

An Evaluation Of The Prospects For The Euro Currency In 2012-2013

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ABSTRACT

The 2008 global Financial Crisis and the subsequent relative collapse of the financial and economic markets, including the government bond markets, in Greece, Ireland, and Portugal as well as economic weakness in other Western European economies have called into question the viability, going forward, of the Euro Currency. The so called PIIG'S countries of Portugal, Ireland, Italy, Greece, and Spain are thought to be financially vulnerable because of high levels of government spending and resulting deficit levels and inefficient labor markets and tax collection policies among other factors. Those five countries, along with the stronger economies of France and Germany, comprise 7 of the 17 countries in the Eurocurrency Union. Any weakness in the 5 country group can have a contagion effect on the rest and if the recent financial bailouts by the IMF and the European Central Bank in Greece, Portugal and Ireland are not effective then there is a real danger that one or more of the GIP (Greece, Ireland and Spain) countries may have to abandon or be forced to abandon the Euro. Because there is no provision for a country leaving the Eurocurrency Union this is uncharted territory and could lead to the weakening or even demise of the Euro depending upon circumstances. The fact that there are also significant financial linkages and related default risk connecting the five countries to the sounder economies of Germany and France increases the risks. This paper will evaluate the likelihood that the Eurocurrency will be substantially weakened or abandoned over the next 18 months. The evaluation will be highly dependent upon the forecasts for the 5 countries economic prospects, especially the very large economies of Italy and Spain as well as the likely responses of Germany and France to future default like events in the five countries. Metrics utilized will include the trend in economic indicators like long term government bond yields, deficit spending, tax collections, economic growth, and financial linkages and dependence among the seven countries. European Central Bank data and information from related sources like the IMF will be utilized.

Keywords: Euro Currency; Euro PIGS; Eurocurrency Union

METHODOLOGY

M easurement, comparison and subsequent analysis of the government bond yield spreads over time of the five PIIGS countries versus Germany, arguably the most financially stable and fiscally disciplined European country, indicates the market's perception of the changing and increasing levels of credit risk among the countries. Other factors, such as debt to GDP ratios, government deficits to GDP, unemployment rates and growth rate predictions will also be examined. The analysis and comparisons will then be utilized to predict if, and possibly when, Greece will exit the Euro and whether the Euro currency will survive the next 18 months.

LITERATURE REVIEW

There have been a large number of research papers and internet postings in the past three years regarding the 2007-2009 global financial crisis and Euro related events focusing on the so called PIGS countries of Portugal, Ireland, Greece, and Spain. By necessity this will not be an exhaustive review of that literature. However, some of the more important papers and events need to be discussed. Starting with some of the most recent research papers and related comments that focus on the Euro we observe that the OECD Journal article, Blundell-Wignal, et al

(2011), suggests that currently we have a European Union suffering from a simultaneous and related banking and sovereign debt crisis as evidenced by the recent and rapidly increasing government debt yield spreads between Greece, Ireland, and Portugal as compared to the benchmark German bonds. These yield spreads could be related to at least three factors: credit risk related to the probability of default or debt restructuring, liquidity, and a variance in market risk premium.

The sovereign debt crisis and the banks are related because major European banks hold large amounts of other countries government bonds and other debt that may be subject to default and therefore possibly impact bank solvency. The large increase in yield spreads among and between government bonds of different European countries imply default probabilities but can also be impacted by liquidity and risk premium considerations as noted above. Also, the OECD article by Blundell-Wignall et al (2010) posits that the problems in Greece and Portugal are primarily fiscal whereas the problems in Ireland and Spain are related to banks and the related property boom and bust in those two countries.

Codogno, et al (2003) shows credit risk factors and not liquidity considerations were the major factor in determining yield spreads after the introduction of the Euro currency, but prior to 2003. Bernoth and Erdogan (2010) studied sovereign bond yield spreads for 10 EMU (European Monetary Union) countries from the first quarter of 1999 through the first quarter of 2010. Those countries included the 4 PIGS countries plus Italy as half of the countries sampled. They discovered significant changes in the pricing of risk and its causes over the period, particularly from the fourth quarter of 2007 forward. They conclude that liquidity considerations never explained bond yield differentials in the EMU during their study period. Interestingly they conclude that before the financial crisis financial markets focused on debt to GDP ratios but gave little or no attention to government debt ratios. They attribute the large increase in sovereign bond yield spreads in the EMU during the last three years of the study to three factors: a general increase in risk aversion, a deterioration of fiscal position in terms of debt and deficits, and an increase in the price of risk. The first and third factors are likely related and not necessarily independent of one another.

