

The Longbrake Letter*

Bill Longbrake

May, 2011

I. Economic Recovery Is Progressing But Remains Fragile

This is the same headline as last month. Little has changed, either for the better or worse. There have been no new global economic shocks and there have been no new significant policy interventions in the economy. Reflecting this, the U.S. stock market has been treading water — the S&P 500 stock index has traded in a tight band from 1305 to 1364 over the last month. The risks to the economy discussed in last month's letter remain and their potential to impede economic recovery has not diminished.

In this month's letter I include a short update on each of the major risks and also discuss U.S. GDP growth and employment trends. In the last section I turn to a discussion of the principal policy issue — increasing the U.S. debt ceiling — which is percolating and will most likely dominate U.S. politics until a resolution is forged in a brinksmanship-like finale in mid to late summer. The risks posed to U.S. economic activity will turn in the short run upon whether the increase in the debt ceiling is accompanied by significant and immediately-implemented spending cuts and in the long run by whether politicians delay grappling with the truly tough issue of entitlement reform (social security and, in particular, Medicare and Medicaid) until after the 2012 presidential election. Delay often results from political stalemate, but delay comes not without cost. Initiating and implementing entitlement reform must occur to avoid running large federal budget deficits, which left unchecked, could eventually threaten U.S. solvency. While dealing with entitlement reform will have painful consequences, the severity of those consequences will only grow with delay. History and the nature of the

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current political debate suggest that we should expect symbolic spending cuts and delay on entitlement reform, which is not an optimal outcome for the U.S. economy in the long run but is politically expedient in the short run.

Following are observations I offered in my April letter, which I feel bear repeating as they still aptly describe the differences in the current weak economic recovery from more robust historical recoveries and explain the malaise and pessimism that dominates much of the country.

1. Abundant Policy Stimulus Has Not Fostered Strong Economic Recovery

Extraordinarily accommodative monetary and fiscal policies in the U.S. and elsewhere, combined with strong growth in emerging markets, have underpinned a modest economic recovery in the U.S. In another era these factors would have lead to much stronger growth than has occurred over the last 22 months. But it takes time and a lot of stimulus to climb out of the deep economic hole that the financial meltdown and Great Recession created.

2. Optimism Dominates Financial Markets, But Pessimism Abounds Elsewhere

Nonetheless, for the time being economic data reports confirm that recovery is underway. Optimism dominates financial markets. Federal Reserve officials publish optimistic economic outlooks and some fret about the risk of inflation. If one looked no further than this it would seem as though the economy is strengthening rapidly so that underperformance will soon be a worry of the past to be replaced by concerns of overheating and inflation. But ask the average American. There is little optimism. Consumer sentiment and confidence surveys remain mired near recession lows. The same is true for small business confidence surveys, which reveal declining confidence from a level that had not rebounded materially from the recession low.

How does one explain the optimism of financial markets and the pessimism of most Americans? Company earnings results support stock market optimism. But, a great deal of economic data describing employment and

income growth, residential housing prices and consumer spending are more in sync with consumer pessimism.

An objective of the Federal Reserve's non-traditional monetary policy of quantitative easing has been to provide sufficient liquidity to drive up prices of financial assets. And, this is exactly what has happened. This creates additional wealth, part of which can be spent on current consumption, thus accelerating economic recovery. Were we to probe no further, we would conclude that the Federal Reserve's monetary policy has accomplished what was intended, which is to create a strong enough economic base for a self-sustaining expansion to take hold. What is missing, when we probe a bit deeper, is that the benefit of the Federal Reserve's policy in creating financial asset wealth is limited to a small fraction of the American populace. In other words, quantitative easing mostly benefits the wealthy in the short-run and relies on "trickle down" to have broader favorable impacts on the economy over time.

Strong company earnings growth has benefited not so much from economic recovery in the U.S. as it has from strong international growth and cost containment, including falling unit labor costs, which result from productivity increasing at a faster rate than nominal wage growth. Although strong productivity growth is good for company earnings, it weighs against job creation. While domestic sales revenues are recovering, the level of real consumer spending is up only 1.0% since December 2007 and it would actually be down were it not for the significant increase in government transfer payments such as unemployment insurance. In fact, it is down 1.7% on a per capita basis, which means that real consumer spending has not kept up with growth in the population. Moreover, consumer spending growth is still well below the long-term average as consumers struggle with unemployment, underemployment and high debt burdens.

Strong international growth, lead by emerging markets, and a decline in the value of the dollar have combined to fuel a strong recovery in manufacturing and trade. Unfortunately, manufacturing and trade account for a very small portion of economic activity in the U.S. and productivity has been particularly robust in the manufacturing sector. So, again, this development has been an engine driving profit growth but not much employment growth.

3. Forecast Risk

Put this all together and what it tells us is that the economic recovery is not broad-based. There are pockets of strength, but considerable weakness prevails in many sectors. Given time and the absence of unexpected negative shocks it would be reasonable to expect the economy to strengthen gradually and for the weak sectors to improve. GDP growth would be sufficient to reduce the output gap slowly and the unemployment rate would fall as hiring picks up. However, the pace of improvement would be sufficiently gradual that a sharp and sustained increase in inflation would not threaten for a long time. This outlook forms the base case for most forecasters. I count myself among them, but my conviction is not strong. That is because a fragile economy is particularly vulnerable to negative shocks.

Increasingly, the persistence of the recent oil price shock seems likely to slow growth a little. The Federal Reserve adjusted its forecast downward a smidgen and Goldman Sachs reduced its 2011 GDP growth forecast from 3.5% to 3.0% and its 2012 forecast from 3.7% to 3.3%, primarily because of the contractionary impact of higher gas prices on consumer spending.

Several other risks have been in place for a while. Some, such as the problems of peripheral countries in the European Union, and housing in the U.S. are worsening. Others, such as federal fiscal policy and monetary policy are transitioning from positive to negative impacts. There are other risks, such as overheating of emerging market economies, particularly China, which could lead to cyclical reversal and thus bear watching.

II. Significant Risks Threaten Economic Recovery

1. Global Oil Price Shock

Political turmoil continues to roil the Middle East. However, so far the only serious interruption in oil supplies stems from the civil war in Libya, which currently appears to be stalemated. This has reduced oil supply by 1.5 million barrels per day, which equals about 30% of OPEC's spare capacity of 5.2 million barrels per day. This and accentuated uncertainty about what might happen in other oil-producing Middle Eastern countries

has been sufficient to push the price of oil up by more than 20% in a few weeks time. There is little doubt there are uncertainty and speculative premiums embedded in the spot price of oil. There was hope recently that the speculative premium had been purged when oil prices dropped nearly 10% in a single day. This turned out to be a massive short-covering rally and, unfortunately, most of the price decline has disappeared in recent days as risk appetite returned to the market.

Thus, while there is diminished risk of further price increases, prospects for oil prices to decline on a sustained basis in the near term seem limited. Libya's production appears to be lost for a very long time. The political risk premium now embedded in the price of oil will remain until tensions ease in the Middle East and that prospect seems a long ways off. Further interruptions in oil supply appear to be unlikely, but as long as political instability remains the order of the day the balance of risks tilts in the negative direction.

An offsetting factor to this risk is a drop in the demand for oil. If the drop is significant enough, it would bring the price of oil down. There is already evidence in the U.S. of demand destruction.

2. Japanese Economy Severely Wounded — Negative Supply Chain Impacts

While the Japanese economy is clearly in trouble and will take much longer than typical to return to normal functioning, it is increasingly apparent that global supply chain disruptions will have only a modest and temporary negative impact on global growth.

3. European Sovereign Debt Crisis

In the continuing saga of the European sovereign debt crisis the spotlight has shifted from Portugal back to Greece. The market reaction to the Portuguese bailout was hardly a ringing endorsement as reflected in an increase in interest rates on Portuguese debt following the announcement. That response indicates that the market does not feel that the bailout terms will be sufficient in the longer run and that Portugal will need further financial

assistance sometime in the future. But, as has been the case for Greece, Portugal can probably limp along for many months before a state of crisis re-emerges.

As for Greece, a year has passed since the original bailout was put in place. The bailout required Greece to take drastic action to reduce the government budget deficit within a compressed time period. Predictably, austerity has thrown the Greek economy into deep recession. And, not surprisingly, the economic decline has been more severe than optimistic forecasts made at the time of the bailout. Because of that less progress has been made in reducing the budget deficit and the public debt to GDP ratio has risen more than expected. The debt ratio is rising because GDP is falling and the amount of public debt is rising because the level of the budget deficit remains high and above the requirements established by the bailout. It is clear to most analysts that fiscal consolidation/austerity cannot resolve Greece's problems simply because the debt burden was too great to begin with. However, European authorities have been unwilling to consider alternatives to fiscal consolidation because of fear of contagion for other countries with top-heavy sovereign debt loads and anxiety about potential insolvency of many European banks which are heavily invested in European sovereign debt.

