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

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The Longbrake Letter*

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I. GDP Growth Worse Than Expected During 2011 First Half; Optimism for Improvement in the Second Half May Be Derailed by Escalating Risks

Last month I commented that U.S. GDP growth was approaching stall speed. If anything, the outlook has worsened, not brightened, over the last month. The June employment report was extraordinarily awful; consumer and small business confidence has continued to decline and is now at levels consistent with past recessions; Congress and President Obama have not yet been able to craft a budget deficit and debt ceiling compromise, although resolution is still likely, if only because the alternative of default is unimaginable; and the European sovereign debt and banking system crisis is building in fits and starts in a pattern eerily similar to the meltdown in U.S. financial markets during 2007 and 2008.

Nonetheless, most forecasters remain optimistic that GDP will accelerate during the second half of 2011 from a dismal pace of less than 2% in the first half to about 3% or a little more. The Fed is even more optimistic, expecting growth to reaccelerate in the second half to 3.5% or more.

Optimism is based upon several assumptions. First, consumer spending will rise as gas prices retreat, but is this likely given declining consumer confidence and deterioration in employment prospects? Moreover, while gas prices are down from their peak they remain 25% above year ago levels. Second, Japan's disaster-induced global supply impacts will dissipate. True enough but this factor seems overrated in the larger scheme of things. Third,

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the global soft patch may be nearing an end as China makes progress in reducing stockpiles of commodities and in containing consumer price inflation. This assumes that the economies of emerging nations, which have been the engines of global growth in recent years, will shortly reaccelerate. While this is possible, and the better than expected growth in Chinese GDP (annual rate of 9.5% versus expected 9.3%) during the second quarter lends credence to this belief, broad-based evidence is not yet in place that assures that reacceleration will occur. Indeed, an equally strong case can be made that the global soft patch will continue for a while, given that inflation is still rising in China, Europe is stumbling and growth in the U.S. is weaker than expected.

In addition to these cautions about optimism, fiscal policy in the U.S. is transitioning from net favorable to net unfavorable impacts on growth. For example, an increasing number of unemployed workers are exhausting extended benefits.

Putting this all together, odds of economic growth near stall speed seem more likely than growth above 3%. That's the bad news. The good news is that re-emergence of negative GDP growth, in others words renewed recession, is not a likely prospect. But, as consumer opinion polls document, with low confidence and high unemployment most will continue to feel like we're in an ongoing recession, even though the published data indicate that we are in recovery, albeit a very sluggish one..

In last month's letter, I discussed why I believe that traditional macro fiscal and monetary policies have been unsuccessful in igniting a robust self-sustaining economic recovery and expansion. In short, policy has focused on attempting to create more jobs indirectly through programs to support income and boost spending, rather than pursuing initiatives directly that create jobs, such as infrastructure investment. While such consumption-oriented policies worked in the past, they have been much less effective in this recovery. There are many reasons including consumer over-indebtedness, loss of substantial wealth through housing price declines, tepid increases in nominal wages with a growing share of profits going to owners rather than labor, robust productivity growth, and broader-based and tenacious global competition covering not only manufacturing but much of services as well. All these factors have combined to limit the effectiveness of traditional macro policy in creating jobs.

Unfortunately, policymakers do not seem to grasp why traditional macroeconomic policy has not been working as expected. But, even if they did, the political policy agenda is now focused on limiting the size of the federal budget deficit and stabilizing the federal debt to GDP ratio. Attacking the problem of lack of job creation in a direct fashion would require new program approaches, undoubtedly requiring additional spending.

In this month's letter I begin by describing the concept of "stall speed" and provide an update on expected GDP growth. Next I revisit last month's topic — "Where Are the Jobs?" — and summarize analyses which indicate that the primary engine of new job creation, namely new business formation, is impaired.

As I mentioned in last month's letter, two major and unresolved issues continue to cast a dark shadow over economic recovery. They are the ongoing European sovereign debt problem and the U.S. housing market problem. While each seems to be separate and distinct, they have many common attributes. Both involve the buildup of extraordinarily high levels of debt relative to income. These excessive debt levels are hobbling economic growth. Rather than attacking the problem of over-indebtedness head on, policymakers are engaging in forbearance and avoidance strategies with the vain hope that "things will work themselves out". The reality is clearly otherwise. Avoidance and delay is making the problems worse and as time passes the danger of contagion and broader negative impacts on economic activity is growing.

A more direct approach to addressing the U.S. housing and European sovereign debt crises requires two policy approaches. First, debt burdens need to be reduced to levels that can be serviced reasonably out of current income. This means determining how to allocate losses — who takes the hit — homeowners, creditors/investors or government in the case of U.S. housing; inhabitants of debt-ridden countries, creditors, or taxpayers collectively of the European Union in the case of European sovereign debt problems. Second, policies that aided and abetted the buildup of excessive amounts of debt relative to debt need to be addressed.

This month's letter includes a detailed discussion of the European sovereign debt crisis. The U.S. housing problems will be the focus of next month's letter.

II. Prospects for Economic Growth

1. Stall Speed

Although I am not aware of any shared definition of "stall speed" for economic growth, a plausible interpretation would be a level of GDP and employment growth that is insufficient to reduce the output gap or to reduce the rate of unemployment. GDP needs to grow by more than 2.5% to 2.75% to reduce the output gap. This growth range is based on the growth rate in population and productivity improvement. However, some believe the range in potential GDP growth is currently lower both because of a slowdown in the rate of population growth and a declining population participation rate in the labor force. For example, the Congressional Budget Office estimates that potential GDP growth is likely over the next few years to be in a range of 2.2% to 2.4%. GDP growth during the first quarter of 2011 was 1.9% and is likely to be less than 2.0% in the second quarter. Most forecasters expect growth during the second half of 2011 to rebound to 3.0% to 3.5%, which is hardly stellar, but is above stall speed. However, risks to the forecast are weighted toward slower, rather than greater, growth than 3.0% to 3.5%.

Alternatively, we can analyze stall speed in terms of employment growth. Employment must grow an average of at least 100,000 monthly to maintain a stable unemployment rate. This number is derived by multiplying the number of people eligible to work (240,000,000) by the annual growth rate of 0.8% (1,920,000) and by the 64.1% of those eligible who are willing to work (1,250,000) and dividing by 12 (102,500 per month).

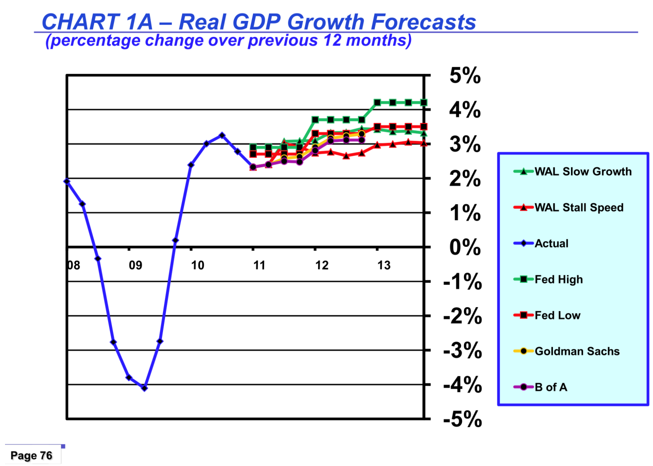
Over the last 12 months payroll employment has increased 86,000 per month, but household employment growth has increased only 20,000 per month. If we consider only the last six months, there is a very modest improvement — payroll employment grew an average of 126,000 monthly and household employment grew 22,000 per month.[1] Over the last 12 months the

[1] The household survey of employment is never revised; whereas, the payroll survey is revised annually, sometimes by substantial amounts. The payroll, or establishment survey as it is referred to by the Bureau of Labor Statistics, includes estimates of the net number of jobs created by small and new businesses, often referred to as the birth/death adjustment. If the rates of births and deaths change materially from the rates assumed in the estimation procedure, estimates of payroll employment growth will be skewed up or down systematically. The annual benchmarking process replaces estimated data with actual data.

unemployment rate fell from 9.5% to 9.2% but that very small improvement is entirely due to a decline in the number of people willing to work averaging -45,000 monthly. What this really means is that 145,000 to 150,000 people have dropped out of the labor force on average each month over the last year. This is not a healthy trend.