Similarly, Pozzi (2009) found that from 1991-2006 that the 10 year government bond yield differentials for Belgium, France, Italy, and the Netherlands versus Germany converged toward zero, related to the introduction of the Euro. Both Bernoth and Erdogan (2010) and Pozzi (2009) results suggest that Germany's role as a safe haven largely disappeared between 1999 and 2006, as reflected in yield spread convergence. Then it again became a notable consideration particularly after the failure of Lehman Brothers in the Fall of 2008. Since then there have been waves of yield spreads widening, and for relatively brief periods narrowing, related to bond investors changing perceptions of the merits of the European bailout plans for some of the PIGS countries and the related perceived risk of default or debt restructuring in Greece, Ireland, and Portugal.

Another paper by Barrios et al (2009) analyzing government bond yield determinants in the Euro area and focused on the financial crisis period starting in 2007. They found that general risk perception by international investors was a major determinant of bond yield differences during this period. They also suggest that domestic factors such as the outlook for fiscal deficit spending and large current account deficits play a smaller but non-negligible role. However, they did not find that liquidity considerations were important yield spread determinants. In contrast two studies prior to 2007 Beber et al (2006) and Bernoth et al (2006) did posit an important role for liquidity in some Euro areas and particularly in times of financial stress.

Credit risk can be divided into risk of default, downgrade risk, and credit spread risk as defined in Barrios et al (2009). Liquidity risk and a general increase in the global risk premium, as well as, the price or pricing of risk, are two other possible determinants of yield differentials.

A very recent and rather comprehensive summary of the European Regional Economic Outlook by the Scotiabank Group, Tuuli (2011) focuses on Germany, France, Italy, Spain, Ireland, Portugal and Greece. This list of the 7 countries is in rank order of lowest to highest credit default swap costs for the seven countries and also corresponds to the order of 10 year government bond yields that ranged from about 4% and below 5% for Germany, France, and Italy up to above 14% for Greece in March 2011. The yield for 10 year Greek government bonds reached 16% in May 2011, and exceeded 17% in June 2011 and peaked at 35% in March 2012 as a Greek default became more likely.

This study will not attempt to break down the causes of yield differentials and will assume that the liquidity differences among EMU countries were largely insignificant after, and mainly because of the advent of the Euro union and Eurocurrency. One important consideration is related to the likelihood that a perceived to be relatively stable EMU country at the present time would be subject to a downgrade in global bank or bond ratings. The occurrence of these kinds of events could, or should be, related to a deterioration in the financial soundness of a country as evaluated by their measures of fiscal discipline. These include the relative levels of debt and deficit spending relative to GDP and relative to the German benchmark. It is worthwhile to note that although the German government was somewhat reluctant to participate in funding bailouts for Greece, Ireland, and Portugal there is reason to believe that any bond defaults or debt restructuring by those 3 countries, or Italy or Spain, would not leave the German banks or German Economy unscathed.

A brief analysis of the seven (7) countries and their relative financial, or credit, risk individually and to each other may be useful. According to the June Quarterly Review of the Bank for International Settlements (2010) and Copelovitch (2010), there is a significant French and German exposure to the bank debt of the four Pigs countries as of December 31st 2009. At the end of 2009 France and Germany combined had \$958 Billion (\$493B and \$465 B) respectively in exposure which amounted to 61% of the total Euro area bank exposure. Correspondingly, Euro area banks had 62% of the total PIGs countries debt. French and German banks had the most exposure to Spain, \$248B and \$202B, respectively. U.K. bank exposure in Spain was \$140 Billion. So, in the case of Spain, three of the major, so called, financially strong, countries have significant financial and political motivation to try to prevent a possible default situation. Failing that they have strong reasons to support a bailout of Spain to help prevent a default that could, and probably would, have severe implications for the solvency of French and German banks and implicitly their economies. Thus, these factors, that are not directly measurable in their financial or political repercussions by debt and deficit numbers, are an underlying consideration in trying to determine the chance of default by Spain or Italy in the near future. Also, it is widely understood that a default related to the very large European economies of Italy and/or Spain would constitute a major Euro failure, and corresponding increased volatility, and instability of European financial markets and institutions, much greater in magnitude than the consequences related to the previous financial meltdowns in the much smaller economies of Greece, Portugal, and Ireland.

