effect on financial markets and political and Wall-Street hypesters that will salivate over a 0.2 percentage point upside revision to GDP that is little more than statistical noise in an otherwise meaningless series.

GDP Revision Was Statistical Noise. The second estimate to fourth-quarter 2011 GDP showed revised headline growth of 3.0% (previously 2.8%) versus 1.8% growth reported in the third-quarter. Annual growth was 1.6% in the fourth-quarter, versus 1.5% in the third. The annualized GDP inflation rate revised from 0.4% to 0.9%, reflecting revisions to CPI seasonal adjustments, versus 2.6% inflation in the third quarter. As discussed above, the fourth-quarter GDP inflation estimates simply are not comparable to prior reporting, which means the inflation-adjusted growth estimates are meaningless, too.

PCE Deflator Revised with CPI. The January 2012 PCE deflator showed 0.2% month-to-month inflation, versus 0.1% inflation December. Year-to-year inflation was 2.4% in January (above the Fed's 2.0% target, versus 2.5% in December. The data were heavily revised due to the CPI seasonal-adjustment revisions, and current reporting is not comparable to prior periods. There is little chance the Fed will act to contain inflation so long as it is acting to contain a systemic solvency crisis.

Durable Goods Orders Fell. January new orders for durable goods fell by 4.0% for the month, following a revised 3.2% gain in December. Orders still were down for the month by 2.2%, after adjusting for a plunge in the regularly volatile nondefense aircraft series.

Hyperinflation Watch. Beyond the quarterly and monthly economic data covered in this *Commentary*, the broad economic, inflation and hyperinflation outlooks in *Hyperinflation 2012* are not changed. The *Hyperinflation Watch* in the next regular *Commentary* will update monetary and systemic liquidity conditions.

REPORTING DETAIL

GROSS DOMESTIC PRODUCT—GDP (Fourth-Quarter 2011, Second Estimate, First Revision)

Poor-Quality GDP Reporting Increases. Running ever counter to common experience, the revised 3.0% (previously 2.8%) headline growth in fourth-quarter 2011 GDP was not only still statistically insignificant, but the magnitude of the revision was little more than statistical noise (a non-annualized quarter-to-quarter upside revision to growth of 0.06 percentage point. Consistent with the regular overstatement of broad economic activity by the Bureau of Economic Analysis (BEA), the GDP series remains the most worthless and the most heavily politicized of the government's popularly followed economic reports. New issues tied to inflation and income measure problems are discussed in the *Opening Comments and Executive Summary* and appropriate following sections. Related issues also are explored in *Hyperinflation 2012*.

Notes on GDP-Related Nomenclature and Definitions

For purposes of clarity and the use of simplified language in the text of the GDP analysis, here are definitions of several key terms used related to GDP reporting:

Gross Domestic Product (GDP) *is the headline number and the most widely followed broad measure of U.S. economic activity. It is published quarterly by the Bureau of Economic Analysis (BEA), with two successive monthly revisions, and with an annual revision in the following July.*

Gross Domestic Income (GDI) *is the theoretical equivalent to the GDP, but it generally is not followed by the popular press. Where GDP reflects the consumption side of the economy and GDI reflects the offsetting income side. When the series estimates do not equal each other, which almost always is the case, since the series are surveyed separately, the difference is added to or subtracted from the GDI as a "statistical discrepancy." Although the BEA touts the GDP as the more accurate measure, the GDI is relatively free of the monthly political targeting the GDP goes through.*

Gross National Product (GNP) *is the broadest measure of the U.S. economy published by the BEA. Once the headline number, now it rarely is followed by the popular media. GDP is the GNP net of trade in factor income (interest and dividend payments). GNP growth usually is weaker than GDP growth for net-debtor nations. Games played with money flows between the United States and the rest of the world tend to mute that impact on the reporting of U.S. GDP growth.*

Real *(or* ***Constant Dollars****) means the data have been adjusted, or deflated, to reflect the effects of inflation.*

Nominal *(or* ***Current Dollars****) means growth or level has not been adjusted for inflation. This is the way a business normally records revenues or an individual views day-to-day income and expenses.*

