The Longbrake Letter*

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I. Economic Outlook for 2013 — Fundamentals Gradually Improving, But U.S. Economy Remains Fragile and Vulnerable to Policy and Global Shocks

It has been three and a half years since the official end of the Great Recession. Following all other recessions since the end of World War II, after three and a half years the economy was operating near or above potential. Yet, according to the Congressional Budget Office (CBO), the U.S. economy remained 5.8% below potential in the third quarter of 2012, which was only modestly below the peak gap of 7.5% in the second and third quarters of 2009.

By now it is widely acknowledged that the causes and consequences of the Great Recession were very different from those of previous post-World War II recessions. Thus, it is really not surprising that traditional policy remedies have been insufficient to catalyze sustainable economic recovery and growth.

What was different about the Great Recession, which I have discussed in many previous letters, was the huge accumulation of debt by the household sector, the extreme bubble in residential housing prices and construction of substantial excess residential housing supply. The financial panic of 2007-2009 and the collapse in housing prices crippled household spending power. Government policies were effective in stabilizing the financial sector but to date they have been insufficient in repairing household balance sheets and lifting household spending power to levels that assure sustainable and progressive recovery. Healing in the household sector is occurring, but as the

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painfully slow closure in the output gap indicates, the process is extending over years, not months.

Indeed, the healing process has been slowed over the last two years by a gradual withdrawal of government fiscal stimulus. In normal economic recoveries gradual withdrawal of stimulus would have been appropriate because the gathering momentum in employment and in household and business spending would have been more than sufficient to replace decreases in stimulus. But, because there is limited momentum in the recovery of the private sector, further withdrawal of fiscal stimulus now threatens to stall recovery at relatively high rates of unemployment.

Political and public debate is currently focused intensively on the federal government's public-debt-to-GDP ratio, which has ballooned from 36% prior to the Great Recession to 73%. Anxiety abounds about the longer run consequences of ongoing large fiscal deficits. The history of other nations clearly indicates that as this ratio rises the probability of national bankruptcy and other dire consequences escalates. The recent travails of Greece, Ireland, Portugal, Spain, and Italy have provided graphic examples. So, it is understandable why public and political sentiment has been building to pursue policies that reduce the size of the federal fiscal deficit and contain increases in the public-debt-to-GDP ratio.

But, if federal stimulus is withdrawn too quickly and to too great an extent, such a seemingly prudent policy may turn out to be self-defeating. One needs to remember that there are two sides to the public-debt-to-GDP ratio — the numerator and the denominator. Withdrawal of federal fiscal stimulus will slow the rate of increase in the numerator. But, if that withdrawal slows the rate of increase in the denominator to a greater extent, then the ratio will rise, not fall as intended. This phenomenon has to do with the size of "fiscal multipliers". If the fiscal multiplier has a value greater than one, then withdrawal of stimulus will have exactly this kind of counterproductive result.

Austerity policies in Europe have been premised on the belief that the fiscal multiplier is less than one. But economic collapse in Greece and severe recessions in Spain and Portugal provide graphic counter evidence to this belief. Recently, the International Monetary Fund (IMF) published new research in its October 2012 World Economic Outlook report which indicates that when economies are underperforming fiscal multipliers range between

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0.9 and 1.7 rather than 0.5, which had been its prior belief. This means that austerity policies will almost certainly depress economic activity and lead to higher, not lower, public-debt-to-GDP ratios when economies have large output gaps.

There is no reason to believe that the results of deficit cutting would be any different in the U.S. But, as the end of 2012 approaches what Congress and President Obama do or don't do to address "fiscal cliff" issues will have a significant impact on economic growth in 2013 and beyond.

We already know that additional federal stimulus is not on the table for consideration. What is on the table is how much to cut back and how quickly to do it. This virtually assures that 2013 will be distinguished by very slow real GDP growth which will be insufficient to make much of a dent in the sizable output gap or bring down the unemployment rate to any significant degree. The real concern is that the eventual "deal" between President Obama and Congress could end up making 2013 a worse year than the already weak outcome expected by most.

Hopefully, between the time this letter is written and the time it is published Congress and President Obama will strike a bargain that avoids excessive short-term austerity that retards economic growth but at the same time addresses longer-term policy issues that serve to contain future fiscal deficits when the economy is much stronger than it is today. This kind of "Grand Bargain" is what a majority of the American people want and support. But, crafting a political solution, given deeply entrenched policy positions of the Republican and Democratic parties, will not be easy.

As of this writing negotiations appear to be inching toward a "deal". Both sides have given ground on tax rate increases. President Obama originally insisted on extending the Bush tax rates for all but the highest tax brackets (individuals earning over $200,000 and joint filers earning over $250,000), which along with other revenue measures would have raised $1.6 trillion in revenue over 10 years. Speaker Boehner countered with an offer to raise tax rates for millionaires which would have raised $1 trillion in revenue. President Obama then responded with an offer to raise tax rates only for the top bracket which covers those earning over approximately $400,000. This would raise $1.2 trillion in revenue. This back and forth is constructive and indicates that it is likely that going over the "fiscal cliff" will be avoided.

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But there are many details yet to be worked out, not only in terms of revenue increases but also in terms of spending cuts. For example, there is the issue of how much to raise the tax rate on dividends and capital gains. A bill passed by the Senate last summer increased those rates from 15% to 20%. Any deal will also probably extend the alternative minimum tax fix and index it to inflation. But, there are still open questions. Will the payroll tax cut be extended? Will extended times for unemployment benefits be extended? What about the automatic cuts (sequestration) in spending that take hold in January? Will other tax benefits referred to as "tax extenders", which typically have been renewed, be included? And, what about adjusting payments to Medicaid providers — the so-called "Doc Fix"?

So, we will probably avoid going over the "fiscal cliff". But, whether Congress eventually crafts a mishmash of fixes or designs a more deliberate long-term "Grand Bargain", one thing is clear to me. ***What needs to happen, but is not happening, is a broad public debate that goes beyond a singular focus on deficit cutting and extends to the kind of government fiscal policy needed in the long run to galvanize investment and increase productivity.***

Potential structural real GDP growth, which I examine in **Section III**, has plummeted in recent years, largely due to a decline in productivity. Better focused government fiscal policies, which target investment in infrastructure, research and education, have the potential to lift productivity significantly over time. Such policies generally have much higher fiscal multipliers than the kinds of transfer payments that have predominantly comprised fiscal policy in recent years. But such policies also take longer to produce results.

My point is that government fiscal policy should not be focused solely on closing the output gap. It also needs to focus on lifting the structural potential real rate of GDP growth.

Certainly, revisions in entitlement programs in terms of benefits, utilization incentives, ability to pay and administrative efficiency are necessary to contain the potential for runaway fiscal deficits. But, policies which successfully increase the structural potential real rate of GDP growth will go a long ways toward providing a greater ability to finance social programs. However, the course we appear to be on is one of slower growth over the

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longer run, which will make it harder to finance social programs and to deal with the growing problem of income inequality. This topic is addressed in **Section VIII**.

You will note that I have said nothing about the role of ***monetary policy*** in this introduction. That is because all that can be done is being done. And, some feel that what is already being done will have potentially dangerous consequences in the future. In other words, the Fed has already gone too far. But, most economists agree that while fiscal policy is the key to fostering economic growth when the economy is mired in the liquidity trap of zero interest rates, as it is today, it is important for monetary policy to support fiscal policy. But when fiscal policy is contractionary it is hard for monetary policy to do much more than inflate the values of financial assets and stabilize financial conditions. Easy monetary policy arguably benefits the economy in limited ways but is insufficient by itself to drive rapid economic recovery.

In this month's letter, I begin by summarizing the 2013 economic outlook for the U.S. and the rest of the world in **Section II**. As mentioned, **Section III** examines the potential structural rate of real GDP growth. It also includes a discussion of the household, business, government and rest of the world sectors in the context of their financial balances (income less spending) and how these sectors interact over the course of the business cycle. This is followed by a discussion of U.S. employment trends, personal income and consumption and housing (**Sections IV**, **V** and **VI**). Monetary and fiscal policies are the subject matter of **Sections VII** and **VIII**. This month's letter concludes with a brief update on developments in Europe and China in **Sections IX** and **X**.

II. Outlook — 2013 and Beyond — Summary and Highlights of Key Issues

1. U.S.

- ***Q4 real GDP*** growth projections range from 0.5% to 1.8%; tracking estimates based on October and November data are consistent with growth of approximately 1.0%.

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- ***2013 real GDP*** growth projections range from 1.5% to 3.0% but with a preponderance of the forecasts falling in the lower end of the range. The drag from tighter fiscal policy will offset gradual improvement in the household and business sectors. Growth should improve gradually over the course of the year. The balance of risks, particularly U.S. fiscal policy but also global growth, is weighted toward slower GDP growth.

- ***Real GDP output gap*** will remain very high and close little, if at all, during 2013.

- ***Employment*** should grow about 125,000 per month, somewhat more slowly than in 2012.

- ***Unemployment rate*** should edge down to about 7.5%. A lower rate is not very likely unless more discouraged workers exit the labor force.

- ***Consumer disposable income and spending growth*** will remain weak and could decline from 2012 growth rates if employment growth slows and wage and salary increases remain under pressure. Growth will be a lot weaker if Congress permits the payroll tax cut and extended unemployment benefits to expire.

- ***Household personal saving rate*** will probably continue to decline gradually; however, it could rise if employment and income prospects worsen materially.

- ***Export and import*** growth will probably continue to slow gradually due both to slower U.S. growth but also due to deepening recession in Europe.

- ***Manufacturing*** growth will be subdued reflecting recession in Europe and slower growth in the U.S. The order backlog index was a very low 41.0 in November.

- ***Business investment*** spending has slowed sharply because of fiscal cliff concerns and could rebound if there is a satisfactory resolution of major fiscal issues. Capital expenditure plans are cautious based both on concerns about growth and political uncertainty.

- ***Housing investment*** is one of the brighter prospects. However, increased activity is likely to be concentrated in multi-family rather than single family. Housing starts are likely to increase 25% in 2013

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to approximately one million. Housing prices should rise between 2% and 3%.

- ***Monetary policy*** — the Federal Reserve has committed to purchase $85 billion in securities every month including $40 billion in mortgage backed securities and $45 billion in U.S. Treasury securities.
- ***Inflation*** will remain below the Federal Reserve's 2% objective at least through 2015. Concerns about increases in inflation in the long-term are misplaced.
- ***Federal Funds*** rate is not likely to increase before mid-2015 and might not increase until late 2016 or early 2017.
- ***Fiscal policy*** will be contractionary in 2013, but will come less of a factor in ensuing years
- ***Potential structural rate of real GDP growth*** has declined significantly and could decline further in coming years unless a concerted public initiative is undertaken to invest in education, research and public infrastructure

2. Rest of the World

- ***European financial markets*** are likely to remain relatively calm thanks to the activist role of the European Central Bank
- ***European recession*** is spreading to stronger countries and worsening in peripheral countries
- ***European banking union*** will do little to solve deep-seated European and Eurozone structural problems
- ***European political dysfunction, populism and nationalism*** will continue to worsen gradually
- ***China*** appears to have achieved a ***soft landing*** and economic activity will strengthen modestly
- ***China's new leadership*** understands the need to design and implement ***economic reforms*** and avoid repeating a massive infrastructure spending program

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- ***Global growth*** is likely to be fairly steady in 2013 but will depend on developments in the U.S. and Europe

3. Risks — stated in the negative, but each risk could go in a positive direction

- ***U.S. fiscal policy*** tightens more than expected
- ***Europe's recession*** deepens more than expected; financial market turmoil reemerges; political instability and social unrest rises more than expected threatening survival of the Eurozone
- ***Chinese leaders*** have difficulty implementing ***economic reforms***; growth slows more than expected
- ***Global growth*** slows more than expected
- Severe and, of course, unexpected ***natural disaster*** occurs
- ***Disruption of Middle East oil supply***, stemming from hostile actions involving Iran and Israel, occurs

III. U.S. Real GDP Growth

Real GDP growth continues to be very disappointing. Fundamental underlying problems include slower population growth and reduced productivity gains, which have combined to reduce the growth rate in potential aggregate demand.

But the real problem with weak GDP growth has to do with a very weak labor market. While employment is growing, the number of new jobs being created is only marginally greater than the number of new entrants to the labor force. There were 4.2 million fewer people employed in November than at the beginning of the Great Recession in December 2007. And, wage and income growth is very anemic and appears to be deteriorating.

Monetary and fiscal stimulus has been unable to ignite sustained recovery. Over the last two years fiscal stimulus has reversed and is now a negative force, which promises to become even more negative in 2013, perhaps substantially so depending upon how Congress resolves fiscal cliff issues.

