

## **Briefing Note on Borrowing Rates from the EU and IMF**

**Prepared for the Oireachtas Joint Committee on European Affairs**

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## Summary

The Irish government has negotiated with the EU and IMF that will provide €67.5 billion in contingency funding for the state over the period 2011-2013. This briefing note explains the terms and conditions relating to these loans. The following is a summary of the main points:

- Based on current arrangements and current international interest rates, the average interest rate on the IMF's loan to Ireland will 3.1% over the first three years and 4% in subsequent years. Changes in Ireland's IMF quota will slightly reduce these interest rates to 2.99% over the first three years of the loan and 3.79% in subsequent years.
- The IMF loan, worth €22.5 billion, carries a variable interest rate that depends on market interest rates. These rates are likely to go up in future years.
- The IMF funding to Ireland will be in the form of SDRs, which is a weighted basket of four currencies (euros, dollars, sterling and yen). Because these loans will need to be repaid in SDRs, these loans are subject to risk due to exchange rate fluctuations. The Irish government raises tax revenue in euros, so if the euro depreciates relative to the other currencies in the SDR basket, this would effectively raise the cost of the IMF loan.
- If the flow of variable interest rate payments to the IMF were swapped for a fixed rate euro-denominated loan of 7.5 years duration in financial markets, the fixed rate for such a swap would currently appear to be about 5.7%.
- We do not yet know what the loan rates will be on the €22.5 billion loan from the European Financial Stability Mechanism (EFSM) or the loan of €17.7 billion from the European Financial Stability Facility (EFSF) because they depend on the rates that these organisations will obtain when they borrow funds from financial markets.
- However, it is expected that the average maturity of the EFSF and EFSM loans will be 7.5 years. They will be fixed rate loans. NTMA estimated in December that the average interest rates would be 5.7% for the EFSM loan and 6.05% for the EFSF. However, based on recent movements in market interest rates and the terms of the EFSM's recently issued bond, I believe these interest rates are likely to be somewhat higher.
- Relative to the underlying cost of funding, the IMF loans will carry an average margin of 316 basis points over a 7.5 year period. The EFSM loans will carry an average margin of 292 basis points. The EFSF loans will carry an average margin of 317 basis points. Thus, based on current information, it would not be accurate to single out any one of the components of the package as being particularly more expensive than the others.
- While the overall cost of funding offered is cheaper than the Irish state could currently obtain from the sovereign bond market, the average cost of the funding is still high and will pose problems for debt stabilisation. There are strong arguments for reducing the margin on the EU lending programmes.

## 1. Introduction

This briefing note provides a description of how the three principal sources of funding from the EU-IMF package for Ireland operate. It then provides a brief comparison of the different sources of funding and concludes with a discussion of some issues relating to the overall cost of the funding.

## 2. How the Lending Packages Work

The EU-IMF package provides three principal sources of funding (from the IMF, the EFSF and EFSM) and each works differently. Here, I provide a description of how each works and how the interest rate is determined.

### 2.1 The IMF Loans

Ireland's loan from IMF takes the form of what the IMF terms an Extended Fund Facility (EFF). The terms and conditions of EFF programme are standardised across all countries that apply.

The IMF has agreed to lend the equivalent of €22.5 billion to Ireland. When the lending takes place, however, the loans will not be denominated in euros. Instead, the loans will be in the form of SDRs, which is a weighted basket of four currencies (euros, dollars, sterling and yen).

The interest rate for EFF programme depends on three factors:

- *Market Interest Rates:* The interest rate is a variable rate that depends upon the so-called SDR interest rate, which is a weighted average of short term borrowing rates in the four currencies that make up the SDR basket.<sup>2</sup>
- *Size of the Loan:* Each IMF member state has a quota that depends upon the size of the country's economy and other factors that may be related to the likelihood that the country may need to request assistance from the Fund. For amounts up to 300 percent of the country's quota, the lending interest rate is one percentage point higher than the SDR rate. For amounts over 300 percent of quota, the interest rate increases to three percentage points over the SDR rate.
- *Length of Time Money is Borrowed:* If money is borrowed for more than three years, the surcharge that is applied to amounts borrowed over 300 percent of quota increases so that the interest rate become four percentage points above the SDR rate.