An article by Dias (2010) analyzes the recent debt statistics of the Euro Area. The data includes Gross External Debt as a percentage of GDP, and Net External Debt as a percentage of GDP. Net External Debt is obtained by subtracting the gross external debt assets from liabilities. He suggests that the net external debt provides a better indication of a country's risk exposure to international financial markets. The net external debt figures are shown for the seven (7) countries in Table 7. Net interest payments (interest payments minus interest receipts) for the seven (7) countries of interest are shown in Table 8 which he says indicate the relative risk of external debt insolvency and financial instability. Reinhart and Rogoff (2008) indicate that historically substantial increases in gross external debt usually precede a banking crisis and often a subsequent sovereign debt crisis.

Dias (2010) posits that gross external debt figures and trends provide a first indication of country debt problems. He suggests that net external debt greater than 50% and net interest payments greater than 3% of GDP are more powerful indicators for external debt problems citing historical evidence from Argentina, Hungary, Ukraine, Ireland and Greece over the past decade.

By those measures (as early as) at the end of 2009 not only was Greece in trouble but also Portugal, Ireland and even Spain based on net external debt. Similarly, Greece and Ireland were over the 3% limit for net interest payments by the end of 2009 with Spain approaching the 3% limit. Note that though the trend was increasing for Italy from 2007-2009, they were substantially below the 3% limit at the end of 2009.

Much more detail on what could be called the contagion effect, relative to the major countries in the European currency Union, of the 2010 Euro crisis is documented in the recent IMF paper by Waysand et al (2010) and the BIS (Bank for International Settlements report (2010). They both indicate very substantial financial linkages and levels of debt and credit risk flowing from the European countries with limited financing needs like Germany, France, and Italy to the countries with significant financing needs like the four Pig's countries. In terms of European government bonds, the June 10th BIS quarterly review found that at the end of 2009 banks in the Euro zone

accounted for approximately 62% of all worldwide credit risk, or ultimately default risk, exposure relative to the four PIG's countries. French and German and U.K banks had the most exposure with the largest concentration, especially in Spain, as has been previously discussed.

INITIAL EVALUATION OF THE PROSPECTS FOR THE EURO CURRENCY

Writing this paper has been like shooting at a moving target especially during April and May of 2012. Every time things seem to be clearer or seem to settle down things change again. As this will be the last of a series of rewrites over the past few months I will simply go with what is known now.

The biggest questions currently are:

- Who will win in the new Greek elections in June 2012, next month? That will relate to the answer for the next question.
- Will Greece leave the Euro?
- How will Germany's hard line on imposing austerity measures in Greece and their refusal to support the issuance of European Union guaranteed bonds to finance bailouts of Greece and possibly others of the 17 Euro Currency Countries be resolved with the French. Remember that if Greece ultimately defaults on their debts 3 major French banks are likely to be severely impacted. A couple of major German banks could also be similarly impacted by a Greek debt default.
- How would the other Euro currency countries plan for and react to Greece abandoning the Euro? Already there have been significant bank withdrawals in Euros from Greek banks in anticipation of Greece having its own currency again. There are signs of similar activity in Spain. According to an article in late May in the *New York Times* (Castle, 2012). Ian Clark, a partner in a global law firm focusing on the Greek financial situation 'It would be irrational for anyone, corporation or individual, to be leaving money in Greek financial institutions, so long as there is a credible prospect of a euro zone exit'. These withdrawals in Greece and Spain, associated with converting these Euros to other currencies like U.S. dollars or possibly Swiss francs would be substantiated by the substantial losses incurred in the Euro versus the U.S. dollar, and Swiss Franc, over the past two weeks. The Euro is currently, late May, at a 22 month low against the dollar.
- What is the outlook for Spain, and possibly Italy, once a precedent has been set that a Euro currency country like Greece with major financial problems could leave the Euro.