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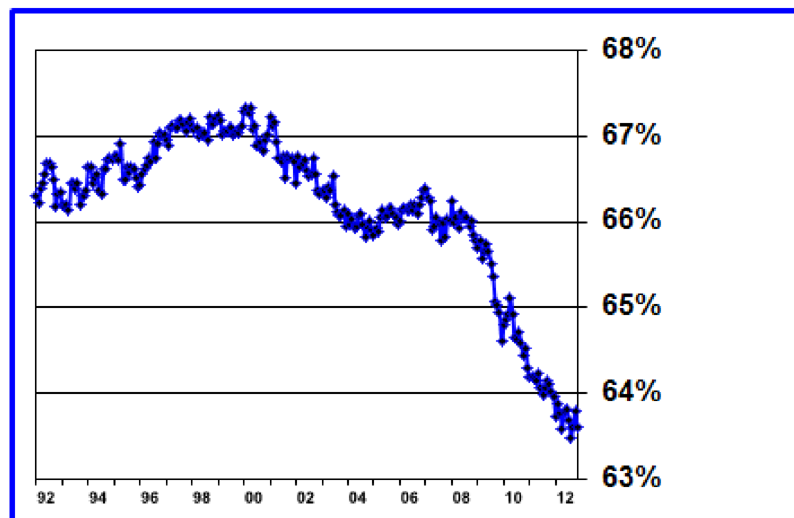
1. Potential Structural GDP Real Rate of Growth

Potential structural GDP real growth depends on growth in the ***labor supply*** and ***productivity*** (the efficiency of the utilization of labor and capital).

Labor supply growth depends in the first order on population growth. However, labor supply growth is affected by the portion of the population eligible to participate in the labor force. Many who are eligible to work choose not to do so. The percentage of those eligible to work, who either are employed or are seeking employment, is referred to as the ***labor force participation rate***. The labor force participation rate can change over time because of changes in the demographic composition of the population, such as the baby boomers; changes in cultural patterns, such as greater participation of women or delayed entry because of increases in the number of people pursuing higher education; or ease of getting a job — the discouraged worker effect.

Chart 1 shows that the labor force participation rate has been declining



since peaking in the early 2000's. Some of the recent decline is due to the

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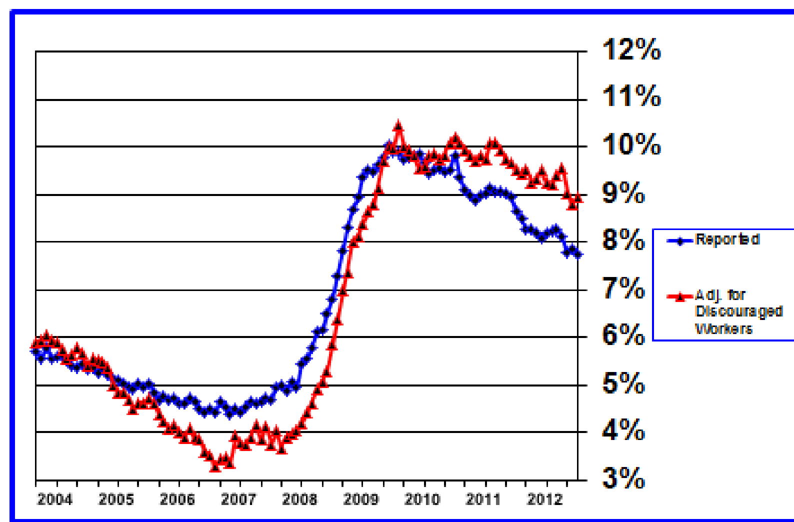
discouraged worker effect. Some workers at the margin drop out of the labor force when jobs are hard to find but reenter when jobs are easier to find. This cyclical pattern is shown in **Chart 2**. If discouraged workers

CHART 2 – Reported Unemployment Rate & Adjusted for Discouraged Workers



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were added back to the unemployment rate, the unemployment rate would have been 8.94% in November rather than the official figure of 7.75%. This difference amounts to 1.85 million discouraged workers.

Labor supply also depends on the length of the workweek as well as the number of workers. Thus, the best way of measuring labor supply growth is in terms of aggregate hours worked. Over a long period of time the length of the workweek has declined. However, in recent years it appears to have stabilized at about 34.5 hours.

Productivity growth is measured by calculating growth in output per hour worked. Although the Bureau of Labor Statistics reports several different measures of productivity, nonfarm productivity is generally considered to be the most representative measure.

Chart 3 shows potential GDP labor supply and productivity growth rates from 1950 to 2012 with projections to 2022. Potential GDP growth

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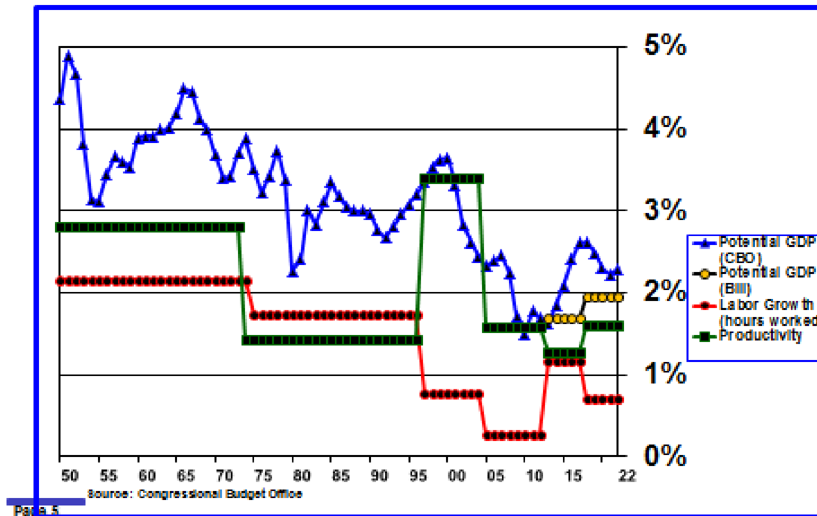
CHART 3 – Potential GDP, Labor Growth, Productivity

(annual rate of change)



rates are calculated by the Congressional Budget Office (CBO). Labor supply and productivity rates from 1950 to 2012 are actual values — these growth rates have been averaged over longer time periods (1950-73, 1974-1997, 1998-2004, 2005-2012) to diminish short-term variations caused by the business cycle and other factors.

Labor Supply Growth. Low labor supply growth from 2005 to 2012 reflects the collapse in the labor market following the Great Recession. Labor supply growth is projected to rebound from 2013 to 2022, but the growth rates during this period are boosted by a declining unemployment rate and reentry of discouraged workers. Adjusting for these temporary favorable effects, I estimate the trend labor supply growth rate to be about 0.72% (2018-2022), slightly less than the 0.76% growth rate that prevailed from 1998 to 2004. I do not expect the average length of the workweek to change between 2012 and 2022. Population should continue to grow about 1.0% annually, but labor supply will grow more slowly because of a persistent decline in the participation rate, primarily due to the aging of the baby boom generation.

It should be noted that CBO expects labor supply growth to average a

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somewhat lower 0.5% annually over the 2013-22 period.

Productivity. Productivity growth averaged 2.2% between 1950 and 2012. However, there have been extended periods of higher and lower rates. For example, productivity growth averaged 2.8% from 1950 to 1973, fell to 1.4% from 1974 to 1997, rebounded to 3.4% from 1998 to 2004 and then receded to 1.6% from 2005 to 2012.

Bursts in technological innovation tend to raise productivity growth for a period of time until innovation benefits are distributed throughout the economy. A surge in manufacturing productivity and massive investment in public infrastructure, particularly the interstate highway system, in the 1950's and the 1960's were principal factors in the extended period of high productivity from 1950 to the middle of 1973. However, by the middle of 1973 these forces were abating. In addition, the entry of less skilled baby boomers into the labor force contributed to depressing productivity growth until the middle of 1997. Then, productivity surged once again from the middle of 1997 to the middle of 2004, driven by the dot.com and fiber optic booms and related strong investment spending.

Unfortunately, the investment boom of the late 1990's and early 2000's included many unproductive projects which were financed by an explosion of debt financing. A shake out became inevitable. But, as we know all too well, the shake out did not end debt leveraging. Excessive debt financing shifted into home mortgages and a variety of exotic derivative financial instruments as Wall Street turned into a giant trading casino. Investments in housing and financial engineering proved to have limited productivity potential and the average annual productivity growth rate after mid-2004 fell to 1.6%, little better than the period from 1974 to 1997.

My analysis indicates that productivity will rise about 1.3% annually between 2013 and 2017 and then improve to 1.6% annually between 2018 and 2022.

Potential Structural Real GDP Growth Rate. Potential structural GDP growth has been slowing over time primarily due decreases in the growth in the labor supply, as measured by hours worked. My analysis suggests that potential structural real GDP growth will stagnate around 1.68% between 2013 and 2017, about the same level CBO estimates prevailed from 2009 to 2012. Then it rises to 1.95% from 2018 to 2022 as productivity

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improves from 1.3% to 1.6%.

However, CBO's estimate of potential structural real GDP growth is more optimistic. It projects that potential structural real growth will average 2.02% between 2013 and 2017 and 2.41% between 2018 and 2022. The difference between my view and CBO's is mostly due to CBO's expectation that productivity growth will average 2.2% annually between 2013 and 2022; whereas, I expect productivity growth will average only 1.4% from 2013 through 2022. Except for the dot.com, fiber optic technology investment boom of the late 1990's and early 2000's (1998-2004), productivity growth has averaged only about 1.7% since 1974. And if productivity growth from 1998-2004 is included in the average, annual growth rises to 1.8%, still well below CBO's assumption of 2.2% for 2013 to 2022. Although CBO's estimate of future productivity growth is assembled using a bottom-up component analysis methodology, it is not intuitively obvious why productivity should be as high as 2.2% for the next 10 years when it has averaged 0.4% less than that over the last 38 years.

Consequences of Low Potential Structural GDP Growth. There is evidence that is supportive of my less optimistic view of potential productivity growth and therefore of potential GDP growth insofar as private and public investment spending has been weak in recent years. When the economy is operating substantially below potential it requires fewer workers and less capital investment, but it also discourages forward-looking investment and thus slows growth in the supply of productive capital. My statistical analysis indicates that productivity is decreased by 21 basis points for each percentage point in the GDP output gap. Because the output gap, according to CBO, was 5.78% in the third quarter of 2012, the productivity growth rate was 1.22% below the level that would have prevailed if there had been no output gap. Needless to say, this is a very substantial difference. ***Since productivity improvements are cumulative over time, shortfalls in productivity improvements when there is substantial economic slack are unlikely to ever to be made up fully when the economy strengthens.***

(It should be noted that my estimate of potential structural real GDP growth would be about 0.2% lower, if I had used CBO's labor supply growth estimate of 0.5% instead of 0.72% to calculate the potential structural GDP growth rate.)

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Raising Potential Structural GDP Growth — Labor Supply. There is limited flexibility from a policy standpoint to increase the growth rate in the labor supply over the longer term. One exception would be to rationalize ***immigration policy*** to permit entry of greater numbers of immigrants, particularly those with higher level skills. This issue is likely to be on the legislative agenda during 2013. However, immigration policy is a charged issue. Even though he had bipartisan support, President Bush was unsuccessful in getting Congress to pass immigration reform legislation. President Obama did not make immigration reform a priority issue during his first term. However, it will be a priority issue in 2013.

Immigration policy is an emotionally-charged issue. For one thing many are threatened by a more liberal policy because of fears that it will adversely impact America's culture and values. Xenophobia is a timeless obstacle. Nonetheless, the historical record of America's flexible immigration policy is clear — it has fostered rapid growth. Diversity has been a powerful economic accelerant, not an inhibitor.

Resistance to liberalizing immigration tends to escalate during periods of high unemployment because people fear that immigrants will accept jobs for lower wages and displace existing workers. While this undoubtedly occurs a job at a time, research unambiguously shows that over time greater immigration results in faster job growth in the aggregate. Also, there is no evidence that wages are depressed over the long run by immigration.

Raising Potential Structural GDP Growth — Productivity. While there is not a great deal policymakers can do to increase the rate of growth in the labor supply, there are plenty of opportunities to develop policies and programs which will boost the potential rate of productivity growth over time. Unfortunately, the current policy focus on the fiscal deficit and the political fight over how to reduce it has diverted policymakers from examining and debating ways to raise productivity growth. In fact, ***there is real risk that the intense focus on cutting spending could result in lowering potential productivity growth in the future.***

Productivity improvement occurs when a unit of labor can produce more output. It can occur through an increase in labor skills, which involves providing training and educational programs. It can occur by developing technology that leverages human capabilities. This requires investment in research and development. It can occur through improving infrastructure

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efficiency, such as reducing transportation time and costs or by improving the quality and timeliness of information. It can occur through developing technologies that use energy more efficiently.

Many argue that the private sector will perform these tasks and that the government sector is not essential and, worse, might serve as an inhibitor rather than a catalyst. There are elements of truth and falsehood in this belief. None would disagree that that massive public goods projects, such as highway building, require government involvement. It is well understood that government projects, such as space travel, could not initially be done by the private sector but that many extremely valuable innovations resulted which benefited the private sector. On the other hand, it is also understood that incentives to innovate and to take risks are much stronger in the private sector.

But, as I will explain in greater detail in **Section VIII**, there are times when the return on public sector investment will exceed return on private sector investment. Such times are generally periods of enormous economic slack like we are currently experiencing. In such times there simply isn't strong enough private demand to make some kinds of private sector investment attractive. So, it doesn't get done. It is at such times that the government has a legitimate role in pursuing investment initiatives that extend beyond its traditional role of investing in public infrastructure. And, we should not lose sight of the importance of government accelerating public infrastructure investment when the GDP output gap is large as it is now.

There was some increase in infrastructure spending in the 2009 stimulus package, but it was quite limited in scope. Policymakers at the time didn't fully understand the causes of the Great Recession and hoped that the quick fix of providing transfer payments through lower taxes and spending would revive aggregate demand quickly. Of course we now know that what seemed like a massive amount of stimulus at the time proved to be inadequate. But, an opportunity to invest in public infrastructure, which takes much longer to bear fruit, was missed.