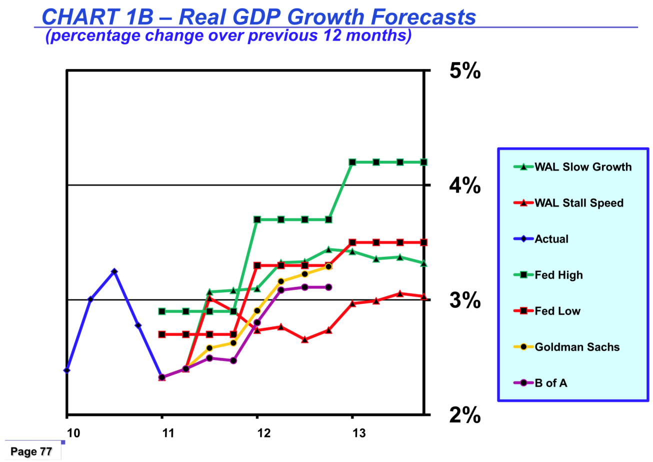
2. GDP Forecasts

GDP forecasts from the Federal Reserve, Goldman Sachs (GS), Merrill Lynch/Bank of America (B of A) and myself (WAL Slow Growth and WAL Stall Speed) are shown in **Charts 1A** and **1B**. **Chart 1B** reduces the time



period to 2010-13 and the scale of the chart has been altered to show better the differences in the forecasts.

The Federal Reserve's most recent forecast decreased its expected range of GDP growth in 2011 from 3.1% to 3.3% to 2.7% to 2.9%. This downward adjustment reflected the weak GDP growth in the first and second quarters. The Fed reduced its forecast range for 2012 GDP growth from 3.5% to 4.2% to 3.3% to 3.7%. The Fed also reduced its forecast range for 2013 GDP growth from 3.5% to 4.3% to 3.5% to 4.2%. These downward adjustments follow a pattern of consistent downward adjustments each successive quarter and are not surprising given that the Fed forecasts have tended to be more



optimistic than those of many analysts.

Following a fairly consistent pattern, the Fed's forecast is at the optimistic end of the forecast range. As can be seen in **Chart 1B**, the B of A, GS and my forecasts generally fall below the lower end of the Fed's forecast range.

To make the difference between the various forecasts and the concept of stall speed a bit clearer, I have now included two of my own forecasts. The first, labeled "WAL Slow Growth", shows GDP growth that parallels approximately the bottom end of the Fed's range of 3.3% to 3.5% in 2012 and 2013. This forecast assumes that employment grows about 175,000 monthly during 2012 and 2013, above stall speed, but not significantly. Based on the Congressional Budget Office's estimate of potential GDP, the output gap declines from 6.2% in the first quarter of 2011 to 3.3% in the fourth quarter of 2013.

My second scenario, labeled "WAL Stall Speed", shows GDP growth when employment grows only enough to keep the unemployment rate steady around 9%. Monthly employment growth in this scenario averages about 90,000 during 2012 and 2013. GDP growth in this scenario tracks between 2.5% and 3.0% in 2012 and 2013 and the GDP output gap declines from 6.2% in the first quarter of 2011 to 4.4% in the fourth quarter of 2013.

The GS and B of A forecasts fall between my two forecasts for 2012, but track somewhat closer to the "Slow Growth" scenario.

3. 2011 Q1 GDP

The "final estimate" of first quarter GDP growth rose slightly to an annualized rate of 1.9% (see **Table 1**).

Table 1
2011 First Quarter GDP Estimates

	Advance Estimate	Second Estimate	Final Estimate
Personal Consumption	1.91%	1.53%	1.52%
Private Investment			
Nonresidential	.18%	.33%	.20%
Residential	-.09%	- .07%	.05%
Inventories	.93%	1.19%	1.31%
Net Exports	- .08%	- .06%	.14%
Government	-1.09%	-1.07%	-1.20%
Total	**1.76%**	**1.84%**	**1.92%**

Major revisions included slower growth in nonresidential investment, a greater decline in government spending and positive additions from net exports and inventory accumulation. Inventory accumulation is worrisome because it indicates that overstocking relative to sales may be taking place. If sales are not forthcoming, and second quarter consumer spending data released to date suggests considerable weakness, then GDP growth will slow as companies reduce production to right-size inventories. There has been much talk about the likelihood that auto production will increase during the third quarter as the Japan supply-side shock abates. With weak consumer confidence and depressed buying plans, this modest positive could be more than offset during the third quarter by inventory liquidation. June's seemingly positive uptick in the Institute of Supply Manager's manufacturing index was driven largely by inventory accumulation, which, unfortunately, reinforces the excess inventory accumulation concern.

All-in-all first quarter GDP growth tells a story of a weak economy that is struggling to gather sustainable momentum.

III. Where Are the Jobs?

1. June Employment Data

June employment fell well short of expectations. Indeed, the report was awful in every aspect. The report reinforces the observation I made in last month's letter that monetary and fiscal policy has not been able thus far to ignite a self-sustaining recovery in employment and economic growth. With each passing month's disappointing employment data it becomes harder to sustain hope that a more vibrant rebound is just around the corner.

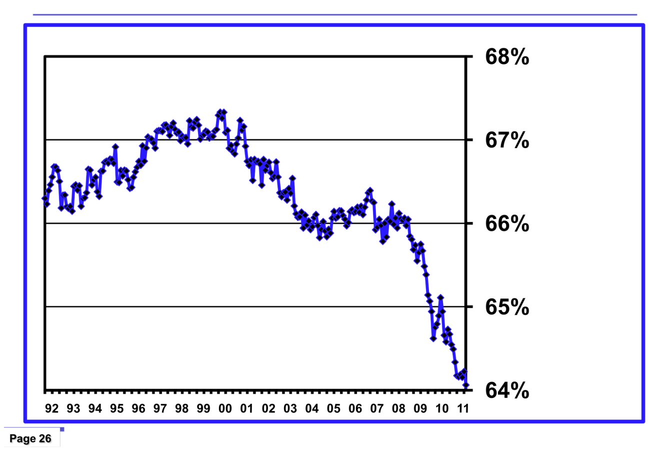
Let's take a quick look at the highlights of the June employment report:

- Payroll employment rose only 18,000 in June.
- April and May payroll estimates were revised down a collective 44,000, which means that estimated payroll employment was actually less in June than that reported initially in May.
- Payroll employment has risen only 1.0 million, or 0.8% over the last 12 months, remains 7.0 million below the pre-Great Recession high and is still lower than the level achieved in March 2000.
- The unemployment rate rose from 9.1% to 9.2% and is up from its recent low of 8.8% in March.
- The unemployment rate which includes discouraged workers rose from 15.8% in May to 16.2% in June.
- The median duration of unemployment rose from 22.0 weeks in May to 22.5 weeks in June. It has never been this high since the Great Depression.

