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Fixed Income Research
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EFSF (R)evolution

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An analysis of the developing infrastructure of the EFSF and ESM

The EFSF is a work in progress and we need to keep an open mind regarding how it is going to develop. As we are reminded daily, events are proceeding at lightning speed as some sort of equilibrium seeks to establish itself. We see institutional evolution as a certainty in this environment.

In the context of increasing discussion of Eurobonds, we outline in detail the euro area support mechanisms already in existence:

- How the EFSF works, its guarantee structure, the basis for its AAA rating and how a country gets a loan.
- The EFSF has needed amending, twice. We explain why, the nature and implications of the amendments
- Once the amendments are ratified later this year, the EFSF will be much bigger – however the guarantee structure remains very sensitive to France's AAA rating.
- Future issuance would be substantially curtailed if France were to be downgraded and the three EFSF bonds issued to date would likely require further guarantees or other forms of credit enhancements to maintain their AAA rating.
- The funding programmes for Ireland and Portugal are straightforward but the likely involvement of the EFSF in Greece's second bailout is far from clear to us.
- We consider in detail the various components of the Greek bailout and analyse the implications for EFSF funding needs, in particular arising from proposals for private sector involvement (PSI).
- Under current plans, the EFSF rolls into the ESM in July 2013. We outline how the ESM is intended to operate.
- If Italy and Spain were to require assistance, even a further increase in size of the EFSF or ESM is unlikely to be sufficient; a more radical response would be needed.
- As many have already concluded, with Germany the ultimate source of euro area solvency, there is a point at which joint and several guarantees become more attractive than the EFSF structure.
- Unsurprisingly therefore, Eurobonds appear to be gaining increasing political traction in Germany. We discuss the blue bond/red bond proposal publicized by Messrs Tremonti and Juncker.

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How the EFSF works

The European Financial Stability Facility (EFSF) was founded on 7 June 2010 as part of a wider €750 billion European safety net in conjunction with the IMF and the European Financial Stabilisation Mechanism (EFSM). It became fully operational on 4 August 2010 and to date has issued three bonds to fund loans to Ireland and Portugal. Since it was originally set up, the EFSF has been amended twice to extend its scope and expand its size. While the amendments have been agreed, they remain to be ratified by the national procedures of the euro area member states.

We outline the original structure, the amendments and their rationale in the context of existing issuance before discussing the facility's remaining firepower in light of recent market concerns. As the backstop for the euro area, the EFSF is just not big enough, however that does not mean it's not sufficient – the question is how it fits into the bigger picture of the evolving European financial structure, in our view.

The original (and current) facility is smaller than intended

The EFSF was set up as a temporary institution to provide loans to euro area countries in need on agreement of a country programme of reforms. The EFSF funds in its own name and is AAA-rated by all three of the main rating agencies, with its credit quality driven by two main measures:

- Over-guarantees by euro area member states of 120%
- A cash reserve deducted from each loan and invested in high quality, liquid instruments.

The procedure for obtaining EFSF loans

When a euro area member state requests support from the EFSF, the first step is to negotiate a country programme with the European Commission (EC), ECB and IMF. This covers strict conditions for budgetary discipline, economic policy and compliance. Once agreed, the euro area finance ministers approve a Memorandum of Understanding (MoU) that is then signed by the country and the EC. The main terms of the resultant Loan Facility Agreement are proposed by the EC while the technical details are dealt with by the EFSF.

The first loan under an agreed facility is available once the MoU has been signed; subsequent disbursements require the unanimous agreement of all guarantors based on compliance with the terms of the MoU. The terms of each loan are proposed by the EFSF, for approval by euro area finance ministers: the size of the loan, the amount available to be disbursed, the maturity, redemption schedule and interest rate.

Once the details of a loan have been agreed, the EFSF then funds in its name in the market – it was a decision from the start that the EFSF does not pre-fund (although this is not cast in stone – see below).

The guarantee structure

The primary credit enhancement supporting the EFSF's AAA rating is the guarantee structure, as outlined (for the non-amended facility) in Exhibit 1. The main points to note are:

- Guarantees are irrevocable and unconditional
- All guarantors rank equally and pari passu
- The contribution of each country (the Contribution Key) to a guarantee is based on the relative size of its ECB Capital Subscription
- Each country has a maximum guarantee commitment – it will not have to issue aggregate guarantees in excess of this total
- Once a country is in receipt of EFSF support, it becomes a "Stepping-Out Guarantor". This means that it no longer contributes to future loan guarantees, however guarantee agreements in place before it stepped out remain.

- Guarantees are issued to cover 120% of funds raised by the EFSF.
- The EFSF may also request additional guarantees from the guarantors – basically to ensure that the EFSF can fund efficiently and that future and existing EFSF issuance retains its AAA rating. The decision to issue such guarantees requires the unanimous decision of all guarantors.

Exhibit 1: EFSF guarantee structure – pre amendments

Member State	AAA rated?	ECB Capital Subscription	Contribution key	Max Guarantee Commitments (€ m)	Adjusted cont. key[1]	Adjusted cont. key[2]
Kingdom of Belgium		2.43	3.48%	15,292	3.64%	3.73%
Federal Republic of Germany	AAA	18.94	27.13%	119,390	28.38%	29.15%
Ireland		1.11	1.59%	7,002		
Kingdom of Spain		8.30	11.90%	52,353	12.45%	12.78%
French Republic	AAA	14.22	20.38%	89,657	21.32%	21.89%
Italian Republic		12.50	17.91%	78,785	18.73%	19.24%
Republic of Cyprus		0.14	0.20%	863	0.21%	0.21%
Grand Duchy of Luxembourg	AAA	0.17	0.25%	1,101	0.26%	0.27%
Republic of Malta		0.06	0.09%	398	0.09%	0.10%
Kingdom of the Netherlands	AAA	3.99	5.71%	25,144	5.98%	6.14%
Republic of Austria	AAA	1.94	2.78%	12,241	2.91%	2.99%
Portuguese Republic		1.75	2.51%	11,035	2.62%	
Republic of Slovenia		0.33	0.47%	2,073	0.49%	0.51%
Slovak Republic		0.69	0.99%	4,372	1.04%	1.07%
Republic of Finland	AAA	1.25	1.80%	7,905	1.88%	1.93%
Hellenic Republic		1.96	2.82%	12,388		
Total		69.79	100%	440,000	100%	100%

Source: Credit Suisse, EFSF

1. Contribution key adjusted for Greece and Ireland stepping out as guarantors
2. Contribution key adjusted for Greece, Ireland and Portugal stepping out as guarantors

Greece was never a guarantor (it stepped out from day 1) and so the Contribution Key when Ireland requested support is that shown in the penultimate column of Exhibit 1. Notably, Portugal was a guarantor to the first Irish loan, before it too stepped out. Future issuance for loan disbursements to Ireland, Portugal and now potentially Greece are therefore guaranteed based on the Adjusted Contribution Key outlined in the final column of Exhibit 1.

Since the Maximum Guarantee Commitments of the original facility total €440 billion, and all EFSF issuance requires a 120% over-guarantee, the maximum the EFSF could issue as originally defined was 440/1.2 = €367 billion. This is then further reduced by the fact Greece, Ireland and Portugal are no longer guarantors…

The Cash Reserve

… and the total available to the country (or countries) requesting support is further reduced by the second form of credit enhancement: the cash reserve.

For each bond issued by the EFSF, a proportion is retained and held in a cash reserve. The amount disbursed to the country requesting assistance is therefore less than the amount raised by the EFSF. The cash reserve has three components:

- 50bp service fee
- Net present value of the margin charged on the loans
- A loan-specific buffer

The latter is in place to ensure the AAA EFSF rating – the rating agencies have required that 100% of the funds raised are covered by the total of a) the AAA guarantees and b) the cash reserve. The first two components of the cash reserve are fixed, but to the extent that the AAA guarantees do not cover the remainder, an additional loan-specific buffer is required, increasing the cash reserve and further decreasing the amount available to the country needing support.

If the EFSF issues a bond, notional N, these requirements can be summarized:

Guarantees

Total guarantee = N x 120%

Country guarantee = Adjusted Contribution Key x 120% x N

EFSF restrictions

Disbursement amount = N – Cash Reserve

Cash Reserve = 50bp Service Fee + NPV(margin) + loan-specific buffer

Rating agency restrictions

Cash Reserve + AAA guarantees ≥ N

In our EFSF users' manual, 28 October 2010, we discussed the implications of the combined restrictions for the effective amount of EFSF support. Provided France retains its AAA rating, the amount available under the original facility is in the order of €254 billion. Rather less than the €440 originally envisaged when the facility was announced. This fact, in light of the continued stress in European markets, led to the first amendment of the EFSF facility.

