

# HELLENIC REPUBLIC (GREECE)

Rating Analysis - 6/17/12  
Debt: EUR214.1B

EJR Sen Rating(Curr/Prj) D/ N/A  
EJR CP Rating: D  
EJR's 1 yr. Default Probability: 100.0%

Tenuous - the Greek voters failed to give either party a clear mandate thereby impeding the formation of an effective government. A likely result is slow progress on budget measures and growing mutual frustration on Greece's financial condition. Over the past five fiscal years (i.e., from 2007 to 2011), GDP declined from EUR222B to EUR215B, and despite the restructuring, debt to GDP is near 100%.

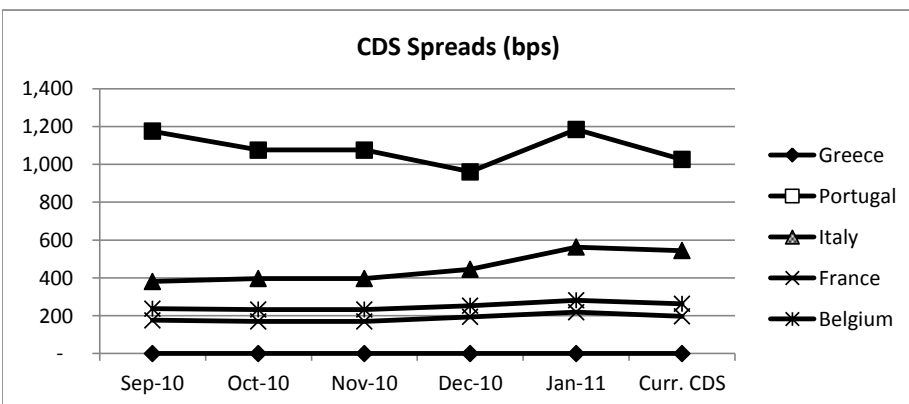
We expect that Greece will again be forced to restructure its debt within the next 6 to 24 months; it cannot sustain additional budget cuts, a collapsing economy, restricted capital access, and 20+% interest rates. Greece's adjusted debt is near EUR215B, GDP is approximately EUR200B, and the federal budget deficit is EUR7.8B before interest expense and near EUR23B after interest expense. The primary issue is whether Greece will be able to support ANY debt as a result of the political turmoil. The problem with Greece and the EU is massive support payments if Greece remains in the EU of nearly EUR60B per annum or defaults near EUR1.3T (sovereign, bank, corp, Target2, etc.) if Greece were to exit. Expect continued brinkmanship over the next couple of quarters. Note, Greece's financials are skewed by the debt forgiveness.

### Annual Ratios (source for past results: IMF)

INDICATIVE CREDIT RATIOS	2009	2010	2011	P2012	P2013	P2014
Debt/ GDP (%)	133.6	123.0	99.5	113.8	130.2	147.3
Govt. Sur/Def to GDP (%)	-15.6	-10.3	-9.1	-12.3	-14.2	-14.8
Adjusted Debt/GDP (%)	133.6	128.7	105.5	119.9	136.4	153.6
Interest Expense/ Taxes (%)	26.0	29.2	33.5	39.0	44.8	46.8
GDP Growth (%)	-2.1	-7.4	-5.5	-1.5	-1.5	-1.3
Foreign Reserves/Debt (%)	0.0	0.0	0.0	0.0	0.0	0.0
Implied Sen. Rating	D	CC	C	CC	C	C

INDICATIVE CREDIT RATIOS	AA	A	BBB	BB	B	CCC
Debt/ GDP (%)	45.0	55.0	75.0	85.0	95.0	145.0
Govt. Sur/Def to GDP (%)	4.0	1.0	-2.0	-5.0	-8.0	-10.0
Adjusted Debt/GDP (%)	40.0	50.0	60.0	80.0	120.0	150.0
Interest Expense/ Taxes (%)	7.0	9.0	12.0	15.0	22.0	26.0
GDP Growth (%)	4.0	3.0	2.0	1.0	-1.0	-5.0
Foreign Reserves/Debt (%)	25.0	20.0	15.0	12.0	9.0	7.0

