Our Perspectives:
Commentary on the economy & regulatory policies affecting financial companies

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The Longbrake Letter[*]

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I. U.S. and Global Economies Continue to Weaken Gradually

Nothing particularly dramatic occurred in June . . . for better or for worse. European authorities avoided a potential banking crisis, but fundamental problems remain unaddressed. In the U.S. the June employment report disappointed modest expectations, signaling an economy stuck in low gear. News from emerging economies was slightly better, but not sufficiently so to reverse the global trend toward slower growth.

These trends leave me with a very uneasy feeling about future prospects. When policy intervention has little apparent lasting positive effect and when the balance of risks is weighted to the down side, it is hard to be optimistic and easy to worry that Nouriel Roubini's forecast of the "Perfect Storm", which he expects will inundate the global economy in 2013, will prove prophetic. As a reminder, Dr. Roubini's forecast of the 2007-08 global financial and economic crash was not only solidly on the mark but also made years in advance.

In this month's letter, I begin with a discussion of how governments, particularly those in the U.S. and Europe, continue to apply policy initiatives to deep-seated economic imbalances and why these initiatives have had limited effectiveness. This is followed by a review of recent developments in U.S., including GDP growth, personal income, consumption, employment and monetary policy. The next section updates the deteriorating situation in Europe and why the policies announced following the recent European Union summit meeting on June 29 are unlikely to do much more than buy

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

a little time. The final section includes a short update on developments in China.

II. Policy Responses of Governments To Enormous Global Economic Imbalances Appear To Be Making Little Headway

1. Government Policy Initiatives

In our increasingly integrated global economy, loss of momentum in one sector or country leads to loss of momentum in another sector or country. We are an increasingly interconnected global economy. Problems in one part of the globe are transmitted to other parts of the globe though trade relationships and international financial networks. The same can be said for government policy initiatives. Thus, each time a major government acts to stimulate its economy, global stock markets rally in anticipation of better times to come. But, increasingly, these rallies have been short-lived.

Global policymakers eased monetary conditions just about everywhere during June and early July. The Federal Reserve extended Operation Twist through the end of 2012. China, Brazil and the European Central Bank (ECB) cut interest rates. The Bank of England announced another round of quantitative easing. Global interest rates — both short-term and long-term — continue to fall to unprecedented low levels.

However, even as stock markets rallied temporarily there were doubts about the effectiveness of monetary stimulus at very low interest rates. Moreover, tighter credit conditions and bank capitalization problems have clogged monetary policy transmission channels, limiting potential favorable impacts of lower interest rates on economic activity.

In response to high debt burdens, fiscal policy continues to tighten most everywhere, offsetting much, if not all, of monetary stimulus. Many European governments continue to cut spending and raise taxes in an attempt to cut government budget deficits. However, these actions along with banking problems have fostered recessions in many European countries. As European economies shrink, debt burdens fall less rapidly and are actually rising in countries such as Greece, Spain and Italy. Thus, much of Europe is in the throes of a negative debt-deflation feedback loop in which the intended cure of reduced government spending and higher taxes actually serves to make the debt burden problem worse — not better.

While no new fiscal policy initiatives have occurred in the U.S., cutbacks in transfer payments and in state and local spending continue. In addition, uncertainty about the impending fiscal cliff at year end appears to be dampening business hiring and investment.

Although many expect China to increase infrastructure spending as it did in late 2008, there is not yet evidence of anything significant.

2. Treating the Patient — Palliative Cures Can Make the Patient Feel Better While the Disease Worsens

Macroeconomic theory posits that policymakers can adjust monetary, fiscal and regulatory policies to moderate/eliminate imbalances and guide an economy to a stable and sustainable growth trajectory. However, theory presupposes that imbalances are cyclical and temporary. When imbalances become structural and deeply embedded, policy actions can appear to result in stabilizing growth — palliative cures — while simultaneously exacerbating underlying structural imbalances — the disease worsens.

Increases in government spending and decreases in taxes stimulate demand and bolster growth. But, this intervention is not without consequence — the sovereign debt-to-GDP ratio usually rises. Then, as economic growth accelerates, if government spending is reduced and taxes are increased, the debt-to-GDP ratio should fall. Ideally, policy intervention over the cycle mutes cyclical swings in economic activity and results in a stable debt-to-GDP ratio over the entirety of the cycle.

Unfortunately, actual experience has diverged from this theoretical ideal. It is easier for politicians to increase spending and cut taxes in bad times than to reverse these actions during good times. Thus, the tendency in many nations has been for the debt-to-GDP ratio to rise from cycle to cycle.

When the debt-to-GDP ratio is low, even though it is in a rising trend, there are no immediate significant consequences. The cost of servicing the increasing debt load can be financed through additional borrowing. This is the palliative cure, but this cure worsens the disease. However, the disease has not yet progressed to the point where it becomes irrevocably debilitating.

But, as the debt-to-GDP ratio steadily increases, ever increasing doses of policy intervention are necessary to stabilize the economy. And, the debt-to-GDP ratio increases at an ever increasing rate. The disease worsens but the symptoms are still masked by policy interventions.

Eventually, the debt-to-GDP ratio grows to a level at which policy intervention at best is insufficient to resuscitate economic growth and at worst leads to potentially catastrophic financial and economic crises. In the best case, growth languishes at a low level for many years accompanied by a high unemployment rate and little real growth in consumer incomes and spending. This aptly describes the present state of the U.S. economy. In the worst case, growth crashes and results in an extremely high rate of unemployment and a dramatic decline in the standard of living. This is what has happened in Latvia and is currently happening in Greece. Increasingly, it appears that Spain is headed toward a worst case outcome.

Although the discussion above focuses on the long-term consequences of a rising sovereign debt-to-GDP ratio, it would be misleading to focus exclusively on this measure of debt. Economies consist of four sectors — government, households, business, and rest of the world (exports minus imports). Economic activity in all four sectors is facilitated by credit. Just as too much debt can become a debilitating problem for governments, the same holds true for the other three economic sectors. In fact, it is the aggregate indebtedness of the economy as a whole that ultimately matters. A high sovereign debt-to-GDP ratio is less consequential when debt burdens in the other three sectors collectively are at very low levels. A case in point is Japan which has an extraordinarily high sovereign debt-to-GDP ratio but an offsetting extremely low household debt-to-GDP ratio.

3. Hyman Minsky's Financial Instability Hypothesis

Hyman Minsky's "***financial instability hypothesis***" explains why the level of aggregate debt in an economy relative to its GDP matters.

Credit creation is crucial to financing economic growth. Too little limits economic growth; too much can limit and retard growth and in the extreme results in financial collapse and depression.

Minsky defines three levels of credit creation. The first, called "***hedge financing***", occurs when borrowers have the ability to meet their contractual debt payments of interest and principal through cash flows generated by activities financed by the loan. The second, called "***speculative financing***", occurs when cash flows are sufficient to cover interest on the debt but insufficient to repay principal, thus requiring repeated refinancing of the debt. The third, called "***Ponzi financing***", occurs when cash flows are insufficient to cover either interest or principal payments on the debt so that debt and interest must be refinanced and the amount of the debt constantly grows.

Unless regulation intervenes there is a natural tendency for credit creation to progress over time from hedge to speculative to Ponzi. One can easily see how this progression unfolded during the housing bubble. Economies and financial systems are stable when credit creation is limited to hedge financing. However, fragility builds as speculative financing takes hold. And, when Ponzi financing emerges it is only a matter of time before a Minsky moment arrives when forced selling of overvalued assets causes the financial system to implode.

Credit finances investment. Investment booms generate increasing cash flows which tend to validate the belief that credit extension is squarely of the hedge variety. However, rising real asset prices (collateral values) and ever increasing optimism can lead over time to financing, which is believed to be hedge financing but is really speculative financing, based on increasingly optimistic forecasts of cash flows and rising collateral values. Margins of safety, such as risk spreads, contract over time. Shrinking risk margins convey the illusion of reduced riskiness but also stimulate increasing use of leverage to obtain desired rates of return.

Although Minsky's financial instability hypothesis addresses household and business sector credit creation, the sequence from hedge to speculative to Ponzi financing is equally applicable to the government and rest of the world sectors.

Government ***hedge financing*** occurs when the budget deficit is near zero. ***Speculative financing*** occurs when there is a budget deficit but it is smaller than interest payments on the debt as a percentage of total outstanding debt (average nominal interest rate). The transition from hedge to speculative financing occurs progressively from a zero budget deficit to the point at which the budget deficit just equals the nominal interest rate on government debt. (See **Test 1** in **Table 1**.) ***Ponzi financing*** occurs

Table 1
Tests of Whether U.S. Government
Debt Held By the Public is Hedge, Speculative or Ponzi Financing

	Test 1 — Budget Deficit < Debt Interest Rate			**Test 2 — GDP Nominal Growth > Debt Growth**		
Date	Budget (Surplus) Deficit	Debt Interest Rate	Minsky Financing Category	GDP Nominal Growth Rate	Govt. Debt Growth Rate	Minsky Financing Category
2000	-2.37%	6.45%	Hedge	6.51%	-6.14%	Hedge
2002	1.47%	5.53%	Spec	3.85%	6.40%	Ponzi
2004	3.46%	4.54%	Spec	6.06%	9.77%	Ponzi
2006	1.85%	4.90%	Spec	5.53%	5.26%	Spec
2008	3.16%	4.81%	Spec	1.90%	15.04%	Ponzi
2010	8.86%	3.26%	Ponzi	4.92%	19.48%	Ponzi
2012[a]	7.77%	2.99%	Ponzi	3.93%	13.19%	Ponzi

[a]May 2012

when the budget deficit is larger than the nominal interest rate.

Using an alternative measure (**Test 2** in **Table 1**), involves comparing the nominal growth rate in GDP to the growth rate in government debt. ***Hedge financing*** occurs when government debt is shrinking. ***Speculative financing*** occurs when debt is increasing at a slower rate than nominal GDP growth. ***Ponzi financing*** occurs when the growth in government debt exceeds the nominal growth rate in GDP.

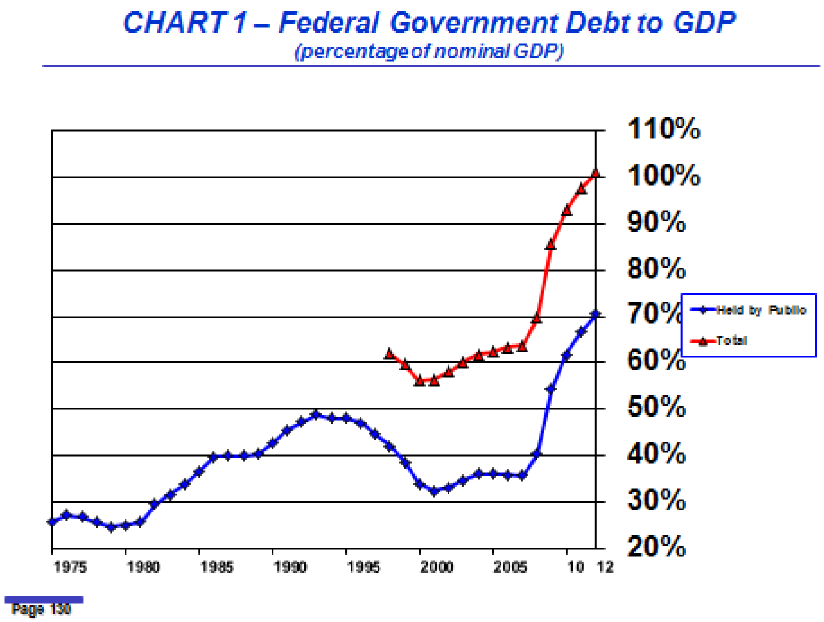
Both measures indicate that hedge financing occurred during fiscal year

2000, which was the last full year of the Clinton presidency. By 2002 and 2004, the Bush tax cuts had pushed the budget into deficit. **Test 1** indicates that government financing moved into the speculative category, but **Test 2** indicates Ponzi financing because the nominal growth in government debt exceeded the nominal growth in GDP, which means that the debt-to-GDP ratio was growing during this time period. From 2000 to 2004 the public-debt-to-GDP ratio rose from 34.0% to 36.1% and the total-debt-to-GDP ratio rose from 56.2% to 61.8%. By the end of fiscal year 2006 economic growth helped shrink the size of the budget deficit and both measures indicated that government financing was speculative. Since 2008 both measures are solidly and unambiguously in the Ponzi financing category.

