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"Government Economic Reports: Things You've Suspected but Were Afraid to Ask! -- Gross Domestic Product" - Oct. 6, 2004

Introduction

When it comes to government economic data, it is easy to get terribly confused. In recent years, it also has become easy to be more and more suspicious of the numbers themselves.

In his guest series, of which this is the fourth and final installment, friend and client, Walter J. "John" Williams, helps clear up much of the confusion. We doubt, though, that readers will find this to be the case with regard to the suspicion!

We published the first installment in this series, "Employment and Unemployment Reporting," on 8/24, the second installment, "Federal Deficit Reality," on 9/7, and the third installment, "The Consumer Price Index, appeared on 9/22. All three drew immense interest. We believe readers will find the current offering, "Gross Domestic Product," equally interesting and provocative.

John has a long, distinguished record of following and critiquing the changes occurring over the years in the government's reporting of the economic numbers that can and do influence our lives in a major way. To state that what people observe in current GDP data seems to have become a little "mystifying" is to engage in significant understatement. Today's article will go a long way in explaining why this is.

John has again agreed to field any questions or comments this piece generates. You will find this invitation at the conclusion of the article.

The first installment included an introduction section intended to serve that function for the entire series; it was labeled "Series Introduction." It contained a great deal of key definitional material and was highly enlightening in its own right.

For convenience and reference purposes, this section is repeated in the current material, and it is found at the conclusion of the installment. If you have not yet had a chance to read the "Series Introduction," you might want to have a look it before reading the current or prior installments.

John Williams joins a growing list of guest contributors who have provided some terrific material in the short time the GRA website has been in existence. When you have a moment, go to the website's "Guest Contributions" section on the home page www.gillespiereasearch.com/, lower right-hand column) and peruse some of the other work available there. Incidentally, if you did not read the earlier installments of John's series, you will find them posted in the "Guest Contributions" section. --Doug Gillespie

NOTES: (1) All footnotes are broken out in the "Footnotes to Installment Four" section at the end of the article. (2) The views expressed in the following material do not necessarily reflect those of Gillespie Research Associates.)

**"GOVERNMENT ECONOMIC REPORTS: THINGS YOU'VE SUSPECTED
BUT WERE AFRAID TO ASK! -- GROSS DOMESTIC PRODUCT"
(Part Four in a Series of Four)**

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Overstated GDP growth has meant that the 1990 and 2001 recessions were much more severe than recognized, and that lesser downturns in 1986 and 1995 were more or less missed entirely.

Introduction

The Gross Domestic Product (GDP) is one of the broader measures of economic activity and is the most widely followed business indicator reported by the U.S. government. Upward growth biases built into GDP modeling since the early 1980s, however, have rendered this important series nearly worthless as an indicator of economic activity. The analysis in this Installment will indicate that the recessions of 1990/1991 and 2001 were much longer and deeper than currently reported, and that lesser downturns in 1986 and 1995 were missed completely in the formal GDP reporting process. Furthermore, the current economic circumstance is suggestive of an early-1980s-style double-dip recession.

The distortions from bad GDP reporting have major impact within the financial system. For example, Alan Greenspan's heavy reliance on productivity gains to justify some of his policies is equally flawed, since the methods applied to GDP estimation influence the numerator in the productivity ratio. As with the CPI distortions discussed in Installment III, the Federal Reserve Chairman knows better.

With reported growth moving up and away from economic reality, the primary significance of GDP reporting now is as a political propaganda tool and as a cheerleading prop for Pollyannaish analysts on Wall Street.

Reporting Basics

The GDP is compiled and reported by the Bureau of Economic Analysis (BEA) of the Department of Commerce. Quarterly estimates are updated monthly, with the "advance" estimate published at the end of the first month following the close of a quarter. The first and second revisions are called the "preliminary" and "final" estimates. In turn the "final" estimate is revised in annual revisions (usually in July), and every five years or so a benchmark revision is published that revises all data back to 1929, the first year of formally estimated economic activity.[1]

The popularly followed number in each release is the seasonally adjusted, annualized quarterly growth rate of real (inflation-adjusted) GDP, where the current-dollar number is deflated by the BEA's estimates of appropriate price changes. It is important to keep in mind that the lower the inflation rate used in the deflation process, the higher will be the resulting inflation-adjusted GDP growth.

