



The Longbrake Letter* Bill Longbrake May, 2010

I. Personal Note

For those of you who have missed my monthly economic ruminations over the past year, I am back and intend to do monthly updates. And, for those of you who are reading this for the first time, I hope you find my commentary informative and useful. I am now happily retired and busier than ever. It did take me a while to adapt to retirement and one of the casualties, as I was finding my way, was the monthly economic commentaries. I assure you, however, that during this period of adjustment I have followed national and global economic developments meticulously and kept my data analyses up to date.

Old timers are familiar with how I construct an economic commentary. But as a reminder and for those of you who are newcomers, before I commence, let me tell you what I attempt to do.

I was originally trained to be a professor, but wandered off, first into the world of government policy making, and later to participating in building a very successful company, Washington Mutual, that became the sixth largest depository institution in the U.S. Yes, Washington Mutual ignominiously failed at the apex of the financial meltdown in the fall of 2008 and still bears the dubious distinction of being the largest bank failure in history. And, because of that, the success it had and the good it did before it was engulfed by the housing and credit bubbles seems now to have been forgotten. But enough of this nostalgia; my point is that I was originally trained to be a professor and that training is deeply embedded in me to this day and guides how I think and how I write my economic commentaries.

^{*}The information contained in this newsletter does not constitute legal advice. This newsletter is intended for educational and informational purposes only.

My objective is to instruct and help the reader understand better complex economic phenomena. My hope is that you will come away after reading my commentaries with a more informed sense of what is going on and why. And, I will count my job especially well done, if you find that my commentaries help you make more informed decisions in whatever you do.

My objective is not to sell you on my point of view. Indeed, often times I present the points of view of others and examine them critically, but do not present my own point of view. I try to identify pathways the economy could take and describe the factors that are important in guiding outcomes.

Economic forecasting has a poor reputation for accuracy and for good reason — actually two of them. First, and most important, the economy is dynamic. What this means is that decisions and events that have not yet occurred can and usually do alter outcomes. Second, much of today's economic analysis is superficial, oversimplified and devoid of rigorous critical thinking. It is often based on simple economic truisms that fail to acknowledge the importance of other economic variables in guiding outcomes. And, sometimes it is worse than that and that occurs when dogma trumps reason.

You can get a more comprehensive sense of how I develop an economic commentary by reading *Components of Economic Analysis*, which is included in this inaugural issue. In short, I integrate three types of analysis — fundamental, statistical/econometric, and behavioral.

Fundamental analysis is the most important component because when done well it provides an understanding of how the economy works and how economic variables interact and influence each other over time. Fundamental analysis encompasses long-term trends and short-term cyclical oscillations.

Statistical/econometric analysis is a tool for gaining deeper insight into the workings of the economy and helps corroborate or refine fundamental analysis. However, it is not a substitute for rigorous fundamental analysis.

While economic theory, which underpins fundamental analysis, customarily presumes that humans act in rational ways, experience unequivocally shows that *human behavior* frequently is not rational. Humans are motivated at times by greed and at other times by fear. They are motivated by the need for self-importance and social acceptance. The psychology of the crowd often enters into play and this influences outcomes in ways that

deviate from what fundamental analysis suggests are likely. And, it seems that the impact of human behavior may be becoming greater in today's information society and news entertainment media culture.

With that said, this month's commentary focuses on GDP, employment, consumer spending and inflation. I will discuss other topics in future monthly commentaries.

II. GDP (Gross Domestic Product)

1. Factors That Drive GDP Growth

The natural real rate of growth in GDP is defined by two variables — population growth and productivity.

While the GDP as a concept is straightforward enough, precise measurement is more challenging. For example, not all people are productively employed — the young, the retired and some others. Thus, it may be more appropriate to consider an alternative measure, such as labor force growth. If the relationship between the two measures is stable and constant, then the growth of each would be the same and it would not matter which measure one uses to do analysis. However, if the labor force grows at a different rate than population in a systematic way, the choice of measures does matter. For example, the demographic age distribution of the population in the U.S. is uneven and as the baby boomers age and retire, the relationship between labor force growth and population growth could change. The reason I did not say "will change" is that other variables, such as an increase in fertility rates, also will impact the relationship between the two rates of growth. Of course, changes in cultural norms, such as an increased percentage of women participating in the work force or young people dropping out to seek advanced education degrees could also matter. This litany should give you some sense of how complicated a seemingly straightforward economic concept can become when one attempts to measure it.