That leads us to the central question of this paper: what is the outlook for the Euro in 2012-2013? To answer that question we must make some assumptions. The answer is different depending on whether Greece abandons the Euro and/or if Germany would be agreeable to support the issuing of Euro backed bonds to support the debt and borrowing of less financially stable European Union countries. However, a case could be made that issuing Euro backed bonds simply postpones but does not prevent the inevitable result, Greece leaving the euro currency pact. If our time period is limited to the rest of 2012, I think Europe and Greece are likely to muddle through at substantial cost to Germany the European Central Bank (ECB) and the IMF. However, the Greeks have dug themselves into such a deep hole that I think Greece will default on its debt obligations and leave the euro before the end of 2013. If that happens Spain and possibly Italy are very susceptible to the same fate.

Direct Implications of Greece exiting the Euro

The more dramatic the run on Greek banks this year, deposit levels are down about 20% in the past 12 months, the more likely Greece will exit the Euro currency. This would likely result in a substantial decline in capital for three major French banks with at least one becoming insolvent unless bailed out by the French government. A similar scenario would likely for at least two major German banks.

Indirect Implications of Greece exiting the Euro:

Possible runs, withdrawals of Euro funds from Spanish and Italian banks, and possibly in other Euro countries, in anticipation of one or both Spain and Italy exiting the euro currency. These actions could, of course,

help lead to that result for Spain and Italy as it would threaten their banks viability. To understand why these things are likely let’s examine more closely the current situation in quantitative terms. We now want to look at the current financial situation of the major European countries as well as the trend in major financial indicators by country.

DATA ANALYSIS

We will now examine the trend, magnitude, and relative changes in 10 year bond yields, deficits, debt levels and current account balances as well as unemployment lends and projected growth in GDP for the five PIIGS countries compared to France, and Germany. First, we will examine 10 year bond yields. As mentioned earlier in this paper Pozzi (2009) found that 10 year sovereign bond yields from 1991-2006 for Belgium, the Netherlands, Germany, France and Italy had largely converged after, and related to, the introduction of the Euro and government bond integration in the Euro region.

Table 1 shows the current level of market determined 10 year government bond interest rates for the major Euro countries. The changes over the past 3 years have largely been related to credit risk perceptions and the likelihood of default or financial bailouts of Greece, Portugal, and Ireland, being associated with sporadic increases and sometimes declines in the 10 year bond yields in the five PIIGS countries. However, the trend over the past three years for the five countries indicates increased yields and therefore increased credit, or default risk, at levels much higher than about 10 years ago when the Euro came into common usage. It is widely believed that 10 year bond yields above 7% are not sustainable, or viable for financing government debt in European countries. By that definition Greece is way beyond the pale at 27% in mid May 2012 and the other 4 countries are above or near the margin. Recently, Spain was at 6.23, Italy at 5.71, Portugal at 10.94, and Ireland at 8.21. Only Ireland had a substantial decrease in their 10 year government bond yields from about a year earlier. Further, Moody’s downgraded the credit rating of 26 Italian banks along with a negative outlook on May 14, 2012.

Table 1
10 Year Government Bond Yields

| Period | Mid May 2012 | 2011 Apr percent | 2011 Jan percent | 2010 Jan percent | 2009 Jan percent | 2008 Jan percent |
|----------|--------------|------------------|------------------|------------------|------------------|------------------|
| Germany | 1.44 | 3.34 | 3.02 | 3.26 | 3.07 | 4.03 |
| Spain | 6.23 | 5.33 | 5.38 | 3.99 | 4.15 | 4.18 |
| France | 2.80 | 3.69 | 3.44 | 3.52 | 3.6 | 4.15 |
| Greece | 27.67 | 13.86 | 11.73 | 6.02 | 5.6 | 4.4 |
| Ireland | 8.21 | 9.79 | 8.75 | 4.83 | 5.2 | 4.25 |
| Italy | 5.71 | 4.84 | 4.73 | 4.08 | 4.62 | 4.4 |
| Portugal | 10.94 | 9.19 | 6.95 | 4.17 | 4.32 | 4.13 |

