Amol Agrawal
amol@stcipd.com
+91-22-66202234

Greece Crisis – What are the Options?

Just like 2010, Greece crisis is back haunting the financial markets. In 2010, IMF and European Union initiated a bailout package of EUR 110 bn to prevent fallout of Greek economy. This was followed by similar bailout to Ireland and Portugal economies as well. It was being believed that bailout packages will help restore these economies. However a few economists always believed that fallout of these economies is inevitable and bailout plans are just postponing the obvious.

In this paper, we look at the fiscal situation in Greece and the options ahead for Greece and European policymakers.

I. Greece Bailout - Basics

We will begin analyzing the bailout of Greece. In May-2010 IMF and EU proposed a bailout plan for Greece worth EUR 110 bn (USD 145 bn). Out of 110 bn, IMF would pay 3/11 of the funds implying EUR 30 bn and EU would pay remaining 8/11th of the amount implying EUR 80 bn.

When a country joins the IMF, it is assigned an initial quota depending on size of the economy and and its characteristics. The IMF uses a quota formula to guide the assessment of a member's relative position. Quotas are denominated in Special Drawing Rights (SDRs), the IMF's unit of account. IMF lends to member countries based on this quota. IMF also a imposes restructuring plan before it gives loans to members.

IMF lent to Greece under its Stand-By Arrangements (SBA) program allows the Fund to respond quickly to countries' external financing needs. IMF usually lends upto 200% of quota for 12 month period and 600% of quota for total credit outstanding. Greece's quota is 1.1 bn SDR and IMF bailout to Greece was around SDR 26.4 billion (EUR 30 bn). This implied IMF bailout amounted to 3212% of Greece's quota. The program was exceptionally large by all means.

The bailout is based on certain conditions under which Greece will have to improve its public finances and competiveness. The government's program also includes pro-growth policies to reform such crucial sectors as tax administration, the labor market, the health sector, and the management of public finances.

The bailout funds are released every quarter based on an assessment report of the progress on Greece economy and whether restructuring plan is on expected lines.

Table 1 looks at the distribution of the bailout plan. In 2010, Greece got EUR 31.5 bn, lesser than the proposed EUR 38 bn. The shortfall of EUR 6.5 bn has been added to 2011. So overall the total bailout to Greece remains same at EUR 110 bn.

Table 1: Greece Bailout Distribution (in bn Euros)

	2010	2010 (Actual)	2011	2011 (revised)	2012	2013	Total
IMF	10.4	10.4	13.3	10.8	8	5.8	30
EU	27.6	21.1	26.7	35.6	16	2.2	80
Total	38	31.5	40	46.4	24	8	110

Source: IMF

Each quarterly review has made changes to the overall financing conditions.

- **2010:** In May-2010, total borrowing needs of government for 2010 was projected at EUR 73.6 bn. This was revised lower to EUR 55.1 bn in Dec-10 review and further revised upwards to EUR 60.1 bn. The rise was mainly on account of Greece missing its revenue targets. The fiscal deficit target was missed as well. However because of the overall decline from May-10 estimates, financing gap was lower at EUR 31.5 bn compared to projected gap of EUR 38 bn.

Table 1: Greece Financing Gap (in Billions of Euros)						
	2010			2011		
	May - 10	Dec - 10	Mar - 11	May - 10	Dec - 10	Mar -11
1. Gross Borrowing needed	73.6	55.1	60	55.1	58.1	58.7
Budget Deficits	20.7	22.3	22	18.7	16.8	17
2. Gross financing resources	35.6	23.6	28.5	15.1	11.6	12.2
Privatization receipts	0	0	0	1	1	2.5
Market Borrowings	33.4	18.3	16.2	12.4	10.6	11
3. Total Gap (1-2)	38	31.5	31.5	40	46.5	46.5
EU	27.6	21.1	21.1	29.1	35.6	35.6
IMF	10.4	10.4	10.4	10.9	10.9	10.9
Budget Deficit (% of GDP)	-8.1	-9.6	-9.6	-7.6	-7.4	-7.5
Source: IMF's Quarterly Reviews of Greece Economy						