- Household employment (separate survey) fell 445,000 in June and is only 143,000, or 0.2%, higher than 12 months ago, and is 7.1 million below the pre-Great Recession high.
- The labor force shrank 272,000 in June and is down 273,000, or -0.2%, over the last 12 months.
- The labor force participation rate fell to a new recent low of 64.06%, a level not experienced since January 1984 when the baby boom generation was entering the labor force in large numbers.

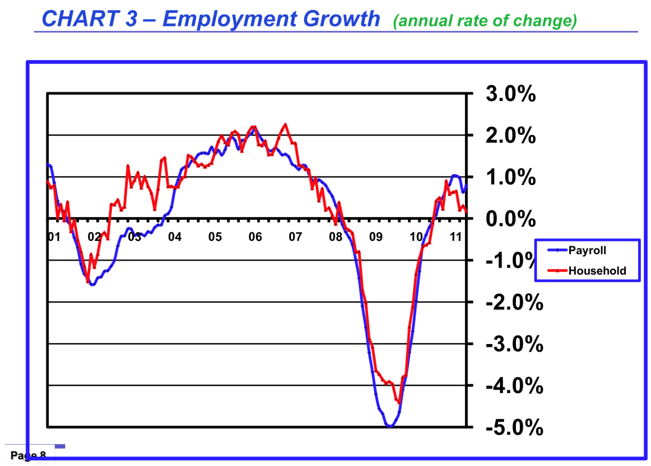
Over the last year, the number of people eligible to work has increased 1.8 million. Many of those eligible to work voluntarily choose not to do so. The household employment survey asks those eligible to work whether they are either employed or looking for work. This measure is called the labor force. The relationship between those eligible to work and those willing to work is termed the "participation rate". During the last 12 months the participation rate decreased from 64.66% to 64.06% (see **Chart 2**) and it

CHART 2 – Labor Force Participation Rate



is down approximately 2% since the start of the Great Recession. A 1% change in the participation rate equals approximately 2.4 million people who have chosen not to seek employment either voluntarily or because they have become discouraged.

Generally, over long periods of time the payroll employment survey and the household survey of those employed track each other relatively closely (see **Chart 3**). However, the two surveys, because of differences in sam-



pling methods, will sometimes diverge on a month-to-month basis. The difference between these two surveys has been more sustained over the last 12 months, with payroll employment rising 1.0 million compared to only a 143,000 increase in household employment.

A possible explanation for this sustained difference, which is unusual, could be embedded in the payroll survey estimation methodology used to account for self-employed individuals and persons employed by small businesses. Generally, the payroll survey underestimates the number of such employees during the recovery phase of the economic cycle, as is illustrated in **Chart 3** for the period during the economic recovery that followed the 2001 recession. The recent result is exactly opposite to what happened after the 2001 recession. It could be that the continued extremely weak small business survey data might be telling us that the typical recovery in self-employment and small business employment is not occurring this time. Indeed, there is evidence from the National Federation of Small Businesses monthly survey that that is exactly what is happening. This phenomenon is discussed further below.

Since the payroll survey focuses on combining data from large employers and with estimates for small business and self-employed workers, it is possible that the supplemental estimates are overstating the true situation.

Payroll data are benchmarked annually on a retrospective basis. Household data are never revised. Thus, it is reasonable to posit that in times of potentially significant structural change in labor markets, the household survey will be more reliable than the payroll survey.

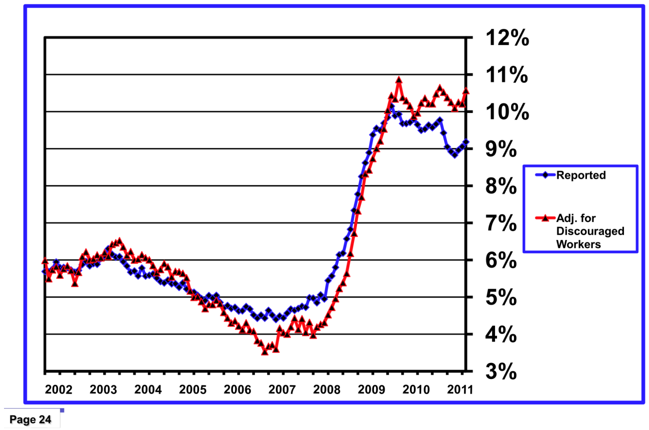
2. Labor Force Participation

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

Demographic factors have driven a slow decline in labor force participation since it peaked just prior to the 2001 recession. There was a bit of a rebound in the late part of the cyclical expansion prior to the start of the Great Recession in December 2007. The decline in participation over the last three years is much greater than can be explained by demographic factors alone. The primary demographic reasons for declining participation are an aging workforce with a lower participation rate in the oldest cohorts and a declining participation rate among young workers, probably reflecting a larger proportion going to college. Demographic considerations have accounted for about a 0.5% decline in the participation rate since the start of the Great Recession. Other factors have contributed to the remaining 1.4% decline from the peak of 66.0% at the onset of the Great Recession. Principal among these other factors is discouragement, which prompts workers to give up looking for work and drop out of the work force. Such workers could well re-enter the labor force when job prospects improve and the labor market tightens. However, some of the decline could also stem from structural unemployment for workers who are simply unemployable because they do not have skill sets any employer needs.

There are currently approximately 2.1 million workers who have dropped out of the labor force for reasons unrelated to demographic considerations. If all of these workers are discouraged and plan to re-enter the labor force as the labor market improves, the June unemployment rate would have been 10.6% rather than the reported rate of 9.2% (see **Chart 4**).

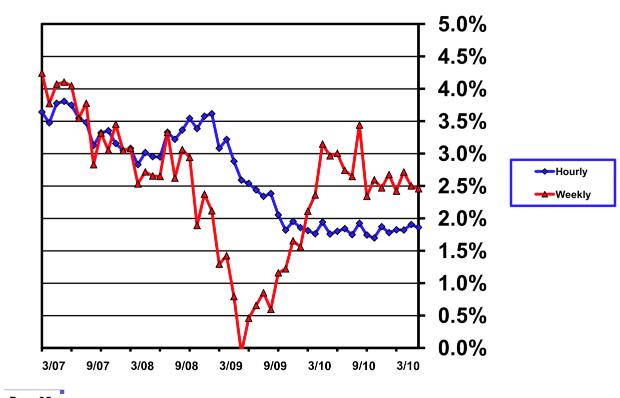
CHART 4 – Reported Unemployment Rate & Adjusted for Discouraged Workers



3. Wage Growth

Average hourly wage growth, which is an indicator of the intensity of excess labor supply relative to demand, has stabilized over the last year. **Chart 5** shows the annual rate of change in the hourly average employee nominal

CHART 5 – Hourly and Weekly Wages
(annual rate of change)



wage rate and the annual rate of change in weekly wages. The growth rate in average weekly wages adjusts for the average number of hours worked.

The growth rate in weekly wage earnings is a measure of spending power of consumers. Weekly wages had grown since mid-2009 as average hours worked slowly increased, but now have stabilized and appear to be converging gradually downward toward the growth rate in average hourly wages. Overall Chart 5 tells a story of a very weak labor market that is in the process of stabilizing at a low level of wages.