GDP Implicit Price Deflator (IPD) *is the inflation measure used to convert GDP data from nominal to real. The adjusted numbers are based on "Chained 2005 Dollars," at present, where the 2005 is the base year for inflation, and "chained" refers to the methodology which gimmicks the reported numbers so much that the total of the deflated GDP sub-series misses the total of the deflated total GDP series by nearly $107 billion in "residual" as of fourth-quarter 2011.*

Quarterly *growth, unless otherwise stated, is in terms of seasonally-adjusted, annualized quarter-to-quarter growth, i.e., the growth rate of one quarter over the prior quarter, raised to the fourth power, a compounded annual rate of growth. While some might annualize a quarterly growth rate by multiplying it by four, the BEA uses the compounding method, raising the quarterly growth rate to the fourth power. So a one percent quarterly growth rate annualizes to 1.01 x 1.01 x 1.01 x 1.01 = 1.0406 or 4.1%, instead of 4 x 1% = 4%.*

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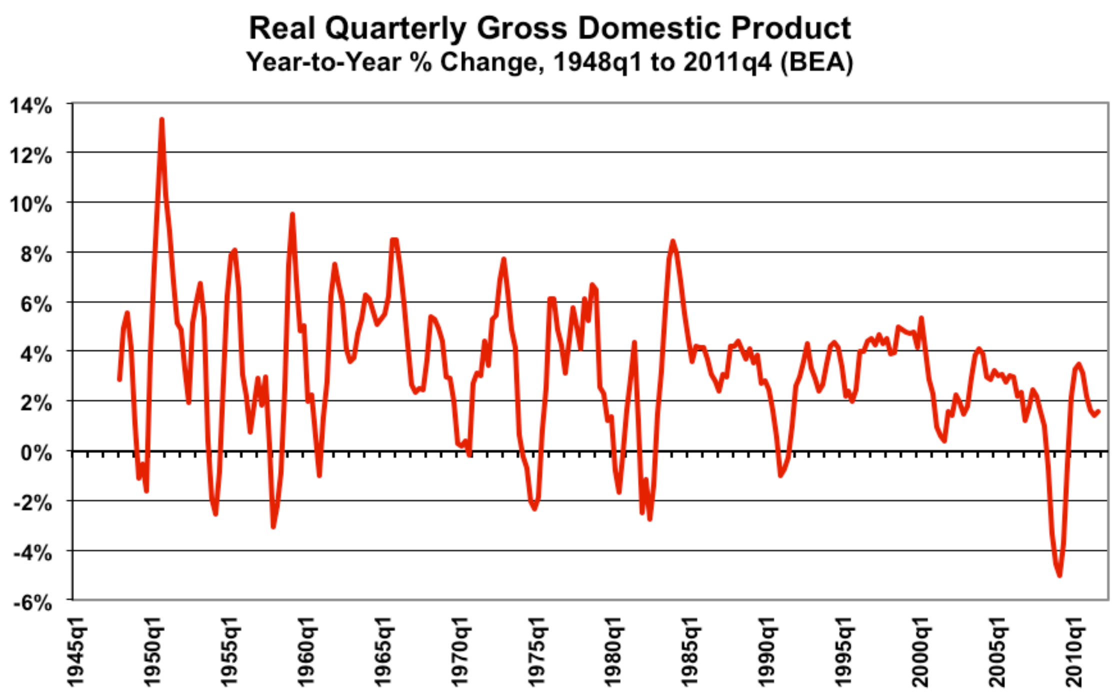
Annual *growth refers to the year-to-year change of the referenced period versus the same period the year before.*

GDP. Published yesterday, February 29th, by the BEA, the second estimate, first revision, of fourth-quarter 2011 gross domestic product (GDP) indicated real (inflation-adjusted) quarterly growth at a statistically-insignificant 2.98% (initially reported at 2.75%) +/- 3% (95% confidence interval), versus an estimated annualized gain of 1.81% for third-quarter 2011. For each of the four quarters in 2011, purported growth rates have been little more than statistical noise around the unchanged level, and they possibly have been massaged to keep the quarterly growth rates in minimally-positive, as opposed to minimally-negative territory. The first-revision here, also, was little more than statistical noise.

