Journal of Business and Economics, ISSN 2155-7950, USA
December 2014, Volume 5, No. 12, pp. 2212-2226
DOI: 10.15341/jbe(2155-7950)/12.05.2014/002

http://www.academicstar.us

An Analysis of the Current Financial Problems of Italy and Spain

Ron Christner
(Loyola University, New Orleans, LA 70118, USA)

Abstract: An evaluation and Analysis of how Italy and Spain can avoid defaults on their government bonds, similar to what has happened in Greece and Portugal. The objective is to propose a plan to avoid default without causing an economic recession in the two countries. The methodology and results will include an analysis of the current economic situation in the two countries vis a vis those of the other major western European countries and the necessary policy steps for them to avoid default. It will include a comparative analysis of major economic variables including 10 year government bond rates, deficit spending, and debt levels as a percentage of GDP as well as the interconnection and interdependence among creditor and debtor countries in the Euro currency block. This includes the Italian and Spanish levels of debt held by the respective banks in the other European countries, primarily France and Germany, and the possible impact on those banks of an Italian or Spanish government default.

Key words: Euro; Euro currency; default; government bond
JEL code: G

1. Introduction

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 especially Spain and to a lesser extent Italy 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 spelled with two I's to include Italy, are thought to be financially vulnerable because of high levels of government spending and resulting deficit levels, inefficient labor markets, poor 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, for 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 for all 17 countries.

This paper will evaluate the relative vulnerability of Spain and Italy that could lead to the need for a financial rescue. The evaluation will be highly dependent upon the forecasts for the 5 countries economic prospects,

Ron Christner, Ph.D., Associate Professor of Finance, and Real Estate, Loyola University; research areas/interests: investments, international finance and investments, real estate. E-mail: ronchristner@cba.loyno.edu.

individually and in combination 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 include the level and trend in economic indicators like long term government bond yields, deficit spending, tax collections, economic growth, and financial linkages and interdependence among the seven countries. European Central Bank data and information from related sources like the IMF will be utilized.

2. Methodology

Measurement, comparison and subsequent analysis of the government bond yield spreads (and trends and realistic limits) over time of the five PIIGS countries versus Germany, arguably the most financially stable and fiscally disciplined European country, which indicate 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 are also examined.

3. 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 subsequent European 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 future of 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 European 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 premia 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.

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 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 by Italy or Spain, would not leave the German banks or German Economy unscathed.

4. European Financial Debt Linkages

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.

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.

Table 1 indicates in more detail the debt owed by Spain and Italy to France, Germany, the U.K., and the United States and each other. The comparison shows Spain's level of overall foreign debt as a percentage of GDP is much greater than Italy's. The reverse is true for government debt.

Table 1 Total Euro Zone External Debt (Spain and Italy)

Spain	owes	France	112	billion	Euros
Spain	owes	Germany	131.7	billion	Euros
Spain	owes	Italy	22.3	billion	Euros
Spain	owes	United Kingdom	74.9	billion	Euros
Spain	owes	United States	49.6	billion	Euros
	Spain	Foreign Debt/GDP	284%		
	Spain	Government Debt /GDP	67%		
	Spain	GDP = 0.7 trillion Euro			
Italy	owes	France	309	billion	Euros
Italy	owes	Germany	120	billion	Euros
Italy	owes	Spain	29.5	billion	Euros
Italy	owes	United Kingdom	54.7	billion	Euros
Italy	owes	United States	34.8	billion	Euros
	Italy	Foreign Debt/GDP	163%		
	Italy	Government Debt/GDP	121%		
	Italy	GDP = 1.2 trillion Euro			

Sources: BIS (Bank for International Settlements), World Bank, IMF June 2011

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 2. Net interest payments (interest payments minus interest receipts) for the seven (7) countries of interest are shown in Table 3 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.

Table 2 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

Note: 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 3 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

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.

4.1 Bank Withdrawals

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 France, during May 2012. The Euro was in late May, at a 22 month low against the dollar.

According to an analyst for the Nomura Financial Services Group report (Nordvig, 2012) portfolio and investment flows from Spain on a 3 month rolling basis totaled 52.3% of GDP. Data from the Bank of Spain shows that foreigners sold Spanish securities equal to 19.4% of GDP. Nordvig said "the scale of capital flight supports the view that Spain won't be able to avoid a full-blown bailout. Italy's comparable portfolio and investment out flows by contrast were only 5% of GDP.

