The pitfalls of official first-loss bond insurance

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*E*urozone leaders agreed this morning on the rough outline of a package of measures designed to end the crisis in the eurozone. This commentary argues that a central pillar of the package will not work. The so-called 'first-loss insurance' of eurozone sovereign debt relies on an incomplete analysis of the underlying problem and the proposed solution.

Imagine you own a house next to a nuclear reactor and you're offered insurance. The contract compensates you for the first 20% of your losses if the reactor melts down. Would you sleep much better at night with such insurance coverage?

For financial markets, Italy is a lot like Fukushima. Everything works fine and the insurance is useless…until a disaster strikes and it's nowhere near enough. Any state of the world where Italy restructures by 20% would find itself in a situation akin to Fukushima. In short, this sort of 'first-loss' insurance is not very likely to make much of an impression to clearheaded bond-buyers when it comes to Italian or Spanish bonds.

The official reasoning behind the approach of offering a 'first-loss' insurance was quite simple. Perhaps it was too simple.

- Since the debt burden of Italy (as well as that of Spain) appears manageable, investors should expect only a modest loss in case of default.

- If the expected loss in case of default were only 20%, a 'first-loss' guarantee should actually make the bonds riskless (implying a large fall in interest rates for Italy and Spain).

However, this reasoning overlooks the hard facts. Sovereign default is a very rare event, but when it does occur, it's big – like a tsunami flooding a nuclear reactor. 'First-loss' insurance cannot make Italian bonds riskless.

Investors might reason that once the EFSF (European Financial Stability Facility) has issued large amounts of the first-loss guarantee, it will become even more reluctant to let Italy default because this would lead to large losses for itself. The first-loss insurance can thus be understood as a partial Eurobond. It lowers the probability of a formal default.

In this way, the first-loss guarantee might lower the probability of an unlikely event, but it might increase the losses in case it eventually arrives. After all, Greece (and many other cases) show that if insolvency is not recognised early, the cost of the eventual default increases. With a lower probability of a bigger loss, the net effect on bond prices could go either way.

Governments as insurance companies

In the plan, the EFSF would be the insurer. It would also be the judge as to whether the first-loss occurred. Having watched eurozone leaders' do summersaults to avoid 'involuntary' haircuts that would trigger loss insurance, one would have to wonder what they would do to avoid declaring an event that would cost the EFSF billions.

Just imagine what the conversation would sound like if the decision to pay off on the 'first-loss' insurance arises at the same European Council meeting where eurozone leaders are negotiating another 'voluntary' haircut for private holders of the same debt. Might the leaders be tempted ask investors to forego their insurance payments 'voluntarily'?

Finally there is the little problem of the EU Treaty, whose Article 125 (TFEU), is quite explicit:

"The Union shall not be liable for or assume the commitments of central governments, ……. of any Member State,….

A Member State shall not be liable for or assume the commitments of central governments, ……. of another Member State."

In short, it is illegal. The Treaty does not allow the EU or its members to guarantee each other's debt.

While one could argue that the EFSF is technically not the EU or a member state, it is clearly wholly dependent on members. It is thus difficult to argue that the granting of even partial guarantees by the EFSF for the debt of member countries does not contravene the so-called 'no-bailout' clause of the Treaty.

First-loss with public seniority

However, this problem can be avoided if the EFSF were to provide a loan to the member state in question of the amount needed to pay for the first-loss. But this will actually nullify the entire positive impact the partial guarantee might have on the market. The point is straightforward.

- The EFSF loan to the country would be senior to other private claims on the country.

- This would reduce the market value of the debt by exactly the amount the first-loss insurance was supposed to increase it.

The addendum provides a formal model to illustrate this point.

All in all it might have been better for the European Council to offer an insurance against 'private sector involvement' (PSI) rather than offer a contorted scheme of partial bond insurance, which is unlikely to work on both theoretical and empirical grounds.

References

Gros, Daniel (2010), "The seniority conundrum: Bail out countries but bail in private, short-term creditors?", VoxEU.org, 5 December.

Addendum: First-loss bond insurance: An illustrative model

The model has a country with a (foreign) debt equal to one. Assume the future of the country in question is uncertain:

- With probability 1-p the country will be able to repay its creditors in full in the next period (resources available for creditors, q, are greater than 1).

- In the other state of the world, the resources available are insufficient ($q<1$).

Thus with probability p the country defaults and the sum available is split among creditors (i.e. they get less than the full face amount of the debt). In this way, 1-p can be thought of as the growth prospects of the country. It is generally agreed that peripheral eurozone countries will be able to service their debt only if growth picks up.

The price (value) of the private long term debt (as a proportion of its face value) will then be given by:

(1) price = PV = (1-p) + $p(q)$ = 1 – $p(1-q)$ < 1.

Where (1-q) is haircut in case of default (without protection).

The good-fairy insurance scheme

But now the good fairy comes along and graciously offers to indemnify bond holders for the sum 'fl' (mnemonic for first-loss) of their loss. With this the loss to private creditors in the bad state is 1-q+fl.

Experience shows that a sovereign default is an unlikely prospect (so p>>(1-p)), but that in case of default the loss is large, most probably larger than the first-loss offered by the EFSF, hence 1-q+fl<1. The availability of a first-loss increases obviously the price of bonds by the factor $p*fl$.

(2) price = PV = (1-p) + $p(q+fl)$ = 1 – $p(1-q+fl)$ < 1.

Unfortunately good fairies are rare in Europe these days. Moreover, the Treaty, Article 125 TFEU, does not allow member countries to guarantee each other's debt. However, this prohibition can be avoided by the EFSF providing a loan to the member in question equal to the amount of first-loss payout.

How would the availability of official financing change the equilibrium? *The key issue is now whether the official financing would be senior.* Given that in the case of Greece no official lender is willing to take a loss (PSI stands for private sector involvement) this must be assumed. See also Gros (2010) on the crucial role of seniority of official lending.

This implies that at the end of the operation (which takes place within the current period) the outstanding amount of private sector debt remains unchanged, but official debt has increased by the amount s (where s denotes the amount of official financing measured as a share of total debt).

This implies that in the case of default the distribution of the amount available for foreign creditors of the country is as follows. The official creditors are fully reimbursed (they receive s) and the remainder goes to the private creditors, *ie q-s* (assuming q>s plus the first-loss piece).

First-loss with public seniority

This implies that the value of private debt (as a proportion of its face value) is given by:

(3) Price = PV = (1-p) + $p\ (q+fl-s)$ = 1 – $p(1-q)$ < 1 (for q>s)

If $s=fl$, the scheme has no impact; it yields that same price as (1). A first-loss insurance financed by a loan of the EFSF to the country concerned will thus leave the value of private debt unchanged.

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