Due to a lack of good-quality hard data, the "advance" GDP report is little more than a guesstimate. The BEA comes up with three estimates of growth, a high, low, and most likely. The numbers then get re-massaged so that the reported growth rate is moved closer to whatever the economic consensus is expecting. There actually is a belief at the BEA that there is some value to economic consensus estimates.[2]

The estimation process does not improve much with the "preliminary" and "final" estimates. The BEA reports that 90% of ultimate revisions to the "final" estimate fall within a range of +3.1% to -2.6%. Where average growth has been about 3.5% over the years, that means that most reporting is not statistically significant. The upward bias shown in the revisions is due to what I call "Pollyanna Creep," where methodological changes regularly upgrade near-term economic growth patterns. These patterns will be explored shortly.

The GDP is a large component of the National Income and Product Accounts (NIPA), representing "the output of goods and services produced by labor and property in the United States." [3] The NIPA was the concept and development of the National Bureau of Economic Research, a private organization founded in 1920. The NBER work evolved into the BEA and the current NIPA accounting.

The NBER remains a consultant to the process and retains the position as official arbiter of U.S. recessions. At one time, the NBER did define a recession as two consecutive quarters of negative GNP/GDP growth that were not distorted by an event such as a truckers' strike. [4] The NBER used trends in indicators such as industrial production and payroll employment to time a recession's beginning and end, to the month. More recently, though, the NBER has abandoned the GDP as a recession indicator and has relied instead on those other economic series. My presumption is this change resulted from an unofficial recognition of the declining value of the GDP reports. In theory, the NBER is apolitical, although the timing of some of its recent calls on the ends of recession are suspect. Specifically, there is no such thing as a jobless recovery. If jobs are being lost, the economy still is in recession.

There Is a Problem in the Basic Structure

As part of the NIPA, the construct of the GDP is heavily reliant on economic theory for composition, unlike other data series such as retail sales or the trade deficit, which are relatively simple surveys that end up contributing to the GDP estimations.

The related Gross National Product (GNP) is the broadest U.S. economic measure and includes the GDP plus the balance of international flows of interest and dividend payments. For net debtor nations such as Guinea-Bissau and the United States, GDP usually will show the stronger growth than GNP, since the outflow of interest payments does not get charged against economic activity. For this reason, the United States switched its primary reporting from the GNP to the GDP in 1991. Put in perspective as of the "final" estimate of second-quarter 2004, annualized real GDP growth was 3.3%, down from 4.5% in the first quarter, while GNP growth for the same period was 1.9%, down from 3.9%.

I respect the intellect and creativity of those who have anchored their careers in academia. Frankly, though, most economic theories have little practical use in the real world. Concepts such as free trade being a boon to the world's economy [5], a weak currency helping turn a nation's trade deficit [6], or personal income including what the average homeowner would receive from himself in rental income if he charged himself to live in his own house, fall in to the "not in the real world" category. [7]

Varied academic theories, often with strong political biases, have been used to alter the GDP model over the years, resulting in Pollyanna Creep, where changes made to the series invariably have had the effect of upping near-term economic growth. Whether the change was to deflate GDP using "chain-weighted" instead of "fixed-weighted" inflation measures, to capitalize rather than expense computer software purchases, or to smooth away the economic impact of the September 11th terrorist attacks, upside growth biases have been built into reported GDP with increasing regularity since the mid-1980s.

The accompanying table shows the net impact of these changes over time. The GNP level for various years from 1929 through 1980 and GDP for 1980 and 1990 are shown in billions of current dollars. Once set, these GNP/GDP levels should not change. With redefinitions and methodological shifts, however, earlier periods have been restated so as to be on a consistent basis with the latest reporting. Accordingly, the GNP/GDP levels are shown as they were reported variously in 1950, 1984 and at present. [8]

What becomes evident when looking at these data is that the biggest reporting changes have taken place since 1984 and have accelerated coming forward in time. For example the 1980 GDP that had been reported as \$2.708 trillion in 1992 had crept up by 2.9% to \$2.786 trillion based on 2004 reporting. The 1990 GDP, however, had Pollyanna Creep of 5.3% over the same period.