However, Germany may 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 of Greece leaving the euro currency pact.

4.2 Implications of Greece Exiting the Euro

Acceleration of currency 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 may occur. These actions could, of course, help lead to that result for Spain and Italy as it would threaten their banks viability.

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.

4.3 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 Spain and Italy compared to France, and Germany, and other related countries.

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 4 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, in May 2012 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 4 10 Year Government Bond Yields

Period	August 2012	Mid May 2012	2011 Jan percent	2010 Jan percent	2009 Jan percent	2008 Jan percent
Italy	5.90	5.71	4.73	4.08	4.62	4.40
Spain	6.91	6.23	5.38	3.99	4.15	4.18
Germany	1.39	1.44	3.02	3.26	3.07	4.03
France	2.08	2.80	3.44	3.52	3.6	4.15
Greece	24.36	27.67	11.73	6.02	5.6	4.40
Ireland	8.21	8.21	8.75	4.83	5.2	4.25
Portugal	9.50	10.94	6.95	4.17	4.32	4.13

Source: European Central Bank Eurostat 2011-2012, Tradingeconomics.com

Table 5 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 5 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 6 indicates a country's gross debt to GDP which has become higher for six of the seven counties especially Portugal and Greece The exception is Germany.

Table 6 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	89.3
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).

The Gross debt by country as a Percentage of GDP for all seven countries in 2011 was above the 60% limit specified in the Maastrict 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%.

The current balance as a percentage of GDP is shown in Table 7. Greece and Portugal clearly stand out as having the highest negative balances.

Table 7 Current Account Balance as a % of GDP

Measure	Level Ratio or USD millions								
Frequency	Annual				Quarterly				
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 8 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 9, 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.

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.

Table 9 reflects IMF growth projections for the Euro area for 2012.

Table 8 Eurostat Unemployment Rate**

% (SA)			
Total			
	2010 May	2011 Feb	2012 March
Euro area	10.2	9.9	10.9
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

Note: *According to ELSTAT; **January 2012;

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

***Youth unemployment (under 25 yrs of age) is approximately double the overall country rate.

Table 9 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

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 four so called PIGS countries in the European (monetary) union of 17 countries (Portugal, Ireland, and Greece) 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) in ten years government bond yields 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.

5. Recent Developments in 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, Spain and 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. 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 escalade 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.

5.1 Italy—European Commission Report Summary

The European Commission (EC) (2012, May 30) in depth review for Italy and assessment of the 2012 National Reform and Stability Programs for Italy suggested that Italy's most important problems included public finance, the labor market, education, the tax system and the civil justice system. They noted high government debt, declining competitiveness, stagnation in productivity among other areas of focus.

5.1.1 Public Finance

In the area of public finance, for example, their current account balance was +1.8% of GDP in 1998 and a -3.2% of GDP in 2011. That deficit is expected to narrow in 2012-2013 primarily due to a forecasted decrease in

domestic demand. The debt of non-financial corporations was 80% of GDP in 2010 and a total government debt slightly over 120% by the end of 2011, the highest of the large Euro area countries. This potentially restricts future economic growth because of the high cost to service the debt and higher interest rates, cost of capital, for businesses which affects their competitive position. This is also a potential problem for the Italian banking system. However, Italy did not experience a housing bubble like Spain did and therefore, its banking system is not as fragile. Reinhart and Rogoff (2010) and Kumar and Woo (2010) show debt levels and growth are inversely related when debt is greater than 90% of GDP.

5.1.2 Tax Burden and Policy

The implicit tax on labor in 2010 is listed as 42.6%, the highest in the Euro area. The implicit tax rate on capital in Italy is 34.9% and the statutory rate is 31.4%, the highest in the Euro area. Recent changes in the tax system structure toward consumption and property taxation and away from taxation of production factors was also noted. In December 2011, a new law was introduced to provide a tax benefit when equity capital is added to a business. Increased efforts toward better collection and tax compliance measures have also been implemented as evidenced by enforcement of merchants providing receipts and Euro limits on cash transactions. The government proposed major labor market reforms in April 2012, to foster employment by allowing more flexibility in work rules, and reform of the judiciary system. Also the Cohesion Action Plan of 2011 is aimed primarily at improving conditions for business development, particularly in the southern, and poorer regions of Italy.