4. Publicly Held Government Debt, Measured Total Government Debt and Unmeasured Total Government Debt

There are two published measures of U.S. government debt — debt held by the public and total debt. Total U.S. debt includes intergovernmental debt of which the largest single component is the social security trust fund. As of May 2012, total debt equaled $15.8 trillion, or 101.1% of GDP, and publicly held debt was $11.0 trillion, or 70.5% of GDP. (See **Chart 1**.) For the most part, markets focus on the lower figure — Treasury debt held by the public. Intergovernmental debt is an accounting book entry number which recognizes taxes collected in excess of current obligations to fund various programs such as social security and Medicare. These excess funds are invested in phantom U.S. Treasury securities. The cash actually collected has been diverted to reduce the amount of funds that need to be borrowed from the public. In effect federal trust fund taxes have financed the U.S. government general operating deficit rather than being set aside as cash reserves as is the practice for private and state and local pension funds.

Actually, in truth the government debt-to-GDP ratio is even worse. Actuarial studies of social security and Medicare trust fund solvency indicate that projected tax revenues will be insufficient to cover statutorily mandated benefits over the longer term. Adding the present value of these shortfalls would increase the total-government-debt-to-GDP ratio to a level significantly above 101.1%. If Congress does not adjust taxes or benefits for entitlement programs, under its "Extended Alternative Fiscal Scenario", the Congressional Budget Office (CBO) estimates that U.S. Treasury debt



held by the public will rise from its current level of 70.5% to 90% in 2022 and 199% by 2037.[1]

5. Excessive Debt Leverage

Excessive debt leverage is the fundamental problem underlying global economic and financial fragility and instability. Even countries, such as China and India, which have low sovereign debt-to-GDP ratios, are part of the problem because so much of their rapid growth is being fueled by investment booms reliant on enormous amounts of debt financing.

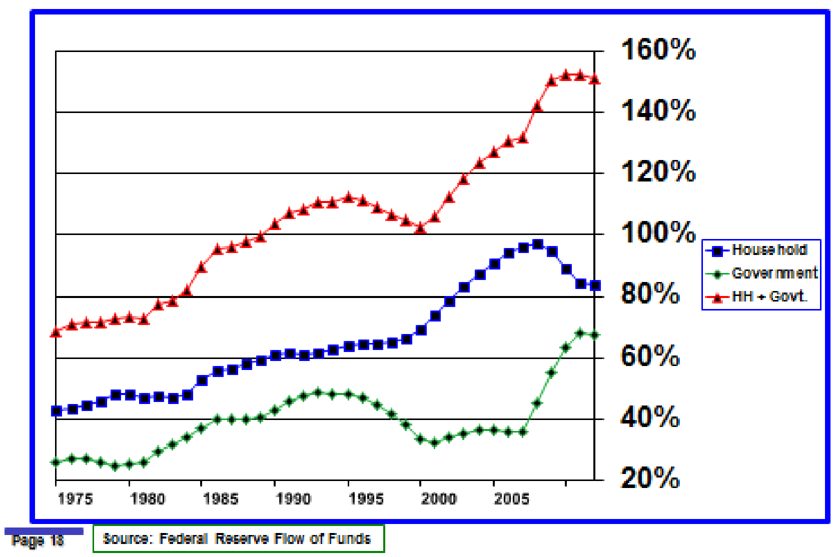
In short, there is far too much debt. We know from experience and Hyman Minsky's theoretical work that when debt reaches excessive levels, financial shocks become more frequent and their consequences are more severe. Much of the globe, in particular the U.S. and Europe, are in the process of debt deleveraging. This process is inherently deflationary and depresses economic activity which increases the pain inflicted by deleveraging.

[1] "The 2012 Long-Term Budget Outlook." Congressional Budget Office. June 2012.

Markets tend to oversimplify the problem of excessive debt leveraging by focusing only on individual sectors. Right now the focus is primarily on sovereign government indebtedness. But this ignores the consequences of leverage throughout the economy including households, businesses, government agencies and regional governments. It is the collective amount of debt across all sectors that is relevant and when this amount is high relative to GDP it creates instability.

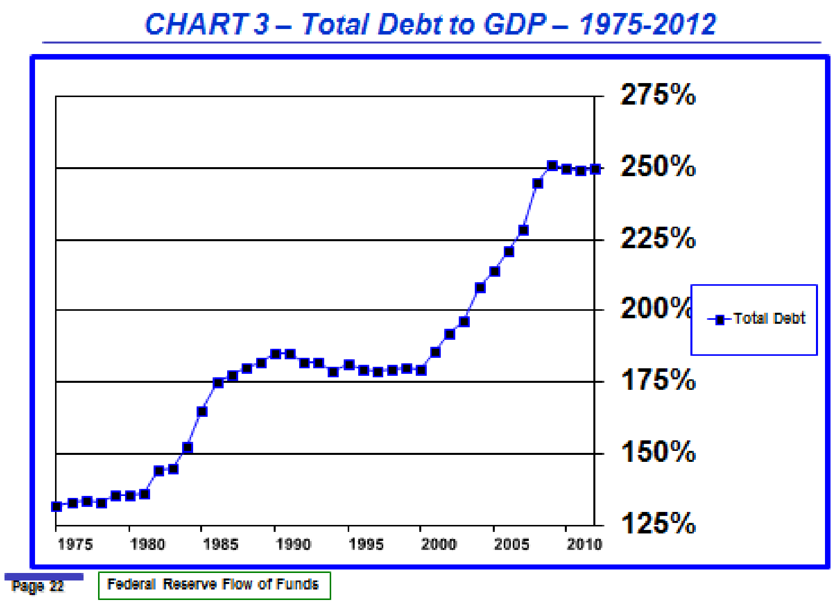
As can be seen in **Chart 2**, the problem in the U.S. began with excessive

CHART 2 – Household and Fed. Govt. Debt to GDP



leverage in the household sector. Leverage exploded to an even greater extent in the financial sector. Since the financial markets meltdown in 2008 both sectors have been deleveraging. That has depressed GDP growth. However, in an effort to stimulate the economy and to ease the pain for households, as can be seen in **Chart 3**, leverage in the entire economy has not decreased because the reduction in household and financial sector debt simply has been transferred to the government's balance sheet. The problem is still very much present. We refer to it as the "fiscal cliff". And the moment of truth will hit with a vengeance after the November elections.

U.S. policymakers will be tempted to extend at least part of the "fiscal



cliff" events to the future. But, no matter what the politicians end up doing we most certainly are in for a period of forced austerity, which will be greater or lesser depending upon Congressional action, but is unlikely to be zero. All of this will depend upon the outcome of the elections and political negotiations yet to come.

In the meantime uncertainty about what the future holds and what politicians will end up doing, or not doing, is having a chilling effect on household and business decision making. The deleterious effects of uncertainty in the U.S., Europe, China and elsewhere seem likely to increase as the year progresses. With this in mind it is difficult to be very optimistic about growth in the U.S. and global economies. While recession is not a certain outcome, the risks are great and the possibility of policy errors is significant. So, it would be foolhardy to discount the recession possibility even though it seems to be a low probability event at the moment.

III. U.S. GDP

U.S. GDP growth continues to disappoint all but the most pessimistic forecasters. Even the Federal Reserve with its legions of trained economists has been forced to slash its growth forecast. At its June meeting the Federal Open Market Committee (FOMC) lowered its central tendency GDP growth forecast range for 2012 from 2.4% to 2.9% to 1.9% to 2.4%. Even this revision may well prove to be too optimistic. Growth of GDP at 2.0% or less is insufficient to reduce unemployment; it fosters slow growth in consumer incomes and spending; it keeps downward pressure on inflation; and it slows the important process of debt deleveraging.

1. 2012 Q1 GDP Final Estimate

The "Final Estimate" of first quarter GDP growth was 1.88% — little changed from the preliminary estimate. However, final sales, which nets out the impact of inventory accumulation, increased from 1.65% to 1.78%. Generally speaking, real final sales growth is a better measure of how the economy is doing because inventory accumulation tends to be volatile from quarter to quarter. This measure indicates that economic growth lost a bit of momentum during the first quarter of 2012 compared to 2011's rather weak performance.

Because the Congressional Budget Office (CBO) estimates that GDP growth potential currently is 1.7%, the GDP output gap was virtually unchanged at 5.5% from the fourth quarter of 2011 to the first quarter of 2012.

Personal consumption expenditures and inventory accumulation were revised downward by a combined 0.27%. Offsetting this was an increase of 0.30% in private investment, almost all of which was in nonresidential structures and business equipment and software, and net exports. Notwithstanding the better private investment data, business investment has decelerated sharply from 2011's strong growth pace.

Table 2 provides details of the composition of GDP growth.

Impact of Auto Production and Sales. Auto production and sales were very strong in the first quarter and accounted for nearly 60% of first

Table 2
2012 First Quarter GDP Growth

	Advance Estimate	Preliminary Estimate	Final Estimate	2011
Personal Consumption	2.04%	1.90%	1.74%	1.53%
Private Investment				
Nonresidential	-.22%	.20%	.32%	.79%
Residential	.40%	.41%	.42%	-.03%
Inventories	.59%	.21%	.10%	-.21%
Net Exports	- .01%	-.08%	.10%	.06%
Government	-.60%	-.78%	-.80%	-.44%
Total	**2.20%**	**1.86%**	**1.88%**	**1.70%**
Final Sales	**1.61%**	**1.65%**	**1.78%**	**1.91%**

quarter GDP growth. Replacement of aging vehicles was a significant factor contributing to the surge in auto production and sales. During the first four months of 2012, annualized car sales were on a pace to exceed 14 million. Sales dipped to13.8 million in May but rebounded slightly to 14.05 million in June.

Growth in consumer expenditures on cars has outpaced income growth which means that consumers have had to dip into savings. Since the beginning of 2011 the consumer saving rate has fallen from 5.24% to 3.91% in May.

So, while new car buying buoyed first quarter GDP growth and the need to replace aging vehicles should continue to support buying, consumers are increasingly in a difficult position. Income simply is not growing fast enough to accommodate replacement purchases and the purchase of other consumer necessities. For the time being access to credit and reduced saving have made auto sales the one bright spot in GDP growth. This cannot continue unless income growth picks up and that is not happening.

One forecast pegs consumer auto purchases contributing 0.3% to second quarter GDP growth and 0.4% to third quarter growth. Ward's survey of domestic auto production indicates that planned production will fall from an annual rate of 10.5 million vehicles in the second quarter to 10.3 million in the third quarter.

Residential Investment. Residential construction has bottomed and grew at an annual 18.6% rate in the first quarter, compared to 1.1% and 11.2% in the third and fourth quarters of 2011. While this development is encouraging, residential construction accounts for only 19.0% of fixed investment spending and 2.6% of GDP. This improvement, by itself, is not a game changer.

Nonresidential Investment. Business investment spending, which was the star of GDP growth in 2011, decelerated sharply during the first quarter. Equipment and software, which accounts for 63.8% of fixed investment spending, grew at a 3.5% annual rate in the first quarter compared to 14.3% and 7.3% in the third and fourth quarters of 2011, respectively. This decelerating growth trend is troublesome for future GDP growth prospects.

Government Spending. The decline in government spending on goods and services continues unabated. While most of the decrease in government spending during the first quarter stemmed from declining national defense spending, state and local governments decreased spending for the seventh consecutive quarter. As the nation approaches the "fiscal cliff" at the end of 2012, it seems more likely than not that government spending on goods and services will continue to contract. This negative momentum is compounded by shrinking government transfer payments to households.