POLLYANNA CREEP

Year	1950	1984	2004	Change in Reporting 2004/1992
GNP (Billions of Current Dollars)				
1929	103.8	103.4	104.4	+0.97%
1933	55.8	55.8	56.7	+1.61%
1940	101.4	100.0	101.7	+1.70%
1950	284.2	286.5	295.2	+3.04%
1960	--	506.5	529.5	+4.54%
1970	--	992.7	1044.9	+5.26%
1980	--	2631.7	2823.7	+7.30%
GDP (Billions of Current Dollars)				
	As Reported in 1992		2004	Change in Reporting 2004/1992
1980		2708.0	2785.5	+2.86%
1990		5513.8	5803.1	+5.25%

Double-Entry Bookkeeping

The NIPA effectively is a double-entry bookkeeping system, where an item on the consumption side of the ledger, in the GNP/GDP accounts, is offset on the income side of the ledger, in Gross Domestic Income (GDI) accounts. In theory, the GNP and the GDI should be identical. In practice they rarely are, with the latest "statistical discrepancy" showing GNP to be \$67 billion, or 0.6% higher than the GDI. This is due to the BEA's inability to reconcile the two series.

Part of the problem is that source data often are estimated without regard to actual numbers otherwise available. As an example of how far from reality the GNP/GDP/GDI reporting has gone, consider data from a high quality and unbiased resource: the Internal Revenue Service (IRS).

Based on its analysis of income tax returns, the IRS reports that, "For the second consecutive year, Adjusted Gross Income (AGI) fell, decreasing by 2.3% to \$6.0 trillion for 2002. This represents the first time since prior to 1950 that total AGI reported on individual tax returns has fallen for two successive years." [9]

While one might expect to see some parallel income reporting in the GDI, it only happens by coincidence. Although the BEA considers the IRS data, it never has been able to reconcile the differences between GDI assumptions and IRS reality. Of course, the BEA sticks with the GDI assumptions, which have income rising in 2001 and 2002. The following table shows some of the specifics of comparable income components. Where wages and salaries are the single largest component in the GDI, they grew by 6.8% in 2002, according to the BEA, but the IRS reports a 0.4% contraction.

INCOME GROWTH 2002/2001 -- IRS VERSUS BEA (Not Adjusted for Inflation)		
Income Category	IRS	GDI
Wages & Salaries	-0.4%	+6.8%
Interest Income	-20.9%	-6.4%
Divident Income	-14.9%	+5.1%

Part of the difference is in imputations, which gets back into the theoretical structure of the NIPA.

Any benefit one receives, either living in one's own house, or receiving free checking from a bank has an imputed income component. Free checking, for example, is calculated as imputed interest income. Not only did imputed interest income account for 21% of all personal interest income in 2002, but also it grew at an annual rate of 8.3%! As an aside, renting the house you own from yourself gets imputed as 62% of total rental income.

Another issue is distortion in underlying series. The bias factors (now reported as net business birth/death modeling) inflate reported payroll employment, as discussed in this series' first installment. GDI estimates of wages and salaries are calculated off the payroll numbers and are inflated on a parallel basis.

Deflation Wonders

As emphasized earlier, the lower the inflation rate that is used to deflate the GDP, the higher will be the resulting inflation-adjusted growth.

One of the deflation stars is the computer. While computer prices have come down over time, the quadrupling and re-quadrupling of memories provided with a standard computer have, through hedonics and quality adjustments (see Installment III on the CPI), enhanced the decline in prices used in deflating computer consumption in the GDP. According BEA deflators, \$1,000 computers bought in 1990, 1995 and 2000 would cost \$48.63, \$95.84 and \$526.58, respectively, today. I bought computers in each of those time frames and could not replicate any one of them for the suggested proportionate price in deflated dollars, regardless of free memory enhancement.

