Credit

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The French Model

Nicely Dressed – But Doesn't it Need a Haircut?

- Brady bond-style rescue with private sector involvement would help secure liquidity and funding.
- French model would also carefully avoid triggering a default in CDS.
- But S&P objects that banks are bailing-in Greece by buying discounted bonds at par.
- Agencies declaring 'selective default', even for a few days, would threaten the plan.
- The ECB would likely accept 'defaulted bonds' as collateral to support Greek banks.
- But, if auditors feel compelled to haircut 'defaulted bonds' in vulnerable HTM banking books, then the French model could cause more problems then it solves.
- Further iterations of the model are likely, although avoiding triggers could prove tricky.
- Difficulty constructing model suggests full restructuring may occur prior to 2013.

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Private Sector Participation Without Default

The French and Germans are trying to build a quorum for rolling Greek debt. So far their plans resemble some combination of the Vienna rollover Initiative of 2009 and the collateralisation of principal used in the Brady Bond programme of the 80s and 90s (only, critically, without the associated debt reduction). So far French, German, Greek banks and even an Italian bank have said they'd consider it. So they might: despite involving a PV haircut, it may yet prove attractive if the alternative consists of an involuntary and disorderly default.

In many respects, the model looks nicely dressed. It would push Greek refinancing risk out and decrease reliance on markets. CDS would not be triggered, the systemic implications of an eventual default would be reduced, Greek bank liquidity and balance sheets would remain whole, and the private sector would participate in what is a restructuring in all but name. If successfully launched, this template might even be repeated elsewhere in Europe.

However, the model looks to have a major flaw: its haircut. Specifically, S&P has said it would greet the usage of the model with a downgrade to selective default ('SD') status – basically on the grounds that, despite the scheme notionally being voluntary, creditors opting in to the plan would be taking a PV loss and coming away with less than par. Moody's is hinting it will follow suit. The ECB has already suggested that it might continue to hold SD bonds and provide liquidity in any case, provided at least one other agency did not consider the issuer to be in default. But if auditors insist on significant impairments to Greek bonds in Greek HTM banking books, thereby necessitating recapitalisation, then the plan would likely no longer be viable.

We suspect that efforts will be made to re-jig the model so that rating agencies can be persuaded not to downgrade. But this seems unlikely to be easy. In *Sovereign rescheduling: what triggers CDS?* (May 2011) we concluded that circumnavigating default triggers on bonds and CDS was likely to prove so complicated that the authorities would opt for bailouts in the short term, and come back to the idea of haircuts only at a later date. While the French model neatly sidesteps some of the issues from a structuring perspective, subjective rating agency criteria still look like a thorny obstacle.

This note therefore outlines the motivation, detail and structure, and potential implications of the French model. As successive versions are experimented with, so the markets are likely to react to them.

Ultimately we stand by the conclusion of our previous piece. There is no magic solution which simultaneously involves the private sector and yet avoids triggering bonds and CDS. In coming months, we believe something will have to give. In the near term, we suspect that will be the desire for private sector participation, and that the troika's contribution to the second bailout package will be augmented to make up the shortfall. Not too long thereafter, though, there seems likely to be a proper default – either because the creditors find themselves unable to win political support for the ever greater sums required, or (perhaps more likely) because the Greeks themselves achieve a balanced primary budget and opt to bring forward the inevitable restructuring. For now, the model seems unfeasible because of its haircut. But even alternative iterations of the outfit will likely all involve the use of the scissors in the end.

Vienna initiative and the "prisoner's dilemma"

The Vienna initiative is a reference to bank collective action that avoided default in eastern European banks in January 2009. The implication of the term in the case of Greece is that, by acting against their own individual interests, banks can achieve an orderly result that is the best outcome for all lenders as well as the borrower. Specifically, while it is not in an individual shareholder's best interest to roll Greek debt, one could argue that it is in the best interest of a larger collection of Greek creditors to renew loans on similar terms to avoid collapse.

