

# Consumer Metrics Institute News

## May 31, 2012: BEA Revises GDP Growth Rate for 1Q-2012 Down to 1.88%

In their second estimate of the first quarter 2012 GDP, the Bureau of Economic Analysis (BEA) lowered the annualized rate of U.S. domestic economic growth to 1.88% (down about a third of a percent from the 2.20% previously reported), and more than a percent below the growth rate for the fourth quarter of 2011. This revision to the prior month's report does not reflect actual monthly changes in the economy, but rather another month's improvement in the BEA's understanding of what was happening during the prior quarter.

The real net changes in the report came from slightly weaker consumer growth and a further deterioration of government spending -- which between them made up the entire change in the headline number. Other than those changes this revision was notable for completely offsetting shifts in the growth contributions provided by commercial fixed investments (which strengthened slightly) and commercial inventories (which had offsetting weakness), and exports (strengthening modestly) and imports (deteriorating comparably). The BEA's bottom-line "real final sales" improved very slightly to an annualized rate of 1.67% (from 1.61% in last month's report) -- which, like the headline number, continues to be anemic for an economy that is supposed to be nearly three years into a recovery.

The BEA continued to use "deflators" that at first glance seem to understate the inflationary experiences of the public. To correct the "nominal" data into "real" numbers the BEA assumed that the **annualized inflation rate during 1Q-2012 was 1.65%**. As a reminder, lower "deflators" cause the reported "real" growth rates to increase -- and once again very low inflation. The seasonally adjusted BEA inflation "deflators" have contributed a significant positive bias to the headline number. In fact, if the raw "nominal" numbers were instead "deflated" by using the seasonally corrected CPI-U calculated by the Bureau of Labor Statistics (BLS) for the same time period **the economy would have been reported to have been contracting at a -0.13% annualized rate.**

And real per capita disposable income was still reported to be shrinking during the quarter -- even using the BEA's own "deflators." We find it unrealistic to expect any kind of continued recovery (let alone a "robust" recovery) throughout 2012 with household disposable income dropping.

Among the notable items in the report:

-- The contribution to the annualized growth rate for consumer expenditures for goods weakened very slightly to 1.44% (down from 1.47% in the prior report, but still up 0.15% from the 1.29% for the fourth quarter of 2011).

-- The contribution made by consumer services also deteriorated (to 0.47%).

-- The growth rate contribution from private fixed investments improved significantly to 0.61% (up from 0.18% in the prior report). But this number was nearly completely offset by a drop in the contribution made by inventories (now 0.21%, substantially from the 0.59% reported earlier).

-- The reported drag on GDP growth from contracting expenditures by governments grew somewhat at -0.78%, now the same as the -0.84% reported for 4Q-2011. The largest share of the contractions continued to be Federal defense spending, although state and local governments still provided a net -.30% contribution to the headline number.

-- The annualized contribution to the growth rate from exports rose to 0.98% (up from 0.73% in the prior report and materially improved from the 0.37% contribution provided in the prior quarter).

-- Imports are now removing -1.05% from the growth rate of the overall economy, significantly worse than the -0.63% recorded during 4Q-2011. The net of foreign trade was still very slightly negative (subtracting -0.05% from the headline number).

-- The annualized growth rate of "real final sales of domestic product" rose to 1.67%, but it is still a 1.49% below the reported for the third quarter of 2011. This report's improvement is largely the result of a weakening in the growth of inventories. If this number is accepted at face value (and not as a consequence of "deflators" playing havoc with inventory valuations) it still indicates a much weaker economy than is conveyed in the headline number.

-- Real per-capita disposable income shrank at an annualized -0.22% rate during the quarter (from \$32,572 per capita to \$32,554 per capita) -- and it still remains lower than it was during the 3rd quarter of 2010, some 5 quarters ago.