The latest developments affecting Greece involved yet another round of rating agency downgrades of its sovereign debt and a magazine article in *Der Spiegel*, a German publication, speculating that Greece might exit from the European Union. Both developments reflect that the current policy of fiscal consolidation will likely fail. Nonetheless, European authorities categorically are unwilling to consider or discuss the possibility of debt restructuring which would require bondholders to suffer a loss.

Thus, another policy band-aid is probable, which will likely buy a little time, but will merely postpone the inevitable need to restructure Greek debt. Greek exit from the European monetary union would enable it to devalue its currency which would make it more competitive, but this action would only be a partial solution. Exit would not address the debt burden problem because the debt would continue to be denominated in euros, not in drachmas. Exit from the European Union, while it would provide greater flexibility to Greece to manage its way out of its fiscal problems, would result in enormous and costly adjustments and would trigger severe financial repercussions. Furthermore, it would be an extremely risky precedent

that could very well destabilize the integrity of the European Union. For all of these reasons, European authorities and, notably, Greek authorities and politicians as well, are immediately and emphatically dismissive of exit speculation.

A likely policy band-aid would involve debt rescheduling, as opposed to restructuring. When debt rescheduling takes place, debt holders exchange short-dated bonds for longer-dated bonds, presumably at the same interest rate. This avoids bondholders incurring a principal loss and it reduces the amount of debt that is rolling over and must be refinanced. The policy band-aid could also include additional European Central Bank loans at low interest rates, which would reduce the negative impact of high debt service costs on Greece's budget deficit and debt to GDP ratio.

Discussions about next steps for Greece began at an informal meeting on May 6, 2011 in Luxembourg and will continue on a formal basis on May 16, 2011 when the euro-area finance ministers are scheduled to meet. After the May 6th meeting, Luxembourg's prime minister, Jean-Claude Juncker, reportedly stated that Greece's financial assistance program "does need a further adjustment".

There are strong reasons for European policymakers to play this game of "pretend and extend" or less charitably known as "kick the can down the road". First, because much of the sovereign debt is held by European banks, a debt restructuring involving principal forgiveness would deplete bank capital and perhaps even threaten insolvency for a few. This most certainly would trigger a liquidity crisis for European banks as investors seek to move funds to safer climes. European authorities do not relish the prospect of dealing with contagion. This remains a problem and because restructuring appears to be inevitable, European authorities will have to figure out how to handle the consequences of contagion. There is not yet any plan for how to do so. It is likely that a plan will emerge in a crisis atmosphere when time has run out and this will raise the risk of a significant policy mistake. But, that time still seems a long ways off.

Second, France and particularly Germany want other member countries of the European Union to agree to fiscal policy constraints — the so-called competitiveness pact. By agreeing to such a policy regime, member countries would give up a large measure of sovereignty over taxing and spending. Economists point out that this is a necessary component to make a monetary

union work as intended. Indeed, this imperative has always been recognized in the treaty that formed the foundation for the European Union. But it is a policy of words with no enforcement mechanism and obviously the lack of an effective enforcement mechanism permitted individual country behaviors which have lead to the current sovereign debt problem.

Bailing out Portugal and renegotiating Greece's assistance package will buy some more time, but time is running out and it will be necessary for Europe in a few months time to deal directly rather than indirectly with the sovereign debt crisis. And, don't forget about Ireland. It's not getting any better there either. And, while all is quiet in Spain for the time period, it is a candidate ripe to suffer financial market wrath should contagion take hold. The stark reality is that the European sovereign debt problem is steadily worsening. Delay in devising meaningful and effective policies will only make the ultimate necessary resolution more difficult and risky. Because of the interconnectedness of the global financial system and Europe's importance in the system, the manner in which Europe's sovereign debt crisis is ultimately resolved will have repercussions for U.S. financial markets ... and they will not be positive ones. But, for now, the risks to the U.S. economy are not yet front and center.

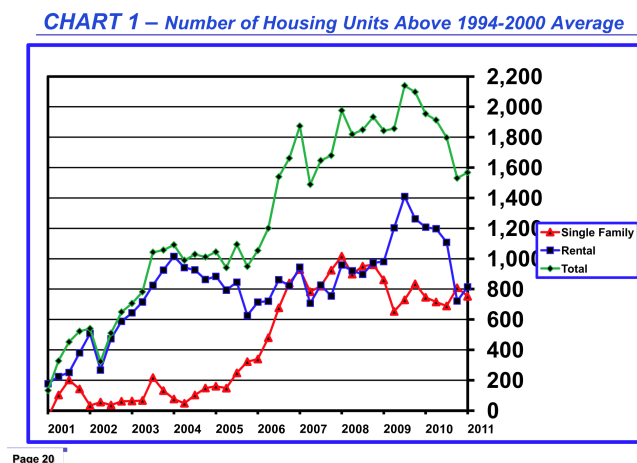
4. Declining Housing Prices

In a typical economic cycle housing is a key sector that contributes to recovery. Low interest rates spur housing demand and stimulate new construction. That is not the case now. Interest rates are at all time lows and measures of residential housing affordability are at record highs, conditions which in other cycles were sufficient to launch a strong housing recovery. And now, when a turnaround ought to be underway, home prices are declining once again and housing construction and sales activity is plumbing new lows.

According to the S&P/Case-Shiller index of housing prices, prices declined 0.2% in February marking the eighth consecutive monthly decline and bringing the price decline over the last 12 months to 3.3%. Bank of America/Merrill Lynch recently downgraded its 2011 housing price decline forecast to 6.4%, and added that risks are skewed in the direction of a larger decline.

There is nothing in the outlook to give cause for optimism. The simply reality is too many houses were built during the bubble years leading to extremely high levels of vacant homes which will take years to absorb through population growth and new household formation.

Chart 1 shows the number of single-family and multi-family housing



units above the 1994-2000 average based on data compiled by the U.S. Census Bureau. These data indicate a modest reduction in single family home excess inventory to about 750,000 homes. Total vacant inventory is about 2.8 million, but “normal friction” inventory is about 2.0 million. However, Goldman Sachs believes that Census Bureau data greatly understate the real amount of excess inventory, which it calculates to be about 3.5 million units, because the Census Bureau does not estimate the number of vacant homes which discouraged owners have not placed on the market for sale.

Falling home prices obviously will continue to depress housing demand. Who wants to buy a home when its value is likely to fall. But, there are two other risks that bear close watching. First, falling home prices will reduce consumer wealth. Because perceptions of wealth affect consumer confidence and spending, declining housing wealth will have a negative impact on economic activity. Whether this impact will be significant will depend upon the extent of housing price declines during 2011. A worst case scenario entails a combination of stagnant or declining stock prices and decreases in home prices that exceed the widely forecast 5.0% decline, an outcome which seems

a bit more probable than a month ago.

Another issue is the abundance of mortgages that exceed the current sale value of a home. The risk of potentially substantial additional losses by holders of defaulting mortgages is not yet a significant issue, but developments are moving in the wrong direction and could turn the financial consequences of further declines in housing prices into a significant problem later on in 2011. Financial institutions can slow down realization of financial losses by delaying foreclosure activity. This is exactly what has been occurring. Unfortunately, delaying foreclosures is a solution that will also postpone housing market stabilization. In that respect the financial handling of the housing problem is the same as the “kick the can down the road” approach to dealing with the European sovereign debt problems. Ultimately, losses must be realized and debt restructured before the housing market will return to health. But the interim consequences of doing so are enormous and no policy has been crafted yet to contain the potential for contagion. Residential housing continues to be an unhealthy situation with risks tilted decidedly to the downside.

There is one bright spot in the housing market and that involves multi-family rental units. As can be seen in **Chart 1**, rental vacancies are now shrinking rapidly thanks to a falling homeownership rate and extremely limited new construction. While excess multi-family inventory remains, it has fallen from a peak of 1.4 million units in the third quarter of 2009 to about 800,000 units in the first quarter of 2011. This market tightening is already putting very moderate upward pressure on rental rates. Rising rental rates have contributed to stabilizing the core rate of consumer price inflation and will probably contribute to small increases in core inflation in coming months. But, more importantly, rising rental rates improve the financial economics of new multi-family construction and will surely lead to an increase in economic activity in this sector later on during 2011.

5. Monetary Policy

Monetary policy is currently extraordinarily accommodative thanks both to the Federal Reserve’s zero-interest-rate policy and its large scale asset purchase (LSAP) program, better known as quantitative easing (QE II). QE II involves purchase of an additional \$600 billion in U.S. Treasury securities and maintenance of mortgage backed securities balances through

replacement purchases.

QE II will be completed by June and the Federal Open Market Committee (FOMC) has stated that it intends to maintain the Fed's balance sheet thereafter. By simply completing the purchase program and doing nothing else, monetary policy will become somewhat less accommodative after June.