PEER RATIOS	S&P Sen.	Debt as a % of GDP	Govt. Surp. Def to GDP (%)	Adjusted Debt/ GDP	Interest Expense/ Taxes %	GDP Growth (%)	Ratio- Implied Rating*
Federal Republic Of Germany	AAA	80.3	-1.0	90.8	11.4	2.0	BBB-
French Republic	AA+	84.6	-5.2	109.4	10.0	1.2	BB-
Kingdom Of Belgium	AA	97.2	-3.7	97.2	11.9	1.2	BB
Republic Of Italy	BBB+	116.1	-3.9	127.6	16.7	-0.5	B
Portugal Republic	BB	101.7	-4.2	112.7	13.0	-2.9	BB-



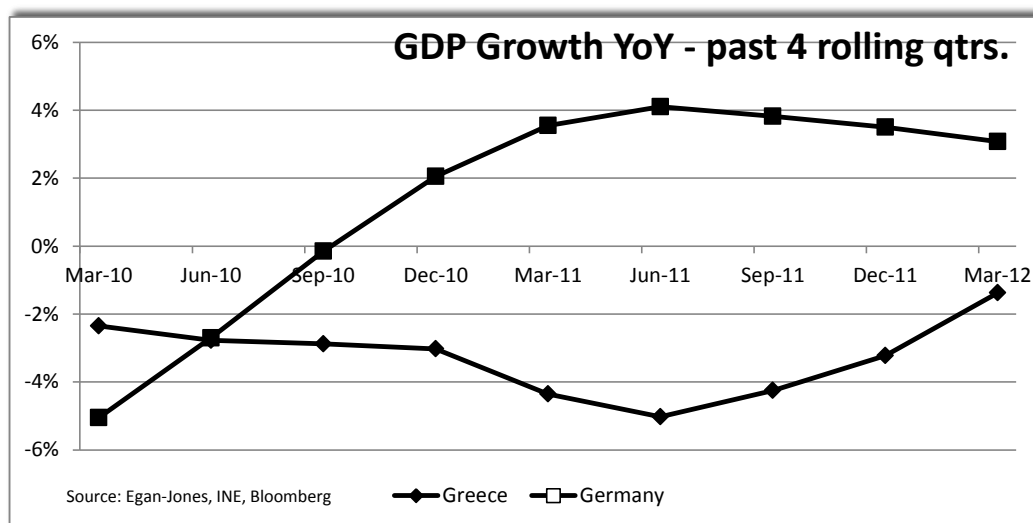
Country (EJR Rtg*)	Current CDS	Targeted CDS
Greece (D)		7,000
Portugal (CCC+)	1,026	1,500
Italy (B)	544	1,200
France (BBB-)	197	400
Belgium (BBB-)	263	400

\* Projected Rating  
\* EJR's targeted CDS based on rating

**Economic Growth**

Greece has not reported growth over any of the past 10 quarters, and with the current chaos, we expect growth will remain depressed. As seen below, growth has been significantly below Germany. Note, we do not trust the most recent gains in Greece's GDP results - we expect GDP to decline in 2013.

As can be seen from the below chart, Greece's rolling four quarter GDP growth has been less than stellar over the past year; Greece has shrunk while Germany has recorded growth above 3%. A large portion of Greece's economy was geared to the tourist and vacation trade and related construction. We do not see the vacation industry or other Greek industries improving over the next couple of years until the fiscal problems are addressed.



**Fiscal Policy**

The Greece's deficit to GDP of 9.% is not comforting and we expect it to exceed 10% of GDP in 2013. Over the last couple of full fiscal years (that is 2009 to 2011), total sovereign revenues declined .3% while total expenses declined 6.5%; the country had to spend to support citizens as a result of the 2008 slowdown. As can be seen from the chart to the right, no country has a worse deficit than Greece. As Greece implements austerity measures and provides further support for its banks, credit quality will remain pressed.

