EPEC

DG ECONOMIC AND FINANCIAL AFFAIRS

Evaluation of the Guarantee Fund for External Actions

Final Report

Submitted by GHK Consulting in association with Volterra Consulting
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ACRONYMS

BoP	Balance of Payments
DG ECFIN	Directorate General for Economic and Financial Affairs European Commission
ECA	European Court of Auditors
Ecofin	Economic and Financial Affairs Council
ELM	External Lending Mandate
EIB	European Investment Bank
EU	European Union
IMF	International Monetary Fund
MFA	Macro Financial Assistance
PD	Probability of Default
WB	World Bank

EXECUTIVE SUMMARY

The 'Evaluation of the Guarantee Fund for External Actions' was commissioned by the Directorate-General for Economic and Financial Affairs in September 2009; and was undertaken by GHK Consulting in association with Volterra Consulting within the context of the Framework Contract between the European Policy Evaluation Consortium and Directorate-General for Budget (DG BUDG No BUDG06/PO/01/LOT no. 3 - ABAC 101908).

Background and Context

The Guarantee Fund was established in 1994 by the Council Regulation (EC, Euratom) No 2728/94[1] and is currently operating on the basis of the Council Regulation (EC, Euratom) No 480/2009 of 25 May 2009[2]. The main function of the Fund is to shield the Community budget against shocks due to default on loans or guaranteed loans covered by the Fund.

The Fund covers three types of lending operations. These are:

a) External lending by the European Investment Bank (EIB): loans granted to projects in non-Member States in support of the EU's external policy objectives;

b) Euratom external lending: long-term loans to finance projects for improving nuclear safety in certain non-Member States (Russian Federation, Armenia, Ukraine), including the dismantling of nuclear power stations that cannot be upgraded.

c) Macro-Financial Assistance loans to non-Member States: untied and undesignated balance-of-payments support to EU enlargement and neighbouring third countries.

MFA and Euratom loans are managed by the Commission; and financed through borrowings on the market. The money is lent on a 'back to back' basis. The same goes for EIB, which is a leading issuer of sovereign-class debt on the financial markets; and on-lends the proceeds on favourable terms to projects in third countries.

The Fund has to be maintained at 9 per cent ('target rate') of the EU's total outstanding capital liabilities arising from each operation increased by unpaid interest due. It is provisioned on an ex-post basis from the EU budget. In the Financial Perspectives for the period 2007-2013, an annual amount of up to EUR 200 million has been foreseen for the provisioning of the Fund. In addition, a smoothing mechanism has been put in place to prevent large default events from causing any disruption to the flow of external lending.

Purpose of the Evaluation

The purpose of this evaluation was to assess the relevance, effectiveness and efficiency of the Guarantee Fund; with a particular focus on assessing the appropriateness of the current levels of the main parameters of the Guarantee Fund, notably the target rate.

[1] Council Regulation (EC, Euratom) No 2728/94 of 31 October 1994 establishing a Guarantee Fund for external actions (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31994R2728:EN:HTML). This Regulation was amended three times by Council Regulations 1149/1999 of 25 May 1999, 2273/2004 of 22 December 2004 and 89/2007 of 30 January 2007.

[2] Council Regulation (EC, Euratom) No 480/2009 of 25 May 2009 establishing a Guarantee Fund for external actions, consolidated version (http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:145:0010:0014:EN:PDF)

Method of Approach

The Study combined the following qualitative and quantitative techniques to address the evaluation questions:

- Desk Research and Analysis: This entailed a desk top review of all key documentation such as relevant Regulations, Annual Reports and Agreements between the Commission and the EIB.

- Stakeholder Interviews: A number of in-depth, exploratory interviews (mainly face to face) were carried out with key informants to understand the functioning of the Fund.

- Risk Modelling: A Monte Carlo approach was adopted to statistically evaluate the likely calls to the Guarantee Fund and to assess the ability of the smoothing mechanism to cope with these calls. A second model was constructed to calculate how the current operating mechanisms would be brought into effect as a result of the simulated losses.

Main Findings and Conclusions

The main findings and conclusions of this evaluation are:

- The Guarantee Fund is an effective and efficient mechanism for provisioning for the risks associated with EU's external lending actions.

- Since its beginning in 1994, calls for a total of EUR 477.86 million have been handled through the Fund. Over the same period (1994 to 2010), the net transfers from the EU budget to the Fund have amounted to EUR 484 million. Over a fifteen year period, the net cost to the EU budget of operating the Fund has been EUR 6 million. These costs are modest in relation to the budgetary protection and stability offered by the Fund.

- The current management methods for the Fund are working effectively and are fit for purpose. Commission officials interviewed in the context of this evaluation, offered the following suggestions in relation to EIB's lending operations: that the EIB should put in place measures to ensure timely disbursement of signed loans in order to reduce uncertainty and that in future, it should take more risk 'on its books' for lending to investment grade countries.

- The assets of the Fund are presently managed by the EIB as required by the Regulation establishing the Fund. This evaluation could not detect any obvious reasons for changing this arrangement.

- The worse case results of the quantitative analysis carried out to assess the target rate are as follows:

  – Under the scenario of non-accelerated defaults, a one in twenty year call on the Fund would be 0.25 per cent to 1.00 per cent of the Fund's capital exposure. A one in a hundred year scenario would be a loss of 0.75 per cent to 2.5 per cent.

  – Under the scenario of accelerated defaults, it is estimated that a one in twenty year call on the Fund would be 3 per cent to 9 per cent of the Fund's capital exposure. A one in a hundred year scenario would be a loss of 5 per cent to 17 per cent.

- These results suggest that 9 per cent is an appropriate level at which to set the target rate. Under the non-accelerated default scenario, 9 per cent should provide a comfortable buffer with which to provision against loss. Under the accelerated scenario (a type of default as yet not observed with EU lending), the quantitative assessment indicates that even a one in twenty year loss could potentially be provided for. On the basis that one would not necessarily expect the Fund to withstand such a large and unlikely event, the 9 per cent target rate is sufficient and appropriate.

- The provisioning mechanism takes into account sufficiently well the risk profile of the Fund. Given the 'unlikeliness' of the Fund breaching either the 80 per cent or 70 per cent triggers, the current mechanism does allow satisfactorily for the associated missed loan payment risks.

- As regards the adequacy of budgetary resources foreseen for the Fund, the conclusions of this Study are:

  – Payments to the Fund that are due to losses are capped by the smoothing mechanism at EUR 100 million. The modelling results suggest that the mechanism and the EUR 100 million limit are appropriate.

  – Payments to the Fund that arise from additional disbursements however are projected to rise above the current annual budget allocation of EUR 200 million. Whilst there may not exist an explicit cap on additional provisioning due to disbursements, it may be prudent to increase the annual budget allocation to EUR 250-300 million.

Recommendations

Following on from the above findings and conclusions, it is recommended that:

- The Guarantee Fund should continue to cover the external lending operations of the EU;

- The target rate of the Fund should be maintained at 9 per cent; although it should be reviewed from time to time;

- The Commission should consider changing the current flat profile of the budgetary resources foreseen for the Fund to match the profile of the lending operations. Accordingly, it would be prudent to increase the annual budget allocation to between EUR 250-300 million.

- Further analysis should be carried out to determine if the same quality of portfolio management services can be achieved by the Commission (as compared to EIB) at a lower cost (in relation to management fees paid to EIB.

1 INTRODUCTION

This is the Final Report of the 'Evaluation of the Guarantee Fund for External Actions'. This assignment was commissioned by Directorate-General for Economic and Financial Affairs (DG ECFIN) in September 2009; and was undertaken by GHK Consulting in association with Volterra Consulting, within the auspices of the Framework Contract between the European Policy Evaluation Consortium (EPEC) and Directorate-General for Budget (DG BUDG No BUDG06/PO/01/LOT no. 3 - ABAC 101908).

The independent evaluation of the Guarantee Fund was based on a structured and systematic approach to collecting, analysing and presenting information. The Final Report details the work undertaken and the conclusions reached in response to the key evaluation questions. It also provides a series of recommendations to improve the functioning of the Guarantee Fund going forward.

1.1 Background and Context

The Guarantee Fund was established in 1994 by the Council Regulation (EC, Euratom) No 2728/94[3] and is currently operating on the basis of the Council Regulation (EC, Euratom) No 480/2009 of 25 May 2009[4]. The main function of the Fund is to shield the Community budget against shocks due to default on loans or guaranteed loans covered by the Fund. The core parameter of the Fund in achieving this aim is the 'Target Rate' which is currently set at 9 per cent. As per Article 3 of the amended Regulation[5], the Fund must be maintained at a 'target amount' which is a function of the Target Rate and the total outstanding capital liabilities of the Fund increased by unpaid interest due.

Target Amount =	**Target Rate (9%) X**	**Total outstanding capital liabilities of the Fund increased by unpaid interest due**

The Fund is endowed by one annual payment from the general budget of the EU; the interest on Fund resources invested on the financial market; and, recovered amounts. The endowment from the EU general budget is provided through two procedures:

- *Provisioning mechanism*: The Fund was originally provisioned from the EU General Budget on an ex-ante basis (i.e. on the basis of the committed amount of loans). Under the new mechanism introduced in January 2007, the Fund is provisioned on an ex-post basis, based on the net disbursements. The annual transfer from the EU budget to the Fund is calculated by applying the target amount to the outstanding amount of loans granted and guaranteed. The difference between the target amount and the actual value of the Fund's assets is paid from the general budget of the EU into the Fund (or to the budget in the event of a resulting surplus in the Fund). In the

[3] Council Regulation (EC, Euratom) No 2728/94 of 31 October 1994 establishing a Guarantee Fund for external actions (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31994R2728:EN:HTML). This Regulation was amended three times by Council Regulations 1149/1999 of 25 May 1999, 2273/2004 of 22 December 2004 and 89/2007 of 30 January 2007.

[4] Council Regulation (EC, Euratom) No 480/2009 of 25 May 2009 establishing a Guarantee Fund for external actions, consolidated version (http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:145:0010:0014:EN:PDF)

[5] As per Council Regulation (EC, Euratom) No 89/2007 of 30 January 2007 amending Council Regulation (EC, Euratom) No 2728/94 establishing a Guarantee Fund for external actions (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:022:0001:0002:EN:PDF)

Financial Perspectives for the period 2007-2013, an annual amount of up to EUR 200 million has been foreseen for the provisioning of the Fund.

- *Smoothing mechanism*: A smoothing mechanism was introduced in January 2007 to prevent large default events from causing major disruption to the EU budget.

1.2 Purpose and Scope of the Evaluation

The purpose of this evaluation, as per the Terms of Reference is:

"To assess whether the new rules are efficiently applied, fulfil their objectives and increase the efficiency of the Fund. In this context, the appropriateness of the current levels of the main parameters of the Guarantee Fund, notably the target rate, has to be assessed."

The scope of the evaluation mainly concerns:

- The functioning of the Fund; and,
- The assessment of the parameters of the Fund.

The results of this evaluation will feed into the next Comprehensive Report on the functioning of the Guarantee Fund, due early 2010.

1.3 Structure of this Report

The remainder of this Report is structured as follows:

- Section 2 describes the objectives, activities and functioning of the Fund by way of background information;
- Section 3 outlines the evolution of the external financing operations covered by the Fund, thus setting the context for the approach to this evaluation;
- Section 4 details the method of approach to the evaluation;
- Section 5 presents the evaluation findings; and,
- Section 6 provides a series of recommendations on potential improvements to the design and functioning of the Fund.

The main report is supported by two annexes:

- Annex 1 provides a list of the documents reviewed and datasets utilised for this evaluation;
- Annex 2 lists the Commission and EIB officials interviewed for this evaluation; and,
- Annex 3 contains the Terms of Reference for the evaluation.

In addition, a separate document titled 'Technical Report' contains further technical information on the quantitative techniques used in this evaluation.

2 THE GUARANTEE FUND FOR EXTERNAL ACTIONS

This section of the Report describes the objectives, activities and functioning of the Guarantee Fund in order to serve as background information for the evaluation.

2.1 Objectives of the Guarantee Fund

The Guarantee Fund **covers the credit risks** related to loans (and guarantees covering loans) granted to third countries by the EU. The main objective of the Guarantee Fund is to provide a **'liquidity cushion'** – the resources of the Fund are used to repay the Community's creditors in the event of default by the beneficiary of a loan granted or guaranteed by the EU; thus avoiding the need to call on the EU budget every time a default or late payment on a guaranteed loan occurs. The Guarantee Fund also provides **budgetary discipline** by acting as a constraint on the amount of external lending and guaranteeing. The budgetary resources, target rate, and the experienced level of default combine to determine the maximum level of external lending[6].

2.2 Activities of the Guarantee Fund

The Fund covers three types of lending operations related to the three instruments benefiting from EU budget guarantees. These are:

a) EIB external lending i.e. loans to projects in non-Member States (section 2.2.1);

b) Euratom external lending (section 2.2.2); and,

c) Macro-Financial Assistance (MFA) loans to non-Member States (section 2.2.3).

The Euratom loans and MFA loans are managed by the Commission. The Commission raises the corresponding funds from the capital markets, either by issuing securities under the Euro Medium Term Notes programme, or through a promissory note; and on-lends the proceeds[7] on a 'back-to-back' basis (i.e. same terms), in the case of MFA, to third countries' Central Banks; or in the case of Euratom loans, to utility companies. The same goes for the EIB, which raises substantial volumes of funds from the capital markets which it lends on favourable terms to projects furthering EU policy objectives in third countries.