The longer term issue is when the Federal Reserve will begin to take action to tighten policy. One's answer to that question depends upon one's forecast of economic activity. Optimists, who expect GDP growth to accelerate, the unemployment rate to continue falling and inflation expectations to edge up, forecast that the Federal Reserve will begin to tighten policy as soon as the fourth quarter of 2011. However, forecasters who expect recovery to proceed gradually, which includes myself, believe the Federal Reserve will not begin tightening monetary policy until late 2012 or early 2013.

6. Fiscal Policy

There is little doubt that political momentum has swung in the direction of reducing federal budget deficits. The questions now are ones of how much and how soon.

With the political drama of approving the fiscal year 2011 budget resolution now history, political attention is focused next on raising the federal debt ceiling. The Treasury Department has announced that the ceiling will officially be reached on May 16, 2011. However, the Treasury Department has also stated that it will be able to engage in a variety of accounting adjustments that will postpone the actual date for running short of cash to operate the government until August 2, 2011.

In addition, payroll tax cuts and extension of unemployment insurance benefits, which were enacted last December, and which have contributed significantly and favorably to economic activity during the first quarter of 2011, are scheduled to expire at the end of the year. It is too early to forecast whether any or all of these measures will be renewed for 2012. Extension will probably depend on the strength of the economy later this year, the mood of the public, and presidential electioneering. If economic recovery is grinding along, odds tilt in the direction of letting these measures expire as scheduled, given the current mood of Congress.

So, on balance, fiscal policy is already in the process of shifting from stimulus to restriction. The risk going forward is tilted in the direction of even greater fiscal restrictiveness rather than less.

7. Summary

Each of these risks on an individual basis will likely have a moderate restraining impact on acceleration in the economic recovery that is underway. What is uncertain and worrisome is the possibility that several of these risks will impact the economy in the same time frame and trigger reinforcing and negative feedback loops that slow or even derail economic recovery. I remain optimistic that recovery will proceed slowly but I believe the recovery will continue to be much weaker than previous recoveries, and so far the data flow confirms that belief. I am not worried about near-term inflation risks. Overall, the economy should grow gradually, but risks to that view are tilted to the downside.

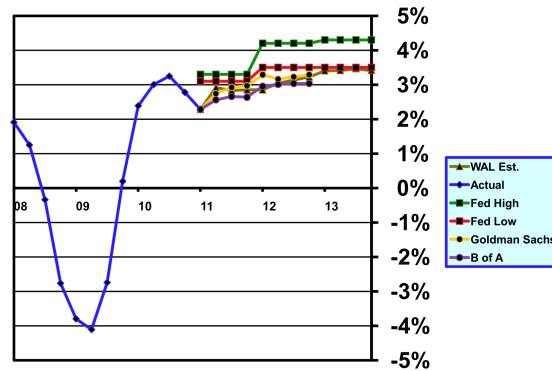
III. U.S. GDP Growth

1. Forecasts

Various GDP forecasts are shown in **Chart 2**. The Federal Reserve's most recent forecast decreased the expected range of GDP growth in 2011 from 3.4% to 3.9% to 3.1% to 3.3%. This downward adjustment reflected the weak GDP growth in the first quarter but also anticipates that higher food and energy prices will retard economic growth during the remainder of 2011. The Fed reduced the upper bound of its forecast for 2012 GDP growth from 4.4% to 3.5% to 4.2% to 3.5%, most likely because of impacts stemming from the withdrawal of monetary and fiscal stimulus by the end of 2011. The Fed also reduced its forecast range for 2013 GDP growth from 4.6% to 3.7% to 4.3% to 3.5%. These downward adjustments follow a pattern of consistent downward adjustments and are not surprising given that the Fed forecasts tend to be more optimistic than those of many analysts.

Following a fairly consistent pattern, the Fed's forecast is at the optimistic end of the forecast range. The Bank of America/Merrill Lynch (B of

CHART 2 – Real GDP Growth Forecasts
(percentage change over previous 12 months)



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A) forecast, Goldman Sachs (GS) forecast and my forecast, labeled “WAL Est.”, all fall below the lower end of the Fed’s forecast range. There is very little difference between my forecast and those of B of A and GS through the end of 2012. While B of A and GS have not yet released forecasts for 2013, my forecast indicates a gradual increase in GDP growth to about 3.5% in 2013, which is similar to the lower bound of the Fed’s forecast for 2013.

2. Output Gap

Based upon the Congressional Budget Office’s full potential GDP estimates, the output gap was 6.26% in the first quarter of 2011, a level it has been stuck at for the last three quarters. GS’s revised real GDP forecast puts the output gap at a still very sizable 4.26% by the end of 2012 and B of A’s forecast is slightly more pessimistic with an output gap of 4.81% at the end of 2012. My own GDP forecast puts the output gap at 4.43% at the end of 2012 and 3.61% at the end of 2013. The CBO’s estimate of the output gap during the 1980-82 recession peaked at 7.54% in the fourth quarter of 1982 and then fell rapidly to 1.15% six quarters later by the second quarter of 1984. The output gap peaked at 7.76% during the Great Recession during the third quarter of 2009, but in the six quarters since has fallen only to 6.26%.

Clearly, this recovery bears little resemblance to the one that followed the deep recession of 1980-82. This is troubling because a persistent large output gap weighs cumulatively on optimism. Also, the persistence of a large output gap argues strongly against an inflationary outbreak and maintains the potential for deflation. The deflation threat has been corralled for the moment by aggressive monetary policy, but I think the threat has simply been contained; it has not been eliminated.

3. 2011 Q1 GDP

The “advance estimate” of first quarter GDP growth was 1.8% (see **Table 1**).

Table 1
2010 Fourth Quarter GDP Estimates

	Advance	Second	Final
	Estimate	Estimate	Estimate
Personal Consumption	1.91%		
Private Investment			
Nonresidential	.18%		
Residential	-.09%		
Inventories	.93%		
Net Exports	- .08%		
Government	-1.09%		
Total	1.76%		

Personal consumption declined from 2.79% in the fourth quarter to 1.91% in the first quarter. At first blush, because consumption accounts for more than 70% of GDP growth, this would appear to be a negative development. At the very least it reflects the on-going weakness of the economic recovery and challenges that consumers confront. Consumer spending should be increasing at an annual rate of slightly more than 3%. If it were, the contribution to 3% GDP growth would be 2.1% (70% of 3%). Viewed in this way,

an increase of 1.9% is not significantly below 2.1%. Growth in consumer spending has been rising steadily quarter-by-quarter since the end of the Great Recession two years ago. Over the last four quarters real consumer spending has risen 2.59% and is nearing the long-term average of 3.0%. In addition, quarterly data move around a lot, so one has to be careful not to over interpret one quarter's number. So, while a pull back in consumer spending in the first quarter was disappointing, it was not disastrous and in fact is consistent with a gradual, but weak, economic recovery.

Investment in inventories was stronger than desirable, as overstocking will eventually lead to production cutbacks. However, in this instance strong inventory growth followed an unusually large contraction in the fourth quarter, suggesting that there was statistical noise in both quarters' numbers.

Perhaps most surprising was the extraordinarily large decline in government expenditures. As a reminder, GDP only measures government spending on goods and services. It omits all transfer payments which have been the primary component of government spending that has driven the budget deficit up. Most all government transfer payments are accounted for in GDP through consumer spending. Again, it seems that the large decline in government spending was a statistical anomaly.

All-in-all first quarter GDP growth was not nearly as bad as it looked. Yet, the story it tells is consistent with the overall story of a weak economy that is struggling to gather sustainable momentum.

4. Prospects for GDP During the Rest of 2011

GDP growth is likely to be somewhat better during the remainder of 2011 and so, hopefully, the 1.8% reported in the first quarter will mark the low point for the year. However, the improvement is likely to be modest as is indicated in the various forecasts shown in **Chart 2**.

IV. U.S. Employment

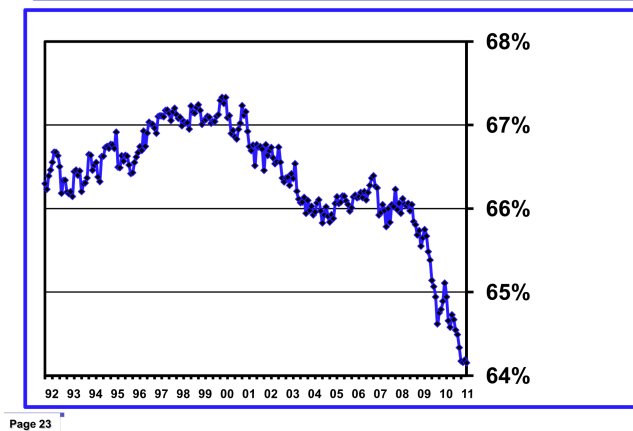
1. April Data

Payroll employment rose a solid 244,000 in April following an equally strong revised advance of 221,000 in March and 235,000 in February. If one were to look no further than the payroll data, one would conclude that employment is in a strong recovery mode.