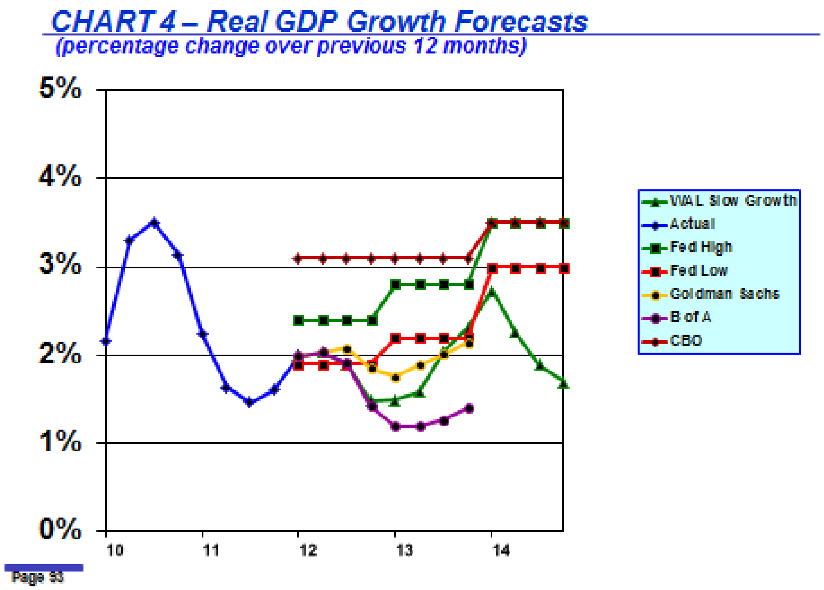
2. 2012 Q2 GDP Estimates

- GS's tracking estimate is currently 1.5%
- B of A's forecast is 1.6%

Second quarter GDP growth tracking estimates are considerably lower than original forecasts and reflect a preponderance of below expectations data reports.

3. GDP Forecasts for 2012 and Beyond

Chart 4 shows several GDP forecasts: the Federal Reserve's high and low;



Bank of America/Merrill Lynch (B of A); Goldman Sachs (GS); the Congressional Budget Office (CBO); and my "WAL Slow Growth" scenario.

FOMC projections for real GDP growth were revised sharply lower in June to a range of 1.9% to 2.4% in 2012. The FOMC also lowered the GDP growth ranges in 2013 and 2014, and still expects steady improvement. CBO's projection was made early in 2012 and has not been revised.

Both GS and B of A forecasts remain on the pessimistic end of the spectrum and are similar to the FOMC's revised low forecast for 2012. Both forecasts, particularly B of A's, are below the Fed's revised low projection for 2013.

GDP growth averages 2.0% for the next seven quarters in GS's forecast and 1.5% in B of A's forecast compared to the FOMC's median of approximately 2.3% and CBO's 3.1%. The consensus of 54 members of the National Association of Business Economists is that GDP growth will average 2.6% over 2012 and 2013 (2.4% in 2012 and 2.8% in 2013). The recently updated Blue Chip consensus forecast now expects growth to be just 2.0% in 2012. The International Monetary Fund (IMF) recently lowered its U.S.

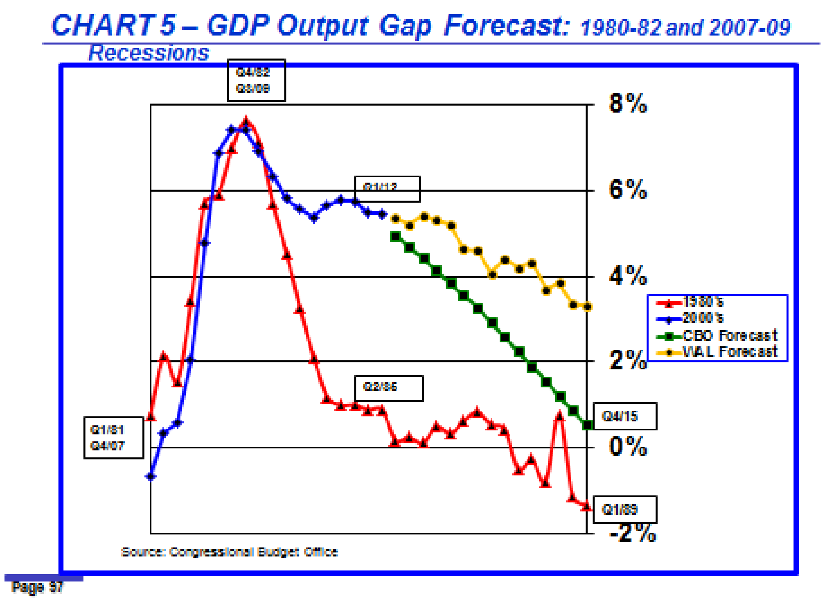
GDP growth forecasts to 2.0% in 2012 and 2.25% in 2013.

My "WAL Slow Growth" scenario projects GDP growth in 2012 similar to the B of A forecast and between the GS and B of A forecasts in 2013. Average GDP growth over the next seven quarters for the "WAL Slow Growth" forecast is 1.8%.

Essentially, GS and I do not factor in a material change in growth momentum during the remainder of 2012. B of A places a much greater emphasis on the negative impact on GDP growth it expects as uncertainty builds because of the approaching "fiscal cliff" at year end.

4. GDP Output Gap and Potential GDP

Chart 5 shows CBO's forecast for the GDP gap, which is simply the differ-



ence between CBO's real GDP forecast and its estimate of potential GDP divided by potential GDP. The gap does not fully close until the end of 2015. CBO's estimate is consistent with the FOMC's monetary policy to maintain interest rates at exceptionally low levels until late 2014.

However, if the B of A, GS and my GDP growth projections, which are lower than CBO's, turn out to be more accurate, the GDP gap will close more slowly, perhaps much more slowly, as shown in the "WAL Forecast" in **Chart 5**.

Potential GDP growth depends on labor force growth and labor and capital productivity. If CBO's assumptions turn out to be optimistic, then its estimates of potential and actual GDP growth will be too high. My estimate of future productivity growth is about 1.5% compared to CBO's 2.1%. Over time this differential leads to much slower growth in potential and actual GDP. In addition, my forecast assumes slower employment growth, which is why the GDP output gap closes more slowly in my forecast than in CBO's forecast.

If my more pessimistic forecast for the closing of the GDP output gap turns out to be on the mark, there would be greater downward pressure on inflation for a longer period of time and the FOMC would maintain interest rates at an extremely low level well beyond the end of 2014.

IV. Consumers

1. Personal Income, Disposable Income and Spending — Recent Trends

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 tells will be the same story several months hence. For example, in May the Bureau of Economic Analysis (BEA) released April income data and revised monthly data back to October 2011. The revisions were substantial and negative. As a result, the 2011 increase in nominal personal income decreased $72.8 billion (-12.6%) from $576.7 billion to $503.9 billion. Growth fell from an originally reported 4.57% to 3.99%. Disposable income decreased $58.8 billion (-15.2%) and growth was revised downward to 2.88% from 3.39%. These were extremely large negative adjustments.

There were no revisions to consumer expenditures in 2011 which means that the entire decrease in disposable income was subtracted from saving. Saving is not calculated separately; rather it is the residual difference between disposable income and consumer outlays. Consumption grew $100.5 billion more than disposable income in 2011, which means that saving decreased by a similar amount.

In June the BEA revised January — April 2012 data. Personal income and disposal income data were revised up slightly; personal outlays were revised down slightly. Collectively these revisions raised the personal saving rate.

Consumption grew at an annualized rate of 3.97% during the first five months of 2012 — exactly the same growth rate as in 2011. However, growth in disposable income was a smaller 3.27%. Thus, households are maintaining consumption growth. But, as is evident in **Table 3**, increases in consumer

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

	Nominal 2011*	Pct. Change	Nominal 2012 Jan.-May.**	Annual Pct. Change
Personal Income	**$503.9**	3.99%	**$206.0**	3.77%
Compensation	321.1	3.99%	97.4	2.79%
Proprietors' Income	36.0	3.32%	23.7	5.07%
Rental Income	80.2	22.61%	23.5	12.97%
Asset Income	22.0	1.25%	59.7	8.01%
Government Transfers	- 13.6	-0.58%	18.4	1.89%
Less: *Personal Taxes*	118.4	5.28%	63.4	6.45%
Disposable Income	**327.4**	2.88%	**159.4**	3.27%
Less: *Consumption*	**427.8**	3.97%	**185.7**	3.97%
Personal Saving	**-100.5**	-17.01%	**-26.2**	-12.82%

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

spending continue to exceed increases in disposable income, resulting in reduced personal saving.

More data revisions will occur in July when the BEA conducts annual benchmarking. So it is still possible that the 2011 and 2012 data could show better or worse growth in income, consumption and saving.

Unfortunately, these data imply that the improvement in unemployment over the last 17 months has been driven to a great extent, not by income growth, but by increased borrowing and reduced saving. This pattern cannot be sustained. Either disposable income growth must accelerate in 2012 or consumer spending must eventually slow. Given the current fragile state of the economic recovery, a slowdown in consumer spending would be very damaging.

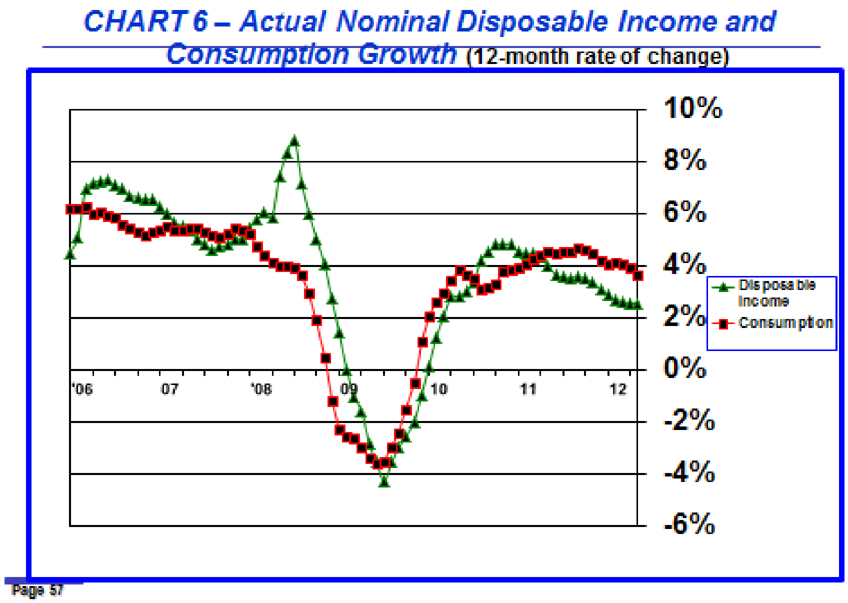
There are two very troubling facts embedded in the 2012 data. First payroll and personal taxes are growing more rapidly than disposable income (6.45% versus 3.27%). Second, consumer spending is growing at a faster rate than disposable income. Unless income growth accelerates, which is very doubtful given sluggish employment and wage growth, sustained spending growth at this level would reduce the saving rate to 3.5% by the end of 2012 compared to 4.2% in December 2011.

None of this bodes well for future consumer spending or GDP growth.

2. Disposable Income and Spending — Long-Term Relationship

Chart 6 shows the nominal rate of growth in disposable income and consumer spending from 2006 to the present. The annual rate of growth in disposable income began slowing in late 2010 and has declined from its recent high of 4.9% in December 2010 to 2.6% in May 2012. Growth in consumer spending peaked later at 4.6% in July 2011, but now is declining and reached 3.7% in May 2012. These are not favorable trends.