It should be noted that interest accrues on the full loan notional, and the full notional (offset by unused cash reserves) is repayable by the borrower at maturity, not just the disbursement amount. The order of sources for servicing an EFSF bond are:

- Proceeds of sovereign loans
- Sovereign guarantees
- Loan-specific buffer
- General cash reserve

The two sets of EFSF Amendments

The EFSF framework agreement has been amended twice this year – the first time to address the reduced effective lending capacity, the second to extend its flexibility.

First amendment, signed 13 July 2011

- Maximum guarantee commitments increased to €780 billion to give an effective lending capacity of €440 billion
- EFSF allowed on an exceptional basis to intervene in the primary markets
- Republic of Estonia becomes a party to the Framework Agreement (and hence guarantor)

Second amendment, announced 21 July 2011

Announced in conjunction with the second Greek bailout (detailed below) following the Eurogroup summit on 21 July 2011, the flexibility of the EFSF (and ESM – see below) was increased to allow it to

- Act on the basis of a precautionary programme
- Provide loans to non-programme countries for recapitalization of their financial institutions
- Intervene in secondary markets under exceptional circumstances (as recognized by the ECB) and with mutual agreement of EFSF/ESM member states.

Ratification timeframe

While the amendments have been agreed, they are still subject to ratification by the national procedures of euro area member states. We outline the requirements by country in Exhibit 2. The original guidance was that the changes would be ratified by the end of 2011; however, recent indications are for this to be completed sooner. The time frame is dictated by the dates on which the euro area parliaments reconvene – while these could be brought forward, the majority are currently scheduled to reconvene in September, with Belgium the latest on 13 October. For full details of current schedules, please see European Strategy and Trades, 5 August 2011.

Exhibit 2: EFSF amendment ratification procedures

Country	Ratification procedure	Country	Ratification procedure
Austria	Simple majority	Italy	Simple majority in both houses
Belgium	Absolute majority in both houses	Luxembourg	Simple parliamentary majority
Cyprus	Simple parliamentary majority	Malta	Simple parliamentary majority
Estonia	Simple parliamentary majority	Netherlands	Simple majority in both houses
Finland	Simple parliamentary majority	Portugal	Simple parliamentary majority
France	Absolute majority in both houses	Slovakia	Simple majority
Germany	Simple majority - 2/3 majority in both chambers	Slovenia	Simple parliamentary majority
Greece	Absolute parliamentary majority	Spain	Simple majority in both houses
Ireland	Simple majority in both houses		

Source: Credit Suisse, Eurasia Group

Issuance restrictions under the enlarged EFSF

Extended guarantee structure

The amended EFSF operates on the basis of significantly increased guarantees – rather than Maximum Guarantee Commitments of €440 billion, these have been increased to €780 billion and the over-guarantee has been increased from 120% to up to 165%. This has been done in order to ensure that the effective lending capacity is now €440 billion, rather than the roughly €254 billion we previously calculated. However, as we illustrate later, the effective lending capacity is still sensitive to ratings – scenarios exist when the lending capacity still falls below €440 billion.

The breakdown of the Maximum Guarantee Commitments by country is shown in Exhibit 16. The adjusted and initial Contribution Keys are as before, with the addition of the Republic of Estonia. As before, if the EFSF issues a bond, notional N then each country guarantees a proportion:

Country guarantee ≤ Adjusted Contribution Key x 165% x N

This forms the upper limit since the amendment states that the over-guarantee will be increased by "up to" 165%; the original agreement just stated that the over-guarantee was 120%.

Disbursement amounts are now a greater % of EFSF funds raised

Since the guarantees are so much bigger, there is no longer the same need for a Cash Reserve for additional credit enhancement. If the EFSF notes issued to finance a loan are AAA rated on the date the loan is disbursed, then

- An Advance Margin of 50bp is charged to the borrower and deducted from the loan notional
- The margin on the loan is due in arrears – at the end of each interest period and the Advance Margin is deducted from the first payment
- Issuance Costs (fees and costs associated with issuing the EFSF notes) come out of the loan notional

In other words, the amount disbursed is equal to the funds raised by the EFSF minus a 50bp Advance Margin (which is then deducted from the first interest payment) and minus issuance costs. Both the Advance Margin and ongoing margin amounts are credited to the Cash Reserve.

If the EFSF notes issued to finance the loan would not obtain a AAA rating on the date of disbursement, then additional credit enhancements may be adopted. These would require unanimous agreement by euro area member states and might include

- Provision of subordinated loans
- Warehousing arrangements
- Liquidity lines or backstop facilities to the EFSF
- Issuance by the EFSF of subordinated notes

These additional mechanisms could also be adopted in relation to loans already disbursed.

N.B. Bonds issued prior to the ratification of the amendments will continue to operate on the basis of a 120% over-guarantee and associated Cash Reserve as before.

The rating agency requirements

We assume that the same stipulation exists from the rating agencies – namely that the entirety of notional issued by the EFSF must be guaranteed by AAA-rated euro area sovereigns or held as a cash reserve. As shown in Exhibit 16, there is a maximum AAA guarantee commitment of €451 billion, which would drop to €293 billion if France was to lose its AAA status. This is, effectively, an upper limit on the amount that the EFSF can lend, ignoring amounts already issued/pledged. We discuss the latter in detail below and consider their sensitivity to France's AAA rating.

Effectively, the EFSF is flexible enough that provided there is unanimous agreement among guarantors, it can do whatever necessary to ensure its AAA rating is maintained through additional credit enhancements. However, this is likely to come at the cost of reducing the effective issuance capabilities of the EFSF.

The EFSF's other capabilities

In addition to being bigger, once the amendments have been ratified, the EFSF will be able to play an extended role in the stabilization of European sovereign debt markets. We await more details regarding how some of the measures will work, however broadly, the EFSF will be able to

- Act on the basis of a precautionary programme – we assume this means the provision of credit lines
- Intervene in primary and secondary markets – this will only be allowed in exceptional circumstances, with secondary market activity subject to ECB analysis and the mutual agreement of all EFSF member states
- Provision of loans to non-programme countries to recapitalize their financial institutions

The EFSF has always been able to lend to countries for the benefit of their financial institutions, as we saw with the loans to Ireland, so the final capability is not particularly revolutionary. The amendment allows this to apply to non-programme countries, but unless this is done privately, we see few occasions when this would occur without the country seeking broader support. The stigma would still be there and so we assume most countries would seek alternative solutions rather than accept EFSF funds for their banks.

Bond purchases

The ECB has the ability to buy unlimited amounts of bonds in the secondary market through its Securities Markets Programme (SMP). While it has the potential to do so at any time, there is little appetite at the ECB or with German or Dutch politicians for the programme and purchases have been minimal with the exception of two periods of activity. The first followed the initial Greek bailout, with the purchase of Greek and then Irish and Portuguese debt. Having bought €16.4 billion in the first week, purchases then declined for a total of €59 in the first eight weeks. The second period of intervention began on 8 August when the ECB expanded operations to include Italian and Spanish debt, purchasing €22 billion in the first few days in order to stabilize yields.

Given the reluctance of the ECB to step in, one of the requirements for it to do so in the case of Italy and Spain would appear to be that the EFSF now has (subject to amendment) the ability to intervene instead. This has sparked considerable debate about the future of the SMP and whether existing holdings are likely to be transferred to the EFSF. In our opinion, the two are separate and it is hard to see the EFSF being used extensively for this purpose in its current form. As we discuss below, it is not big enough. And while it could be further increased in size, this is highly politically controversial, and would still limit its ability to stabilize markets.

As important as how much the ECB actually buys, is the fact that its purchases are potentially unlimited. The fact that it has unlimited firepower if needed means that in practice, a relatively small amount of purchases can stabilize markets. This is not the case for the EFSF unless its size is dramatically increased or the structure is significantly changed. There will always be a limit to what it can do which the market will know.

As a result, while there may well be occasions when it makes sense for the EFSF to purchase bonds, whether in the primary or secondary markets, we believe that in times of severe stress, this role will continue to fall to the ECB. Likewise, we see no upside in transferring existing SMP holdings to the EFSF in the near term – unless done without tying up the EFSF's guarantee capital, all it would gain would be to hamper the EFSF's ability to operate as a provider of funding to countries unable to access the markets.