The relative gain in the fourth-quarter versus the third-quarter GDP still was attributable largely to an involuntary surge in inventories. Net of inventory changes, the final sales category showed revised annualized real growth of 1.08% (initially 0.81%).

As shown in the following graphs, the revised year-to-year real change in fourth-quarter 2011 GDP notched higher to 1.62%, from the initial 1.56% estimate, and from 1.46% annual growth in the third-quarter. Current annual growth continued well off the near-term peak in reported growth of 3.51% during third-quarter 2010. For the year, real GDP slowed sharply to a revised 1.74% (initially estimated at 1.72%) in 2011, from 3.03% in 2010. As discussed in the *Opening Comments and Executive Summary*, 2011 annual GDP growth would have been 1.4% instead of 1.7%, if the C-CPI and been used instead of the mal-constructed PCE deflator in deflating 2011 personal construction expenditures.



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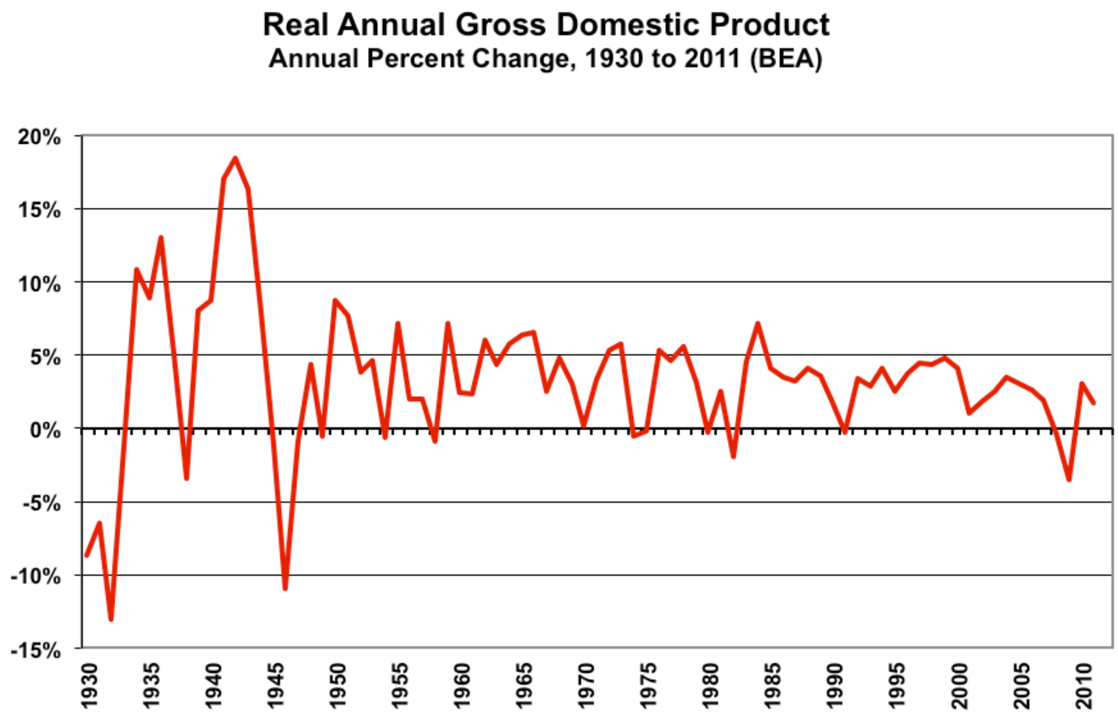

Implicit Price Deflator (IPD). As discussed in the *Opening Comments and Executive Summary*, the fourth-quarter 2011 GDP inflation—the implicit price deflator—is an outright fraud at the moment, since it is no longer comparable with the currently estimated IPD either for the prior quarter (third-quarter 2011) or the year-ago quarter (fourth-quarter 2010). The same goes for the directly dependent real (inflation-adjusted) GDP growth measures.