Productivity results when more output is produced with the same quantity of inputs. GDP is a measure of output. It consists of total spending in the economy. An alternative measure, rarely ever given much attention, is GDI, gross domestic income. But, measurement becomes really challenging

when focus is placed on the denominator — the inputs. Economic theory simply defines three classes of inputs — land (includes commodities and raw materials), labor and capital (plant and equipment including software and intellectual property).

The measure of productivity we are most familiar with is nonfarm labor productivity. But, this measures only one of the three categories of inputs, albeit by far the largest of the three. Nonfarm labor productivity is measured as the ratio of output to hours worked. To make matters more confusing, the measure of output, which rose 4.4% in the first quarter, is not the same as GDP, which rose only 3.2%.

So, while the concept of the potential real GDP growth rate is straightforward, precise measurement of it is elusive. Economists attempt to do the best they can but differences in measurement methodologies inevitably result in a range of estimates.

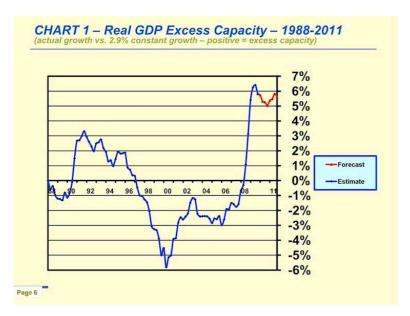
2. The Output Gap

Now, I would like to shift from a focus on the real rate of growth in GDP to a focus on the level of real GDP that defines full employment of resources. If we can define that level then we can measure the size of the output gap, which can either be positive, the economy is operating above capacity, or negative, the economy is operating below capacity.

It is important to measure the output gap as best we can because that measurement forms an important guide to monetary and fiscal policy. If the output gap is large and positive, that means that there are substantial amounts of unutilized and underutilized resources. In other words, the economy is plagued with substantial excess capacity. For example, the unemployment rate is currently 9.9%, but full employment is considered to occur when this rate is around 5%. A positive output gap imparts deflationary pressures while a negative output gap fuels inflation. The objective of policy is to attempt to maximize output, that is to get it as close to its potential level as possible, without creating either inflation or deflation.

Chart 1 shows how the GDP output gap has fluctuated since 1988 and includes a two-year forward forecast. As I have explained, measurement is difficult so you should not attribute precision to the data in the chart.

However, the oscillations in the output gap over time tell an important story.



I assume that the potential growth rate in real GDP currently is about 2.9% annually. This figure is somewhat, but not much higher, than estimates of others. It is derived by combining the contributions of labor force growth and labor productivity.

The story that Chart 1 tells is that there is substantial excess capacity in the economy and it is much greater than what occurred after the recession of the early 1990s. I calculate the level of excess capacity in the fourth quarter of 2009 as 5.8% which compares to the Congressional Budget Office's estimate of 6.3%. The real story, however, is that it will take a long time to reduce excess capacity. My forecast indicates that no headway is likely to occur over the next two years. That is because I forecast real GDP growth over this period to be about the same as the potential real growth rate. Simple arithmetic dictates that it would take six years to eliminate excess capacity if the actual real growth averages 1% above potential and three years if it averages 2% above potential. While some optimistic forecasters expect real GDP to grow at a 4% rate, most economists expect a somewhat slower rate of growth. This is important because what it means is that disinflationary, even deflationary pressures, will hold sway over the next

several years.

3. The Great Recession and Policy Response

Although the Great Recession is dated as beginning in December 2007 by the National Bureau of Economic Research (NBER), real GDP peaked in the second quarter of 2008 and troughed in the second quarter of 2009. The NBER has not yet pinpointed an end date, but most believe the recession ended in June 2009. The decline in real GDP during the Great Recession from peak to trough was 3.6%, which was the largest decline since the Great Depression of the 1930s.

Recessions occur when imbalances build in the economy to a point of unsustainability. Usually extremes trigger natural reversals. But, intentional policy intervention can also trigger and accelerate reversals. For example, housing usually plays a prominent role in a recession. During the expansion phase demand for housing rises as incomes rise and this increase in demand is usually accelerated by access to cheap funding and easy credit terms. Because supply lags demand, home prices rise which in turn prompts builders to increase housing production. For a time this creates a positive feedback loop which pushes demand and prices higher. But, eventually, because prices rise faster than income and financing costs often begin to rise due to higher interest rates, demand falters. When the tipping point is reached diminishing demand falls short of growing supply and prices begin to fall. Housing production falls with a lag and the economy grows more slowly or enters recession until the excess supply is eliminated.