	Deficit-to-GDP (%)	Debt-to-GDP (%)	5 Yr CDS Spreads
Greece	9.1	148.9	-
Germany	1.0	79.1	102
France	5.2	78.6	219
Belgium	3.7	91.4	282
Italy	3.9	112.7	563
Portugal	4.2	88.9	1,185

Source: Bloomberg using yr end data other than CDS data

**Unemployment**

Greece has suffered from high unemployment for several decades. As can be seen from the chart, the unemployment has risen dramatically and is at the top of its peers, excluding Spain. The high unemployment rate is driving the relatively high and increasing social benefit payments. The austerity measures in Greece and throughout the EU make it difficult to substantially reduce unemployment over the next couple of years.

	Unemployment (%)	
	2010	2011
Greece	14.2	20.7
Germany	7.4	6.8
France	9.6	9.8
Belgium	7.6	7.2
Italy	8.3	9.1
Portugal	11.1	14.0

Source: Intl. Finance Statistics

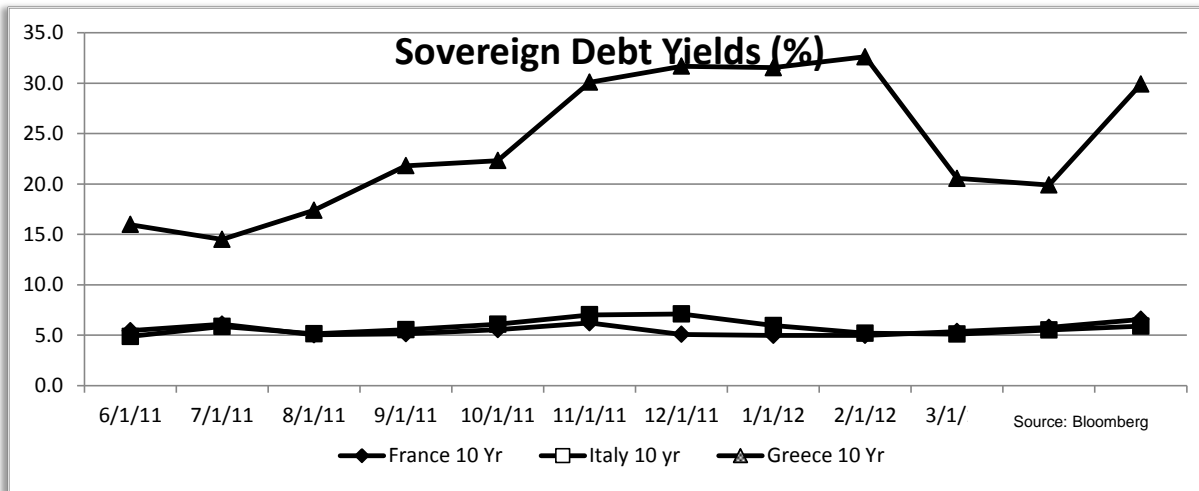
**Banking Sector**

History has shown that country and bank obligations are linked during times of economic distress. Greece has significantly more exposure to its banking sector because the banks' aggregate size measured in assets. The top five banks have assets equal to 153% of GDP compared to 125% for Germany. We expect that Greece will be forced to provide addl. financial support to its banks over the next couple of quarters because of declines in home values, austerity measures and increased unemployment.

<b>Bank Assets (billions of local currency)</b>		
	Assets	Cap/ Assets %
NATL BANK GREECE	107	(0.2)
EFG EUROBANK ERG	77	1.1
ALPHA BANK A.E.	59	3.3
PIRAEUS BANK	49	(3.9)
BANK OF CYPRUS	37	6.5
Total	330	
EJR's est. of cap shortfall at 10% of assets less market cap		13
Greece's GDP		215

**Funding Costs**

Despite the restructuring of Greek debt and the LTRO, Greece has seen elevated funding costs; 10 year bonds have a yield near 30%. As can be seen in the below graph, yields have been elevated. The Greek government is seeking support from the IMF, ECB, and EFSF. We expect an additional restructuring and ultimately meager recoveries.