The estimate of the fourth-quarter GDP implicit price deflator (IPD) revised to 0.86% (previously 0.39%), still well below the 2.56% of the third-quarter. The upside revision, however, reflected the seasonal-adjustment revisions to the Bureau of Labor Statistics (BLS) CPI-U. While the seasonally-adjusted annualized fourth-quarter CPI-U inflation revised to 1.30% from 0.94%, prior and related quarterly CPI revisions were not reflected in the GDP reporting, because earlier quarters of GDP reporting are not revised except in annual benchmarks. Accordingly, these types of revisions usually are not made at this point of the GDP-reporting cycle. With the revisions having been made only partially, now, the fourth-quarter numbers no longer are comparable to earlier quarters.

For comparison purposes, annualized seasonally-adjusted quarterly inflation for the CPI-U in the fourth-quarter slowed to the revised 1.30% from a revised 3.09% (previously 3.07%) in the third-quarter. On a year-to-year basis, the fourth-quarter IPD showed revised inflation of 2.18% (initially 2.00%), down from 2.41% in the third-quarter. Year-to-year inflation in fourth-quarter 2011 was unrevised for the unadjusted CPI-U, which eased to 3.29% (3.34% new adjusted), versus 3.76% (3.76% new adjusted) in the third-quarter. The lower the inflation rate used in deflating the GDP, the stronger is the resulting inflation-adjusted number and vice versa.

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SGS-Alternate GDP. The SGS-Alternate GDP estimate for fourth-quarter 2011 is an approximate annual contraction of 2.7% versus the official estimate of a 1.6% gain. Such is slightly less-negative than the alternate 2.9% annual contraction (1.5% official gain) estimate for the third-quarter (see the Alternate Data tab). While annualized real quarterly growth is not estimated formally on an alternative basis, a quarter-to-quarter contraction once again appears to have been a realistic possibility for the fourth-quarter, as it was in the earlier quarters of 2011, in what generally has been a protracted period of business bottom-bouncing.

Adjusted for gimmicked inflation and other methodological changes, the business downturn that began in 2006/2007 is ongoing; there has been no meaningful economic rebound (see discussion in *Hyperinflation 2012*).

GDI and GDP. Due to the poor quality and incompleteness of early survey data and guesstimates, the BEA will not publish initial estimates for fourth-quarter 2011 gross domestic income (GDI) or gross national product (GNP) until next month, although third-quarter GDI was revised in the latest GDP reporting (see next section). The BEA would do well to delay its GDP estimate, too, rather than to mislead the public with particularly poor-quality early reporting. GDI is the income-side reporting equivalent of the consumption-side GDP. GNP is the broadest measure of U.S. economic activity, where GDP is GNP net of trade in factor-income, or interest and dividend payments.

Indefinable Surges in Third- and Fourth-Quarter Wages and Salaries. As also discussed in the *Opening Comments and Executive Summary*, the BEA revised estimated, seasonally-adjusted annual rates of salaries and wages significantly higher in the third-quarter and fourth-quarter of 2011, by $82.4 billion and $106.4 billion, respectively, with increased annualized nominal (not adjusted for inflation) quarterly growth rates of 6.6% (up from 1.5%) and 5.5% (up from 4.0%).

In inflation-adjusted (2005-chained dollars) terms, the BEA upped estimated annualized salary and wage change in third-quarter 2011 from an initial 1.0% contraction to 4.0% growth, with fourth-quarter growth being boosted from 3.2% to 4.6%.

The problem here is that neither the BEA nor the BLS knows where the wage and salary surge came from. Technically, per the BEA, "the revisions reflected newly available wage and salary tabulations for the third quarter from the BLS quarterly census of employment and wages (QCEW). These data are more comprehensive than the monthly employment and earnings data that were used for the earlier estimates—the QCEW data include irregular pay, such as bonuses and gains from the exercise of stock options."

Per further query of the BEA, the revisions appear to have been in irregular pay, but the detail is not known. As noted recently in the SGS analysis of U.S. Treasury's daily tax receipts of payroll taxes withheld by employers, however, tax receipts growth is below what would be expected, not above, as would be suggested by the revised income measurements (see *Commentary No. 419* and Payroll Tax Withholding Analysis).