Ireland's current IMF quota is 834.8 million SDRs, which at current exchange rates equals €965 million. Based on this quota and the current SDR rate, this would translate to the IMF being willing to lend €2.9 billion to Ireland at an interest rate of 1.38% over the first three years of the programme

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<sup>2</sup> The four rates that determine the SDR rate are the three-month Eurepo rate; three-month Japanese Treasury Discount bills (effective February 5, 2009, replacing the thirteen-week Japanese Government financing bills); three-month UK Treasury bills; and three-month US Treasury bills.

while the remaining €19.6 billion would carry an interest rate of 3.38%. Assuming a full drawdown of the IMF funds, the average interest rate during the first three years would be 3.12%. After the first three years, the interest rate on the €19.6 billion (the amount borrowed over 300 percent of Ireland's quota) would rise to 4.38%, so the average rate across the full amount borrowed would rise to 3.99%.

These figures do not reflect, however, that Ireland's quota is about to change as part of regular review of the IMF quota system. The quota is set to increase by 50%. This will raise the amount of money that Ireland can borrow from the EFF programme at the lower interest rate. Repeating the calculations from the above paragraph based on the new quota and the current SDR rate, the average interest rate that would be charged on a full drawdown of €22.5 billion would fall to 2.99% during the first three years and to 3.80% for subsequent years.

If the IMF loans were repaid in 7.5 years (a benchmark that has been used for the likely maturity of the loans from the EU) the average interest based on a full drawdown and the current SDR rate would be 3.48%. The IMF loans also carry a once-off charge of 50 basis points (i.e. a half percentage point) on the initial drawdown. Averaged over 7.5 years, factoring in this fee increases the effective interest rate on the IMF funds to 3.54%. This is 316 basis points higher than the relevant benchmark for variable short-term rates, which in this case is the SDR rate.

The IMF financing to Ireland carries two sources of risk that may raise the cost of these funds in the coming years.

- *Interest Rate Risk:* The short-term interest rates that the IMF variable lending rate is based upon are currently at very low levels by historical standards and are very likely to rise over the next few years. These increases would translate directly into higher interest costs for the Irish IMF loan.
- *Currency Risk:* The IMF loans will need to be repaid in SDRs. This means that these loans are subject to risk due to exchange rate fluctuations. The Irish state raises tax revenue in euros, so if the euro depreciates relative to the other currencies in the SDR basket, this will effectively raise the cost of the IMF loan.

To compare the cost of IMF financing with the EU loans, which have neither interest rate or currency risk, it is useful to calculate the interest rate on a fixed rate Euro-denominated that one would have to pay to a counterparty if swapping the stream of variable rate payments to the IMF with them over a 7.5 year period. Based on Ireland's current quota, the NTMA reported in early December the equivalent fixed interest rate to be 5.7%.<sup>3</sup>

Factoring in Ireland's new quota would reduce this cost estimate by about 20 basis points. However, in the period since the NTMA released their estimate, European swap rates in the seven to eight year range have increased by about 20 basis points. For this reason, the 5.7% calculation still seems an appropriate benchmark for comparing the variable rate IMF loan with a fixed rate euro-denominated loan.

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<sup>3</sup> The NTMA's statement on the programme borrowing rates is available online at [www.ntma.ie/Publications/2010/TechnicalNoteOnEUIMFProgrammemeBorrowingRates.pdf](http://www.ntma.ie/Publications/2010/TechnicalNoteOnEUIMFProgrammemeBorrowingRates.pdf).

I have not received a breakdown of how much of the increase in the interest rate from swapping a variable rate SDR loan into a fixed-rate euro-denominated loan is due to the cost of hedging currency risk and how much is due to swapping variable for fixed rates. However, it would seem likely that it is almost all due to the interest rate swap component. For example, the current cost for a bank of borrowing for three months on the Euribor money market is about 1 percent, while a stream of such variable rate payments can currently be swapped for a fixed rate contract over seven years at a fixed interest rate of about 3 percent.<sup>4</sup> From this, one can calculate that the cost of hedging against variable interest rate risk over a seven year period is currently about 200 basis points.

Finally, I should emphasise that the above swap calculation is purely theoretical and has been presented only for comparison with the EU borrowing rates. The NTMA has not undertaken currency hedging or interest rate swap contracts in relation to the IMF payments. Thus, the Irish public finances are exposed to both interest rate and currency risk from this loan.

## **2.2 The EFSM Loans**

The second element of the EU-IMF package for Ireland is an offer from the European Financial Stability Mechanism (EFSM) to lend €22.5 billion on behalf of the European Union, backed by the financial resources associated with the EU budget.