Source: European Central Bank Eurostat 2011-2012

Table 2
Country Budget Deficit as a % of GPP

| Country | 2009 | 2010 | 2011 |
|---|------|------|------|
| Euro Zone (EA17) | 6.4 | 6.2 | 4.1 |
| (Euro Zone limit is supposed to be 3% as specified in the European -stability and growth pact.) | | | |
| Portugal | 10.2 | 9.8 | 4.2 |
| Spain | 11.2 | 9.3 | 8.5 |
| Greece | 15.6 | 10.3 | 9.1 |
| Ireland | 31.4 | 14.3 | 13.1 |
| Italy | 5.4 | 4.6 | 3.9 |
| UK | 11.5 | 10.2 | 8.3 |
| US | 11.2 | 11.2 | -- |
| Germany | 3.3 | 4.3 | 1.0 |
| France | 7.0 | 7.5 | 5.2 |

Source: ECB (European Central Bank), Eurostat 2012

Table 2 indicates Country deficit to GDP figures for these countries. These figures indicate modest improvement for the 5 PIIGS countries and major improvement for Germany and France. Table 3 indicates a country’s gross debt to GDP which has become higher for six of the seven countries especially Portugal and Greece. The exception is Germany. The Gross debt by country as a Percentage of GDP for all seven countries in 2011 was above the 60% limit specified in the Maastricht Treaty. Note that Greece led the way at more than 165% of GDP in 2011 followed by Italy at 120%. Ireland and Portugal at 108% approximately are next. However, France and Germany fall in the 81-85% range while Spain is very near the standard of 60%, at 68.5%.

Table 3
General government consolidated gross debt as a percentage of GDP

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------|-------|-------|-------|-------|-------|-------|-------|
| Euro area (EA17) | 70.1 | 68.5 | 66.3 | 70 | 79.9 | 85.3 | 87.2 |
| Germany | 68 | 67.6 | 64.9 | 66.3 | 73.5 | 83.2 | 81.2 |
| Ireland | 27.4 | 24.8 | 25 | 44.4 | 65.6 | 92.5 | 108.2 |
| Greece | 100 | 106.1 | 105.4 | 110.7 | 127.1 | 145.0 | 163.3 |
| Spain | 43 | 39.6 | 36.1 | 39.8 | 53.3 | 61.2 | 68.5 |
| France | 66.4 | 63.7 | 63.9 | 67.7 | 78.3 | 82.3 | 85.8 |
| Italy | 105.9 | 106.6 | 103.6 | 106.3 | 116.1 | 118.6 | 120.1 |
| Portugal | 62.8 | 63.9 | 68.3 | 71.6 | 83 | 93 | 107.8 |

Source: Eurostat 2012 (4-23-2012)

Current Account Balance

The current balance as a percentage of GDP is shown in Table 4. Greece and Portugal clearly stand out as having the highest negative balances. Table 5 shows that the unemployment rate in the 7 countries, except Germany and Ireland, and for the 17 country Euro currency union countries has become worse. Spain, Greece, and Portugal’s unemployment rate increases are the most prominent. Note that the unemployment rate among young people, under 25, tends to be about twice as high as the national rate in these countries. This does not bode well for political and social problems in these countries. The current debates about the relative focus on austerity measures or economic growth is related to the idea that the fiscally related austerity programs in Greece, Portugal, Ireland, Spain and Italy may and in many cases already are the cause of political and social unrest especially among the younger portion of the population. The austerity measures if they are accompanied by economic recession and negative economic growth may further increase unemployment and unrest in this area. Reinforcing this conclusion are the GDP growth projections, Table 6, by the IMF (International Monetary Fund) for the Euro area and the 7 projects GDP growth rates for the countries for 2012 compared to their growth rates in 2011. Significantly increasing negative growth rates are forecasted for Greece, Portugal, Spain, and Italy compared to an almost zero growth rate in 2012 forecasted for the overall Euro area.