It is such oscillations in the balance between supply and demand that drive business cycles. Policy makers often attempt to dampen cycles in a variety of ways ranging from monetary and fiscal policies to regulation and supervision. In the lead up to the Great Recession imbalances in the economy were permitted to build to excessive levels because natural corrective forces were overwhelmed by structural and behavioral changes in the economy. Also, policy intervention was feeble and late.

While all recessions occur because excesses need to be rebalanced, each recession has unique characteristics. For example, the commercial real estate boom of the 1980s was the principal driver of the 1990-91 recession, dot.com and overinvestment in technology excesses drove the 2001 recession

and residential housing and out of control financial engineering and speculation played a leading role in causing the Great Recession. History indicates that recessions that involve correction of debt and credit excesses are always much more severe than recessions involving correction of overproduction.

Impact of Inventories

Recessions get underway when demand declines. But it takes time for producers to cut back with the consequence that inventories surge. In the next stage of a recession, producers and vendors slash production in an attempt to reduce burdensome inventories. Typically production, as measured by GDP, declines much more rapidly than final underlying demand until inventories are brought under control. But, that sets the stage for a natural bounce back because production eventually needs to be raised back to a level consistent with demand, which never fell as much as production.

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	Bank of America					Goldman Sachs				
Quarter	Fore- cast	Stimu- lus	Net	Inven	Net	Fore- cast	Stimu- lus	Net	Inven- tory	Net
2009Q1	-6.4%	0.3%	-6.7%	-2.4%	-4.3%	-6.4%	0.3%	-6.7%	-2.4%	-4.3%
Q2	-0.7%	1.8%	-2.5%	-1.4%	-1.1%	-0.7%	1.8%	-2.5%	-1.4%	-1.1%
Q3	2.2%	3.6%	-1.4%	0.7%	-2.1%	2.2%	3.6%	-1.4%	0.7%	-2.1%
Q4	5.6%	2.3%	3.3%	3.8%	-0.5%	5.6%	2.3%	3.3%	3.8%	-0.5%
2010 Q1	3.2%	2.2%	1.0%	1.6%	-0.6%	3.2%	2.2%	1.0%	1.6%	-0.6%
Q2	3.0%	1.9%	1.1%	0.6%	0.5%	2.0%	1.9%	0.1%	1.0%	-0.9%
Q3	3.6%	0.5%	3.1%	0.7%	2.4%	1.5%	0.5%	1.0%	0.1%	0.9%
Q4	3.6%	-0.4%	4.0%	0.7%	3.3%	1.5%	-0.4%	1.9%	-0.1%	2.0%
2011Q1	3.1%	-0.4%	3.5%	0.0%	3.5%	2.5%	-0.4%	2.9%	0.2%	2.7%
Q2	3.6%	-0.5%	4.1%	0.1%	4.0%	3.0%	-0.5%	3.5%	0.1%	3.4%

Often times the inventory cycle is amplified because production cutbacks were too severe, and this leads to an acceleration in production, for a time, that is greater than underlying demand. The inventory cycle is clearly evident in the Great Recession as shown in **Table 1**. Shrinkage in production to bring down inventories contributed 2.4% of the 6.4% decline in real GDP

in Q1 2009. By Q4 2009 this process reversed and rising production to restore depleted inventories contributed 3.8% to the 5.6% increase in GDP. If the inventory cycle effect is purged from the data, real GDP shrank a more modest 4.0% in Q1 2009 and rose a more modest 1.8% in Q4. This is still a significant swing of 5.8 percentage points but much less than the reported 12.0 percentage point swing between the two quarters.

Policy Response — Monetary Policy

The practice of using policy tools to dampen and cushion the negative consequences of recessions on individuals, business and other institutions is well established. Policy intervention occurs primarily through monetary and fiscal policy. Monetary policy stimulates demand indirectly by reducing the cost of financing and by making financing more readily available. Its impact is most obvious for consumer durable goods, such as cars and houses, where the cost of financing those purchases has a powerful effect on demand for them.

However, monetary policy has been far less effective in stimulating demand since the onset of the Great Recession for three reasons. First, far too many houses were built during the bubble. Consequently, it will take a much longer time than typical to absorb the excess supply. And, while that is underway, production of new homes will be limited. Thus, the normal positive cyclical effect of low interest rates in inducing an increase in housing demand and production is absent currently.