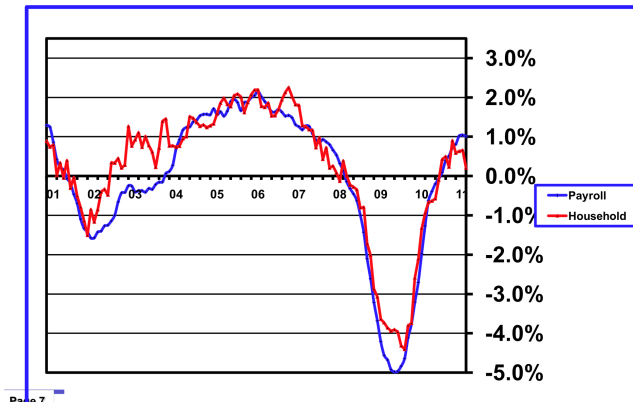
However, other employment data paint a less rosy picture. The one statistic which usually receives the greatest amount of attention, the unemployment rate, rose to 9.0% in April from 8.8% in March. The unemployment rate is calculated from the household employment survey rather than from the payroll survey. The number of people looking for work, who are counted as unemployed, rose 205,000 in April while the labor force rose 15,000, which means that the number employed fell by 190,000. This reflects a very weak labor market and is contradictory to the “good news” contained in the payroll employment survey.

Over the last year, the number of people eligible to work has increased 1.8 million. Many of those eligible to work voluntarily choose not to do so. The household employment survey asks those eligible to work whether they are either employed or looking for work. This measure is called the labor force. The labor force decreased 1.1 million over the last 12 months. The relationship between those eligible to work and those willing to work is termed the “participation rate”. During the last 12 months the participation rate decreased from 65.11% to 64.15% (see **Chart 3**) and it is down approximately 2% since the start of the Great Recession. A 1% change in the participation rate equals approximately 2.4 million people who have chosen not to seek employment either voluntarily or because they have become discouraged.

Generally, over long periods of time the payroll employment survey and the household survey of those employed track each other relatively closely (see **Chart 4**). However, the two surveys, because of differences in sampling methods, will sometimes diverge on a month-to-month basis. This was the case in April. While payroll employment increased 244,000, household survey employment decreased 190,000. Actually the divergence between the two reports has persisted over the last 12 months during which payroll em-

CHART 3 – Labor Force Participation Rate

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CHART 4 – Employment Growth (annual rate of change)

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ployment rose 1.3 million, but household employment rose a much smaller 292,000. A possible explanation for this sustained difference, which is unusual, could be embedded in the payroll survey estimation methodology used to account for self-employed individuals and persons employed by small businesses. Generally, the payroll survey underestimates the number of such employees during the recovery phase of the economic cycle, as can be seen in **Chart 4** during the economic recovery that followed the 2001 recession. The recent result is exactly opposite to what happened after the 2001 recession.

It could be that the continued extremely weak small business survey data might be telling us that the typical recovery in self-employment and small business employment is not occurring this time. Since the payroll survey focuses on combining data from large employers and with estimates the small business and self-employed workers, it is possible that the supplemental estimates are overstating the true situation. Payroll data are benchmarked annually on a retrospective basis. Household data are never revised. Thus, it is reasonable to posit that in times of potentially significant structural change in labor markets, the household survey will be more reliable than the payroll survey.

2. Labor Force Participation

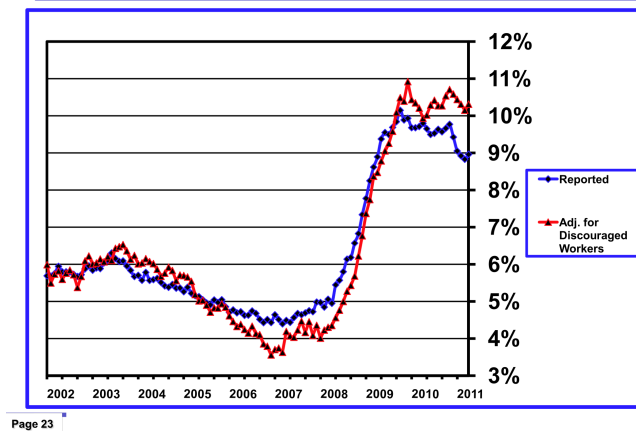
Falling labor force participation is responsible for the simultaneous shrinkage in the labor force and the falling rate of unemployment. Participation changes over time because of demographic changes and cultural considerations, such as greater entry of women into the labor force. Over shorter periods of time labor participation is also influenced by workers who exit the labor force during difficult times only to re-enter the labor force during good times.

Demographic factors have driven a slow decline in labor force participation since it peaked just prior to the 2001 recession. There was a bit of a rebound in the late part of the cyclical expansion prior to the start of the Great Recession in December 2007. As can be seen in **Chart 3**, however, the decline in participation over the last three years is much greater than can be explained by demographic factors alone. The primary demographic reasons for declining participation are an aging workforce with a lower participation rate in the oldest cohorts and a declining participation rate among young workers, probably reflecting a larger proportion going to college. Demographic considerations have accounted for about a 0.5% decline in the participation rate since the start of the Great Recession. Other factors have contributed to the remaining 1.5% decline from the peak of 66.0% at the onset of the Great Recession. Principal among these other factors is discouragement, which prompts workers to give up looking for work and drop out of the work force. Such workers could well re-enter the labor force when job prospects improve and the labor market tightens. However, some of the decline could also stem from structural unemployment for workers that

are simply unemployable because they do not have skill sets any employer needs.

There are currently approximately 2.1 million workers who have dropped out of the labor force for reasons unrelated to demographic considerations. If all of these workers are discouraged and plan to re-enter the labor force as the labor market improves the April unemployment rate would have been 10.3% rather than the reported rate of 9.0% (see **Chart 5**).

CHART 5 – Reported Unemployment Rate & Adjusted for Discouraged Workers



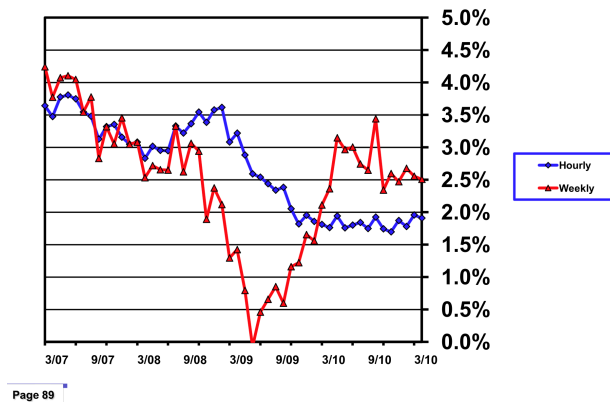
A steady, but gradual, decline in the labor force participation rate means that employment will grow more slowly in the future, but it will probably not affect the unemployment rate or, for that matter, other growth rates to any material extent. What it will affect, however, is the level of personal income, the level of retail sales and any other aggregate measures of household income and spending. This trend will matter in the following way. A 2% to 3% permanent decline in the labor participation rate means that household income, and probably spending as well, will be approximately 2% to 3% lower for the same population base. This is a decline in the level. It does not affect growth rates. Growth rates, which are how most all economic data are reported, describe changes in levels. A 3% change from a low level appears to be the same as a 3% change from a high level. But, it should be obvious that a 3% change from a high level is better than a 3% change from a low level. Overall, this is not good news for nominal tax collections that are geared to levels of income or retail sales that are at lower levels because

of the reduced level of employment.

3. Wage Growth

Average hourly wage growth, which is an indicator of the intensity of excess labor supply relative to demand, has stabilized over the last year. **Chart 6** shows the annual rate of change in the hourly average employee wage rate

CHART 6 – Hourly and Weekly Wages
(annual rate of change)



and the annual rate of change in weekly wages. The growth rate in average weekly wages adjusts for the average number of hours worked. The growth rate in weekly wage earnings is a measure of spending power of consumers. Weekly wages had grown since mid-2009 as average hours worked slowly increased, but now appear to be converging downward toward the growth rate in average hourly wages. Overall **Chart 6** tells a story of a very weak labor market that is in the process of stabilizing.

In the long run, the more important of the two measures is growth in the average hourly wage rate. Average weekly hours fluctuate with the strength of the business cycle, falling during recessions and rising when the economy is expanding. Early in the recovery phase of the business cycle, employers increase the number of hours worked by employees. But, as employers gain confidence in the sustainability of the expansion, they begin to hire additional workers. We appear to be at the transition point. What

that means is that the number of people hired should begin to increase at a more rapid rate as the payroll employment survey seems to be indicating. It also means that the expansion in the number of hours worked per week should begin to flatten out and that is what has happened over the last several months. That means that growth in the average hourly wage rate is once again the better indicator of the tightness of labor supply relative to demand.

The rate of growth in the average hourly wage rate is also a leading indicator of inflationary pressures. As long as it remains at a very low and stable level there will be little to no upward pressure on inflation.