4. Where Are the Jobs — Some Observations

Last month's letter provided several observations:

- Jobs have been lost to emerging economies.
- The U.S. has had consumption biased policies which favor purchase of cheaper foreign goods and services, as reflected in the increase in the size of the U.S. trade deficit over the last 39 years to a large and persistent level. The trade deficit was 3.5% of GDP in May 2011compared to less than 1% 30 years ago.
- China is intentionally pursuing a mercantilist policy to spur exports by pegging its currency to the dollar, which inhibits adjustments in trade imbalances through the exchange rate mechanism. This encourages U.S. purchase of cheaper Chinese goods and export of jobs to China.
- Policies encourage use of consumer debt to finance consumer spending.
  - Growth in consumer debt has contributed to consumption-based economic growth versus investment-based growth.
  - Growth in consumer debt has facilitated non-productive asset price bubbles.
  - Debt-fueled wealth creation reduced the need for consumers to save out of current income, forcing investment increasingly to be financed by foreigners (large trade deficits trigger corresponding return flows of foreign-controlled dollars into U.S. financial and real assets).
- Income inequality in the U.S. has worsened steadily over the last 30 years.

- Driven by an explosion of financial derivatives and increasingly sophisticated data software, a growing share of financial activity and profits now derive from trading of financial instruments compared to financial intermediation services — credit and savings — and advisory services.
  - Trading activity involves the transfer of wealth rather than the creation of wealth through investment in productive activity.
  - Increased trading activity appears to be correlated to the frequency and amplitude of asset price bubbles.
- The portion of government spending devoted to transfer payments, such as social security, Medicare, Medicade, unemployment insurance, family assistance and the like, has risen steadily; the portion going toward investment in research, education and infrastructure is decreasing. Investment creates wealth, transfer payments do not.
- Government spending on goods and services, which excludes spending involving transfer payments, has decreased from 23.6% of GDP in 1977 to 19.4% in 2010. Over the same time period, the portion of household personal income going to pay taxes has decreased from 12.1% to 9.3%.
- While much of government spending goes to pay for a variety of services, a portion can fairly be characterized as investment. Cutbacks in discretionary spending in recent years have taken a greater adverse toll on investment than on services.
- Investment spending as a portion of GDP has remained at a relatively constant 13% of GDP; however, the quality of investment in terms of creating a foundation for wealth creation over time has slipped, as demonstrated by overinvestment in single family housing..

Collectively, these observations paint a picture of a U.S. economy which has placed an increasing emphasis over time on consumption-based economic growth rather than investment-based growth. For years the expansion of consumption-based economic growth was facilitated by rising consumer debt relative to income and foreign excess savings stemming from recycling dollars derived from huge trade surpluses with the U.S. When consumers finally reached the breaking point where the debt burden had simply become too great and were forced to retrench, government stepped in and continued debt-fueled consumption-based economic growth through deficit financing and consumer transfer payments.

5. Where Are the Jobs — Weakness in New Business Formation

Data from the Bureau of Labor Statistics and the Census Bureau provide interesting insights into job creation over time. Historically, from 1980 to 2005 nearly all net job creation came from firms that have been in business five or fewer years. This percentage has slipped more recently. In 2007, young firms accounted for approximately 8 million of the 12 million total jobs created in that year. About 3.5 million of these 8 million jobs, nearly half, were created by firms that were less than one year old. As recently as 2000, firms less than one year old created about 4.7 million jobs, but this number has dropped steadily and was only 2.4 million in 2010.

Mirroring the decline in new jobs created, the number of new businesses aged less than one year declined from 670,000 in 2007 to 500,000 in 2010 and the number of new businesses started annually declined from approximately 850,000 to 675,000 over the same time period. But deaths of firms grew from approximately 750,000 in 2007 to 925,000 in 2010. Thus, births exceed deaths by about 100,000 in 2007 but this relationship reversed by 2010 with deaths exceeded births by approximately 250,000.

From 2006 through 2009 more than 7 million jobs were lost. New firms less than one year old created 1 million fewer jobs and young firms five years old or less created 4 million fewer jobs. ***The conclusion is straight forward: new and young firms in recent years have not been the engines of new job creation to nearly the extent that they had been in the past***.

Two recent studies — one by Dane Strangler and Robert E. Litan of the Ewing Marion Kauffman Foundation and a second by John Haltiwanger of the University of Maryland and Ron S. Jarmin and Javier Miranda of the U.S. Census Bureau — conclude that newly established companies and firms less than five years old account for about two-thirds of job creation averaging approximately four new jobs per year per firm.[2] Both studies also conclude that it is the age of firm that matters and not its size. These findings imply that policy needs to focus to a much greater extent in fostering new business creation. While there is a positive correlation between firm size and firm age, the current policy focus on firm size would be more effective if much

[2] Dane Strangler and Robert E. Litan. Where Will The Jobs Come From? Ewing Marion Kauffman Foundation. November 2009. John Haltiwanger, Ron S. Jarmin and Javier Miranda. Who Creates Jobs? Small vs. Large vs. Young. July 2009.

greater emphasis were put on fostering new business formation and enabling young firms to be successful.

Based on the findings of these studies it would appear that a major source of the lack of job creation in recent years has to do with the decline in entrepreneurship and new business formation. The obvious question, then, is why is this happening since it does not appear simply to be the consequence of difficult economic times.

One of the most obvious reasons for the decline in new business formation has to do with access to financing. Many startups historically have been financed through personal credit cards, home equity loans, refinanced first mortgage loans and loans from friends and relatives. These sources are simply less available because of declining home values, and more restrictive credit underwriting for credit cards and home loans. Also, while commercial business loans are increasingly available for established businesses, including small businesses, this does not appear to be the case for newly established and young companies.

Discerning the causes of the decline in entrepreneurship and new business formation and developing effective policy responses will be critical if we are to unleash America's historic job creation capabilities once again.

6. Where Are the Jobs? — Structural Changes in the Economy

Another reason why job creation is sluggish has to do with a mismatch between worker skills and the kinds of jobs that are being and will be created by an evolving U.S. economy.

McKinsey Study. McKinsey & Company recently released a study in which it found "... that the pattern of job creation in the United States has shifted." and "... a return to full employment will require not only a robust economic recovery but also a concerted effort to address the institutional and structural factors that have weakened job creation."[3]

McKinsey's analysis indicates that based on current trends and policies,

[3] James Manyika, Susan Lund, Byron Auguste, Lenny Mendonca, Tim Welsh and Screenivas Ramaswamy. McKinsey Global Institute. An Economy That Works: Job Creation and America's Future. McKinsey Global Institute. June 2011.

by 2020 there will a shortage of 1.5 million workers with a college degree and an excess of 6 million without a high school diploma who will not have jobs. Worker shortages are likely to occur for nutritionists, welders, nurse's aides, computer specialists and engineers.

McKinsey concludes its study with four recommendations:

- **(Skill)** Ensure that workers acquire the skills they need for the jobs that will be in demand.
- **(Share)** Find ways to gain a larger share of jobs in the global job market.
- **(Spark)** Encourage innovation, new business creation and scaling up of new industries. (As indicated in the section discussing "Weaknesses in New Business Formation", this is a particularly critical need.)
- **(Speed)** Remove impediments that get in the way of business investment and job creation.

Current Level of Structural Unemployment. The McKinsey study takes a longer term look at structural employment issues and concludes that not only do such issues already exist but they will increase in importance and impact over time unless policies are adopted and implemented to address them systematically.

In the meantime economists are debating how much of the recent increase in the unemployment rate is due to structural factors and how much is due to cyclical considerations. The debate is particularly important for the conduct of monetary policy because inflation would become a greater threat at a higher unemployment rate, if structural unemployment is high.