Notice in **Chart 6** that spending growth tends to lead income growth. This relationship is consistent with changes in consumer confidence. When confidence declines consumers reduce spending in anticipation of harder

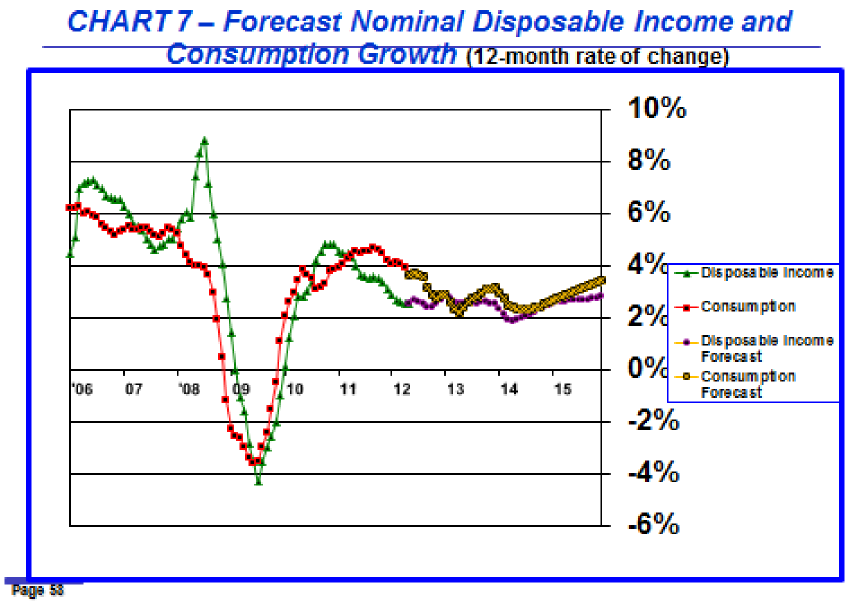


times ahead. To a certain extent such anticipation can be self-fulfilling.

However, over the last several months the relationship has reversed, with income growth leading spending growth. This reversal suggests that consumers are trying to maintain their standard of living in spite of slowing income growth. Prior to the April, May and June employment reports there was some reason to hope that income growth would pick up. Now a more likely outcome seems to be a decline in spending growth to match the lower growth rate in income.

3. Disposable Income and Spending — Forecast

Chart 7 shows the forecast growth rate for nominal disposable income and consumption through 2015 based on my "Slow Growth" forecast. The forecast projects a decline in nominal spending growth and convergence to the growth rate in nominal disposable income by early 2013. Thereafter, both growth rates remain mired at low nominal levels ranging between 1.9% and 3.4%. This is considerably below the average growth rate of approximately



6% between 1985 and 2007. This significant decrease is due in part to a fall in the inflation rate, in part to slower population growth, and in part to lower productivity growth. Of these three factors lower productivity growth is the most important because it signals slower improvement in the standard of living.

4. Federal Reserve's 2010 Survey of Consumer Finances

Every three years the Federal Reserve conducts a comprehensive survey of household financial conditions. Data comparisons from the 2007 and 2010 surveys bridge the Great Recession. The story the data tell is not a pretty one:

- Adjusted for inflation median household income fell 7.7%.
- The proportion of households reporting that they saved income fell from 56.4% to 52.0%.

- Primarily caused by falling home prices, the median value of household net worth fell 38.8% from $126,400 to $77,300, but average net worth fell a smaller 14.7% from $585,000 to $499,000. This difference means that the percentage decline in net worth in low wealth households was much more severe than in high net worth households.

- Debt was relatively unchanged which means that the household debt burden grew, both with respect to income and wealth. A fall in the debt service ratio from 18.7% to 18.1% lessoned, but did not eliminate, the increase in the debt burden.

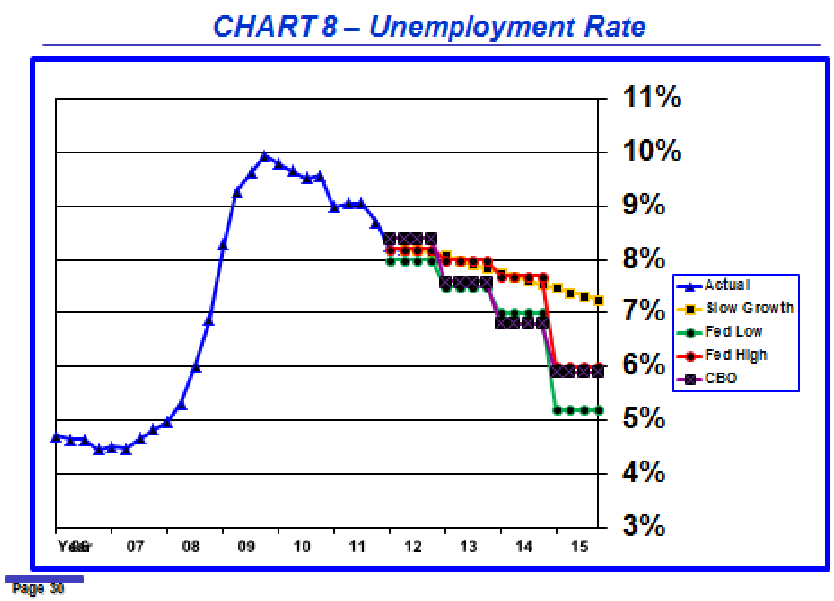
V. Employment

April's employment report was disappointing, May's was a total disaster and June's was disappointing. Collectively, these reports paint a picture of a moribund labor market in which new job creation is barely adequate to absorb the natural demographic-driven increase in the labor force. As a consequence the unemployment rate remains stuck at a very high level of 8.2%.

Payroll employment grew an average of 75,000 monthly during the second quarter compared to 226,000 in the first quarter. Payrolls grew 80,000 in June, similar to the second quarter average. The household employment survey was somewhat more encouraging. Household employment grew 127,000 in June and averaged 127,000 monthly in the second quarter. Over the longer term the payroll and household surveys track each other reasonably well but can diverge considerably on a month-to-month basis. It is possible that payroll growth is understated currently. While the household survey is never revised, the payroll 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 August and will update payroll data through March 2011.

1. Unemployment Rate

There is little optimism among forecasters about the potential for significant reductions in the unemployment rate over the next two years. **Chart 8** shows projections for the unemployment rate for my "Slow Growth" scenario, the FOMC's high and low projections and CBO. The high and low FOMC unemployment numbers for 2015 are not forecasts; rather they are the FOMC's upper and lower bounds for the long-run non-accelerating inflation rate of unemployment (NAIRU).



At its June meeting the FOMC raised its 2012 unemployment rate forecast range from 7.8% to 8.0% to 8.0% to 8.2% and also raised its projected unemployment rates for 2013 and 2014. While not shown, GS forecasts that unemployment will fall only to 8.0% by the end of 2013 and B of A forecasts that unemployment will remain unchanged at 8.2% through 2013.

My "Slow Growth" scenario projects a decline in unemployment to 7.8% by the end of 2013.

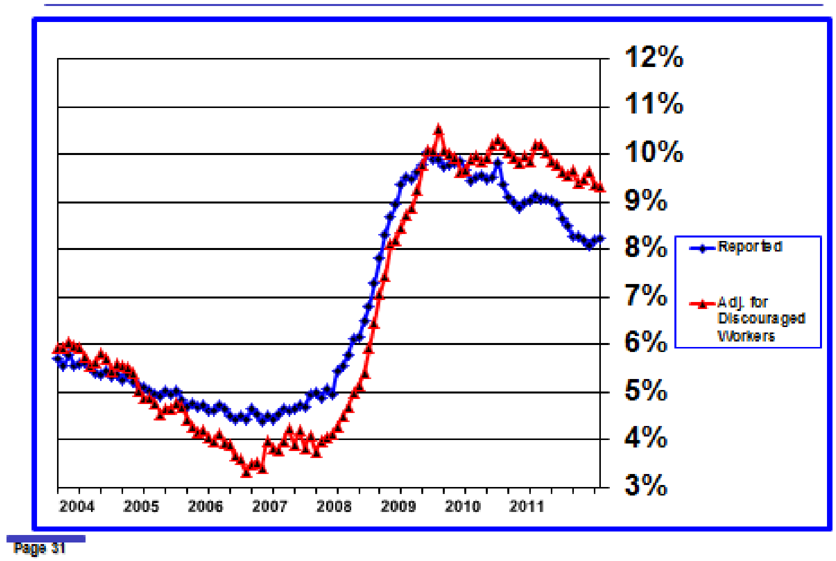
2. Labor Force Participation Rate

There were 3.9 million (household employment survey) to 4.9 million (payroll establishment survey) fewer employed people in May 2012 than at the beginning of the Great Recession in December 2007.

However, given the growth in the population eligible to be in the labor force over the last five years, household employment should be 6.6 million higher had the labor force participation rate remained unchanged. This means that if both the unemployment and labor force participation rates had remained at the same level as prevailed in December 2007, there would be 10.1 million more people employed today. The decline in the participation rate from 66.02% in December 2007 to 63.81% in June 2012 accounts for 5.0 million of the 10.1 million, which leaves an additional 5.1 million added to the number of unemployed people who are seeking jobs.

As discussed in previous letters, slightly more than half of the decline in the participation rate is due to changes in the demographic composition of the labor force. The remainder is due to the exit of "discouraged" workers. **Chart 9** shows that if all of these discouraged workers were counted as

CHART 9 – Reported Unemployment Rate & Adjusted for Discouraged Workers

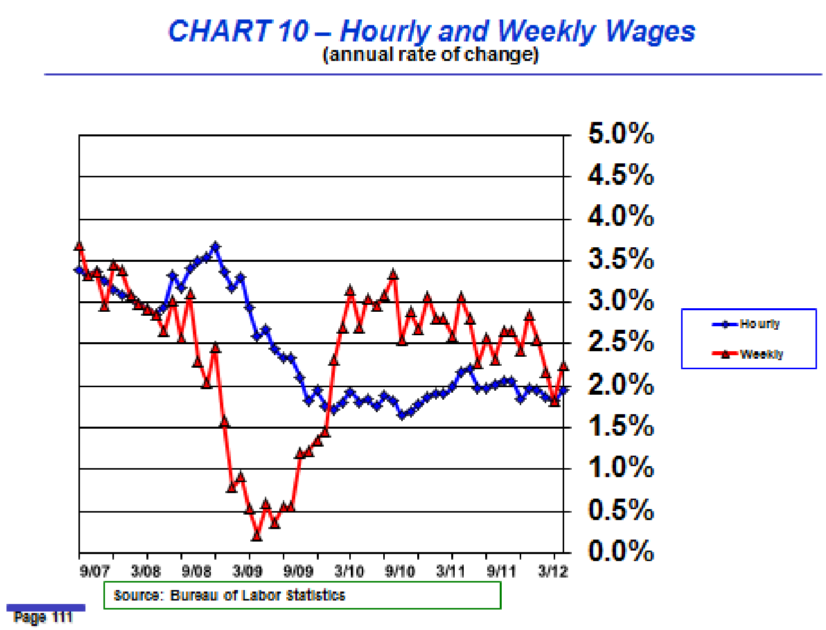


unemployed, the unemployment rate would be approximately 9.3% rather than the reported 8.2%.

3. Growth in Wages

While a declining participation rate is making it appear that unemployment is a diminishing problem, it is clearly a false positive. It creates the illusion of a tightening labor market. If the labor market really is tightening wage rates would begin to rise and that development would threaten subsequent increases in inflation. However, wage rate increases are at a very low and stable level. Furthermore, what really is important for economic recovery is significant growth in disposable income. This cannot happen when employment growth is limited and wage rate growth is not improving. That is clear in the disposable income data in **Table 3**, which indicates that disposable income is growing at an annual rate of 3.27% over the first five months of 2012 and compensation is growing at an even slower annualized rate of 2.79%.

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 relatively stable since then. 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.

Weekly wage growth is more volatile than hourly wage growth because it incorporates the length of the workweek. When the length of the workweek is stable, the two measures will track each other closely. Divergences occur during and following recessions. During recessions employers tend to cut the length of the workweek before shedding workers. The opposite happens in recoveries — employers increase hours before adding workers. The recent convergence of the two measures means that the length of the workweek has stabilized. Indeed, the length of the workweek peaked at 34.6 hours in February and has since declined to 34.5 hours in June. This is not a good news story because it means that the rate of growth in take home pay has fallen from approximately 3% a year ago to 2.2% currently. This weakening trend in weakly wage increases is an important reason why aggregate personal and disposable income growth is slowing.

4. Job Openings and Labor Turnover Survey (JOLTS)

Job openings declined in April but rose modestly in May from 3.4 million to 3.6 million. The hiring rate declined in April and was little changed in May. These data reflect a weak labor market. In addition, voluntary quits fell 152,000 in April and was 2.1 million in May only modestly above the recent cyclical low of 1.8 million at the end of the Great Recession in June 2009. This means that labor mobility is declining and reflects workers' anxiety about finding employment if they voluntary give up their current job.