**Ease of Doing Business**

A major factor for growing the economy is the ease of doing business and the economic freedom; although not the sole factor for determining economic growth, a country which makes it easy for businesses to operate and provides a reasonably free environment to conduct business has a good chance for growth. The chart on the right indicates that with an overall rank of 100 (1 is best) is strong.

<b>The World Bank's Doing Business Survey*</b>			
	2012 Rank	2011 Rank	Change in Rank
<b>Overall Country Rank:</b>	<b>100</b>	<b>101</b>	<b>1</b>
<b>Scores:</b>			
Starting a Business	135	149	14
Construction Permits	41	42	1
Getting Electricity	77	78	1
Registering Property	150	151	1
Getting Credit	78	75	-3
Protecting Investors	155	153	-2
Paying Taxes	83	80	-3
Trading Across Borders	84	86	2
Enforcing Contracts	90	91	1
Resolving Insolvency	57	50	-7

\* Based on a scale of 1 to 183 with 1 being the highest ranking.

**Economic Freedom**

As can be seen below, Greece is above average in its overall rank of 55 for Economic Freedom with 100 being best.

<b>Heritage Foundation 2012 Index of Economic Freedom</b>				
World Rank 55*				
	<b>Rank**</b>	<b>2011 Rank</b>	<b>Change in Rank</b>	<b>World Avg.</b>
<b>Business Freedom</b>	<b>76.3</b>	76.2	0.1	64.3
<b>Trade Freedom</b>	<b>82.1</b>	82.6	-0.5	74.8
<b>Fiscal Freedom</b>	<b>65.3</b>	65.9	-0.6	76.3
<b>Government Spending</b>	<b>16.2</b>	34.3	-18.1	63.9
<b>Monetary Freedom</b>	<b>72.6</b>	80.6	-8.0	73.4
<b>Investment Freedom</b>	<b>60.0</b>	60.0	0.0	50.2
<b>Financial Freedom</b>	<b>60.0</b>	60.0	0.0	48.5
<b>Property Rights</b>	<b>50.0</b>	50.0	0.0	43.5
<b>Freedom from Corruption</b>	<b>35.0</b>	38.0	-3.0	40.5
<b>Labor Freedom</b>	<b>36.6</b>	55.2	-18.6	61.5

\*Based on a scale of 1-100 with 100 being the highest ranking.

\*\*The ten economic freedoms are based on a scale of 0 (least free) to 100 (most free).

Source: The Heritage Foundation & Wall Street Journal

**Assumptions for Projections**

	Peer Median	Issuer Average	Base Case	
			Yr 1&2	Yr 3,4,5
<b>Income Statement</b>				
Taxes Growth%	6.9	(0.7)	<b>(2.0)</b>	<b>0.5</b>
Social Contributions Growth %	2.4	(7.6)	<b>0.5</b>	<b>0.5</b>
Grant Revenue Growth %	0.0	0.0		
Other Revenue Growth %	12.1	2.6	<b>(1.8)</b>	<b>(1.8)</b>
Other Operating Income Growth%	0.0	0.0		
Total Revenue Growth%	5.9	(2.4)	<b>(2)</b>	<b>(1.4)</b>
Compensation of Employees Growth%	1.5	(6.1)	<b>1.0</b>	<b>1.0</b>
Use of Goods & Services Growth%	1.8	(28.9)	<b>1.0</b>	<b>1.0</b>
Social Benefits Growth%	2.4	(0.4)	<b>(0.4)</b>	<b>(0.4)</b>
Subsidies Growth%	(6.1)	(14.7)		
Other Expenses Growth%	3.6	3.6	<b>1.0</b>	<b>1.0</b>
Interest Expense	0.0	7.0	<b>8</b>	
<b>Balance Sheet</b>				
Currency and Deposits (asset) Growth%	(3.5)	0.0	<b>1.0</b>	<b>1.0</b>
Securities other than Shares LT (asset) Growth%	(1.5)	(6.5)	<b>1.0</b>	<b>1.0</b>
Loans (asset) Growth%	19.1	15.3	<b>(2.0)</b>	<b>(2.0)</b>
Shares and Other Equity (asset) Growth%	(2.0)	(8.7)	<b>2.0</b>	<b>2.0</b>
Insurance Technical Reserves (asset) Growth%	3.6	2.1	<b>2.1</b>	<b>2.1</b>
Financial Derivatives (asset) Growth%	0.0	0.0		
Other Accounts Receivable LT Growth%	4.1	5.8	<b>(2.0)</b>	<b>(2.0)</b>
Monetary Gold and SDR's Growth %	0.0	0.0	<b>5.0</b>	<b>5.0</b>
Other Accounts Payable Growth%	0.2	5.8	<b>5.8</b>	<b>5.8</b>
Currency & Deposits (liability) Growth%	6.0	(18.4)	<b>0.5</b>	<b>0.5</b>
Securities Other than Shares (liability) Growth%	5.3	(48.9)	<b>1.0</b>	<b>1.0</b>
Loans (liability) Growth%	3.1	41.9	<b>3.0</b>	<b>3.0</b>
Insurance Technical Reserves (liability) Growth%	0.0	0.0		
Financial Derivatives (liability) Growth%	31.4	62.8	<b>(2.6)</b>	<b>(2.6)</b>
Addl debt. (1st Year) million EUR	0.0	0.0		