In terms of how the cost of borrowing is determined, the EFSM is the simplest of the three principle sources of funding provided by the package. The EFSM will raise the money for its Irish lending package via a series of bond issues. These funds will then be loaned to Ireland at the same maturity as the EFSM bond issue and at an interest rate equal to the cost of funding for the EFSM plus a margin of 292.5 basis points.

The cost to Ireland of the EFSM loans thus depends on the interest rate at which the EFSM will raise funds. The NTMA stated in early December that they believe that the average cost of funding from the EFSM will be 5.7%. Subtracting off the agreed margin of 292.5 basis points, this estimate would be consistent with the EFSM raising funds at an average cost of 2.78%.

Based on movements in money market interest rates since December, this now looks to me to be a somewhat optimistic assessment of the likely cost of the EFSM funding. Thus far, the EFSM has only issued one bond. This was a €5 billion five-year bond issued on January 5<sup>th</sup> at an interest rate of 2.59%.<sup>5</sup> The EU Commission's press statement described this interest rate as being "at mid-swap plus 12 basis points." In other words, the interest rate was 12 basis points higher than the average of the five-year European bid and ask swap rates that prevailed on that day.<sup>6</sup>

The interest rate on the January 5<sup>th</sup> EFSM bond was lower than the NTMA's December average cost estimate of 2.78%. However, this bond also had a shorter maturity than the average maturity that is being assumed and, at present, the cost of borrowing in euros rises fairly steeply with maturity. If

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<sup>4</sup> See [www.euribor-rates.eu/euribor-rate-3-months.asp](http://www.euribor-rates.eu/euribor-rate-3-months.asp) for Euribor rate and <http://www.swap-rates.com/EUROSwap.html> for swap rates.

<sup>5</sup> See <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/11/4> for the European Commission's press release on this bond issue.

<sup>6</sup> The Financial Times website reports that these rates were 2.44% and 2.49% respectively.

the €22.5 billion in EFSM loans to Ireland are to have an average maturity of 7.5 years, then the average maturity of the remaining €17.5 billion in EFSM bonds will need to be just over eight years. This means that the remaining EFSM bonds will likely carry higher interest rates than the January 5<sup>th</sup> bond.

As of Friday January 21<sup>st</sup>, the FT website reports that the average of the bid and ask eight-year swap rates was 3.215%.<sup>7</sup> This means that an EFSM bond of the required eight-year maturity priced similarly to the January 5<sup>th</sup> bond would carry an interest rate of 3.335%. Averaging across €22.5 billion, this would imply an average cost of funding for EFSM of 3.17% and a cost to Ireland of EFSM loans of 6.09%, which is 39 basis points higher than estimated in December.

To summarise, the cost to Ireland of the loans from the EFSM will depend on the interest rates at which the Mechanism raises money from bond markets. And based on the interest rate on the EFSM's first bond issue and recent developments in market interest rates, it seems likely that the average interest rate on the EFSM loans will be somewhat higher than the 5.7% estimated in December by the NTMA.

### **2.3 The EFSF Loans**

The remaining €22.5 billion in loans being offered to Ireland from the EU are split between bilateral loans from the UK, Sweden and Denmark and loans from the European Financial Stability Facility (EFSF). The bilateral loans commitments total €4.8 billion, leaving €17.7 to be made available by the EFSF.

#### **Overview**

The lending procedures to be adopted by EFSF are far more complex than for either the IMF or the EFSM. I will describe the gory detail below. However, it is probably worth starting by pointing out that the essential mechanism determining the EFSF interest rate is not too different to that determining the EFSM rate. The EFSF will borrow funds from bond markets and the effective interest rate on the money that Ireland receives will depend upon the cost of funding for the EFSF plus a margin that covers costs incurred by the EFSF and delivers a profit to the countries that provided funds.

In its December statement on the borrowing rates for the EU-IMF programme, the NTMA estimated that the cost to Ireland of borrowing from the EFSF would be 6.05%. This was based upon an assumed borrowing cost to EFSF of 2.88% plus an additional margin of 3.17%. This additional margin of 3.17% can itself be broken into a profit margin of 2.47% plus an additional factor of 0.7% due to costs incurred by the EFSF.

Before discussing the source of these additional costs, I will point out that the same arguments just made about the EFSM's cost of borrowing will likely also apply to the EFSF's borrowing costs. If the same 39 basis point adjustment that I calculated above for the EFSM relative to December's NTMA release was applied to the EFSF, then the average cost of borrowing from the EFSF over 7.5 years would be 6.44%.