As of April 30, 2012, the European Commission (2012) in commenting on Italy's stability programs for 2012-2015 and its 2012 national reform program concluded that Italy is "experiencing macroeconomic imbalances, although not excessive". It said that it expected Italy's real GDP to contract sharply in 2012 and recover gradually in 2013. That would mean bringing the Italian government deficit below 3% of GDP. In addition, the Italian Parliament recently approved a bill introducing a balanced budget rule in the Italian Constitution and committed to an in depth spending review of all levels of government.

5.1.3 Competitiveness

Italy has a predominance of relatively small size family owned firms. Studies have shown (Navaretti, 2011) that a country's export levels would likely be much higher with larger firm sizes. Also the tax system favors debt financing and small firms have limited or no access to capital markets, to finance growth. Energy costs are also significantly higher in Italy than the rest of the European Union. Shifting taxation from labor and capital to consumption and property may help. Also, property tax rates, property assessed values, and the VAT are all scheduled to be raised significantly in the near future.

5.1.4 Judiciary

The World Bank (2011) ranks Italy 158th out of 183 countries, and the worst in the European Union in enforcing contracts. For example, commercial litigation in Italian courts takes an average of 1,210 days compared with 331 days in France, 394 in Germany and 515 in Spain.

Summary: Italy has major problems but seems on track to solve many of them. The proof will rest on implementation of the scheduled reforms.

6. Recent Developments in 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. Also, the second largest Spanish province has recently asked for 8.1 billion in aid.

6.1 Spain—European Commission Report Summary

6.1.1 European Commission (EC) May 30, 2012

When contrasting Italy and Spain the most obvious difference relative to their current economic condition and future prospects is the Spanish housing bubble. In Spain, similar to the U.S. housing bubble, there was easy access to funds and low cost financing as financial incentives favoring housing and growth in the economy for the ten years (1996-2007), fostering significant housing price appreciation. Average GDP growth in this period averaged 3.7% per year and over 7 million jobs were created. The subsequent collapse of housing prices and major declines in employment in, and related to, housing construction and the rapid decline in value of mortgaged and related capital of Spanish banks contributed heavily to the current financial and economic situation in Spain. Concurrent with the housing boom was a nation-wide 10 year period prosperity ending in 2007 which fueled large increases in (1) government spending (2) consumption (3) employment and (4) speculation in the real estate market leading to further housing price increases. Annual increases average 10% per year from 1998-2006. As noted in the EC in depth review for Spain “the banking sector remains burdened with sizeable exposures to the real estate and construction sectors. This negatively affects the banks capacity to lend and to also promote economic growth”. Also the EC report projects a further fall in Spanish housing prices through 2012-2013, down 29% in real terms.

The introduction of the Euro created a major decrease in Spanish interest rates which went down from 10% to 4%, one year rates from 1995-1998 along with a large inflow of foreign capital. However, most of that investment went into the housing industry.

An extensive reliance on external financing from 1998-2008 is indicated by the fact that the total foreign debt was 164% of GDP in 2010. Government sovereign debt to GDP reached 68.5% in 2011 up from 61.5% in 2010 (Table 6) and is expected to be 90% of GDP by 2013. This has, and will continue to cause, higher interest rates to service the debt and additional financing costs in the private sector. These additional costs will slow any growth potential for Spanish businesses, financial and non-financial. Recent studies suggest debt to GDP ratios above 90% have a negative economic growth impact and debt to GDP ratios above 70% put great pressure on interest rates. (Baum et al., 2012).

(1) Sovereign debt interest rates

Spain’s 10 year bonds recently crossed the 7% level, generally considered unsustainable and have since dropped back to 6.58% in mid-August 2012. The spread between the 10 year rate for Spanish 10 year government bonds and the German Bank bonds was 415 basis points in early May 2012 and in mid-August it is 502 basis points. Italy’s 10 year bond rate in mid-August 2012 was 5.74. Related to high internal and external debt burdens for Spain, rising interest rates are restricting growth in consumption and investment. Because the majority of real estate mortgages and business loans in Spain have variable interest rates a growing share of national income is being used to service the debts. Household bank loans grew by 18% on average from 1997-2007. Household debt stands at 82% of GDP and corporate debt at 135% of GDP. Increases in interest rates, slow or negative growth in the economy and high unemployment may contribute to increases in default rates on this debt burden as the economy adjusts and deleverages the major increases in debt built up in the economic and housing boom from

1996-2007. In adjustment terms, individuals and corporations have gradually increased their savings rates and reduced their investments since 2007. Concurrent decreases in domestic demand both aids and hampers the economic recovery. The decrease in demand for imports and the increase in exports helps the current account debt balance but decreases consumption related economic growth.