Second, financial institutions and the financial system were severely damaged and the credit creation system has been impaired. For example, asset-backed securities markets for home loans, other than those guaranteed by Fannie Mae, Freddie Mac and FHA, remain moribund. Furthermore, many financial institutions' capital has been impaired which impedes their ability to lend. And, as if that were not enough, regulators are demanding more capital and encouraging more conservative underwriting which has resulted in reduced availability of credit and when it is available the terms are more onerous.

Third, inflation is so low that the Federal Reserve has had to reduce short-term rates to zero for the first time in 70 years. To have the customary stimulative impact rates need to be lower than zero, but that is not possible. My statistical analysis indicates that the Federal Funds rate should be near -5% currently. That estimate is consistent with research that Goldman Sachs has published. Since that is not possible, the Federal Reserve has engaged in quantitative easing through the purchase of long maturity Treasury securities and mortgage backed securities. Quantitative easing has the effect of reducing longer term interest rates.

While monetary policy has helped, when all is said and done, its stimulative impact has been limited by damaged credit transmission mechanisms and the zero bound for interest rates.

Policy Response — Fiscal Policy

Automatic stabilizers are built into fiscal policy at both the state and national government levels. Examples include unemployment benefits and the earned income tax credit. When the economy slows these stabilizers kick in and replace some of the income lost due to unemployment.

When the downturn in the economy is especially severe, as it was this time around, Congress often increases spending and decreases taxes to cushion the negative consequences of unemployment on consumer spending and to stimulate demand through additional spending. The federal government can finance these programs by borrowing. The federal deficit climbed from 1.3% of GDP at the start of the recession in December 2007 to 9.3% in March 2010. However, state and local governments must balance their budgets which means when their tax revenues fall during a recession they have no choice but to cut expenditures. Thus, part of the federal fiscal stimulus is always offset by the states during a recession.

Table 1 above shows the effect of the increase in federal spending and tax cuts on GDP. Congress passed the Economic Recovery Act with a variety of spending increases and tax cuts in excess of \$800 billion toward the end of the first quarter of 2009. Federal stimulus added about 0.3% to GDP growth during the first quarter of 2009. But, the impact soared quickly to a peak of 3.6% in the third quarter of 2009 and was still a high 2.2% in the first quarter of 2010.

Without the effects of inventory adjustments and federal stimulus dollars, GDP would have fallen -4.3% in the first quarter of 2009 compared to the reported decline of -6.4%, would have fallen -0.5% in the fourth quarter of

2009 rather than the reported advance of 5.6% and would have decreased -0.6% in the first quarter of 2010 instead of the reported rise of 3.2%. This makes it clear that the apparent healthy growth in real GDP over the last two quarters was misleading because without stimulus and inventories growth was actually still negative.

So, the reality is darker than supposed but that weakness will not necessarily persist. Stimulus is doing exactly what it is supposed to do and that is providing enough support to the economy to give time to people and companies to regroup, cast off fear and begin to take risks and spend again. It is important that this hand off from the public sector to the private sector occur and occur soon. As you can see in the projections in **Table 1**, fiscal stimulus supports real GDP growth for just one more quarter, fades in the third quarter and actually becomes restrictive after that.

4. Outlook for GDP Growth — Optimistic and Pessimistic Views

Here are the facts. The Great Recession was the worst in 70 years. Unemployment remains near 10%, but recent employment reports are encouraging. Consumer spending plunged but has come back more strongly than most expected. The pulse of the housing industry is very weak and a very long convalescence seems likely because of substantial excess supply and a bloated foreclosure pipeline. Business investment, particularly for equipment and technology, is very robust. Manufacturing has bounced back strongly. Trade is recovering well.

As is customary in economic analysis, data spews out daily — some is extremely bullish, some is encouraging, some is discouraging and some is just outright dismal. A forecaster with a particular viewpoint or set of beliefs can always find data that support his or her view. The vibrant 80% rise in the stock market since the depths of despair in March 2009 imparts a sense of optimism that permeates the thought processes of many and reinforces their "want to believe" innate bias. It does little good to point out that the stock market is still 25% below its previous peak reached in October 2007.