President Obama did attempt to remedy this oversight when he proposed the American Jobs Act in September 2011. Congress never acted on most of the substantive investment initiatives embedded in this proposal and, in any event, the proposal itself was exceedingly modest.

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2. Composition of Real GDP Growth Over the Cycle — Sector Financial Balances

Economic Sectors. Real GDP growth is comprised of the private sector (***households*** and ***businesses***), ***government*** (federal and state/local), and ***the rest of the world*** (as measured by the current account).

Over the course of the cycle the relative contributions of each economic sector to real GDP growth change. The largest sector, as conventionally measured by GDP in the national income accounts, is the household sector, which accounts for 71% of spending. When the Great Recession hit, income and spending fell sharply in the household sector. However, the government stepped in and provided income to the household sector through tax cuts and spending programs which enabled the household sector to maintain its spending, and therefore GDP, at a higher level than would have occurred without government intervention.

However, government spending has been shrinking over the last two years and is going to contract further in 2013, perhaps sharply, depending upon how Congress resolves fiscal cliff issues.

If government spending and transfer payments contract faster than increases occur in household income and spending, real GDP growth will slow in 2013. The crucial question at this time is how much government support can be withdrawn from the household sector without depressing real GDP growth below the level required to maintain a stable, albeit still very large, output gap. If too much support is withdrawn, unemployment and the output gap will both rise — not a healthy development.

Economic Identities and Sector Financial Balances. There are some fundamental economic identities that are informative of how the sectors interact, but which are not always clearly understood.

First, total spending equals total income across all sectors. Each dollar spent is someone else's income.

Second, saving in a sector equals the difference between income and spending. Customarily, the household sector has positive saving (it earns more than it spends), the business and government sectors have negative saving. Or, put differently, the household sector has a positive financial

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balance, while the business and government sectors have negative financial balances.

Third, if the combined savings (financial balances) of the household, business and government sectors are negative, foreign countries will make up the difference — the current account balance will be negative. In other words, the sum of the household, business and government financial balances equals the current account balance.

The current account balance consists of trade — exports and imports of goods and services — and financial flows between countries.

What is important to understand is that these identities are immutable. Thus, for example, if the household financial balance decreases, which means that saving decreases, this decline has to be made up by an increase in another sector's financial balance.

There is one more concept that is important to understand. The financial balances of all economic sectors always sum to zero. However, this is an outcome, not an intention. If all sectors simultaneously seek to increase their financial balances, this, of course, cannot happen, but as each sector attempts to accomplish its objective its actions will have consequences. An example of the difference between intentions and outcomes can be understood in the context of the "Paradox of Saving". The Paradox of Saving occurs when households attempt to save more and spend less. While on an individual basis this is judged to be prudent behavior, when it occurs collectively it will result in increases in unemployment because aggregate spending falls. As unemployment rises because of decreases in spending less saving will occur in the aggregate. The outcome of the Paradox of Saving could be avoided if the government sector counteracts contracting household income through transfer payments. But, this would result in the government's negative financial balance — the budget deficit — increasing in size. If the government attempts simultaneously to reduce its deficit, that action will backfire because it will exacerbate the contraction in the household sector.

If all sectors attempt to reduce their financial balances by increasing spending more than income and finance the reduced financial balances by drawing down cash or increasing borrowing, the economy will grow above potential, debt will accumulate and inflation may erupt. The accounting identity will still hold in the final analysis because the boost in economic

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growth will result in increases in income.

Household Sector Financial Balance. In the national income accounts, personal saving is reported as the difference between various sources of household income and consumption. While this could be considered to be the household financial balance, it is incomplete because it leaves out investment in residential real estate. The household financial balance includes both ***personal saving*** and ***net residential housing investment***.

Household saving, as conventionally measured, depends upon employment/income, wealth and credit availability. Increases in employment lead to increases in income. And, even though increases in income lead to increases in spending, saving also increases. The saving rate also rises as the unemployment rate falls.

However, increases in wealth relative to increases in income (the ratio of wealth to income rises) and easier access to credit both increase spending and decrease saving, which causes the saving rate to decline. The latter two phenomena explain the secular decline in the personal saving rate over the last 30 years.

What all this means is that the saving rate rose when the housing bubble burst because wealth fell as housing prices declined, credit availability tightened and the unemployment rate rose. All three contributed to raising the saving rate. The housing sector's financial balance became more positive. Of course, this also meant that because household income was contracting, consumption contracted to an even greater extent.

All three of these factors are now in the process of reversing and should lead to a declining personal saving rate in coming quarters. **Chart 4** shows the secular decline in the household personal saving rate from approximately 10% in the early 1980's to about 2% just prior to the Great Recession. The saving rate rose quickly to 6% but has fallen to less than 4% over the last two years. My "Slow Growth" scenario, which incorporates a gradual decline in the unemployment rate and a gradual improvement in home prices, indicates that the saving rate will continue to fall to 2% or less by 2016. My "Recession" scenario, which could occur if we go over the fiscal cliff, shows that the saving rate would increase to approximately 5% before reversing direction when the economy recovers from recession in 2015 and 2016.

Net residential investment depends upon housing vacancies (supply

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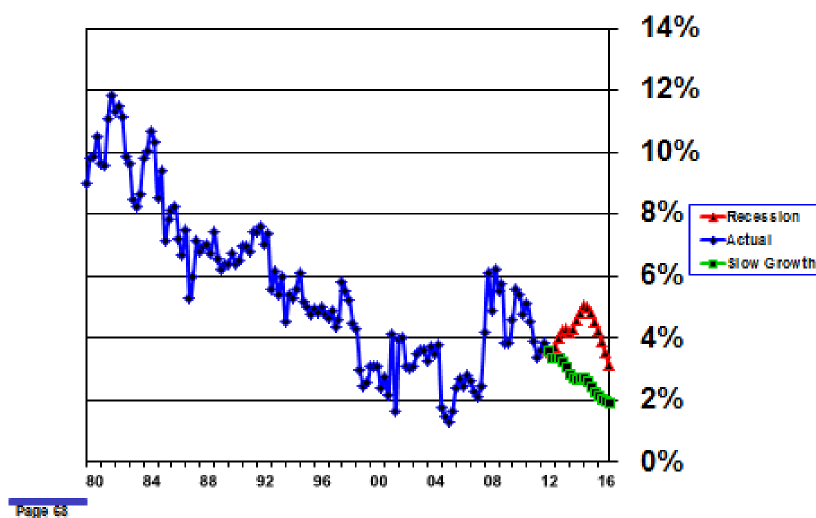
CHART 4 – Consumer Saving Rate (quarterly average)



relative to demand), the cost of borrowing as measured by the inflation-adjusted mortgage rate, and credit availability and underwriting standards. Excess vacancies are rapidly declining, as can be seen in **Chart 5**. The Federal Reserve's purchase of mortgage backed securities has depressed the inflation-adjusted mortgage rate to an extremely low level. While lenders are flush with cash, underwriting standards remain tight. Collectively, net residential investment will be much stronger in 2013 than it has been in recent years, but it will take another two to four years before net residential investment returns to its historical trend level. Nonetheless, net residential investment will be a positive contributor to real GDP growth over the next few years.

Business Sector Financial Balance. In normal times businesses have a negative financial balance as they finance capital expenditures and working capital through bank loans and by issuing debt or equity which in turn is financed primarily by the savings of the household sector.

However, since the beginning of the Great Recession, businesses have had a positive financial balance. Cash inflows have exceeded cash requirements which have enabled businesses to accumulate cash, pay down debt

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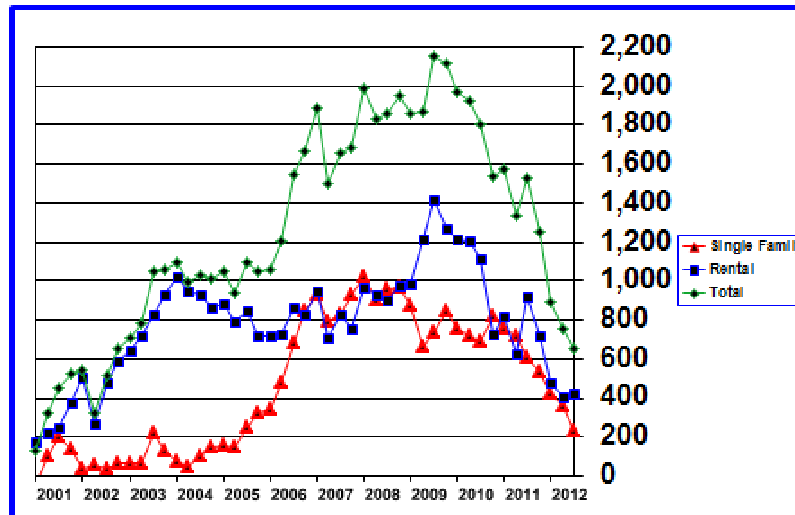
CHART 5 – Number of Housing Units Above 1994-2000 Average
(in thousands of units)



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and repurchase stock. Strong cash flows are not a result of sales which remain depressed because of slow growth in household spending. Rather they stem from very high profit margins and lower than normal investment in working capital and capital expenditures. The latter phenomenon is a direct result of weak sales growth. While this has been interpreted as a sign of significant strength in the business sector, it is really a reflection of a very weak economy.

As the household sector gradually recovers and its overall financial balance improves (contributions from personal saving are negative, but contributions from net residential investment are positive), the business sector financial balance should return to a more normal negative amount.

Unusually high profit margins are a sign of an unhealthy economy. When profit margins are high, owners are receiving a relatively greater share of cash flows than employees. Because of substantial slack in the labor market, workers have little bargaining power. This phenomenon is contributing steadily to worsening income inequality. By limiting wage increases, this phenomenon curtails spending increases and retards economic recovery.

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As contradictory as it may seem, passing more of current profits to employees through wage increases and decreasing dividends and retained earnings would actually result in faster sales growth and higher profits to owners. This phenomenon is analogous to the "Paradox of Saving".

While a few beneficent employers might voluntarily give up some profits to pay their employees better, the "rules of the game" and cultural expectations will prevent widespread behavior of this sort on the part of most employers. So, we are caught in a trap, which can only be broken gradually as the labor market and wage bargaining power improve.

There is a controversial alternative, however, that arguably could expedite matters.[1]

It is controversial because the solution involves a legally mandatory increase in wages through a substantial increase in the minimum wage. It is controversial because it involves the government dictating to the employer what the employer must do. It is controversial because it could result in the failure of some businesses. However, it is argued that such a policy in the aggregate would accelerate economic recovery. Because the increase in wages is mandatory, few jobs would be lost. Because the increase in wages is broad-based employers would be able to recoup much, if not all of the increase, through raising prices. Of course, higher prices would result in inflation. But, it is argued that the benefits of increased spending and an overall decline in the unemployment rate would more than compensate for negative impacts on some employers and some employees. And, in a time of exceptionally low inflation, a little more inflation would not necessarily be a bad thing. And, incidentally, such a policy would help improve income inequality.

Although a minimum wage exists in the U.S., it has not kept pace with inflation in recent times. However, there appears to be little political support for such a policy, so this is more of a hypothetical possibility.

Government Sector Financial Balance.The role of the federal government's financial balance is a bit easier to understand. Its job when the

[1] The argument for the beneficial impact of a substantial increase in the minimum wage is made in an article written by Ron Unz, "Raising American Wages by ... Raising American Wages." This article was published by New America Foundation in October 2012 and is part of a series of articles in its "Next Social Contract Initiative and Economic Growth Program".

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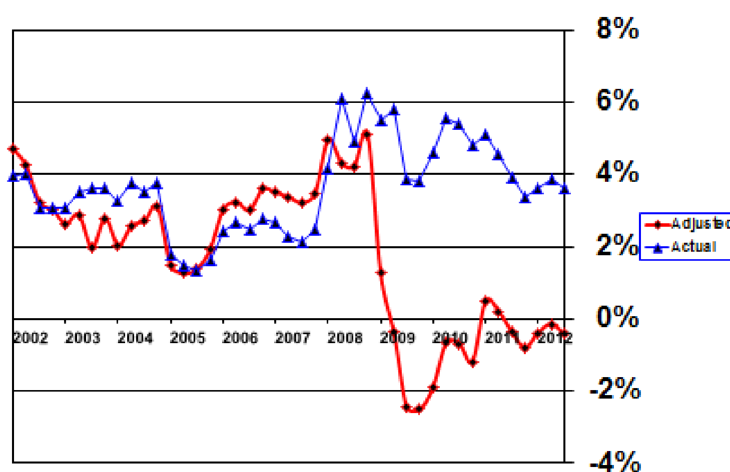
household financial balance falls precipitously is to let deficits balloon. It does this in a variety of ways including unemployment benefits, tax cuts, and spending programs.

This phenomenon can be seen graphically in **Chart 6** which compares

CHART 6 – Consumer Saving Rate: Actual & Adjusted for Personal Taxes and Transfer Payments



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the personal saving rate to an "adjusted saving rate" that eliminates the effect of changes in government transfer payments and taxes. When the Great Recession struck government intervention boosted household spending power quickly and it exceeded 6% of disposable income from May 2009 until December of 2010. Since then the benefit of increased government transfers has shrunk to about 4% of disposable income, which means that government stimulus is already being withdrawn.