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EJR CP Rating: D

EJR's 1 yr. Default Probability: 100.0%

**Base Case****ANNUAL REVENUE AND EXPENSE STATEMENT (MILLIONS EUR)**

	<u>Dec-09</u>	<u>Dec-10</u>	<u>Dec-11</u>	<u>PDec-12</u>	<u>PDec-13</u>	<u>PDec-14</u>
<b>Taxes</b>	45,823	45,108	44,804	43,908	43,030	43,245
<b>Social Contributions</b>	29,457	29,764	27,502	27,640	27,778	27,917
<b>Grant Revenue</b>	31,762	0	0	0	0	0
<b>Other Revenue</b>	-18,441	15,375	15,769	15,485	15,206	14,933
<b>Other Operating Income</b>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total Revenue</b>	88,601	90,247	88,075	87,033	86,014	86,094
<b>Compensation of Employees</b>	31,002	27,770	26,066	26,327	26,590	26,856
<b>Use of Goods &amp; Services</b>	17,135	13,692	9,740	9,837	9,936	10,035
<b>Social Benefits</b>	48,972	47,220	47,026	46,833	46,640	46,449
<b>Subsidies</b>	123	129	110	110	110	110
<b>Other Expenses</b>	8,019	7,035	7,286	7,105	7,359	7,176
<b>Grant Expense</b>	31,762	0	0	0	0	0
<b>Depreciation</b>	<u>5,012</u>	<u>5,382</u>	<u>5,772</u>	<u>5,772</u>	<u>5,772</u>	<u>5,772</u>
<b>Total Expenses excluding interest</b>	110,140	101,099	95,890	95,984	96,407	96,398
<b>Operating Surplus/Shortfall</b>	-21,539	-10,852	-7,815	-8,952	-10,393	-10,304
<b>Interest Expense</b>	<u>11,917</u>	<u>13,193</u>	<u>15,030</u>	<u>17,124</u>	<u>19,288</u>	<u>20,253</u>
<b>Net Operating Balance</b>	-33,456	-24,045	-22,845	-26,076	-29,681	-30,556