Indicators of labor market health are either stable at very low levels or are weakening. Optimistic forecasts of rising GDP growth are inconsistent with these data. The adverse emerging trends in job openings and new hires suggest that employers are already delaying decisions. These trends seem likely to worsen as the advent of the fiscal cliff at year end gets nearer.

VI. Monetary Policy

1. Monetary Policy Actions Impact Economic Activity Through Several Transmission Channels

Changes in monetary policy affect the availability of liquidity, the cost of funds and expectations about the level of inflation and economic activity in the future. Policy actions are designed to change expectations about future inflation and economic activity and directly change the level of interest rates and availability of liquidity.

Monetary policy is said to tight when the FOMC raises interest rates, reduces the availability of liquidity and signals concern about the potential for higher inflation. Policy is easy when the FOMC lowers rates, increases liquidity and expresses a lack of concern about increases in inflation.

Monetary policy impacts the economy through a variety of transmission channels. Generally, it takes time for a change in monetary policy to work through these channels and impact economic activity. For example, a decrease in interest rates is intended to stimulate borrowing, particularly in interest-sensitive sectors of the economy such as housing, autos and business investment. It usually takes several months for the full impact of a monetary policy change of this sort to work its way through the economy. And, if a transmission channel is clogged, monetary policy will have limited to no effect on that particular sector of the economy. That has been the case for housing, at least up until recently, because the supply of homes has exceeded demand, credit granting standards are tight and mortgage markets have limited investor appetite.

However, if the FOMC takes an action which changes expectations that action can have a much more immediate impact on economic activity. An example is announcement of a quantitative easing initiative. It is generally agreed that financial markets have reacted very quickly in reducing interest rates. But, the greater near-term impact has been in lifting prices of financial assets which creates wealth as well as optimism about the future. Over time spending is boosted by an increase in wealth. But, optimism is important, too, because it accelerates spending decisions and puts into motion positive feedback loops. Of course, quantitative easing, by decreasing longer-term interest rates, also has a longer-term effect of stimulating spending in interest-rate sensitive sectors of the economy.

2. Traditional and Non-Traditional Monetary Policy Tools

Traditional monetary policy tools include managing the level of the federal funds rate and the FOMC's assessment of the economy and statement of policy intent.

By buying or selling short-term Treasury securities in the open market the FOMC is able to lower or raise the federal funds rate. Generally, part of the change in the federal funds rate will pass through to longer-term rates. However, such pass through is not automatic and depends upon market expectations about inflation and economic activity. The FOMC can try to influence expectations through its policy statements. As mentioned above, transmission of monetary policy actions to impacts on economic activity is murky and generally is not instantaneous.

By December 2008 the FOMC lowered the federal funds rate effectively to zero. However, the Great Recession was still underway and deflationary forces were severe. The FOMC realized that more monetary stimulus was needed but the traditional tool of lowering the federal funds rate was no longer available. In response the FOMC initiated large scale asset purchases, better known as quantitative easing. This involved the purchase of U.S. Treasury securities for the Federal Reserve's balance sheet. At the same time, the FOMC decided the Federal Reserve should purchase government guaranteed mortgage backed securities for its balance sheet as a supplement to its purchases of U.S. Treasury securities.

Quantitative easing has had four objectives.

First, by purchasing securities, the intent was to drive down long-term interest rates. Enough time has passed that it is clear that quantitative easing has been very effective in this respect. So effective, in fact, that after two rounds of quantitative easing followed by "Operation Twist", which involves swapping out short-term Treasury securities for long-term Treasury securities, long-term Treasury rates have fallen below the rate of inflation. In economists' parlance the real rate of return on Treasury securities has become negative, which means that the yield is insufficient to preserve purchasing power after adjusting for increases in inflation. Real rates are almost always positive. The rare exceptions have occurred during times of crisis when there is a flight to quality, which depresses Treasury yields, or when investors expect a substantial decline in future inflation rates. Negative real rates currently are primarily the consequence of quantitative easing, although expectations of declining inflation may also be a factor.

Second, purchase of mortgage backed securities, while having a similar impact on long-term interest rates, was also intended to stabilize the mortgage securities market and to reduce the yield premium relative to Treasury securities. This objective also was successful.

Third, quantitative easing was intended to raise optimism about the future and encourage risk taking. This too, to an extent, was successful. Stock prices rose both due to expectations for stronger economic activity but also because the rate for discounting earnings, which is a function of long-term interest rates, fell. However, rising positive expectations also raised expectations about higher future inflation and this had the counter effect of raising long-term interest rates. Thus, the expectations effects had both favorable and unfavorable impacts on long-term interest rates. The FOMC understood this and, indeed, it was an intentional aspect of policy because the FOMC wanted to avoid the potential for deflation to take hold. Deflation, once it takes hold, increases the burden of debt relative to economic activity and in so doing increases bankruptcies which can quickly evolve into a pernicious debt-deflation circle that crushes economic activity.

Fourth, when the Federal Reserve buys securities on the open market it funds the purchase by crediting the account of the seller. This injects liquidity into the financial system. This additional liquidity along with reduced interest rates is intended to stimulate spending and investment activity. In effect, the Federal Reserve is printing money. Printing money raises concerns about the potential for inflation. These concerns are based on the simple quantity of money theory which states that economic output is a function of the quantity of money. If the quantity of money is increased in the short run, the price level will rise because the supply of economic output is fixed. More dollars chasing the same amount of output can only result in inflation.

3. Why Do Bond Yields Continue to Decline?; What About Future Inflation?

Well, an interesting thing has happened. The money the Federal Reserve printed through quantitative easing is sitting on bank balance sheets in the form of reserves on deposit with the Federal Reserve. In effect, the printed money has not directly impacted economic activity and thus has had limited to no impact on inflation.

This outcome has surprised most everyone. Indeed, most continue to expect that bond yields can't fall further and that the Federal Reserve is setting the stage for a future explosion in inflation.

Why haven't banks redeployed reserves into higher yielding loans? There are several answers. First, consumers are deleveraging their balance sheets. This means that demand for consumer debt, specifically mortgage debt, has been declining. Second, lethargic economic growth means that businesses do not need to expand to the same extent and most investment activity can be financed through internal cash flows. In short, business net loan demand is very constrained. Third, financial institutions and regulators are much more sensitive to lending risks which leads to tighter underwriting standards and less willingness to undertake higher risk lending.

In a typical economic cycle the Federal Reserve's monetary stimulus by this time would have helped catalyze a robust economic expansion. Bond yields would be rising and anxiety about rising inflation would be legitimate. It is this historical experience that market participants remember and it is this experience which underpins the belief that bond yields must rise and inflation is a future threat. But, ongoing debt deleveraging throughout the U.S. economy stands in the way. And, the end of deleveraging is not yet in sight. In fact, as shown in **Chart 3**, no progress at the aggregate economy-wide level has occurred.

As long as debt deleveraging is the dominant force, economic growth will be depressed, the economic output gap will remain large and nominal wage increases will be stuck at very low levels. Inflation cannot occur in such an environment. In fact, deflation will be an ever present risk. To date the Federal Reserve has been successful in preventing the realization of the deflation risk. This has been achieved through quantitative easing and Operation Twist.

As the economy slows yet again, the Federal Reserve will in all likelihood engage in another round of quantitative easing for the same reasons. More money will be printed and bond yields will decline a bit more. Deflation risks will be deferred but inflation risks will not increase.

4. June FOMC Meeting

At the conclusion of each meeting the FOMC releases a short statement that includes its assessment of the outlook for economic growth, the outlook for inflation, its policy stance and policy initiatives. On a quarterly basis the FOMC publishes its projections for the next three years for real GDP growth, the PCE (personal consumption expenditures) price index, the core PCE price index, which excludes food and energy prices, the unemployment rate and the expected federal funds rate. Also, the Chairman of the Federal Reserve holds a press conference quarterly in conjunction with the publication of updated economic projections.

Growth Outlook. The FOMC's outlook for growth was less optimistic. It noted that "growth in employment has slowed in recent months" and "household spending seems to be rising at a somewhat slower pace than earlier in the year". The FOMC concluded that economic growth will remain moderate in coming quarters and then pick up "very gradually". The unemployment rate will decline "only slowly".

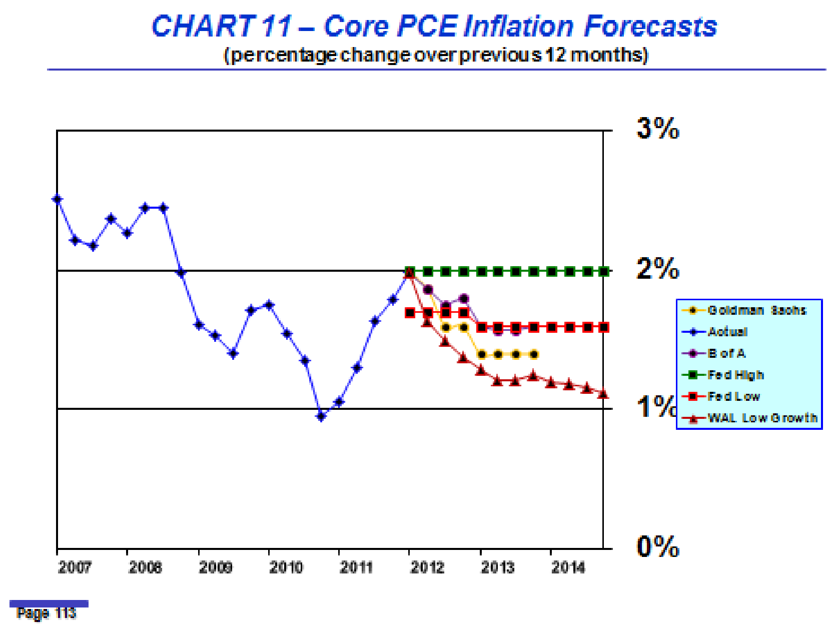
Inflation Outlook. Inflation has declined reflecting lower oil prices and longer-term inflation expectations remain stable. Inflation will be at or below the level consistent with the Federal Reserve's mandate of full employment and price stability.

Risks to the Outlook. Concerns about downside risks to the growth outlook increased: "...strains in global financial markets continue to pose significant downside risk to the economic outlook." Meeting minutes indicate that uncertainty about the economic outlook is "unusually high relative to historic norms". Risks cited in the minutes included the "fiscal cliff", Europe and the possibility of a significant slowdown in China.

Policy Stance. The FOMC "expects to maintain a highly accommodative stance for monetary policy". There was no change in the commitment to maintain "exceptionally low levels for the federal funds rate at least through late 2014". However, 6 of the 19 members now think this date should be extended to 2015 compared to four in April. Meeting minutes indicate that a few members believed additional monetary easing "likely would be necessary" and several other members believe more easing could be warranted if economic growth slows, downside risks are significant and inflation persistently undershoots the implicit target level.

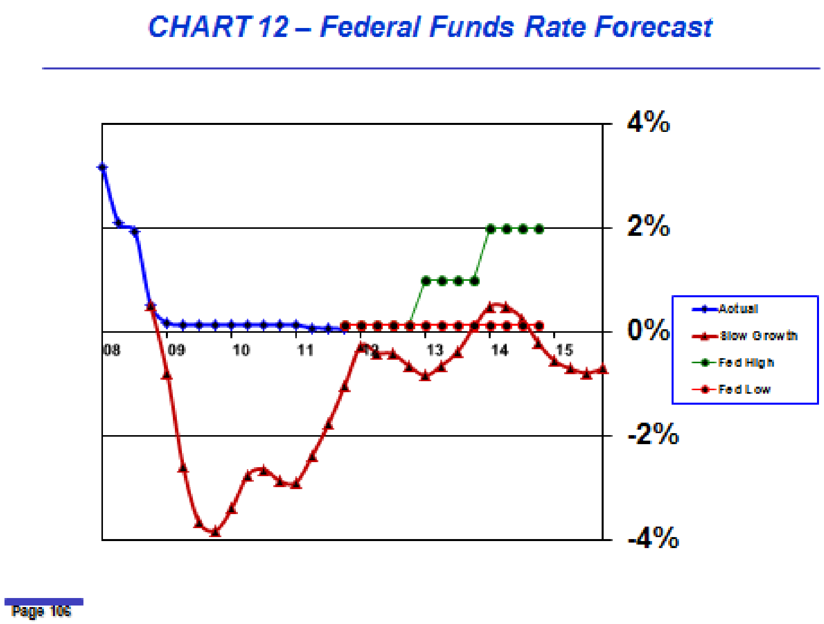
Economic Projections. GDP growth was reduced 0.5% for 2012, 0.4% for 2013 and 0.1% for 2014. However, FOMC GDP growth projections still remain on the optimistic end of the spectrum — see **Chart 4**. The unemployment rate was raised 0.2% for 2012, 0.25% for 2013 and 0.3% for 2014. Though more pessimistic than before, these unemployment rate projections remain on the optimistic end of the spectrum — see **Chart 8**.