What is supposed to happen is that as government stimulus is withdrawn the difference is more than made up by increases in the household financial balance. However, this is not happening to a sufficient extent because of slow employment growth and limited wage increases.

Rest of the World Financial Balance. The current account balance consists of exports and imports of goods and services (trade balance), net

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income payments and unilateral current transfers (U.S. government grants, pensions and other transfers; and private remittances). In 2011 exports of goods and services were $2.103 trillion and imports were $2.663 trillion for a trade deficit of $560 billion. Net income payments were $227 billion and unilateral transfers were -$133 billion. Summing these amounts results in a current account deficit of $466 billion, which was equal to 3.0% of nominal GDP. The current account deficit peaked in the third quarter of 2006 at 6.1% of nominal GDP. At the same time the excess of imports of goods and services over exports (trade deficit) amounted to 5.7% of nominal GDP. The U.S. was heavily dependent on the rest of the world in 2006 to finance its excess of domestic spending over income. The U.S. current account negative financial balance appears to have stabilized at about 3.0% since the end of the Great Recession. This stabilization appears likely to hold. Thus, the U.S. has made considerable progress already in decreasing its dependence on the rest of the world to support its standard of living.

Prospects for Real GDP Growth in 2013 and Beyond. Based on an assessment of prospects for financial balances for the economic sectors, real GDP should grow at about the same rate in 2013 as it did in 2012. The household sector's contribution to real GDP growth is gradually improving, which means its financial balance is declining. The same is likely to be true for the business sector. However, the government sector's negative financial balance is improving which will serve to slow real GDP growth in 2013. The financial balance for the rest of the world appears to be stable and therefore will neither impart a positive nor negative impulse to real GDP growth in 2013.

When trends in all sectors are combined they appear to largely offset each other in 2013, which is why read GDP growth should remain about the same as in 2012. However, uncertainties surrounding how fiscal cliff issues will be resolved skew risks to the downside, so real GDP growth in 2013 could be lower.

Beyond 2013, the contributions of the household and business sectors are likely to continue to improve slowly while the drag from contractionary government fiscal policy should moderate. Thus, ***there is cause for optimism that real GDP growth should finally accelerate in a meaningful way in 2014 and beyond*** and that significant progress finally will occur in reducing the sizable GDP output gap.

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CBO does not expect the GDP output gap to close completely for another four years. My sense is that it will take a little longer than that. (See **Chart 9** below.)

3. 2012 Q3 GDP — Preliminary Estimate

Sometimes good news is really bad news in disguise. That was the case for the revision in the estimate of real GDP growth for the third quarter.

Growth was raised to 2.66% from the "Advance" estimate of 2.03%. ***Good news***. ***But***, it is really ***bad news*** because as can be seen in **Table 1** inventory growth was raised 0.89% and consumer spending was reduced 0.43%. This looks very much like involuntary inventory accumulation — manufacturers and merchants expected more sales but consumers didn't step up.

Table 1
2012 Third Quarter GDP Growth

	Advance Estimate	Preliminary Estimate	Second Quarter	First Quarter
Personal Consumption	1.42%	0.99%	1.06%	1.72%
Private Investment				
Nonresidential	-.13%	-.23%	.36%	.74%
Residential	.33%	.32%	.19%	.43%
Inventories	-.12%	.77%	-.46%	-.39%
Net Exports	-.18%	.14%	.23%	.06%
Government	.71%	.67%	-.14%	-.60%
Total	**2.03%**	**2.66%**	**1.25%**	**1.96%**
Final Sales	**2.15%**	**1.89%**	**1.71%**	**2.35%**

Why isn't personal consumption stronger? After all it accounts for 71% of GDP and if potential GDP growth is 2%, it should contribute 1.42%, and if potential GDP growth is 3%, it should contribute 2.13%. Indeed, GDP growth needs to exceed its potential to bring down unemployment and close the output gap. But, over the first three quarters of 2012, personal

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consumption is contributing only 1.26% to GDP growth. What is going on is that not enough new jobs are being created and, worse, personal income growth has slowed sharply over the last seven months.

Real growth in "Final Sales", which deducts changes in inventory accumulation from GDP, is a better measure of underlying demand than real GDP growth. Inventory accumulation tends to be procyclical, decreasing more rapidly than other components of GDP during a recession and rising more rapidly during recovery. "Final Sales" grew 1.89% in the third quarter compared to 1.71% in the second quarter and 2.35% in the first quarter. The data unquestionably indicate that aggregate demand is very weak and there is no apparent trend toward improvement.

Last year's good news story — business investment — has turned into this year's bad news story. Nonresidential investment was more negative in the "Preliminary" estimate than in the "Advance" estimate and has deteriorated significantly since the first quarter's contribution of 0.74% to GDP.

Also, the 0.67% contribution of government to GDP in the third quarter is an anomaly that will not repeat.

Thus, after sifting through the details of the third quarter GDP report it would not be unreasonable to conclude that GDP growth has slowed sequentially from the first to second to third quarters.

Recent data reports indicate that third quarter GDP could be boosted to 2.9% in the "Final" estimate which will be released just prior to the Christmas holidays.

4. GDP Forecast for 2012 Q4

Goldman Sachs currently expects Q4 GDP growth of 1.2% and B of A/Merrill Lynch expects 1.0%. Macroeconomic Advisers currently expects growth of just 0.5%. The Blue Chip consensus and Philadelphia Fed professional forecasters surveys, which tend to lag events, are 1.7% and 1.8%, respectively.

Several negatives are contributing to this dismal outlook, including -0.25 to -0.50% due to the temporary impacts of hurricane Sandy; -0.25% to

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-.50% from inventory cutbacks in response to the involuntary third quarter accumulation; and a further decline in business investment spending courtesy of uncertainty generated by the approaching fiscal cliff. In addition, recent weakness in consumer disposable income growth does not bode well for stronger consumer spending.

Corroborating the potential for weak fourth quarter GDP growth is the Chicago Fed's National Activity Index, which declined to -0.56 in October and has averaged -0.56 over the last three months. A three-month average value of -0.70 is consistent with recession. Although recession seems unlikely unless Congress goes over the fiscal cliff, the Chicago Fed index is consistent with the likelihood of very weak fourth quarter GDP growth. Corroborating this trend, the Economic Cycle Research Institute's leading index has been weakening. The IBD/TIPP economic optimism index fell from 54.0 in September to 48.6 in October.

5. GDP Forecasts for 2013

B of A's forecast of 1.8% GDP growth in 2013 is one of the more pessimistic. The International Monetary Fund (IMF) recently reduced its forecast to 1.5% from 2.25%. GS's 2013 real GDP growth forecast is 2.1%, both the Blue Chip consensus and the Philadelphia Fed's professional forecasters expect 2.0% growth. "Bill's Slow Growth" scenario projects real GDP growth in 2013 of 2.5%. Even the Fed, which has consistently been too optimistic, tempered its 2013 GDP forecast. Its revised projection for 2013 has a range of 2.3% to 3.0% growth. (See **Chart 7**.)

All forecasts expect very weak growth during the first half of 2013 with somewhat stronger growth emerging in the second half.

With the exception of "Bill's Slow Growth" forecast, all others expect GDP growth to accelerate in 2014 and 2015. Goldman Sachs and B of A track the lower end of the Fed's projected range. Following a relatively consistent pattern, the Fed remains on the optimistic end of the spectrum. Hopefully, for the good of the country that optimism will eventually turn out to be well founded.

Of course, resolution of tax and spending issues will have a significant impact on 2013 in ways that are not fully knowable yet. Most forecasts

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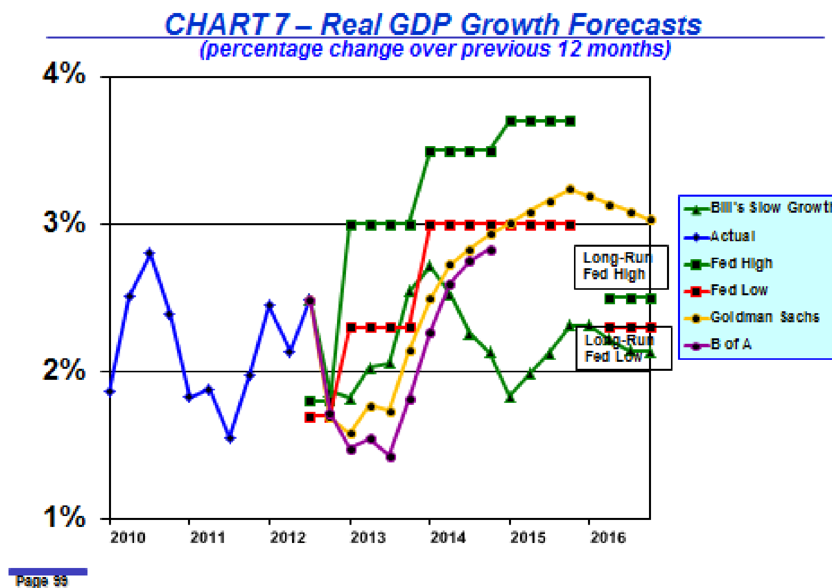

factor in a 1.0% to 2.0% drag on GDP growth in 2013 from tighter fiscal policy. But, the risk is that the negative impact of fiscal policy could turn out to be 2.5% or even greater.

Chart 8 adds the Congressional Budget Office's (CBO) recession forecast to the GDP forecasts shown in **Chart 7**. If Congress fails to change any of the tax and spending policies embedded in current law which become effective in January, a short and shallow recession will occur during 2013. Then, the economy will rebound as the initial negative fiscal impact subsides. Interestingly, the CBO "current law" forecast eventually, by 2022, results in higher real GDP than its "current policy" scenario.

Evidently, CBO's forecast model penalizes GDP growth over the longer term for higher levels of public debt to GDP. My statistical analysis corroborates that finding and indicates that for each sustained 10% increase in the ratio of public debt to GDP, real GDP growth declines 0.33%.

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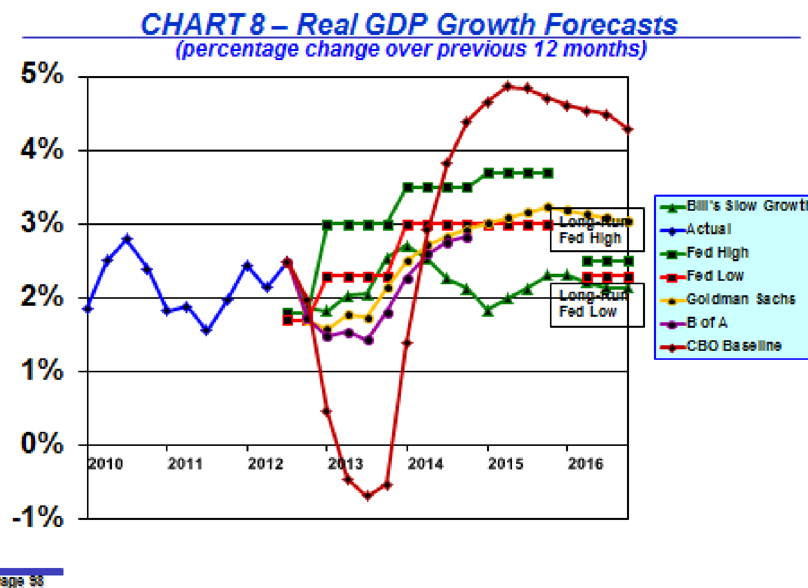
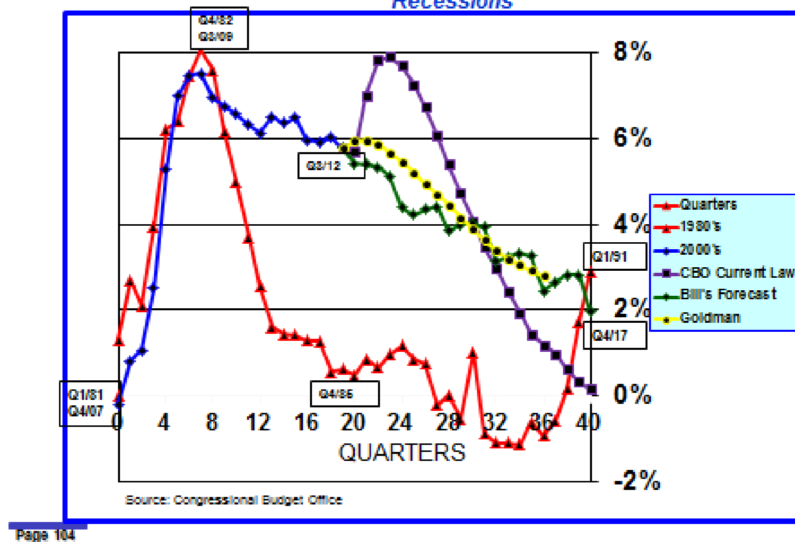


6. GDP Output Gap

Chart 9 compares the output gaps during and after the recession of 1981-82 and the Great Recession of 2007-09. The output gaps peaked during the seventh quarter of each recession — 8.1% in the 1981-82 recession and 7.5% in the Great Recession. Nineteen quarters have passed since the start of the Great Recession and the output gap is still 5.8% compared to 0.6% nineteen quarters following the onset of the 1981-82 recession.

The purple line (squares) in **Chart 9** shows the ***Congressional Budget Office's "current law" scenario*** in which CBO assumes Congress takes no action to extend tax cuts and the spending reductions required by the Budget Control Act take effect in January — the U.S. economy falls off the "fiscal cliff". As a consequence, recession ensues during the first half of 2013. The output gap in CBO's recession forecast does not fully close until the end of 2017.