Table 4
Current Account Balance as a % of GDP

| Measure | Level Ratio or USD millions | | | | | | | | |
|----------------|-----------------------------|-------|-------|-------|-----------|---------|---------|---------|---------|
| | Annual | | | | Quarterly | | | | |
| Frequency | | | | | | | | | |
| Time | 2007 | 2008 | 2009 | 2010 | 2010 | | | | |
| | | | | | Q4-2009 | Q1-2010 | Q2-2010 | Q3-2010 | Q4-2010 |
| Country | | | | | | | | | |
| France | -1.0 | -2.0 | -2.0 | -2.1 | -2.2 | -1.9 | -1.8 | -2.3 | -2.4 |
| Germany | 7.5 | 6.2 | 5.6 | 5.6 | 7.1 | 5.5 | 4.8 | 6 | 6.1 |
| Greece | -14.3 | -14.7 | -11.0 | -10.4 | -10.6 | -14.4 | -7.4 | -10.5 | -9.4 |
| Ireland | -5.3 | -5.6 | -3 | -0.7 | -1.1 | -1.6 | -3.3 | -0.4 | 2.6 |
| Italy | -2.4 | -2.9 | -2.1 | -3.2 | -1.3 | -3.5 | -3.5 | -3.1 | -2.9 |
| Portugal | -10.1 | -12.6 | -10.2 | -9.7 | -9.3 | -10 | -12.4 | -6.6 | -9.8 |
| Spain | -10 | -9.6 | -5.1 | -4.5 | -5.3 | -4.8 | -5.7 | -4.3 | -3.3 |

Source: OECD Stat Extracts 2011

Table 5
Eurostat
Unemployment Rate

| | % (SA) | | | |
|------------------|----------|----------|------------|--------|
| | Total | | | |
| | 2010 May | 2011 Feb | 2012 March | |
| Euro area | 10.2 | 9.9 | 10.9 | 22.1** |
| Germany | 7.2 | 6.3 | 5.6 | |
| Ireland | 13.5 | 14.8 | 14.5 | |
| Greece | 12.2 | 15.9* | 21.7** | |
| Spain | 20 | 20.5 | 24.1 | |
| France | 9.8 | 9.5 | 10.0 | |
| Italy | 8.6 | 8.2 | 9.8 | |
| Portugal | 11 | 12.5 | 15.3 | |

*According to ELSTAT

**January 2012

Source: ECB (European Central Bank) Eurostat 2011-2012

***Youth unemployment (under 25 yrs of age)

Table 6
WEO Projections of 2012 GDP Growth in Selected Euro Area Countries (in percent)

| | 2011 | 2012 |
|------------------|-------|-------|
| Euro area | 1.09 | -0.32 |
| Greece | -2 | -4.75 |
| Portugal | -1.84 | -3.25 |
| Italy | 0.32 | -1.91 |
| Spain | 1.12 | -1.83 |
| France | 1.4 | 0.48 |
| Ireland | 1.48 | 0.52 |
| Germany | 1.27 | 0.61 |

Source: IMF World Economic Outlook, September 2011

Table 7
Net external debt of the euro area and its member countries
(percentages of GDP)

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------|--------|--------|--------|--------|--------|--------|--------|
| Ireland | -285.3 | -252.4 | -199.9 | -213.5 | -227.6 | -166.0 | -231.1 |
| Germany | 18.4 | 12.1 | 8.9 | -0.2 | -4.3 | -1.7 | -8.6 |
| France | -- | -- | 6.4 | 8.4 | 10.4 | 20.9 | 20.1 |
| Italy | 32.5 | 30.2 | 27.4 | 34.2 | 39.4 | 33.3 | n/a |
| Greece | 55.9 | 58.3 | 54.8 | 64.8 | 72.7 | 69.2 | 84.6 |
| Portugal | 31.8 | 34.0 | 49.5 | 56.1 | 65.1 | 75.9 | 85.1 |
| Spain | 34.7 | 35.0 | 44.5 | 57.8 | 68.1 | 74.9 | 87.2 |

Sources (June 2010): ECB, IMF

The net external debt of the euro area, about 12.6% of GDP, is significantly lower than its gross external debt position. Spain, Portugal, and Greece had a net external debt in excess of 80% of GDP at the end of 2009.