One of the more significant changes to GDP inflation was made in 1996, when the deflator was shifted from fixed-weighted to a chain-weighted basis. The chain-weighted basis weights inflation for a two-year grouping of a related GDP component, rather than using the weighting of the benchmark year. One happy side effect of this change is that the components of inflation-adjusted GDP do not add up to the total, with the difference being allocated to the residual category. As of the "final" second-quarter 2004 real GDP, the residual was a negative \$35.6 billion, or 0.33% of total GDP. The residual usually gets worse the more removed it is from the benchmark year, which is 2000 at present. As of the fourth-quarter 1990, for example, the residual is 13.4% of GDP. Before 1990, the BEA does not publish the detailed breakout of accounts, because of the large residual. For some reason, this bothers a number of well-reputed economists.

A Tempting Target for Manipulation

In the introduction to this series on government reporting, I mentioned political manipulation of the GNP/GDP in the Johnson and first Bush administrations that went beyond overly positive methodological changes. In both instances, my sources were consulting clients who had been involved directly in the process. In the latter instance, an individual at the BEA also confirmed the situation.

Few people argue with the GNP/GDP reports, so when Lyndon Johnson kept sending the initial GNP estimates back to the Commerce Department for correction, he eventually got what he wanted, and the media dutifully reported stronger than actual economic growth.

Near the end of the first Bush administration, an outside-the-system manipulation was worked. A senior member of the Executive Branch approached a senior officer of a large computer company and requested that reporting of computer sales to the BEA be inflated. This was done specifically to help with the reelection effort. The request was granted, and thanks to the heavy leverage of computer deflation, reported GDP growth enjoyed an artificial spike.

There are suggestions of other direct manipulations over time, specifically involving the Clinton administration and the current Bush administration. Most recently, a bizarre annual revision to the GDP data eliminated the 2001 recession, at least as traditionally defined with two consecutive quarters of real GDP contractions.

Where little public attention is paid to the GDI, however, it is interesting to note that the revisions did not follow the same pattern on the inflation-adjusted income side of GDP. Pre-

revision numbers showed quarterly real GDP contractions in third-quarter 2000 and the first-through third-quarter 2001. In the 2004 annual revisions, second-quarter 2001 GDP growth turned positive (from -0.6% to +1.2%), breaking up any consecutive quarterly GDP declines. The patterns were repeated in revisions of the GNP. Following the latest annual revisions, however, the GDI—same as GNP in theory—showed contractions in fourth-quarter 2000, second- through fourth-quarter 2001 and third-quarter 2002.

Estimating Economic Reality

Based on my analysis of the GDP/GNP revisions and redefinitions over time, over-deflation and economic reporting as published before later political corrections, reporting of real GDP growth at present is overstated by roughly three percent per year against a more realistic, pre-Pollyanna Creep period.

Where the period of bloated GDP reporting began after the severe double-dip recession of 1980 and 1981/1982, it includes the last two recessions that were severe enough to generate reported GDP contractions. Both the 1990/1991 and 2001 recessions were deeper and longer than currently estimated. The recession from July 1990 to March 1991 (timing per the NBER) really began in late-1989 and persisted into 1992, perhaps even 1993. Such was evident in the underlying data of the time. Due to the NBER's early call of the recession's end, however, the first "jobless recovery" was seen.

Similarly, the recession that was timed from March to November 2001, began in late-2000 and persisted into 2003. Again, because of an early call to the recession's end, a "jobless recovery" was seen.

There also were economic downturns in 1986 and 1995 that were evident to most companies dealing in real world economic activity at the time. Although the contractions showed up in a number of measures, they were not severe enough to turn bloated GDP growth negative.

As the economy once again appears to be faltering, or losing traction, risk is high of renewed or a double-dip recession, of which the 2001 downturn eventually will be counted as the first leg.

I have only touched upon some of the highlights in problems with GDP reporting. Unfortunately, though widely followed, the series is probably the least meaningful of the major economic statistics followed by investors and the financial media.

Comments and questions are invited:
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NOTE: To access the prior three installments in this series, go to the "Guest Contributions" section (lower right-hand column) at: www.gillespiereconomic.com/.

Footnotes to Installment Four

[1] Full definitions and methodologies are available at the BEA's website [BEA](http://www.bea.gov/).

[2] The information on the estimation process is based on my conversations with individuals at the BEA during the last 25 years. The economic consensus misses turning points in the economy about 100% of the time.