### The Numbers, As Revised

As a quick reminder, the classic definition of the GDP can be summarized with the following equation:

$$\text{GDP} = \text{private consumption} + \text{gross private investment} + \text{government spending} + (\text{exports} - \text{imports})$$

or, as it is commonly expressed in algebraic shorthand:

$$\text{GDP} = \text{C} + \text{I} + \text{G} + (\text{X}-\text{M})$$

In the new report the values for that equation (total dollars, percentage of the total GDP, and contribution to the final percentage growth number) are as follows:

### GDP Components Table

	<b>Total GDP</b>	=	<b>C</b>	+	<b>I</b>	+	<b>G</b>	+	<b>(X-M)</b>
<b>Annual \$ (trillions)</b>	\$15.5	=	\$11.0	+	\$2.0	+	\$3.0	+	\$-0.6
<b>% of GDP</b>	100.0%	=	71.2%	+	13.2%	+	19.6%	+	-4.0%
<b>Contribution to GDP Growth %</b>	1.88%	=	1.91%	+	0.82%	+	-0.78%	+	-0.07%

The quarter-to-quarter changes in the contributions that various components make to the overall GDP can be best understood from the table below, which breaks out the component contributions in more detail and over time. In the table we have split the "C" component into goods and services, split the "I" component into fixed investment and inventories, separated

from imports, added a line for the BEA's "Real Final Sales of Domestic Product" and listed the quarters in columns most current to the left:

### Quarterly Changes in % Contributions to GDP

	1Q-2012	4Q-2011	3Q-2011	2Q-2011	1Q-2011	4Q-2010	3Q-2010	2Q-2010	1Q-2010	4Q-2009	3Q-2009	2Q-2009
<b>Total GDP Growth</b>	1.88%	2.97%	1.81%	1.34%	0.36%	2.36%	2.50%	3.79%	3.94%	3.81%	1.69%	-0.6%
<b>Consumer Goods</b>	1.44%	1.29%	0.33%	-0.38%	1.10%	1.87%	1.09%	0.87%	1.45%	0.12%	1.70%	-0.5%
<b>Consumer Services</b>	0.47%	0.19%	0.90%	0.87%	0.36%	0.61%	0.75%	1.18%	0.47%	0.21%	-0.04%	-0.7%
<b>Fixed Investment</b>	0.61%	0.78%	1.52%	1.07%	0.15%	0.88%	0.28%	2.12%	0.15%	-0.42%	0.13%	-2.2%
<b>Inventories</b>	0.21%	1.81%	-1.35%	-0.28%	0.32%	-1.79%	0.86%	0.79%	3.10%	3.93%	0.21%	-0.5%
<b>Government</b>	-0.78%	-0.84%	-0.02%	-0.18%	-1.23%	-0.58%	0.20%	0.77%	-0.26%	-0.18%	0.28%	1.2%
<b>Exports</b>	0.98%	0.37%	0.64%	0.48%	1.01%	0.98%	1.21%	1.19%	0.86%	2.51%	1.49%	-0.0%
<b>Imports</b>	-1.05%	-0.63%	-0.21%	-0.24%	-1.35%	0.39%	-1.89%	-3.13%	-1.83%	-2.36%	-2.08%	2.2%
<b>Real Final Sales</b>	1.67%	1.16%	3.16%	1.62%	0.04%	4.15%	1.64%	3.00%	0.84%	-0.12%	1.48%	-0.1%

### Real-Time Value of BEA Data as Economic Health Indicator

We are often asked: how valuable is this report as a pronouncement on the state of the economy? Or, more specifically, how accurately does it capture the condition of an economy in flux or transition -- and one possibly slipping into a recession?

To answer those questions it is useful to review the BEA's historic track record on reporting the growth rate for the first quarter of the last recession -- the "Great Recession" that the National Bureau of Economic Research (NBER) says commenced in December 2007. In their second estimate of the growth rate for the **first quarter of 2008** -- the first full quarter of the NBER's recession -- the BEA reported four years ago this month that:

*"Real gross domestic product -- the output of goods and services produced by labor and property located in the United States -- increased at an annual rate of 0.9 percent in the first quarter of 2008, according to preliminary estimates released by the Bureau of Economic Analysis. In the fourth quarter, real GDP increased 0.6 percent."*

In other words, the BEA was reporting then (May 2008) that the economy had **improved** relative to the prior quarter. Their newly revised estimate was even better than the prior estimate for 1Q-2008 published a month earlier, which at the time was flat when compared to 4Q-2007. And the following month they would report an even better headline number (+1.1% annualized GDP growth rate). When we put the BEA estimates for 1Q-2008 into a table showing how they changed over time, it looks something like this:

## BEA's Changing View of First Quarter 2008 GDP

Reported Growth Rate	Report Date	Months Lag
+0.6%	April 30, 2008	1
+0.9%	May 29, 2008	2
+1.0%	June 26, 2008	3
+0.9%	July 31, 2008	4
-0.7%	July 31, 2009	16
-0.7%	July 30, 2010	28
-1.8%	July 29, 2011	40

If anyone missed the key point: in the table above all of the BEA's reported growth rates are for the **same quarter**, the first quarter of 2008 -- the first full quarter of the last recession. The only difference is the lag time between the close of the quarter and the BEA's reporting of its growth.

