

## Panel remarks

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What's new about sovereign risk since the crisis began? Conceptually, not so much, I would suggest – and nothing that cannot be fully explained within standard models of finance. But in practice, and in particular in the euro area, two linked elements that were always potentially present or implicit have leapt into prominence in a way and to an extent that were not foreseen. The first is that markets have begun to price default risk in a sovereign's home currency; the second is the contamination of the functioning and economic effectiveness of banks by the weak credit rating of their sovereigns (as well as vice versa).

I have to admit to the possibility that my remarks may be subject to some professional deformation here, in that my perspective on these matters is likely coloured by my preoccupation with the situation in Ireland. Ireland has certainly displayed these two elements in a dramatic way, but they are evidently present in half a dozen other euro area countries also and to an extent which has had implications for the functioning of the Eurosystem as a whole, and therefore on the global financial system.

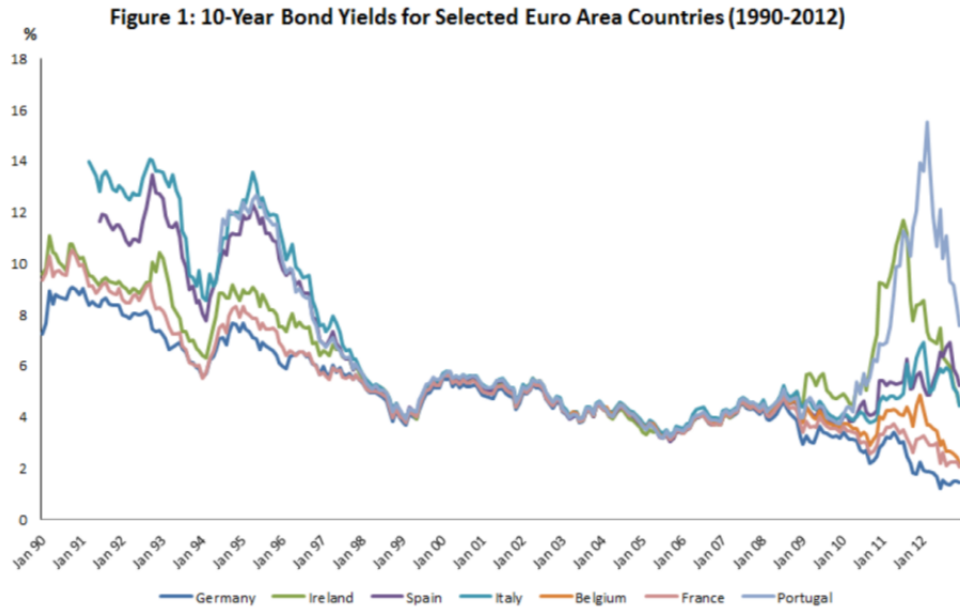
Let me take these two points in turn. First the pricing-in of sovereign default risk in "home currency".

### Why did the default premium suddenly emerge?

Evidently, even though everyone understood the rules, no such pricing-in occurred for the Eurosystem's first decade (Figure 1). Risk appetite was high for much of that period, but the market's perception of sovereign risk must also have remained low. (Perhaps, despite Treaty prohibitions, market participants assumed that any sovereign that got into trouble would be bailed out). Indeed, sovereign spreads in the euro area were almost totally insensitive to credit ratings before the crisis (Figure 2).