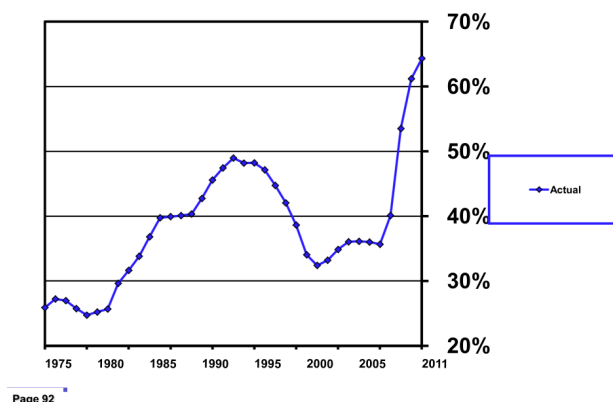
V. The Great Federal Budget Debate - Impact of the U.S. Federal Budget Deficit and Level of Debt on the US Economy

1. Budget Deficits Left Unchecked Will Result in Increases in the U.S. Federal Public Debt to GDP Ratio That Could Threaten U.S. Solvency

Since the Great Depression of the 1930s and pursuant to the analysis of John Maynard Keynes, it has been government policy to fight the negative consequences of a decline in aggregate demand during a recession by increasing spending and cutting taxes. This policy results in huge increases in budgetary deficits. Economic theory posits that cyclically-neutral stabilization fiscal policy requires offsetting budgetary surpluses during the expansion part of the economic cycle. Whether policy is cyclically neutral can be observed by tracking the ratio of the stock of federal debt to nominal GDP (debt ratio) over time. If policy is cyclically neutral, the value of the debt ratio will fluctuate around a constant value, rising above that value during recessions and falling below during expansions.

Chart 7 shows the progression of the federal public debt ratio since 1975. Prior to the Reagan presidency the debt ratio fluctuated around 25%. During the Reagan administration “supply-side” fiscal policy lead to huge deficits and the debt ratio rose to a peak of 49% in 1993. During the Clinton administration, a time of steady economic growth, the debt ratio

CHART 7 – Total Federal Public Debt to GDP
(percentage of nominal GDP)



fell to 33% in 2001. In the aftermath of the 2001 recession the debt ratio rose moderately, but did not fall back much when the economy began to grow again due to the Bush administration's tax reduction policy. At the start of the Great Recession, the debt ratio was 36% and in the thirteen quarters since its start the ratio has risen to 64%. It is currently on a course to rise to 70% or a little higher by the end of 2012, depending upon the strength of the economy in coming months and the extent of potential Congressionally-mandated spending cuts.

The rapid increase in the debt ratio and the prospect of further increases has prompted concern about the ability of the government to service this increasing stock of debt in the future without inducing a rapid rise in inflation or depressing the standard of living.

Kenneth Rogoff and Carmen Reinhart, based on their historical study of credit collapses and sovereign debt crises, suggest that the tipping point when the size of the debt to GDP ratio is in the "red zone" where the risk of a debt crisis rises substantially is in the vicinity of a 90% debt to GDP ratio. There is some uncertainty about the definitional basis of the 90% trigger. If it pertains to debt held by the public in the U.S., then the current 64% debt ratio is not yet at a worrisome level; but if it is based on the total debt ratio, the U.S. total debt ratio of 95% is definitely troublesome. Once the debt ratio reaches a certain level, the interest costs tend to accelerate the rate of growth in the debt ratio and solvency concerns act as an accelerant

because interest rates rise along with solvency concerns.

In any event, the primary deficit (see definition in Section 6 below) exceeds \$1.1 trillion currently and federal debt held by the public is growing at about 16% annually compared to a 4% growth rate in nominal GDP. This means that the debt ratio will continue to rise to much higher levels in coming months unless measures are taken to reduce the size of the budget deficit substantially and sooner than later.

2. Fiscal Policy Tools

Policymakers can reduce the federal budget deficit by reducing spending; limiting tax expenditures, raising taxes and limiting benefits from the social security, Medicare and Medicaid entitlement programs.

Spending

While cutting spending is talked about incessantly — let's eliminate wasteful government spending — the opportunities for limiting discretionary spending are not as great as imagined unless federal employment and wages and defense spending are all targeted.

With respect to defense spending, which of course includes spending in Iraq and Afghanistan, there is interest among both Republicans and Democrats in examining opportunities for reducing spending.

Cutting pork barrel projects — “earmarks” — would save \$16 billion. Some other spending cut opportunities include NASA's missions to the moon and Mars (\$4 billion) and reducing farm subsidies (\$10 billion).

Tax Expenditures

There are approximately 250 tax expenditures. In more common parlance the term “tax loophole” is used rather than the term “tax expenditure”. If all tax expenditures were eliminated, tax revenues would increase approximately \$1 trillion annually. This would amount to a 46% increase in tax revenues which were \$2.16 trillion in fiscal year 2010.

The most significant tax expenditures, accounting for approximately 50% of the total lost tax revenue impact, include:

- Employer provided health insurance exclusion
- Mortgage interest deduction
- State and local tax deduction
- Charitable contributions

Each of these tax expenditures has well-financed and powerful interest groups. None likely could ever be addressed individually, but as part of a comprehensive package the outcome could be different.

Tax Rates and Tax Base

Tax rates pertain to the rate paid on income and tax base encompasses who pays the tax. Lowering tax rates has been a cardinal tenet of Republican political policy.

Entitlements

Payroll taxes and the accumulated trust fund will be sufficient to cover social security obligations through 2037. Thereafter payroll taxes will cover about 75% of obligations. The insolvency date projection has fluctuated between 2032 and 2042 in recent years and depends upon how fast inflation-adjusted wages are assumed to grow. If the rate of growth is higher, it will take a longer time before the fund becomes insolvent. The current very large GDP output gap, should it persist for any length of time, will accelerate the timing of social security insolvency.

The most significant problem is rapid escalation in health care costs, which have been growing much more rapidly than taxable wages. This problem also intersects with a growing aging population of beneficiaries. It is well understood that substantial revisions to Medicare benefits will be required and this should entail not just benefits reform but also health care cost containment.

3. Budgetary Options

There are three primary options on the table: President's Fiscal Commission; Republican (Paul Ryan); President Obama's budgetary framework. There are other variants in play, including the yet to be released "Gang of Six" Senators proposal.

President's Fiscal Commission

Spending. The Fiscal Commission proposed reducing discretionary spending in 2012 to the level that prevailed in fiscal year 2010. Then, discretionary spending would be reduced 1% each year for the next three fiscal years. Between 2015 and 2020 discretionary spending would be indexed to inflation. If these proposals were adopted, fiscal-year 2012 discretionary spending would be \$1.094 billion. By 2020 discretionary spending would be \$267 billion less annually. The proposal contains an illustration of where \$100 billion in cuts could come from domestic spending programs. \$28 billion would come from cuts in federal employment and salaries; \$18 billion from eliminating 250,000 federal contractors; \$16 billion from eliminating all earmarks; and \$37 billion from a variety of other sources.

Tax Expenditures, Tax Rates and Tax Base. The Commission proposed reducing the number of tax brackets and reducing tax rates to even lower levels than exist currently. This would be accomplished by either eliminating (Option 1 — The Zero Plan) tax expenditures or greatly diminishing tax expenditures (Option 2). There is a third option which would limit itemized deductions while Congress determines how to structure broader-based tax reform. The Commission's proposal would also raise the gas tax by 15 cents per gallon gradually beginning in 2013.

Entitlements. The Commission's proposal would broaden the payroll tax base on a phased basis to capture 90% of wages by 2050 (86% of the base was covered in 2009 but that is projected to fall to 82.5% by 2020 under current law). The Commission's proposal focuses both on containing health care cost escalation and paying for the "Doc Fix". In the long-term, beginning in 2020, the proposal sets a goal of limiting health care cost growth to nominal GDP growth plus 1%. This would be accomplished by establishing a process to evaluate cost growth and mandate that steps to taken to contain costs, if savings are not being realized as expected.

Republican — Paul Ryan

Republicans are adamant that tax rates should not be raised and that the entirety of deficit reduction needs to be achieved through spending cuts. Significantly, however, Representative Paul Ryan's 10-year budget proposal begins the necessary process of downsizing entitlement programs by focusing on restructuring Medicare and Medicaid. Importantly, Ryan's proposal does not touch Social Security. As is well known by all, the developing U.S. sovereign debt problem cannot be brought under long-term control without dealing with entitlements.

Unfortunately, the American public is in love with its entitlements. Surveys reveal that Americans are concerned about the budget deficit and want it to be addressed but surveys also indicate that Americans do not want many federal programs to be cut and this applies emphatically to entitlement programs. Democrats were quick to take advantage of this by savaging Ryan's Medicare proposal. Unfortunately, the Democrats political posturing resonated to the extent that the Republicans have back pedaled on this particular proposal, at least for the time being.