My scenario (***Bill's Forecast*** the green line — diamonds) assumes that Congress addresses the fiscal cliff in time but tighter fiscal policy over the



next several years results in only a very gradual reduction in the output gap, which is still estimated to be 2.0% of GDP at the end of 2017. Also notice that Goldman Sach's real GDP output gap forecast (yellow line — squares) parallels mine very closely.

7. Risks to the Outlook

Risks to the 2013 forecasts are numerous and collectively are tilted toward the downside. B of A's forecast includes a negative assessment of the risks based on uncertainty while other forecasters incorporate some negative impact from tighter fiscal policy.

GS includes a positive bump for the effects of the Fed's quantitative easing program which it expects to raise GDP growth by 30 to 75 basis points. There is no explicit mention of such a favorable adjustment in the other forecasts.

Downside risks include slower global growth, tighter U.S. fiscal policy

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and increased uncertainty. On a more favorable note, housing prices and new construction could rebound more rapidly. And, if Congress agrees to a "Grand Bargain" approach to tax and spending issues and phases in the impacts over time, this could decrease the extent of the short-term negative impacts and boost business and consumer confidence.

IV. Employment

November's employment report exceeded market expectations but was generally consistent with the pattern of very weak employment growth that has persisted since March.

1. Payroll and Household Reports

Payrolls grew 146,000 in November exceeded the consensus of a gain of 93,000 jobs. But September and October were revised down by a combined 49,000, so on a net basis the consensus was on the mark. However, 90% of the net new jobs in November were in the lower wage categories of retailing, business services, education and leisure/hospitality. Concentration of employment growth in low paying jobs is one of the reasons that consumer disposable income is not growing very rapidly.

Monthly payroll growth has averaged 151,000 so far this year, which is marginally above the 125,000 jobs that need to be added each month to absorb new entrants into the labor force.[2] Thus, the unemployment rate has edged down from 8.263% in January to 7.746% in October.

After a surge of 1.3 million jobs the ***household employment survey*** in September and October, jobs fell 121,000 in November. The monthly gain over the last 11 months has averaged 225,000. A possible explanation for the surge in net new jobs in September and October involves short-term

[2]The population eligible for employment has grown about 1.047% annually since the end of the Great Recession, which adds about 213,000 monthly to the eligible work force population. The employment to population ratio measures the percentage of those eligible to work who are actually working. This ratio has averaged about .5852 since the end of the Great Recession and was .5867 in November. This implies that about 125,000 people eligible to work join the labor force each month.

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political hiring in the last few weeks of the presidential election campaign. There is circumstantial support for this explanation because about three-quarters of the jobs increases were concentrated in two age cohorts — 20 to 24 years old and those aged 55 and up. Normally, these two cohorts only account for approximately 30% of employment. If this reason has merit, the decline in household job growth in November should continue in December.

The household and payroll surveys generally track each other fairly closely over time. While the household survey is never revised, the payroll survey is benchmarked annually to adjust for the entry and exit of small establishments. During periods of economic expansion benchmarking usually adds jobs to the payroll survey. The next benchmarking of payroll data will occur in January 2013 and will update payroll data from March 2011 through March 2012. Based on preliminary data through March 2012, the current benchmark revision estimate would raise the total number of jobs by 386,000 or an increase of about 32,000 per month. This would raise the monthly payroll job growth from 151,000 to 183,000 which is closer to, but still less than the 225,000 average in the household survey.

But, when all is said and done, payroll employment is still 4.2 million less currently then it was in January 2008. This coupled with sluggish wage growth has restricted growth in consumer spending power. When this is understood it is not surprising that both nominal and real GDP growth have been extremely weak.

2. Growth in Wages

If the labor market really is tightening, wage rates should begin to rise and that development would threaten subsequent increases in inflation. However, increases in both hourly and weekly wage rates are stuck at a very low level and actually appear to be edging lower.

Chart 10 shows that from 2007 to the end of 2009 the annual rate of growth in hourly wages decelerated from about 3.5% to less than 2.0% and has been edging down slowly since then rather than stabilizing. As long as the unemployment rate remains unusually high, labor will have very little bargaining power and this is likely to limit increases in hourly wages for the foreseeable future.

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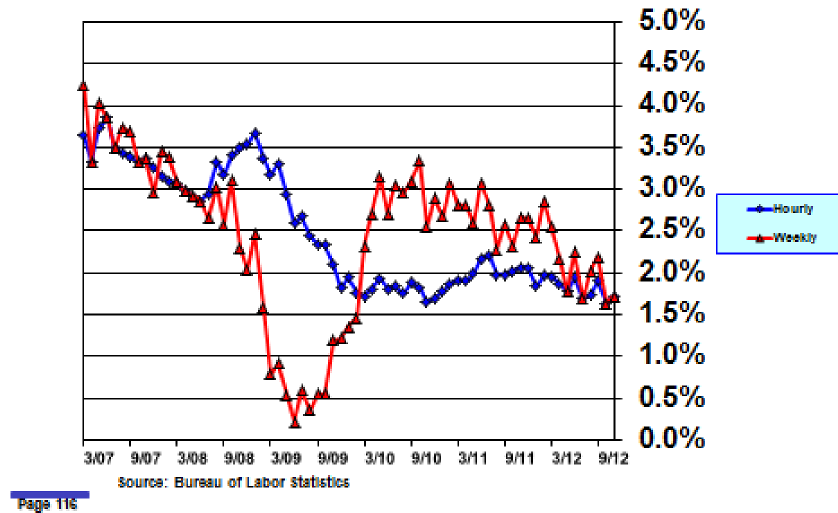

Perhaps even more troublesome is the convergence of the growth rate in weekly wages to the growth rate in hourly wages. The workweek peeked at 34.6 hours in February and has been 34.4 hours for five of the last seven months. This means growth in take home pay is slowing significantly. Real hourly and weekly wages are also declining modestly. This is not the stuff of an improving labor market.

V. Consumer Income and Spending

1. 2012 Personal Income, Disposable Income and Spending

Consumer personal income and disposable income data are reported on a monthly basis but are revised several times over subsequent months. Thus, one can never be sure whether the story recently released data tell will be the same story several months hence. ***Revisions in October for the last several months were substantial and negative.***

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Data for 2012, shown in **Table 2**, indicate that disposable income growth

Table 2
Change in 2011 and 2012 Personal Income and Its Disposition
(in billions of dollars)

	Nominal 2011*	**Pct. Change**	**Nominal 2012 Jan.-Oct.****	**Annual Pct. Jan.-Oct. Change**	**Annual Pct. Apr.-Oct. Change**
Personal Income	**$458.1**	**3.64%**	**$402.2**	**3.70%**	**1.75%**
Compensation	269.2	3.34%	237.2	3.41%	0.58%
Proprietors' Income	21.0	1.83%	43.7	4.48%	3.33%
Rental Income	70.7	19.50%	52.2	14.46%	12.99%
Asset Income	25.9	1.56%	31.1	2.21%	1.58%
Government Transfers	4.3	0.19%	64.0	3.30%	2.49%
Less: ***Personal Taxes***	-112.7	5.05%	-82.5	4.22%	1.37%
Disposable Income	**278.5**	**2.46%**	**345.8**	**3.57%**	**1.70%**
Less: ***Consumption***	**435.8**	**4.04%**	**328.1**	**3.51%**	**2.17%**
Personal Saving	**-157.4**	**-28.63%**	**17.8**	**5.44%**	**-10.48%**
Personal Saving Rate	**4.24%**		**3.67%**		**3.69%**

*Measured from December 2010 to December 2011
**Measured from December 2011 to October 2012

accelerated from 2.46% in 2011 to an annual rate of 3.57% over the first ten months of 2012, but the rate of growth in personal income is little changed — 3.64% in 2011 and 3.70% in the first ten months of 2012.

However, the annualized rate of growth in disposable income over the last seven months has been 1.70%. The difference between the ten-month growth rate of 3.57% and the more recent seven-month growth rate of 1.70% stems from the one-time boost in reported income during the first quarter for bonus and deferred income. This adjustment conveyed the impression that income growth was improving; however, it is now clear that the underlying weak trend is still in place and that there has been no actual improvement in the rate of income growth. Indeed, the growth trend appears to be deteriorating.

The saving rate has declined farther so far in 2012, but may be in the process of stabilizing, but at a somewhat lower level. However, the household financial balances analysis indicates that the saving rate will probably continue to edge down, perhaps fitfully, over the next few years.

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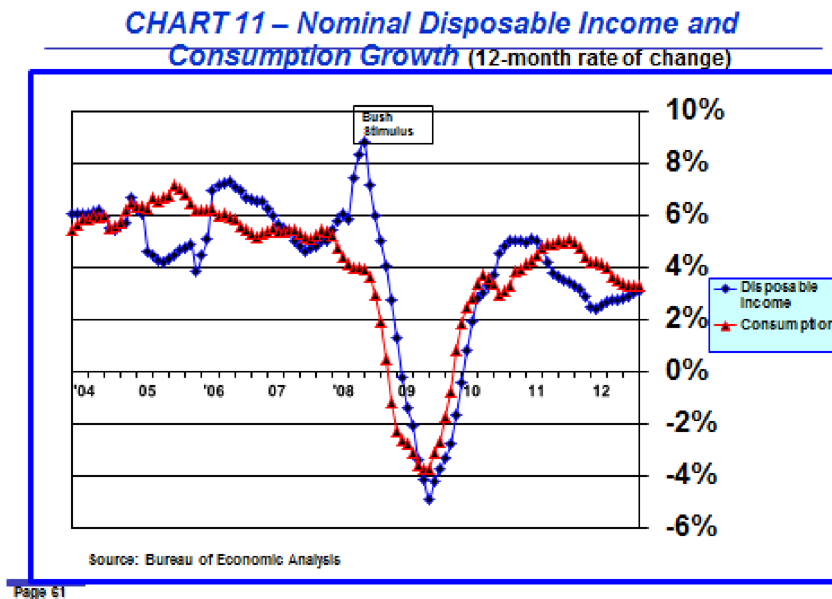
All-in-all, income growth is extremely weak and will not improve in any meaningful way until employment growth accelerates to a greater extent.

2. Disposable Income and Spending

Chart 11 shows the nominal rate of growth in disposable income and con-



sumer spending from 2006 to the present. The annual rate of growth in disposable income began slowing in late 2010 and declined from its recent high of 5.1% in February 2011 to 2.4% in February 2012, but has risen since then to 3.1% in October 2012. As mentioned above, the rebound in the growth rate since February appears to be due entirely to a one-time boost in bonus and deferred income during the first quarter. It will take several more months for this one-time pop in income to work its way through the 12-month moving average of income growth. This means that the percentage growth rate will probably rise above 3.1% in coming months. My model suggests it will peak at 3.7% in January 2013. While I generally prefer to look at 12-month rates of change, this is one of those times when this method

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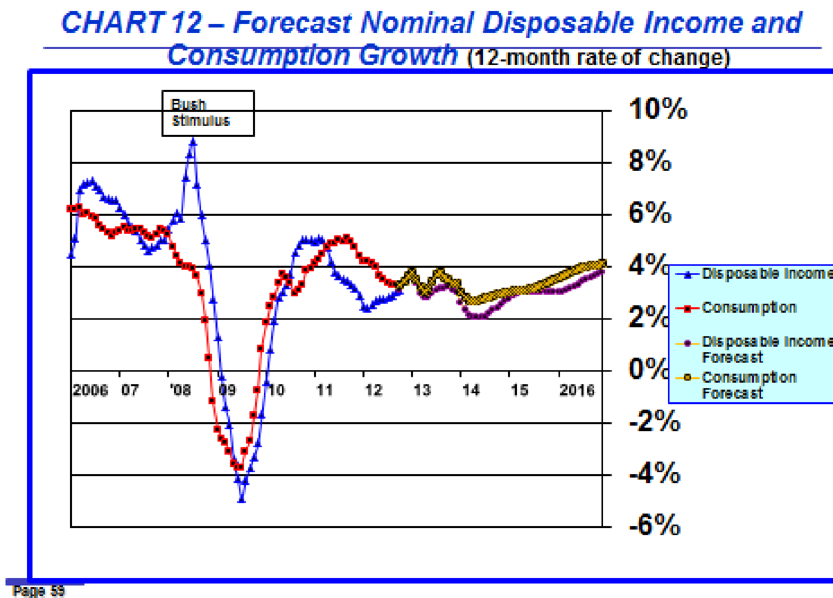
of analysis may convey a false sense of an improving trend.

Growth in consumer spending peaked later than income growth at 5.1% in September 2011, but now is declining and reached 3.3% in October 2012. Even with the recent improvement in income growth, the growth rate in consumption still exceeds the growth rate in disposable income. This relationship may reverse in the next few months for the reasons stated above. What will be important to watch in the interim to have a clearer sense of trend will be whether the saving rate continues to edge down on a short-term basis or whether it stabilizes. If it continues to edge down, consumption growth would probably strengthen.

3. Outlook

Chart 12 shows my forecast for growth in consumer disposable income and



consumption through 2016. Generally, consumption grows a little faster than income which is consistent with a slow decline in the personal saving rate. Growth in nominal disposable income remains under intense pres-

sure until mid-2014 and then slowly accelerates to 4% by the end of 2016. This is also consistent with gradual improvement in the household sector as unemployment falls.