An irregular event, by definition, usually is not seen on a regular basis. True to form, though, not only has the BEA upped its income estimates for the third-quarter, but also it has imputed the continuing happy and unknown irregular wage and salary boost on into and for the fourth-quarter.

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PERSONAL CONSUMPTION EXPENDITURE (PCE) DEFLATOR (January 2012)

Some of January's PCE Inflation Was Distorted by Flawed Revisions. As discussed in the *Opening Comments and Executive Summary*, current inflation reporting in the national income accounts, as reflected in both the GDP and PCE implicit price deflators, is less meaningful than usual, since current-period inflation-level estimates are not comparable with those of prior periods.

Following in the gimmicked reporting of its quarterly GDP parent series, the inflation rate indicated by the monthly PCE deflator can vary widely month-to-month, thanks to prior-period revisions. Unlike the CPI-U series, which never is revised on a not-seasonally-adjusted basis so that the reported year-to-year inflation always remains fixed, the PCE deflator always is seasonally adjusted (it isn't even calculated on an unadjusted basis). When the PCE inflation data are revised to reflect seasonal adjustment revisions in the CPI (as is the current case), only the most-recent quarter's revision is published; earlier quarters that also were revised on a consistent basis are not changed in reporting.

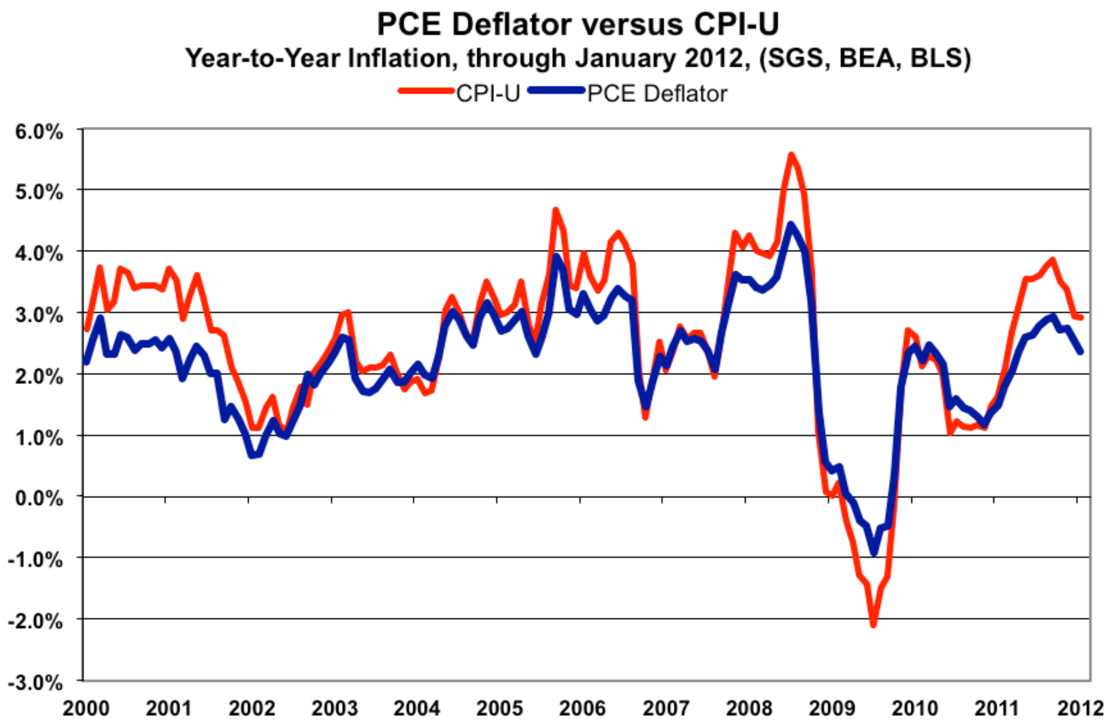
As a result, the PCE deflator for fourth-quarter 2011 and the months of October 2011 to January 2012 are not directly comparable to prior periods—including the third quarter of 2011, fourth-quarter 2010 and corresponding months—which are needed for calculating year-to-year inflation in the Fed's targeted inflation measure. One might expect the Fed to have chosen a more stable measure for its all-important inflation target than a moving target such as the PCE deflator. The Fed simply selected the lowest reported inflation rate available that it thought it could get away with in the markets.