In times of great uncertainty, such as now, the range of views usually is very broad. There are those who look at charts of past business cycles and note that deep declines are often followed by steep recoveries. **Chart 2** shows exactly this kind of "V" recovery. But we know from **Chart 1** and

Table 1 that a substantial and worrisome amount of excess supply remains and that growth has been strong over the last two quarters only because of huge doses of government stimulus and technicalities involving oscillations in inventories.



CHART 2 - Real GDP Growth Forecasts

At the other end of the spectrum are those who expect the economy to fall back into recession — the double dippers — as soon as the effect of government stimulus fades. They assert that this relapse has a high likelihood of occurring because high unemployment and tepid wage gains will prevent the recovery in consumer spending from being strong enough to ignite positive feedbacks that are characteristic and necessary in an expanding economy. They point to the broken banking system and the ongoing contraction in all types of credit. They observe that the Fed has no more bullets to fire and bigger deficits risk a future sovereign debt crisis of the sort that is currently plaguing some European countries.

Historians point to the sequence of economic events during the Great Depression and wonder whether the patterns might repeat this time around. After all, both the Great Depression and the Great Recession were triggered by massive speculation and excessive debt leveraging that lead to a cataclysmic financial panic and disabling of the financial system.

During the Great Depression three and a half years elapsed between

the stock market crash in October 1929 and the bank holiday in March 1933. This time interval was not characterized by a continuous downward spiral. In fact, the stock market rebounded during 1930 on an order of magnitude quite similar to the rebound that has occurred over the last year. But, 1930 was followed by 1931, a year in which sovereign debt crises manifested themselves and sent the global economy into a second round of severe decline. An already weakened banking system could not handle the new round of debt defaults. Europe, then as now, was at the center of the sovereign debt crisis.

We believe that we saved the U.S. banking system through extraordinary intervention courtesy of TARP and numerous Federal Reserve liquidity facilities. And, that may well yet turn out to be the case. But it remains fact that the banking system is saddled with huge amounts of defaulted loans and weak loans whose continued performance will depend upon economic recovery. In many cases, because of accounting conventions, losses embedded in many loans have yet to be recognized. This is particularly true for smaller community banks that engage in portfolio lending.

As to my own view I can tell you emphatically that this will not be a quick and strong recovery of the sort that the optimists believe in. The path ahead is a treacherous one. Too many imbalances remain less than adequately addressed and new imbalances, particularly in the public sector, are being created. It will be a difficult recovery. And, I expect events yet to occur will have a significant influence on the pathway of recovery, for better or worse.

In Chart 2 I show the Bank of America/Merrill Lynch and Goldman Sachs real GDP forecasts along with two of my own, labeled "strong recovery" and "weak recovery". All of these forecasts fall somewhere between the optimistic and pessimistic views. The Goldman forecast expects growth to slow later this year as government stimulus wanes. That forecast, contrary to that of Bank of America, presumes that the private sector will be much slower in taking the hand off from the government and that growth will falter for a couple of quarters.

Notably, all four forecasts indicate that GDP growth will fall back to the 2% to 3% range by 2011. Growth at that level will be insufficient to close the large output gap rapidly.

III. Employment

Chart 3 shows the rate of growth in two different measures of employment. The payroll survey, or establishment survey as the Bureau of Labor Statistics (BLS) refers to it, is conducted monthly for the largest employers. To these data the BLS adds an estimate for small firms which it does not survey. Each year that estimate is revised and a new one developed for the ensuing year based on detailed state employment data. This estimation method works well most of the time but results in over estimating payroll growth at the onset of recessions and underestimating growth during the initial expansion following a recession.



CHART 3 - Employment Growth

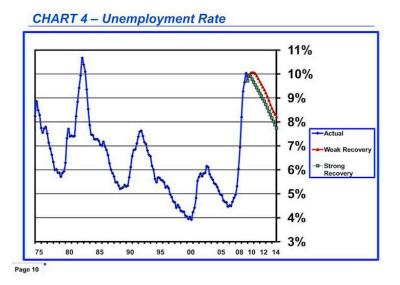
The household survey involves asking people whether they are employed or looking for work. As you can see in **Chart 3** the growth rates of the two measures are highly correlated, but not perfectly.

Both measures of employment are now growing which implies that the private sector is beginning to heal. However, the unemployment rate actually rose in April to 9.9% from 9.7% in March. This occurred because people who had dropped out of the labor force and thus were not counted as unemployed decided to begin looking for work again. This phenomenon is reflected in an increase in the participation rate, which measures the portion of the eligible

the last 12 months.

work force that actually is working or would like to be working. At the onset of the recession in December 2007, 66.0% of the eligible workforce was employed or looking for a job. This ratio fell to a low of 64.6% in December 2009, but since has recovered to 65.2%. If the participation rate had remained at a constant 66.0% the unemployment rate in April would have been 11.1% and not 9.9%.