EFSF funding outlook and potential

EFSF funding to date

The EFSF has issued three bonds so far this year for a total of €13 billion. It has issued a €5 billion 5-year bond to fund loans to Ireland and for Portugal €5 billion of a 10-year bond and €3 billion of a 5-year bond. Exhibit 3 summarizes the bonds issued and the corresponding loans disbursed.

Exhibit 3: EFSF 3 bonds and €13 billion issued, €9.5 billion loans disbursed

	Ireland	Portugal	Portugal
Amount Issued	€5 billion	€5 billion	€3 billion
Maturity	18-Jul-16	05-Jul-21	05-Dec-16
Issuance Spread	Mid swap+6	Mid swap+17	Mid swap+6
Coupon	2.75%	3.375%	2.75%
Reoffer yield	2.89%	3.49%	2.825%
Settlement Date	01-Feb-11	22-Jun-11	29-Jun-11
Effective Lending Cost	5.90%	6.08%	5.32%
Amount Transferred	€3.6 billion	€3.7 billion	€2.2 billion

2011 YTD	Bonds Issued € bn	Loans Dispersed € bn	Bonds Still to be Issued in 2011 € bn
Ireland	5	3.6	10
Portugal	8	5.9	10
Total	13	9.5	20

2012 Issuance Plans	Announced Amounts € bn
Ireland	10
Portugal	17
Total	27

Source: Credit Suisse, EFSF

EFSF has committed to €43.7 billion of loans to Ireland and Portugal

Ireland and Portugal have committed loan packages from the EFSF of €17.7 billion and €26 billion, respectively. Thus far the actual commitment of the EFSF is therefore relatively small. With a new lending capacity of €440 billion, only 10% of funds have been used. In addition to the €13 billion raised so far, the EFSF has announced plans to issue a further €10 billion for Ireland and €10 billion for Portugal in 2011.

Since the EFSF has stated that issues will not be greater than €5 billion, regardless of demand, we expect another four benchmark issues to cover Ireland and Portugal for the remainder of 2011. The EFSF has further announced that it intends to issue €10 billion for Ireland in 2012 and €17 billion for Portugal in 2012, 2013.

At least €44 billion of guarantees likely to be extended by year-end

In Exhibit 4 we break down the guarantees extended by all euro area member states for the three bonds already issued, and the €20 billion expected this year. We make the assumption that 50% of outstanding issuance this year will be under the original EFSF framework, and 50% under the amended framework. The exact split will depend on when the amendments are ratified. In total, €44 billion of guarantees are likely to have been extended for the Irish and Portuguese programmes by the end of the year.

Exhibit 4: EFSF guarantees outstanding

€ million, unless otherwise stated

Member State	Guarantees for debt already issued				Guarantees for announced 2011 debt[1]		
	€5 billion, 25 Jan 11	€5 billion, 15 Jun 11	€3 billion, 22 Jun 11	*Total*	€10 billion, €440 facility	€10 billion, €780 facility	*Total*
Kingdom of Belgium	218	224	134	*577*	448	614	*1,639*
Federal Republic of Germany	1,703	1,749	1,049	*4,501*	3,498	4,796	*12,796*
Ireland							
Kingdom of Spain	747	767	460	*1,974*	1,534	2,103	*5,611*
French Republic	1,279	1,313	788	*3,380*	2,627	3,602	*9,609*
Italian Republic	1,124	1,154	692	*2,970*	2,308	3,165	*8,444*
Republic of Cyprus	12	13	8	*33*	25	35	*93*
Grand Duchy of Luxembourg	16	16	10	*42*	32	44	*118*
Republic of Malta	6	6	4	*15*	12	16	*43*
Kingdom of the Netherlands	359	368	221	*948*	737	1,010	*2,695*
Republic of Austria	175	179	108	*462*	359	492	*1,312*
Portuguese Republic	157			*157*			*157*
Republic of Slovenia	30	30	18	*78*	61	83	*222*
Slovak Republic	62	64	38	*165*	128	176	*469*
Republic of Finland	113	116	69	*298*	232	318	*847*
Hellenic Republic							
Republic of Estonia						45	*45*
Total guarantees	6,000	6,000	3,600	*15,600*	12,000	16,500	*44,100*
Of which AAA	3,644	3,742	2,245	9,631	7,484	10,262	27,377
AAA excluding France	2,365	2,429	1,457	6,251	4,857	6,660	17,768

Source: Credit Suisse, EFSF

1. The EFSF has announced issuance plans of an additional €20 billion for the remainder of 2011. We assume that €10 billion is issued before the amendments are ratified (i.e. under the €440 billion facility) and €10 billion is issued post ratification (i.e. under the €780 billion facility).

Outstanding EFSF issues unlikely to be robust to a French downgrade

A comparison of Exhibits 3 and 4 provides some idea of the robustness of the AAA ratings of existing issuance and the components of the cash reserve. Taking the first €5 billion issued in support of Ireland as an example: of the €5 billion issued, €3.6 was disbursed, leaving a cash buffer of €1.4 billion. Of the total €6 billion in guarantees (1.2 x 5), €3.6 billion were AAA – so the disbursed amounts were fully covered by AAA guarantees, and the cash reserve likely just contains the 50bp service fee and the net present value of the margin. France's contribution to the guarantee is €1.279 billion; if France were to lose its AAA rating, the €3.6 billion disbursed would be covered by the remaining AAA guarantees + the cash reserve. However, the remaining AAA guarantees and the cash reserve do not cover the total amount issued of €5bn, as shown in Exhibit 5. Thus, to maintain the AAA rating on existing debt an increase in guarantee or another form of credit enhancement would most likely be required.

Exhibit 5: Robustness of AAA rating for existing EFSF issuance to a French downgrade

Amounts in € billions

Bond issue	€5 billion, Ireland	€5 billion, Portugal	€3 billion, Portugal
Amount disbursed	3.6	3.7	2.2
Cash reserve	1.4	1.3	0.8
AAA guarantee x-France	2.365	2.429	1.457
Cash reserve + AAA guarantee x-France	3.765	3.729	2.257
Greater than amount disbursed?	Yes	Yes	Yes
Greater than amount issued?	No	No	No

Source: Credit Suisse

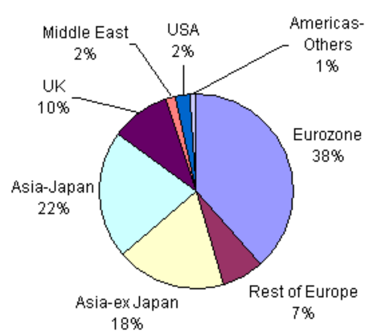
As we have outlined above, the EFSF has the flexibility to increase credit enhancements as necessary to ensure the AAA rating is stable, and the sizes we are talking about so far are very small. This would become more of an issue in the future as more bonds are issued.

EFSF Investor Participation

Exhibits 6 and 7 outline investor participation in the three EFSF issues to date, split by geographic location and investor type.

Exhibit 6: Investor split by geographic location

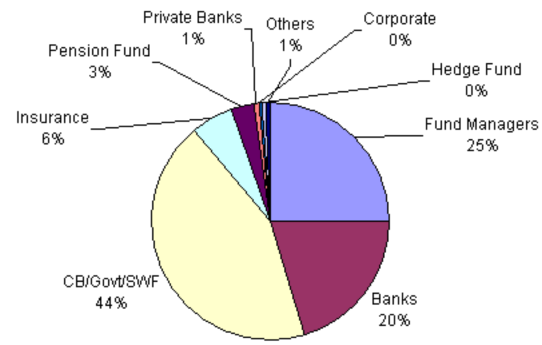
€13 billion EFSF issuance to date



Source: Credit Suisse, EFSF

Exhibit 7: Investor split by investor type

€13 billion EFSF issuance to date



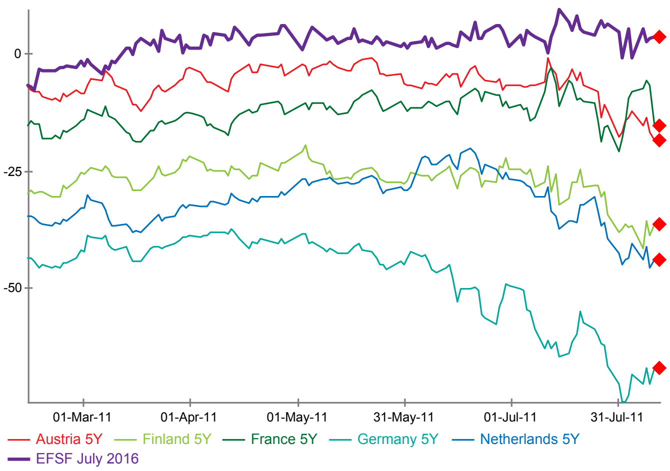
Source: Credit Suisse, EFSF

In terms of the geographic location, what is most striking is the high participation from the Asian investor basis. Asia including Japan has taken 40% of the bonds issued so far, which is the biggest grouping – the euro zone comes in next at 38% participation. We think relative participation is particularly relevant when considering the importance of the AAA rating. Asian investors do seem to have a preference for AAA rated bonds and hence the attraction of the EFSF – indeed they were also large participators in the EU bonds issued for the EFSM. With countries like Ireland and, more importantly, Spain losing their AAA rating the amount of AAA European government collateral has fallen. The EFSF offers a government guaranteed bond with a AAA rating and at a spread over Germany. Should the EFSF not have a AAA rating we believe there would be less appetite from Asian investors.