As mentioned earlier (in section 1.1), the Fund has to be maintained at 9 per cent ('target rate'), of the EU's total outstanding capital liabilities arising from each operation increased by unpaid interest due. It is endowed by:

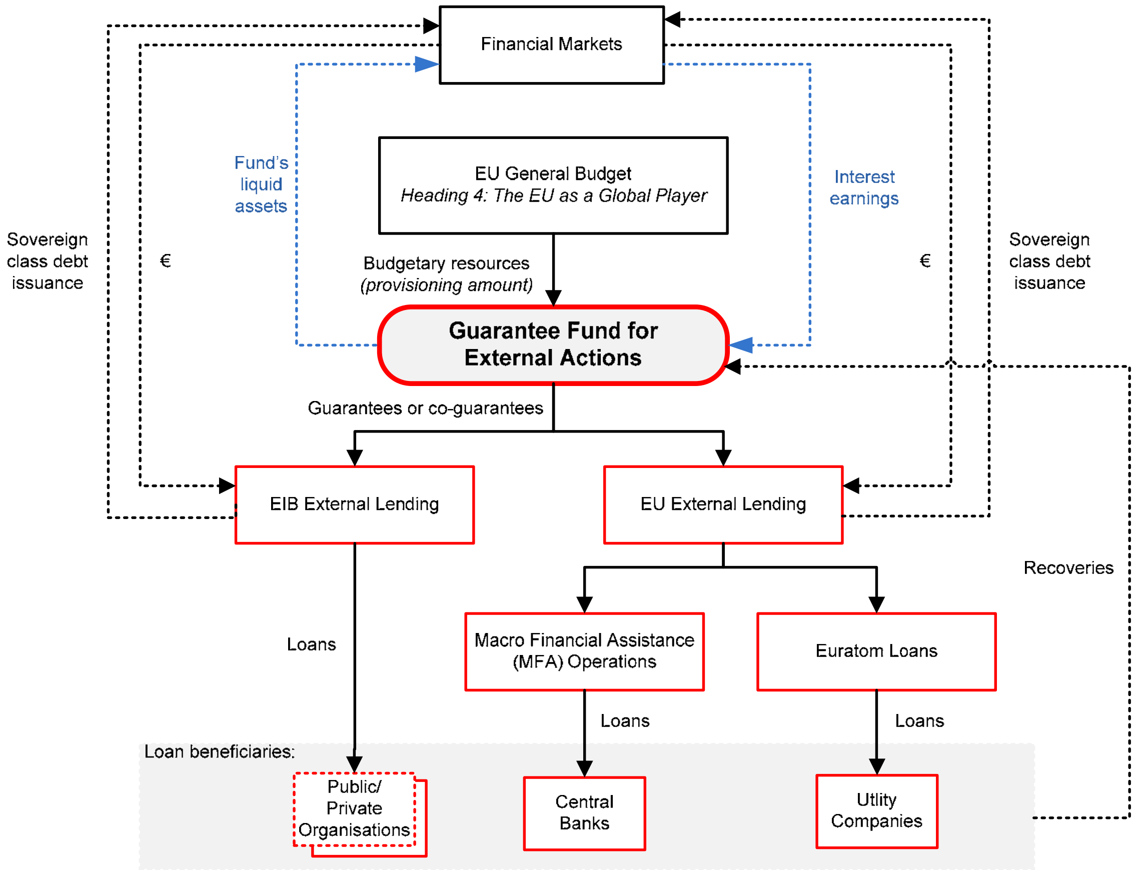
- One annual payment from the general budget of the EU;
- The interest on Fund's resources invested in the financial markets;
- The amounts recovered from defaulting debtors where the Fund has already honoured the guarantee.

[6] As stated earlier, the annual budgetary resources available for the provisioning of the Fund are EUR 200 million. The provisioning amount (the difference between the target amount and the actual value of the Fund's assets) is thus capped by available budgetary resources.

[7] After deduction of costs directly related to the preparation of the loan and its financing (essentially, legal expenses, fees and bank and stock exchange charges), but without any mark-up.

Figure 2.1, provides a general overview of the activities of the Guarantee Fund; before describing them in more detail in subsequent sub-sections.

Figure 2.1 Overview of the Activities of the Guarantee Fund



Source: GHK Consulting

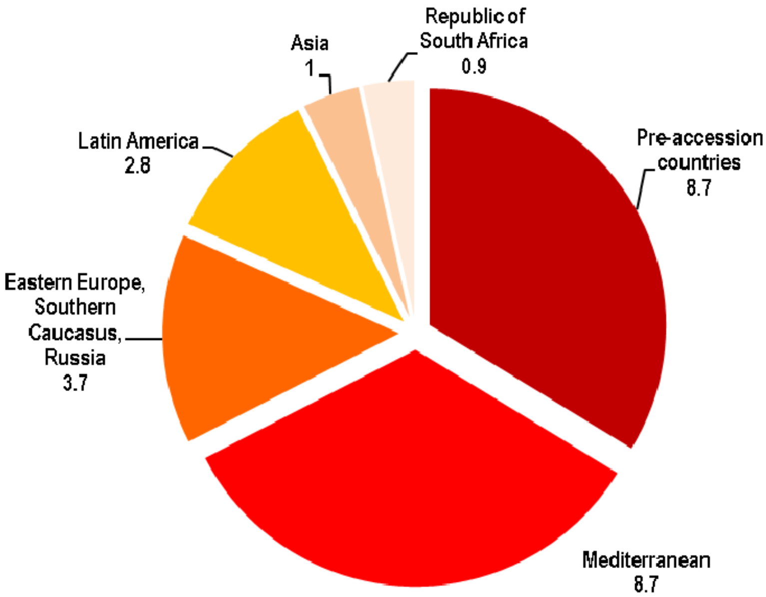
The lending operations covered by the Guarantee Fund are briefly explained below.

2.2.1 EIB External Lending

The Commission and the EIB are privileged partners in providing financing in support of EU policy objectives. The EIB has been lending outside the EU since 1963, complementing the Commission's political and financial initiatives for third countries. In December 2006, the European Council approved a new EIB External Lending Mandate (ELM) for 2007-2013[8]. The 2006 Council Decision foresees a ceiling of EUR 25.8 billion of financing being made available over the period 2007-2013, broken down by region as follows:

[8] Council Decision (2006/1016/EC) of 19 December 2006 granting a Community guarantee to the European Investment Bank against losses under loans and loan guarantees for projects outside the Community:
(http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:414:0095:0103:EN:PDF), replaced by Decision 2009/633/EC of the European Parliament and the Council:
(http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:190:0001:0010:EN:PDF).

Figure 2.2 EIB External Lending Mandate for 2007 - 2013: Regional ceilings (EUR billions)



Source: Council Decision (2006/1016/EC) of 19 December 2006, replaced by replaced by Decision 2009/633/EC of the European Parliament and the Council.

The mandate currently covers 59 countries and/or territories in the above regions. According to data provided by the Commission, the total guaranteed sum was EUR 9.2 billion in June 2009 - with a further EUR 8 billion guaranteed on sums not yet disbursed - under the 2007-2013 mandate

The EIB finances a broad range of projects in energy, infrastructure and industrial sectors in these countries. Table 2.1 overleaf, provides examples of projects funded by the EIB under the current ELM.

Table 2.1 Selected Projects Financed by the EIB under the External Lending Mandate for 2007 - 2013

Project Title	Description	Beneficiary	Signature Date	EIB Finance	Total Project Cost
Syrian Cement Company	The project concerns the construction and operation of an integrated cement plant with a capacity of 7,500 ton per day of clinker, equivalent to some 2.6 Mt of cement per annum. The project will primarily cater to the domestic market which is currently in deficit. By facilitating local cement production this project is expected to reinforce Syria's capacity for self-sustaining development, increasing the local value added while replacing the present high level of more expensive cement imports.	Locally incorporated company that is majority-owned by a European cement producer, **Syria**	28/09/2009	Up to USD 170 million	Estimated at appx USD 680 million
Volkswagen India	The project comprises the investment in a new passenger car manufacturing facility in Pune (Maharashtra) for the production of 110 000 units per year of three small, advanced car models, customised for the local market. The investment thereby contributes to foreign direct investment in India and strengthens the presence of EU manufacturing companies in the region. Furthermore, it will contribute to the introduction of modern, fuel-efficient powertrain technology to India, enabling VW to comply with the gradual tightening of GHG emissions legislation in India.	Volkswagen India Private Limited, **India**	15/09/2009	EUR 100 million	EUR 580 million
Vietnam Climate Change Framework Loan	Framework Loan, mainly to support investments in renewable energy and energy efficiency; it could also be used to finance projects that support the EU presence in Vietnam through Foreign Direct Investment, transfer of technology and know-how from Europe.	Ministry of Finance, **The Socialist Republic of Vietnam**	26/05/2009	Up to EUR 100 million	N/A
Municipal Infrastructure Loan	The project concerns the financing of different multi-sector investment schemes mainly in the fields of transport and local/regional roads, education, cultural and historical heritage and public buildings rehabilitation	**Republic of Serbia**	12/12/2008	EUR 50 million	N/A

Project Title	Description	Beneficiary	Signature Date	EIB Finance	Total Project Cost
Istanbul Urban Transport II	The project consists of the construction of a new, 17 km long metro line on the Anatolian side of Istanbul and the extension of another one, 8 km in length, on the European side of the Metropolitan area.	Metropolitan Municipality of Istanbul, **Turkey**	11/04/2008	Appx EUR 500 million to 700 million	Up to EUR 1,550 million
Panama City and Bay Sanitation Project	The project addresses the improvement of sanitary and environmental conditions in Panama City through the construction of wastewater collectors, a wastewater interceptor and a Wastewater Treatment Plant (WWTP).	Ministry of Health, **Panama**	21/12/2007	Up to EUR 35 million	EUR 210 million
SME Reconstruction Facility	The facility consists of an Apex Global Loan open to Lebanese Banks selected by EIB and aimed at co-financing private sector investment in support of SMEs affected by the conflict.	Banque du Liban, **Lebanon**	29/11/2007	EUR 100 million	Estimated at least at EUR 200 million

Source: EIB Projects database (http://www.eib.org/projects/loans/sectors/index.htm

The key characteristics of EIB's external lending are:

- EIB provides loans on attractive terms to borrowers. This is because EIB with its 'AAA' credit rating can borrow from the financial markets on favourable terms; and when it on-lends, it operates on a non-profit basis i.e. it lends at close to the cost of borrowing charging only its cost of funding, an administrative mark-up and, where appropriate, a risk premium. In case of operations covered by a comprehensive EC guarantee, no risk premium is charged to the borrowers. Besides, another financial benefit provided by the EIB is the possibility to lend at long maturities.

- To be eligible, projects have to contribute to EU economic policy objectives.

- Conditionality rules are applicable to EIB lending – for example, conditions relating to environment, public procurement, transparency, visibility of EU actions etc. are applicable to loan beneficiaries.

Three types of loans are granted by the EIB:

- **Loans under the Risk Sharing scheme**: EIB assumes the commercial risk, and the Community budget only the political risk;

- **Loans without risk sharing but with a third-party guarantee of a public authority** : due to the sovereign nature of the guarantee, the residual risk for the Community budget is limited to the political risk;

- **Loans without risk sharing but with a third-party guarantee of a private entity (financial institution, enterprises etc.):** in these cases, the Community budget is also exposed to the commercial risk as it cannot be assumed that the private guarantor will always honour its guarantee.

The Fund only covers the sovereign risk for lending to the public sector and mainly the political risk for lending to the private sector; commercial risk is only covered by the Guarantee Fund for a limited number of operations under the former Mandates.

2.2.2 Euratom External Lending

The Euratom loan facility gives long-term loans to finance projects for improving nuclear safety in certain non-Member States (Russian Federation, Armenia, Ukraine), including the dismantling of nuclear power stations that cannot be upgraded. In the last few years Euroatom loans have been extended to one non-Member State, Ukraine. Unless a EUR 4 billion ceiling on total Euratom lending will be increased (as proposed by the Commission in 2002) there is quite limited scope for extending sizeable loans to other non-Member States using this instrument[9].

The current outstanding value of the Euratom loan guaranteed by the Fund is EUR 49 million[10] (as of 30.06.2009). This relates to the loan granted to ENERGOATOM which is the National Nuclear Energy Generating Company of Ukraine[11].

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[9] So far, Euratom loans of EUR 3.4 billion have been granted; EUR 600 million is available to lend

[10] A part of the Energoatom loan was signed in US Dollars. The outstanding value of the guaranteed loan is as follows: EUR 35 100 000 plus USD 20 842 105. The USD element of the loan has been converted into euros using as exchange rate of 1 EUR = 1.4785 (source: ECB exchange rate statistics). Thus the value of the outstanding loans in EUR is 49 196 790.

2.2.3 Macro-Financial Assistance

Macro Financial Assistance (MFA) is an EU financial instrument enabling untied and undesignated balance-of-payments (BoP) support to EU enlargement and neighbouring third countries. MFA is implemented in association with support programmes from the International Monetary Fund (IMF) and the World Bank (WB). MFA takes the form of medium to long term loans (10 to 15 years) and/ or grants. Normally, the funds are paid to the Central Bank of the beneficiary country, but their final destination (for example, build up of foreign reserves, foreign exchange market interventions or government spending) is left to be decided by the national authorities in agreement with the IMF. The loan element of the MFA is covered by the Fund.

The current value of outstanding MFA loans to third countries is EUR 536 million (Table 2.2). Although MFA disbursements have until recently followed a declining trend, the current economic crisis has led to resurgence in the demand for MFAs. It is understood that the Commission is currently undertaking the preparatory work for a number of new MFA operations.

Table 2.2 Outstanding Value of MFA Loans to Third Countries, as of 30.06.09

Country	Outstanding Value of Guaranteed Loan (EUR)
Albania	9,000,000
Bosnia and Herzegovina	40,000,000
Federal Yugoslav Republic of Macedonia	82,000,000
Georgia	57,500,000
Lebanon	25,000,000
Serbia and Montenegro	280,000,000
Tajikistan	28,000,000
Ukraine	14,500,000
Total	**536,000,000**

Source: DG Economic and Financial Affairs

2.3 Functioning of the Guarantee Fund

2.3.1 Payments from or to the General Budget

As mentioned in Section 2.2, the Fund is endowed by:

- One annual payment from the general budget of the EU;
- The interest on Fund resources invested on the financial markets;
- The amounts recovered from defaulting debtors where the Fund has already honoured the guarantee.

[11] This does not include the Kozloduy and Nucleletr (Cernavodă) loans which are EUR 207 and 224 million respectively and are part of the Euratom programme. However these loans relate to EU member States and therefore are not covered by the fund.

A. Payments from the General Budget

The payments from the EU general budget is provided through two procedures:

- Provisioning mechanism
- Smoothing mechanism

These are briefly explained below:

The provisioning mechanism

The provisioning rate was initially set at 14 percent to build-up the Fund to reach the target amount of 10 percent (of guaranteed liabilities). At the time, the 14 percent was not a measure of the credit-risk associated with the lending covered by the Fund; rather the purpose of setting the provisioning rate at 14 percent was to help build-up the Fund. During the start-up phase it was essential to ensure that the Fund grew as rapidly as possible to a size commensurate with the risks to be covered. Such expansion was also necessary because the Fund had to cover the risks associated with loans granted before the date of its entry into force.