The countries in which the financial sector plays an increased international role, relative to the size of the respective economy, tend to have high gross external debt, as holds true of Luxembourg, Ireland, Malta, Cyprus, the Netherlands and Belgium. However, the financial sector of such countries usually also holds a large amount of cross-border debt assets, thus lowering the net external debt substantially.

Table 8
Net interest payments of the euro area and its member countries
(percentages of GDP)

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ireland | -7.6 | -7.0 | -6.2 | -7.2 | -9.0 | -6.6 | -3.3 |
| Germany | 1.1 | 0.7 | 0.3 | -0.1 | -0.5 | -0.7 | -0.5 |
| France | 0.4 | 0.2 | 0.2 | 0.2 | 0.0 | -0.2 | -0.2 |
| Italy | 0.8 | 0.8 | 0.6 | 0.6 | 1.3 | 1.6 | 2.0 |
| Portugal | 0.9 | 1.1 | 1.2 | 2.0 | 2.7 | 3.4 | 2.4 |
| Spain | 1.3 | 1.3 | 1.8 | 2.4 | 3.3 | 3.7 | 2.8 |
| Greece | 2.0 | 2.0 | 2.3 | 2.8 | 3.3 | 3.8 | 3.6 |

Sources (June 2010): ECB, IMF

Recent events (May 2012), especially government election results in Greece and France have resulted in significant uncertainty about the future prospects for fiscal discipline related reforms in Greece and even in France.

A major question in the financial reforms proposed for, and sometimes by most of the major European countries centers on austerity vs. growth priorities. The backlash against financial reform measures which may include higher levels (and collection rates) of taxes, lower pension payments, later retirement ages, and higher unemployment, especially in the government sector have caused a revolt against austerity measures in Greece and other fiscally challenged European countries. It has become evident that many countries, and their governments, do not believe that an austerity program that excludes or diminishes growth prospects is wise and probably not politically viable.

The first three of the so called PIGS countries in the European (monetary) union of 17 countries (Portugal, Ireland, Greece, and Spain) have gone through wrenching financial and political changes over the past three years resulting in some form of massive financial bailouts tied to mandatory and far reaching austerity programs.

These imposed austerity programs have been largely associated with the IMF (International Monetary Fund) and the European Central Bank (ECB) as well as the leaders of the economically strongest European country, Germany. Fiscal discipline is the theme of the externally imposed plans relating to Government debt, government deficits and balance of payments and balance of trade in balances that tell well outside the provisions outlined in the creation of the Euro and the European Monetary Union. The resulting historically large spreads (differences) among the Euro countries over the past 3 years are one indication of the enhanced credit risk in holding government debt as well as other debt of the 3 PIG countries.

Particularly important, as previously mentioned, is the outlook for whether Greece remains in the Euro currency Union after the uncertain implications of mixed results in recent Greece National elections. Open discussion among world leaders about the possibility of Greece ending its use of the Euro as its currency has implications for Portugal, Ireland and possibly Spain and Italy. The Greek and, to some extent, the French election results suggest a substantial political shift to the left, potentially implying a much greater emphasis on promoting growth rather than imposing politically unpopular fiscal discipline measures required by the IMF and ECB and actively supported by German leaders and the Bundes bank (Central Bank) of Germany.

Any country exiting the Euro currency creates a climate of change in the supposed permanence of the use of the Euro in the 17 European countries. There is, in fact, no provision for doing so included in the documents and agreements which initiated the use of the Euro currency a little over 10 years ago in 2002. The point is that Greece exiting the Euro and returning to a new, or old, national Greek only currency like the Drachma sets a precedent and says in effect, it can happen. The Greek, and for that matter, the Portuguese and French economies are relatively small compared to the other major countries currently economic countries, Spain and Italy. The effect of Spain and or Italy leaving the Euro currency could well demolish the Euro.

Euro Prospects Evaluation

Before we begin to analyze the overall chances of overall Euro currency survival it is necessary to more closely evaluate the effect that at least one country, specifically Greece, would exit the Euro currency and the current situation in Italy and Spain. After that we can evaluate the chances that some other major European countries will exit the Euro and possibly cause the demise of the Euro.