The Vienna initiative involves a prisoner's dilemma, a fundamental problem of game theory. In this version of the dilemma, a distressed borrower will collapse if lenders refuse to roll over a loan, or if they raise the borrower's interest rates. Lenders will maximise their chances of getting their money back if they act collectively and all voluntarily extend the borrower's loans. A holdout¸ or a single lender that seeks to take advantage of the situation and maximise their return by being the only lender not to re-extend credit on the same terms, risks destabilising the whole collective action by enticing others to hold out, resulting in bigger losses for everyone else.

Under the French plan European banks would be asked, therefore, to voluntarily buy new Greek government bonds as their old bonds come due. As we describe below, the rates of interest on the new bonds would be similar to the old, even though Greece is currently unable to borrow from the market at these terms. Lenders, rating agencies, shareholders, auditors, politicians and the public are being asked to recognise that collectively this represents the best outcome for all, even if banks don't seem to be acting in their own best self interest.

Banks' obligations

With this broad aim in mind, we can consider the details of the proposal. It involves a collective commitment to roll Greek debt as it comes due. Existing investors would receive bond redemptions from Greece and then reinvest 70% of the money in new Greek government bonds. These new bonds would be:

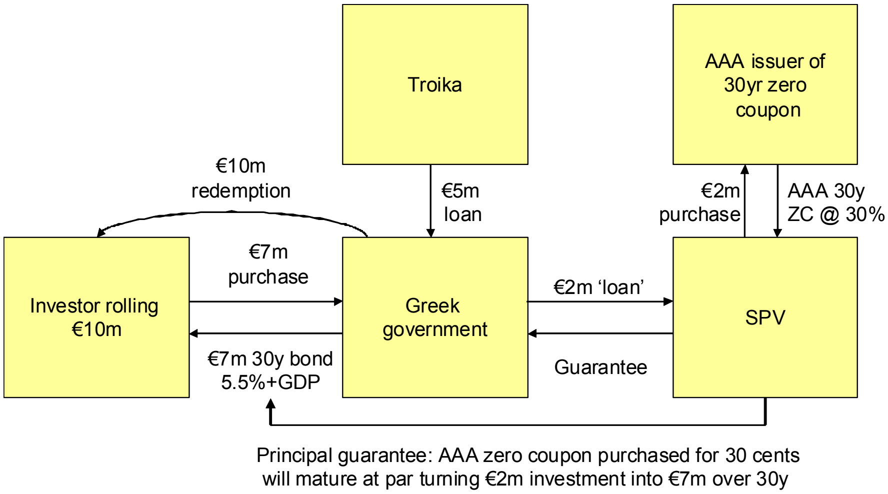
- 30 years;
- Principal guaranteed (AAA) at maturity;
- Have unguaranteed coupons of 5.5% plus annual Greek GDP (the GDP kicker is floored at 0 and capped at 2.5%);
- 30% cash, or rather they only have to commit to buy €70 for every €100 they roll.

There are some similarities with the Brady bond programme of the 1990s. Bonds benefit from a riskless principal, and coupons are subject to the risk of a Greek default. This guarantee on the principal is effectively paid for by Greece – not provided externally – as we describe in the next section.

Deal Structure

The language and the structure of the deal quite carefully align multiple objectives. Firstly, it would achieve an AAA principal guarantee without the need for external input. Secondly, as we discuss in a later section, it would not trigger CDS and would avoid triggering negative pledge clauses in existing Greek government bond debt.

Figure 1. French model for a European version of Brady bonds



Source: Citi Investment Research and Analysis

The structure is illustrated by Figure 1. The principal protection of the deal would be ‘bought’ by Greece, by purchasing long-dated zero-coupon AAA collateral, the same core technique used in the case of Brady bond issuance.[1] Of the €7m received by Greece in our example above, €2m is lent to the SPV. The SPV would use this €2m to buy €7m notional of 30yr AAA zero-coupon bonds, spending 30 cents in the euro. This asset would be kept safely in a remote SPV with the ECB as custodian until it is time to repay the notional of the principal-protected bond.

A default before maturity means that the investor would be left with a thirty-year zero-coupon that will gradually accrete back up to par over time. If no default occurs and Greece recovers and starts to grow, the investor would get some upside as the coupon has a link to GDP (floored at 0, capped at 2.5%).

Is there more Greek debt or less?