Historically, the amounts paid into the Fund were obtained by applying the rate of provisioning (14 percent) to the amount of each operation decided and forecasted operations to be signed. Pursuant to Articles 2 and 4 of 1994 Regulation establishing the Fund, the Fund was endowed by payments from the general budget equivalent to 14 percent of the capital value of the operations until it reached the target amount. As this had been reached at 31 December 1997, the Commission, in accordance with the Regulation, submitted proposals to review the rate of provisioning. These proposals appear in the comprehensive report on the functioning of the Fund which the Commission drew up in accordance with Article 3 of the Regulation (COM(1998) 168 final of 18 March 1998). Based on these proposals, the Regulation was amended by Council Regulation (EC, Euratom) No 1149/1999 of 25 May 1999 under which the provisioning rate for the Fund and the target amount was fixed at 9 percent from 1 January 2000. The provisioning amount is based on the year-end n – 1 difference between the target amount and the value of the Fund’s net assets, calculated at the beginning of the year. This amount is paid into the Fund in one transaction in the year n + 1 (article 5 of Regulation No 480/2009). There is a budget line for the provisioning of the Guarantee Fund under Heading 4 of the General Budget. In the financial perspectives for the period 2007 – 2013, EUR 200 million has been budgeted on an annual basis for the provisioning of the Fund. This amount was determined on the basis of past experience, Commission calculations (based on post observed growth rates of the outstanding amounts and the occurrence of default induced losses plus projected lending under MFA, Euratom and EIB External Lending Mandate) and negotiations.

Table 2.3 overleaf, shows the budget transfers to and from the Fund for the period 1994 to 2010.

Table 2.3: Amounts Transferred from the Budget to the Fund, EUR million

Year	1) Amount transferred from the budget to the Fund	2) Surplus Amount transfer from Fund to the budget	Netting 1- 2
1994	294	0	294
1995	251	0	251
1996	235	0	235
1997	286	0	286
1998	272	66	206
1999	300	298	2
2000	186	108	78
2001	207	165	42
2002	167	372	-206
2003	152	263	-112
2004	182	223	-41
2005 [a)]	140	526	-386
2006	128	93	35
2007 [b) c)]	0	260	-260
2008	0	126	-126
2009	92	0	92
2010	94	0	94
Totals	2,986	2,500	484

Source: DG BUDGET
a) including an amount of EUR 338.8 million due to the accession of the 10 countries to the EU.

b) this amount resulted of the accession of Bulgaria and Romania to the EU.

c) New provisioning mechanism

The smoothing mechanism

The smoothing mechanism operates as follows:

- If as a result of one or more defaults, the activation of guarantees during year n - 1 exceeds EUR 100 million, the amount exceeding EUR 100 million is paid back into the Fund in annual tranches starting in year n + 1 and continuing over the following years until full repayment. The size of the annual tranche has to be the lesser of EUR 100 million, or the remaining amount due (article 6 of Regulation No 480/2009).

- If, as a result of the activation of guarantees following one or more major defaults, resources in the Fund fall below 80 per cent of the target amount, the Commission informs the budgetary authority.

- If, as a result of the activation of guarantees following one or more major defaults, resources in the Fund fall below 70 per cent of the target amount, the

Commission must submit a report on exceptional measures that may be required to replenish the Fund.

B. Payments to the General Budget

The Fund has to make repayments into the EU general budget, in two circumstances:

- **In case of surplus**: on the basis of the year-end n – 1 difference between the target amount and the value of the Fund's net assets, calculated at the beginning of the year n, any surplus is paid in one transaction to a special heading in the general budget of the year n + 1 (article 3 of Regulation No 480/2009).

- **Following the accession of a new Member State to the EU**: in this case, the target amount is reduced by the amount of the financing operations carried out in that country[12] (article 4 of Regulation No 480/2009).

The calculations under these various mechanisms are made separately but together result in one annual transfer.

Box 2.1: Key Concepts

Target Rate = Ratio of Fund's resources to Guaranteed Liabilities = 9%

Target Amount (TA) = Target Rate X Outstanding Liabilities of the Fund

Outstanding Liabilities of the Fund = Value of loans and guaranteed loans outstanding including unpaid interest due

Net Assets of the Fund (NA_n)= Total Current Assets - EIB management and audit Fees + Transfer from the General Budget

If $TA_{n-1} > NA_n \rightarrow$ Transfer from General Budget into the Fund in year n+1

Provisioning Amount (PA_{n+1}) = $TA_{n-1} - NA_n$

If $TA_{n-1} < NA_n \rightarrow$ Transfer the surplus from the Fund to the General Budget

TA_{n-1} - value as of end of the year n-1

NA_n - value as of the beginning of the year n

PA_{n+1} - payment from the Budget at the beginning of year n+1

2.3.2 *Activation of Guarantees*

The process for activation of guarantees is as follows:

EIB External Lending:

- When an EIB borrower or its guarantor fails to make a payment on the due date, the EIB asks the EU to pay the amounts owed by the defaulting debtor in

[12] also paid in one transaction to a special heading in the general budget of the year n + 1

accordance with the respective guarantee contract. The recipient is allowed three months grace period.

- The amounts must be paid by the EU to the EIB within three months of receiving the EIB's request.

MFA/ Euratom Loans:

- If the recipient of the loan is late in making a repayment, the Commission must draw on its resources to repay the borrowing on the due date. The funds needed to pay the budget guarantee in the event of late payment by the recipient of a loan granted by the EU are raised as follows:

  – The amount required may be taken provisionally from cash resources (in accordance with Article 12 of Council Regulation No 1150/2000 of 22 May and implementing Decision 94/728/EC) so that the EU can immediately repay the borrowing on the date scheduled even in the event of late payment by the recipient of the loan;

  – If the delay extends to three months after the due date, the Commission draws on the Fund to cover the default;

  – In the unlikely event that there are insufficient resources in the Guarantee Fund, the Council Regulation No 1150/2000 envisages a transfer procedure to provide the budget with the appropriations needed to cover the default. Under this procedure any margin available in the budgetary reserve would be drawn on first.

3 EXPECTED EVOLUTION OF THE LENDING COVERED BY THE GUARANTEE FUND

The external lending of the EU is expected to ramp-up over the next ten years as new MFA operations are implemented and as EIB loans - under the current and a potential 2014 mandate (replicating the current mandate of EUR 25.8 billion) - are signed and disbursed. As a result, the Guarantee Fund is also set to increase in size.

This Section presents the forecasts for the external lending operations for the period 2009 to 2019; and thus sets the context for the method of approach to this evaluation.

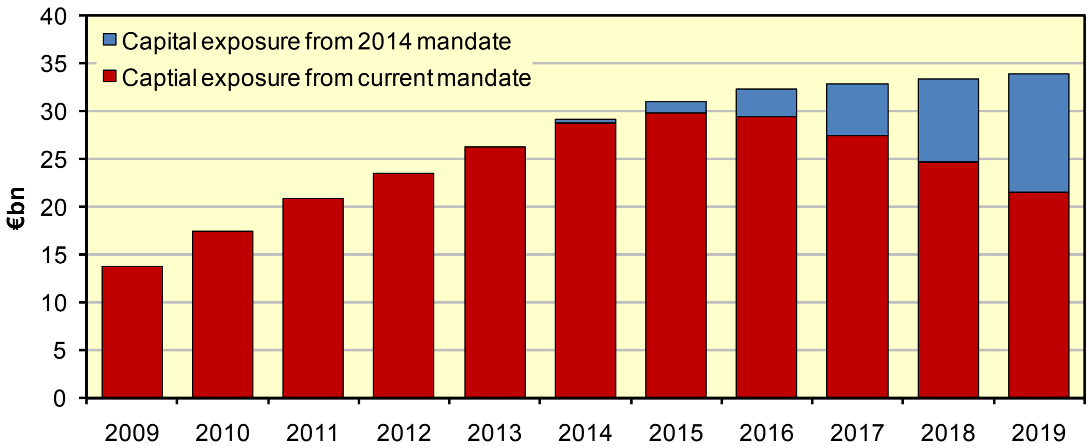
3.1 Forecast Capital Exposure

Figure 3.1 illustrates the forecast net capital exposure[13] of the Fund for the period 2009 to 2019. It is the sum of the net capital exposure resulting from:

- Signed MFA loans
- Unsigned MFA loans (estimates)
- Signed EIB lending
- Unsigned EIB lending (estimates)
- Euratom loans

The net capital exposure of the Fund is expected to increase by EUR 20 billion over a ten year period: from EUR 13.8 billion at the end of 2009 to EUR 33.8 billion by the end of 2019. The large increase comes mostly from unsigned EIB lending. A detailed breakdown of the exposure is shown in Table 3.1.

Figure 3.1 Forecast Net Capital Exposure of the Guarantee Fund, 2009 - 2019, EUR billions



Note: Data drawn from the both the EIB and the Treasury, Borrowing and Guarantee Fund Unit (Unit L5) of DG ECGIN was used to project the cash flows arising from capital disbursements and/or the repayments from borrowers.

[13] Net Capital Exposure = Loan disbursements – Repayment of capital and Interest

Table 3.1 Estimated Disbursements, Capital Repayments and Net Exposure by loan type (EUR millions)

		2009[1]	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	∆
Signed MFA loans	Disbursements	0	0	0	0	0	0	0	0	0	0	0	
	Capital Repayments	42	37	29	76	73	76	67	70	25	22	9	
	Net Capital Exposure	**495**	**458**	**429**	**353**	**280**	**204**	**137**	**67**	**42**	**19**	**11**	**-484**
Estimated Unsigned MFA loans	Disbursements	25	680	655	0	0	0	0	0	0	0	0	
	Capital Repayments	0	0	0	0	0	0	7	194	194	194	194	
	Net Capital Exposure	**25**	**705**	**1,360**	**1,360**	**1,360**	**1,360**	**1,353**	**1,159**	**964**	**770**	**576**	**551**
Signed EIB lending	Disbursements	0	3,475	2,355	1,561	785	255	0	0	0	0	0	
	Capital Repayments	466	1,004	1,053	1,273	1,373	1,411	1,686	1,432	1,770	1,274	1,203	
	Net Capital Exposure	**13,187**	**15,658**	**16,960**	**17,247**	**16,660**	**15,504**	**13,818**	**12,386**	**10,616**	**9,342**	**8,139**	**-5,048**
Estimated Unsigned EIB lending (current & potential 2014 mandate)[2]	Disbursements	25	514	1,512	2,456	3,393	4,094	3,750	3,458	3,348	3,337	3,574	
	Capital Repayments	0	0	0	0	0	0	25	482	883	1,262	1,719	
	Net Capital Exposure	**25**	**539**	**2,052**	**4,508**	**7,901**	**11,995**	**15,720**	**18,696**	**21,161**	**23,235**	**25,091**	**25,066**
Euratom loans	Disbursements	0	0	0	0	0	0	0	0	0	0	0	
	Capital Repayments	3	5	5	5	5	5	5	5	5	3	0	
	Net Capital Exposure	**47**	**41**	**36**	**30**	**25**	**19**	**14**	**8**	**3**	**0**	**0**	**-47**
	Total Net Exposure (EUR millions)	**13,778**	**17,401**	**20,836**	**23,498**	**26,225**	**29,081**	**31,042**	**32,315**	**32,786**	**33,367**	**33,816**	**20,038**
	Target Amount	**1,240**	**1,566**	**1,875**	**2,115**	**2,360**	**2,617**	**2,794**	**2,908**	**2,951**	**3,003**	**3,043**	**1,240**
	∆ Target Amount		**326**	**309**	**240**	**245**	**257**	**176**	**115**	**42**	**52**	**40**	

[1] This is from 30.6.09 to the end of the calendar year

[2] Assuming status quo (EUR 25.8 billion)

The projections for disbursements, repayments and exposure for signed disbursed lending in Table 3.1 were predominantly estimated as the cash flow totals of data provided directly by the Commission (Unit L5, DG ECFIN). In some cases (for the signed lending), the payment and amortization plan had not yet been determined. In these cases, the same assumptions as for signed undisbursed lending were made.

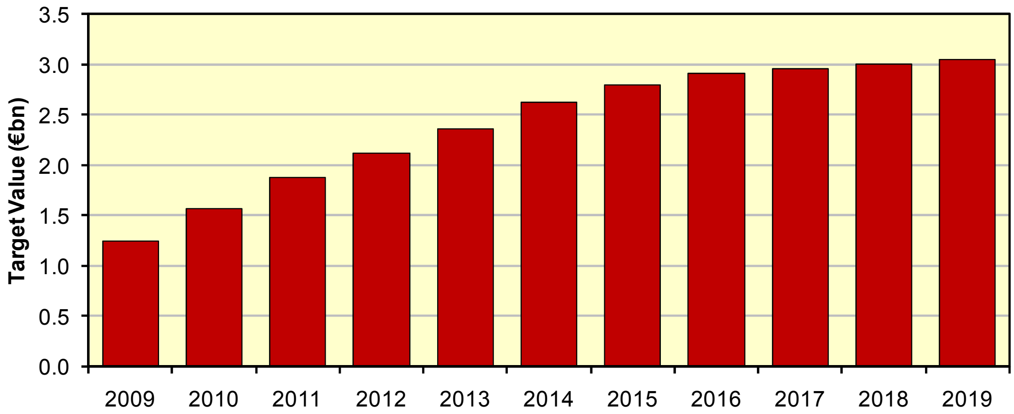
The assumptions made for payments and amortizations for signed undisbursed lending and unsigned lending are somewhat lengthy, and so the full description is left for the Technical Report. However, a high level, but incomplete summary of the assumptions made is presented below:

- Signed undisbursed lending was assumed to be disbursed in equal parts, starting in 2010 until the disbursement limit for each particular loan. Borrowers are assumed to take full advantage of any grace period available, during which interest payments are made, but capital payments are not. After the grace period the capital is assumed to be paid in equal tranches on an annual basis until the loan term.
- Estimates of total unsigned lending under the 2007-2013 mandate were provided by the Commission. This data is provided on a world geographic region basis. It is assumed that this lending is disaggregated to a country basis with loan amounts distributed in proportion to the current mandate.
- For the disbursement and amortization of unsigned lending, the approach is same as that followed by the Commission. Unsigned MFA loans are disbursed in two equal amounts, one in the signature year and one the year after. These loans are assumed to have a five year grace period and a subsequent seven year amortization, again on an annual straight line basis. EIB loans are disbursed in five tranches, starting in the year of signing, in the following proportions: 10:23:24:23:20. These loans are assumed to have a two year grace period and a ten year amortization, again on an annual straight line basis.
- In order that the later years of the modelling best represent the most likely mandated lending scenario, it is also assumed that there is a further mandate in 2014. In the absence of any data to support the lending made in this mandate, it is assumed that the disbursement profile is a repeat of the 2007-2013 mandate.

3.2 Forecast Target Amount

The increased capital exposure will result in a corresponding rise in the target amount (Figure 3.2).