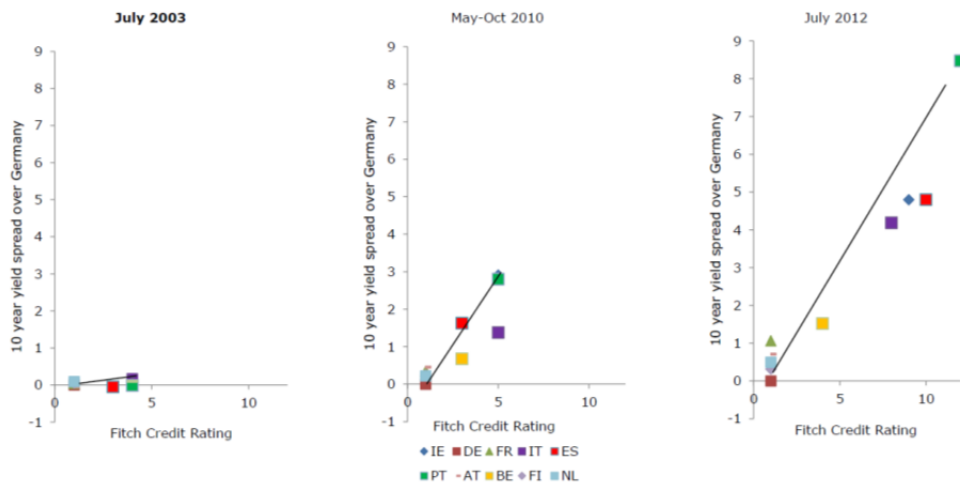
One often-heard interpretation of what happened during that decade is that the complacent market environment led to a relaxation of the budget constraint on euro area sovereigns and induced them to borrow recklessly. Actually this story doesn't fit the facts very well. After all, although sovereign debt ratios in most of the Eurosystem did not fall as much as they could and should have in the good years, at least they did *not* increase dramatically before the crisis (Figure 4). (Private debt ratios, and in particular the size of the bank and near-bank systems did increase, but that is a somewhat different story, to which I will turn shortly).

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Source: Thomson Reuters Datastream (monthly data)

**Figure 2: Euro area credit ratings vs. yield spreads**



Fitch credit rating: 1 = AAA, 10 = BBB

Source: Fitch and DataStream

It's possible alternatively that there was a multiple equilibrium here, with the "good" or low interest equilibrium (with a self-fulfilling degree of confidence in the creditworthiness of all the sovereigns) being selected by the market at the start of the euro, and events during the financial crisis – not least those associated with Greece – having tripped the system into the "bad" or high-interest equilibrium with default risk premia moving a number of sovereigns into a more challenging debt sustainability position.

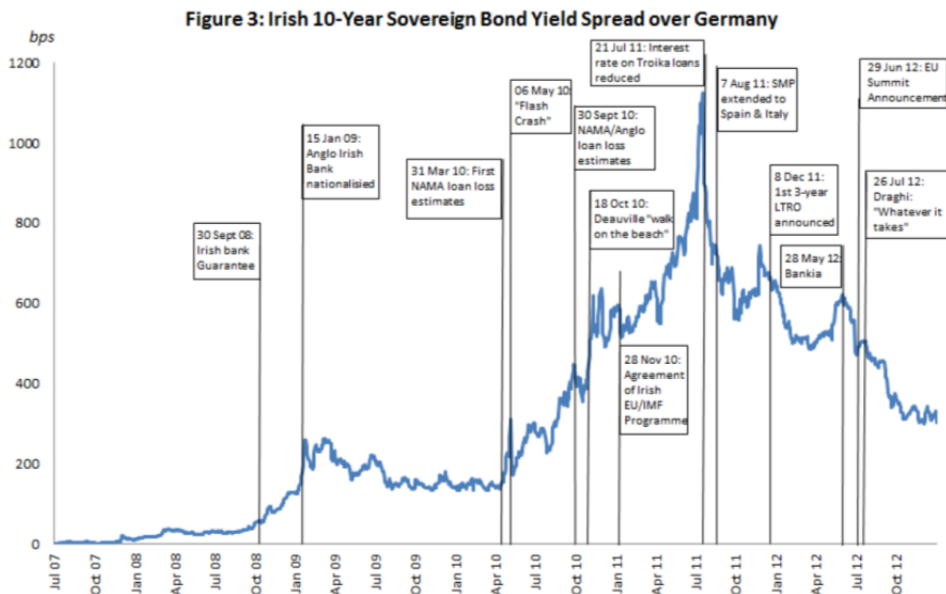
Most likely, what we have seen is a combination of factors: (i) a sharp reduction in risk appetite resulting in even little-changed debt ratios, as in Italy, looking more challenging and in need of a risk premium; and in addition (for most countries) (ii) a

sharp increase in debt ratios as governments reacted to the crisis (including, but not at all confined to, the socialisation in most countries of some private banking losses through their assumption by governments) (Figure 4 again). The increased sensitivity of sovereign spreads to ratings, and the increased range of ratings themselves – both illustrated in Figure 2 – suggest that both factors are at work.