Performance

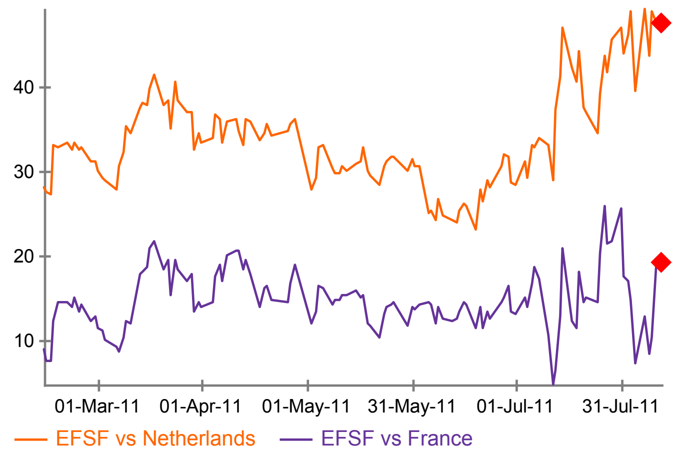
In terms of performance, the EFSF has widened versus swap since issuance and in the 5-year sector now trades at L+3.5 bp which is wider than all European AAA government bonds. It's perhaps unfair to compare the EFSF with Germany as the EFSF is guaranteed by other European sovereigns, with Germany only constituting 27% of the guarantee and non-AAA sovereigns guaranteeing 40% of total EFSF lending capacity.

Exhibit 8: EFSF trades wider than AAA governments



Source: Credit Suisse Locus

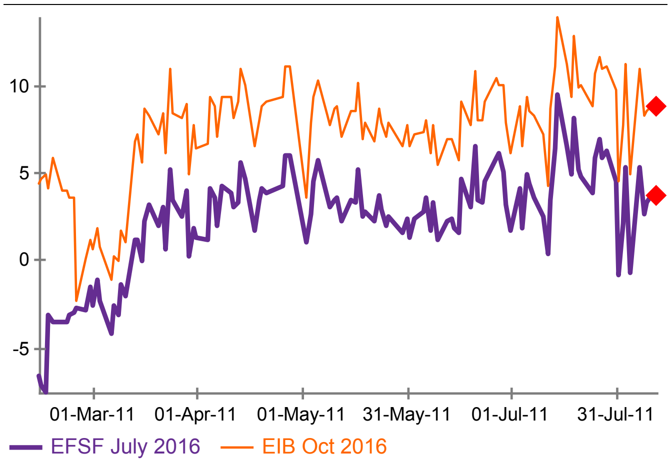
Exhibit 9: EFSF vs. France and Netherlands



Source: Credit Suisse

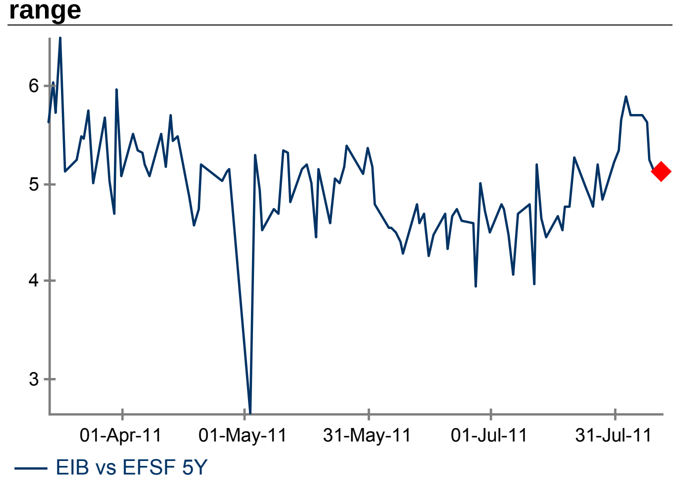
Exhibit 10 and Exhibit 11 show the performance of EFSF bonds versus the EIB. As shown, the EFSF paper trades at a small premium to EIB; we see this as partly a reflection of a liquidity premium. This is also a reflection of the explicit credit enhancement and over-guarantee system under the EFSF that does not exist for the EIB.

Exhibit 10: EFSF and EIB



Source: Credit Suisse Locus

Exhibit 11: EIB trades wider than EFSF but in tight range



Source: Credit Suisse

Greece and the EFSF

Greece's involvement with the EFSF is rather more complex than that for either Ireland or Portugal, not least because the extent of the EFSF's involvement in the new (and existing) bailout packages has not been fully clarified.

Greece's first bailout

Greece's first bailout was not part of the EFSF. Instead Greece received funding through a programme of bi-lateral loans from euro area countries and the IMF. The initial bailout package amounted to €110 billion and to-date €65 billion of this package has been disbursed. The remaining €45 billion is split €30 billion from Europe and €15 billion from the IMF. It is not clear whether the remaining €30 billion will be rolled into the EFSF or remain in the form of bi-lateral loans. The next tranche is due in September, split €5.8 billion EU loans, €2.2 billion IMF.

Greece's second bailout

A second Greek bailout of €109 billion was announced following the Eurogroup summit on 21 July 2011, along with the second amendments to the EFSF and proposals for private sector involvement (PSI) in a voluntary Greek restructuring.

The proposed breakdown of the €109 bailout is outlined on the left-hand side of Exhibit 12. Only €34 billion is allocated for Greece's deficit, the remainder goes towards supporting the banks (€20 billion), a debt buyback (€20 billion) and credit enhancement charges resulting from the planned PSI (€35 billion). Below we consider the implications of each in turn for EFSF funding requirements.

Exhibit 12: Second bailout package for Greece

Second aid package	€ billion	Funding needs	€ billion
Greek deficit	34	Baseline funding requirement	88
Recapitalisation of Greek banks	20	Gross PSI	-54
Debt buyback programme	20	Credit enhancement	35
Credit enhancement	35	Contribution to debt buy back	20
		Recapitalisation of Greek banks	20
Total	109		109

Source: Credit Suisse, IIF, EFSF

Loan terms now extremely attractive – for Greece, Ireland and Portugal

The terms of the loans to Greece under the second bailout are extremely attractive: they will have a maturity of between 15 and 30 years with a 10 year grace period and interest rates equivalent to those of the Balance of Payments facility, floored at the EFSF funding cost. Existing Greek loans will also be substantially extended[1], and the lending rates for Ireland and Portugal will be brought into line with those for Greece.

IMF involvement unclear going forward

To date, the IMF has participated on the basis of a 1/3 IMF: 2/3 Europe split in the three bailout packages, although it is not clear if this is going to continue going forward. The Eurogroup statement calls on the IMF to continue to contribute to the financing of the Greek programme and the IMF has reiterated its support but has not specified its exact financial contribution. Comments suggest it is keen for Europe to take up a greater share of the burden. We await further clarity but expect it possible that the IMF moves towards

[1] Since private debt has not yet been restructured, interestingly and contrary to the expectations of many, this implies some sense of subordination of official sector debt to private sector debt. The official sector debt has clearly been restructured: maturities have been extended and interest rates reduced.

more of an advisory role in the Greek programme, contributing expertise rather than further funds. In particular, we view it as unlikely that the IMF contributes to those parts of the second bailout related to funding PSI.

EFSF funding requirements I: Greece's deficit

€34 billion of the second bailout package has been allocated for deficit funding. Combined with the €45 billion remaining from the first package, this implies deficit funding of €79 billion for Greece. There are four potential contributors: the EFSF, IMF, EFSM and the bi-lateral loans from euro area countries. Exhibit 13 outlines various funding scenarios.