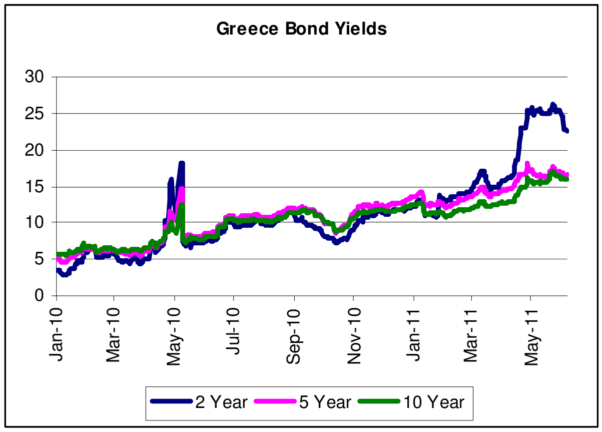
- **2011:** However, the gain of EUR 6.5 bn in finances required in 2010 has been carried forward to 2011. In 2011, EU would pay EUR 35.6 bn to Greece compared to EUR 29.1 bn projections in May-10. This is because in 2011 required borrowing has been revised upwards and financing sources have been revised lower. IMF in its Mar-11 review raises concerns over this problem of underachievement of revenue targets. Markets are already concerned that financing gap is likely to be higher as fiscal consolidation plans are not going on expected lines.

- **2012 & 2013:** In both these years, borrowing needs have been raised along with financing resources. However, there is a likelihood that government misses its revenue targets in 2012 and 2013 as well leading to need for more finances. This is leading to further spikes in interest rates seen above.

Overall, the expectations have again set in that Greece would need more money than the proposed EUR 110 bn. Greece's fiscal balances have entered a vicious cycle and a self-fulfilling crisis. First, government fiscal consolidation plans are not deemed as credible. Second, markets start charging a higher yield to finance the borrowing program. Third, the higher costs of borrowing, makes the program more expensive leading to a crisis even earlier than projected.

Figure 1 shows how the Greece bond yields have risen since Jan-10. After spiking in May-10, the yields had moderated but have again spiked from Mar-11 onwards. More importantly, the short-term yields have risen much sharper making the whole cost of borrowing unviable. The rise in yields is tracking the government's inability to follow the desired path of fiscal consolidation.

Figure 1



Source: Bloomberg

The reforms did not go as per desired pace with reform fatigue setting in very early stage. What is worse is that this slippage from reform commitment went unnoticed for a while and Greek debt crisis has again become a major issue. The basic conditions of EMU entry specified by Stability and Growth pact i.e. budget deficit should be 3% of GDP and Gross Debt should be 60% of GDP are not expected to be met even till 2014. Budget deficit might still come lower but gross debt levels are expected to remain above 60% of GDP for a much longer time.

The plan makers had assumed Greece would be able to borrow from international markets but this has not been possible because of low government commitment to push reforms. This has led to spiraling bond yields making borrowing unviable. This has led to again an uncertainty in global markets and over Euro prospects. The credit rating agencies have further lowered Greece debt status to near speculative/junk category fueling further concerns.

Another problem with Greece has been its underreporting of deficit and debt data. Greece officials have always underreported the actual figures. Any action under Stability and Growth Pact works on first time reported data and is not applicable to revised data. This underreporting has been done despite many concerns from European Commission over the same. The crisis itself erupted when Greece revised its 2009 deficit figures from 3.7% of GDP to 12.5% of GDP. After more data became available, the provisional estimate of the deficit for 2009 was further revised to 13.6% of GDP. Even in the bailout phase one sees deficits being revised upwards. This continuous upward revision has lead to concerns over true nature and value of deficits.

II. Too Interconnected To Fail

- **European Banks connected to Greece debt:** In the Lehman and AIG crisis, we saw how interconnected the financial system is with each player dependent on the other's financial performance. Similarly we see banks in other regions connected to Greece debt (and other troubled economies as well). Banks in France and Germany hold a large percentage of Greek debt. Table 2 looks at the international bank holdings of Greek debt.

