Macro Comment 10/08

Shahin Kamalodin

# Will Greece face trouble rolling over its debt?

Rabobank

*Rumors are mounting that a Greek syndicated bond issue is to be launched within days. This is an extremely important event as the success or failure of such issuance will, by and large, determine whether the Greeks have to go cap in hand to the European Commission or not. In a simple exercise, we show that the expected return of investing in the upcoming issuance is very much dependent on the assumptions one makes on the probability of default, the loss-given-default and the evolution of bond prices going forward. As such, it is impossible to know beforehand whether such issuance will attract as many investors this time around as it did previously.*

The closer Greece gets to the date that it needs to rollover its outstanding debt in 2010, the more jittery markets become. According to the data from the Greek public debt management agency (PDMA), the Greek government needs to rollover over around EUR 8.2bn and EUR 8.5 worth of debt on the 20th of March and the 19th of May, respectively (see figure 1). The total amount of issuance will amount to EUR 53bn, or around 5% of GDP, given that the massive budget deficit needs to be financed as well. But market rumors suggest that a syndicated bond issue is to be launched within days – perhaps as early as next week – given that the government has appointed a senior commercial banker as new head of the PDMA. In our view, the outcome of this issuance – good or bad – will, by and large, determine whether the Greeks should knock on the European Commission doors or not.

Given the country's successful debt issuance in January (EUR 8bn), which was heavily oversubscribed (around 4 times over), it is important to know whether the government can attract as many investors this time around. Therefore, we will carry out a simple exercise to see under what conditions the market will have an appetite for such issuance. Of course, to do so, we will have to make three crude assumptions. For that matter, the risk-neutral investors

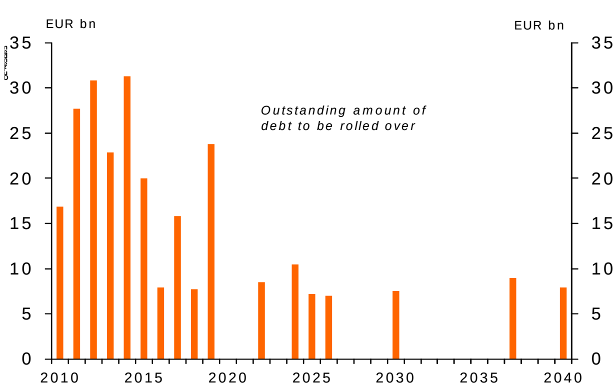
1. can only choose to purchase Greek or German bonds,
2. can expect to receive 70 cents on the euro (i.e. the recovery rate (RR) is assumed to be fixed at 70%) if any of the countries choose to default on their obligations,
3. have only a one year horizon.

Under these rather simplistic assumptions, one can measure the expected return, *E(r)*, of investors by calculating the market-implied probabilities of default (PDs) of both countries' sovereigns. More formally, the expected return can be calculated by using the following formula:

$$E(r) = [PD \times loss] + [(1 - PD) \times profit]$$

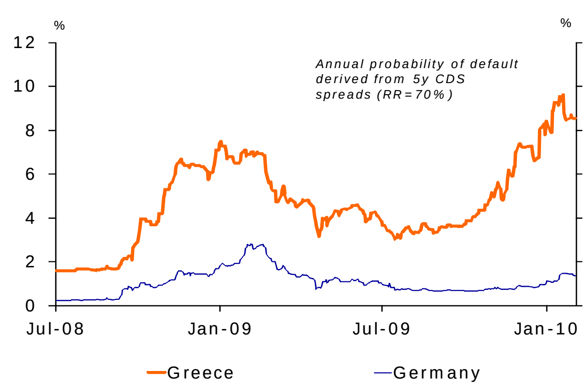
Luckily, the PDs of Germany and Greece are easily derived from the sovereigns' CDS spreads (see figure 2). Now let's suppose that an investor has EUR 1mln to invest, what will her expected return be if she buys Greek or German bonds – assuming that the Greek bond issuance (5 year maturity) was carried out today.