All-in-all the story **Chart 12** tells is not a strong one. It is a story that is consistent with low labor supply growth, paltry productivity gains and meager increases in wages and salaries.

Consumer Confidence. Until December consumer confidence had been improving. But, the University of Michigan consumer sentiment index fell sharply to 74.5 in early December from 82.7 in November. Almost the entire decline occurred in the expectations component, suggesting that concerns about the fiscal cliff finally are having an impact on consumer sentiment.

VI. Housing

There has been great excitement recently about increasing home prices and a nascent recovery in housing starts. Could it be that at long last housing is poised to play its historical role of catalyzing economic recovery?

I would say this about housing. Yes, it will lift GDP in coming quarters, but the impact will be relatively small. Housing cannot and will not by itself lift the economy to a much higher rate of growth. Right now residential investment accounts for 2.72% of real GDP. The growth rate in residential investment over the last year has been 13.75%. This translates into a .34% add to GDP over the last year. Suppose housing growth accelerates to 27% over the next year, which is the percentage increase in housing starts that B of A is forecasting (see **Chart 13**). This would lift housing's contribution to GDP to .74%. Starts measure plans and not actual construction, so this figure is probably greater than will occur. B of A is expecting housing to contribute approximately 0.6% to GDP growth in 2013.

But, there will be multiplier effects of construction for other components of GDP. Overall it is reasonably clear that housing will be a positive contributor to real GDP growth in 2013.

However, there are still significant headwinds which will prevent a housing boom. Excess inventories have been reduced substantially, but they

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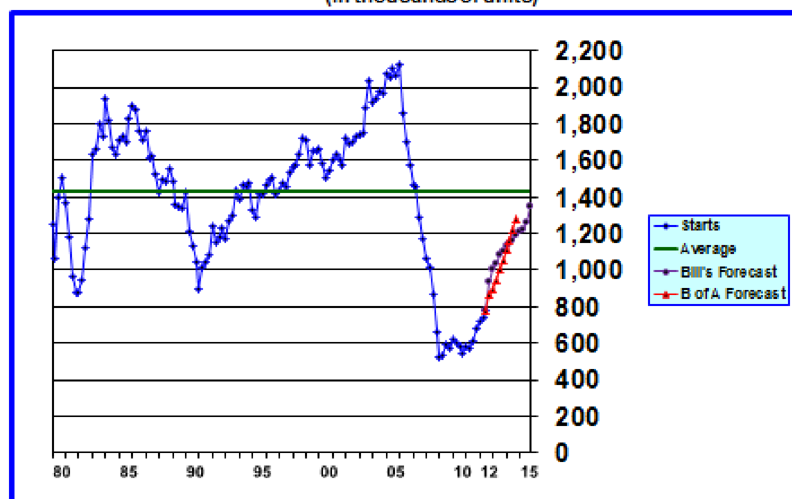
CHART 13– Housing Starts (quarterly average)
(in thousands of units)



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remain above long-term norms (see **Chart 5**). Credit conditions remain tight and the percentage of first time buyers to total buyers is low and will remain low by historical standards. The troubled loan inventory is shrinking gradually but 9% of loans outstanding remain seriously delinquent or in foreclosure. Thus liquidation activity will remain a drag on supply and housing prices.

Housing prices are being bolstered by significant investment activity. With low prices and low interest rates, it pays investors to buy homes and rent them. I am invested in such a fund and the leveraged returns are in the mid-teens. This buying pressure is supporting the rise in prices. But, if prices rise far enough, the returns to a rental strategy will decline, so this phenomenon is self-limiting.

In the longer run, the dynamics of household formation are favorable to new construction and as employment improves there will be some catch up for a while. The trend level for new household formation is approximately 1.2 million annually. However, average household formation over the period 2007-2011 averaged 550,000 and should be close to 1 million in 2012.

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Falling unemployment and increasing household formation will both support increased residential construction. However, because the home ownership rate is likely to continue falling from the current 65.5% level to 63% or less, new construction will tilt toward rental, much of which will be in multi-family but some in single family. And, average unit size will probably decline — fewer McMansions. Also, there is the longer term effect on the composition of housing demand that is being driven by the aging of the baby boomers and downsizing.

Policy risks to housing recovery remain significant and mostly negative. The one significant positive is the Federal Reserve's quantitative easing monetary policy involving the purchase of $40 billion in mortgage backed securities monthly. This will probably occur throughout 2013 and 2014 and will assure that interest rates on residential mortgages remain abnormally low.

But the negative policy risks are significant. First, the Consumer Financial Protection Bureau (CFPB) will issue several regulations by January 21, 2013. While these regulations will provide greater clarity and reduce lender and investor risk, the rules will also reinforce conservative underwriting, which will increase the cost of credit and limit availability. Second, credit guarantee fees have been underpriced and are going up. This will offset some of the benefit on rates provided by the Fed's quantitative easing program. Third, disposition of troubled residential real estate continues to be a significant problem. Fourth, the inability to refinance non-GSE underwater residential mortgages is a drag on the market, although the Obama Administration has suggested it is developing a plan to address this problem. Fifth, there is a possibility that fiscal policy reform could result in the elimination or significant reduction in the mortgage interest tax deduction.

All-in-all, the housing market is no longer a negative for GDP growth. It is a modest positive, but no housing boom seems likely in the next couple of years. As can be seen in **Chart 13**, housing starts are not forecast to return to the long-run average level of about 1.4 to 1.5 million units annually for another three to four years. Housing starts exceed household formation because of demolitions, demand for second homes and gradual increases in inventory.

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VII. Monetary Policy

1. Federal Open Market Committee Policy Statement

Overall, the assessment of economic activity was little changed. The recent modest improvement in housing was acknowledged but this was offset by deterioration in business investment. The FOMC continues to be deeply concerned about the weak labor market in spite of the fact that the unemployment rate continues to edge down slowly. The FOMC continues to have no concern about the inflation outlook, noting that "...inflation over the medium term likely will run at or below the 2 percent objective."

As expected, the Federal Open Market Committee (FOMC) of the Federal Reserve announced continuation of quantitative easing with a commitment to purchase $40 billion in mortgage backed securities and $45 billion in longer-term U.S. Treasury securities each month. There is no time limit to this commitment. Instead the FOMC statement commits to continue purchases until substantial improvement in the labor market occurs in the context of price stability.

As anticipated, although it occurred sooner than expected, the FOMC adopted outcome-based targets for the unemployment rate and inflation as guidance for when it will consider raising the Federal Funds rate. Presumably, purchases of securities will continue until the unemployment rate and inflation are nearer these targets than they are currently. However, purchases are likely to decrease or be eliminated altogether before the targets are actually reached.

The target threshold for the unemployment rate is 6.5% and the target threshold for expected inflation one to two years ahead is 2.5% provided that inflation expectations remain well anchored. In addition, the FOMC indicated it will continue to monitor other information, which is a clear caution that the unemployment and inflation thresholds should not be viewed as absolute triggers for increasing the Federal Funds rate.

Another important and unexpected addition to the policy statement was a new sentence: "When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with the longer-run goals of maximum employment and inflation of 2 percent."

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This statement implies that when the FOMC eventually determines to raise interest rates it is likely to do so in a measured, rather than a precipitous, manner.

2. Economic Projections — Real GDP and Unemployment

Table 3 shows the Federal Reserve's revised economic projections for real

Table 3
Economic Projections of Federal Reserve Board Members And Federal Reserve Bank Presidents, December 2012

Variable		Central Tendency				
		2012	2013	2014	2015	Longer Run
Real GDP %	*Dec*	*1.7 - 1.8*	*2.3 - 3.0*	*3.0 - 3.5*	*3.0 - 3.7*	*2.3 - 2.5*
	Sept	1.7 - 2.0	2.5 - 3.0	3.0 - 3.8	3.0 - 3.8	2.3 - 2.5
Unemp. Rate %	*Dec*	*7.8 - 7.9*	*7.4 - 7.7*	*6.8 - 7.3*	*6.0 - 6.6*	*5.2 - 6.0*
	Sept	8.0 - 8.2	7.6 - 7.9	6.7 - 7.3	6.0 - 6.8	5.2 - 6.0
PCE Inflation %	*Dec*	*1.6 - 1.7*	*1.3 - 2.0*	*1.5 - 2.0*	*1.7 - 2.0*	*2.0*
	Sept	1.7 - 1.8	1.6 - 2.0	1.6 - 2.0	1.8 - 2.0	2.0
Core PCE %	*Dec*	*1.6 - 1.7*	*1.6 - 1.9*	*1.6 - 2.0*	*1.8 - 2.0*	
	Sept	1.7 - 2.0	1.8 - 2.0	1.9 - 2.0		

GDP growth, the unemployment rate and total and core PCE inflation.

Projections for real GDP growth are slightly less optimistic, but at least for 2013 remain above consensus expectations. There were modest downward adjustments to the unemployment rate. Notably, the 6.5% threshold is not reached until sometime during 2015, which is consistent with the previous date-based guidance that the FOMC would probably not raise the Federal Funds rate until mid-2015. I do not expect the 6.5% unemployment threshold to be achieved until 2016 or later and Goldman Sach's does not anticipate reaching that threshold until sometime during 2016.

3. Economic Projections — Inflation

Importantly, projections for both the total and core measures of PCE inflation were adjusted downward and remained below the 2.0% long-term

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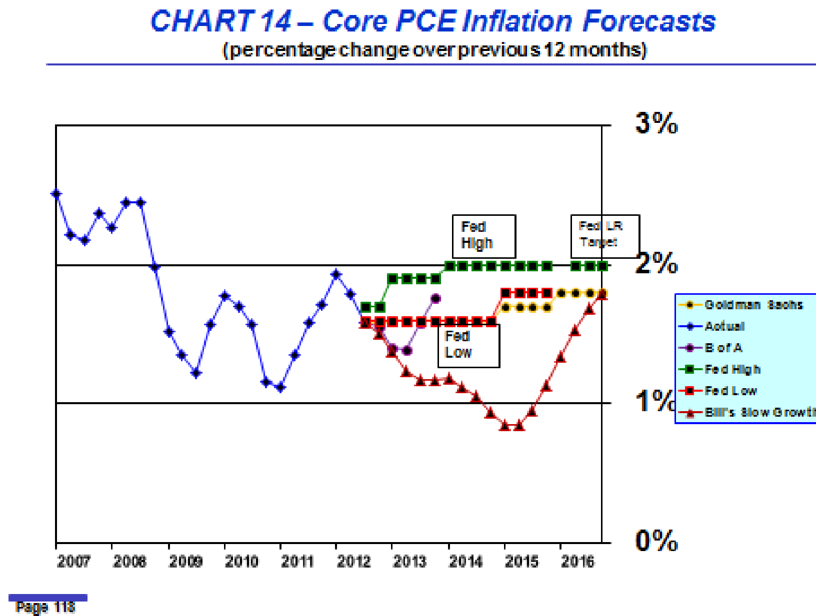
objective over the entirety of the projection period. What this means is that the unemployment rate, and not the inflation rate, is likely to be the focus of attention of market participants in attempting to ascertain when the FOMC will begin raising the Federal Funds rate.

Chart 14 shows that my core PCE inflation forecast (red line — tri-



angles) projects lower inflation rates than other forecasts, including the FOMC's projections. My statistical model does not incorporate the impact of expectations. It is my sense that the FOMC has been relatively successful in anchoring inflation expectations in both directions — lower as well as higher. What my model shows is that downward pressures on inflation remain intense even if actual realized inflation is being limited by FOMC policy and contained expectations about the potential for inflation to fall. Also, observe that Goldman Sach's inflation forecast, which extends through 2016, is well below 2.0% and tracks the FOMC's lower bound well.

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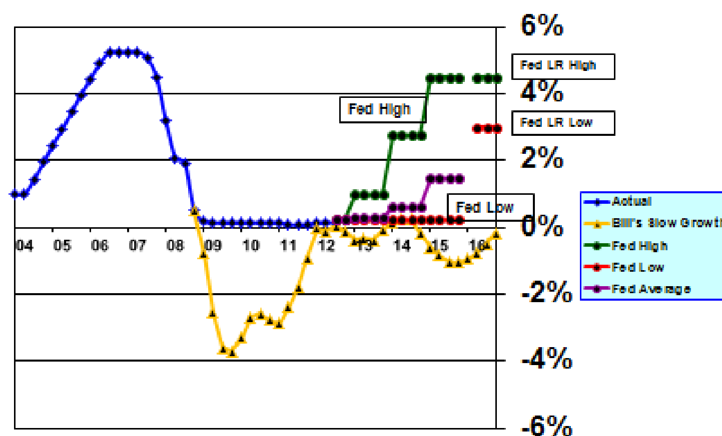
4. Federal Funds Rate

Chart 15 shows the FOMC's high and low projections for the Federal Funds

CHART 15 – Federal Funds Rate Forecast



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rate for 2013, 2014 and 2015. The FOMC central tendency range is derived by excluding the three highest and the three lowest projections. The purple line (circles) is the average of projections for the 19 FOMC members (7 governors and 12 presidents).

My forecast is shown by the yellow line (triangles). My forecast indicates that the Federal Funds rate is not likely to increase until late 2016 or early 2017.

5. Will Quantitative Easing Lead Eventually to Inflation?

Based on the FOMC's inflation projections there is obviously no concern that quantitative easing will result in higher inflation anytime soon. Nonetheless, ***many market participants continue to worry that the FOMC is sowing the seeds for a future virulent outbreak in inflation. This***

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is highly unlikely. Quantitative easing as it is being conducted by the FOMC should not be confused with money printing as occurred recently in Zimbabwe or in Germany in the early 1920s.