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<sup>7</sup> The eight year bid and ask rates were 3.19% and 3.24% respectively.

The EFSF is set to issue its first bond this week and this should provide some further useful information on the likely cost of funds from this source.

### **The EFSF's Operation**

While it may have been preferable for the funds loaned to Ireland from the EU to have all come from the relatively simple European Financial Stability Mechanism, in practice this was not possible. The limited resources available through the EU budget meant that, when the European sovereign bailout plans were put in place last Spring, the EFSM could only be approved to raise a total of €60 billion. This fell far short of what was required to provide a credible package to potentially fund the budgets of multiple Eurozone countries for a number of years.

For this reason, EU leaders took the decision last May to create a large new source of funds for Eurozone member states that were having difficulty borrowing from sovereign bond markets. The idea behind the European Financial Stability Facility that was set up at this point was to create a source of funds underpinned by guarantees from each Eurozone country which would ensure that the funds borrowed from financial markets would be repaid, even if the country borrowing from EFSF defaulted on its loan.

One problem with this idea was that not all of the Eurozone countries are considered high quality credit risks and the cost of borrowing for the EFSF could have been quite high because of this credit quality problem. For this reason, the EFSF has been structured in a way that emphasises that the facility is principally backed by the member states with AAA-rated sovereign debt and that places a heavy emphasis on ensuring that the facility has the funds to meet interest and principal repayments even if lower-quality Eurozone sovereigns do not honour their guarantees to the facility.

Specifically, it is my understanding that the EFSF operates in the following manner (this description is partly based on communications with EFSF staff):

- Of funds borrowed from the bond market by the EFSF to fund a programme to a Eurozone sovereign, only 80% are disbursed to the sovereign country that requested funds. This is because only 80% of the weighted average guarantees provided to the EFSF come from AAA rated countries. Thus, financial markets considering lending to the EFSF know that all of the credit risk—due to countries that borrow from the EFSF potentially not paying back—can be absorbed by AAA-rated EU countries, even if the member states with lower ratings withdrew their guarantees.
- The 20% of funds that are borrowed from financial markets by EFSF and not earmarked for the programme country are kept as a “cash buffer” and invested in highly liquid AAA assets. This provides a fund to ensure that interest payments can be met, as well as some principal payments, even if the programme country defaults and some of the guarantor countries withdraw support.
- The borrowing country must cover the interest rate payments to bondholders associated with the full 80% of borrowed funds that are earmarked. For example, if the interest rate on the EFSM's borrowings was 2.5% then for each €100 million borrowed from the markets, €2

million of the €2.5 million in annual interest repayments to bondholders would come from the programme country.

- The borrowing country will also have to cover any shortfall in covering annual interest rates incurred by the EFSF due to the fact that they have retained 20% of the funds borrowed from the market in low-yielding AAA-rated liquid assets. The full anticipated amount of this “negative carry” component is deducted upfront and added to the EFSF’s cash buffer.
- Of the 80% of funds that are earmarked for the borrowing country, a large part of the interest payments from the country are also deducted immediately and kept by the EFSF as part of the cash buffer. The net present value of the profit margin of 247 basis points per year is deducted up front.
- Due to this structure, the EFSF needs to borrow about 50% more than the amount of money that is disbursed to the country that has applied for funds. In the case of the Irish programme, the EFSF have stated that “To lend €17.7 billion to Ireland, the EFSF is expected to raise around €26.5 billion in total.”

A schematic example of the cash flows associated with a seven-year EFSF loan to Ireland is provided below. This example shows how €100 borrowed on the markets would translate into a disbursement of €67.5 to Ireland. In this calculation, Ireland receives €67.5 and pays back a total of €96.5 over seven years: Using a simple calculation, the average interest rate on the €67.5 obtained by the Irish state due to this stream of payments is approximately 6.05%, as suggested by NTMA in December.