President Obama's Budgetary Framework

President Obama at last long has entered the budget debate with his own proposal. After studiously ignoring the work and recommendations of his own fiscal commission after it submitted its report last December and then subsequently submitting a budget proposal to Congress that in essence denied the severity of the long-term debt problem, the president has finally joined the debate. Of course, the president's proposal differs considerably from Paul Ryan's, reflecting differing imperatives of each one's political constituency. Importantly, the president's proposal also addresses the need to restructure entitlement programs, but the projected deficit reduction over ten years is much smaller than the number targeted by Ryan.

Spending. About half of the president's deficit reduction would come from spending cuts.

Tax Expenditures. About a quarter of the president's deficit reduction would come from curtailments in tax expenditures. However, this is a concept that is not backed up with any specific proposals.

Tax Rates. While the president’s framework does not address tax rates in general, it proposes that rate reductions for upper-income earners should be allowed to expire.

Entitlements. The framework includes a number of reforms intended to reduce federal health care spending. While there is no specifics pertaining to social security, the framework endorses that reforms should be adopted that maintain the long-term solvency of the program.

Budget Enforcement. The framework includes a “Debt Failsafe” provision. It would require that by 2014 the debt to GDP ratio must be projected to be on a stable or declining trend for the remainder of the decade and, if this case is not met, across the board spending cuts in some, but not all federal spending programs and tax expenditures would occur. Exempted programs would include social security, Medicare and certain low-income programs.

4. Estimated 10-Year Deficit Reduction

Each proposal included an estimated aggregate reduction in budget deficits over time. Unfortunately these estimates are not aligned in terms of a common baseline and they aggregate savings over different time periods. The **Committee for a Responsible Federal Budget** has attempted to create an apples-to-apples comparison of the three proposals. It establishes a baseline based on Congressional Budget Office assumptions and establishes a uniform 10-year assessment period (President Obama’s budgetary framework used a 12-year time period which is a convenient means of increasing the size of the number, particularly when savings are back-loaded to years far in the future). The 10-year savings are as follows:

· President’s Budgetary Framework	\$2.48 trillion
· President’s original budget	\$0.00 trillion
· Republican — Paul Ryan	\$4.02 trillion
· President’s Fiscal Commission	\$4.06 trillion

The impact of each of these proposals on the federal debt to GDP ratio is shown in **Chart 9** below. President Obama’s budgetary framework merely holds the ratio constant at about 77%, while the other two proposals result in a modest decrease in the ratio to about 68% by 2021.

5. Debt Ceiling and Budgetary Debate

What is important is that the political debate is no longer a matter of whether but a matter of what and when. Although Ryan's proposal would begin the fiscal consolidation process in fiscal 2012, most of its firepower would not take effect until after the presidential election, which means fiscal 2013. My best sense is that there will be a lot of political posturing and debate over the next two years but little significant action until after the 2012 election. However, that will depend upon how hard Republicans choose to press their agenda for spending cuts and longer-term budget reforms. Both the debt ceiling and the fiscal year 2012 continuing budget resolution are in play and could lead to more restrictive fiscal policy sooner than later.

While reducing budget deficits is essential to restoration of long-term fiscal health of the United States, and the sooner this process is commenced the better, let there be no doubt that fiscal consolidation will have short-term negative consequences for economic recovery and growth. This fact is not reason for engaging in further delay because as long as the U.S. federal debt problem remains unaddressed imbalances will continue to grow and when fiscal consolidation is ultimately addressed, as it will have to be, the cure will be even more painful. One has only to consider what is happening to Greece, Ireland and Portugal to appreciate the risks of delay.

Thus, it would be better to address the budget problem now, and perhaps it will be. But, it seems more likely that serious action will be delayed for another two years. This will not be fatal by any means, but, as I have said, the problem doesn't get any easier with the passage of time — it gets worse.

6. Concepts and Definitions

Before exploring these concerns, let me begin by defining what constitutes the stock of federal government debt held by the public and how the debt ratio is affected over time by the annual federal budget deficit.

Total Federal Public Debt

In March 2011 the total stock of federal debt was \$14.27 trillion or 95.1% of GDP. However, \$4.62 trillion was intragovernmental debt, which includes

\$2.43 trillion for the social security trust fund, \$.54 trillion for the disability and the hospital and medical insurance trust funds, \$1.11 trillion for federal employee pensions and health care, and \$.54 trillion for other miscellaneous purposes. The actual amount of debt held by the public was \$9.65 trillion or 64.3% of GDP. It is this latter figure that best reflects the current effect of the government debt ratio on the economy. It is this measure that is shown in **Chart 7** and it is this measure that is used in the analysis that follows. This is because intragovernmental debt does not involve actual borrowing in financial markets. Intragovernmental debt is an accounting statement of future obligations that eventually will need to be financed through taxes or borrowing from the public.

Contingent Unfunded Obligations

The federal government's accounting entries for the various trust funds constituting the bulk of intragovernmental debt reflect accumulated past taxes net of disbursements for benefits under the programs. Importantly, these amounts understate the present value of future benefit obligations under the terms of the various programs.

In an analysis (April 22, 2010), Goldman Sachs estimated the present value of these off balance sheet contingent obligations. Total unfunded obligations amount to 187.5% of current nominal GDP. The largest amount is 129.4% for unfunded entitlement payments for income security and health benefits. The remaining 58.1% include unfunded federal government pension liabilities (26.1%), intragovernmental net debt (30.0%), and government sponsored enterprises net liabilities (2.1%).

While contingent obligations have no current direct impact on financial markets, they will have future impacts as benefit payments eventually will have to be made and financed through tax increases or borrowing. It is important to understand that the term "unfunded obligations" means that the present value of future taxes mandated by current statutes have already been netted out.

Unfunded entitlement obligations from the social security, Medicaid and Medicare programs are driven by demographic and definable actuarial factors. Thus, the timing and amount of these future obligations can be estimated with a reasonably high degree of precision. It is no secret that as the

baby boom generation ages and moves into retirement funding these obligations will either require enormous increases in tax rates or extraordinary expansion of borrowing. The latter would result in an explosive increase in the public debt ratio in the future. There is a third alternative and that is to revise existing programs to scale back the amount of benefits that will have to be paid out. That would be the most prudent course of action, but it is a difficult alternative to pursue from a political standpoint.

State and Local Governments

State and local governments are required to balance their budgets through tax revenues. Borrowing is only permissible for capital infrastructure expenditures or in anticipation of defined and certain future tax receipts.

Total state and local government debt has edged up very slowly over time from 12.8% of nominal GDP in 1975 to 16.6% at the end of 2010. In this respect state and local governments are not part of the incipient debt explosion problem. However, where finances are on shaky footing in many states involves public employee pension and health care benefits. Unlike the federal government, states actually fund these obligations. Studies indicate that state and local government pension plans are underfunded anywhere from \$500 billion to \$3 trillion, which would be a range of 3% to 20% of GDP. The large variation in estimated funding shortfalls stems primarily from what discount rate assumption is used. The lower shortfall amount reflects an assumed perpetual annual rate of return on invested assets of about 8% while the larger shortfall arises when the long-term Treasury or corporate bond rate is applied to discount future benefit obligations. The former rate is sanctioned by GASB, while the latter rate is required by GAAP. The likely eventual shortfall probably falls between \$500 billion and \$3 trillion as the earning rate on pension fund assets is likely to exceed the low-risk long-term bond rate, but in a low-inflation, low-growth economy is unlikely to average as high as 8% on an annual basis.

Primary Deficit

The total annual budget deficit includes interest on the outstanding stock of publicly-held debt. The primary deficit omits interest payments on the

outstanding stock of debt, so that it is measured as the difference between annual tax revenues and expenditures.

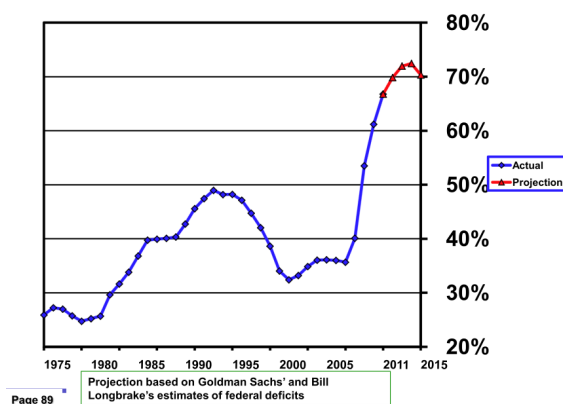
Generally speaking, the public debt ratio will be constant when the primary deficit is zero, increasing when it is positive and decreasing when it is negative. This relationship exists because the average interest rate on public debt tracks the level of nominal GDP growth closely over time. If the interest rate on the debt exceeds the nominal growth rate in GDP, then the debt ratio will increase and, of course, the opposite occurs when the interest rate on the debt is less than the growth rate in nominal GDP.