When the Fed buys securities it simultaneously creates reserves. This is how its purchases of securities are financed. People think that banks can transform the increased reserves into loans, but collectively they cannot. A single bank can purchase a security and fund it by debiting its reserve account at the Federal Reserve. But the entity it purchases the security from will have will have an offsetting credit to its reserve account. Total aggregate reserves for the system as a whole remain unchanged.

Where confusion arises is the presumption that a bank has to fund a new loan with cash (reserves). This is not actually how it works. When a bank extends a loan it credits a new deposit balance for the recipient in the amount of the loan proceeds. It does not use reserves to do this ... it creates a new deposit. Confusion arises because we are used to thinking of a single entity with a balance sheet that must balance ... that it, if the bank extends a loan by creating a deposit, we presume that the deposit will be spent and the bank extending the loan will have to reduce its cash as the deposit is depleted. The flaw is in thinking of this sequence of events as limited to a single bank. The reality is that once the deposit is created as a result of extending a loan, deposits in the system, as a whole, go up by the amount of the loan, regardless of what transpires in the bank that first made the loan. This is the process that creates money and drives economic activity. But, it has nothing to do with the total amount of reserves in the system.

Printing currency is different because it goes directly into the hands of entities that can spend the currency on goods and services. Unlimited money printing will lead to the Zimbabwe inflationary outcome because demand for goods and services increases relative to supply with the result that inflation in prices forces demand and supply back into alignment.

What quantitative easing does do is to take long-term maturities out of the market and replace those securities with captive short-term reserves. This forces up the prices (reduces the yields) of long-term securities. The objective is to reduce long-term interest rates. This has two effects. First, it lowers the cost of capital and is supposed to encourage investment, which by the way, occurs through the loan and deposit creation process described

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above and not through the creation of reserves. The second effect has to do with reducing the discount rate for long-term assets, which pushes up their value. This has a beneficial impact on stock prices, bond prices and real asset prices, such as commercial real estate, provided that market participants expect the lower long-term rate to persist for a long time. That is why the FOMC's guidance not to raise short-term rates until the unemployment rate falls to 6.5% is important. Rising asset prices increase wealth and part of the increase in wealth is spent on consumption. Thus, the second effect also stimulates economic activity through increased spending.

What is important to understand is that quantitative easing does stimulate economic activity but it works through the interest-rate mechanism, not through the quantity mechanism. The only inflationary impact that could occur has to do with increased economic activity stemming from the two effects described above. There is debate about how effective quantitative easing has been in stimulating economic activity but based on the feeble pace of growth it would be reasonable to posit that the effects have been modest at best.

When quantitative easing eventually has served its intended purposes it can easily be reversed. Reserves will be reduced and the interest-rate induced effects will also reverse.

What all of this means is that inflation will not take hold as long as there is a lot of slack in the economy. This is true no matter what the volume of quantitative easing securities purchases. Inflation will not become an issue until the output gap closes. That is because aggregate supply will continue to exceed aggregate demand with the consequence that there will be little, if any, upward pressure on prices of goods and services.

There is a debate going on within the Federal Reserve and among economists about what the size of the output gap is. The output gap shown in **Chart 9** is based upon CBO data. However, if structural unemployment is higher than what CBO assumes, the output gap will smaller than what CBO has calculated. If that is the case and if the FOMC keeps monetary policy easy after the structural unemployment rate becomes binding, this would fuel inflationary pressures because the FOMC would not tighten monetary policy soon enough. CBO believes the current full employment unemployment rate is 5.9%. Moreover, CBO expects that rate to decline to a long-term stable level of 5.5% by 2018. Thus, because the FOMC set its

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threshold unemployment rate at 6.5%, there would seem to be a sufficient cushion to avoid tightening monetary policy too late.

VIII. Fiscal Policy

As of December 17, 2012, after much posturing and little progress, it was revealed that President Obama and Speaker Boehner each had finally offered concessions on tax revenues. However, the deal is not yet done because the negotiating positions on spending still remain far apart. Informed observers continue to believe that negotiations will continue until after Christmas. As the clock ticks down toward year end, there is plenty of incentive on both sides to strike some kind of deal that averts going over the "fiscal cliff" and leaves many details to the new Congress to resolve in 2013. But, this outcome is far from certain and going over the cliff or congressional adoption of some kind of short-term stopgap measure cannot be ruled out.

1. President Obama's Proposal (December 17, 2012)

Tax Policy — Impact Approximately $1.2 Trillion Over 10 Years

- Retain Bush tax rates for incomes below $400,000
- Capital gains and dividends to be taxed at 23.8% including the Affordable Care Act surcharge
- Estate tax rate of 45% with $3.5 million exemption
- $584 billion in increased revenues by limiting deductions such as interest on municipal securities, worker contributions to 401(k) and health cafeteria plans; also limit other deductions (mortgage interest, state and local taxes, and charities) to a 28% tax rate, which means that those in marginal tax brackets above 28% would lose a portion of such deductions.
- Adoption of the chain-weighted CPI for indexing purposes (this would move people into higher tax brackets more quickly over time)
- Payroll tax cut is not extended

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- Permanently extend the alternative minimum tax patch and index it to inflation
- Pass tax extenders (no specifics provided, but the list is well known)

Spending Cuts — Approximate Impact of $930 Billion Over Ten Years

Few details have been provided. Democrats and Republicans still remain far apart on amounts and specifics.

- $400 billion in health programs
- $200 billion in miscellaneous entitlements
- $100 billion in defense spending
- $100 billion in domestic discretionary spending
- $130 billion from adoption of chain-weighted CPI for indexing purposes

Other Proposals — No Specific Estimate of Impact

- New infrastructure spending (probably $50 billion or so that was in the American Jobs Act)
- Two-year extension of debt ceiling
- Delay implementation of sequester required by the Budget Control Act
- End the "Doc Fix" and adopt a permanent way of providing market-based payments to physicians (avoids 30% cut in payments on January 1)
- Extend unemployment insurance benefits but continue to phase them out

Interest Savings on the Public Debt — $290 Billion

President Obama's proposal, other than the oblique reference to savings on health programs, does not address a principal Republican requirement to reform entitlement programs. Also, Republicans are unlikely to agree that

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Obama's proposed spending cuts are sufficient and will not count interest savings on the public debt in calculating the ratio of tax increases to spending cuts. It is generally believed that Republicans will require this ratio to be at least 1:1, which, if true, would require another $250 to $300 billion in spending cuts to get the deal done.

2. Senate Tax Bill

While there is optimism that a deal will get done before year end, the possibility remains that that will not occur. If Congress runs out of time, it seems possible, perhaps likely, that the outgoing Congress would pass the Senate tax bill as a temporary stopgap measure and leave it to the incoming Congress to continue working on details of a "Grand Bargain".

Provisions of the Senate tax bill, which was passed by a vote of 51-48 on July 25, 2012, include:

- Extends Bush tax rates on those earning less than $250,000 for one year
- Limits dividend and capital tax gains rates to 20% (23.8% with Affordable Health Care Act surcharge)
- Patches AMT and indexes it for inflation

None of the other fiscal cliff issues are addressed in the Senate bill. The attraction of passing the Senate bill is that all the House would have to do is accept it without change and it would go directly to President Obama's desk for signature. However, if this is all that Congress ends up doing, the fiscal impact would be $426 billion in 2013 or about 2.5% of GDP, which is much higher than the impact incorporated in all current forecasts of 2013 real GDP growth.

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3. Policymakers Should Be Discussing How to Design Fiscal Policy to Increase the Structural Potential Rate of Real GDP Growth — Unfortunately They Are Not

In an era of high unemployment and low real GDP growth it is surprising to me that there has not been more discussion and debate in academic and policy circles about how to use fiscal policy to boost the structural potential rate of real GDP growth. As I explained in **Section III**, government policies can have an impact on productivity growth, either for better or for worse, and therefore on real GDP growth over time.

There is at least one very cogent discussion of this topic in *American Gridlock — Why the Right and Left Are Both Wrong: Commonsense 101 Solutions to the Economic Crises*, a book written by H. Woody Brock.[3] Brock carefully explains that government fiscal deficits can be "good" *or* "bad". And, some good deficits are better than others. The pertinent part of the book is Chapter 2 entitled: "*Must There Be a Lost Decade? — A Socratic Dialogue with the President Explains Why Not*". I highly recommend that interested readers of this letter read Brock's discourse. In what follows I summarize the key points.

Real Economic Growth — Spending and Income Measurement Approaches. There are two ways of measuring the size and growth in the economy. One way is to add up all spending to determine gross domestic product — GDP. This is the method we are most familiar with. The other alternative is to add up all sources of income to determine gross domestic income — GDI. Remember from the discussion in **Section III** that everyone's spending is someone else's income. This means that total spending, GDP, always equals total income, GDI.

Brock examines each of the components of GDP — consumption, business investment, government spending and net exports — and concludes that under the current policy regime maximum GDP growth over the next ten years will range between 1.5% and 3.0% with a median of 2.25%, which, incidentally, is almost exactly the average value derived by CBO in its ten-year forecast.

It is instructive, according to Brock, to focus on the components of in-

[3] H. Woody Brook. American Gridlock — Why the Right and Left Are Both Wrong: Commonsense 101 Solutions to the Economic Crises, John Wiley & Sons. Inc. 2012.

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come. If policies can be crafted to drive up the rate of growth in income, growth in spending will automatically follow due to the identity that spending must equal income. The question is one of how to accomplish that objective.

Investment — Flawed Government Accounting. Brock argues that the answer to the question of how to boost income growth lies in increasing investment.

Investment spending in a business consumes cash immediately but the benefits of the investment yield cash inflows over an extended period of time. This is recognized in accounting terms by capitalizing the investment and then amortizing its value over its expected useful life. This is a fundamental and noncontroversial principle of accounting — matching revenues and expenditures.

For some reason, government accounting has never accepted this fundamental principle. All government spending, regardless of its nature, is treated as current expenditures. Clearly, this is a fair characterization of much of government spending but it is not a fair characterization of spending on public infrastructure that is identical in nature and impact to business capital investment spending.

This failure by the government to recognize the difference between current expenditures and long-term capital investments means that there is no understanding of the difference between a deficit that results from a boost in current spending and one that results from long-term investments in public infrastructure and capital projects. As the recent congressional and public debate exemplifies, the public has been taught to fear all deficits, regardless of source. Thus, it is not surprising that policy has focused exclusively on reducing the deficit.

What If Government Deficits Are Adjusted to Separately Distinguish the Value of Long-Term Capital Projects? If the government divided cash expenditures into current expenses and capital investments, the government would have a different income statement and balance sheet from the ones that exist today. The amount of Treasury debt financing would not change, but the government balance sheet would show a larger amount of capitalized assets. More importantly, the government's income statement would no longer be based on current cash flows. Expenditures on capital

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projects would be capitalized and amortized over their anticipated useful lives. Over an extended period of time these changes in accounting would not change the reality of long-term accumulation of public debt. However, it would focus attention in the shorter run on types of expenditures, as well as on their short-term and long-term benefits and costs.

For example, if $1 trillion in current spending were proposed on long-term capital projects which thorough analysis revealed would boost the structural potential real rate of GDP growth on a sustained basis, under the current accounting regime serious discussion would terminate quickly because the proposal would simply be viewed as inflating the current deficit. But, if business accounting principles were applied, capital expenditures would be capitalized and would not count against the current reported deficit. Of course, these capitalized amounts would be amortized over their useful lives and could contribute to future deficits. However, and ***this is a very important point***, if these capital expenditures are successful in boosting the structural potential real rate of GDP growth, they will end up paying for themselves through increased tax revenues. This is exactly the principle involved in making investments in private business and in capitalizing them and amortizing the upfront cash outlays over time as the investments produce revenues and positive net cash flows.

Government versus Private Sector Role in Financing Investment. In **Section III** I mentioned that there is clearly a role for the government in investing in public infrastructure projects which would probably not occur if left to the discretion of the private sector. I mentioned the federal highway building and space programs as examples where public investment had long-term benefits which were substantial and clearly fulfilled the objective of boosting the structural potential real rate of GDP growth.

But there is a class of investment projects that could be done by either the private or public sectors. The question then becomes one of how to decide which sector should assume responsibility. There are ***two pertinent criteria*** which can be used to make a determination. The ***first criterion*** is the measurement analysis used in standard business capital budgeting decisions. Does the risk-adjusted expected rate of return on the project have a high probability of exceeding the cost of capital. Typically, the government has a cheaper cost of capital than the private sector, but the private sector should be able to boost expected returns because it is not subject to the kinds of bureaucracy and obstacles to risk taking that exist

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in the public sector.

At first glance, it might seem almost automatic that rate of return analysis should always favor the private sector. However, Brock points out that the derivative beneficial effects of public investment spending that occur well beyond the confines of the immediate project should be considered in the overall assessment. Economists refer to such extended benefits as "positive externalities". Inclusion of such benefits would frequently boost the benefit of public sector stewardship relative to the private sector. That is because there is no incentive for private capital decisions to be based upon benefits to others that have no direct bearing upon the return to the company's owners. There are many examples of the legitimacy of this proposition. One recent extraordinarily compelling example is DARPA's investment in developing the prototype of the internet system which today is radically transforming just about every aspect of business and economic activity. When externalities are included in the analysis the focus will not be on the cost of the project but on the comprehensive expected benefits to society as a whole.