(As spreads widened in stressed countries, their fluctuations – which would not concern hold-to-maturity investors – added a risk factor for others and probably ratcheted up the average level of the spreads.)

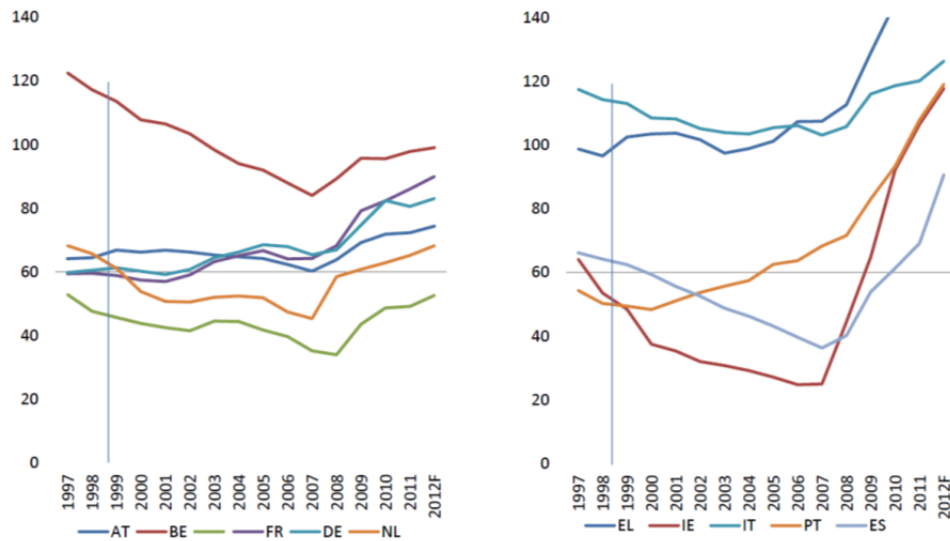
In the specific case of Ireland, the depth of the recession and the remarkably high elasticity of tax revenues and the government deficit to the downturn, combined with the unfortunate decision to lock in a very comprehensive bank guarantee before the potential scale of the banking losses could at all be appreciated. All this meant that Ireland’s actual and prospective general government debt made a shocking turnaround from about 25% of GDP in 2007 to 117% just five years later.

Historians will debate the exact triggers for the market’s loss of confidence in the Irish sovereign. Even as late as April 2010, after the first sampling indicated the scale of the banking losses, sovereign spreads were little more than 1%. By November of that year (just a few weeks after the Deauville statement which persuaded the markets that private sector holders of euro sovereign debt would not be immune from loss-sharing) large banking outflows and spreads exceeding 5% made recourse to official assistance inevitable. (Figure 3 shows the plot with some relevant news stories flagged). Perhaps the most significant take-away from the sequence of spikes and troughs is the fact that some of them clearly relate to news that is country-specific, some of them to euro area general news. The same is doubtless true for all of the stressed sovereigns.



Source: Thomson Reuters Datastream

Figure 4: Euro Area Countries: General Government Debt % GDP



Source: IMF WEO Database

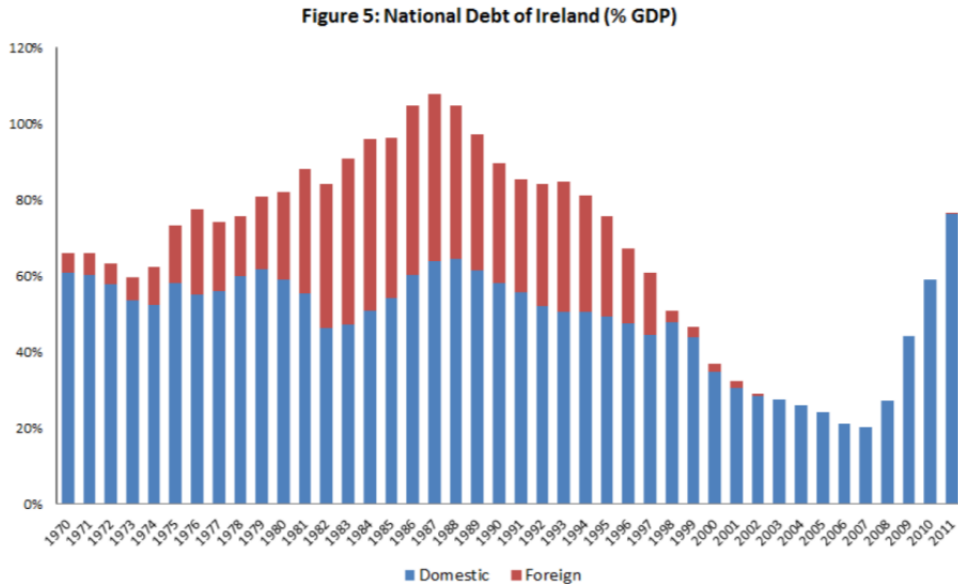
## Default risk vs devaluation risk vs redenomination risk