Economists define the inflation-neutral level of unemployment, NAIRU (non-accelerating inflation rate of unemployment) as the unemployment rate below which inflation pressures would rise. Over time NAIRU has moved about somewhat but generally it is believed to have been about 5.0% prior to the onset of the Great Recession. All agree that structural unemployment has risen and that NAIRU is now higher than 5.0%. Bank of America/Merrill Lynch Economic Analysis asserts that NAIRU is now between 6% and 7%, while Goldman Sachs believes NAIRU has risen by % to 1%, which would put it into a range of 5.5% to 6.0%. A rigorous econometric study published recently by Jinzhu Chen, Prakash Kannan, Prakash Loungani and Bharat Trehan finds that 75% of the increase in the unemployment rate is due to cyclical factors and 25% is due to structural considerations.[4] That finding translates into a 1% increase in NAIRU, or approximately 6%, which is the top end of Goldman Sachs range and the bottom end of B of A's range. With the unemployment rate currently at 9.2% the implication is that inflation is not an imminent threat and will not be for a long time to come.

7. Where Are the Jobs? — Breakdown in America's Social Contract

When it comes to trying to explain why jobs are not being created and why wages have stagnated, there is yet another line of argument, although some of the causes are similar to those cited above. The general thrust of the argument is that the balance between employers and workers that constituted an implicit social contract has transformed into an unbalanced relationship in which employers dominate workers. Divergence can be dated approximately from 1980, which, coincidentally or not, is about the time that income and wealth inequality began to build. Until 1980 the rate of growth in productivity and the rate of growth in real wages moved in tandem. Since 1980 productivity growth has continued and has actually accelerated since 1997, but real wage growth has stagnated.

Thomas Kochan suggests several causes of the breakdown in the social contract.[5]

- Globalization has resulted in the loss of jobs and placed downward pressure on wages.
- Technological change has depressed wage gains in the lower-middle range of the income distribution, jobs usually held by those with a

[4]Zinzhu Chen, Prakash Kanna, Prakash Loungani, and Bharat Trehas. New Evidence on Cyclical and Structural Sources of Unemployment. Federal Reserve Bank of San Francisco Working Paper Series, Working Paper 2011-17. May 2011.

[5]Thomas A. Kochan, George Maverick Bunker Professor of Management, MIT. Needed: A New Social Contract At Work. Decent Jobs Forum, New American Foundation. June 2011.

high school diploma or with some college education.

- Decline of unions and collective bargaining.
- Shift in making money through investments in productive enterprises to engaging in financial transactions.
- Deregulation of financial markets and other industries. While this had competitive benefits, it was coupled with increasing government passivity, which involved weaker enforcement initiatives and failure to constrain behaviors which created economic excesses, such as the housing bubble.

Kochan believes job creation will be impeded and wages will continue to stagnate until a new social contract is constructed. This will require building "...institutions capable of supporting an innovation-knowledge based economy." This will need to involve transforming labor-management relationships, rebalancing corporate governance and practices, more effective government enforcement regimes and agreement about appropriate wage norms.

8. Where Are the Jobs? — What Needs To Be Done

The simple answer to the question: "Where are the jobs?" is that they aren't there. And, if they aren't there, traditional monetary and fiscal policy tools will not be able to bring them back. The more complicated question is: "Why aren't the jobs there?" This is the issue that needs to be explored because finding answers to the question — defining what the problem is — is the first necessary step to developing policy responses that will lead over time to creation of jobs.

Loss of job creation momentum is not a new phenomenon courtesy of the Great Recession. Significant structural changes in the global economy have been building for nearly two decades. In addition, changes in the social contract between employers and workers and systematic changes in the role of government have had cumulating effects over a long period of time. Pressures on U.S. jobs have built gradually in tandem with these changes. Until the shock of the Great Recession the pace had been gradual enough that policymakers paid little attention to the full extent of the accumulating consequences.

Two other factors have reinforced policymakers' myopia. First, policymakers and analysts are captives of the traditional economic paradigm — both as to how the economy is structured and as to what policy tools are appropriate and how they should be used to manage the economy over the course of the business cycle. Paradigms often become dogma that walls off contrary thinking and criticism. Second, courtesy of the consumer credit boom and housing bubble, which persisted during much of the decade of the 2000's, millions of jobs were created. This gave the appearance of full employment. However, as we know now, many of these jobs were artifacts of the bubble and will not return. Had the bubble not occurred, for which we are paying dearly now, the shortfall of jobs would have been more evident years ago.

Interestingly, measured worker productivity has actually risen during the last two decades. What that means is that for the jobs that exist, technological advances and capital investments have contributed to increasing output per unit of input. However, robust productivity growth does not automatically lead to the creation of additional jobs. When investment focuses on making existing job more productive, increasing productivity results in job destruction. When investment leads to the creation of new technologies and new industries and improves the U.S.'s global competitiveness, it will result both in rising productivity and job creation.

9. Policy Makers Need to Redirect Resources from Stimulating Consumer Spending to Fostering Investment and Creating Jobs That Increase U.S. Global Competitiveness

It will be hard to redirect policy to do what is needed to restore U.S. global competitiveness and stimulate job growth. This kind of intervention should have been the focus of the Obama economic recovery program authorized by Congress in early 2009. Two years have passed and little has been accomplished in spite of the most massive fiscal policy intervention since World War II other than to avoid descent into depression. A negative consequence is a skyrocketing public debt to GDP ratio which is approaching levels that threaten the U.S.'s AAA credit rating. The size of public debt to GDP ratio has taken away precious policy maneuvering room because of the need to stabilize that ratio. And, stabilization requires reducing substantially the size of the current budget deficit.

So, even if there were agreement on what should be done, which there is not, there is no longer the kind of financial flexibility in governmental finances to implement the polices with the magnitude and timeliness essential to address the problem of creating jobs.

As to the policies most likely to make a difference and the right kind of difference that will be sustainable, I can only venture general observations. However, were the administration and congress to engage in a "Manhattan"-like initiative, or more realistically establish a commission similar in scope and charge to the Simpson-Bowles Fiscal Commission, there is plenty of good thinking that could be brought to bear on devising detailed policies and programs to create more jobs.

The general theme needs to focus on redirecting government resources away from consumption and toward investment. On the one hand this should involve diminishing or eliminating incentives and subsidies that promote consumption, such as the mortgage interest tax deduction. On the other hand a portion of government expenditures should be shifted from transfer payments that promote consumption to investment initiatives that create jobs. While some infrastructure investing was contained in the 2009 economic recovery program, the amount was small and infrastructure development projects were mostly left to the discretion of local governmental bodies. The opportunity to initiate an energy-independence research program never received serious consideration. Basic and applied research, which has been fundamental to the U.S.'s economic prosperity over many decades, has systematically been starved of government funding over the last two decades.

Also, much more attention needs to be devoted to developing and implementing policies that nurture entrepreneurship and new business formation and promote successful expansion of young businesses.

As a final note, I would observe that working our way out of overindebtedness at all levels is better accomplished and with less pain by fostering sustainable economic growth than by engaging in cost cutting and spending reductions. But, unfortunately the current policy debate is not focused on growth but rather on cutting taxes and spending without an appreciation, beyond adherence to the dogma that less government is better, whether such policies will be any more successful than consumption-based economic policies have been.