That brings me to the ***second criterion***. There are times when the private sector has limited incentive to undertake significant investment activities. A business enterprise invests when it has high certainty that the project will be successful. When the economy is performing substantially below potential, as it is today, uncertainty about realization of future returns escalates and potential projects tend to be deferred or downsized. In addition, private sector businesses may have greater difficulty securing funding necessary to finance such projects. That also seems to be the case currently, particularly for small and startup businesses.

Public-Private Partnerships. As I mentioned, government tends to be highly risk averse and process bogs down decision making. There is an additional problem of inappropriate political influence. These are not easy obstacles to overcome but these issues are not new. There are many examples of public-private partnerships which have worked quite well. For example, consider the Federal Home Loan Bank System which provides liquidity and other services to member financial institutions and enables small community banks to compete effectively with giant behemoths. Or, consider the Export-Import Bank.

President Obama has proposed a national infrastructure bank which would be capitalized by the federal government. However, governance, fi-

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nancing and project selection and management would be driven through a public-private partnership. The concept makes sense and there are plenty of precedents to provide guidance on how to structure such a bank. The proposed size at $10 billion in capital, however, would not make much of a difference in the larger scheme of things.

Fiscal Multipliers. By now it should be clear that an important reason for the public sector to engage in massive amounts of capital investment is two-fold. First, significant benefits are possible. Second, the private sector often either does not possess the capability or the incentives to undertake certain kinds of investments.

There is another powerful reason to pursue public sector capital projects and that has to do with the concept of the fiscal multiplier. A fiscal multiplier measures the amount of economic activity a dollar of government spending generates in the aggregate. Ideally a fiscal multiplier should have a value of 1.0 or greater which would mean that it generates more economic activity than it costs. Unfortunately, fiscal multipliers frequently have values that are less than 1.0. That is why the argument is often made that taxes should be reduced because of the belief that the private sector could put that dollar to more productive use than the public sector. That, of course, has been the premise behind government austerity programs in Europe. But we know from the European experience and from recent IMF research that fiscal multipliers collectively tend to be greater than 1.0 especially in times of enormous economic slack.

It is also intuitive and research supports this intuition that some types of government spending are more effective at generating aggregate economic activity than other types of spending. **Table 4** shows high and low fiscal multipliers for various types of government spending.

As an aside, you can see in **Table 4** why President Obama has been so insistent on raising tax rates for the wealthy. Even the high estimate of the fiscal multiplier for this group is less than 1.0. It is also obvious why corporate tax rates should be decreased, which is a policy priority of both Democrats and Republicans.

Infrastructure investments generally have high multipliers. The same is true for government purchases of goods and services. A recent and very informative study, "*Highway Grants: Roads to Prosperity*?", prepared by

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Table 4
High and Low Fiscal Multipliers*

Program	High	Low
Government purchases	2.5	0.5
Transfer payments to individuals	2.1	0.4
Transfers to state/local governments for infrastructure	2.2	0.4
Transfers to state/local governments for other uses	1.8	0.4
One-time payments to retirees	1.0	0.2
Extension of first-time homebuyer credit	0.8	0.2
Low to moderate-income tax rate cuts	1.5	0.3
Upper income tax rate cuts	0.6	0.1
Corporate tax provisions	0.4	0.0

*Sources: BofA/Merrill Lynch, CBO

Sylvain Leduc and Daniel Wilson, economists at the Federal Reserve Bank of San Francisco, confirms that federal highway grants have a high fiscal multiplier of 2.0.[4] What is especially interesting in this study is that it finds that there is a relatively immediate benefit and then with a bit of a delay a significant intermediate benefit from highway construction spending. Multipliers for the short-term impact range between 1.5 and 3.0; stem from the aggregate benefits of direct spending on highways and derivative spending by construction workers and vendors; and, peak within 12 to 18 months. Multipliers for intermediate-term benefits are larger and can be as high as 8.0. These benefits are indirect; flow from the benefits of utilizing improved highways; and peak about six years after initial construction expenditures. The authors also examined the initial impact of federal highway grants authorized by the 2009 American Recovery and Reinvestment Act and found that the short-term economic benefits were four times as large as those in their study. They speculate that the reason for this is that infrastructure fiscal multipliers are much greater during times of economic slack than at other times, a finding consistent with recent IMF research.

Concluding Comment. ***The evidence is clear on many fronts. America's infrastructure is aging and reinvestment is inadequate. Government investment in research and education has fallen below historical levels. Obsession with the size of annual federal budget deficits and the burgeoning public-debt-to GDP ratio has focused***

[4]Sylvain Leduc and Daniel Wilson. "*Highway Grants: Roads to Prosperity?*" FRBSR Economic Letter 2012-35, November 26, 2012.

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the public and policymakers on raising taxes and cutting spending. Serious dialogue about the benefits of government investment in research, education and infrastructure is not occurring. As a consequence, these kinds of investments are being cut back and this is contributing to a decline in the potential structural real rate of GDP growth. Until serious attention focuses on this problem and opportunity prospects for improvement in real GDP growth are bleak.

IX. European Prospects

Calm has returned to European financial markets thanks to Mario Draghi's commitment to do "whatever it takes". But, economic conditions continue to worsen and Europe's recession is spreading to the stronger countries and deepening in the weaker ones. The markets are calm because Draghi's "whatever it takes" is understood to mean that the ECB and European Stability Mechanism (ESM) will purchase sovereign debt of troubled Eurozone (EZ) countries. As long as there is a committed "lender of last resort" there is no need for investors to unload toxic sovereign debt.

Thus, the financial crisis has abated. But, virtually nothing has been done to address the underlying structural flaws that plague the European Union (EU) and the EZ. There needs to be a fiscal and transfer union — this is not even receiving serious discussion. There needs to be economic policy integration — again no serious discussion is occurring. And, there needs to be a banking union — an agreement was announced recently with great fanfare but it is woefully inadequate.

As a consequence severe competitive imbalances among the economies of EZ members remain largely unaddressed except for the peripheral countries of Greece, Ireland, Portugal, Spain and Italy. And, in those countries some progress has occurred largely by crushing economic growth and forcing down wages and benefits. Austerity policies are an exceedingly painful way of pursuing improved competitiveness.

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1. European Central Bank's Real GDP Projections

In September the European Central Bank's (ECB) projection for read GDP growth in the EZ for 2013 ranged from -0.4% to 1.4%. In December the ECB slashed its projections by almost a full percentage point to -0.9% to 0.3%.

2. Economist Magazine — France "The Time Bomb at the Heart if Europe"

According to the *Economist Magazine*, France's principal problem is that it is steadily becoming less competitive relative to Germany. The public-debt-to-GDP ratio exceeds 90% and is climbing. Businesses are burdened by high taxes. Few new companies have been formed in recent years and little innovation is occurring. France's banks are heavily exposed to the debt of struggling peripheral countries. The magazine speculates that crisis could hit France during 2013 and suggests that France, not Spain or Italy, may be where the fate of the euro is determined.

Moody's seems to agree as it recently downgraded French sovereign debt, citing the country's chronic structural impediments to growth.

3. U.K.'s Experiment With Austerity Is Not Working Out As Hoped

David Cameron's Conservative-Liberal coalition government intentionally pursued an austerity policy to shrink the U.K.'s fiscal deficit by 3%. 2012 GDP growth was forecast in the 2011 budget to be 2.5% but will probably end up being -0.1%. Lack of growth has depressed tax revenues with the consequence that the U.K. fiscal deficit will shrink only 1 billion from 121 billion in 2011 to 120 billion in 2012.

Forecast real GDP growth for 2013 has been reduced from 2.0% to 0.8%.

However, unemployment is slightly better than expected. But this seemingly good news result has a very bad explanation. Worker output per hour would be 15% higher today if pre-2008 productivity growth had been main-

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tained.

So much for the efficacy of austerity!

4. EU's Much Ballyhooed Banking Union Is Woefully Inadequate

Europe's newly announced banking union is woefully deficient yet its announcement on December 13th elicited great optimism. Bank customers can freely move euro deposits to any EZ financial institution. If there is concern about the solvency of a bank, deposits can simply be transferred. At the height of the Spanish banking crisis billions of euros left Spain. Through the Target2 clearing system and ECB liquidity facility potential liquidity problems were avoided.

Properly designed, the EU banking union should look like the U.S. banking system. There are three components to a well-structured banking union: supervision of all banks by the same supervisor (the U.S. has multiple supervisors — Federal Reserve, Comptroller of the Currency, Credit Union Administration and states — but coordination is reasonably effective, but not perfect); deposit insurance; and resolution of failed banks.

For starters the EU banking union has no deposit insurance and no failure resolution mechanism. This means that if the ECB decides to close a supervised bank, it will have to work with the country in which the bank is chartered to implement closure. To say the least, it promises to be a messy affair. The reason deposit insurance and failure resolution is missing is that its existence would make all EU countries jointly liable for the costs of closing a bank. Obviously, since it is absent, the EU collectively is not yet ready to assume responsibility for the problems of individual banks. Deposit insurance has the same effect as debt mutualization, which Germany, in particular, has resisted. However, an effective fiscal and transfer union would have both features.

Thus all that is left in the banking union is supervision. There are about 6,000 banks in the EU which could be supervised by the ECB. Germany strongly objected to including all banks and eventually prevailed. Only about 150 to 200 of the largest banks with assets above €30 billion will be part of the banking union.

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Large banks in the 17 EZ countries are automatically covered. The other 10 EU countries which have not adopted the euro may at their discretion chose to include their large banks. The banking union will be called the "Single Supervisory Mechanism". The European Banking Authority, which is based in London, will continue to be in charge of establishing common banking rules for banks in the 27 EU member countries.

So, the ECB will be the supervisor for most, but not necessarily all large EU banks. But, it will not have authority to write rules. Also, the ECB's enforcement powers as supervisor have yet to be spelled out.

All I can say is that as convoluted as the U.S. bank regulatory and supervisory system is, it seems to be relatively uncomplicated compared to what the Europeans have dreamed up. It will be interesting to see how Europe's banking union works in practice and whether it will have any practical impact in addressing Europe's financial system problems.

X. Outlook for China

GK Dragonomics summed up the current economic situation in China in its quarterly chartbook as follows:

- The worst of the slowdown is over, as most growth indicators have steadied. November data for inflation, retail sales and fixed asset investment were all better than expected, but export and import growth at 2.9% and 0%, respectively year over year, were worse than expected.
- However, recovery from the recent slowdown in growth is likely to be subdued.
- Given the structural constraints on debt-driven stimulus, aggressive measures to support growth are unlikely unless there is another sharp deterioration.
- Yet conditions for a strong rebound are not yet in place, given the continued overhang of inventories domestically and sluggish demand globally.
- Employment and wage growth has been softening and will lead to slower growth in consumption during 2013.

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- Housing sales are rising, but this will not immediately translate into a boost to new construction. In fact, completions after rising about 7% in 2013 are likely to fall 4% in 2014.

This analysis suggests that a hard landing is no longer a serious or imminent possibility. However, it also implies that China will not have as great an impact in galvanizing global growth in coming months as it has over the last three years.

President Xi Jinping and Premier Li Keqiang, the new Chinese leadership, have begun their terms, but no significant policy changes appear to be in store in the short run for dealing with the economic situation.

In a memo and speeches to lower-level officials at the recent annual Central Economic Work Week Conference, the official growth goal for 2013 was cast in somewhat more moderate language — "sustained and healthy" compared to "stable and relatively fast". Specific reference was made to avoiding redundant investment in public infrastructure. China watchers interpret this change in nuance as meaning no significant additional infrastructure spending is in the works and a somewhat slower growth rate in GDP is expected and acceptable. Although the language was oblique, the leadership message appears to be one of setting the stage for eventual identification and implementation of economic reforms that transition the economy from reliance on exports and high infrastructure spending to a greater focus on domestic consumption and innovation. For example, the memo states that one of the goals in 2013 will be to "propose a clear overall plan, roadmap and timetable" for economic reform.

Most likely it will take several months to develop plans for specific economic reforms. But, there are some obvious areas for inclusion.

First, financial markets need to be developed to improve the efficient pricing of capital and place competitive pressure on banks. This needs to include ways of encouraging banks to make reasonably priced loans available to smaller private businesses which currently rely on family members for financing or must go to high-cost money lenders.

Second, the financial and economic power of state owned enterprises needs to be reduced.

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Third, the cozy relationship between local governments and local businesses, which tends to curtail competition, needs to change.

Fourth, the propensity of local governments to encourage excessive construction of manufacturing capacity and high-priced real estate needs to be curtailed.

Fifth, an array of prices needs to be determined by market forces rather than be established through administrative processes to assure more efficient allocation of resources. Administered prices have subsidized capital-intensive infrastructure projects and provided unreasonably cheap funding.

Deeply entrenched interests and embedded corruption within the Communist Party will be powerful obstacles to successful implementation of these economic reforms. There has been much debate about whether Chinese leaders can orchestrate the necessary reforms in a timely manner. If they cannot, then the Chinese economy will eventually stagnate just as the Japanese economy has. But, it is far too early to assume that such an outcome is inevitable. Market forces are powerful directors of behavior and once unleashed they will take on a life of their own. Thus, the key to whether the transformation of the Chinese economy occurs will depend upon the extent to which the new leadership can implement some significant economic reforms in coming months.

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