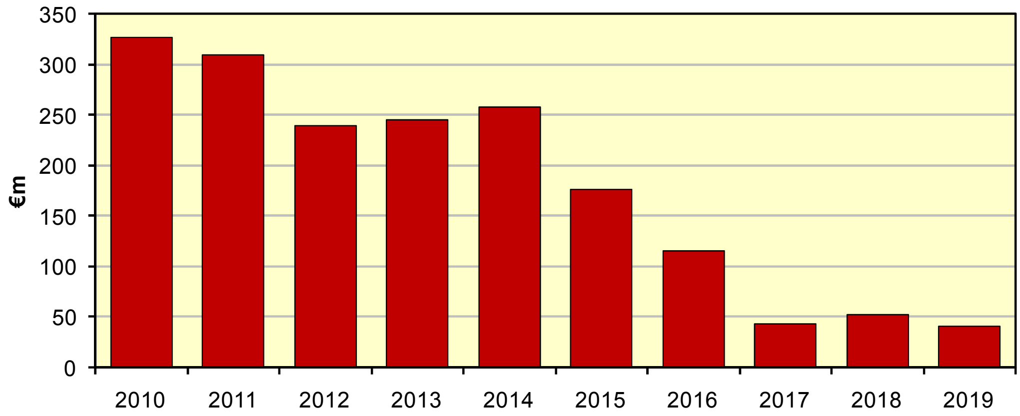
Figure 3.2 Estimated Target Amount for the Guarantee Fund, 2009 – 2019, EUR billion



Source: Volterra's calculations; the target amount is the target rate multiplied by the outstanding liabilities of the Fund

Figure 3.3 shows the estimated annual growth of the target amount. The annual incremental change in target amount over the years 2010 to 2014 is in the range of EUR 240 million to EUR 330 million. The target amount continues to rise over the period 2015 to 2019, albeit at a slower pace. By implication, the expected average annual provisioning of the Fund would be higher than EUR 250 million between 2010 and 2014 (under the assumption that net asset value remains constant over the period). However, in the financial perspectives for the period 2007 – 2013, EUR 200 million has been budgeted on an annual basis for the provisioning of the Fund. It may be prudent therefore to increase the annual budget allocation to between EUR 250-300 million (depending on what assumption is made about offsetting against net asset value increases - if the Fund value goes up, then the amount that will be required to put into the Fund will be lower; and vice versa).

Figure 3.3 Estimated Annual Growth of the Target Amount, EUR million, 2010-2019



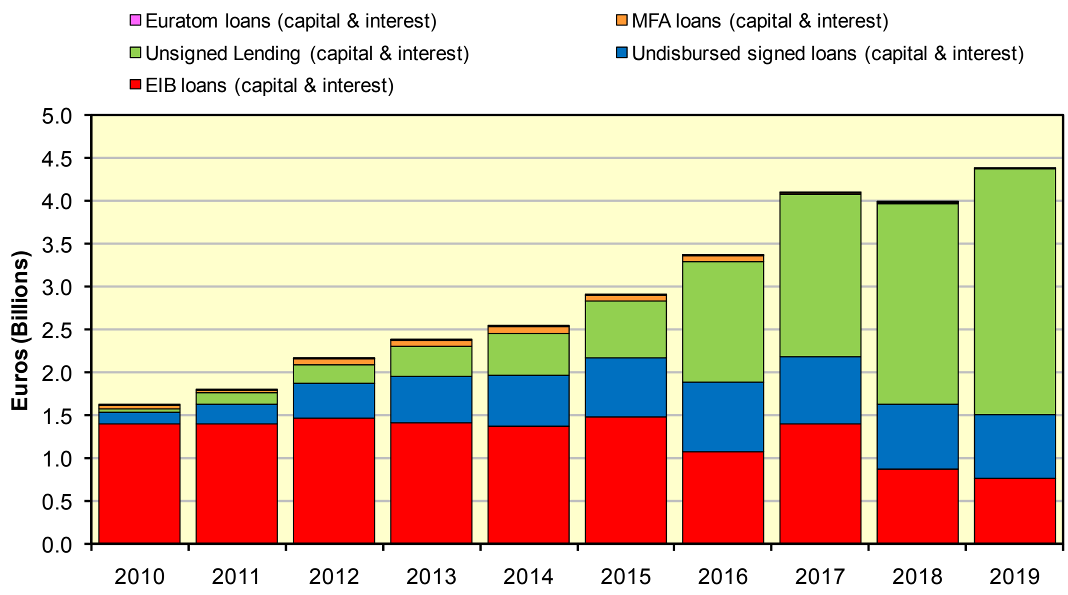
Source: Volterra's calculations

3.3 Forecast Repayments

As a result of the increase in lending volumes, the associated annual repayments (i.e. repayment of capital and interest by the borrower) will also rise. Over the next ten years, the repayments to the EU/EIB are forecast to rise from a little over EUR 1.5 billion to nearly EUR 4.5 billion. This represents a significant increase in the level of credit risk to the EU.

Figure 3.4 shows the total value of these repayments disaggregated by loan type.

Figure 3.4 Forecast Repayments against EU External Lending, 2010 – 2019, EUR billions



Source: Volterra's calculations

4 METHOD OF APPROACH

This Section of the Report describes the method of approach used to address the aims and objectives of the evaluation. It first outlines the evaluation questions set out in the Terms of Reference; followed by a description of the key research tasks undertaken to address these questions including an overview of the approach to quantitative modelling.

4.1 Evaluation Questions

The Terms of Reference for the study sets out the following specific evaluation questions:

Relevance:

1. To what extent are the Guarantee Fund's objectives pertinent to the needs, problems and issues it was designed to address?

2. Assessment of the parameters of the Fund: the Fund's target rate (currently 9 per cent): what is the right level of the target rate taking into account the risk profile of the Fund?

Effectiveness

3. How far do the management methods and their implementation ensure a high standard of service and how can they be improved?

4. In the application of the Fund Regulation, the assets of the Fund are managed by the EIB. The issue of whether the EIB or the Commission services should manage the assets was raised in 2003 by the European Parliament (CoCoBu) in relation to the 2002 discharge procedure and at several occasions by the European Court of Auditors (ECA). Is the present division of tasks effective?

Efficiency

5. To what extent are the desired effects achieved at a reasonable cost? To what extent have the human resources (in terms of quantity and quality) and financial resources been appropriate for an efficient application of the management methods chosen for the Fund?

6. The functioning of the Fund:

    a. The provisioning mechanism: what is the experience gained with the ex post provisioning mechanism, in particular with regard to the functioning of the budgetary process and discipline? And does this mechanism take into account (sufficiently well) the risk profile of the Fund?

    b. The budgetary resources foreseen for the Fund: within the limit of the relevant budgetary ceiling, are the budgetary resources for the Fund appropriate, in particular, in the light of the evolution of the external financing covered by the Fund?

4.2 Evaluation Approach

The overall approach to the evaluation is summarised in Figure 4.1.

Figure 4.1 Overview of Evaluation Approach and Work Programme

4.2.1 Task 0: Inception and Scoping

This task laid the groundwork for primary and secondary data collection; and subsequent analysis. The activity included a scoping review of the Guarantee Fund documentation and datasets; and first interviews with Commission officials involved in the management of the Fund. Upon completion of this work, a draft Inception Report was submitted to the Steering Group on 15th October 2009 and discussed at the Inception Meeting held on 21st October 2009. Following further feedback, a final version of the Inception Report was submitted on 31st October 2009 and accepted by the Commission. The Inception Report specified the work programme for the evaluation and described the data collection and analytical tools to be adopted to address each evaluation question. During this phase a number of separate briefing papers were submitted to the Commission. These briefing papers outlined the approach to the quantitative modelling techniques to be used to address evaluation questions two and six. The approach to quantitative analysis is further described in Section 4.3.

4.2.2 Task 1: Data Collection and Initial Analysis

This task involved a detailed review of documentary and evaluative evidence as follows:

- Desk Research and Analysis a desk top review of relevant documents was carried out to address evaluation issues such as relevance, efficiency and effectiveness. The datasets provided by the Commission were reviewed and cleaned-up; two quantitative models were constructed and populated with the cleaned-up datasets. See Annex 1 for a list of documentation and datasets used for this evaluation.

- Stakeholder Interviews - in-depth, exploratory interviews (mainly face to face) were carried out with relevant Commission officials and EIB staff members. These interviews provided information on the relevance, efficiency and effectiveness of the Guarantee Fund. Annex 2 provides a list of stakeholders consulted.

- Intermediate Report – an Intermediate Report was submitted to the Steering Group on 20th November 2009. It presented an update on study progress; an overview of the results of the preliminary analysis of the data collected through desk research and stakeholder consultations; and, tentative conclusions including first findings emerging from the quantitative analysis.

- Intermediate Meeting – given short timescales for this study, the Steering Group provided feedback on the Intermediate Report via email; and a follow-up conference call was held on 30th November to discuss the first results of the modelling exercise.

4.2.3 Task 2: Final Analysis and Reporting

A Draft Final Report was submitted on 11th December 2009. It contained an outline of the evaluation methodology; analysis and findings in relation to the evaluation questions; and, a preliminary set of conclusions. The Draft Report was discussed at a Steering Group meeting held on 13th January 2010. This Final Report takes into account the feedback provided by the Steering Group

4.3 Approach to Quantitative Modelling

Given the expected substantial increase in lending and the resulting increase in capital exposure of the Guarantee Fund (Section 3), a quantitative approach was necessary to evaluate:

- Whether the 9 per cent target rate is set at an appropriate level. There are two trigger points related to this target. These are whether the Fund falls below 80 and 70 per cent of the target amount implied by the target rate.

- Whether the smoothing mechanism fulfils its function of managing volatility in the EU budget, while allowing the target amount to be maintained.

To achieve these aims, this Study quantitatively assesses the potential one-year distribution of loss associated with guaranteed lending and the likelihood that the smoothing mechanism is activated or either of the two reporting triggers are breached (i.e. whether the Fund falls below 80 and 70 per cent of the target amount).

The following section briefly describes the inputs and components of the approach. Each of the parts is discussed in more detail in the Technical Report.

4.3.1 In-time Monte Carlo Simulation (Loss Simulation Model)

A Monte Carlo approach was adopted to statistically evaluate the likely calls to the Guarantee Fund and to assess the ability of the smoothing mechanism to cope with these calls.

The model was constructed as follows:

- Data from the both the EIB and the Treasury, Borrowing and Guarantee Fund Unit (Unit L5, DG ECFIN) was used to project the cash flows arising from capital disbursements and/or the repayments from borrowers.

- Data from credit rating agencies and again from the EIB was used to estimate probabilities that either single payments or complete loans default.

These two pieces of information fed into the loss simulation model, which stochastically generated annual losses for the period 2010-2019.

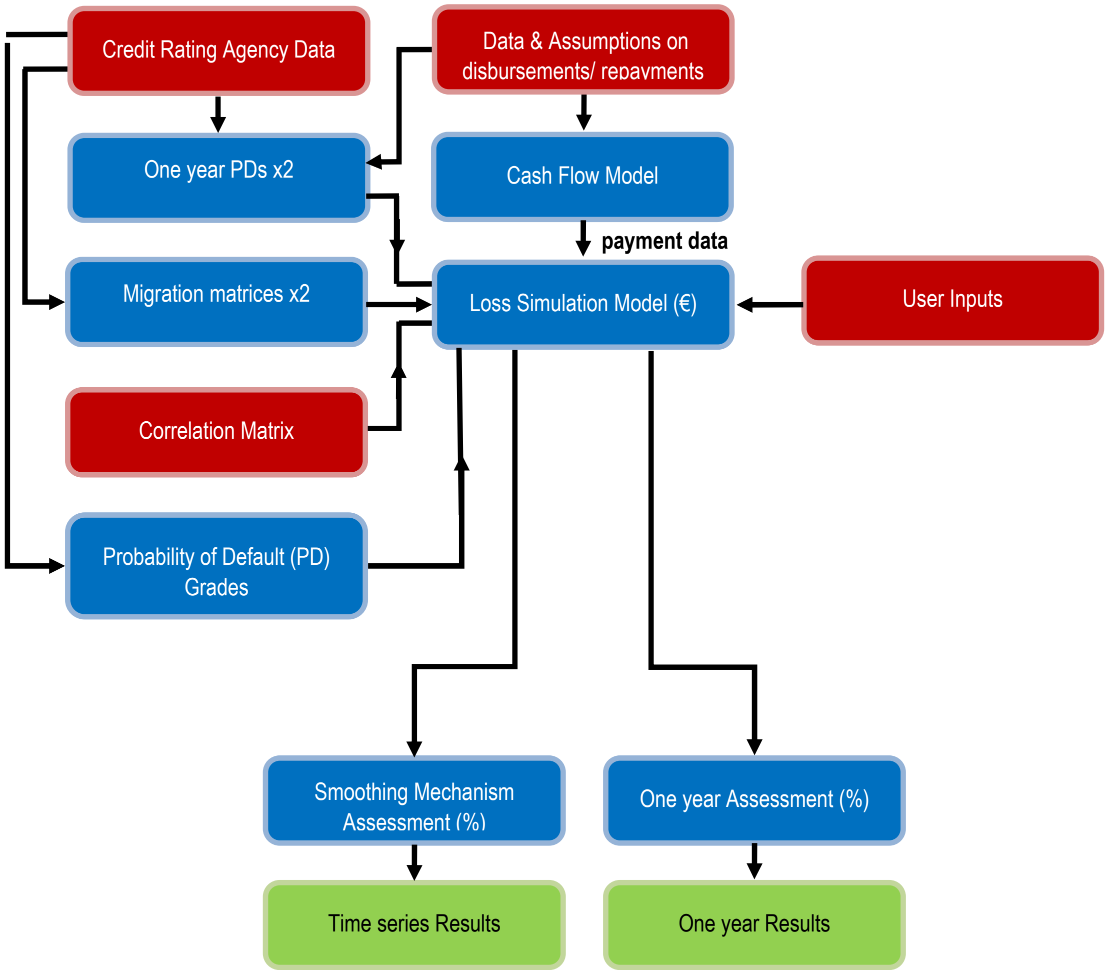
4.3.2 *Smoothing Mechanism Assessment*

A second model was constructed to calculate how the current operating mechanisms would be brought into effect as a result of the simulated losses. For example, the model estimates the likelihood that the smoothing mechanism is called upon or that the target amount falls below 80% of its required level.

Figure 4.2 shows a system map of the model. Again each of the parts is discussed in more detail in the Technical Report.

Figure 4.2 System Map of the Model

Note: Red blocks correspond to inputs, blue blocks are calculations or models and green blocks are the model outputs.



5 EVALUATION FINDINGS

This section of the report presents the findings of the evaluation of the Guarantee Fund; it is structured around the core evaluation issues (and related questions) as follows:

- Relevance
- Effectiveness; and
- Efficiency

5.1 Evaluation Findings: Relevance

5.1.1 To what extent are the Guarantee Fund's objectives pertinent to the needs, problems and issues it was designed to address?

The main objective (and the main function) of the Guarantee Fund is to shield the EU budget against shocks due to defaults on loans or guaranteed loans covered by the Fund. In order to appreciate the relevance of the Fund, it is important to consider what would happen in the absence of the Fund.