Table 2: International Banks holding Greece Debt (in bn Euros)		
Located in	Q3- 2009	Q4-2010
France	78.6	56.7
Germany	43.2	34.0
United Kingdom	12.5	14.1
United States	16.0	7.3
Netherlands	12.1	5.0
Switzerland	78.6	2.9
Others	56.7	25.8
Total International Holdings	297.6	145.8
Source: BIS		

- Overall, the international bank holdings of Greek debt have halved from nearly EUR 300 bn in Q3 209 to 145.8 bn in Q4 2010.
- Most countries have lowered their Greece exposure compared to Q3 2009. This indicates most regions do not have confidence in Greece economy.
- Though, it is surprising to see UK banks increasing their exposure to Greece debt. It seems UK banks are more confident of Greek debt levels compared to other economies.
- Despite decline in absolute levels, share of France and Germany in Greece debt has increased from 41% in Q3 2009 to nearly 62% in Q4 2010. This implies Greece and France have bigger stakes in Greece debt relative to other economies.
- Switzerland banks have cut their Greece exposure remarkably from EUR 78.6 bn in Q3 2009 to just EUR 2.9 bn in Q4 2010.
- Even US banks have an exposure to Greek debt making it a widely inter-connected banking problem

The analysis shows though international banks have cut their exposures to Greece debt, overall levels remain high. This has led to interesting implications as most economists have said that because of this exposure, Greece was bailed out by Eurozone economies. Banks of core economies of EMU – France, Germany and Netherlands had large exposures to Greece debt and a decline in value of Greece debt would have led to problems in balance sheets of the entire core group. Similar problems are there with Ireland and Portugal debt as well with both Germany and France banks holding majority of debt of these crisis economies.

- **National Central Banks connected to Greece debt:** Apart from these, national central banks of EMU economies have been lending to banks in troubled economies indirectly. John Whittaker of Lancashire University points to this growing debts amidst national central banks in EMU.

In EMU economies, each national central bank (NCB) deals with its banks according to rules administered by the European Central Bank (ECB). Under this system say a retail deposit is moved from a Greek Bank to a German bank. In case, the German bank is unwilling to accept payment in the form of a claim on Greek Bank, the debt is settled via Central Banks. So, the German Bank now gets its claim from Bundesbank and Bundesbank in turn acquires a claim on Central bank of Greece.

Whittaker gives an estimate of such claims (Table 3) and shows the total intra-EMU debt is at EUR 457.1 bn and has grown by a factor of 7 since 2004. Germany's central bank has given EUR 146.1 bn to Ireland's central bank and EUR 87.1 bn to Greece's Central Bank.

Table 3: Intra-eurosystem debt arising from cross-border transactions (Dec-10, in EUR bn)			
Germany	325.5	Ireland*	146.1
Luxembourg	68	Greece	87.1
Netherlands	40.5	Portugal	59.9
Finland	19.7	Spain	50.9
Italy	3.7	France	28.3
		Others*	82.4
Total	457.1	Total	457.1
* estimates *Source: NCB financial statements and annual accounts; total from ECB annual account 2010*			

He says this bailout of Ireland via this system is larger than its official EU bailout of EUR 67bn and much cheaper as well (1% interest as against 5.8% charged in official bailout). Even for Greece, funds via this system are higher than EU's share of Greece bailout at EUR 80 bn. However, this exposes Germany to similar risks as well as it is not clear who will take care of losses if there is an Irish or a Greek default. This is also one of the reasons why ECB is opposed to any debt restructuring etc of the Greece/Ireland debt (discussed below).

Hans-Werner Sinn, a noted German economist calls this a stealth bailout. He says the longer we postpone this cheap finance facility, longer it will continue and no lessons will be learnt.

This inter-connected system of government deficits with international banks and national central banks in EMU have made the issue even more complex. The problem is not limited to Eurozone banks alone and extends to UK and US banks as well. These complex sets of transactions have made bailout of these three economies inevitable.

III. Options for Greece and EMU Policymakers

- **Option I: Europe/IMF continues to bail out Greece**

This has been the most obvious option and has been explained above.

However, bail-outs work only if problems are temporary and there are short term mismatches. Greece has not been able to present any credible fiscal control plan leading to a vicious cycle. The huge public sector in Greece is unwilling to cut wages, adopt longer work hours and agree to increase retirement ages. Fiscal austerity has worsened economic outlook leading to lower taxes. Greece has been very poor in overall competiveness which can be resolved only over a long term. Greece also has a large current account deficit implying there is pressure to raise foreign savings as well.