IV. The Curse of Excessive Debt Leverage

As I have commented in other letters, debt is an essential ingredient in enabling a modern market-based economy to operate efficiently, especially when its use is facilitated by a well-capitalized system of financial intermediaries. Debt provides the financial fuel to foster innovation and investment in productive enterprises that generate income and spur growth, productivity and increases in the standard of living. As credit underwriters, financial intermediaries work to place debt in well-managed entities in which risks are reasonable. Once the debt is placed, financial intermediaries conduct ongoing risk assessments and intervene, when and if necessary, to assure that management remains focused on the business at hand and addresses effectively and timely any challenges that arise.

This is a somewhat idealized portrayal of debt and financial intermediation because actual events can diverge from the ideal. Mistakes occur. Assessments are not always thorough. Unexpected events can dramatically affect expected outcomes. And, importantly, human behavior can interfere — greed and speculation, unwarranted optimism, complacency, misplaced trust, myopia, laziness, to name a few of the more serious human behaviors that get in the way of rational action. That is why it is important in a modern economy with a complex financial system to have standards-setting bodies, laws and regulations governing activities, transparency and timeliness of information dissemination and regulatory oversight of conduct and compliance.

But, even when all of these components are in place and operating effectively, they cannot prevent the disease of excessive debt leverage unless there is explicit understanding of the dividing line between good leverage and bad leverage. And, such an understanding must be accompanied by an ability to prevent excessive leverage from building up and spinning out of control.

Leverage becomes excessive when it becomes difficult to service interest and principal repayments out of usual and customary cash flows. Leverage can become excessive without an event of default being imminent simply if the surplus of cash flows available for responding to unexpected negative impacts on cash flows becomes too small. This is obvious for individuals and companies but it is also true for nations.

The dividing line between just enough leverage and too much is murky. Pressures to increase leverage are relentless, driven by optimism, speculation and greed. Episodes of financial bubbles followed by collapse course through all of recorded history. They are well documented, yet they recur with frightening regularity. Every one of these episodes is fueled by debt leverage and greed and an absence of effective governance mechanism to corral the bubble.

Perhaps the best we can hope for is to intervene and contain the speculative bubble before it spins so far out of control that the consequences are cataclysmic.

In previous letters I have also pointed out that the greater the extent to which excessive leverage accumulates, the greater will be the pain and suffering in the ensuing correction. This is true because someone must absorb the loss from leverage which can no longer be supported by an ability to service the debt. And, the larger the amount of excess leverage is, the larger will be the loss that must be taken.

When the bust finally comes, someone must bear the loss. In a simple world, the loser would be the holder of the debt instrument. But, we do not live in a simple world. When a financial intermediary is the holder of the defaulted debt, requiring it to absorb the loss could have negative ramifications that extend to other financial intermediaries and even to the entirety of the financial system. Contagion effects can occur because of linkages that cause losses for others. Contagion effects can also occur because of insufficient information transparency and the engagement of other financial intermediaries in similar credit instruments which could have embedded unrealized losses. Risk aversion can lead to loss of liquidity and panic selling.

Because no government is prepared to tolerate the collapse of its financial system and economy, the typical, but not necessarily first, response to a bursting debt-fueled bubble is to socialize losses. This means moving the losses from the holders of the defaulted credit instruments to taxpayers. Obviously, this is a very unpopular resolution method and one that frequently results in a fairly abrupt end to political careers. Politicians understand this risk and the natural human tendency to seek solutions that avoid risk leads them to devise forbearance and avoidance response strategies. We refer jokingly to these strategies as "pray and delay" or "pretend and extend" or somewhat more cynically as "kick the can down the road".

Sometimes, however, socialization of losses merely substitutes one problem for another. The idea of socializing losses is that the transference of debt to the sovereign benefits from a larger revenue base, so that what was excessive leverage at one level is manageable leverage at the sovereign level. But, this doesn't work if the sovereign already has high debt leverage or if the sovereign's revenue base is too small. This has happened to Ireland. It socialized bank losses to avoid a collapse of the Irish banking system and the more extensive damage to the Irish economy that likely would have ensued had the collapse been permitted to occur. Ireland actually had reasonably low debt leverage prior to socialization. However, the transferred debt was so enormous that it impaired Ireland's ability to service it. The consequence was that the European Community Bank (ECB) through the European Financial Stabilization Facility (EFSF) and the International Monetary Fund (IMF) had to make bailout loans to Ireland to avert potential default. Yet, Moody's just reduced Ireland's debt rating to Ba1, which is the highest junk classification, and Ireland's credit default swap pricing implies that the market expects a 58% probability of default. Another bailout seems probable and that may not be the end of the story.

But the history of bubbles and busts makes it abundantly clear that strategies which do not address directly taking the loss as quickly as possible and determining who should bear that loss, usually have two outcomes. First, temporizing strategies are rarely successful and ultimately the day of reckoning is inevitable. Second, temporizing strategies usually result in making an ugly problem even worse. There is an old saying in banking: "Your first loss is your best loss". This is as true for economies and nations as it is for individuals and financial institutions. Only in rare circumstances are temporizing strategies successful and those successes appear to be limited to cases in which debt leverage was not overly excessive to begin with. Another way of putting this is that the healing process cannot get underway in any meaningful sense until the poison that caused it — in this case excessive leverage — is removed.

We are in a time of dealing with the fallout of excessive debt leverage in a number of spheres. The time has long since passed for preventive action. Instead, policymakers have been forced to respond to developing strategies to manage the unwinding of excessive leverage and prevent the potential for contagion. In nearly all cases policymakers are dancing around the problems rather than tackling them head on.

Three crises in particular continue to dominate the headlines. They are percolating and at the moment each is worsening. They are the European sovereign debt crisis, the U.S. budget deficit and public debt, and the U.S. housing market. Although each has its own set of complexities and nuances, the root cause of all three is excessive debt leverage. And, so far, the response in each case has been forbearance and avoidance. The first two are at critical junctures which demand the development and implementation of new policy strategies within a matter of days. Odds favor that the strategies will not resolve either crisis once and for all, but simply buy some time; that is, "kick the can down the road"..

As for the U.S. housing crisis it is clear that the operative policy assumption is to bear the pain by doing little because it would be too painful and difficult to devise more direct remedial strategies. Anyways, it is assumed that the problem will eventually take care of itself as excess housing inventory is absorbed through population growth and household formation. Closer scrutiny of the data cast serious doubt on the validity of this assumption. And, if the assumption is wrong, the future consequences for homeowners, investors, the financial system and the U.S. economy could be severe. I will explore the U.S. housing crisis in greater detail in next month's letter.

V. European Sovereign Debt Crisis

For several years the euro appreciated in value against the U.S. dollar. During that time the European Union (EU) expanded its membership and absorbed many of the former Soviet Union satellite countries. A number of these countries also joined the monetary union, which required them to retire their own currencies and replace them with the euro. Today 27 countries comprise the EU and 17, the latest one being Estonia, are members of the monetary union and use the euro as their currency.

For a while all seemed happiness. Countries like Greece, Ireland, Portugal and Spain enjoyed prosperity as they were able to benefit from uninhibited credit access to a large market. The broad umbrella of the European financial system enabled members to borrow at low rates of interest as former country risk premiums melted away.

But then the global Great Recession hit with a vengeance and exposed serious flaws in the system. Although Greece has considerable company, its policies and the financial excesses they led to, were the first to trigger a financial debt crisis in the spring of 2010. However, default was unthinkable for a couple of reasons. If the monetary union permitted one member country to default, surely other members, most likely Ireland, Portugal and Spain, would quickly be put to the test with the very real possibility that a destabilizing chain reaction of defaults would ensue.