As long as market participants believe that the government will be able to fund its debt, interest rates will remain low and closely track the nominal growth rate in GDP. However, as the stock of debt outstanding relative to GDP, rises solvency concerns will emerge and will escalate in proportion to increases in the debt ratio. This risk can now be tracked for various countries through the pricing for country-specific credit default swaps.

Public Debt Ratio

Chart 8 shows the trajectory the U.S. debt ratio will take, given as-

CHART 8 – Total Federal Public Debt to GDP
(percentage of nominal GDP)



sumptions about nominal GDP growth embedded in my econometric model

and Goldman Sachs (2011 and 2012) and my (2013-2015) assumptions about annual budget deficits. At the risk of indulging in false optimism my federal deficit assumptions for 2013-2015 assume that a combination of tax and spending initiatives is adopted by Congress that produces deficit and debt ratio outcomes similar to what President Obama's Fiscal Commission recommended last December. The deficit would decline to 3% of GDP by the end of 2015. Given these assumptions, the debt ratio rises to 72% by the end of 2014 before stabilizing and beginning a very gradual descent. According to the CBO unless Congress acts, this descent will not occur under current law, but the ratio would stabilize at about 75%.

Federal Public Debt to GDP Projections for Various Deficit Reduction Proposals

There are several deficit reduction proposals in play:

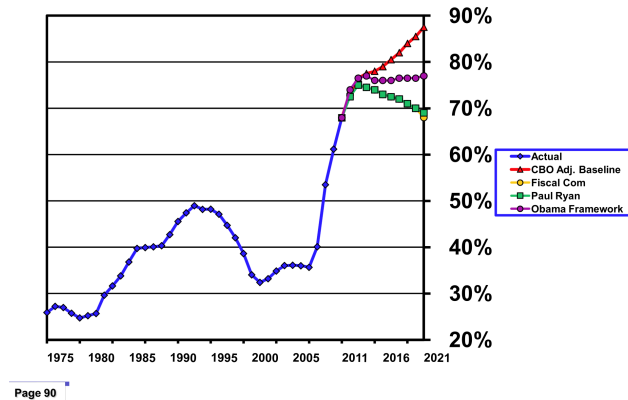
- President Obama's Fiscal Commission
- Paul Ryan (Republican) Proposal
- President Obama's Budgetary Framework

CBO publishes two budget deficit forecasts — “current law” and “adjusted baseline”. The “current law” public debt ratio estimate assumes that tax rates return to the pre-Bush tax-cut levels and assumes that the alternative minimum tax (AMT) is not adjusted. This is not realistic, given current political considerations. CBO's “adjusted baseline” includes an extension of tax cuts for all but those with annual incomes above \$250,000, assumes annual AMT and “doc” fixes, and assumes declining war costs.

Chart 9 shows the federal public debt to GDP ratio from 1975-2011 and projections for this ratio from 2012 through 2021 for the CBO “adjusted baseline” and the three alternative deficit-reduction proposals.

There are several things that stand out in **Chart 9**. First, not addressing expenditures, entitlements and tax rates will result in the federal public debt to GDP ratio approaching the “red zone” of 90% by 2021 — “CBO adjusted baseline”. Second, President Obama's “budget framework” merely stabilizes

CHART 9 – Total Federal Public Debt to GDP
(percentage of nominal GDP)



the debt ratio, while his original budget proposal (not shown in **Chart 9**) would result in an increasing debt ratio mirroring the trajectory shown for the “CBO adjusted baseline”. Third, while the Fiscal Commission and Paul Ryan proposals would reduce the debt ratio, surprisingly, the improvement is quite limited.

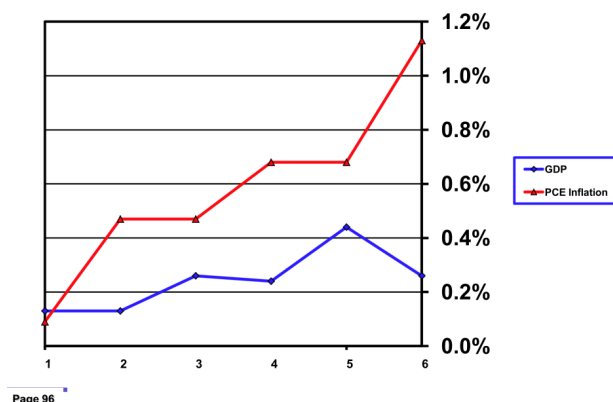
7. Effect of Deficit Spending on Economic Activity

Deficit spending can boost GDP growth temporarily but if the primary deficit is positive, the boost in nominal GDP growth will eventually be offset by higher inflation so that real GDP growth is unaffected by deficit spending in the long run. However, there are long time lags involved in this process. In addition, there is some evidence that the GDP real growth benefit diminishes as deficits grow as a percentage of GDP and as the debt ratio rises.

Real GDP

Based upon my econometric model, a sustained 1% increase in the federal budget deficit adds 0.26% to real GDP growth over the next 3 years. The benefit hits a maximum after 5 years equal to 0.44% and then begins to fade as inflation builds. See **Chart 10**.

CHART 10 – Impact of Sustained 1% Increase in Federal Budget Deficit on Real GDP & Total PCE Inflation (years 1 – 6)



Inflation

A sustained 1% increase in the federal budget deficit adds .47% to the inflation rate over the next three years and .68% over five years. However, after that the impact on inflation accelerates so that the effect is 1.13% by the end of six years. See **Chart 10**.

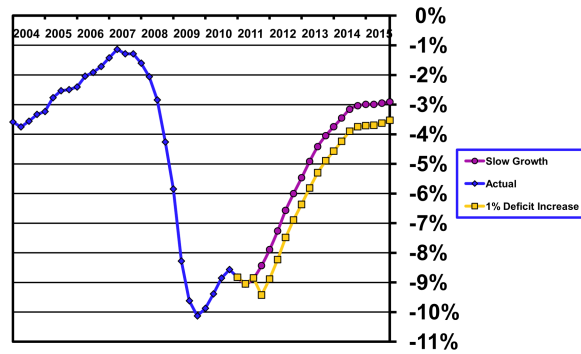
8. Long-Term Effects of Intentional Deficit Reduction (Fiscal Consolidation) on Economic Activity

I have constructed two forecast scenarios:

- *Scenario 1: Base* — My macro economic assumptions for “Slow Growth”.
- *Scenario 2: Increase federal budget deficit by 1% of GDP (about \$160 billion) annually beginning in October 2011 (fiscal year 2012).*

Results of the Simulation

CHART 11 – Federal Budget Deficit
(percentage of nominal GDP)

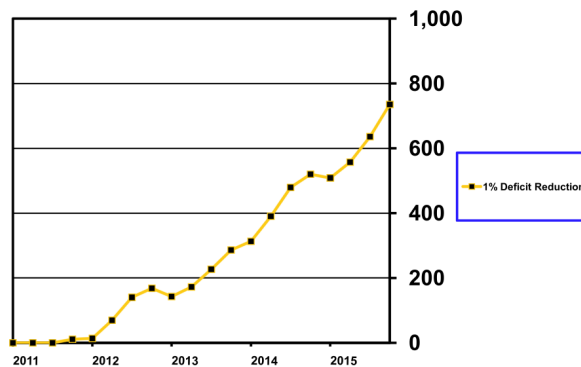


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Chart 11 — Federal Budget Deficit: About 40% of the initial 1% increase in the annual federal budget deficit is offset by 2015 by increased economic activity.

Chart 12 — Employment: Employment increases by 735,000, or

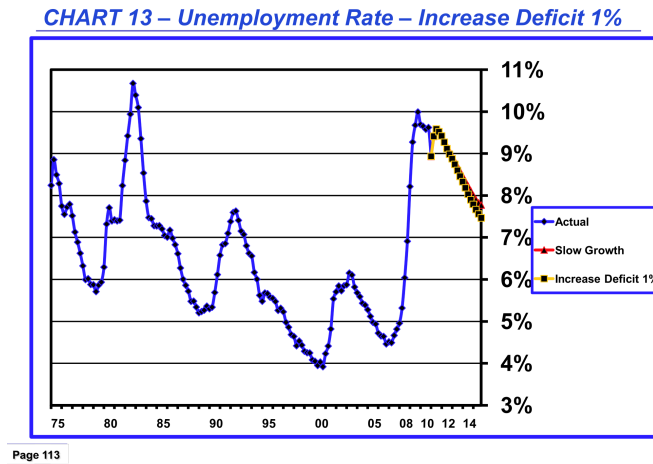
CHART 12 – Change in Employment
(thousands)



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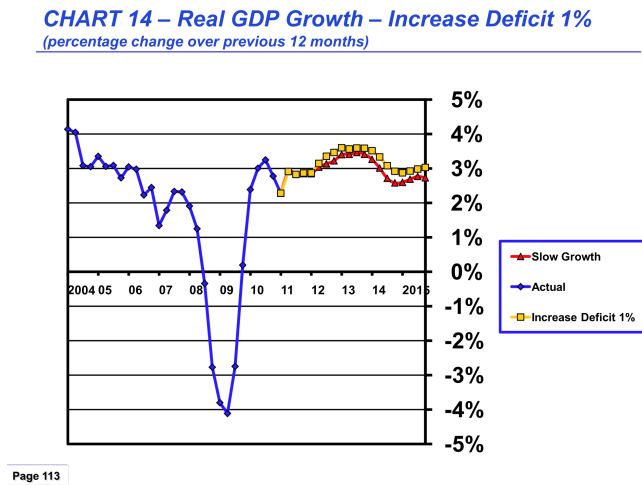
0.6%, by the end of 2015.