[3] BEA

[4] Though the NBER now denies such a definition was ever used, the NBER supplied me with this definition in a conversation back in the 1980s.

[5]Free trade theory assumes all involved nations are at full employment. When that is not the case the wealthiest and highest salaried countries end up with a declining standard of living and redistributing their wealth to the other free-trade participants, as is the current circumstance for the United States.

[6]While currency values can have relatively quick impact on trade in pure commodities, products with quality differentiation combined with the financial and marketing creativeness of importers and exporters often bypass standard theory.

[7]This is an actual component of the income side of the GDP.

[8]BEA, various historical editions of the *Statistical Abstract of the United States*, Department of Commerce.

[9]*Individual Income Tax Returns, Preliminary Data, 2002*, IRS website [IRS](#).

Series Introducion (Repeated from Prior Installments)

In 1996 -- the middle of the Clinton economic miracle -- the Kaiser Foundation conducted a survey of the American public that purported to show how out of touch the electorate was with economic reality. Most Americans thought inflation and unemployment were much higher, and economic growth was much weaker, than reported by the government. The *Washington Post* bemoaned the economic ignorance of the public. The same results would be found today.

Neither the Kaiser Foundation nor the *Post* understood that there was and still is good reason for the gap between common perceptions and government reporting: government data are biased in politically correct directions and increasingly have diverged from common experience and reality since the mid-1980s. Inflation and unemployment reports are understated, while employment and other economic data are overstated, deliberately.

For several years, I conducted surveys among business economists as to how they viewed the quality of government economic data. The following were actual comments:

- The senior economist of a major retail company told me, "Quality varies. The retail sales numbers are terrible, but money supply data are great."
- The senior economist at a major bank offered, "There's a problem with money supply, but I think retail sales are pretty good."

The point is that when an economist knows a sector well, he also recognizes the limitations and distortions of related economic reporting. Gathering and reporting accurate information on a timely (one-month) basis for components of the U.S. economy is nearly impossible. Nonetheless, most career government statisticians in Washington work diligently to provide the best information possible within the limits of the existing reporting system. A number of reporting distortions, however, are not accidental.

What follows is brief background on the reporting system and how the numbers can be viewed. Separate installments will address the specifics of employment, inflation, GDP and budget deficit reporting. Other areas will be addressed upon request.

The first regular reporting of now-popular statistics such as gross national/domestic product (GNP/GDP), unemployment and the consumer price index (CPI) began in the decade following World War II. Modern political manipulation of the government's economic data began as soon as practicable thereafter, with revisions to methodology often incorporating positive reporting biases. As a result, investors and most economists, relying on the government's data, often miss underlying economic reality. Consider:

- During the Kennedy administration, unemployment was redefined with the concept of

"discouraged workers" so as to reduce the popularly followed unemployment rate.

- If Lyndon Johnson didn't like the growth that was going to be reported in the GNP, he sent it back to the Commerce Department, and he kept doing so until Commerce got it right. The Johnson administration also was responsible for gimmicking the accounting that hides most of the federal deficit.

- Richard Nixon had a highly publicized war with the Bureau of Labor Statistics on the unemployment data. Nixon wanted to report the unemployment rate as the lower of the seasonally adjusted or unadjusted number, at any given time, but not specify same to the public. While that approach was unconscionable at the time and never used, basically the same methodology was introduced in 2004 as "state-of-the-art" by the current Bush administration.

- The Carter administration was caught deliberately understating inflation.

- Systemic changes were introduced during the Reagan administration to boost reported GNP/GDP growth on a regular basis. The wildest manipulations, however, happened at the time of the 1987 liquidity panic. In addition to intervention in the futures markets by the New York Fed to help prop the stock market after the October 19th crash, direct and heavy manipulation of the trade deficit data, under the direction of the Federal Reserve and U.S. Treasury, was used in conjunction with massive currency intervention to help bottom the dollar and to contain the currency panic at year-end 1987.

- The first Bush Administration began efforts at the systematic reduction of the reported rate of CPI inflation, and worked an outside-the-system GDP manipulation aimed at helping with the failed 1992 reelection bid.