Because it seems likely that discouraged workers will gradually reenter the labor force as the economy recovers, it is likely that the unemployment rate will fall very gradually as shown in **Chart 4**.



What this means practically speaking is that labor will have little bargaining power over wages. In fact, the rate of increase in hourly wages for all private sector employees has fallen from 3.3% at the onset of the Great Recession to 1.6% in April and nearly all of this decline has occurred over

Besides the enormous slack in the economy there are other factors that suggest the recovery in employment will be slow and a deceleration in wage growth will continue. Employers are making greater use than ever before of temporary workers. Surveys indicate that temporary placement agencies are growing revenues rapidly, particularly since the beginning of 2010. While hourly wage growth rates of all private employees have been falling, wages

pressures for temporary workers are building. Use of temporary workers provides employers more flexibility to adjust to changing needs and helps them manage employee compensation levels.

Another trend that does not appear to be temporary is an acceleration in labor productivity. A burst of productivity is normal in the final stages of a recession and the initial period of recovery. But the recent surge to a 6.3% increase exceeds the peak rate of 6.1% in the aftermath of the 2001 recession.

Even though productivity growth will slow in coming quarters, two bits of data imply that it will probably remain at somewhat elevated levels. First, demand for temporary technology workers is exceptionally high and appears to be directly linked with the surge in investment in business equipment and software. Colleagues tell me that this burst in demand began last fall and is still gathering momentum. This is a good outcome for employment in this sector but does not bode well more broadly speaking as implementation of technology advances will eliminate the need for many jobs. Second, recovery in small business employment has yet to begin as indicated by National Federation of Independent Business monthly surveys. This is a bit of a mystery as employment in other sectors of the economy appears to be improving. A possible explanation is that many marginal small businesses went bankrupt or ceased operations during the Great Recession. Limited access to credit will slow formation of replacement small businesses. If this phenomenon of survival of the fittest extends for a while, it will be reflected in higher rates of productivity growth.

All of these trends point in the direction of slow recovery in employment levels and continued lack of labor bargaining power and, thus, a further decline in the rate of growth in wages in coming months.

IV. Consumer Spending

Consumer spending depends on earned income, investment income, government transfer payments, pensions and an ability to monetize wealth. At an economy wide level, aggregate consumer spending also depends upon the number of employed workers.

In normal times growth in real consumer spending is fairly stable, averaging about 3.5% annually. This is a result of about a 1.0% annual rate of increase in the labor force, a 2.0% gain in real incomes due to productivity growth, and the remainder due to other factors such as growth in government transfer payments and monetization of wealth.

Chart 5 shows a sharp deceleration in real consumer spending growth during the Great Recession. As of the first quarter of 2010, the growth rate in consumer spending had recovered to an annual rate of 1.5% on a quarterly basis. However, growth in real consumer disposable income recovered to only a rate of 0.8%. The difference was made up by a decline in the saving rate. This is not the result that most economists expected. Most expected the saving rate to increase and the recovery in consumer spending to lag that of disposable income as consumers sought to rebuild savings.

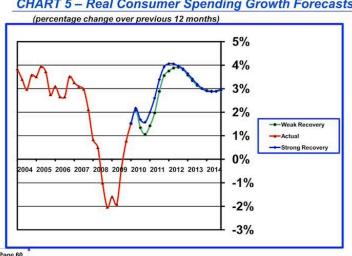


CHART 5 - Real Consumer Spending Growth Forecasts

According to economic theory, the inability to monetize assets because of falling values, particularly homes, and more restricted access to credit should lead to an increase, not a decrease in the saving rate. This immediately raises an issue of whether the theory is wrong or the measurement of the savings rate is flawed. According to research published by Goldman Sachs the answer is that measurement is flawed. Consumers divide the cash they receive between buying goods and services, most of which is measured by retail sales, and expenditures on housing, most of which is considered for measurement purposes to be a long-term investment and, thus, is not included as a part of consumer spending. In normal times these differences in measurement do not result in perplexing outcomes. But with limited access to credit and a widespread inability to sell existing homes because of price declines, a reasonably large portion of consumers have shifted expenditures that normally would go into housing to support purchase of goods and services. That behavior boosts the growth rate in measured consumer spending and reduces the measured savings rate.