In the case of Euratom and MFA Loans, the EU borrows money from the financial markets and on-lends on a back to back basis. Internally within the Commission, a cash flow mechanism has been put in place to ensure that the EU can honour its debt on time. On the due date of the payment of the borrowed sums (repayment of capital and interest), the EU makes available, from its internal cash resources, the funds necessary to meet its commitments[14].

In case the EU borrower pays on time, there is no impact on the EU General Budget. However, in case the borrower defaults (or does not pay on time), then the EU has to make the debt repayment from the General Budget. But, because the corresponding funds have not been received from the EU borrower on the due date, this creates a 'hole' in the General Budget. This 'hole' can either be filled by redeployment of funds between budget lines; or through recourse to Emergency Aid Reserve or the Flexibility instrument. The action that the EU could take to fill the gap (created by the default or late payment) is a function of two variables:

- The magnitude of the default; and,
- The headroom available under the budget heading 4 (which provides resources for the provisioning of the Fund).

There is limited flexibility within the EU budget to deal with unanticipated resource requirements. The flexibility within each budget heading (within the constraints of the budgetary ceiling for that particular heading) depends on available margins and political priorities. The margin[15] under the expenditure ceiling of Heading 4 is typically very low – it has changed over the years and according to latest estimates provided by DG BUDGET, it

[14] This mechanism is at present under review and could be replaced by a more efficient mechanism already used in the context of the Balance of Payments loans whereby the EU debtor is requested to pay the amount due into the paying agent's bank account seven days before the due date thus avoiding unnecessary transfers.

[15] Defined by the Commission as the difference between the expenditure ceiling of the Heading in a given year and the amounts budgeted/ programmed for the same year

is currently around EUR 153 million. In case sufficient funds cannot be negotiated from an existing budget line, the Commission would have to turn to Member States to make up any shortfall. These processes can be time-consuming and it would be cumbersome to make budgetary changes every time there was a default or late payment.

As regards EIB external lending, the Guarantee Fund covers in the main, the political risk associated with such lending. In order to allow the EIB to carry out external lending operations in support of the EU's political objectives without affecting its 'AAA' credit rating, it would require an EU budgetary cover for such operations. In absence of a Guarantee Fund, such cover would have to be provided by the General Budget (and resources would have to set aside in the General Budget for this purpose).

The EU needs to make provisions for the risk associated with its external lending operations. The Fund addresses this need - the resources of the Fund are used to repay EU's creditors in the event of default by the beneficiary of a loan granted or guaranteed by the EU; avoiding the need to call on the EU budget (or in extreme cases, the Member States) every time a default or late payment on a guaranteed loan occurs.

One could of course question whether there is the need to make provisions for what is essentially sovereign/ political risk on grounds that the occurrence of sovereign default is rare (see Box 5.1). Moreover, in the case of EU lending, borrowers would attach priority to repayment of EU/ EIB debt (as compared to monies owed to commercial banks) due to their multilateral status.

Box 5.1 Characteristics of Sovereign Default

The probability of sovereign default is generally regarded as low because of the following reasons:

- Countries have the ability to raise taxes and increase tariffs in order to raise the money to pay their debts;
- Countries have access to multilateral institutions such as the IMF; and,
- There is a high likelihood of sovereign debt bailouts by other countries to prevent outright default (although these are intensely political affairs).

Nonetheless, the possibility of sovereign default cannot be excluded. Defaults by Argentina in 2002 and former Yougoslavia in 1998 are just recent examples in the long history of sovereign debt defaults going back to the Spanish empire in the 1600s. Dubai's debt crisis highlighted sovereign default risks in November 2009. Global markets were temporarily rocked when Dubai World, the large conglomerate controlled by the Middle Eastern emirate, sought to delay debt payments.

A recent article published in the Financial Times[16] reinforces the importance of managing sovereign debt risk:

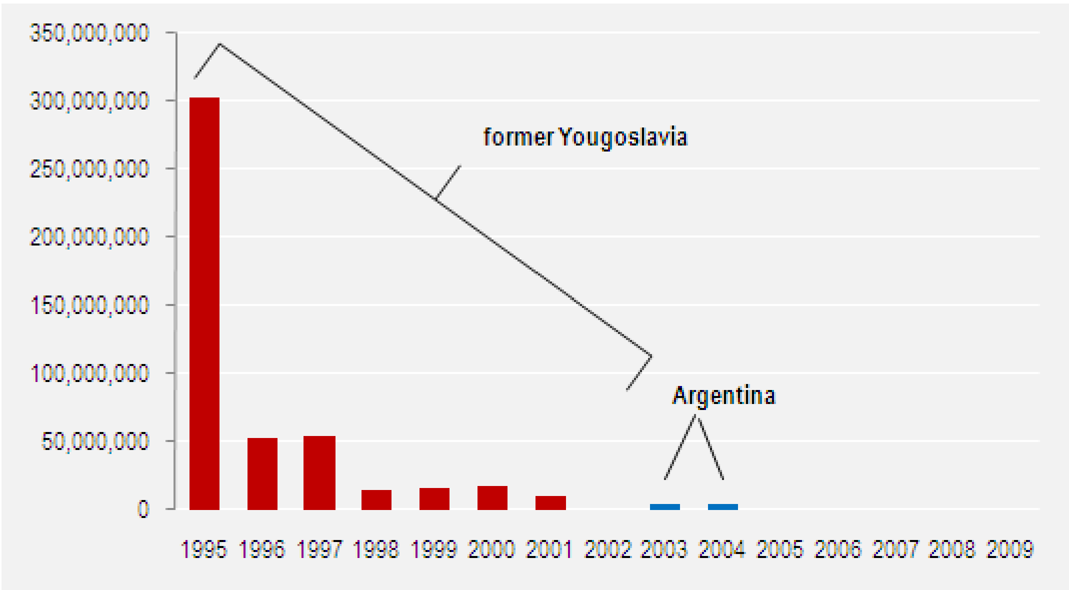
"Sovereign debt risk is emerging as an important concern for senior bankers, risk consultants and auditors following financial woes in Dubai and Greece.

[16] Concerns grow over sovereign debt risk By Rachel Sanderson and Gillian Tett. Financial Times. Published: December 27 2009

*After two years of worrying about mortgage and corporate risk, attention is now shifting to managing the risk of country defaults and bankruptcies of heavily indebted regional governments and city administrations, say bankers. Bankers at some large institutions are discussing whether they need to make provisions for sovereign risks in the same way they now set aside reserves to cover losses from corporate or emerging market risks". **(Financial Times, 2009)***

Indeed, since its beginning in 1994, calls for a total of EUR 477.86 million have been handled through the Fund, all concerning guarantees issued to the EIB for loans in the former Yugoslavia and Argentina. Figure 5.1 shows how the Fund has succeeded in absorbing the impact of calls on the guarantee (and thus prevented any disruption of budget implementation that would have occurred as a result of the defaults on payments due to the EU).

Figure 5.1 Defaults Covered by the Fund



Source: DG Economic and Financial Affairs

5.1.2 *Assessment of the parameters of the Fund: the Fund's target rate (currently 9 per cent): what is the right level of the target rate taking into account the risk profile of the Fund?*

Five scenarios were constructed for use in the loss simulation model in order to provide a range of potential outcomes from the simulation (as summarised in Table 5.1). These scenarios take account of how the impact of a default may affect the credit rating of the country concerned and other countries in the same geographic region.

The scenarios represent five different permutations and combinations of the following assumptions:

- Defaulters/ non-defaulters do not migrate i.e. there is no change in credit rating overtime.
- Non-defaulters migrate using a general migration matrix, generated using credit rating agency long run average one-year migration patterns.
- Defaulters migrate using a skewed migration matrix: In this case if a country defaults on an obligation then it will have a higher likelihood of migrating to a

lower grade and therefore increasing its corresponding default probability. In the absence of hard evidence, the standard migration matrix is stressed in a simple fashion. It is assumed that migration to a lower grade is twice as likely migration to a higher grade is half as likely.

- Non-defaulters migrate using the skewed migration matrix: This can happen when a defaulting country is correlated with the non-defaulting country, and the increased risk is assumed to transfer between the two countries following the default event.

Further detail on these scenarios is provided in the Technical Report;

Table 5.1 Five Scenarios Constructed in the Loss Simulation Model

	Defaulters	Non-defaulters
Scenario 1	Do not migrate	Do not migrate
Scenario 2	Migrate using skewed migration matrix	Do not migrate
Scenario 3	Migrate using skewed migration matrix	Migrate using general migration matrix
Scenario 4	Migrate using skewed migration matrix	Countries correlated with defaulting countries migrate using skewed migration matrix. Countries that are not correlated with defaulters countries do not migrate.
Scenario 5	Migrate using skewed migration matrix	Countries correlated with defaulting countries migrate using skewed migration matrix. Countries that are not correlated with defaulters migrate using general matrix.

Each of these scenarios was run in one of four configurations:

- Using the default probabilities derived from credit rating agency data and losses on a non-accelerated basis (so only a single obligation on a defaulted loan is missed);

- Using the default probabilities derived from credit rating agency data and losses on an accelerated basis (so all obligations relating to a defaulted loan are missed);

- Using the default probabilities derived from EIB credit spread calculations and losses on a non-accelerated basis (so only a single obligation on a defaulted loan is missed); and,

- Using the default probabilities derived from EIB credit spread calculations and losses on an accelerated basis (so all obligations relating to a defaulted loan are missed).

Modelling Results:

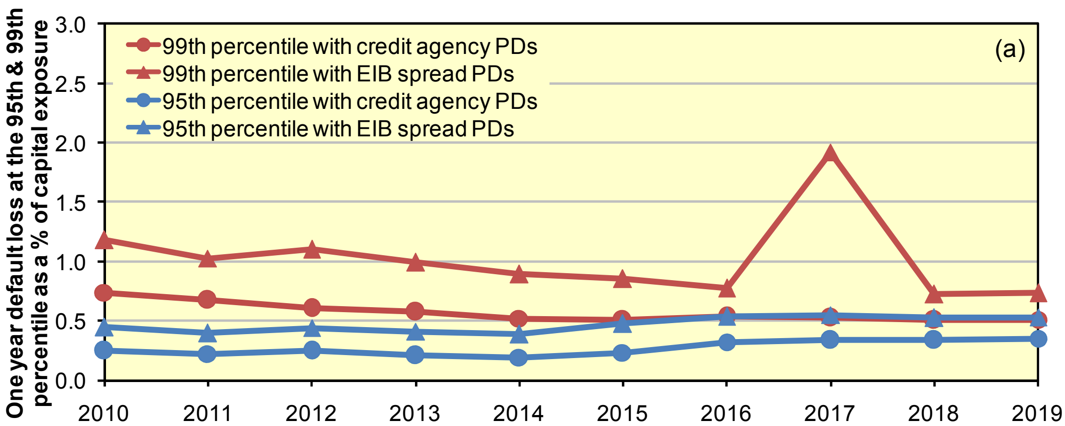
The results for scenarios 1 to 4 are shown in Figure 5.2, using both credit rating agency and EIB spread based default probabilities. Losses are calculated on a non-accelerated basis, where a country fails to meet only a single year's obligation of a loan that defaults. For each year of the simulation, the model calculates the 95th and 99th percentile of the loss distribution as a ratio of the expected capital exposure of the Fund. This represents a one in twenty and a one in a hundred year event respectively.

Figure 5.2 shows that:

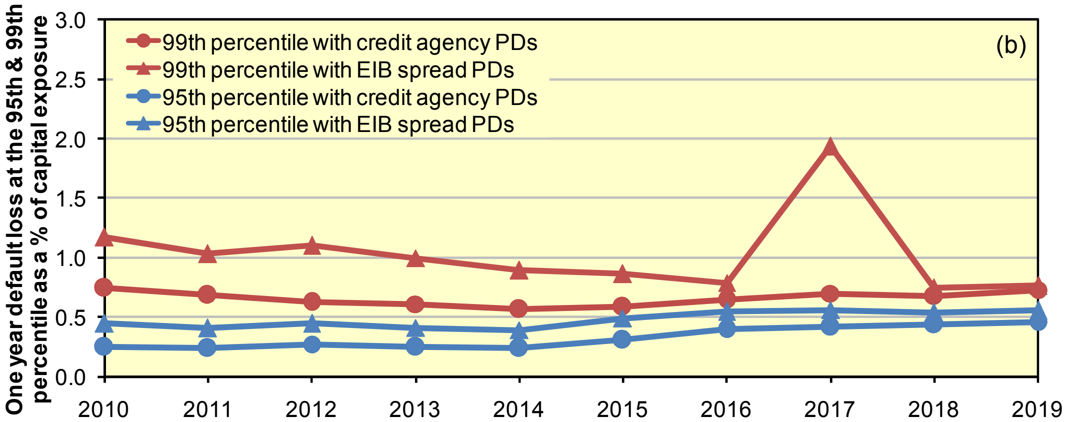
- Under scenario 1, it is estimated that a one in twenty year call on the Fund would be 0.25 per cent to 0.50 per cent of the Fund's capital exposure. A one in a hundred year scenario would be a loss of 0.50 per cent to 2.0 per cent. This second range is particularly sensitive to a large repayment of over half a billion Euros from Turkey in 2017. This repayment almost doubles our upper estimate of a one in a hundred year loss.
- Scenario 4 is again non-accelerated, but with the potential for migration to occur, and a default can cause contagion to countries in the same geographic region as well as the potential downgrade of the defaulter. Under these conditions, the modelling results show that a one in twenty year call on the Fund would be 0.25 per cent to 1.00 per cent of the Fund's capital exposure. A one in a hundred year scenario would be a loss of 0.75 per cent to 2.5 per cent.
- Scenarios 1 to 4 increase in severity of impact in that order. As expected therefore, the scale of expected loss from scenarios 2 and 3 lie in the range set by scenarios 1 and 4.