- As former Labor Secretary Bob Reich explained in his memoirs, the Clinton administration had found in its public polling that if the government inflated economic reporting, enough people would believe it to swing a close election. Accordingly, whatever integrity had survived in the economic reporting system disappeared during the Clinton years. Unemployment was redefined to eliminate five million discouraged workers and to lower the unemployment rate; methodologies were changed to reduce poverty reporting, to reduce reported CPI inflation, to inflate reported GDP growth, among others.

- The current Bush administration has expanded upon the Clinton era initiatives, particularly in setting the stage for the adoption of a new and lower-inflation CPI and in further redefining the GDP and the concept of seasonal adjustment.

As a result of the systemic manipulations, if the GDP methodology of 1980 were applied to today's data, the second quarter's annualized inflation-adjusted GDP growth of 3.0% would be roughly three percent lower (effectively netting to zero percent or below). In like manner, current annual CPI inflation is understated by about 2.7% against the pre-Clinton CPI methodology (would be about 5.7%), and the unemployment rate is understated by about seven percent against its original design and what many people would consider to be actual unemployment (would be about 12.5%).

As to the financial results of federal operations, the application of accrual accounting and generally accepted accounting principles to federal operations shows an actual fiscal year 2003 deficit of \$3.7 trillion, as reported by the U.S. Treasury, versus the reported cash-basis \$374 billion.

Key Factors to Consider with Any Economic Release

Hearing or reading an economic statistic in the financial media is of little value, unless the context of the reported number is clear, detailing the type of change, any inflation adjustment, seasonal adjustment and revisions.

Seasonal Adjustment -- Widely followed data often are adjusted to remove patterns of distortion that recur regularly, year after year, or that are tied to business or trading days. For example, retail sales are strongest during the holiday season; February 2003 had 28 days,

February 2004 had 29 days.

While seasonal adjustment is a legitimate tool for enabling month-to-month or quarter-to-quarter comparisons of data that might otherwise be biased by calendar trends, more often than not, the government has problems with its adjustments. Areas that usually do not adjust well: weekly unemployment claims and employment seasonals related to holidays and the school year.

One way to avoid many seasonality questions is to look at growth on a year-over-year basis, July 2004 versus July 2003, for example. Trends in annual growth are largely free of seasonal distortions.

Seasonal factors typically are calculated annually, based on recent years' patterns of activity. The Bureau of Labor Statistics, however, went to revising and recalculating its employment seasonal factors each month, as of January 2004.

Inflation Adjustment -- If inflation is up 3.0% for the year, and sales are up 2.0% for the year, then sales fell 1.0% after adjustment for inflation. Deflating dollar numbers is a legitimate approach to viewing data with the effects of inflation removed.

Terms that mean data have been adjusted for inflation include *real, constant dollars, in 2000 dollars, in chain weighted 2000 dollars*. Beyond no inflation reference, terms that mean data have not been adjusted include *nominal, and current dollars*.

The most popularly followed inflation-adjusted economic statistic is the GDP, which reflects the growth in dollar economic activity minus the growth in inflation. If inflation is understated, which it is, then the resulting real GDP is overstated.

Type of Growth -- Is the reported growth *month-to-month, year-to-year* or *annualized*? Most monthly economic releases are reported showing month-to-month change. Quarterly numbers are shown either with quarter-to-quarter growth (i.e., the Employment Cost Index) or at an annualized rate of change (GDP). (SAAR means seasonally adjusted annualized rate.)

As discussed earlier, more meaningful trends usually are seen in year-to-year change, although such patterns rarely get publicized. Year-to-year change (the way most businesses look at their sales -- How am I doing against last year?) usually eliminates seasonal distortions in unadjusted data or residual seasonal distortions in adjusted data.

Revisions -- Most economic series go through regular and often significant revisions, typically for the next several releases and then annually in some form of a *benchmark revision*, as the government gets better or more complete data. A monthly number can appear to be strong or weak due solely to prior period revisions.

Two series that do not get revised on a not seasonally adjusted basis are the CPI and the unemployment rate, unless a mistake is made or the series is redefined. In such instances, often the new series is not comparable to the old series, but the financial media rarely pay any attention to those details.

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