It's worth pausing to recall that raw sovereign spreads such as we are seeing today in the euro area are not remotely unprecedented in pre-euro history. On the contrary, they were the norm as is illustrated by Figure 1. The difference is that these spreads reflected a combination of default risk and currency risk. During the last fiscal crisis of the 1980s, Irish sovereign spreads also ballooned out. But that was for local currency-denominated debt. Eurobond borrowing by the Irish government remained at fairly tight spreads despite the high overall debt ratio (higher than today), and the fact that almost half of the national debt was denominated in foreign currency. The high spreads reflected devaluation expectations and currency risk generally. And there were devaluations, although less than was baked into the spreads – by between 250 and 300 basis points on average during the last 10 years of that ill-fated regime, the narrow-band EMS.

It is not that default and devaluation are close substitutes; not at all, and for several reasons. For one thing, default has potential reputational consequences for the issuer that are qualitatively different to those of devaluation. In addition, devaluation affects not only the international value of the government's debt promises, but also that of all other contracts denominated in local currency. As a result, depending on the speed of price-resetting (pass-through) it can affect competitiveness throughout the economy. These differences have not been sufficiently emphasised, I feel, in recent discussion.

As an example, I could mention the Irish devaluation of August 1986. The main goal of this important action was restoration of wage competitiveness, not a lowering of the real value of the local currency-denominated debt. (Indeed, I recall that some domestic policymakers were confused on this point and thought that the debt burden would actually increase as a result of translation effect on the foreign currency debt!)

Such currency risk can be so extreme as to make it impossible for the sovereign to issue any sizeable amount of local currency-denominated debt to international lenders. In the literature, such countries – all in the developing world (and not including Ireland, see Figure 5) – were said to have incurred “original sin”. Happily, the number of countries incurring “original sin” has been diminishing in recent years. Instead, we have to acknowledge the emergence in market pricing of a new phenomenon, “redenomination risk”.



How can we recognise redenomination risk? This is not straightforward, not least because the term could refer to a number of different scenarios. One suggested way of approaching the question is to use econometric estimates of the cross-sectional determinants of sovereign spreads for foreign currency-denominated borrowing to predict current spreads in stressed euro area countries: a positive residual might suggest a redenomination risk premium. Comparisons of current spreads of euro area sovereigns in euro and in foreign currency-denominated borrowings provide for an alternative approach. My own favourite approach is to look at the co-movement in the time series of euro area country spreads. Some of this co-movement can be attributed to fluctuations in market risk-appetite; the remainder could be interpreted as a system-wide redenomination premium.<sup>2</sup> This brief summary already suggests the complexity and ambiguity of some of the concepts involved and their measurement.

Evidently, redenomination risk, as imagined by market commentators, combines default and currency risk in a novel way not contemplated by the treaty that established the euro area. The ECB has made clear its determination to do what is necessary to preserve the euro and remove unfounded euro break-up premia in sovereign yields. The ECB’s Outright Monetary Transactions (OMT), designed as a

<sup>2</sup> Panel regressions can, in principle, isolate co-movement from idiosyncratic, and general risk appetite (for example, proxied by spreads on non-euro risky bonds) from the redenomination premium.

backstop to inhibit negative self-fulfilling market dynamics, provide the necessary tools to deliver on that commitment. The programme does not go overboard in the direction of removing the incentive for governments to manage their finances in such a way as to recover and retain the confidence of the market, but it will ensure that disciplined governments will not have to pay spreads that could only reflect market concerns about a system break-up. As announced, the ECB will only buy bonds at the shorter end of the maturity spectrum, but the OMT can be expected to have an influence transmitted by market forces throughout the yield curve, and indeed spreads have tightened right across all maturities since the OMT was announced.