Second, a substantial amount of Greek sovereign debt was held by European financial institutions and default would have eroded their capital adequacy and perhaps even jeopardized their solvency, if contagion set in. Thus, the crisis was not just about sovereign debt, it was also about bank solvency and ultimately it was about the ability of the European financial system to function. The potential for panic similar to what ensued in the U.S. in the fall of 2008 was significant. Indeed, the survival of the euro itself was at stake.

Under the circumstances, a "bail out" of Greek debt was inevitable. It took a couple of harrowing weeks in the spring of 2010 for the EU to appreciate this reality and craft, with the help of the International Monetary Fund (IMF), an enormous rescue plan amounting to 440 billion euros to be provided by 27 EU member countries, 60 billion euros from an existing balance of payments stabilization program, and 250 billion euros from the IMF. However, the core fund of 440 billion euros was a special purpose vehicle that raised funds by issuing debt guaranteed proportionally by EU member countries. This fund expires after three years. In addition, the European Central Bank (ECB) agreed to buy government and corporate debt, but insisted that such purchases would be for liquidity purposes only. In other words, any purchases would be "sterilized" in monetary policy parlance to avoid a quantitative easing impact on monetary policy.

As part of the package, Greece agreed to reduce its budget deficit from 14% of GDP to 3% of GDP by 2012, raise its retirement age and implement other austerity measures, particularly in the labor market.

In the aftermath of the crisis an uneasy calm returned for several months. But the problems that led to the crisis remained and financial stress, as reflected in interbank lending rates, remained elevated.

To understand why the problem was neither fixed nor contained and why further crisis episodes were inevitable, let me explore the structural flaws in the European monetary union and how social welfare policies, demographic trends, reliance on debt leverage and banking system weaknesses are a toxic mix that will not be easily managed.

1. Differences Between the European Monetary Union and the United States

If the United States had remained a confederacy rather than adopting the constitution that now governs us, we might have long since experienced the kinds of challenges that are now facing the European monetary union.

The U.S. has a single currency as do 17 of the 27 members of the EU. A single currency facilitates trade and reduces the costs of doing business by increasing efficiencies. It deepens and broadens financial markets and reduces funding costs.

But that is where the similarity ends. In a trade union with a common currency economic activity will flow to the least cost location. From time to time in the U.S. a region has become cost ineffective and the region has experienced dramatic readjustment pains. For example, in the 1980's New England lost much of its manufacturing base as companies shifted production to cheaper locations. Over time New England restructured its economy by investing in new businesses — primarily high tech — in which it could be cost competitive. This kind of dynamic adjustment requires labor mobility. Labor mobility in Europe is very limited because of significant ethnic geographic concentrations, language differences, and cultural barriers.

There is another important difference. In the U.S. states are required to balance their budgets. Debt financing for other than capital projects and anticipated tax revenues is not possible.

EU members retain the same rights to manage and finance their budgets, including deficit financing, as they did before they became members. The EU realized that this freedom entailed the potential for moral hazard and would always pose risk to the stability of the monetary union. Thus, as a part of the Economic Growth and Stability Pact that prospective members are required to sign, there is a stipulation that a country may not run a deficit in excess of 3% of GDP except under exigent circumstances and even then it must return to the 3% limit within a reasonable period of time. In addition, countries must limit their public debt to a maximum of 60% of GDP. Unfortunately, Greece violated that part of the Stability Pact with some financial gimmickry, aided and abetted by some of the large investment banks, and through false accounting. Greece's deficit ballooned to 13.6% of GDP in 2009 and its debt to GDP ratio rose to 115% at the time of the initial crisis and has since risen to a much higher level. That this occurred so easily reflects the lack of enforcement power within the EU to discipline its members short of the "nuclear" option of ejecting a country from membership.

2. Impact of Default on European Banks

What made the Greek sovereign debt crisis especially toxic initially was that a very large portion of its debt was held by European banks, although over the past year a good portion of this debt has been moved to others. The concern remains that a Greek default, absent a clearly understood and operational support mechanism, would translate immediately into a run on European banks holding large quantities of sovereign debt in the most troubled countries — Portugal, Spain, Ireland and perhaps Italy.

At least part of the blame for the size of the sovereign debt problem can be pinned on the policies of the ECB. European banks could buy sovereign debt of weaker member countries at somewhat higher interest rates than prevailed on the debt of stronger member countries. Then, banks financed (in technical parlance "swapped) these purchases at full value by borrowing from the ECB at low rates of interest, collecting a generous arbitrage spread in the process. The lending subsidy provided by the ECB made it easy for member countries to finance deficits and diffused the effectiveness of bond market discipline. Does this sound a lot like the flaws in the implicit guarantee of Fannie and Freddie debt issuance?

Thus, it is hardly surprising that financial stress has reemerged. Lack of clarity about which European banks are most exposed to the debt of countries which might eventually be forced to default and restructure their debt has made banks wary of making short-term loans to one another and to do so only on a very short-term basis at elevated interest rates. In response, the EU conducted stress tests of the banks during the summer of 2010. Many dismissed the results as a political, rather than a substantive, exercise. Another round of stress tests is in the works, reportedly involving more rigorous and realistic assumptions.

3. Level of Debt to GDP Ratio That Triggers Escalating Probability of Sovereign Debt Default

Debt leverage reduces policy flexibility. At some level of debt leverage, the ability of policy intervention to engineer a soft landing no longer is possible and default becomes the only remaining option. Carmen M. Reinhart, professor of economics at the University of Maryland, and Kenneth S. Rogoff of Harvard University in their seminal work, This Time Is Different, found that external debt to GDP ratios averaged about 70% over the last 40 years when sovereign debt defaults occurred. Some defaults occurred at much lower levels, but these involved a “willingness to pay” decision rather than an “ability to pay” problem. In another study, Paolo Manasse of the University of Bologna, Nouriel Roubini of New York University and Axel Schimmelpfennig of the International Monetary Fund determined that an external debt to GDP ratio of 50% is a key level when debt default becomes possible. The numbers in these two studies are not necessarily incompatible — the 70% figure is an average for countries that actually defaulted while the 50% figure indicates that a country has entered into a zone where the possibility of default exists.

4. Options To Defuse a Sovereign Debt Crisis

A sovereign debt crisis occurs when a country has lost its international cost competiveness resulting in a chronic balance of payments deficit and when its debt to GDP ratio has climbed to a level that causes lenders to fear default because the country’s capacity to service the debt is constrained. What ensues is an inability of the country to rollover existing debt and finance new debt. For example, Greece's wage and price competitiveness relative to the strongest members of the EU declined about 30% in recent years, resulting in its current account deficit rising to an annual level exceeding 12% of GDP.

The classic response to a sovereign debt crisis has been for the country to default and restructure its debt and simultaneously devalue its currency. Frequently, but not always, these actions will also be accompanied by austerity measures, such as wage freezes or reductions and/or cuts in social benefit programs, to improve the country's competitiveness.

Debt default and restructuring immediately reduces the debt burden and lowers the cost of debt servicing. The negative consequence is that the country will find it difficult, if not impossible, for a period of time to borrow any new funds. This forces the country to live within its means. However, the pain of adjustment can be assuaged through substantial devaluation of its currency. At a single stroke this cheapens the cost of its exports and increases the cost of its imports. Devaluation improves the country's balance of payments problem quickly, limiting the need to seek external financing. It also improves competitiveness without having to resort to more painful internal austerity measures involving substantial cuts in wages and government spending.