**Figure 1: Greece's debt outstanding**




Source: Bloomberg

**Figure 2: Market-implied probability of default**




Source: Rabobank, Reuters EcoWin

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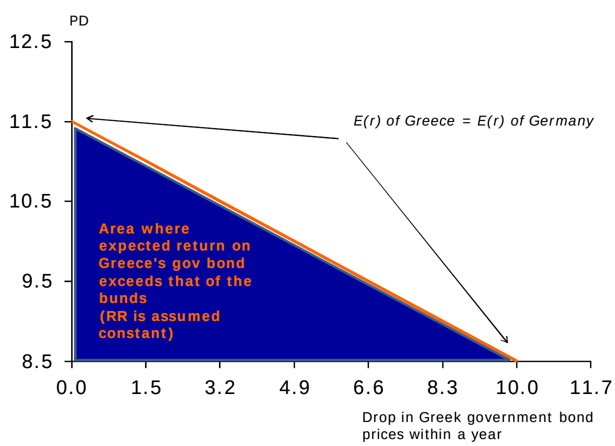
As the table shows, the investor will make an expected return of around EUR 29,000 if the markets ask for a spread of 350bps over mid-swaps (2.52% on 22 Jan.) – as they did in the last issuance. If the investor would purchase a 5 year bund (yielding 2.3% on 22 Jan.), her expected return would be around EUR 18,500 (i.e. EUR 10,500 less than the expected return of Greek bonds).

| | Probability of default | Loss if RR=70% | Expected loss | Probabiltiy of no default | Profit | Expected profit | Expected return |
|---|---|---|---|---|---|---|---|
| Greece | 8.54% | EUR -300000 | EUR -25,620 | 91.46% | 60,000 | EUR 54,876 | EUR 29,256 |
| Germany | 1.30% | EUR -300000 | EUR -4,110 | 98.70% | 23,000 | EUR 22,701 | EUR 18,574 |

Does this exercise suggest that investors must automatically rush in to purchase Greek bonds when they are issued? Absolutely not! There are many things that can go wrong with such an investment. First, the default probabilities might be much higher than what is derived from CDS spreads. Think of the implicit bailout guarantee by the European Commission that the markets have priced in. Figure 3 shows that if the Greek PD is 2%-point higher (given a constant RR), the expected return of investing in Greek bonds will equate that of investing in bunds. Second, the assumed recovery rate might be too optimistic. If RR is set at 50% and the PD is assumed to stay constant, the expected return of Greek bonds will plunge (EUR 12,000) while that of German will drop moderately (EUR 15,800). In theory, of course, PDs would have to drop in tandem with RR since higher recovery values – for a given spread – can only be rationalized if there is a higher default probability (see figure 4). Third, the price of Greek government bonds can fall strongly (e.g. more than 10%) amid market panic, which will wipe out all the gains made from the higher coupon. Equally, market jitters will trigger a flight-to-safety, thereby pushing bund prices upwards.

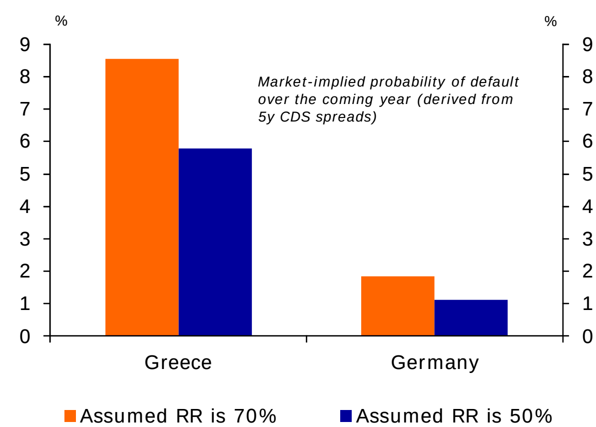
Thus, the decision to invest in Greek bonds, as opposed to safer debt securities, is fraught with uncertainties (there are no free lunches in Athens). An investor taking such position is speculating on many things at the same time – a low PD, a high RR and minor increase in Greek yields going forward. Against this backdrop, it is extremely difficult to speculate beforehand whether Greece can indeed rollover its debt without facing major hurdles. One thing is for sure though, Mr. Papakonstantinou, Greece's finance minister, will be keeping his fingers crossed, hoping that the market will embrace the upcoming issue as much as they did the previous one. Otherwise he might have to go cap in hand to the European Commission. Not something the Greeks, or anyone for that matter, is looking forward to. In any case, exciting times lie ahead of us. Stay tuned!

**Figure 3: Various scenarios**




Source: Rabobank

**Figure 4: PDs drop if RR is assumed to be lower**




Source: Rabobank, Reuters EcoWin

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