Bi-lateral loans: From the Eurogroup statement, the intention is "to use the EFSF as the financing vehicle for the next disbursement", but it isn't 100% clear whether this refers to the new package or the old. While it can be read to imply that remaining bi-lateral loans will be replaced by EFSF funding, this would reduce the outstanding issuing capability of the EFSF which would not be a good signal in current markets. We therefore assume that the €5.8 billion September tranche remains in the form of bi-lateral loans, and remain open to the likely source of the €3.6 billion December 2011 and the 2012 tranches.

IMF: We assume that the IMF contributes the €15 billion already agreed as part of the first bailout and consider the possibility it contributes a further 1/3 of the deficit portion of the second bailout.

EFSM: The other moving part is the EFSM – it still has lending capacity of €11.5 billion, having contributed €48.5 billion to the Irish and Portuguese programmes, from a total facility of €60 billion. However, the EFSM has not been mentioned in connection with Greece so far.

Exhibit 13: Greek deficit funding scenarios and EFSF funding implications

€ billions

Deficit funding	
First bailout	45
Second bailout	34
Total	79

Scenario	EFSF	EFSM	Bilateral Loans	IMF
1	58.2		5.8	15
2	54.6		9.4	15
3	46.7	11.5	5.8	15
4	43.1	11.5	9.4	15
5	35.4	11.5	5.8	26.3
6	34.0		30	15
7	31.8	11.5	9.4	26.3
8	22.7		30	26.3
9	22.5	11.5	30	15
10	11.2	11.5	30	26.3

Source: Credit Suisse

- In the worst case, if the IMF contributes nothing beyond the €15 billion from the first bailout and the EFSM does not contribute, the EFSF will have funding needs of €58.2 billion, €3.6 billion of which would be in 2011. (Scenario 1)
    - o If the bi-lateral loans are all rolled into the EFSF, this increases to €64 billion, of which €9.4 billion would need to be raised in 2011.
- If the IMF continues to contribute 1/3 of total funds, the EFSM contributes a further €11.5 billion and bilateral loans are used for the remainder of 2011, the EFSF has a funding requirement of €31.8 billion. (Scenario 7)

- If the first bailout package stays out of the EFSF completely, and the EFSM and the IMF contribute to the second bailout package, then the EFSF potentially only needs €11.2 billion, none of which would be in 2011. (Scenario 10)

So from a deficit funding perspective this gives us a range for the total EFSF funding requirement for Greece of between €11.2 billion and €64 billion. For the remainder of 2011, funding requirements are between zero and €9.4 billion.

Greek PSI funding

Details of the Greek PSI funding plan were announced on July 21. It is important to remember that this is not a plan set in stone but was rather a proposal from the IIF that seems to have gained widespread support in the banking sector and from the European officials and politicians. The proposal involves a bond buy-back programme and the voluntary participation by the financial sector in a menu of four debt exchange and roll-over options, as outlined Exhibit 14. We provide further details in the Appendix.

Exhibit 14: “Menu of options” for private sector involvement

	Option 1	Option 2	Option 3	Option 4
Nature of PSI	debt swap	rollover	debt swap	debt swap
Maturity of new instruments	30-year Greek bonds	30-year Greek bonds	30-year Greek bonds	15-year Greek bonds
When does the PSI take place?	when 2nd aid package starts	when bonds mature (up to 2019)	when 2nd aid package starts	when 2nd aid package starts
Discount	None	None	20% discount	20% discount
Equivalent coupon rate	4.50%	4.50%	6.42%	5.90%
New instrument guaranteed?	Principal at maturity	Principal at maturity	Principal at maturity	Principal (partially) from Day 1
NPV loss	21%	21%	21%	21%

Source: Credit Suisse, IIF

There are two costs associated with the PSI: bank recapitalization and credit enhancement for the exchanged debt. We attempt to assess the implications for EFSF funding requirements below. However, while we have the outline of the proposals, there is little clarity on how the funding will work, or what the involvement of the EFSF will be. It is also not clear that the target contributions for PSI will be met – the Greek finance minister announced on Wednesday August 8 that Greece will extend the terms of the bond swap to include government debt maturing up until 2024 (from 2019 originally) in a bid to reach a participation target of €135 billion. This indicates a continued commitment to PSI, and while we believe it is likely to go ahead, if market volatility continues, we believe it possible that the proposals are amended or postponed.

EFSF funding requirements II: debt buy-back programme

The €20 billion debt buyback is intended to be carried out at an average price of 61.43%, to achieve a debt reduction of €12.6 billion.

It is not clear where the funding for the debt buy-back programme will come from. In the literature it’s described as a “€20 billion contribution from the euro area Member States to a debt buy-back operation”. To some extent this will depend on the timing – if done simultaneously with the PSI, the new Greek programme may not have been ratified and so the EFSF would not be a potential source of funds. If it is financed by the EFSF, it isn’t clear what maturity bonds the EFSF will need to issue to fund the buy-back.

EFSF funding requirements III: recapitalisation of Greek banks

The implementation of the PSI is likely to require a recapitalization of the Greek banks given the extent of their holdings. When Ireland received its bailout programme there was also a provision to provide for recapitalization for the banking sector and the provision of loans for bank recapitalization is entirely within the remit of the EFSF.

In terms of the timing we would expect the recapitalization programme for the banks to be announced in conjunction with or immediately after the announcement that the PSI programme is going ahead. This would create a funding requirement of €20 billion and therefore an issuance requirement of just over €20 billion. Again, it's a question of the timing whether the EFSF is likely to be the source of funds.

EFSF funding requirements IV: credit enhancement for PSI

The implications for EFSF of the costs associated with the credit enhancement for PSI are very difficult to assess. As we outline in the Appendix, credit enhancement is proposed to be in the form of AAA rated 30-year zero coupon bonds for three of the four options (it is unspecified for the second option), with a total cost of €42 billion, of which €35 billion falls due during the support programme.

Since the total outstanding German, French, Netherlands and Austrian government bonds with maturity greater than 2039 is just €88.6 billion, a new source of 30-year zero coupon bonds is clearly required. One option that is widely assumed is that the EFSF would issue the bonds, however we don't believe this necessarily make sense.

The one funding requirement that is clear is the €35 billion needs to be invested upfront for Greece, or the relevant SPV, to buy the collateral. This either needs funding by the EFSF or EU loans.

There is then the question of the origin of the zero-coupon bonds, and how they are accounted for – in this regard, it might make sense for them to be accreting rather than zeros, particularly if issued by the EFSF. Since they must be AAA rated for the purposes of collateral, if the EFSF were to issue the bonds, they would need to be fully (over) guaranteed. If the full principal needed guaranteeing, rather than their present value (as we believe would be the case for zeros but not necessarily for accreting bonds), then this could reduce the EFSF's funding potential by around €135 billion: €35 billion to lend to Greece to buy the collateral + roughly €100 billion of zeros.

If Germany were to issue the zeros directly into the structure, this additional charge to the EFSF could be avoided. As with many other aspects of the PSI proposal, we await further details with interest – we find it unlikely that the ultimate solution will involve tying up over €100 billion of EFSF funding potential.

Summary of EFSF funding requirements for Greece

Exhibit 15: Summary of EFSF funding requirements for Greece

Amounts in € billion

	EFSF requirement (range)	What this depends on
Deficit	Between 11 and 64	Extent of contribution from IMF, EFSM and bi-lateral EU loans
Debt buy-back	≤ 20	Whether EU loans are used; may be matter of timing
Bank recapitalization	≤ 20	Whether EU loans are used; may be matter of timing
Credit enhancement	From zero to over 135…	Whether EFSF funds purchase of collateral; whether the EFSF issues the zeros and how they are accounted for

Source: Credit Suisse

Remaining EFSF firepower – not really enough if needed

In Exhibit 16, column B, we outline the remaining Maximum Guarantee Commitments by country for the enlarged EFSF, once announced issuance for Ireland and Portugal is accounted for as outlined in Exhibit 4. We also provide the contribution key given that Greece, Ireland and Portugal have stepped out (column C), and the contribution key adjusted for the situation in which Italy and Spain were also requesting assistance (column D).