Inflation projections were little changed with only small 0.1% to 0.2% reductions in the lower end of the projected range. The FOMC's revised projections are shown in **Chart 11**. B of A's forecast is comparable to



the low end of the FOMC's projected range. GS and my "Slow Growth" scenario are lower.

The FOMC's high and low range for its federal funds rate projections is shown in **Chart 12**. The FOMC does not report its projections in this



way. I derived the high and low boundaries of the central tendency range by eliminating the three highest and three lowest projections. This is the same methodology the FOMC uses for projections of other economic variables. The only alternative federal funds rate forecast shown in **Chart 12** is for my "Slow Growth" scenario. It implies that the FOMC will eventually extend its guidance for maintaining exceptionally low levels for the federal funds rate beyond late 2014. It should be noted that GS does not expect the first increase in the federal funds rate to occur until late 2015 and B of A expects the guidance to be extended to mid-2015. My "Slow Growth" forecast puts the first increase a bit later in mid- to late-2016.

5. June FOMC Policy Action

The FOMC extended "Operation Twist" to the end of 2012. This will involve selling all remaining short-term Treasuries on the Federal Reserve's balance sheet and replacing them with $267 billion of Treasuries with maturities between 6 and 30 years or approximately $300 billion of 10-year equivalent duration. The impact is likely to be positive but modest. In fact, the market response to the announcement was relatively neutral. However, long-term Treasury rates remain at historically low levels.

Chairman Bernanke in the press conference following the FOMC meeting mentioned that additional large scale asset purchases, which would expand the size of the Federal Reserve's balance sheet, are possible if recovery of the labor market is unsatisfactory.

6. Future Monetary Policy Options

Data released since the June FOMC meeting have continued to reveal a weakening economy. The next FOMC meeting is scheduled to conclude on August 1. Many, including myself, have believe that another round of quantitative easing is inevitable. While Chairman Bernanke has not signaled that such a decision is imminent, he and others, such as Vice Chairman Janet Yellen and New York Federal Reserve President William Dudley, have stated that the Fed is prepared to act if the U.S. economy bogs down. Perhaps because of the tempest of criticism that followed the announcement of QE 2 in November 2010, the Federal Reserve appears reluctant to initiate QE3 until such time as it is abundantly clear that not only is growth weak but also that the threat of possible recession is rising. This means that the bar for action is relatively high. It seems doubtful that there will be enough new economic information prior to the August 1 FOMC meeting to prompt action, but that might well change by the September 13th FOMC meeting.

There are three remaining monetary policy actions the FOMC could take: (1) extension of forward guidance to 2015 or beyond; (2) expansion of the Federal Reserve's balance sheet through purchase of additional long-term Treasury securities; or (3) expansion of the balance sheet through purchase of mortgage backed securities.

Extend Forward Guidance. The new time frame would have to be extended at least one year to be meaningful and even that would merely maintain the same time period when the "late 2014" guidance was provided a year ago. There is also risk that the quarterly federal funds rate projections made by the 19 members of the FOMC would be inconsistent — only 6 of 19 members currently expect the first federal funds rate increase to be delayed until 2015. GS estimates that the 10-year Treasury note rate would decline between 5 and 20 basis points, if guidance is extended.

Purchase Additional Long-Term Treasuries. The law of diminishing returns may be at hand. Long-term rates are already very low. Additional purchases might not reduce rates enough to make much of a difference. Many will fret also about the increased size of the Federal Reserve's balance sheet and the increased difficulty that will pose when the time comes for the Fed to shrink its balance sheet. Another potential negative consequence could be to disrupt the market for long-term Treasuries by reducing the availability of these securities to other investors. If purchases were in the range of $400 billion to $500 billion, GS estimates that the 10-year Treasury note rate would decline 15 to 20 basis points.

Purchase Additional Mortgage Backed Securities. Purchasing mortgage backed securities would avoid disrupting the Treasury securities market and would have the advantage of shrinking the yield spread between mortgages and Treasury securities. A recent Federal Reserve study indicated that purchase of $200 billion in mortgage backed securities would lower long-term Treasury rates by 10 to 15 basis points and analysis conducted by GS indicates that it would also reduce the yield spread on mortgages by 10 basis points.

Combination. These options could be combined which would amplify the overall impact. For example, GS estimates that extending guidance, purchasing $400 billion in Treasuries and $200 billion in mortgage backed securities could lower the 10-year Treasury rate by 30 to 50 basis points and the mortgage backed securities rate by 40 to 60 basis points.

7. Is There a Limit to Monetary Policy Effectiveness in a Deleveraging Economy?

Thus, it appears that extending guidance and purchasing additional securities for the Federal Reserve's balance sheet would have a small favorable impact on interest rates. However, the question is whether this would have any significant impact on stimulating economic growth. The impact of lower interest rates in stimulating economic activity has already been limited to a considerable extent by a host of problems that lower interest rates can't do much about. Anxieties about problems in Europe, the slowdown in global growth and uncertainty about future fiscal policy in the U.S. could derail entirely any favorable expectations impact another round of quantitative easing might be expected to have.

Is the Fed out of bullets? Technically the answer is “no”, but if the question is interpreted to ask whether Federal Reserve policy can stimulate economic growth, the answer might turn out to be “yes”. Federal Reserve policy has a greater chance of having positive impact if it is coordinated with a balanced U.S. fiscal policy which removes uncertainty, avoids crushing the economy in the short run, deals forthrightly with the underfunding of entitlement programs and puts fiscal policy on an unambiguous path which eventually results in reducing the debt-to-GDP ratio. Even then a little help from Europe and the rest of the world would be welcome.

Given the scorecard to date and given that it is the season of political follies as we focus on electing the next president, it is difficult to be optimistic that policy makers will find safe passage through the myriad challenges confronting the U.S. economy by crafting a thoughtful set of policies that sets the U.S. on a course that results over time in a stronger, balanced economy.

VII. European Sovereign Debt Crisis — European Union Summit Buys Time

In June I stated that matters were quickly moving from bad to worse in Europe. However, the European Union (EU) summit meeting on June 28 and 29 resulted in new policy initiatives that once again had a calming effect on financial markets. But, like previous policy initiatives, these new ones, which are focused on recapitalizing banks, potentially buying sovereign debt to stabilize yields and extending compliance timeframes for achieving budget deficit targets, will have limited effect in dealing with the real problems bedeviling the EU and the EZ. In essence, this summit, like its predecessors, embraced policies which buy time but which will do little to correct fundamental economic imbalances that are inexorably worsening. In addition, they do little to address severe structural flaws in the EU and the monetary union.

1. Crisis Recap

There are four sets of economic problems confronting the European Union: (1) bank solvency and tight financial conditions, (2) high sovereign debt-to-GDP ratios, (3) economic recession and (4) significant differences in competitiveness among member nations of the Eurozone. In addition political movements involving populism and nationalism are developing which threaten to undermine solutions intended to save and strengthen the monetary union.

Bank Solvency and Tight Financial Conditions. Many European banks have high levels of troubled loans and sovereign debt whose market value is considerably less than book value. Many troubled loans are carry overs from aggressive lending prior to the global recession in 2008 and 2009. But, increasingly, recession is adversely impacting the quality of many other loans.

The decline in the value of bank assets and increasing credit quality issues have been exacerbated by the regulatory mandate to increase capital ratios and liquid assets. The easiest way to increase capital ratios is by curtailing lending and selling assets. However, such a response has resulted in a severe credit crunch which in turn is fueling recession. And in due course recession will lead to more credit defaults. It is a vicious circle and there is not yet light at the end of the tunnel.

For these reasons bank capital ratios, when marked to market, are declining and insolvency risks for weaker banks are escalating.

Banks with the weakest capitalization are experiencing deposit runs. The European Central Bank's (ECB) long-term refinancing operation (LTRO) late last year and early this year provided approximately €1 trillion in three-year liquidity at a 1% interest rate. LTRO has prevented liquidity insolvencies so far at individual banks.

High Sovereign Debt-to-GDP Ratios. High sovereign debt ratios and large current budget deficits raise investor doubts about a country's ability to service debt. As debt ratios rise, nations move from "hedge" to "speculative" to "Ponzi" financing. High levels of both debt and budget deficits lead at first to increasing interest rates. But, when markets begin to doubt a country's ability to service its debt, the market's willingness to provide financing shuts down and a bailout becomes necessary. So far this has happened to Greece, Ireland and Portugal. However, Spain is approaching the danger point and there is increasing discussion about the probable need for bailout assistance.

To date, bailouts provided by the European Financial Stability Facility (EFSF) and the International Monetary Fund (IMF) have come with severe conditionality requirements. Taxes must be increased, spending must be reduced, stringent budget deficit targets must be met and actions must be legislated to improve competitiveness. Collectively these conditional terms have imposed severe austerity on the nations receiving bailout funds and have spawned deep economic recessions.

As time has passed, it has become apparent that austerity, rather than solving a country's sovereign debt problems, is making matters worse. This is because the denominator of the sovereign debt-to-GDP ratio is falling faster than the numerator. This is the same phenomenon as Irving Fisher's debt-deflation cycle — the more you pay the more you owe.

Recession. Responses to the first two problems have led to recession in many European countries. Because of the high level of economic integration in the European Union recessions in the various European countries are mutually reinforcing. Even Germany is likely to become infected.

To make matters worse, global economic growth has slowed rapidly in 2012 and will contribute to deepening recessions in Europe.

Recent data releases all point to greater than expected declines in economic activity in many European countries. For example, France reported a 1.9% decline in industrial production from May to June. Germany's services purchasing managers index was 49.9 in June, which moved it into contraction territory. ISI now expects EU economic growth to fall 1.5% in 2012, which is significantly worse than official estimates.

Competitiveness. By and large the countries with the worst banking and sovereign debt problems are also the least competitive. When a country has its own currency it can restore competitiveness by devaluing its currency. This solution is not available in a monetary union. In Europe uncompetitive countries have only one option and that is to restore competitiveness through internal deflation. This means cutting wages, reducing pension benefits, modifying social safety net benefits and so forth. This is not only very painful and difficult politically to enforce, this solution also clobbers economic activity. In short, while it is a theoretical alternative to currency devaluation, internal devaluation will lead to the death of the patient long before the cure has a chance to work.

There is an alternative to internal devaluation and that is transfers of funds from strong countries, such as Germany, to weak countries. This is not a substitute for restoring competitiveness but it provides time and lessens the pain. Germany and other strong countries oppose monetary transfers because they fear moral hazard — once financial pressures have been lifted, recipient countries might return to the "bad behaviors" that got them into trouble in the first place.

Political Pressures. All 17 members of the Eurozone (EZ) are parliamentary democracies. This means that elected governments can be voted out of office. This has already happened in several countries, most recently in France where Francois Hollande recently defeated Nicolas Sarkozy for the presidency.

Agreeing to policy changes, particularly if they involve treaty changes takes a very long time. Time is working against elected governments. Fringe parties are gaining traction and are feeding off of discontent. ***Nationalism*** is a natural response to economic crisis as political leaders give primacy, not to the union, but to their own nation's well-being. Similarly, ***populism*** naturally gains strength as economic hardship afflicts a country's citizens with the loss of social benefits and perceived competitive threats from immigrants. Unlike the United States where citizens think of themselves as Americans first and citizens of individual states second, the exact reverse is true in Europe. Other than among the political elite there is no emotional allegiance to the importance of the EU.