Still, it is not to be expected that the OMT will by itself restore the tight uniformity of spreads that prevailed for the first decade of the euro. Forcing such a tight uniformity would not be generally considered safe absent more reliable alternative mechanisms for ensuring disciplined fiscal policy in the countries concerned. More likely would be a potentially extended period of sovereign spreads that, albeit narrower than at their worst, remain material.

## Sovereign spreads and the banks

That being so, we need to ask what are the consequences of these spreads for the rest of the economy, and in particular for the operation of the banking system. Regardless of the condition of bank balance sheets and profit and loss accounts, experience shows how hard it is for banks in a jurisdiction where the sovereign is under stress to access the money markets on the finest terms. In essence, the market fears that a stressed sovereign could *in extremis* reach for the banks as a source of last-resort financing – if necessary using national legislation to do so. From such a perspective, providers of funds to banks will tend to price in the possibility that, at the margin, they could end up as indirect providers of funds to a stressed sovereign. There are many examples in history of this happening, and the consequences for bank funding costs have often been severe.<sup>3</sup>

In other words, while we have all become sensitised to the pressure that socialised banking losses can place on the sovereign, markets are also acutely aware of the potential for damaging links in the other direction. Either way, there are consequences for the funding costs of both the sovereign and the banks.

Given the scale of banking in the euro area, even a relatively small difference in funding costs can be consequential. Once again, the Irish situation dramatises what can happen when the two-way feedback loop between banks and the sovereign causes a loss of access to risk-free rates. As is well known, the Irish banks have suffered severe loan losses in the aftermath of the bursting of the property price and construction bubble which they had so enthusiastically financed. Very sizeable capital injections (about 50% of GNP from the Irish government alone – a sum that proved too great to be financed without the protection of an IMF programme) have

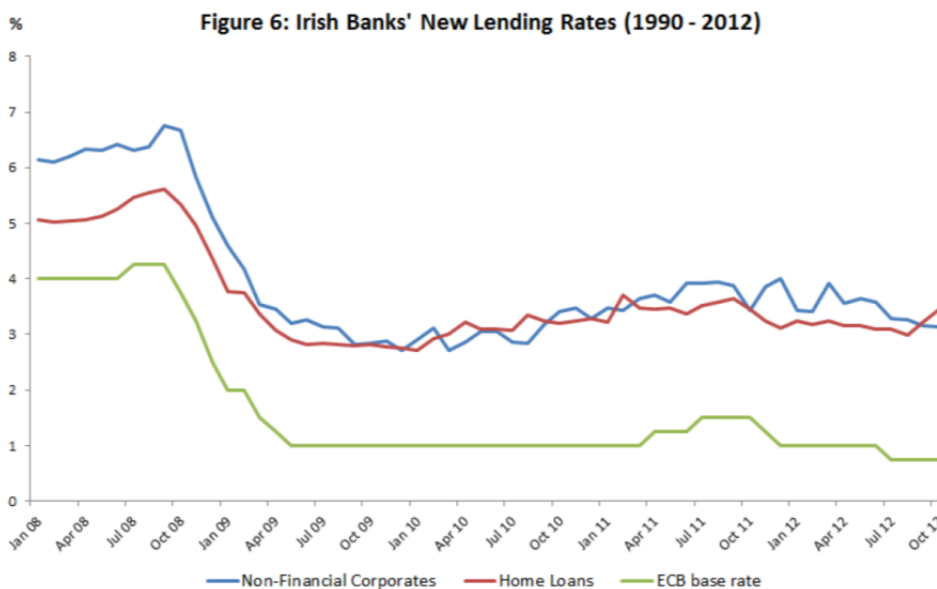
<sup>3</sup> On the other hand, a government will be loath to default on its debt if sizeable amounts of defaulted debt are held by the local banks. Testament to this is the track record of Lebanon, whose banks have tended to lend – I believe – a higher percentage of GDP to the government than in the case of any other country.

ensured that the Irish banks once again more than satisfy regulatory requirements, but their future profitability is constrained by the emergence and likely persistence of the sovereign spreads, and the knock-on effect of the spreads on the banks' funding costs.