If housing were not so severely depressed, the implication is that ordinary consumer spending would be growing less rapidly and the saving rate would be increasing in line with expectations. The actual outcome has wrongly been interpreted as the "resilient consumer" relentlessly spending aggressively in the face of daunting financial pressures. If the Goldman analysis is on the mark, and I believe it is, measured growth will appear to be strong but overall growth, including housing activity, will be less strong. That is good news for those who make their living in selling discretionary consumer goods and consumer staples, but it is not necessarily good news for others.

Chart 5 shows that real consumer spending growth is forecast to continue moving gradually back toward the historic level of 3% to 4%. But, there is a bit of retrenchment forecast in the second half of 2010 which can be traced directly to the phasing down of government stimulus and transfer payments.

Over the longer run aggregate consumer spending will depend on the level of unemployment and that will depend in turn on the overall health of the economy. Since employment growth is likely to occur slowly and wage growth will remain under pressure the odds strongly imply that consumer spending growth, adjusted for the housing measurement issue, will be relatively weak as consumers continue to reduce reliance on debt, which is another way of saying that they will focus on increasing savings, adjusted, of course, for the housing measurement issue.

V. Inflation

There is constant chatter about inflation and most of the commentary is directed toward the risk that large and sustained federal budget deficits will shortly lead to a virulent outbreak in inflation. This is indeed a possibility, but it is one that depends on rapid growth in the economy, a substantial closing of the output gap and a failure to reduce budget deficits by a significant amount. I find it curious that there is little talk about the threat of deflation in the near term because a full understanding of what is going on in the U.S. and global economies currently unquestionably indicates that the potential for deflation is a much greater risk than the potential for inflation.

Fundamental Long-Term Trend — Global Excess Capacity

To begin with, an understanding of long-term fundamental trends shaping the global economy is essential for a cogent discussion of inflation trends and risks. In <u>Components of Economic Analysis</u> I explain how globalization and technical progress (productivity) have created excess aggregate supply relative to aggregate demand. This fundamental trend is far from spent and will continue to dominate global economic developments in coming years. What is important about this trend with respect to inflation is that excess aggregate supply unleashes powerful deflationary forces. Governments have responded to the insufficiency in aggregate demand through aggressive fiscal policies. Unfortunately, such policies have resulted in a steady upward trend in sovereign debt relative to national GDP.

Increases in government debt relative to GDP over time create a growing imbalance which is not sustainable in the long run. We have witnessed the consequences of loose fiscal policy in recent days as the Eurozone has struggled to contain the Greek sovereign debt crisis. When a sovereign debt imbalance becomes too large to contain it erupts. What follows is shrinkage of the national economy in question and severe deflation — note, I said deflation, not inflation. (In an upcoming commentary I will do a deeper dive into what is happening in Greece and other European countries and explain why the recent seemingly massive intervention by the IMF and the European Union will most likely prove to be inadequate. As a teaser, I'll just say that the policy misses the mark because it addresses liquidity issues and the stability of the European banking system, which are real and

serious, but it does not address the underlying problem of individual country competitiveness. Spain, Portugal, Ireland and possibly the United Kingdom are not far behind in joining Greece on the troubled European country list.)

When debt becomes too large to service out of income, default or debt restructuring becomes inevitable, although policy makers usually attempt other solutions first in the hope that somehow it will be possible to grow out of the problem. The "kick the can down the road" policy bias is very powerful. But, often times all that is accomplished is that ultimate resolution is delayed and in the meantime the imbalance grows larger with the consequence that the deferred crisis becomes much larger and does more damage when it finally can no longer be contained.

When the sovereign debt burden becomes too great, nations have three choices. They can try to grow out of the problem by growing output faster than debt. That only works, if further increases in debt are limited, a difficult task at best, and if the level of the debt to GDP ratio is still low enough for such a strategy to be even feasible. A nation can attempt to inflate its way out of the problem through loose monetary policy, but that still requires a degree of fiscal austerity for such a policy to be successful. And the term "successful" is a misnomer because the inflation would do enormous damage to savers and pensioners. We understand that risk in the U.S. and that is at least in part why we are so paranoid about the threat of inflation. Or, a third choice is fiscal austerity. This is the pathway that is being imposed on Greece. It is not any more attractive than inflating out of the problem, perhaps less attractive. That is because fiscal austerity brings with it a crash in the level of GDP and an enormous surge in unemployment. Price deflation is inevitable and this extends to real assets as well as goods and services and can threaten bank solvency and financial system stability if it goes too far. There is a fourth option, which is to default on sovereign debt and restructure them. Again, I'll explore this in greater detail in a coming commentary.