So, how valuable was the BEA's data for anyone concerned about the real-time state of the economy? They first correctly recorded the direction that the economy was heading during that fateful quarter some 16 months after the quarter closed and they only got the magnitude of the problem right after an additional 24 months.

These are clearly not the data sources for real-time policy or investment decisions.

Why did the BEA's numbers for 1Q-2008 change over those 40 months? Surprisingly, according to their own data the **nominal** numbers for the quarter didn't deteriorate at all (the reported annualized aggregate size of the economy for 1Q-2008 **actually increased** +0.5% from a nominal \$14.201 trillion in the June 26, 2008 report to a nominal \$14.274 trillion in their July 29, 2011 report).

But what about the deflators? The BEA's published deflators for 1Q-2008 also didn't change in ways that would adversely impact the headline growth rate -- they went from an "implicit price deflator" for 1Q-2008 of 2.7% in the June 26, 2008 report to a 2.4% deflator for the same quarter in the July 29, 2011 report. Mathematically, a lower "deflator" coupled with higher nominal numbers should have resulted in higher "real" numbers and improved growth.

What's going on? Diving deeper into the BEA's data reveals at least a couple of things that drastically changed their view of 1Q-2008:

-- The nominal data for the prior quarter (the fourth quarter of 2007) was initially significantly under-reported. In the 2008 report the nominal annualized aggregate size of the 4Q-2007 economy was reported to have been \$14.074 trillion. At the time of the July 29, 2011 revision it was reported to have been \$14.253 trillion annualized, nearly 1.3% higher. It is important to remember that the headline number is an **annualized exponential extrapolation** of the quarter to quarter change (i.e., raising the quarter to quarter change to the 4th power) -- and because of that the headline number is statistically more volatile than the actual economy itself. In this case the dramatic increase in the prior quarter's numbers shifted 1Q-2008 from a slightly growing quarter into the first negative growth quarter of the "Great Recession."

-- Between June 26, 2008 and July 29, 2011 the BEA did two comprehensive revisions to its cumulative deflators. The first, in July 2009, shifted the base year for the "chained dollar" (or "real") numbers from the year 2000 to 2005 and significantly restated the cumulative impact of inflation over those time spans. The second, in July 2011, revised the "chained 2005 dollar" numbers yet again -- materially lowering the bottom of the "Great Recession" contraction rates **two percent** (e.g., lowering the 4Q-2008 headline GDP "growth" rate from -6.8% to a staggering -8.9% -- **only about half of an often used clinical benchmark for a "depression"**).

The take-away for any reader should be that the BEA's headline number is unnecessarily volatile number that (at least during times of economic flux) is likely to be massively revised at some later date -- when very few people are looking.

## Summary

For those who read the BEA's GDP pronouncements for evidence of where the economy is headed (e.g., into another recession), we offer the following observations:

- The numbers in this report are anemic by nearly any context of an economy three years into a "recovery."
- As lackluster as they may be, the numbers are likely boosted artificially by understated inflation.
- Any touted growth in consumer spending has come in spite of shrinking per capita disposable income. As such, the reported consumer spending growth is neither organic nor long-term sustainable -- and likely fueled by governmental stimulus loans, or household cash flows improved by re-financing and mortgage defaults (whether strategic or involuntary).
- After the first full quarter of the last recession, the BEA correctly published that quarter's economic direction only after 40 months had passed -- and they eventually admitted the full magnitude of the contraction only after some 40 months had elapsed.

Our bottom line for the economy has always been the health of households. This report shows per capita disposable income is shrinking and that any improvements in consumer spending are likely unsustainable. We continue to suspect that the softening seen in this report is the harbinger of a collapsing "recovery" that will continue to unfold during 2012.