Figure 5.2 95th and 99th Percentile Default Losses as a Percentage of the Fund's Capital Exposure (Non-accelerated basis), 2010 - 2019

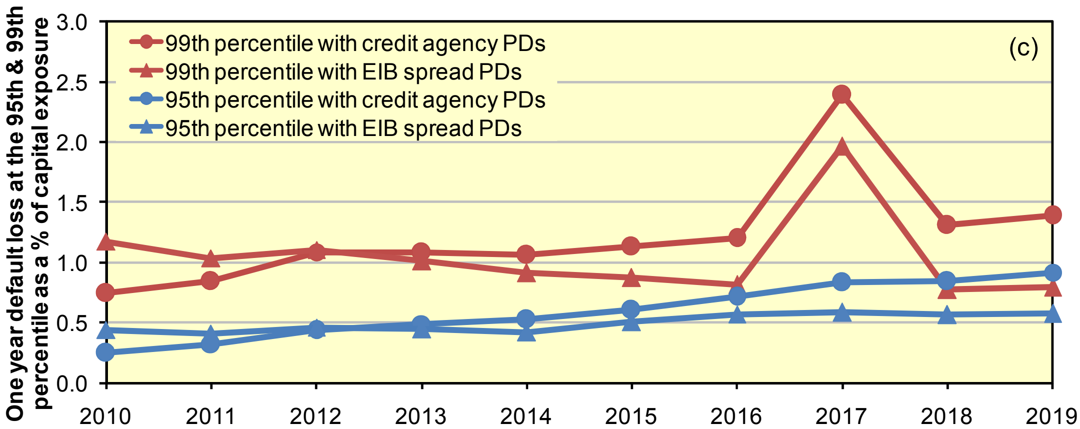
(a) Scenario 1



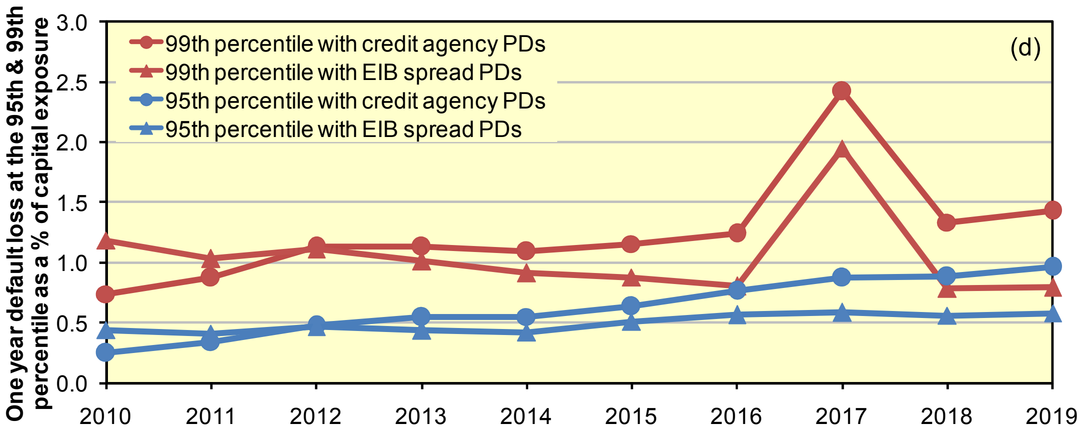
(b) Scenario 2



(c) Scenario 3



(d) Scenario 4



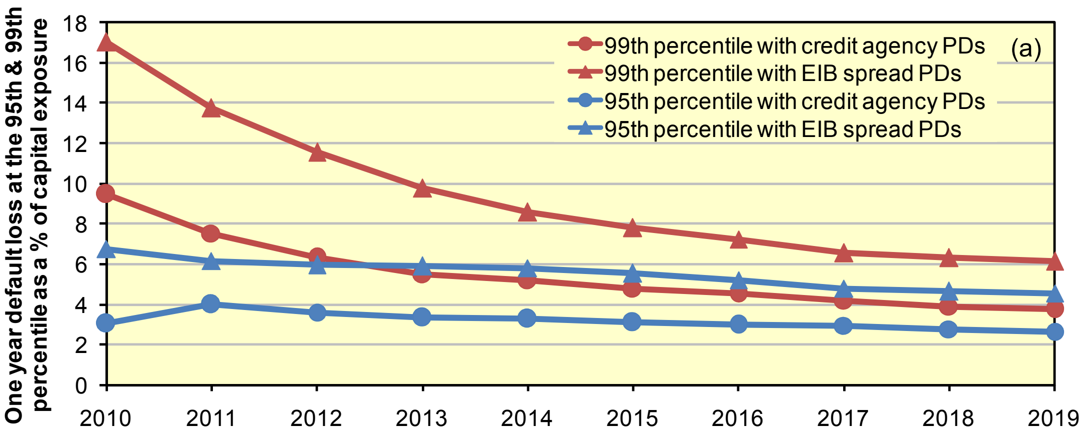
Source: Volterra calculations

Figure 5.3 shows the same simulations as Figure 5.2 but where the defaults are accelerated i.e. where a country fails to meet all future obligations of a loan that defaults. This is done in order to assess the degree of stress that would be required such that the current target rate is breached. This is a deliberately aggressive scenario and one that is possible but not probable. Whilst payment defaults have previously been observed on guaranteed lending, they have never been seen on a fully accelerated basis.

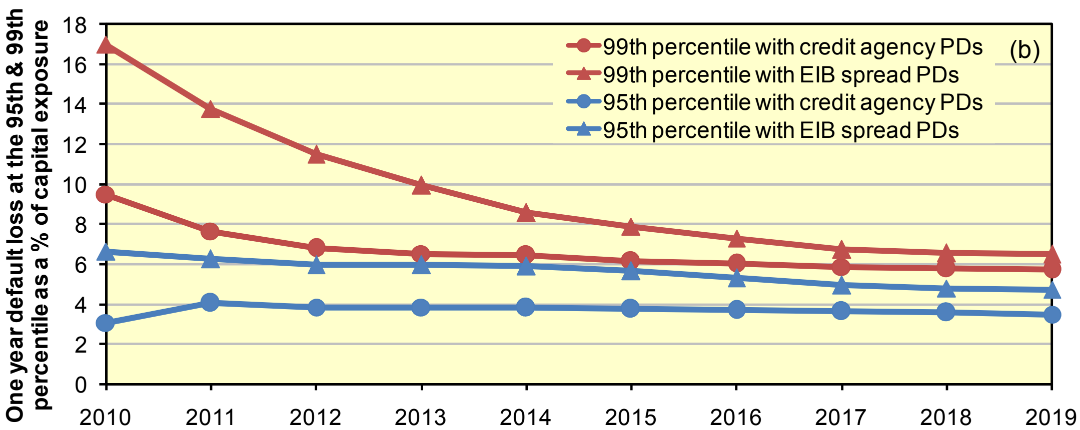
Under the scenario of accelerated defaults, it is estimated that a one in twenty year call on the Fund would be 3 per cent to 9 per cent of the Fund's capital exposure. A one in a hundred year scenario would be a loss of 5 per cent to 17 per cent. The upper bounds of these ranges are crucially largely independent of correlation and migration in the model because the risk arises in 2010 before these are taken into account.

Figure 5.3 95th and 99th Percentile Default Losses as a Percentage of the Fund's Capital Exposure (Accelerated basis), 2010 - 2019

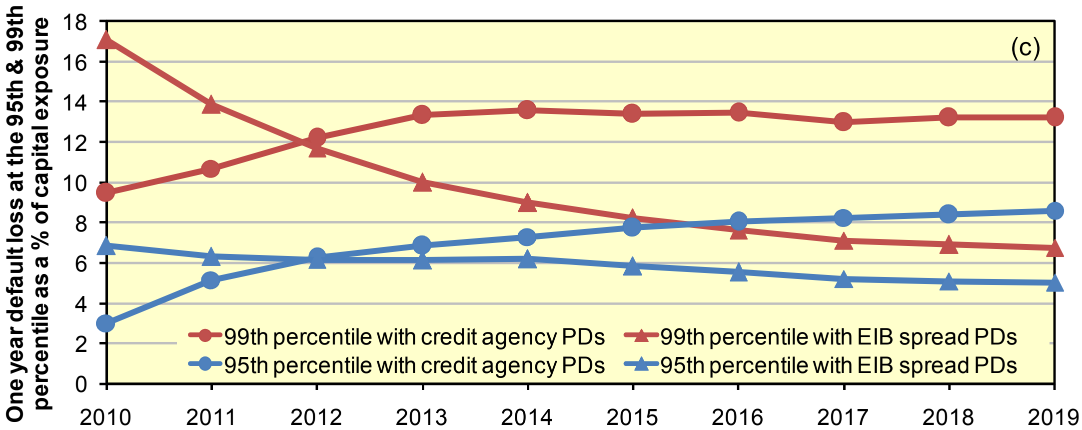
(a) Scenario 1



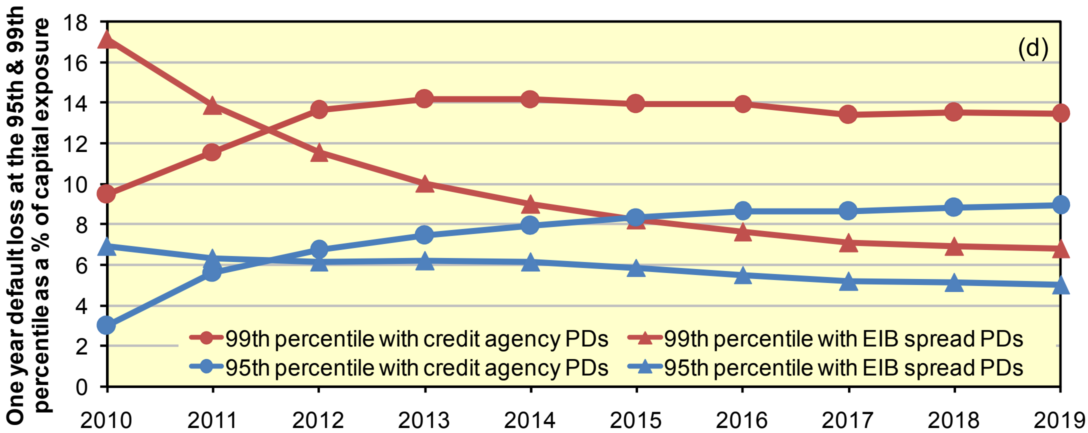
(b) Scenario 2



(c) Scenario 3



(d) Scenario 4



Source: Volterra calculations

5.2 Evaluation Findings: Effectiveness

5.2.1 How far do the management methods and their implementation ensure a high standard of service and how can they be improved?

The overall responsibility for the management of the Fund lies with the Treasury, Borrowing and Guarantee Fund Unit (Unit 5), DG Economic and Financial Affairs. The following functions have been delegated by the Commission to the EIB:

- Management of the assets of the Fund;
- Recovery of payments made by the EC under guarantees granted by it to EIB against losses under loans/ loan guarantees to projects in third countries.

The rationale for delegating these functions to the EIB is based on a consideration of the following factors:

- EIB is owned by the EU Member States and was created in 1958 by the Treaty of Rome, to serve EU's political objectives;

- It has the infrastructure, both in terms of human resources and IT systems, to carry out the management of the Guarantee Fund portfolio; and,

- As regards the recovery function, EIB has direct contact with the borrowers and the expertise to pursue any outstanding debt. Moreover, considering the political sensitivities around defaults, it is generally felt that EIB is best placed to carry out this function.

The EIB provides detailed quarterly and annual reports to the Commission relating to both its functions.

Documentary review suggests that the management methods are working effectively; and no evidence was found by this evaluation to suggest otherwise. This finding was reinforced by Commission officials interviewed who expressed their satisfaction with the current management method. When Commission officials were asked to comment on ways the design or functioning of the Fund could be improved, there was virtually no feedback. Indeed, the methods and practices concerning the functioning of the Fund have evolved over time to reflect the lessons learned over time (e.g. the change from ex-ante to ex-post provisioning mechanism).

5.2.2 In the application of the Fund Regulation, the assets of the Fund are managed by the EIB. The issue of whether the EIB or the Commission services should manage the assets was raised in 2003 by the European Parliament (CoCoBu) in relation to the 2002 discharge procedure and at several occasions by the European Court of Auditors (ECA). Is the present divisions of tasks effective?

Article 7 of the Regulation establishing the Fund provides that *'the Commission shall entrust the financial management of the Fund to the EIB under a mandate on behalf of the Communities'*.

Management of the Assets of the Fund

The Fund's assets are invested in line with the management principles laid in Annex 2 of the Agreement between the Commission and the EIB of 23/25 November 1994, as amended by Supplementary Agreement No 1 of 17/23 September 1996, Supplementary Agreement No 2 of 26 April/8 May 2002, and Supplementary Agreement No 3 of 25 February 2008.

As per the management principles, EIB's mandate is to maintain adequate liquidity while optimising return. Accordingly, the Fund's resources are invested as follows:

- 20 per cent of the Fund' resources are invested in short-term investments (up to one year). These investments include variable-rate securities, irrespective of their maturity dates, and fixed-rate securities with a maximum of one year remaining to maturity, irrespective of their initial maturity period. This is because fixed-rate securities are reimbursable at 100 per cent of their nominal value at the end of their life, while variable-rate securities can be sold at any time at a price approaching 100 per cent, whatever their remaining period to maturity.

- A minimum of EUR 100 000 000 is kept in monetary investments, particularly bank deposits.

EIB Fee Structure

Annex 1 to the second Supplementary Agreement (between the Commission and the EIB) signed on 26th April and 8th May 2002 lays down the methodology for calculating EIB's remuneration.

The issue of whether the EIB or the Commission services should manage the assets

Commission officials interviewed as part of this evaluation, have expressed their satisfaction with the current management arrangements in terms of the quality of service provided by the EIB.

However, the issue of management of the assets of the Fund was first raised in 2003 by CoCoBu (Commission du Contrôle Budgétaire or the Budgetary Control Committee, European Parliament) in the context of cost implications of the chosen management method.

In its report, CoCoBu noted that the fee structure for the management of the Guarantee Fund was 'negotiated on a commercial basis with the EIB'; but expressed its disappointment on the lack of detailed information on the EIB's cost structure with regard to the treasury management of the Guarantee Fund.

In its response, the Commission stated that the EIB is under no legal obligation to provide information on its cost structure and that the EIB has the requisite infrastructure to carry out the management of the Guarantee Fund portfolio efficiently and effectively.

With regard to the issue of the management of the assets of the Fund, there are five options available to the Commission. These are outlined in Table 5.5.

Table 5.5 Options for Managing the Assets of the Fund

Option	Issues to Consider
Option 1: The assets of the Fund continue to be managed by the EIB; and the annual remuneration payable to EIB is based on a degressive scale	As explained in Section 2.3.1, the present EIB fee structure is based on a degressive scale. The degressive fee structure reflects economies of scale According to Mercer's 2008 Asset Manager Fee Survey (a biennial report analysing fee data on 19,000 asset management products from 3,400 investment management firms), fees for fixed income asset class on average are in the range of 0.3 - 0.4 percent. The management fees for EIB thus compare favourably against the industry average.
Option 2: The assets of the Fund continue to be managed by the EIB but on the basis of a cost- based fee structure	A cost based fee structure for the EIB would be cumbersome to implement in practice, considering that there are no dedicated resources or infrastructure for the management of the Fund at the EIB. Implementing such as system in practice would require EIB to put in place an audit trail

Option	Issues to Consider
	for the costs incurred e.g. staff involved would have to complete time sheets; there would have to be an agreed basis for apportioning overheads and common expenses etc.
Option 3: The assets of the Fund continue to be managed by the EIB but on the basis of a flat-fee structure	A flat fee structure would be an inferior alternative to the current fee structure which is based on assets under management and thus reflects economies of scale.
Option 4: Bringing the portfolio management function in-house	According to the Regulation establishing the Fund, it is to be managed by EIB. This option would require a change in legal base of the Fund. This option could only be justified if it can be demonstrated that in-house portfolio management would be more cost-effective as compared to portfolio management by the EIB (i.e. costs incurred by the Commission are less than the fees paid to EIB).
Option 5: Procure fund management through an open tendering procedure	This option would require a change in the legal base of the Fund. Tendering procedures are complex, time-consuming and could result in discontinuity of operations (from one contract period to another).