Euro area risk-free rates are not now the most relevant indicator of the marginal cost of funds to the Irish banking sector. It is, of course, true that the Irish banks (like those in other stressed countries) have been drawing heavily on ECB refinancing facilities during the crisis, especially following the huge outflow of funds that occurred in early 2009 and again in the last few months of 2010. This access to refinancing has been vital to the continuing operation of the banking system, and it has come at the policy rate.

(Let me mention as an aside a curious feature of the current monetary policy environment in the euro area. The two key ECB rates – the main refinancing operations rate and the deposit rate – are 75 basis points and zero, respectively. Access to both the refinancing and deposit facilities are both close to all-time highs. But in practice, the bulk of the refinancing is going to banks in the stressed countries, while the bulk of the deposits are placed by banks in non-stressed countries. To the extent that the stressed countries have tended to have weaker economic performance during the crisis, this pattern might be considered paradoxical. But it is of course a reflection and a semi-automatic consequence of the fragmentation which has developed in the euro area. To be sure, the ECB policy rate is clearly below the marginal cost of funds in the stressed countries.)

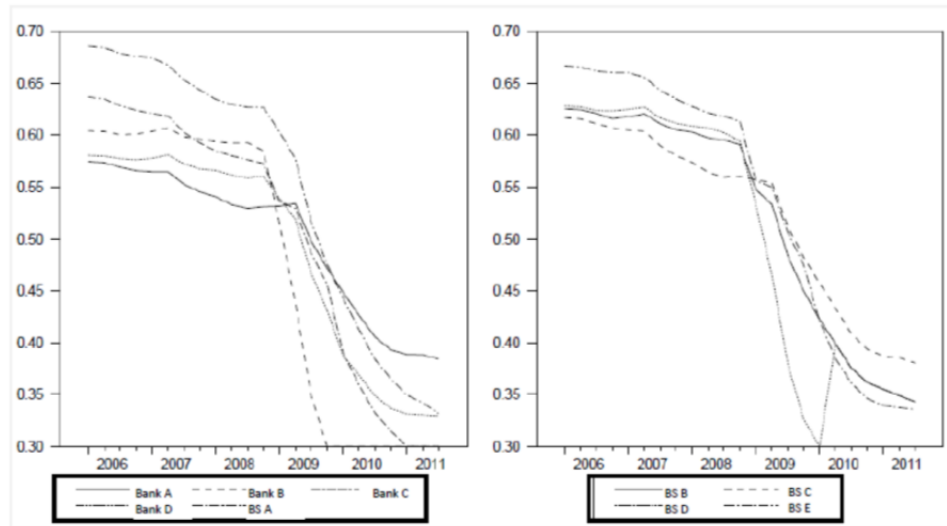
But access to ECB funds at the policy rate is limited by the availability of eligible collateral and the haircuts that are applied to such collateral (despite the relaxation of eligibility criteria). About 20% of the total financing of the three going-concern Irish-controlled banks comes from this source at present (16% of the balance sheet total). Competition for deposits therefore remains strong and rates high.



It's not just that higher bank funding costs will now be passed on to new borrowers, adding headwinds to the economic recovery, although that is certainly a factor. Indeed, the lower policy interest rates set by the ECB since the crisis began

have only been partly transmitted to borrowers in Ireland and in the other stressed euro area countries (Figure 6). (As is seen by the results of a recursive regression exercise, the pass-through from policy rate to Irish residential mortgage SVR rates has halved since the start of the crisis: see Figure 7.) Some of this can be rationalised as reflecting a higher credit risk-premium being charged by the banks, but some is also due to the higher marginal cost of funds.