Unlike most of the Brady programmes, this plan would actually involve more Greek debt, not less.[2] While systemic exposure of banks to a Greek default would fall, and the funding cost to the troika would be lower than in the absence of the plan, the interest burden for Greece would actually increase rather than decrease, as would its notional debt outstanding.

From a systemic perspective, for every €10m of old bonds that are rolled, €7m of Greek notional would be removed from the system. Greece would never have to pay this debt back, although it would have to pay interest on it. The 30-year strip of coupons would be quite valuable for investors, and makes up almost 50% of the value of the bond. However, removing the principal reduces the systemic risk to banks of Greece. Banks that roll Greek debt would also get 30% back in cash. Greece could cut or suspend coupons with less damage to the private sector than before.

[1] Only in the case of the Brady programmes the burden of paying for the insurance did not fall exclusively on the debtor: while they put up some of the initial funds, much was provided by the likes of the IMF and the World Bank.

[2] Some of the Brady programmes did involve an increase in debt in their early years, but this typically reduced soon after because of the coupon reduction that was achieved.

From the troika's Greek funding perspective, every €10m of debt rolled in this plan would require €5m of additional troika bailout funding to support the same level of debt. Their ongoing willingness to fund Greece is assumed, but this willingness may decrease if progress towards reform remains limited. Given that the troika targeted €30bn of private sector contribution, and €5m is contributed out of every €10m, we estimate €60bn would have to be rolled. This theme is explored more fully our recent economists' piece, *Euro Area: The French Model*, 30 June 2011.

From an interest burden perspective, there would be *more* interest-bearing debt than before. Greece would have to pay 5.5% on its €7bn 30 year coupons, a similar rate to its existing 15yr debt (GGB 5.3 March 2026), but more than its 30yr (GGB 4.5 Sept 2037). But, it would also have to pay interest on €5bn of bailout funds to the troika, resulting in an interest burden of €12bn. The troika would have to charge Greece the equivalent of the 30yr swap rate, 3.8%, in order to neutralise this effect – or even less if it wanted to neutralise the GDP component, as well.

CDS and negative pledge triggers

Much effort has been made to construct a deal that involves bondholder participation in a bailout, but that does not trigger a wider default of CDS or bonds. This plan avoids the legally defined triggers in the documentation but falls foul of the scrutiny of the rating analysts. Such a scenario could cause contagion to other periphery sovereign markets. For example, one of the reasons given for downgrading Portugal to sub-investment grade was the increased probability of private sector burden sharing. Therefore, it was always unlikely that any proposal be structured in such a way as to unnecessarily trigger CDS or accelerate/default existing debt.

There are two possible triggers in this sort of deal and both would have been avoided. The first is that any rollover has to be voluntary as a coercive plan would trigger CDS. This rollover would be voluntary from a CDS perspective even if unofficial political pressure is put on banks to accept it.

The second possible trigger is a restructuring one. If the bonds issued were senior in some way to other Greek debt then this would be a trigger. The new bonds under the plan are *pari passu* even though they have a guarantee. They are not collateralised, which is especially pertinent to the issue of avoiding a default through negative pledge clauses.

International Greek debt makes up about 10% of the outstanding stock and much of this international debt has negative pledges. A negative pledge triggers an acceleration or default if Greece "grants a pledge, mortgage or other charge over its assets". It must, therefore, grant similar collateral to bonds with negative pledge documentation at considerable cost. So, the deal is structured so that Greece lends the SPV money to buy the collateral which remains owned by the SPV. The plan is carefully worded and the new bonds only have a guarantee from the SPV, not a security interest, so the bonds are not considered collateralised.

We have maintained that too much emphasis has been put on a CDS trigger, especially by the ECB and European politicians. This is partially due to a misperception about the size of the CDS market and confusion about the definitions of gross and net notional. Much CDS has been closed out and the net outstanding CDS on Greece is only $4.8bn or €3.3bn, less than 1% of outstanding notional, according to the DTCC. In fact, if CDS triggers are carefully avoided in the ways described then it seems likely that investors might shun CDS hedges and sell assets instead. A similar asset sale might follow a European ban/restriction on buying protection with sovereign CDS.

How good a deal is this for banks?