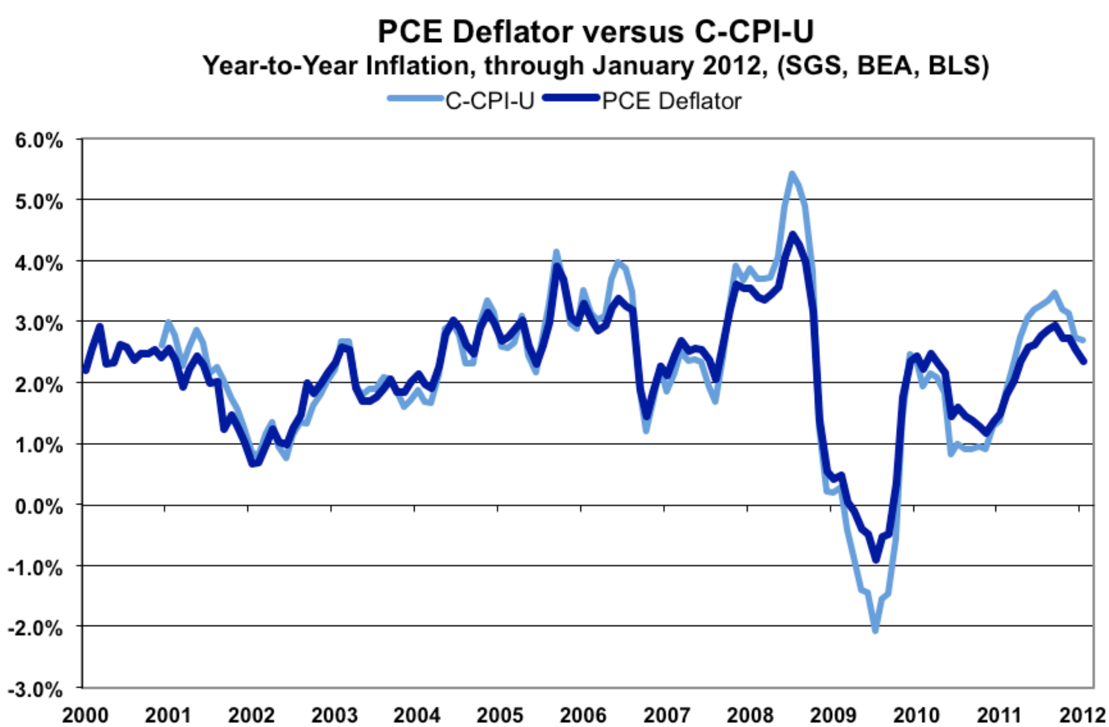
January Reporting. As reported March 1st, by the BEA, the month-to-month change in the seasonally-adjusted January 2012 PCE deflator was a gain of 0.18% (up 0.33% net of prior period revisions), versus an unrevised gain of 0.07% in December. Year-to-year inflation (the Fed's presumed target item) was 2.36%, down from a revised 2.55% (previously 2.40%).

In theory the PCE deflator measure should be virtually identical to the chain-weighted-CPI (C-CPI-U) (see *Commentary No. 419* for details of the C-CPI-U and other inflation measures). Yet, the January 2012 PCE deflator showed 2.4% inflation, versus a revised 2.5% year-to-year inflation rate in December; with the January C-CPI-U at 2.6%, versus a revised 2.7% (previously 2.8%) in December; the January CPI-U at 2.9%, versus 3.0% in December; the January CPI-W at 3.1%, versus 3.2% in December; and the January SGS-Alternate (1980-Base) at 10.5%, versus 10.6% in December.

Mr. Bernanke continued to pay lip -service to the Federal Reserve's "inflation-containment" in his semi-annual testimony to Congress, reaffirming the Federal Open Market Committee's (FOMC) announcement on January 25th that it would target year-to-year inflation—as measured by change in the PCE deflator—at 2.0%.