(2) Economic contraction in Spain

From the 3rd quarter of 2008 through the end of 2011real GDP dropped by more than 3%. Also the number of employed decreased by approximately 12% of total employment (2.5 million people) in the country. The economy is projected to go back into recession for the year 2012 and GDP is expected to decline by 1.8%. A gradual improvement in 2013 is expected related to a projected sharp drop in imports and exports are expected to be strong. Employment is the construction sector fell by 1.4 million people and construction job as a percentage or total employment has returned to 1976 levels. Also, historically the Spanish labor market has been very inflexible as to wage adjustments response to economic conditions. As in Italy major reforms in the labor market are necessary to improve economic conditions mitigating against economic growth during a time of high unemployment.

(3) Contagion effects

The banking sectors of Germany and France have substantial exposure to the economic sovereign debt situation in Spain. Reuters in April estimated that 26% of Spanish sovereign debt is held by France, including some of France's largest banks and other financial institutions. Reuters says Germany only holds 4% of Spanish sovereign debt. The only other very large owner of the debt is individuals and institutions in Spain itself, at 46% according to Reuters. Spain by contrast holds no French sovereign debt and only 3% of Germany's government debt. Table 1 includes more recent data.

Summary: Obviously, as indicated by the discussion above Spain's financial problems seem to be more serious than those for Italy, partially because the major causes are different and more long lasting. This if confirmed by the consistently higher 10 years bond yields for Spain (Table 4).

Necessary Solutions in Spain according to the EC Report include:

(1) Further improvement in export levels

(2) Increased competitiveness, as wage adjustments work standards, and productivity improvements related to regulatory changes. Crespo (2012) suggests a major problem is lack of flexibility in the Spanish economy.

(3) Bank deleveraging, sale or separation of poor (real estate) assets and closure or merger of weak banks with strong banks

It is generally agreed that Spain is more likely to default on their sovereign debt than Italy. This is reflected in the yield spreads in 10 year bonds for these two countries (Table 4) in August 2012. It is also evident in most of the financial data comparisons and trends with the exception of the gross government debt (as a % of GDP) (Table 6). Budget deficit as a% of GDP (Table 5) current account balance (Table 7), unemployment rate (Table 8). However, regardless of the financial (data) levels or trends for the two countries, both would be impacted by a Greek default. The extent of the contagion effect is unknown, and somewhat dependent on how it occurs, and of courses when, and if, it occurs.

The major overall problems/potential solutions of the EMU (European Monetary Union) include:

(1) Lack of public and investor confidence in sovereign debt and the possibility of a Euro exit by Greece and/or a subsequent Euro collapse.

(2) Lack of sufficient financial (fiscal) policy integration in the European Union and corresponding contagion results.

(3) Lack of EMU wide bank regulation and supervision and bank recapitalization or bank closure mechanisms based on EMU wide standards.

(4) Lack of EMU wide deposit insurance.

(5) Lack of an EMU wide (Euro Bond) financing mechanism.

(6) The need for labor market (flexibility in hiring and firing, vacations, and work rules, and pensions) and taxation reforms (in terms of impact and collection policies required).

The likelihood of, and the need for, specific solutions in Spain and Italy to prevent major bailouts, or government bond defaults include implementation of reforms related to items 2-6 above to avoid the collapse of the Euro which would surely accompany government debt defaults by Greece, Spain and Italy combined. A Greek default is financially manageable by the EU because it is a relatively small economy. Spain and Italy are much larger and their default would likely result in the demise or the Euro. As stated earlier Spain is more likely to default than Italy. However, a domino contagion effect, accelerated by bank withdrawals in Spain and moving to Italy cannot be discounted if the collapse of both would doom the Euro currency. Therefore the suggested reforms are necessary and must occur soon to reestablish public and investor confidence.

6.2 Update: Spring 2014

As a result of actions taken by the European central bank and its willingness to provide substantial liquidity reserves and other financial support to European banks in 2013 and early 2014 ten year bond rates have fallen dramatically in Greece, Spain and Italy as of late May 2014. For Greece the 10 year bond rate on May 31, 2014 was down to 6.15%. In Spain it was 2.85% and in Italy the 10 year government bond rate was 2.96%. These dramatic decreases in 10 year government bond rates over the past 18 months for these three countries indicate that there has been a dramatic change in the financial market's perception of the risk associated with the Euro area and Euro currency.