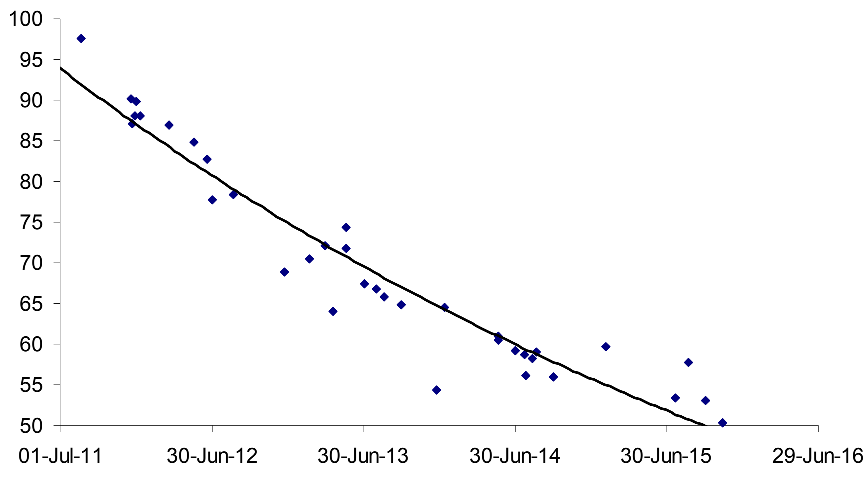
The crux of this deal is that banks are prepared to buy at par a bond that has a value considerably less than par. Banks are being asked to make a contribution on the promise of a blend of cash, principal protection and potential upside. For banks that believe a haircut can be postponed for, say, five years plus, this should represent a reasonable deal (although not as attractive as being a holdout). The real motivation, however, is that the political alternative of no-deal at all and being a holdout is likely to be much less attractive.

On a straight MTM basis buying these bonds at par does not look compelling. To calculate a value, let's split the bond into two parts, a principal guaranteed zero coupon and a stream of risky cashflows. We've already established that the 30y AAA zero coupon is worth 30% because that is what the SPV will buy it for.

The stream of 5.5% coupons from Greece cannot just be discounted at par because there is quite a high probability that they won't all get paid. To probability weight them we need to discount them by LIBOR + Greek CDS curve, which is currently trading at +2000bp. If we discount the flows in this way we get a value of 24 cents. If we want to add an average of 1.5% for the GDP kicker, perhaps we could squeeze that to 30 cents, making a total of 60 cents in the euro. Our rates strategist, Mark Schofield, points out in *Examining the French Proposal for Rolling Over Greek Debt*, 30 June 2011, that from an IRR perspective buying the old 30 year Greek bonds is a more attractive strategy for those that think that a default might be further out.

Putting this altogether, for every €10m of notional banks roll, they are getting €3m back in cash, and spending €7m on an asset worth 60% x €7m = €4.2m. Therefore, they are getting back a total of €7.2m on every €10m rolled. Given that this is the current average price of a 2 year bond, this would seem to represent something not too distant from a like-for-like deal, assuming refusing to sign up for the deal is not really an option. Banks are saying: I undertake today, to exchange my 72% bond for a deal with 72% two years from today.

Figure 2. Prices of 0-4yr Greek Sovereign debt by maturity, %



Source: Bloomberg, Citi Investment Research and Analysis

Yet many of the benefits for banks have little to with MTM. The problem with a prisoner's dilemma and game theory is that it makes traditional valuation appraisal much trickier. If all banks refused to help then they would likely lose more through a

disorderly default and not just on their Greek assets. If they all agree to help, there is still a chance that they will lose. The probability-weighted outcome of profit – especially longer term – is greater. Equally, banks need to retain the relationship with regulators, politicians etc. Becoming a holdout has some non-quantifiable downsides. If this plan is successful and a systemic risk event is avoided, then this would benefit banks considerably.

Prospects of rating agencies declaring a default

Unfortunately the plan has a potentially fatal flaw. The rating agencies are concerned about the PV loss participants would take. S&P, in particular, has therefore said it would consider the action to be akin to a non-voluntary restructuring, and would place Greece under selective default (SD). Moody's has also warned that participants risked having to take credit impairments. While the agencies' decision is subjective, and could conceivably be addressed, a failure to get them on board may prove fatal for the viability of the plan.