Instead of suggesting a boost in interest rates, which would be the normal response to inflation being above the targeted 2.0%, the Fed keeps promising low rates into the foreseeable future, along with suggestions of possible renewed purchases of U.S. Treasury debt, actions that run counter to containing inflation. As argued previously, this "inflation targeting" effort primarily is pabulum for those in the markets who think the Fed really would move to contain inflation at the cost of impairing already-fragile banking-system solvency. The Fed's primary function remains keeping the banking system afloat, at any cost.





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The PCE deflator is the heavily massaged and modeled inflation rate for personal consumption expenditure, published on a monthly basis by the Bureau of Economic Analysis (BEA), and quarterly as part of the GDP release. The monthly series, which is a surrogate measure of consumer inflation—fully substitution and hedonic-based—currently is yielding the lowest annual consumer inflation rate of the major series (see the preceding graphs of the PCE deflator versus the CPI-U and the C-CPI-U. Unlike the more widely followed CPI-U measure, which never is revised and is published on a seasonally unadjusted-basis, the PCE deflator is heavily revised for many years following initial reporting, and it is available only on a heavily-massaged, seasonally-adjusted basis.

NEW ORDERS FOR DURABLE GOODS (January 2012)

January Durable Goods Orders Fell, Even After Accounting for Volatile Aircraft Orders. The Census Bureau reported February 28th, that the regularly-volatile, seasonally-adjusted new orders for durable goods in January 2012 fell by 4.0% (down by 3.9% before prior-period revisions), after rising a revised 3.2% (previously 3.0%) in December. Net of the effects of declining nondefense aircraft orders, orders were down by 2.2% for the month.

As often is the case, the monthly change was affected by irregular and highly volatile long-term nondefense aircraft orders. Again, about half the decline in orders was accounted for by a 19.0% drop in January's aircraft orders, following a revised 21.0% (previously 18.9%) orders increase in December. Airplane orders usually are placed years in advance of delivery and rarely impact near-term economic activity.

Current durable goods reporting remains subject to many of the same sampling and concurrent-seasonal-adjustment problems that are seen with retail sales and payroll reporting. Unusual seasonal-factor volatility raises issues as to the significance of the latest adjusted monthly changes. The numbers here are not adjusted for inflation.

Unadjusted, year-to-year growth in total January 2012 new orders was 8.8%, down from a revised 14.9% (previously 14.4%) pace of annual growth in December.

The widely followed nondefense capital goods orders also fell in January, down by 6.3% (down by 5.7% before prior-period revisions) for the month, versus a revised monthly gain of 6.8% (previously 5.8%) in December orders. The monthly January decline also was impacted by the weak aircraft sales. For January 2012, the unadjusted year-to-year growth in the series slowed to 21.5% against a revised 31.3% (previously 30.4%) in December.

Week Ahead. Recognition of an intensifying double-dip recession as well as an escalating inflation problem remains sporadic. The political system would like to see the issues disappear until after the election; the media does its best to avoid publicizing unhappy economic news; and the financial markets will do their best to avoid recognition of the problems for as long as possible, problems that have horrendous implications for the markets and for systemic stability.

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Until such time as financial-market expectations move to catch up fully with underlying reality, or underlying reality catches up with the markets, reporting generally will continue to show higher-than-expected inflation and weaker-than-expected economic results in the months and year ahead. Increasingly, previously unreported economic weakness should show up in prior-period revisions.

Employment and Unemployment (February 2012). The February 2012 release on labor market conditions is scheduled for Friday, March 9th. Consensus forecasters are looking for a payroll gain of 208,000 for February, versus initial reporting of a 243,000 gain in January, and expect the unemployment rate to hold at 8.3%, per MarketWatch.com. With unusual seasonal factors at work in January's payroll estimates, and with Mr. Bernanke's recent caution on the sustainability of the decline in the headline unemployment rate, odds favor a much weaker-than-expected payroll number, as well as an uptick in the headline unemployment rate. The broader U.6 and SGS unemployment rate estimates likely will move higher, with increasing numbers of unemployed shifting out of headline unemployment the headline labor force, into short- and long-term discouraged worker status.

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