### Example of EFSF Seven-Year Loan

#### EFSF Bond Market Activity (Positive Amounts=Borrowing, Negative Amounts=Payments to Bondholders)

Year	2011	2012	2013	2014	2015	2016	2017	2018
Principal	100.00							-100.00
Interest		-2.88	-2.88	-2.88	-2.88	-2.88	-2.88	-2.88

#### EFSF Lending to Ireland (Positive Amounts=Payments to Ireland, Negative Amounts=Payments from Ireland)

Year	2011	2012	2013	2014	2015	2016	2017	2018
Net Loan Amount	80.00							-80.00
Interest		-2.30	-2.30	-2.30	-2.30	-2.30	-2.30	-2.30
Upfront Service Fee	-0.50							
Upfront Margin	-10.86							
Upfront Negative Carry	-1.10							
Loan Disbursement	67.54							
Total Repayments by Ireland								96.13
Ratio of Payments by Ireland to Loan Disbursed								1.42
Simple Interest Rate = $100*(1.42-1)/7$								6.05



### 3. Comparisons of EU and IMF Packages and Other Issues

There has been a large amount of commentary about the interest rates on the EU and IMF loans to Ireland. It may appear that the IMF loans carry a lower rate than the corresponding EU loans. And it is indeed the case that, over the next couple of years, it is likely that the IMF loans will be cheaper than the loans from the EU. However, as the world economy recovers in the coming years, it is likely that variable interest rates will rise considerably and the IMF loan rates will rise with them.

It is also worth noting that the usual practice for government debt agencies around the world, including the NTMA, is to ensure that most of the money that states owe to sovereign debt markets is at fixed interest rates and over reasonably long periods. Such funding allows governments to plan their decisions in a context of predictable interest costs and with debt principal payments scheduled according to a regular timetable. Thus, the EU loans provide the type of long-term financing that most governments would prefer to have while the IMF funding does not. This reflects the fact that IMF funding is generally designed to be short-term in nature, based upon getting a country through a crisis over a relatively short period of time.

Once the IMF loans are compared with the loans from the two EU funds (EFSM and EFSM) in terms of the likely overall costs of funding over a long period, their costs appear to be relatively similar. In particular, when compared with the appropriate cost of funding for these organisations, the margins added on to determine the cost of funding for Ireland are about the same for all three sources.

That said, there are good reasons why the Irish government should focus on attempting to reduce the margins from the two EU sources of funds:

- While the IMF funding is likely to increase in cost over time, these funds are relatively cheap over the next few years. It may be that if the state can stabilise its finances, it can repay the IMF funds and fund itself without relying on sources of funds that carry high interest rates.
- The rates associated with the IMF loan are in line with its standard Extended Fund Facility. These rates are standard across all IMF member states and there is no possibility that the Irish government can get these rates changed.
- The overall cost of funding from the EU sources appears likely to be over 6% per year. If this is the rate that the Irish state will be paying in coming years, the national debt will grow by 6% each year even if the state is running a zero primary deficit (the headline deficit minus interest payments.) This would require a 6% growth rate in nominal GDP to stabilise our debt-GDP ratio even when we are not running a primary deficit. In other words, an interest rate of 6% will make debt stabilisation far more difficult in the coming years than an interest rate that doesn't carry a large profit or risk margin.
- Unlike the IMF's Extended Fund Facility, the terms and conditions of the EU lending facilities are not set in stone and intended to apply across every country in the world. Indeed, it appears that the current agreed margin associated with the EFSF lending is lower than that set out in the initial information statements released by the EU. The EFSF's initial information document stated that its margin relative to the cost of funds would be "300

basis points for maturities up to three years and an extra 100 basis points per year for loans longer than three years.”<sup>8</sup> This is higher than the values discussed above. Thus, the margin on EFSF loans been changed once. It may be that it can be changed again.

- At present, both the EFSF and EFSM have only one borrower: Ireland. The funds have been set up with the goal of helping to solve the European debt crisis but the interest rates associated with these loans will make it difficult for Ireland (or any other state) to stabilise its debt ratio.
- The profit margin of 247 basis points associated with the EFSF and 292.5 basis points associated with the EFSM could be reduced without any financial harm to other EU countries. For instance, the Commission has been clear about what happens to the profit margin on EFSM lending “This margin goes back to the EU Budget and is distributed to the EU 27 member states at the end of each financial year. The European Commission does not charge any fees or keep any margin for its own use.” A reduction of 100 basis points in this margin and the EFSF’s margin would make little financial difference to other EU countries but it would make a substantial difference to the outlook for fiscal sustainability for Ireland.
- It is certainly the case that the rate at which the EU is lending money to Ireland is lower than the rates at which the state could raise funds in financial markets. However, there are limits to how far this comparison should be pushed. The EU lending packages are explicitly related to a political goal of European solidarity and the interest rates on these loans should be judged accordingly.

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<sup>8</sup> At the time of writing, this document is still available online at [www.efsf.europa.eu/attachment/faq\\_en.pdf](http://www.efsf.europa.eu/attachment/faq_en.pdf)