This evaluation could not detect any obvious reasons for changing the current management arrangements and bringing the portfolio management function in-house. However, this option could not be fully analysed as part of this evaluation due to lack of readily available data on staffing costs and IT requirements within the Commission should the portfolio management function be brought in-house.

5.2.3 To what extent are the desired effects achieved at a reasonable cost? To what extent have the human resources (in terms of quantity and quality) and financial resources been appropriate for an efficient application of the management methods chosen for the Fund?

Since its beginning in 1994, calls for a total of EUR 477.86 million have been handled through the Fund (as set out in Section 5.1.1). In absence of the Fund, these defaults would have been absorbed by the EU budget; Over the same period (1994 to 2010), the net transfers from the budget to the Fund have amounted to EUR 484 million (as per Table 2.4). Over a fifteen year period, the net cost to the EU budget of operating the Fund has been EUR 6 million. These costs appear modest in relation to the budgetary protection and stability offered by the Fund. Moreover, the Fund offers administrative efficiencies - in the absence of the Fund, the Commission would have to set aside resources within the General Budget to make provisions for the risk associated with EU's external lending operations; and it would be time consuming and cumbersome to call on the EU budget (or in extreme cases, the Member States) every time a default or late payment on a guaranteed loan were to occur.

As regards the second part to this question, the issue of efficiency of the current management methods has already been discussed in the preceding section. As pointed out, further analysis is required to determine if the same quality (of portfolio management services can be achieved by the Commission (as compared to EIB) at a lower cost (in relation to management fees paid to EIB).

5.2.4 The Functioning of the Fund

The Terms of Reference sets out two distinct but related questions relating to the functioning of the Fund:

- *The provisioning mechanism*: what is the experience gained with the ex post provisioning mechanism, in particular with regard to the functioning of the budgetary process and discipline? And does this mechanism take into account (sufficiently well) the risk profile of the Fund?
- *The budgetary resources foreseen for the Fund*: within the limit of the relevant budgetary ceiling, are the budgetary resources for the Fund appropriate, in particular, in the light of the evolution of the external financing covered by the Fund?

According to DG Budget, the ex-post provisioning mechanism provides stability; and a clear and transparent link between the General Budget and the resource requirement for the Fund. It is thus considered to be a simple and effective mechanism. It was however, suggested that in future, the EU could consider changing the current flat profile to a profile that ramps-up to match the pattern of disbursements under the External Lending Mandate.

To further qualify this view and to answer the above questions in more detail, quantitative analysis was carried out to assess how the Fund would operate under a stressed scenario. To do so, an excel spreadsheet was created that could take the 100,000 iterations from the loss simulation model and calculate the implied response of the Fund. This was used to calculate the probability that one or more triggers will occur:

i. That the calls to the Fund exceed EUR 100 million in any year and the smoothing mechanism is triggered.

ii. That the Fund falls below either 80% or 70% of the target amount by the end of the year (The target rate is 9 per cent and the total exposure of the Fund was calculated from the cash flow model as the total disbursements of MFA, EIB and Euratom loans minus any capital payments and calls to the Fund).

iii. That the entire Fund is depleted.

The rules of the funding mechanism are specified as follows.

- The starting point is the total exposure of the Guarantee Fund to MFA, EIB and Euratom loans and the value of reserves in the Fund at the end of 2008. The assets of the Fund at the end of 2008 were EUR 1.091 billion .
- It is assumed that 2009 saw no calls on the Fund and that the relevant budgeted provisions for additional disbursements were made during 2009.
- During each year of the simulation a call is made to the Fund equal to the total defaults, this includes capital and interest payments. This call can be from any of

the scenarios using either of two default probability methods (and either on an accelerated or non-accelerated basis). Accelerated defaults have calls for all missed obligations made at the point of the initial default. This is a deliberately aggressive assumption; and one that is possible but not probable.

- It is assumed that the payment from the Fund is made during the year of the default.

- The Fund receives interest at the end of the year on the reserves held. The interest rate is the same used in the cash flow model for unsigned lending (3.7 per cent). It is assumed that calls on the Fund occur mid-year so the interest is calculated on a basis of six months of the year-start balance and six months at the year-end balance.

- The exposure of the Fund at year-end is equal to the target rate multiplied by the total exposure of the Fund minus any calls on the Fund during the year (as these calls amounts are no longer guaranteed).

- There are two provisioning mechanisms for the Fund. The first is provisioning for additional lending. This is calculated based on the additional disbursements during the previous year and is taken into account for the purposes of assessing the position of the Fund at the point when it is allocated to the budget rather than when the actual flow occurs. Although the budget allocation for this provisioning is set at EUR 200 million per year; it is assumed that if the requirement is greater than this allocation, additional funds would be sourced. Interest earned on the Fund's assets, is offset against this provisioning mechanism.

- The second provisioning mechanism is in response to calls to the Fund due to missed payment. At the end of each year (n) an evaluation of the calls to the Fund during the previous year (n-1) is made and this deficit is budgeted to be added in the following year (n+1) providing it is not in excess of EUR 100 million. If it is greater than EUR 100 million then the payment is broken down into EUR 100 million blocks along with a final residual payment.

- In the scenario where the smoothing mechanism has been activated and subsequent calls to the Fund occur the budgeting process is treated in aggregate, meaning that in no year can a provisioning against calls to the Fund exceed EUR 100 million.

- The model allows for the EIB's management fee to be levied on the Fund's balance at the end of each year. This is calculated on the same basis as the interest calculation.

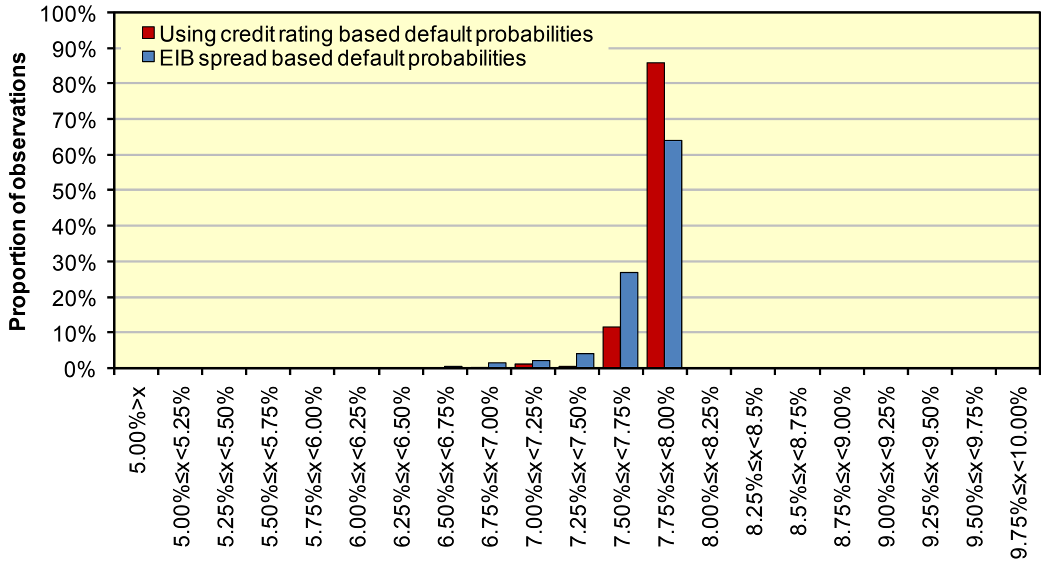
Results from the Evaluation of the Smoothing Mechanism

A. Non-accelerated Scenarios

In order to avoid overwhelming the reader with data, this discussion is restricted to scenarios 1 and 4, being the most conservative and severe, but again these are considered using both default probability approaches and on a non-accelerated as well as an accelerated bases. Figures 5.4 and 5.5 show the lowest observed ratio of the Fund's assets to its capital exposure in each of the 100,000 iterations for scenarios 1 and 4 without accelerated defaults.

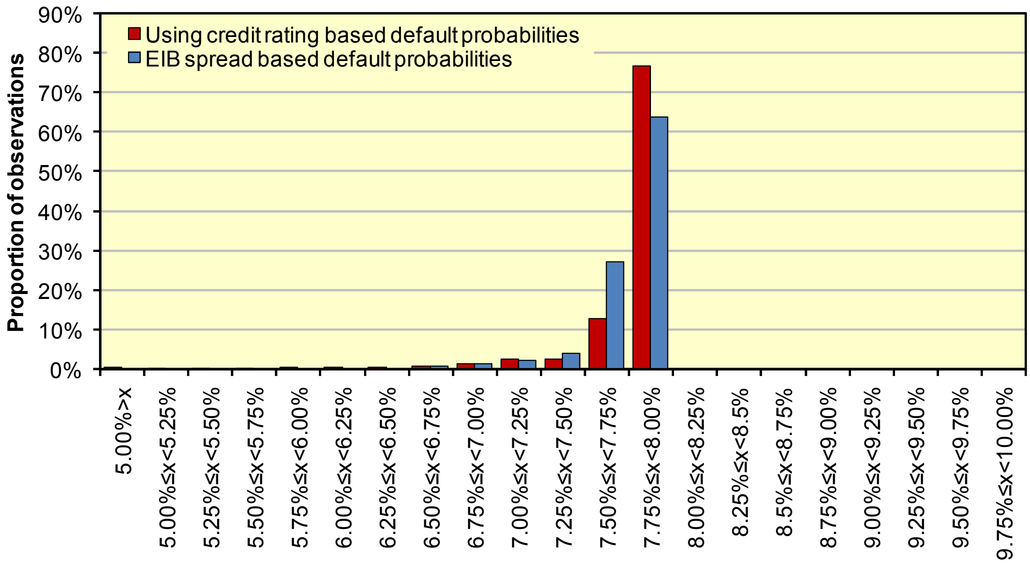
These charts show that in both cases, the distribution has a single peak that is negatively skewed (i.e. a tail to the left). This is as expected considering that the Guarantee fund is effectively constrained at the 'top- end', as a large excess of money is never assumed to flow in. However, as a large loss can occur in rare circumstances, the level of the Fund can be significantly lower. Also, as one would expect to see, scenario 4 shows a higher probability of the Fund going to a lower percentage point. This is most easily observed by looking at the probability associated with the 7.75-8% segment, which is higher for the lower risk scenario 1.

Figure 5.4 Lowest Observed position of the Guarantee Fund for each of 100,000 iterations under scenario 1



Note: where defaults are non-accelerated and using both credit rating agency and EIB spread based default probabilities

Figure 5.5 Lowest Observed position of the Guarantee Fund for each of 100,000 iterations under scenario 4



Note: where defaults are non-accelerated and using both credit rating agency and EIB spread based default probabilities

The activation of the triggers under the non-accelerated scenarios is strongly influenced by the method used to estimate the default probabilities. Table 5.6 summarises the key results i.e. the likelihood that any of the three trigger levels are breached or the smoothing mechanism activated in any one simulation of the funding mechanism.

Table 5.6 Likelihood that any of the three trigger levels are breached or the smoothing mechanism activated

		Credit rating based default probabilities	EIB spread based default probabilities
Smoothing mechanism	Scenario 1	32.2%	69.0%
	Scenario 4	71.5%	73.2%
80% Trigger Level	Scenario 1	1.68%	4.67%
	Scenario 4	7.70%	4.82%
70% Trigger Level	Scenario 1	0.01%	0.03%
	Scenario 4	2.28%	0.03%
Depletion	Scenario 1	0%	0%
	Scenario 4	0%	0%

Note: cells shaded in orange depict the worst-case results for each the three triggers and the probability that the smoothing mechanism is activated.

At worst, it is estimated that:

- For the non-accelerated scenarios the likelihood of the smoothing mechanism being activated is 73 per cent over a ten year period;
- The probability that the Fund balance falls below 80 per cent of its target amount is 7.7 per cent ;
- The probability that the Fund balance falls below 70 per cent of its target amount is 2.3 per cent; and,
- The probability that the Fund is depleted is 0 per cent.

Table 5.7 shows that when the smoothing mechanism is activated, 46 per cent to 91 per cent of the time it lasts only one or two years (as measured by the highest and lowest values obtained from adding the first two rows together).

Table 5.7 Simulation Results: The Number of Times the Smoothing Mechanism is Activated

Years	Scenario 1		Scenario 4	
	Credit rating based default probabilities	EIB spread based default probabilities	Credit rating based default probabilities	EIB spread based default probabilities
1	70.1%	36.8%	26.2%	32.8%
2	21.1%	26.1%	19.9%	25.2%
3	6.6%	17.8%	16.4%	18.3%
4	1.6%	10.2%	13.7%	11.7%

5	0.4%	5.3%	10.3%	6.6%
6	0.1%	2.3%	6.3%	3.1%
7	0.0%	1.0%	4.1%	1.4%
8	0.0%	0.4%	2.3%	0.6%
9	0.0%	0.1%	0.8%	0.2%
10	0.0%	0.0%	0.0%	0.0%

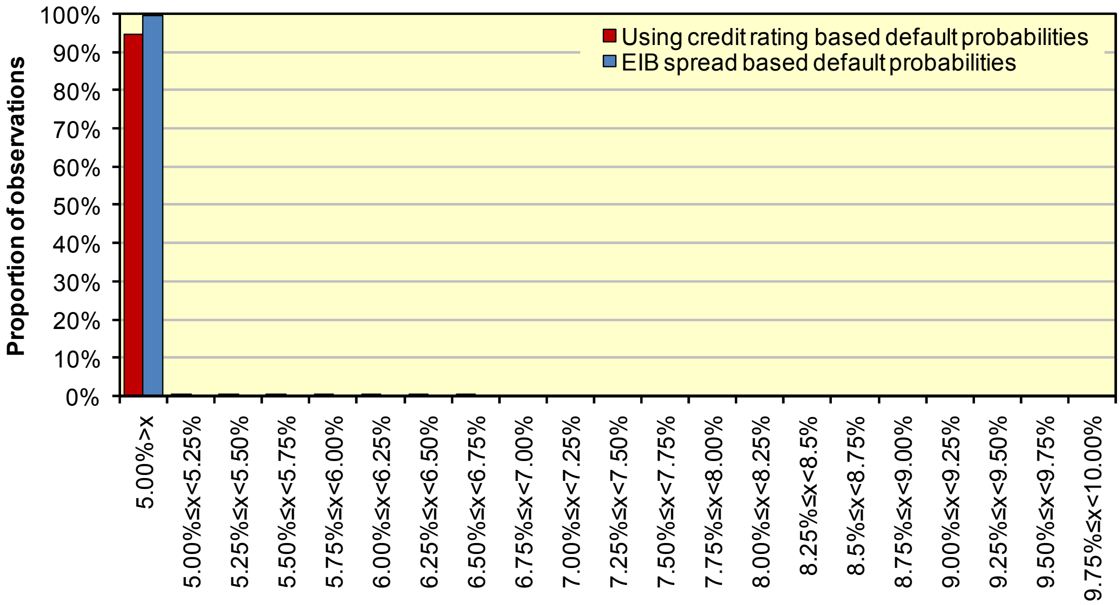
Note: within the ten year timeframe of a simulation; conditional on the smoothing mechanism being activated

B. Accelerated Scenarios

Under the accelerated scenarios, calls to the Fund are allocated to one year even though the anticipated repayments were due over an extended time frame. This represents an extreme shock to the funding mechanism.