It is obvious that if one or more, of the 17 countries currently using the Euro stop using the Euro, the prospects for the continuation of the Euro as a world currency diminish. Further, a kind of political and economic domino effect may prevail as a consequence. That scenario would likely be tied to declines in the economic and financial outlook for two of the largest economies out of the 17 Euro countries Spain and Italy. Let's discuss the situation and recent events in Italy and Spain.

ITALY

Even though yields and yield spreads have widened between Italian and German 10 year government bonds Italy continued to be able to sell their bonds at a much lower yield than the four PIGS countries in 2011. On June 28, 2011, Italy sold 11.3 billion Euros of debt including 3 billion Euros of 10 year government debt at a yield of 4.94%. Based on the relative stability of the Italian bond market and their relatively healthy numbers and trends for bond yields and spreads, budget deficits, and gross debt figures as well as the other economic data shown in the other tables, the conclusion is that under current circumstances Italy is not likely to default or be in danger of default in the near future. However, if there is a major default by Greece this year the contagion effect on Portugal, Ireland and Spain and possibly Italy cannot be discounted. This is particularly true based upon the large holdings and exposure to debt within the European Union, especially the major French and European banks. According to the New York Times (2011) European financial institutions hold more than a trillion dollars of the sovereign debt of Greece, Portugal, and Ireland. One major French bank, Societe' Generale, holds 2.5 billion of Greek bonds and has billions more exposure from its majority stake in the General Bank of Greece. Another major French Bank, BNP Paribas, owns approximately \$5 billion in Greek debt. Similarly, Germany's commerce bank has a \$2.9 billion position. European banks also have a higher than U.S. average (80%) loan to deposit ratio of 130%, which leaves little room for error or maneuvering in case of a capital or liquidity crisis. Thus, European banks tend to rely heavily on short-term borrowing as a source of funds, whose cost would rapidly escalate in a European debt crisis. As evidence of their potential vulnerability European bank shares fell nearly 25% from March through June 2011. Three year Greek government bonds were yielding 27% as of June 28, 2011, indicating a significant Greek default risk. European banks overall were owed a total of \$136 billion by the Greek government and private Greek borrowers, with \$194 billion exposure for Portugal and \$377 billion for Ireland according to the BIS (Bank for International Settlements) data (2011). U.S. banking institutions are not nearly as exposed to the 3 countries except for \$5 billion of credit default swaps issued to insure Greek debt. Thus, the contagion possibilities are the wild card in any Greek default or near default scenario.

SPAIN

Major Spanish provinces, like Catalonia, the biggest, wealthiest and most indebted region in Spain is asking for emergency funding. There is also a plan to recapitalize the 4th largest Spanish Bank, Bankia, by issuing Spanish government bonds. On May 25, 2012, S & P cut the credit rating of the five Spanish banks to junk level as Bankia requested 19 billion Euros in aid from the Spanish government after the bank reported a loss of 2.97 billion Euros in 2011. Catalonia has asked the Spanish government for 13.5 billion Euros in aid. The second largest Spanish province has recently asked for 8.1 billion in aid.

PRELIMINARY CONCLUSIONS

If we initially assume that it is likely that Greece will exit the euro in the next 6-12 months what are the repercussions. Clearly Greece alone cannot bring down the Euro. They are not a large enough economic entity. However, if contagion effects and other political, social and economic factors relating to (1) the European Central Bank, (2) action or inaction by Germany and France to support European backed bonds and further financial

assistance (3) further down grades of European banks and massive euro deposit withdrawals (4) action or inaction by the IMF and the results of the austerity vs growth policy conflicts all conspire to bring Italy and Spain to exit the Euro, then I believe, the Euro will cease to exist. The large relative size of the Italian and Spanish economies, and the effects if they defaulted on their financial obligations, would have a major negative impact on European banks particularly German and French banks, as well as, a global effect. In late May some major European banks, including French banks were reported to be preparing plans to cope with a Greek exit from the Euro. A recent article in the *Economist* (2012) has proposed at least a partial solution to the fiscal European crisis. This is seen as necessary in order to save the Euro. They suggest European region wide banking supervision, including the responsibility for closing or recapitalizing European banks, as well as, a European regional deposit insurance system.

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