This option has already led to a huge moral hazard with Ireland and Portugal getting bailouts as well. Then one strong reason for bailouts is connections between EU debt and international banks. So clearly there are many limitations with this approach.

- **Option II: Greece (and others) exits Euro permanently**

In a crisis, a country does a mix of following:

- Central Bank lowers policy rates
- Government passes fiscal stimulus if needed
- Devalues exchange rate which leads to cheaper exports
- In case financial sector is weak, provide funds using lender of last resort operations

EMU economies can neither lower policy rates nor devalue exchange rates. In case of Greece fiscal stimulus was limited because of large deficits in the first place. Based on this, some economists say Greece should exit Euro and adopt its earlier currency - Drachma. The government can then devalue its currency which will lead to cheaper exports and help in growth. As the above tool-kit has been useful in previous crises as well, it is deemed that it would work for Greece as well.

However, Prof. Barry Eichengreen (a noted Euro expert from University of California, Berkeley) said this would be a herculean task even before the crisis in a paper written in 2007 (The Breakup of the Euro Area). He said leaving Euro "would trigger the mother of all financial crises". Reintroducing Drachma into monetary and financial system would be a nightmare as it will lead to re-pricing of all contracts. There is no idea on how this would be done. Moreover, exiting Euro will impose huge political costs as the government will renege on its euro commitments antagonizing its European partners.

Jean Claude Trichet, President of ECB adds any country leaving Euro is unrealistic. There is no such provision in the Euro Treaty (Interview with Aachener Zeitung, 27-May-11). Clearly, joining Euro really is a one way path. On similar reasoning, no country can expel Greece.

Other economists like Martin Feldstein (of Harvard University) have suggested that Greece (and others) exit Euro temporarily and rejoin after sorting out their fiscal problems. This solution again suffers from same problems as exiting Euro permanently. One cannot go out of Euro and come in at will.

There were suggestions that instead of Greece moving out, Germany should move out of the Union. EMU is centered on Germany and market participants believe as long as Germany is there in the Union, all is safe and troubled economies will be bailed out. Germans on the other hand express reservations over bailing-out the crisis economies which were reckless at the first place. Hence, instead of Greece moving out Germans should opt out of the Union and let the remaining members sort out the problems. Again, this is not possible as operational issues which apply to Greece apply to Germany as well. Then Euro project is a shared vision led by German policymakers and cannot be abdicated so easily.

- **Option III: Greece defaults and restructures its debt**

Since 2010 itself, economists have said this is the only viable option. Greece public finances situation was always deemed very weak and bailing out would only lead to postponing the problems. This is what we are seeing in 2011 as well where 2010 bailout amount is again falling short of total needed.

It might lead to concerns in banking system but that is a price banks will have to pay for under-pricing risks for such a long time. Greece bonds traded at near similar yields as Germany's bonds despite having a much larger fiscal deficit. However, if Greece defaults it could be another

Lehman kind of moment with inter-linkages in the banking system. Hence, EU is playing the waiting game approach and hoping bailouts work.

- **Option IV: Soft Restructuring involving private sector**

  France President Nicholas Sarkozy recently advocated that instead of debt restructuring, there are plans to share debt burdens with private sector. This is akin to soft restructuring of government debt.

  Under the new proposed plan, the euro-zone governments would ask Greece's creditors to exchange their soon-to-mature debt for debt with a longer maturity. There is hope that the debt-exchange offer could delay around EUR 30 billion of Greece's repayments over three years—in effect, partially offsetting the extra rescue money.

  ECB is opposed to this plan and believes this would lead to banking crisis. ECB member Lorenzo Bini Smaghi has criticized this option in a recent speech (Private sector involvement: From (good) theory to (bad) practice, 6-Jun-11). He said this option worked well for developing economies but unlikely to work for an EMU economy. It would affect financial markets and can disrupt them as well. There would be large losses for the banking system and recapitalization of the banks would require further public money. As per Bini Smaghi, best option for Greece is strict implementation and monitoring of the restructuring program.