Exhibit 16: Remaining EFSF guarantees - post amendment

Committed guarantees are based on further issuance by the EFSF of €160 billion: €10B for Ireland, €17B for Portugal and €133B for Greece

Amounts for Ireland and Portugal are as in Exhibit 4 and as per the EFSF forecasts

The total for Greece is based on €109B from the new bailout (assuming no IMF contribution) and €24B from the first bailout (the remaining €30B of bilateral loans minus the Sept tranche)

€ millions, unless otherwise stated

				A	B	C	D	E	F	G
Member State	AAA rated?	ECB Capital Subscription	Contribution key	Max Guarantee Commitments	Max remaining guarantees[1]	Adjusted cont. key[2]	Adjusted cont. key[3]	Committed guarantees (incl It, Sp)	Committed guarantees (excl It, Sp)	Remaining guarantees (excl It, Sp)
Kingdom of Belgium		2.43	3.47%	27,032	25,393	3.72%	5.47%	11,469	16,080	10,952
Federal Republic of Germany	AAA	18.94	27.06%	211,046	198,250	29.07%	42.71%	89,540	125,539	85,507
Ireland		1.11	1.59%	12,378				-	-	
Kingdom of Spain		8.30	11.87%	92,544	86,933	12.75%		39,263	5,611	
French Republic	AAA	14.22	20.32%	158,488	148,878	21.83%	32.07%	67,241	94,275	64,213
Italian Republic		12.50	17.86%	139,268	130,824	19.18%		59,087	8,444	
Republic of Cyprus		0.14	0.20%	1,526	1,433	0.21%	0.31%	647	908	618
Grand Duchy of Luxembourg	AAA	0.17	0.25%	1,947	1,829	0.27%	0.39%	826	1,158	789
Republic of Malta		0.06	0.09%	704	662	0.10%	0.14%	299	419	285
Kingdom of the Netherlands	AAA	3.99	5.70%	44,446	41,751	6.12%	8.99%	18,857	26,438	18,008
Republic of Austria	AAA	1.94	2.78%	21,639	20,327	2.98%	4.38%	9,181	12,872	8,767
Portuguese Republic		1.75	2.50%	19,507				157	157	
Republic of Slovenia		0.33	0.47%	3,664	3,442	0.50%	0.74%	1,555	2,180	1,485
Slovak Republic		0.69	0.99%	7,728	7,259	1.06%	1.56%	3,279	4,597	3,131
Republic of Finland	AAA	1.25	1.79%	13,974	13,127	1.92%	2.83%	5,929	8,312	5,662
Hellenic Republic		1.96	2.81%	21,898				-	-	
Republic of Estonia		0.18	0.26%	1,995	1,950	0.27%	0.40%	771	1,111	884
Total		69.97	100%	779,783	682,057	100%	100%	308,100	308,100	200,301
Of which AAA				451,540	424,163	62.2%	91.4%	191,574	268,594	182,946
Excluding France				293,052	275,284	40.4%	59.3%	124,333	174,319	118,733

Source: Credit Suisse, EFSF

1. Maximum remaining guarantees by country taking account of all issuance to date and planned for 2011
2. Contribution key adjusted for Greece, Ireland and Portugal stepping out as guarantors
3. Contribution key adjusted if Italy and Spain additionally step out

In columns E and F, we analyse the extent of guarantees already committed by country, both including and excluding Italy and Spain as guarantors. To do so, we assume that after this year, Ireland needs a further €10 billion, Portugal €17 billion and that Greece needs €133 billion from the EFSF - €109 billion for the second bailout and €24 billion for the first (i.e. the next tranche of bi-lateral loans is paid, but following that, the first bailout is rolled into the EFSF). We include the guarantees extended during 2011 as outlined in Exhibit 4.

The first thing to note is that for issuance of €193 billion (€160 billion post-2011 + €13 billion existing + €20 billion planned for 2011), guarantees of €308.1 billion are required. Of these, while France is AAA, sufficient of the guarantees are AAA to ensure that EFSF issues are AAA rated. However, whether Italy and Spain are in or out, if France loses its AAA rating, this is no longer the case. Debt that had already been issued would likely require additional credit enhancements to keep its AAA rating, while the guarantee structure of future issuance would need to be extended, or additional credit enhancements put in place. In either situation, the EFSF's funding capabilities would be reduced.

In column G we outline remaining guarantees if Italy and Spain were to step out. Of a total of €200 billion, €183 billion are AAA, so this is the effective approximate further lending capacity of the EFSF beyond existing programmes. Italy's financing needs for 2012-2014 are expected to be around €500 billion; Spain's around €230 billion, assuming bills can be rolled. However one slices it, the EFSF is not large enough to support them in its current form. If France were additionally to lose its AAA status, the EFSF's firepower reduces further to just €118 billion.

Bond purchases and the case for pre-funding

As discussed above, we believe the ECB is a better entity to undertake meaningful bond purchases than the EFSF during times of market stress. This is further supported by our analysis of the remaining size of the EFSF, which doesn't consider the additional impact of bond purchases, and which quickly becomes overwhelmed if events continue towards the core. If, however, conditions do stabilize and Italy and Spain remain able to access markets, the EFSF has additional funding capabilities of around €250 billion.

The EFSF is widely thought not to pre-fund, which would further hamper its effectiveness for bond market intervention. However, we note from a change in language in the frequently asked questions on the EFSF's website that this assumption is not in fact true. Whereas originally the website stated that "There has been a clear political decision by finance ministers not to access markets for a specific country programme until a euro member has submitted a request for support", this has been modified to "EFSF is able to pre-fund but there is consensus by finance ministers not to access markets for a specific country programme until a euro member has submitted a request for support". Nothing is mentioned about the EFSF's other operations…

France's capitalized guarantee liability

One of the turning points in the current situation was in our view on 27 January 2011, when Eurostat announced its decision that EFSF guarantees would be considered part of guaranteeing a country's indebtedness. Eurostat published a detailed background note and referred to the underlying regulations[2]. "The conclusion is that the EFSF cannot be considered as an autonomous international organisation and that, therefore, all the debt it would incur on markets, excluding the value of the Loan Specific Cash Buffer, should be allocated to the guarantor EAMS (euro area member states), on the basis of their contribution key in a given support operation. In parallel, the loans granted by the EFSF should be considered as loans directly granted by these EAMS."

We should remember the assets corresponding to the debt, namely the EFSF's loans to the countries, and we do not know how the ratings agencies will weight the impact on national finances. The gross amounts would be an upper bound.

As shown in Exhibit 16, provided the EFSF is not enlarged further, then France's incremental capitalized guarantee liability is a maximum of €158 billion.

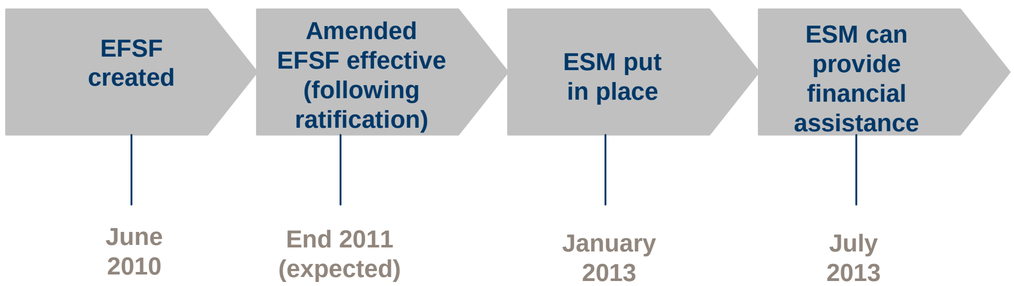
On a €1.6 trillion economy, that is a further 10 pct of gross debt/GDP. It would lift France's government debt/GDP by that amount as an upper bound. We see this as unhelpful but not revolutionary. It would be unlikely, in our view, for it to trigger a downgrade in isolation; the rating would be much more exposed to the longer-term dynamics of debt sustainability. In theory, debt sustainability is independent of starting point and primarily dependent on interest rates vs. growth. The problem is that, particularly in the euro area, the debt/GDP starting point and rates cannot be considered independent variables.

2 Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community, as amended

Rolling the EFSF into the ESM

The European Stability Mechanism (ESM) is the permanent support facility currently intended to take over from the EFSF in July 2013. After this point, the EFSF will not be able to enter into new assistance programmes and will be wound down once all outstanding debt has been repaid. During the phase of transition from the EFSF to the ESM, which spans the time period between June 2013 and the complete run down of the EFSF, the total lending of the ESM and EFSF may not exceed €500bn. The ESM Board of Governors may roll undisbursed and unfunded parts of the EFSF loan facilities into the ESM. A proposed timeline is shown in Exhibit 17.

Exhibit 17: Proposed timeline for implementation of the ESM



Source: Credit Suisse

Structure of the European Stability Mechanism

The ESM is designed as a permanent crisis resolution mechanism that will be able to provide financial assistance to euro area member states, under strict economic conditionality. The ESM may also intervene in debt markets under exceptional circumstances.