Unsurprisingly, Figure 5.6 shows that under this stress the likelihood that the smoothing mechanism and both triggers are breached is high, all are greater than 99 per cent. The Fund is depleted entirely, approximately 88 per cent of the time. These probabilities highlight the severity of an accelerated default, which is believed to be beyond the scope of the Fund to withstand.

Figure 5.6 Lowest observed position of the Guarantee Fund for each of 100,000 iterations under scenario 4



Note: Defaults are accelerated and using both credit rating agency and EIB spread based default probabilities

Sensitivity Analysis

Sensitivity analysis was performed on the loss simulation model in order to understand how stable the results are to the underlying assumptions, first to the probability of default of the various countries and second to the amounts lent. Separate analysis was performed to assess each of these two drivers.

Both types of sensitivity analysis were studied across each of the four scenarios, assuming the EIB credit spread based default probabilities and non-accelerated defaults in all cases. The following two tests were carried out:

- An increase in the current mandate of EUR 2 billion, signed in 2010 and disbursed and amortised under the same rules as for unsigned lending;
- A 0.2 per cent constant downward shift in the probability of defaults of all countries.

The results of the first test, with increased lending assumed in the current mandate, suggest that whilst the overall levels of expected loss do naturally increase; when measured as a proportion of the capital exposure, they actually decrease. After a little investigation, it was revealed that this observed result is as a direct consequence of the assumed default probabilities for the new lending. The extra mandated lending has, on average, a marginally lower default rate than the existing lending. Increasing the proportion of new lending therefore decreases the overall level of risk. Further details on this analysis can be found in the Technical Report.

The second sensitivity analysis looked at the impact of decreasing default probabilities by 0.2 per cent for all countries. As expected the levels of loss observed in the results increased. For the 99th percentile results, the levels of loss increase by approximately 4 per cent. For the 95th percentile results, loss levels were observed to increase by approximately 11 per cent. As a 0.2 per cent upward shift in PDs for all countries represents a relatively large risk increase, it can be concluded that the results of the modelling are robust to the default rate assumptions underlying them, Further details of this analysis can also be found in the Technical Report, along with additional work to demonstrate the near constant relationship between risk change and resultant loss.

6 CONCLUSIONS AND RECOMMENDATIONS

This Section of the Report outlines the conclusions and recommendations emerging from the preceding analysis, with respect to the key evaluation issues of relevance, effectiveness and efficiency of the Guarantee Fund.

6.1 Conclusions

The main conclusions of this evaluation are as follows:

6.1.1 Relevance

To what extent are the Guarantee Fund's objectives pertinent to the needs, problems and issues it was designed to address?

The main objective of the Guarantee Fund is to shield the EU budget against shocks due to defaults on loans or guaranteed loans covered by the Fund. This objective is highly pertinent to the issue that the Fund was designed to address i.e. the need to make provisions for the risks associated with the EU's external lending operations.

The Guarantee Fund provides a liquidity cushion in case of default by EU borrowers and ongoing budgetary stability. The resources of the Fund are used to repay EU's creditors in the event of default by the beneficiary of a loan granted or guaranteed by the EU; thus avoiding the need to call on the EU budget (or in extreme cases, the Member States) every time a default or late payment on a guaranteed loan occurs.

Assessment of the parameters of the Fund: the Fund's target rate (currently 9 per cent): what is the right level of the target rate taking into account the risk profile of the Fund?

The worse case results of the quantitative analysis carried out to assess the target rate are as follows:

- Under the scenario of non-accelerated defaults, a one in twenty year call on the Fund would be 0.25 per cent to 1.00 per cent of the Fund's capital exposure. A one in a hundred year scenario would be a loss of 0.75 per cent to 2.5 per cent.
- Under the scenario of accelerated defaults, it is estimated that a one in twenty year call on the Fund would be 3 per cent to 9 per cent of the Fund's capital exposure. A one in a hundred year scenario would be a loss of 5 per cent to 17 per cent.

Given the unlikelihood of default occurring and the inherent uncertainty in modelling default events, assessing the appropriateness of the 9 per cent target rate is not a simple exercise. However, the above results generated in the modelling phase of this project suggest that 9 per cent is an appropriate level at which to set the target rate. Under the non-accelerated default scenario, 9 per cent should provide a comfortable buffer with which to provision against loss. Under the accelerated scenario (a type of default as yet not observed with EU lending), the quantitative assessment indicates that even a one in twenty year loss could potentially be provided for. On the basis that one would not necessarily expect the Fund to withstand such a large and unlikely event, the 9 per cent target rate is sufficient.

Another question that could be asked is whether the 9 per cent target rate is excessively conservative. The answer to this question depends on the extremeness of loss event that the EU would like the Fund to cover and the degree of reliability that can be attributed to the modelling results. A precise quantification of the severity of event that the Fund should withstand has not been made. Also, whilst the quantitative results presented here represent an unbiased view, it must be acknowledged that there is unavoidable uncertainty in any modelling exercise. As a consequence of both these facts, it would not be prudent to reduce the target rate from its current level of 9 per cent.

6.1.2 Effectiveness

How far do the management methods and their implementation ensure a high standard of service and how can they be improved?

The current management methods for the Fund are working effectively and are fit for purpose. Commission officials interviewed as part of this evaluation, offered the following suggestions in relation to EIB's lending operations: that the EIB should ensure timely disbursement of signed loans and that in future, it should take more risk on its books for lending to investment grade countries.

In the application of the Fund Regulation, the assets of the Fund are managed by the EIB. The issue of whether the EIB or the Commission services should manage the assets was raised in 2003 by the European Parliament (CoCoBu) in relation to the 2002 discharge procedure and at several occasions by the European Court of Auditors (ECA). Is the present division of tasks effective?

This evaluation could not detect any obvious reasons for changing the current management arrangements. However, this option could not be fully analysed as part of this evaluation due to lack of readily available data on staffing costs and IT requirements within the Commission should the portfolio management function be brought in-house.

6.1.3 Efficiency

To what extent are the desired effects achieved at a reasonable cost? To what extent have the human resources (in terms of quantity and quality) and financial resources been appropriate for an efficient application of the management methods chosen for the Fund?

Since its beginning in 1994, calls for a total of EUR 477.86 million have been handled through the Fund. Over the same period (1994 to 2010), the net transfers from the budget to the Fund have amounted to EUR 484 million. Over a fifteen year period, the net cost to the EU budget of operating the Fund has been EUR 6 million. These costs appear modest in relation to the budgetary protection and stability offered by the Fund.

The functioning of the Fund:

a) *The provisioning mechanism: what is the experience gained with the ex post provisioning mechanism, in particular with regard to the functioning of the budgetary process and discipline? And does this mechanism take into account (sufficiently well) the risk profile of the Fund?*

b) *The budgetary resources foreseen for the Fund: within the limit of the relevant budgetary ceiling, are the budgetary resources for the Fund appropriate, in particular, in the light of the evolution of the external financing covered by the Fund?*

Based on the evidence provided in this report, it can be concluded that the provisioning mechanism takes into account sufficiently well the risk profile of the Fund. Given the 'unlikeliness' of the Fund breaching either the 80 per cent or 70 per cent triggers, the current mechanism does allow satisfactorily for the associated missed loan payment risks.

As regards, the adequacy of budgetary resources foreseen for the Fund, the conclusions of this Study are:

- Payments to the Fund that are due to losses are capped by the smoothing mechanism at EUR 100 million. The modelling results suggest that the smoothing mechanism and the EUR 100 million limit are appropriate.

- Payments to the Fund that arise from additional disbursements however are projected to rise above the current annual budget allocation of EUR 200 million. Whilst there may not exist an explicit cap on additional provisioning due to disbursements, it may be prudent to increase the annual budget allocation to EUR 250-300 million.

6.2 Recommendations

The main recommendations emerging from the above findings and conclusions are:

- The Guarantee Fund should continue to cover the external lending operations of the EU;

- The target rate of the Fund should be maintained at 9 per cent; although it should be reviewed from time to time;

- The Commission should consider changing the current flat profile of the budgetary resources foreseen for the Fund to match the profile of the lending operations. Accordingly, it would be prudent to increase the annual budget allocation from EUR 200 million to EUR 250-300 million;

- Further analysis should be carried out to determine if the same quality of portfolio management services can be achieved by the Commission (as compared to EIB) at a lower cost (in relation to management fees paid to EIB).

ANNEXES

ANNEX 1: LIST OF DOCUMENTS AND DATASETS REVIEWED AND ANALYSED

Documents

- Council Regulations and Decisions:

  – Council Regulation (EC, Euratom) No 2728/94 of 31 October 1994 establishing a Guarantee Fund for external actions.

  – Council Decision (2006/1016/EC) of 19 December 2006 granting a Community guarantee to the European Investment Bank against losses under loans and loan guarantees for projects outside the Community replaced by Decision 2009/633/EC of 13 July 2009 of the European Parliament and the Council.

  – Council Regulation (EC, Euratom) No 89/2007 of 30 January 2007 amending Council Regulation (EC, Euratom) No 2728/94 establishing a Guarantee Fund for external actions.

  – Council Regulation (EC, Euratom) No 480/2009 of 25 May 2009 establishing a Guarantee Fund for external actions.

- Annual Reports on the management of the Fund for the years 2000 to 2008.

- Comprehensive reports on the functioning of the Guarantee Fund for the years 1998, 2003, and 2006.

Datasets

- Out_MFA_30_06_2009.xls

  Details of the outstanding capital for macro financial assistance (MFA) loans by country. Data from June 2009.

- Out_EUR_30_06_2009.xls

  Details of the outstanding capital for Euratom loans by project name. Data from June 2009.

- Amortization plan_EUR MFA from 01.07.2009.xls

  Capital and interest repayment plan for all MFA and Euratom loans. Repayments occur between 2009 and 2024. Data from July 2009.

- EIB_Loans - 30 - 06 -09.xls

  Details of the initial EIB loan amounts, amounts paid out so far and adjustments to the value of the remaining outstanding capital due to foreign exchange movements. Also included are interest and repayment schedules. The data is separated out by guarantee rate. Data from 30.6.09.

- situation_2009.xls

  Details of all arrears and defaults between 1994-2009. Note that the calls on the guarantee fund listed in this spreadsheet do not agree with the calls listed in 'Details of all arrears and defaults GF.xls' for before 1999. After 1999 they do agree. This was explained by the fact that the current Unit only took over management of the fund in 1999 and before then it was managed by another Directorate General. This spreadsheet covers up to and including 2004.

- Details of all arrears and defaults GF.xls

  Details of all arrears and defaults between 1994-2004. In the case when arrears and default data are quoted it is this spreadsheet and not 'situation_2009.xls' that has been used. Data from August 2009.

- dg19 - 30-06-2009 loan detail to EC.xls

  Details of the initial EIB loan amounts, amounts paid off so far and adjustments to the value of the remaining outstanding capital due to foreign exchange movements. This data is also included in 'EIB_Loans - 30 - 06 -09.xls' so has not been used in this study. Data from 30.6.09.

- Conso_Community_Guarantee_EIB_new_Mandate.xls

  All loans that have tranches to be disbursed under the 2007-2013 mandate appear here, there are also some disbursements in this spreadsheet that have been made after the data has been compiled, these therefore also appear in 'EIB_Loans - 30 - 06 -09.xls'. For each loan either a firm specific or sovereign country credit risk assessment has been made and details of the agreement signing, disbursement date limit and grace period are available.

- MFA_Operations_plan_2009_2013.xls

  Planned MFA loan operations for between 2009 and 2013 by country

- Sovereign credit ratings (sourced from Standard and Poor's and Moody's) and transition rates between these grades, equivalent grade default probabilities.

ANNEX 2: LIST OF STAKEHOLDERS CONSULTED

Commission Officials:

DG BUDGET, Unit C4	Mr Jacques VONTHRON Mr Marc VALLAEYS Mr Julian WINKWORTH Ms Lenka FILIPKOVA
DG ECFIN, Unit L1	Mr Giorgio Chiarion CASONI
DG ECFIN, Unit L3	Ms Marjut SANTONI
DG ECFIN, Unit L4	Mr Johan VERHAEVEN
DG ECFIN, Unit L5	Mr Patrick STEIMER Mr Jérémie CHAPOTEL

EIB Officials present at the Group Meeting held on 12th November 2009:

1.	Mr Frank TASSONE, Head Financial Control
2.	Ms Susanne STERNAGEL, Financial Control Division
3.	Mr Philippe SYZMCZAK, Head of Operations – Asia and Latin America
4.	Mr Matthias ZOLLNER, Managerial Adviser Environment
5.	Mr Timothy O’CONNELL, Head of Division – Liquidity Management
6.	Mr Alessandro CARANO, IFI Coordination Officer
7.	Mr Jean-Erik S. DE ZAGON, Head of Division – Portfolio Management
8.	Mr Paolo LOMBARDO, Risk Management
9.	Mr Gutierrez-Blazquez FELIPE, Liquidity Management
10.	Ms Nicole HENIN, Portfolio Management
11.	Ms Nina KALLIO-DOINEAU, JU - IAD
12.	Mr Dietmar DUMLICH, OPS A Coordination

13. Ms Fiona MAKINS, OPS A Coordination
14. Bruno DENIS, OPS A Coordination

ANNEX 3: TERMS OF REFERENCE

Terms of reference
ECFIN R3 2009 0022.