Chart 13 — Unemployment: By 2015 the unemployment rate de-



clines an additional 0.3%.

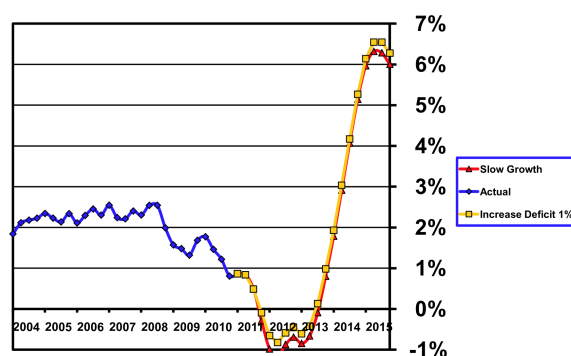
Chart 14 — Real GDP Growth: Real GDP growth in the base



case is approximately 2.7% in 2015, which is close to the long-run potential growth rate. Real GDP growth is increased by about 30 basis points in the 1% deficit increase scenario to 3.0%.

Chart 15 — Core PCE Inflation: In the base case core PCE inflation

CHART 15 – Core PCE Inflation – Increase Deficit 1%
(percentage change over previous 12 months)

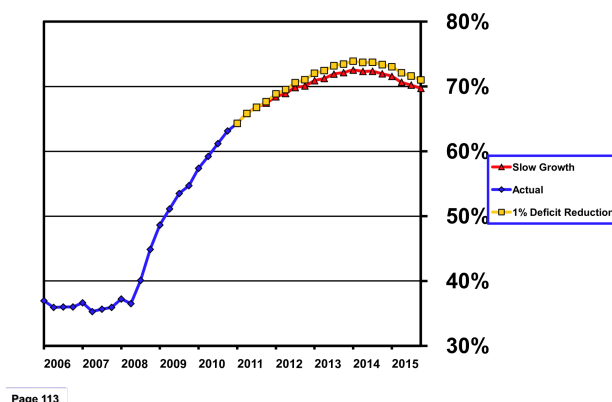


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accelerates sharply in early 2014 before peaking over 6% in mid-2015. It then begins to decline gradually. When the deficit is increased 1% annually the increase in inflation follows the same pattern, peaking in mid-2015 at about 25 basis points higher.

Chart 16 — Debt Ratio (Total Federal Debt Held by the Public as a Percentage of GDP): The debt ratio peaks in the base case at 72.5% in early 2014 and then begins to decline gradually to 69.7% by the end of 2015. Increasing the annual deficit by 1% of GDP beginning in October 2011 results in a debt ratio which peaks at 73.9% in early 2014 and then declines to 71.0% by the end of 2015. If GDP growth were unaffected by the 1% increase in the annual deficit, the debt ratio would be approximately 74.0% at the end of 2015 rather than 71.0%. In other words, because of positive feedbacks of the increased deficit on GDP growth, the debt ratio increases only from 69.7% to 71.0% rather than to 74.0%. Unfortunately, this compression in impact also works in reverse when the annual deficit is reduced — the debt ratio does not fall by the amount of the reduction in the deficit because GDP growth slows and tax expenditures increase as unemployment rises. This explains why it will be very hard to reduce the debt ratio very quickly even if the deficit reduction policy ultimately put in place is substantial, as can be seen in **Chart 9**.

**CHART 16 – Total Federal Public Debt to GDP –
Increase Deficit 1%**
(percentage of nominal GDP)



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The debt ratio came down considerably during the Clinton administration without visible negative economic consequences because the economy was strong and got stronger as time passed. What this suggests is that starting conditions matter a great deal. When the private sector is robust, intentional shrinkage of the public sector can easily be absorbed and may even have a favorable impact on growth. However, when the economy is fragile and weak, as it is now, withdrawal of government stimulus will negatively impact economic activity and will not result in a very rapid improvement in the debt ratio.

9. Long-Term Options for Resolving the Problem of Too Much Debt

Austerity (Fiscal Consolidation) Option

Decreasing the federal deficit through either spending reductions or tax increases — the *austerity or fiscal consolidation option* — will extend economic weakness for a considerable period of time. Austerity and deflation go hand in hand. This is the option that Greece has been forced to implement. However, in the case of Greece the medicine is a reduction of a 14% deficit to about 3% over three years. One year into austerity, GDP has fallen more than projected and the annual deficit and debt ratios have not

fallen as much as expected. Simply put, trying to work down a huge debt burden through spending cuts and tax increases depresses economic activity and reduces tax revenues.

In the case of Greece, the debt load was so large to begin with and the fiscal consolidation requirements were so draconian that it is hardly surprising that the economy has been devastated and little substantive progress has been made. That is the point of the Rogoff and Reinhart study — above some level of debt to GDP fiscal consolidation will not work. The consequences of the austerity option are high unemployment, numerous bankruptcies and significant credit defaults and losses. Restructuring of the debt in Greece to 30% to 50% of its nominal value is inevitable. The rating agencies have just engaged in another round of downgrades and ratings are now deeply in junk territory. Two-year Greek debt is now returning in excess of 25%, which means that a substantial default premium is now embedded. Yet, members of the European Union refuse to discuss any alternatives other than Greece continuing to pursue fiscal consolidation.

In the case of the U.S. Congress increasingly recognizes the risks of inaction but there is not yet a collective sense of urgency. Political advantage is guiding the current debate rather than the parties acknowledging that the situation is so serious that a bipartisan approach is essential. Thus, the most likely result until after the 2012 presidential election is a lot of noise and little substantive action to reduce the deficit and stabilize the debt to GDP ratio. What is underappreciated is that the cost of delaying action will be an escalating debt ratio. And, the deeper the hole becomes, the harder and more painful it will become to extricate ourselves from that hole. Time is not our friend.

Inflation Option

An alternative to austerity and fiscal consolidation is the **inflation option**. This option involves, either intentionally or by default through inaction, letting inflation escalate to very high levels. Inflation results in shrinking the real value of debt relative to the nominal value of GDP, provided that the primary deficit is kept to zero or is negative. There are two problems with this option. First all debt would be affected, not just sovereign debt. This would involve a destabilizing transfer of wealth from savers to debtors. Second, sovereign debt to GDP ratios would shrink a bit at first,

but this improvement would end quickly as the interest rates on sovereign debt skyrocket in lockstep with the increase in inflation. Thus, private debt would be destroyed but public debt would balloon.

The value of all financial assets, not just public debt, is debased and the standard of living of those dependent upon fixed incomes will decline, perhaps dramatically.

Default Option

A final, last resort, option is to default on debt. The **default option** is unthinkable for the United States because of the global reserve currency status of the dollar. However, this option is not unthinkable for other countries. Indeed, many believe that it is only a matter of time before Greece will be forced into the default option. The default option involves either repudiating sovereign debt obligations altogether or renegotiating a significantly reduced principal amount. The consequences of this option are that countries that default find access to global credit markets restricted for an extended period of time and this impairs their ability to finance economic activity and trade.

10. Summary

Needless to say, none of the options are particularly attractive. But, clearly the best is that of fiscal consolidation, provided that the federal debt to GDP ratio has not entered the “red zone”. And, I will say it one more time: the sooner the process is commenced to reduce the size of the budget deficit to no more than the cost of interest carry the better. This would stabilize the debt ratio at its current level so that at the very least the fiscal situation would not worsen. However, a better policy would be to run a primary budget surplus that would result in a gradual reduction in the federal debt to GDP ratio. It needs to be understood that running a primary budget surplus will dampen economic activity, so care should be exercised to limit the size of the primary budget surplus. And, again repeating an obvious but too-oft ignored truth, delay is an enemy not a friend. Delay will result in an ever increasing federal debt to GDP ratio. And, the high the ratio the more painful will be the medicine required to bring it down to a tolerable level. And, if the ratio gets too high, the fiscal consolidation option will no

longer be viable and default option will be the only realistic choice. That is where Greece is heading. The U.S. is a long ways from being close to such an outcome but it is no longer a risk that can safely be ignored.

Bill Longbrake is an Executive in Residence at the Robert H. Smith School of Business at the University of Maryland.