Given that we believe that banks are entering into an almost price-neutral deal when considered as a whole, will rating agencies be persuaded that such an action is entirely voluntary? Would they be satisfied if the plan were altered to a voluntary exchange, where banks exchange discounted bonds for discounted principal-guaranteed debt?

Ultimately, the decision to declare a default on this question is likely to be subjective. Various European institutions will likely apply what unofficial pressure they can to achieve the outcome they want, but ratings agencies would fight to maintain their impartiality, making the conclusion far from foregone. Given the public nature of their declarations of downgrades, it would take a major tweak for them to back down.

What if they can't be persuaded – does a downgrade to default matter? There have been fears that the ECB would refuse to hold downgraded collateral. In fact it has recently declared it would accept collateral so long as one rating agency maintained rating above default. Refusing collateral could prompt Greek bank insolvency and threaten Greece's position in the Eurozone. It is unlikely that such a consequential decision would be taken unilaterally. The ECB seems much more likely to be accommodating.

Rating agency downgrades might force some sales of assets. Where portfolio managers have mandates that do not permit defaulted assets, they might be prompted to sell. But, we reckon these sorts of decisions are more political now rather than rules-based and that those who were minded to sell have probably already sold by now.

Given that CDS default decisions are independent of ratings agencies, derivatives will not be affected. The amount of wriggle-room is rapidly decreasing and artificial mechanisms to sustain a no-default status are unlikely to last long. The other areas where ratings will matter, and might be a deal breaker, are accounting and regulatory capital treatment.

Auditors and HTM banking books

A number of critical bond holders have Greek government bonds in banking HTM (hold-to-maturity) books. In particular, a large number of Greek banks could start to look undercapitalised if they were forced to take 'impairments' to the bonds on their books. A downgrade to default could lead to auditors asking for losses to be recognised. If this plan results in a need to rescue Greek banks then it would be much less attractive.

Again, we think this decision is ultimately likely to be a political one. Pressure will likely be put on auditors to avoid large impairments. Therefore, we think that there is a fair chance of a certain degree of flexibility. Will auditors be asked to bend or look away? Moody's points out that auditors might not mark AAA guaranteed paper down as they should: "it isn't possible to predict whether banks would record impairment losses because the application of IFRS rules has proven inconsistent in the past". While it is likely that auditors will be flexible, it is unlikely they will want to risk being sued.

From a regulatory capital perspective, holding a principal guaranteed bond is attractive. Smaller banks that operate under the standardizsed approach holding AAA to AA- sovereign bonds have a 0% risk weighting. The formulae under Advanced IRB are more complicated, but the critical components are the probability of default, which is assessed by internal rating, and the loss given default which is assumed to be 45% for sovereign debt. Equally, although the Advanced IRB has a maturity adjustment, this is capped at five years, so holding thirty year debt is not as penal as it might be. Therefore, the regulatory cost of capital for new bonds should be considerably lower than for older debt.

Take the model back to the salon

The model is attractively dressed and much admired, but even though we might see it in a number of outfits, we think it will be hard to reach agreement on the haircut. If we are going to have some form of default in Greece, with the ensuing negative market reaction, then why not impose something more severe on bondholders? Hence, we again are hearing discussion over the German proposal for involuntary debt extensions.

Finding a solution, even if it just postpones the problem, is in the interests of all stakeholders, increasing the chances of an agreement being reached. European taxpayers, which on the one hand are being asked to increase their exposure to Greece, ultimately have more to lose in an EU banking crisis. Banks, too, might rather take writedowns and long-dated principal guaranteed bonds than face a wider crisis. A disorderly default would likely be much more damaging and expensive than a slow slide towards a private sector haircut on a reduced notional.

If some variant on the French model can be found that manages to avoid defaults and buy time, then we think it will be enthusiastically embraced. But ultimately we feel that constructing such a variant might be too difficult, or rather that the required compromises end up outweighing the benefits. There are many non quantifiable variables. For example, Greece might fall short again, investors might not opt to participate if it is too harsh, or the troika will have deemed to burden taxpayers if it is too lenient. Ultimately, even if a compromise is agreed upon, we think these difficulties bring the probable timing of a full haircut forward as alternative options are exhausted.

Appendix A-1

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