**Figure 7: Elasticity of Irish Variable Rate Mortgages to 3-Month EURIBOR (Recursive Estimates)**

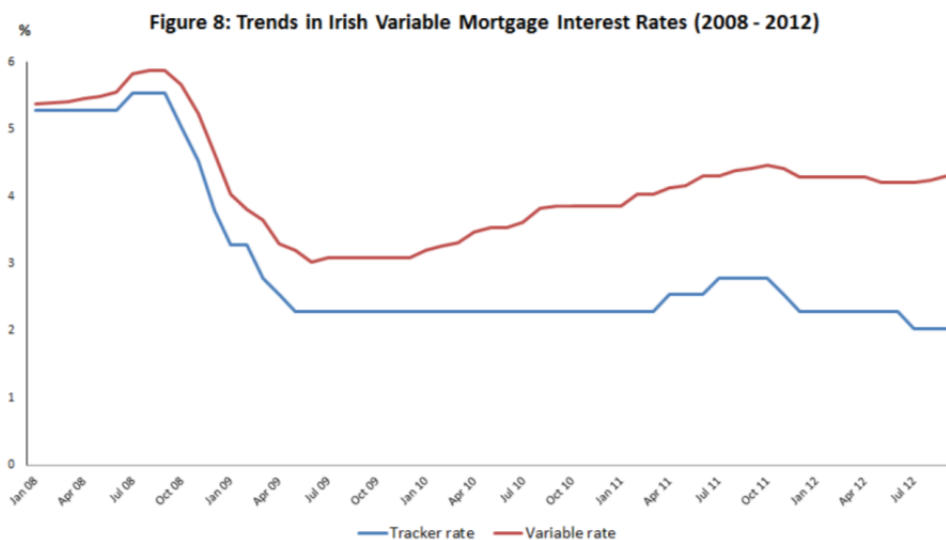


Source: Central Bank of Ireland Technical Paper (Goggin et al., 2012)

Worse still for the health of the banks, and their ability to contribute to the economic recovery, is the fact that they are still coping with the consequences of their marginal cost of funds having delinked so sizeably from the ECB policy rate.

These consequences arise because of the long-term mortgage contracts the banks made when they assumed that their marginal cost of funds would always remain close to the (risk-free) policy rate. Suffice it to say that a large block of residential mortgages was granted at interest rates that track the ECB policy rate plus a very low spread. These tracker mortgages, many of which have an average remaining maturity of 15–20 years or more, yield less than the marginal cost of funds (Figure 8 which is drawn on the assumption, not strictly valid, that the average spread of the trackers over policy rate was unchanged over time). In effect, by assuming that their cost of funds would not deviate much from the ECB policy rate, the banks exposed themselves to a very large “basis risk”. In principle, they could escape this trap if there were a willing purchaser (public or private) with access to funding at a cost that is not contaminated by the sovereign stress. Until such a purchaser comes forward, the banks will have to continue to fund this portfolio at a loss, even on performing mortgages, whose effects will spill over onto their customers and their owners (not least the state).





Source: Central Bank of Ireland

## Conclusion

Irish sovereign spreads may no longer be bloated by redenomination risk, but at 300 basis points at the long end, they do seem to reflect a credit risk premium that is poor reward, so far, for what has been a sizeable fiscal adjustment effort.

Reflecting on where we have got to, it seems that there are distinct parallels with the fiscal crisis of the EMS period. As I mentioned, spreads (then reflecting devaluation risk) exceeded what would have been needed ex post to compensate for actual exchange rate movements by almost the same amount (250–300 basis points). Those spreads were then transmitted to the banking system too.

The Irish financial situation is relatively extreme, and as such illustrates clearly some of the key problems that have been faced also in other stressed parts of the euro area.

While it has delivered a much lower inflation rate, the euro is no longer insulating financial markets from the impact of excessive debt in member countries. The early insulation of the monetary transmission mechanism from fiscal problems of participating countries has worn through. The pernicious feedback loop from banks to sovereign and from sovereign to banks that re-emerged in the crisis remains strong and damaging.

Getting back to the “good” equilibrium will require a healing process that alleviates the market’s fear of default. This will inevitably be a protracted process needing not only firm adherence to consistently disciplined policies but also the creation of institutions that can prevent future crises, or at least cope with them better if they cannot be avoided.