Ultimately, political forces, more than economic forces, will define the future of the EU and the EZ. Many seem to think that the twin economic and political crises will create pressure sufficient to correct a fundamental flaw in the EZ by compelling members to accept some form of fiscal and political union to complement the monetary union. The political forces which are in the process of being unleashed are strongly pushing in the opposite direction — not toward greater integration but toward the reclaiming of national sovereignty. The political elite who fervently believe in the importance of a united Europe are losing ground to fringe political movements on both the right and the left which do not share the goal of union.

Summary. In coming months the EZ and EU will undergo significant change. The political elite are committed to the European Project of integration. Indeed, there is emerging agreement that the time has come to move in the direction of greater economic and fiscal integration to complement the monetary union. However, the sheer complexity of reaching agreement and the cumbersome process of ratification of governance changes greatly limit the odds of success. As recession spreads and deepens, political centrifugal forces will build and will increasingly diminish the chances for broad-based acceptance of significant reforms. In this regard, the recent EU summit was disappointing because other than bank supervision no other integration issues were mentioned.

There is practically nothing in the reforms under discussion which would address in any material way the severe lack of competitiveness in the weaker countries. With recession deepening and sovereign debt and banking problems worsening, already committed bailout financial resources are inadequate. The important question is whether there is capacity among the strong countries to provide additional financial resources in the quantity that might eventually be needed to avoid sovereign defaults.

I continue to believe that the complexity of the problems and the enormity of the obstacles to effecting meaningful and timely reform argue against survival of the EZ and EU in their present forms. I do believe that some kind of union will survive, but it will involve fewer countries. Assuming that this comes to pass, the resulting union is likely to involve a much greater degree of fiscal, economic, funds transfer and political integration alongside the established monetary union.

2. Policies Agreed to at the June 29 European Union Summit

- Funds to recapitalize Spanish banks will ultimately come from the European Stability Mechanism (ESM) and will not be a senior claim. The recapitalization process will proceed in several steps and is expected to be completed by the end of June 2013.
    - ✓ Initially recapitalization funds will come from the European Financial Stability Facility (EFSF) and will be an obligation of the Spanish government.
    - ✓ The recapitalization funds will be shifted to the ESM in 2013 when the ECB becomes the banking supervisor and the Spanish

government will no longer be directly liable for the recapitalization loans.

- ✓ When the recapitalization loans are transferred to the ESM they will no longer have preferred status.
- ✓ €30 billion will be disbursed to certain Spanish banks by the end of July; €100 billion overall is committed.
- ✓ Subordinated debt holders of recapitalized Spanish banks will be required to take substantial losses and potentially restructure their debt into equity or senior debt at a substantially lower value. Current equity holders will experience substantial dilution. Details will be worked out at a meeting scheduled for July 20.
- ✓ Nonperforming assets will be transferred to an asset management company for workout.

- The ECB will become responsible for supervising major European banks in 2013.
  - ✓ Specific banks to be supervised by the ECB will be determined at a later date.
  - ✓ There was no mention of deposit insurance or bank resolution mechanisms.
- The bank recapitalization procedures will apply retroactively to Ireland, although there is no clarity as to how this will be accomplished or what it means for Irish conditionality.
- The ESM may be used to purchase sovereign debt in the secondary market to stabilize sovereign debt yields; criteria for engaging in this activity have yet to be developed
  - ✓ Finland and the Netherlands announced that they would block purchases of sovereign debt by the ESM; if all 17 members of the EZ have to approve, rejection by a single country would make this policy initiative inoperative.
  - ✓ The ECB will serve as fiscal agent.
  - ✓ There was no mention of the possibility of the ECB leveraging the ESM to increase the amount of bonds it could buy.
- Importantly, the combined EFSF/ESM resources remain capped at €500 billion.

- Spain was given one additional year until 2014 to meet the 3% annual budget deficit target.
  - ✓ Spain announced €65 billion in spending cuts and tax increases equal to nearly 6% of GDP, which will be implemented over the next two and a half years.
  - ✓ Spain's value added tax will be increased from 18% to 21%.
- EU members adopted a "Compact for Growth and Jobs".
  - ✓ €130 billion is earmarked for this initiative but the amount includes already scheduled infrastructure investments.
  - ✓ This initiative doesn't directly address sovereign debt crisis issues.

3. Reform Options

In light of EU summit decisions on June 29 and immediately following, it is instructive to review the description of reform options contained in the June Longbrake Letter.

Pro-Growth Policy Reforms. The most powerful pro-growth reform would be to reverse demand depressing policies that are driving recessionary momentum. This would mean extending deadlines for budget deficit reductions. This is already happening by default because of falling tax revenues and declining GDP. ***Spain has now received a one-year extension. Ireland and Greece are also likely to receive extensions, although it will be interesting to see how the European Commission (EC) responds to Greece's request for a three-year extension.***

To moderate or reverse recessionary momentum, government spending would need to be permitted to increase and budget deficits to widen. ***No one is seriously considering this kind of reform.***

Instead, pro-growth reforms are focused on the supply side. There are two sets of policies under consideration. One set includes reforms to improve labor market competitiveness and productivity by making it easier to hire and fire workers and by reducing the cost of benefits. ***Competitiveness reforms have been required only as conditions pursuant to bailout aid. Otherwise, competitiveness reforms are voluntary.***

A second set of policies involves allocating funds to infrastructure investment. ***The €130 billion "Compact for Growth and Jobs" is responsive.***

Neither set of reforms will help much in the short run. There is considerable political opposition to labor market reforms and even if enacted such reforms would take a long time to have any meaningful impact. As to infrastructure investment, the amounts under consideration are so small as to be almost irrelevant. Infrastructure investment would create jobs in the short run, but the greater return occurs over a much longer period of time as completed infrastructure projects impact broader economic activity.

Pan-European Deposit Insurance and Bank Supervision. EC leaders announced on June 5 a plan for a European deposit insurance, bank resolution and centralized bank supervision. The plan would require each member country's approval and the approval of the European Parliament. The proposal would not be implemented until January 1, 2018. Germany has been adamant that European rather than sovereign bank supervision must accompany any broad-based deposit insurance program.

The only part of this proposal that was embraced was centralized bank supervision by the ECB. There was no mention of deposit insurance or bank resolution.

Direct Recapitalization of Capital Deficient and Insolvent Banks. To date each country has determined whether and how to recapitalize its own banks. In the case of Ireland, the government assumed the debts of its banks through nationalization and then had to go to the EFSF to provide financing. EFSF credit came with onerous conditionality. ***Ireland is now eligible for the new direct bank recapitalization program retroactively, which presumably means that that debt would no longer count as Irish sovereign debt. Details as to how this would be accomplished have not yet been worked out.***

As outlined in Section 2 above, the EU accepted Spain's request that Spanish banks be directly recapitalized without the recapitalization loans being counted as Spanish sovereign debt. These loans now become the liability of the ESM, which means that the liability is shared by all EZ members prorated according to their contributions to the capitalization of the ESM.

However, Spain's problems extend well beyond its banks to the financing of its sovereign and regional government debt. Bank recapitalization does nothing to address this. Spain was given an extra year to meet the EU mandated 3% deficit target. While no explicit conditions were attached to this extension, Spain's announcement of a €65 billion fiscal consolidation austerity package almost simultaneously suggests strongly that conditionality was implicitly attached to the extension.

With 24.6% of Spain's workforce unemployed in June, this new austerity package is almost certain to exacerbate the severe recession that is underway in Spain. It is almost impossible to have any optimism that Spain will meet the budget deficit target by 2014. In the meantime Spanish 10-year sovereign debt yields are bouncing like a yo-yo between 6% and 7%. It seems to be only a matter of time before a Spanish sovereign debt bailout will be required. Reasons for this conclusion were spelled out in detail in the June Longbrake Letter.

Eurobonds or Joint Sovereign Debt Facility. Many have proposed the issuance of Eurobonds. Such bonds would substitute the collective credit backing of all EU or EZ governments for the credit of individual countries. Not surprisingly, this proposal is popular with countries that have weak credit, such as Italy and Spain, and anathema to countries with strong credit, most notably Germany. Francois Hollande, president of France, has also suggested Eurobonds.

Germany has expressed deep concerns that Eurobonds would unleash moral hazard. Countries with high debt-to-GDP ratios and high budget deficits would no longer be under pressure to reform. A recent poll indicated that 80% of Germans oppose Eurobonds. Moreover, Germany asserts that it cannot be party to Eurobond issuance because it is unconstitutional under the German constitution and European treaties prohibit countries from covering each other's debts. Joerg Asmussen, a German member of the ECB board, has stated that Germany "will only consider jointly underwritten euro area bonds once the conditions are right meaning closer economic integration and coordination across the euro zone, including on fiscal matters."

However, Germany has pointed out that the Fiscal Compact, agreed to in December and in the process of ratification by EU governments, provides the option to pool European country debts that exceed a 60% debt-to-GDP ratio as collateral for the issuance of 25-year debt obligations. Interest and principal of these bonds would be paid jointly.

Implementation of Eurobonds would probably require either fiscal union or direct central oversight and control over sovereign country fiscal matters, including both taxes and spending. This would entail ceding an enormous amount of individual country sovereignty to a central government.

There was no mention of Eurobonds following the EU summit.

Fiscal Integration. As the European crisis escalates willingness to consider fiscal integration is growing. Fiscal integration would lead to a substantial loss of individual country control. There would be pressure to standardize tax policies and spending programs. In addition, central oversight and enforcement along the lines already outlined in the Fiscal Compact would become mandatory.

It is difficult to discern how fiscal integration would work well unless transfers of funds from stronger economies to weaker economies are sanctioned. By itself, fiscal union will not resolve the stark competitive differences among members of the EZ.

There was no mention of fiscal integration following the EU summit.

Deeper Political Integration and Tighter Control Over Economic Policy. German Finance Minister, Wolfgang Schaeuble, said on May 16 that the EU needs a common finance policy and a central government and suggested that the European Commission be developed into a government. This followed a statement on May 29 by European Commission President Jose Manuel Barroso that EZ countries need to establish a timetable for full economic and monetary union. European Council President Herman Van Rompuy has been tasked to draft a plan to broaden and deepen economic and monetary union for consideration at the EU summit at the end of June.

Greater political and economic integration requires cessation of individual country sovereignty. It will also take a long time to accomplish because new treaties will need to be negotiated and then ratified by member countries. Thus, these kinds of reform proposals will be of almost no help in dealing with immediate banking problems and financing the sovereign debt of weak governments. Moreover, nationalism is on the rise, which will make it difficult to develop popular support and endorsement of a much greater degree of integration.

There was no mention of political integration at following the EU summit.

4. Purchase of Sovereign Debt By the ESM Is Unlikely To Be A Long-Term Viable Solution

While details have yet to be worked out, presumably purchase of Spanish and Italian sovereign debt on the secondary market by the ESM would involve a senior claim, which means that the ESM's claims would be senior to those of other investors in the event of debt restructuring. If this is in fact what will be required, it will not be reassuring to other investors and will limit demand for new debt and encourage sale of existing debt. This would maintain upward pressure on yields. In the two weeks following the EU summit, Spanish and Italian sovereign debt yields initially fell a little but then retraced part of the decline. Clearly, the market is not persuaded that secondary market purchases will materially reduce the risk of holding Spanish and Italian sovereign debt.

Unless real progress is made in restoring economic growth and in shrinking sovereign debt-to-GDP ratios, secondary market purchases of Spanish and Italian sovereign debt to stabilize yields is unlikely to be successful in the long run. The situation is similar to a country trying to defend the value of its currency. Speculators drive down the value of a currency by selling it. However, countries can reverse the downward pressure on the value of the currency by buying it, thus restoring the supply-demand balance at the current exchange rate. But, if the underlying problems leading to speculator sales of a currency, such as substantial trade deficits or high inflation, are not resolved, there will be repeated speculative attacks on the currency which increase in scope over time. Eventually, a country will exhaust its capacity to buy back its own currency and defend its value. The denouement is usually a dramatic currency crisis which is resolved through devaluation, capital controls and heavy damage to the country's economy.