The ESM is scheduled to become operational in July 2013 and will be governed by a Board of Governors consisting of euro area Finance Ministers. A Board of Directors will also be established to manage the operation of the ESM. The main focus of the ESM is to put in place a crisis resolution framework that considers:

- The role of the private sector on a case by case basis, based on analysis of debt sustainability. In order to facilitate this, from June 2013 collective action clauses will be introduced for all new euro area government bonds with maturity greater than one year.
- The role of the IMF on both a technical and financing level.
- Conditionality under which a program will operate.

Capital structure

The ESM is designed to have total subscribed capital of €700bn. €80bn is paid in capital and €620bn in callable capital. The capital is to be raised in five annual installments of 20% each with the first installment to be paid by January 2013. During the five year payment period, the ESM will ensure a minimum ratio of paid-in capital to issuance of 15%. In the EFSF frequently asked questions document, it states that the ESM "will have a capital structure similar to multilateral lending institutions". Exhibit 18 compares the ESM capital structure to the European Investment Bank (EIB). The ESM is similar to the EIB in terms of the share of paid-in capital to subscribed capital. In fact, the ESM plans to have twice as much paid in versus subscribed capital.

Exhibit 18: Comparison of ESM and EIB

	ESM	EIB
Shareholders	17 Euro area member states	27 EU member states
Subscribed capital	€ 700 bn	€ 232 bn (April 2010)
Called up capital	11.4% of subscribed capital € 80 bn	5% of subscribed capital € 11.63 bn (Dec 2010)
Share in capital	Based on ECB contribution key (50% total population + 50% GDP). For MS with GDP < 75% EU average, there will be temporary adjustment for 12y after accession	GDP weight at time of accession
Ratio of capital to issuance	Minimum 15% during the capital raising phase	Capital/Loans ratio 40%
Reserve fund	Details to be specified	Up to 10% of subscribed capital to be built up progressively
Lending capacity	€ 500bn	Implicitly stated via capital/loans ratio

Source: Credit Suisse

The total effective lending capacity of the ESM is set at €500bn. The ESM will also have preferred creditor status, junior only to the IMF, unless a member country already in an assistance program as of June 2011 obtains assistance from the ESM, in which case the ESM will have the same seniority as other loans. In other words, if Greece, Ireland or Portugal access the ESM, associated ESM loans will not have preferred creditor status. The change was made in order to reduce the barrier the preferred creditor status imposed to the re-opening of market access for these countries.

The ESM contribution key will be based on the ECB key which is equally weighted between total population weight and GDP weight in the European Union. Exhibit 19 tabulates the agreed contribution per euro area member state.

Exhibit 19: ESM subscribed capital key

	ESM key (%)	Number of shares	Capital subscription (EUR, mns)
Kingdom of Belgium	3.48	243,397	24,340
Federal Republic of Germany	27.15	1,900,248	190,025
Republic of Estonia	0.19	13,020	1,302
Ireland	1.59	111,454	11,145
Hellenic Republic	2.82	197,169	19,717
Kingdom of Spain	11.90	833,259	83,326
French Republic	20.39	1,427,013	142,701
Italian Republic	17.91	1,253,959	125,396
Republic of Cyprus	0.20	13,734	1,373
Grand Duchy of Luxembourg	0.25	17,528	1,753
Malta	0.07	5,117	512
Kingdom of the Netherlands	5.72	400,190	40,019
Republic of Austria	2.78	194,838	19,484
Portuguese Republic	2.51	175,644	17,564
Republic of Slovenia	0.43	29,932	2,993
Slovak Republic	0.82	57,680	5,768
Republic of Finland	1.80	125,818	12,582
Total	100	7,000,000	700,000

Source: Credit Suisse

In terms of coverage of losses, these shall be charged against

- the reserve fund first (yet to be specified),

- paid-in capital second, and

- lastly against unpaid capital.

Granting financial assistance to a member state

The member state will request aid from the ESM Board of Governors. Once a decision is made to grant aid, a Memorandum of Understanding (MoU) will be drawn up by the European Commission, the IMF, the ECB and the ESM member under strict economic conditionality.

In determining the support for a member state, the ESM will follow IMF-best practice in determining the form of private sector involvement on a case-by-case basis. If debt sustainability analysis does not suggests that an adjustment programme can restore debt to a sustainable path, the beneficiary member state will be required to involve the private sector.

The support funds provided by the ESM must cover ESM funding costs plus an additional margin. The original planned pricing structure includes a charge of 200bp for the entire loan and a surcharge of 100bp for loans above 3 years, however this is now subject to change following the latest EU summit.

Recent amendments to the ESM – July 21st summit

In line with changes to the EFSF, following the recent Eurogroup summit, the ESM may

- Act on the basis of a precautionary programme
- Finance recapitalization of banks through the extension of loans to non-programme governments.
- Buy bonds of an ESM member in the secondary market on the basis of ECB analysis that market circumstances are exceptional.

Where to from here – evolution or revolution?

The EFSF is a temporary support facility that has already been amended twice. We expect it, and the ESM into which it will eventually roll (seamlessly as the two are likely to be all but identical by that point in our opinion) to continue to evolve. We need to keep an open mind regarding how this will happen, and at what speed.

As some sort of equilibrium seeks to establish itself, events are proceeding at lightning speed. We continue to expect this tone to continue, at least until some of the key issues can be addressed when the politicians are fully back at their desks. That leaves the market struggling with the question of what the issues really are (latest obsession, France's AAA; we disagree that that is the issue).

It also leaves the ECB "minding the store", a task to which is has fortunately stepped up. We have talked for a while about events now proceeding on a political timeframe rather than a market one, while at the same time pointing out that the leisurely planned political timeframes were at risk. The current result is that events are proceeding as fast as an unplanned political process will allow, and the risk is more that events move rapidly out of control than that the more leisurely approach can be reimposed, in our view. **We see institutional evolution as a certainty in this environment.**

The intermediate steps in this unplanned political evolution verge on the surreal; we have the monetary authority agreeing to buy debt on the secondary market on the basis that it approves the budgetary plans of EU sovereigns. So there is a deep element of realpolitik emerging. We see it as entirely reasonable to ask—and it often is asked—what are the capabilities of the ECB in achieving debt union "through the back door". Correlations in our CDO model of the euro area have been rising sharply as this possibility feeds through the market. We consider the merits of increasing the size of the EFSF, before examining two possibilities on which we receive a lot of questions.

The excluded middle: doubling the EFSF looks inefficient

If we consider a situation where the EFSF is a primary lender to Spain and Italy, its capacity to do so is €183 billion as outlined in Exhibit 16. In that case a debate would have to start about increasing its size. Such a debate seems to have been a question left hanging on 21 July in any case. What happens if Spain and Italy go into the EFSF and it has to be—say[3]—doubled? France's liability is now potentially €316 billion, 20% of GDP, and the AAA rating as a practical as opposed to a theoretical matter might be seriously at risk. Italy is AA- with arguably better debt dynamics but a starting point of 120% of GDP (European Commission 2011 estimate) as opposed to France's 85% + 20%.

Given the sensitivity of the EFSF's issuing capabilities to France's AAA rating, at this point, if not before, the EFSF's ability to operate in the size needed would likely be called into question. Even if France were to maintain its AAA rating, based on funding needs of €730 billion for Italy and Spain for 2012-2014, even if the EFSF were to be doubled, it would be unlikely to be big enough. And there would be a clear risk of France needing support as well.

We therefore think that there comes a point when increasing the size of the EFSF takes it "off the efficient frontier" from an economic funding perspective; i.e., once Italy is involved, there are better ways to deal with the issue and, as a practical matter, the response needs to be more radical than upsizing the EFSF, at least from France's, and therefore Germany's point of view.

Discussion of a massive increase in the size of the EFSF, we therefore view as wide of the mark; the question is more binary than that and as we think the market worked out in early July, once Italy is involved either joint and several guarantees emerge or the outcome is catastrophic.

The question, of course, is one of German politics and willingness.

3 It's as good a place to start as any and there are many numbers with a much weaker provenance than the resulting €880 bio.

"Eurobonds" – the future of the EFSF?

Which brings us to Eurobonds. In the last couple of days, German willingness to consider these as an option appears to be increasing. The head of the BGA (Wholesale and Foreign Trade Association) and the DGB (confederation of German trade unions) have come out in support of the idea, and even Schauble has not categorically excluded the possibility, although obviously there would be substantial strings attached. Annoucements from Merkel and Sarkozy on Tuesday are a further step in this direction.

As we have outlined, we think that current events highlight that Germany is the ultimate source of the euro area's solvency and that there are no intermediate stops; effectively any meaningful pooling of solvency of the sort that the EFSF performs has only one logical destination. With ESM debt owed by future participants emerging as explicitly senior, this potentially forms the nucleus of some sort of "Eurobond".