Suffice it to say that fiscal policy can serve as a stabilizer but it should not become a policy instrument to stimulate aggregate demand on an extended basis. Such a policy eventually leads to severe problems. The U.S. is not yet in danger in that regard, but the risks of such an outcome are growing.

Short-Term Cyclical Effects

We tend to miss the long run trends in inflation and focus on the cyclical effects. When the economy goes through recession and the output gap grows, pressures accumulate which make it increasingly difficult to raise prices. The opposite occurs when the economy picks up steam and the output gap closes. It is important to understand that cyclical variations in inflation are oscillations around a long run trend. For the last several years, and probably for the next several years, the long-term trend in inflation globally is tilted in the direction of less inflation or even deflation. That trend can be seen in Chart 6 which shows the progression in the total and core inflation measures of personal consumption expenditures (PCE).

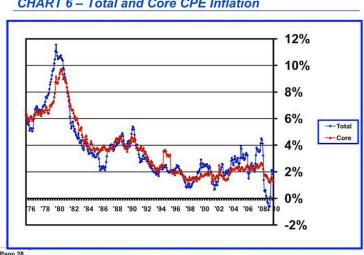


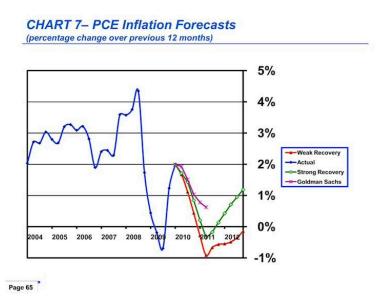
CHART 6 - Total and Core CPE Inflation

I show the PCE measure of inflation rather than the more popular consumer price index (CPI) for two reasons. First, the PCE measure covers a larger array of goods and services than does the CPI. Second, and probably because of the first reason, PCE is the preferred measure of inflation that the Federal Reserve tracks in its monetary policy deliberations.

The core PCE excludes energy and food prices which tend to be more volatile over the cycle. You can see this relationship visually in **Chart 6**. In the long run the two measures do not differ to any substantive degree but

in the short run the greater volatility of the total PCE inflation measure can be misleading. It is for that reason that policy focuses on the core PCE measure.

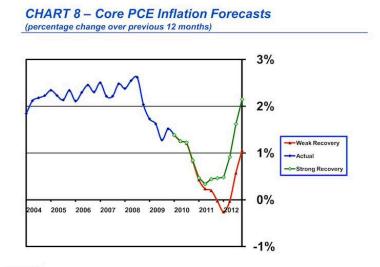
PCE Inflation Forecast



It stands to reason that the enormous output gap that currently exists will continue to put downward pressure on inflation for some time to come. Inflation is a lagging economic variable, which means that it will still continue to decline for a while after the economy has reversed course and is improving. That can be seen in **Chart 7**, total PCE inflation, and **Chart 8**, core PCE inflation.

The forecasts shown in these charts are ones that I derive from my own statistical analysis. For those of you who follow the forecasts of others closely, you will note that over the next 18 months inflation declines more in my forecast than in the forecasts of most others. That is not to say that my statistical analytics are any better than anyone else's. Mine could be worse in the sense that actual inflation could be sticky to the downside, which would mean that I am overforecasting the extent of a decline in inflation. I don't think the amount that inflation declines in the next few months is

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as important as the fact that it will decline, and of that I am absolutely certain.

The charts also show the difference in inflation's trajectory depending upon whether the economic recovery that is underway gathers momentum, the "strong recovery" scenario, or stables along, the "weak recovery" scenario. In the strong recovery scenario PCE core inflation bottoms out at about 0.5% during 2011. The rise thereafter is much less certain and has a great deal to do with two assumptions — the speed with which the output gap shrinks and how rapidly the federal government budget deficit shrinks. (In an upcoming commentary I will show possibly trajectories in GDP and inflation for different assumptions about future budget deficits.)

If, however, the economy stables along, there is a chance that core PCE inflation could turn into deflation for a while about 18 to 24 months from now. This is not an outcome I expect but it is a possibility I cannot rule out.

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