**Base Case****ANNUAL BALANCE SHEETS (MILLIONS EUR)**

	<u>Dec-09</u>	<u>Dec-10</u>	<u>Dec-11</u>	<u>PDec-12</u>	<u>PDec-13</u>	<u>PDec-14</u>
<b>ASSETS</b>						
<b>Currency and Deposits (asset)</b>	11,841	16,592		1,072	1,083	1,093
<b>Securities other than Shares LT (asset)</b>	741	741	693	700	707	714
<b>Loans (asset)</b>	5,261	5,407	6,236	6,111	5,989	5,869
<b>Shares and Other Equity (asset)</b>	39,757	37,533	34,270	34,955	35,655	36,368
<b>Insurance Technical Reserves (asset)</b>	42	47	48	49	50	51
<b>Other Accounts Receivable LT</b>	19,601	18,950	20,040	19,639	19,246	18,861
<b>Monetary Gold and SDR's</b>						
<b>Additional Assets</b>	(64)	304	14,799			
<b>Total Financial Assets</b>	77,179	79,574	76,086	62,527	62,730	62,957
<b>LIABILITIES</b>						
<b>Other Accounts Payable</b>	19,601	18,950	20,040	21,193	22,412	23,701
<b>Currency &amp; Deposits (liability)</b>	1,508	1,005	820	820	820	820
<b>Securities Other than Shares (liability)</b>	248,184	189,977	96,998	97,968	98,948	99,937
<b>Loans (liability)</b>	44,791	75,193	106,706	132,782	162,463	193,020
<b>Insurance Technical Reserves (liability)</b>						
<b>Financial Derivatives (liability)</b>	<u>980</u>	<u>1,311</u>	<u>2,134</u>	<u>2,079</u>	<u>2,024</u>	<u>1,972</u>
<b>Other Liabilities</b>	<u>(4,609)</u>	<u>(5,555)</u>	<u>(10,512)</u>	<u>(26,139)</u>	<u>(26,139)</u>	<u>(26,139)</u>
<b>Liabilities</b>	<u>310,455</u>	<u>280,881</u>	<u>216,186</u>	<u>228,702</u>	<u>258,587</u>	<u>289,370</u>
<b>Net Financial Worth</b>	<u>(233,276)</u>	<u>(201,307)</u>	<u>(140,100)</u>	<u>(166,176)</u>	<u>(195,857)</u>	<u>(226,414)</u>
<b>Total Liabilities &amp; Equity</b>	<u>77,179</u>	<u>79,574</u>	<u>76,086</u>	<u>62,527</u>	<u>62,730</u>	<u>62,957</u>

## **Sovereign Rating Methodology**

Egan-Jones takes the perspective of the investor as its primary point of view when developing the ratings it issues for sovereigns. Therefore, in the case of sovereign ratings, we attempt to take a more holistic view of credit quality to include not only analytic comparisons of various sovereign issuers but also the impact on our quantitative and qualitative analyses by current global, sovereign, governmental and market events, including the effects of government investments in speculative, volatile or other high risk investment products. For example, many sovereign issuers have taken on significant exposures of major financial institutions over the past several years. Hence, we calculate the under-funding of financial institutions and include this amount in the total indebtedness of sovereigns. (We use a base assumption that no country can afford to allow its major banks to fail and therefore we believe that there will almost always be an intervention by either a host or allied nation should financial institutions or markets require support at some measurable level.)

Generally we devise modeling calculators and do an analysis that examines the debt load of a country with respect to its GDP and other economic indicators. The analysis is then adjusted to reflect the outlook on a myriad of factors that reflect the firm's overall view of the sovereign debt and the quality of the country's ability to meet and thrive under such load. Some of the qualitative factors that impact our ultimate assessment of credit quality such as the flexibility, stability and overall strength of the economy, ease of tax collection, acceptance of contract law, ease of doing business, and prospects for future growth and health. The non quant issues are generally subjective and a moving target, so each rating of a sovereign may differ because of the non-quantitative nuances being addressed. Note, debt levels for many sovereign issuers have increased over the past decade and has accelerated recently, effecting the implied ratings.

## **Nota Bene**

History has proven that defaults on domestic public debt do occur. In fact, seventy out of three hundred twenty defaults since 1800 have been on domestic public debt (1). Egan-Jones does not view a country's ability to print its own currency as a guarantee against default. Additionally, Egan-Jones generally views cases of excessive currency devaluation as a de facto default.

1. "This Time Is Different: Eight Centuries of Financial Folly", Reinhart & Rogoff, p.111, 126