1) Blue bonds / red bonds?

One model is the "blue/red" bond proposal publicized by Messrs Tremonti and Juncker[4].

This proposes that the issue of seniority be resolved clearly in favour of a senior "blue" bond. This would be issued by a central authority (presumably the EFSF structure) under joint and several guarantee (arguably the key difference with the EFSF) on behalf of the borrowing country. Strict limitations along the lines of the Maastricht criteria would be applied, with the 60% limit to GDP strictly enforced. An Independent Stability Council would propose an allocation of "blue" bonds to each country on a take-it-or-leave-it basis at the start of every year.

Thereafter there would be a junior, "red" tranche issued locally under the local authorities' powers on the strict understanding that it is junior and has no prospect of a euro area bailout. The plan should lead to a large, highly liquid and effectively risk-free blue bond market while the red bonds should avoid the "no-bailout" problem and automatically impose a degree of fiscal discipline on individual countries.

The plan is not detailed as regards the question of transition from the legacy outstandings, and under any circumstances we would expect an arrangement of this sort to lead to a discussion of burden-sharing on currently-outstanding bonds. The provision of joint and several guarantees of existing debt seems remote, even ex-Greece, although we have to keep an open mind on this as on all other aspects.

The experience of recent years suggests that the red tranche would only open to new issuance in the most favourable circumstances. Although, the experience in Greece suggests that local bill markets can be surprisingly resilient as long as banks remain local.

The plan is controversial, and we do not express a view on it here other than to point out that is it one possible ultimate outcome of the process started back in May 2010. Its appeal is that it breaks the current deadlock where a country that is receiving official funding appears to be unable to secure any local funding, forcing it to receive official funding. This would increase the chances of restarting private capital flows to the periphery. But the legacy issue would need skilful and possibly expensive management, as Greece is graphically illustrating. A further concern is the usual one of unintended consequences.

4 Based on a paper by Delpla and von Weizsäcker. The officials added a discussion of bond buybacks which we do not see as central to the idea.

2) Expanded EU issuance

As Europe's financial structure rearranges, existing entities could grow in preference to the EFSF. One logical step is to draw a parallel with the USA. There, the issuance is predominantly in the name of the US Treasury. Why should the EU not follow that model; after all, it is the funding vehicle for the EFSM and the BoP facility?

Maybe it eventually will, but we see radical differences between Europe and the US[5]. EU borrowings are guaranteed by the European Commission and collateralized by the budget of the EU, which in turn is funded by budgetary contributions from the sovereigns. This creates effectively a joint and several guarantee, contingent on members remaining in the EU. Essentially all the taxation power exists at the sovereign level.

Mapping to the US, "sovereign"="several state". The several states have taxing power but it is low (which is why "debt/state GDP ratios" are low) and the taxing power resides largely at federal level. Recreating this structure in Europe would almost certainly require a transfer of taxation authority to a central treasury function. We would not rule it out over the long term. For example, VAT could become an EU-wide tax. But such a radical evolution is probably beyond the timescales that need to be considered here.

5 And we are ignoring relatively-we stress relatively-small issues such as that the EU and the euro area are not the same, so countries like the UK would raise issues.

Appendix: Greek PSI

A proposal for private sector involvement (PSI) was proposed on 21 July 2011 by the International Institute of Finance (IIF) following the Eurogroup summit meeting on the same day. Supported by 30 financial institutions, it assumed a gross contribution of €135 billion via the voluntary exchange of bonds maturing between 2011 and 2020, based on a 90% participation rate. While we have few concrete details of the scheme, this participation rate is very high. It should come as little surprise, therefore, that the authorities are struggling to obtain it: the scope of bonds included has recently been extended to include those maturing up until 2024. For now, the €135 billion target remains.

We await more specific details of the plan but summarise what we know so far. Further amendments we believe are distinctly possible.

Four options are proposed for investors

As outlined in Exhibit 14, four options are included in the proposal, with an assumed equal participation of €33.75 billion in each one, for a total of €135 billion. Each option is structured to imply a 21% net present value loss to the investor based on a discount rate of 9%.

Option One:

- Par bond exchange into 30 year instrument
- Principal collateralized by 30 year zero-coupon AAA rated bonds
- Stepped coupons: 4% years 1-5, 4.5% years 6-10, 5% years 11-30

Option Two:

- Bonds rolled on maturity into 30 year par bond
- Principal collateralized by 30 year zero-coupon AAA rated bonds
- Stepped coupons: 4% years 1-5, 4.5% years 6-10, 5% years 11-30

Option Three:

- Discount bond exchange into 30 year instrument offered at 80%
- Principal collateralized by 30 year zero-coupon AAA rated bonds
- Stepped coupons: 6% years 1-5, 6.5% years 6-10, 6.8% years 11-30

Option Four:

- Discount bond exchange into 15 year instrument offered at 80%
- Principal partially collateralized with 80% of losses covered up to maximum of 40% of notional of new instrument
- Coupon of 5.9%

Debt reduction as result of PSI is €13.5 billion

Since options 3 and 4 include a 20% discount, on the assumption of 25% participation in each option, the PSI results in a net debt reduction (as opposed to net present value debt reduction) of €13.5 billion, or approximately 6% of GDP.

Combined with the proposed debt buy-back, which is anticipated to reduce debt by €12.6 billion, overall Greece's debt load is expected to be reduced by €26.1 billion, or 11.5% of GDP. Hardly revolutionary…

Credit enhancement – analyzing the cost

Aside from the funds required for the debt buy-back, the main cost from the plan derives from the credit enhancement. Assessing this likely cost, and in particular how it is likely to be funded is difficult until further details regarding the proposal, its take-up and allocation among the various options is clear. The following is what we know based on details released by the IIF and the EFSF.

For options 1, 3 and 4, the total cost of the credit enhancement must be paid up-front; for option 2 it is payable when each bond being rolled matures. The total cost is expected to be €42 billion. We can break down the collateral requirements into 30-year zero-coupon bonds for options 1,2 and 3 (a total of 0.75*135 = €101.25 billion bonds) and as yet undefined collateral for option 4 of €10.8 billion (33.75*0.8*0.4 since up to 40% of a 20% discounted notional is covered). Since 30-year German principal strips trade sub-40, a total of €42 billion is therefore plausible. Per the IIF, the breakdown of this cost is:

1. €16.8 billion for bonds maturing 2011-2014
2. €18.4 billion for bonds maturing 2015-2020 (and, by inference, involved in options 1, 3 or 4)
3. €7 billion falling due outside programme period (by inference, bonds maturing post 2015 and involved in option 2)

We summarise the implications of credit enhancement costs on the net PSI impact in Exhibit 20. The total cost realised in the 2011-2014 period is €35 billion since both the €16.8 billion related to that period and the €18.4 billion related to longer dated bonds needs to be funded upfront. This is therefore the amount of official funding required from the second bailout to support the PSI. Greece will also need to fund the €7 billion falling due post 2014, however this falls due after the bailout period.

Exhibit 20: Credit enhancement costs of PSI

Amounts in € billion

	2011-2020	2011-2014	
	Total cost	Total cost realized in 2011-2014 programme period	Costs associated with 2011-2014 programme period
Gross PSI	135	54	54
Cost of credit enhancement	42	35	16.8
Net PSI	93	19	37

Source: Credit Suisse, IIF, EFSF

Implications for official financing needs

We copy Exhibit 12 outlining the details of the second bailout package below for reference. The rationale behind the €35 billion for credit enhancement is above, with additional costs as previously explained to cover the bond buy-back and bank recapitalization.

Exhibit 21: Second bailout package for Greece

Second aid package	€ billion	Funding needs	€ billion
Greek deficit	34	Baseline funding requirement	88
Recapitalisation of Greek banks	20	Gross PSI	-54
Debt buyback programme	20	Credit enhancement	35
Credit enhancement	35	Contribution to debt buy back	20
		Recapitalisation of Greek banks	20
Total	109		109

Source: Credit Suisse

With regards the resultant funding needs, the €88 billion baseline funding requirement (as provided by the IIF) is approximately the IMF's forecast funding shortfall until mid-2014 based on an assumption that €28 billion is raised through privatization receipts, and accounting for the €45 billion still available to Greece from the original bailout. This requirement is then reduced by €54 billion as a result of PSI savings in 2011-2014, with the additional associated costs from the credit enhancement, debt buy-back and bank recapitalization.

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Disclosure Appendix

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Helen Haworth, Michelle Bradley, Thushka Maharaj and William Porter each certify, with respect to the companies or securities that he or she analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

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