Given the four options, Greece economic situation pushes for third/fourth option but EU/IMF will prefer the first option. Restructuring debt will impose huge costs on its other banks and economies as well. Moreover, a default of any EMU economy will also lead to huge reputation loss for the ambitious Euro project.

IV. Further Problems in EU Crisis Management

- **Too many EU bodies resulting in poor communications:** The nature of the Union has led to many kinds of EU bodies with multiple heads. It is a problem in normal times and in crisis is just gets worse. Like we saw in 2010, there are many parallel messages from different bodies. Then there are heads of national bodies as well leading to complete chaos and confusion over possible policy choices. The nature of the union is such that one cannot really accord responsibilities for communicating to a few chosen agencies.

  In a speech (Building Europe, building institutions, 2-Jun-11) ECB President Jean Claude Trichet suggested setting up a Ministry of Finance for EMU. This new institution could be made responsible for all these communications in future. Till then the chaos is expected to continue. The new Ministry of Finance could also help form a centralized fiscal policy which has been seen as a major weak link of the European Monetary Union.

- **ECB raising rates focused on inflation**: ECB's single mandate is to deliver price stability and as inflation has increased above its target of near 2%, it has raised rates. This has made it even costlier for Greece and others to raise funds. The growth patterns in Eurozone are highly asymmetric with Germany and France growing strongly and others like Greece declining. So, the rate hike helps Germans where inflation is rising but hurts Greeks. This again points to evidence on how European Monetary Union works fine in good times and leads to problems in crisis times. It is a union of countries which are highly asymmetric in the overall economic conditions and performance. This hinders in coordinating policy for common gains.

Jean Claude Trichet in an interview (14-Oc-10) even said that he does not think there has been a crisis! According to him, the problem has been countries not respecting the Stability and Growth Pact and hence the need for fiscal adjustments which need to be done vigorously.

V. Final Thoughts

Jeffrey Frankel of Harvard University says EMU policymakers made three mistakes:

- To admit Greece in the first place
- To allow interest rate spreads on sovereign bonds issued by Greece (and other periphery countries) to fall almost to zero during the period 2002-2007
- Failure to send Greece to the IMF early in the crisis, before Greek interest rate spreads widened sharply

The first and third are mistakes of EMU policymakers and second is a mistake of market participants. As both markets and policymakers erred understanding the implications of EMU, both need to resolve this together.

Getting out of this EMU debt crisis is going to involve a major effort. All these economies are also suffering from demographic problems and their fiscal outlook does not look good anyways over a long-tem. The crisis has created problems for their short-term outlooks as well. Out of seventeen economies in EMU, twelve economies have deficits over 3% of GDP in 2010 and nine economies have gross debt levels over 60% of GDP (including Germany and France at above 80% of GDP). Overall EMU fiscal deficit average stands at 6% of GDP and gross debt at 85.1% of GDP.

This indicates how severe the crisis has been on overall public finances of European economy. They need to first resolve this crisis of peripheral economies and then work on improving the finances of the Union as a whole.

STCI Primary Dealer Ltd.
A/B1- 801, A Wing, 8th floor, Marathon Innova, Marathon Next Gen Compound,
Off. Ganpatrao Kadam Marg, Lower Parel (w), Mumbai 400013.

Dealing Room: (022) 66202217-20 ● Settlements: (022)66202262-64, Fax (022) 66202288
Delhi Office: (011) 47676555-570 ● Bangalore Office: (080) 22208891
Please mail your feedback to stcipd@stcipd.com ● Website: http://www.stcipd.com

THIS COMMUNICATION IS FOR PRIVATE CIRCULATION ONLY. IT IS BASED UPON THE INFORMATION GENERALLY AVAILABLE TO PUBLIC AND CONSIDERED RELIABLE. THIS REPORT DOES NOT CONSTITUTE AN INVITATION OR OFFER TO SUBSCRIBE FOR OR PURCHASE OR SALE OF ANY SECURITY AND NEITHER THIS DOCUMENT NOR ANYTHING CONTAINED HEREIN SHALL FORM THE BASIS OF ANY CONTRACT OR COMMITMENT WHATSOEVER WITH STCI PRIMARY DEALER