However, this traditional response is unavailable when a country gives up its own currency and becomes part of a currency union. It can default on its debt and remain in the union, but only with the blessing of other members. But it is impossible to devalue its currency because it has none. Short of defaulting on its debt, the country's only option is implementation of draconian austerity measures to close its competitiveness gap. During the time it takes to accomplish this other members of the union must guarantee or otherwise support the rollover of its debt and necessary new debt issuance.

5. Consequences of the Austerity-Only Option

The most obvious consequence of restoring competitiveness through austerity is that it may not work politically. Austerity involves dramatic cuts in government spending. It involves reducing health and pension entitlements. It involves firing enormous quantities of government workers.

In the case of Greece, it was required by the terms of the EU-IMF first bailout agreement to reduce its budget deficit, which equaled 13.6% of GDP in 2009, by 5 percentage points in 2010 and approximately an additional 1 to 1 percentage points in following years, which would achieve the target of 3% by 2014.

EU-IMF assumptions about the consequences of austerity measures on the Greek economy were overoptimistic. For example, Greek GDP was assumed to decline 4.6% in 2010 and another 2.6% in 2011 before resuming modest growth. The actual decline in GDP in the months following implementation of these austerity measures has been approximately 9%. Tax revenues rose a miniscule 2.5 billion euros from 50 billion in 2009 to 52.5 in 2010. As the tax base erodes it will be hard to match the 2010 level in 2011. This puts the entirety of budget deficit reduction on spending cuts and sales of state-owned businesses.

Latvia and Ireland had a nearly two-year head start on implementing draconian austerity measures. Nominal GDP fell 20% in Latvia and 10% in Ireland by 2010. Nominal GDP has continued to fall in Ireland into 2011. For the EU-IMF assumptions to prevail, Greece must be able to grow its way out of its problems. However, because of its lack of cost competitiveness and inability to devalue its nonexistent currency, this seems totally impossible to accomplish. Deflation in wages will eventually restore competitiveness, but this is not likely to happen within as short a timeframe as the EU-IMF assumptions imply. And, wage deflation will certainly assure a powerful negative effect on nominal GDP growth.

6. Greek Sovereign Debt Crisis — Round 2

A second bailout of Greece is in the process of being stitched together. Like the first one, it will involve additional loans, probably this time from the EFSF. The EFSF would likely purchase Greek debt at issuance at much lower rates than the current 3% markup over funding costs so as to reduce the debt servicing burden on the burgeoning Greek debt to GDP ratio. There is a reasonable chance that the EU and IMF might lower the interest rates on the debt issued to Greece under the first bailout plan.

The EFSF might also decide to purchase existing Greek debt in the secondary market, although any announcement to do so would result in a rally in Greek debt prices and reward speculators. The effect of these purchases by the EFSF would be to transfer much of the burden of eventual default from existing creditors to EU member countries, which means to taxpayers of member countries.

To assuage the negative public reaction to socialization of Greek debt, existing holders of Greek debt might be encouraged to engage in a "voluntary" exchange of maturing Greek debt for new long-term debt. S&P has indicated that such an exchange might constitute an event of selective default. The ECB is absolutely opposed to any kind of transaction that would lead to a designation of default, even if it were selective and temporary. That is because a determination that an event of default has occurred would require the ECB to impose additional discounts on Greek debt that it accepts as collateral for loans to member banks. This, in turn, would place additional adverse financial pressures on European banks.

There is also the matter of whether a selective default would trigger payments obligations under credit default swaps. While German and French banks have the greatest direct exposure to a default of Greek debt, U.S. and other non-European banks have considerable default exposure through credit default swaps. According to estimates provided by Markit, U.S. banks have gross Greek credit default swap exposure of $78.7 billion, but net exposure after offsets is only a little more than $5 billion. In addition, there is approximately $44 billion in other credit guarantees linked to Greek debt, according to the Bank of International Settlements. The larger risk would stem from contagion and events of default in other European countries. Gross credit default swap exposure for Greece, Portugal, Ireland, Spain and Italy is a combined $616 billion plus an unknown amount of additional credit guarantees linked to other contracts. The size of these exposures and the potential for uncertainty to trigger contagion is why there has been resistance to date to undertaking debt restructuring. Because debt restructuring, at least for Greece, is ultimately inevitable, EU authorities will have to come up with a solution eventually that averts contagion.

Overall the solution which is currently being crafted will not resolve Greece's problems over the long term but it could avoid financing challenges for another one to two years. In the meantime Greece was recently forced to adopt additional austerity measures. Since the crisis erupted over a year ago, Greece's unemployment rate has risen from approximately 10% to over 15% and is still rising. Industrial production has fallen over 15% and GDP has fallen more than 9%. As explained above, without the ability to devalue the currency it will be a very long and painful process before Greece is able to restore competitiveness within the EU. And, austerity will not bring down the debt burden. Only debt restructuring in which the debt is discounted can accomplish that. The EU is not yet ready to adopt that option, but ultimately it will have to do so.

7. It's Not Just About Greece

In lowering Ireland's debt rating to junk status, Moody's was clear that it expects a second round bailout, similar to what is in the process of occurring in Greece, to be required. While overall Ireland's situation is not quite as hopeless as Greece's, it, too, may eventually be forced to restructure its debt.

A few days before the Irish downgrade Moody's downgraded Portugal's debt to junk status and included a similar warning that another bailout might be required.

Moody's ratings downgrades, the ongoing Greek crisis and S&P's selective default warning unleashed speculative attacks on Spanish and Greek debt. The budget deficit in Italy is relatively low, but the debt to GDP ratio is very high in the range of 120% and economic growth is feeble at best. In fact one economist noted that if inventory accumulation were deducted, Italy's GDP growth would be zero. The same economist is expecting the economies of both Italy and Spain to contract over the next year. Should this occur, it would worsen the debt to GDP ratio. Italy is in the process of putting together new austerity legislation which is likely to pass. But this legislation, at least in the short run, could worsen, rather than improve, the debt situation.

Europe seems likely to follow the pattern of the U.S. financial market meltdown that began in early 2007 and climaxed in September and October 2008. During that time span there were a series of crises, each worse than the previous one. However, each crisis was apparently contained through policy intervention and was followed by a benign interlude during which many market participants believed problems had been resolved. Of course, we know from what ultimately happened that the responses to the intermediate crises did not address the underlying problem of excessive debt leverage in mortgage securities and other types of financial activities. So crises kept reemerging in new places until losses were taken and the financial system was recapitalized with the help of TARP. Even today the problem of excessive homeowner debt leverage has not yet been dealt with effectively in the U.S. housing market.

I expect that the drama of the last few days will subside once the second Greek bailout is crafted. However, there is still Portugal and Ireland to deal with and conditions are slowly deteriorating in Spain and now in Italy as well. So, there will be new crises down the road. The EU is still a long way away from putting together policies that will effectively deal with extensive financial and competitive weaknesses. Ultimately those solutions will have to involve taking losses and determining who should bear them and then implementing these policies in a way that does not unleash a Lehman-like financial panic.

In the longer run, the survival of the European Union itself is in jeopardy. It may have to retreat to its original form as a trading union — the Common Market — and abandon the currency union. To survive as a monetary union, it will have to require members to give up a large measure of fiscal sovereignty so that the EU begins to take on more of the features of the U.S. The pain is not great enough yet and the fear of the threat of the collapse of the euro is not palpable enough yet to compel authorities of member nations to consider drastic measures to preserve the euro. Even if such a mindset emerges, it is difficult to discern how effective governance structures can be put in place which can ensure fiscal discipline can be maintained without spawning moral hazard.

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