Key to defense of a currency is significant progress toward resolving imbalances that prompt speculative attacks and having sufficient capacity to purchase the currency to gain the time necessary to implement economic reforms. Similarly, key to keeping sovereign debt yields down is progress in Spain and Italy in reducing budget deficits, reducing their debt-to-GDP ratios and increasing economic growth and competitiveness. Also key is the capacity of the ESM to purchase sovereign debt to provide time for reform policies to become effective.

ESM capacity is currently limited to a maximum of €500 billion of which €100 billion is already committed to the recapitalization of Spanish banks. When measured against the size of the ESM, the outstanding amount of Spanish and Italian sovereign debt dwarves by many times over the capacity of the ESM. The conclusion is straightforward. The ESM should be able to fend off speculative attacks on Spanish and Italian sovereign debt for a period of time. If the size of the ESM is increased, presumably through debt leverage provided by the ECB, the time period for fending off speculative attacks could be extended. All of this is not likely to be successful in the long run because many of the necessary reforms discussed in **Section 3** are not under serious consideration.

5. Greece — Resolution of Political Crisis Postpones Potential Exit from the Euro

Reprieve. For the moment, Greece has slipped from view once again. The June 17 election resulted in the formation of a three-party coalition government committed to staying in the euro, but renegotiating the terms of the EU/ECB/IMF bailout. Greece needs an immediate infusion of €3.5 billion, which is not provided for in the current bailout program. How this will be resolved is unclear. What is clear is that the Greek economy continues to shrink at a rapid rate and it is also clear that a new and substantially larger bailout program will be needed. Greece has asked for a three-year extension to meet bailout conditions. Extension of compliance timeframes and increased funding seems likely, but details remain to be worked out. Increasingly, it looks like the EU will do as little as necessary to keep Greece in the euro. Unfortunately, this means that Greece's economy will not recover anytime soon. It remains to be seen how long the new political coalition can hold together.

Latest Greek Bailout Cannot Succeed. The fundamental reason that the bailout will fail is that the Greek economy is simply uncompetitive with other members of the EU. No amount of debt forgiveness or bailout funds can solve this problem.

Greece's uncompetitiveness has many facets. First, the prices of Greek goods and services need to decline relative to prices in other European Union countries. This could be accomplished in a single stroke if Greece could devalue its currency — but it doesn't have its own currency, so this is not an option. That is, it is not an option unless Greece exits the European Union and the Eurozone. The probability of just such an outcome is rising rapidly.

Second, Greek wages need to decline relative to wages in other countries. It does not matter whether they are already lower, which they are, than wages in other European countries. They just need to decline. While this is a good textbook solution, it is not a politically viable solution because it requires high levels of unemployment to force wage deflation. Greek unemployment is already 21% and rising. Moreover, deflation will raise the value of debts denominated in the euro and increase the likelihood and cost of bankruptcies. In short, deflation is an ugly, destructive solution.

Third, Greece could try to boost productivity. That is easier said than done because it means breaking entrenched social and institutional contracts. Moreover, productivity enhancing reforms take a very long time to bear fruit.

No amount of austerity or economic restructuring will cure Greece's uncompetitiveness. Indeed, austerity is worsening the problem. Greece can resolve the competitiveness problem by leaving the euro and devaluing its substitute currency — the new drachma. Of course, this solution would not be without significant consequences and costs for Greece. But, this alternative is rapidly becoming the only realistic alternative. But, it is an alternative that will be avoided until all others have been tried and have failed. This may take many months.

6. Germany's Exposure to the Euro Is Significant

Germany has the strongest economy in the EU. It has low unemployment, a large trade surplus and extremely low borrowing rates. However, these strengths have come at the expense of other EU members. In short, German economic policy has contributed materially to growing competitiveness gaps among EU members. I included a detailed explanation in the May Longbrake Letter of the reasons that German economic policy has been a driving force behind growing EU and EZ economic problems and increasing instability.

German politicians do not appear to appreciate how Germany's policies have contributed to the European economic and financial crisis. Instead they and the German public believe that the problems stem primarily from fiscal imprudence in other countries. Thus, Germans have emphasized the need to reduce government budget deficits and shrink sovereign debt-to-GDP ratios. Fiscal consolidation and austerity are the order of the day in every EU member country. These policies combined with policies to raise bank capital ratios have led to a broad-based and ever deepening European recession. Unfortunately, recession is making matters worse rather than better.

Mutualization of Debt. Germany has steadfastly rejected the notion of creating Eurobonds whose creditworthiness would be guaranteed jointly by all EU members. Germany rightly points out the problem of moral hazard embedded in mutualization of debt which will drive counterproductive behaviors unless there is fiscal and economic policy integration. To date national interests have blocked serious discussion of such integration.

Mutualization of debt, assuming it resulted in consolidating EU member country sovereign debt, would defuse the sovereign debt crisis and give members time to put together an integrated fiscal and political governance structure which could address effectively over time a variety of issues, including importantly dealing with differences in competitiveness in ways that resolve existing imbalances and provide a foundation for financial stability and steady economic growth.

However, this is not the course being pursued. But, mutualization of debt is occurring anyways but it is occurring within a reactive framework of bailout rather than a proactive framework of economic and political integration. The EFSF and ESM require EZ members to share the credit risk of bailouts provided to other EZ members, which to date include Greece, Ireland, Portugal and now Spanish banks. Cyprus recently applied for bailout funds but Russia may come to the rescue first with better terms.

TARGET2 Settlement System. But debt mutualization is occurring in another and much more significant way. This involves the TARGET2 (Trans-European Automated Real-time Gross Settlement Express Transfer System) settlement system among EZ central banks. It is this mechanism that poses extraordinary risk to Germany should the EZ and the euro unravel. The size of this exposure makes it imperative for Germany to maintain the EZ in its current configuration and avoid the exit of any member country, including Greece. The Bundesbank, Germany's central bank, currently has approximately €700 billion exposure to TARGET2.

Here is how TARGET2 works. If Germany has a trade surplus with a member EZ country, the excess of imports of German goods and services in that country relative to exports of goods and services to Germany results in the need for Germany to finance the trade gap. This financing is accomplished through the settlement process among member EZ central banks. The result is that the Bundesbank is financing EZ member countries trade deficits with Germany. As long as Germany continues to run trade surpluses Bundesbank financing will continue to grow ever larger over time.

If banks and investors are willing to finance an EZ-member country's trade deficit with Germany, then there will be an offsetting TARGET2 settlement and the overall outstanding TARGET2 balance on the books of the Bundesbank will decline. However, since the 2008 financial crisis and particularly as the European sovereign debt crisis has unfolded banks and investors are no longer financing trade deficits. This means that TARGET2 settlement balances are rising very rapidly currently.

The implications of this mechanism should be clear. If an EZ member country exits the euro and devalues its new currency, the Bundesbank stands to recognize a considerable loss on its outstanding settlement balances to that country.

But, trade deficit financing is not the only TARGET2 exposure. There are no capital controls in EZ member countries. This means that depositors of any nationality may deposit their euros in any EZ-member country chartered bank. Naturally, as the risk of default and exit from the euro has risen, particularly in the case of Greece, it is natural cautionary behavior for some depositors to move funds to a bank in a "safer" EZ country. Germany is perceived to be the safest haven and thus deposits are flowing directly to German banks. But, the balance sheet of the bank from which the deposits are transferred does not shrink. The lost deposits end up being replaced by a TARGET2 settlement balance. To the extent that most of the transferred deposits are ending up in German banks, it is the Bundesbank that ends up with the commensurate increase in TARGET2 settlement balances.

Combining trade deficit financing and bank deposit transfers, TARGET2 settlement balances have increased €237 billion, or 34%, at the Bundesbank over the last eight months. The enormous imbalances in funds flows among EZ countries reflected in burgeoning TARGET2 balances account for the extraordinarily low interest rates in Germany and the widening interest rate gap in other EZ countries relative to Germany. Even France is experiencing a widening interest-rate gap.

It should be clear that a generalized run on banks in troubled EZ countries would put Germany at great financial risk. Thus, Germany's willingness to accept direct recapitalization of Spanish banks is not at all surprising. This minimizes the risk to depositors that their bank will fail and thus reduces their incentive to transfer deposits to German banks. But the threat of bank runs still remains significant if depositors become fearful that the country in which their bank is located might leave the EZ and devalue the new currency.

EZ deposit insurance would substantially reduce the risk of bank runs because euro-denominated deposits would survive the exit of an EZ-member country intact. But, this is not a panacea as many of the assets in a bank domiciled in an exiting EZ-member country would be restated in the new devalued currency thus imposing a loss on the European insurance fund. Just as is the case for TARGET2 settlement balances a deposit insurance framework will be another form of debt mutualization.

There simply are no easy or painless solutions. Nonetheless, there are solutions but the most important ones are not being pursued proactively. The passage of time is serving only to worsen the extent of the problems and render possible resolution ever more difficult to accomplish. Kicking the can down the road will ultimately fail, but that is the course we are on. Barring an unexpected and dramatic change in the handling of the European financial crisis, the only real question is when the EZ will cease to be viable in its current configuration. The denouement could be many months away. However, as imbalances continue to accumulate and recession progresses the timeframe to the end game will shorten.

VIII. China — Slowing Growth Continues

Recent Chinese data reports confirm slowing growth.

- Banking lending came in below expectations in April and May.
- Power generation grew only 1.5% over the 12 months ending in April but increased to 3.2% in May — both low numbers.
- The purchasing managers' index was 48.1 in June down from 48.4 in May and 49.3 in April. A value below 50 indicates contracting activity.
- Consumer price inflation fell to 2.2% and producer prices declined 2.1% over the last 12 months, reflecting strong production but weakening domestic and international demand.
- Exports rose 11.3% over the previous year in June, but imports rose only 6.3%. B of A expects export growth to shrink to 8% by the end of 2012 as a consequence of slowing global growth. China's official target is 10% export growth in 2012 but this assumes that economies of the European Union do not weaken further.
- GDP growth fell to 7.8% in the second quarter, slightly less than the consensus forecast of 7.9%, compared to 9.2% in 2011. Because China reports GDP growth over the last 12 months rather than annualizing a quarterly growth rate as is the custom in the U.S., implied annualized Chinese growth during the first half of 2012 was 6.4%.
- ISI's survey of sales of U.S. companies to China indicates that sales have been contracting for several months and the rate of decline has accelerated over the last three months.
- The OECD leading indicator for China fell to 99.2 in June, the lowest level since 2009 when China was emerging from the impacts of the global recession.
- A recent *New York Times* article cited considerable evidence implying that Chinese officials systematically smooth economic data. To the extent this might be true, the slowdown in China is probably worse than suggested by reported data.

- Cash is exiting China. Is this the canary in the coal mine? Do Chinese insiders have knowledge that is not publicly available?

As I discussed in detail in the May Longbrake Letter, China has less room to stimulate its economy aggressively than it did in late 2008 when it implemented massive government stimulus. If China elects to pursue a new aggressive stimulus program, it risks exacerbating already significant and troublesome imbalances. China needs to develop its consumer economy and reduce reliance on infrastructure investment and exports to propel GDP growth.

China is responding to the slowdown in growth by cutting interest rates and bank reserve requirements but says it is maintaining a stringent ban on real estate speculation. Chinese Premier Wen Jiabao recently stated that the key to stabilizing China's economic growth is promoting investment growth which is of the right type, in the right location, high quality and cost effective. He added that stabilization policies must include boosting consumption, diversifying exports, supporting emerging industries and developing new technologies. All of this sounds good, but the devil will be in actual policy initiatives and whether state owned enterprises will cooperate.

Notwithstanding official policy, however, there is some evidence that real estate activity may be rebounding. If that is so, it would lead to better reported economic data in the second half of 2012 but would exacerbate the already considerable overinvestment in real estate.

What seems clear at this juncture is that China will not be able to counter a global growth slowdown as it did in 2009. What is less clear is whether China's own growth will slacken a bit or take a nose dive. Slowing growth in the U.S., recession in Europe and slowing growth in major emerging economies such as Brazil, Russia and India, will put Chinese policy makers to the test. Hopefully, they will find the middle road which avoids a sharp slowdown but also avoids reigniting speculative growth based on overinvestment in real estate and infrastructure.

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