References:

Balassone R., Francese M. and Pace A. (2011). "Public debt and economic growth in Italy", *Bank of Italy Economic History Working Papers*, No. 11.

Bagahee Deepanshu (2012). "Spain's capital flight worse than Asian financial crisis", *Yahoo Finance*, September 4.

Bank of Italy (2012a). "Financial Stability Report No. 3", April 2012.

Barrios Salvador, Per Iversen, Magdalena Lewandowska and Ralph Setzer (2009). "Determinants of Intra-Euro area government bond spreads during the financial crisis", *Economic and Financial Affairs*, Economic papers 338, November 2009.

Baum Anja, Christina D. Checherita-Westphal and Philip Rother (2012). "Debt and growth: New evidence for the Euro area", June 28, ECB Working Paper, No. 1450, available at SSRN.

Bernoth Kerstin and Burcu Erdogan (2010). "Sovereign bond yield spreads: A time-varying coefficient approach", DIW Berlin.

BIS Quarterly Review (2010). Bank for International Settlements, Consolidated Bank Statistics, June 2010.

Blundell-Wignall Adrian and Patrick Slovik (2010). "A market perspective on the European Sovereign debt and banking crisis", *OECD Journal: Financial Market Trends*, No. 2.

Breard Pablo and Tulli McCully (2011). "Europe-regional economic outlook: Executive briefing", International Research Group, Scotia Bank Group, April 2011.

Bugamelli Matteo, Riccardo Cristadora and Giordano Zevi (2009). "The international crisis and the Italian productive system: A firm-level study", *Bank of Italy Occasional Papers*, No. 58.

Castle Stephen (2012). "Companies are bracing for Greece to exit the Euro", *New York Times*, May 26, 2012, pp. 1-2.

Christner Ron (2012). "An Evaluation of the Euro Currency in 2012-2013", in: *The Clute Research Institute Conference*, in Rome, June 2012.

Codogno Lorenzo, Carlo Favero and Alessandro Missale (2003). "Yield spreads on EMU governments bonds", *Economic Policy*, Vol. 18, pp. 503-532.

Dias Jorge Diz (2010). "External debt statistics of the Euro area", *IFC Conference on Initiatives to Address Data Gaps Revealed by the Financial Crisis*, Bank for International Settlements, Basil, Switzerland. 25-26 August.

Economist (2012). "The future of the Euro: The choice", May 26, 2012.

European Central Bank (ECB) (2010). Eurostat statistical data tables, 2010.

European Commission (2012). "Assessment of the 2012 national reform programme and stability programme for Italy", *Commission Staff Working Document*, SEC.

European Commission (2012). "Assessment of the 2012 national reform programme and stability programme for Spain", *Commission Staff Working Document*, SEC.

Hellenic Statistical Authority (EL-STAT), Statistical Database, 2011.

Kumar M. S. and Woo J. (2010). "Public debt and growth", *IMF Working Paper*, No. 174.

Montanari M. (2011). "Italy's regional divide: Does it matter also for exports?", *ECFIN Country Focus*, Vol. 8, No. 2.

Navaretti Barba G., Faini R. and Tucci A. (2008). "Does family control affect trade performance? Evidence for Italian firms", *Centro Studi Luca d'Agliano Development Studies Working Paper*, No. 260.

Nordvig Jens (2012). "Nomura Financial Group note to clients", September.

Organization for Economic Co-operation and Development (OECD), StatExtracts, 2010.

Pozzi Lorenzo (2009). "Government bond yield spreads and the Euro", Erasmus University Rotterdam, working paper, September 2009.

Reinhart Carmen M. (2010). "This time is different: Country histories on debt, default, and financial crises", NBER Working Paper No. 15815, National Bureau of Economic Research, March 2010.

Reinhart Carmen M. and Kenneth S. Rogoff (2010). "Debt and growth revisited", VoxEU.org, 11 August.

Reinhart Carmen M. and Kenneth S. Rogoff (2008). "This time is different: A panoramic view of eight centuries of financial crisis", University of Maryland and National Bureau of Economic Research, April 2008.

Waysand Claire, Kevin Ross and Joh de Guzman (2010). "European financial linkages: A new look at imbalances", IMF Working Paper, December 2010.

World Bank (2011). "Doing business 2012: Doing business in a more transparent world", Washington, D.C., The World Bank.