

INDUSTRIAL POLICY AND RISK SHARING IN PUBLIC DEVELOPMENT  
BANKS: LESSONS FOR THE POST- COVID  
RESPONSE FROM THE EIB AND EFSI<sup>1</sup>

*POLÍTICA INDUSTRIAL Y RIESGO COMPARTIDO EN BANCOS PÚBLICOS  
DE DESARROLLO: LECCIONES PARA LA RESPUESTA  
POST-COVID DEL BEI Y FEIE*

*Stephany Griffith-Jones*  
sgj2108@columbia.edu  
Universidad de Columbia

*Natalya Naqvi*  
N.Naqvi@lse.ac.uk  
London School of Economics and Political Science

Recibido: abril 2021; aceptado: septiembre 2021

ABSTRACT

The European Investment Bank (EIB) and European Investment Fund (EIF) have been key partners in implementing the Juncker Plan (EFSI) (2015–2020); and going forward will play an important role in the EU’s post-COVID industrial policy response. In order to evaluate these initiatives, we: distinguish between “real economy risks” and “financial risks”; and outline the trade-off between increased leverage and policy steer and control over projects, due to the number of intermediaries involved, and the need to make projects attractive for private investors. We argue that EFSI has made significant achievements, including enabling the EIB and EIF to provide long-term finance in the post-crisis period and to take more “real economy risk”. However, incentives have been created for EFSI to focus excessively on increasing leverage, at the expense of policy steer. Furthermore, the use of complex financial products and opaque pricing methods with terms too generous for private investors has in some cases generated excessive “financial risk”. In order to increase investment in the real economy and play a role in structural transformation, the EIB’s post-COVID

<sup>1</sup> We would like to thank Helen Kavvadia, Matthias Thiemann, Daniel Mertens, Camila Villard Duran and Peter Volberding for comments on earlier drafts. We gratefully acknowledge financial and intellectual insights from FEPS, especially from Laszlo Andor and David Rinaldi.

response must have a greater focus on the final beneficiaries of projects rather than on the private financial intermediaries themselves. In those cases where it is necessary to use intermediaries, performance related conditionalities should be strictly enforced to have greater control over projects.

*Keywords: European Investment Bank, EFSI, real economy risks, financial risks.*

## RESUMEN

El Banco Europeo de Inversiones (BEI) y el Fondo Europeo de Inversiones (FEI) han sido socios clave en la implementación del Plan Juncker (FEIE) (2015-2020) y están ahora llamados a desempeñar un papel importante en la respuesta de política industrial post-COVID de la UE. Para evaluar estas iniciativas: distinguimos entre los “riesgos de la economía real” y los “riesgos financieros”; y mostramos la disyuntiva entre apalancar fondos y el control y dirección de las políticas públicas sobre los proyectos, debido al número de intermediarios involucrados y a la necesidad de hacer que los proyectos sean atractivos para los inversores privados. Sostenemos que el FEIE ha logrado logros importantes, incluida la posibilidad de que el BEI y el FEI proporcionen financiación a largo plazo en el período posterior a la crisis y asuman más “riesgos de la economía real”. Sin embargo, se han creado incentivos para que el FEIE se centre excesivamente en aumentar el apalancamiento, a expensas de la dirección de las políticas. Además, el uso de productos financieros complejos y métodos de fijación de precios opacos, con términos demasiado generosos para los inversores privados, ha generado en algunos casos un “riesgo financiero” excesivo. Para aumentar la inversión en la economía real y desempeñar un papel en la transformación estructural, la respuesta del BEI post-COVID debe centrarse más en los beneficiarios finales de los proyectos que en los propios intermediarios financieros privados. En los casos en que sea necesario utilizar intermediarios, las condicionalidades relacionadas con el desempeño deben aplicarse estrictamente para tener un mayor control sobre los proyectos.

*Palabras clave: Banco Europeo de Inversiones, FEIE, riesgos de la economía real, riesgos financieros.*

*JEL Classification / Clasificación JEL: L52, O25, O17, G18.*

## 1. INTRODUCTION

In the wake of the financial crisis of 2007/09, and the Eurozone debt crisis of 2009/10, there has been renewed support for public regional and national development banks, as the limitations and problems of a purely private financial sector have become more evident to different strands of economic thinking (Griffith-Jones and Ocampo, 2018). In this context, the European Investment Bank Group (EIB), with its long track record of successfully playing a key and large role in funding intra-European infrastructure, including renewable energy, SMEs and innovation, has taken on renewed importance. The EIB and European Investment Fund (EIF) have been key partners in implementing the post-crisis Juncker Plan (EFSI) (2015–2020), a EUR 33.5bn guarantee from the EU and EIB budgets, which aims to increase lending to economically or socially valuable projects too risky to receive private finance through leveraging scarce budgetary resources. Following the 2020 COVID crisis, the EIB plans to take an important role in the joint EU Response package, including through its implementation of an expanded InvestEU guarantee of EUR 75bn which reportedly aims to mobilise a preliminary estimate of EUR 1000bn in investment, and creation of a new industrial policy oriented strategic European investment window<sup>2</sup>.

In order to evaluate the EIB's activities under EFSI and draw lessons for its response to COVID, we distinguish between “real economy” risks arising from natural uncertainty relating to investments in certain types of projects or sectors and “financial” risks that are related to financial products or intermediaries themselves, and create the danger of subsidising the profits of private investors while socialising their risk of losses. We then outline the trade-off between increased leverage and policy steer and control over projects due to the number of intermediaries involved, and the need to make projects attractive for private investors.

We argue that EFSI has made significant achievements, including enabling the EIB and EIF to provide long-term finance in the post-crisis period, and to take more “real economy” risk, leading to valuable real economy investments that would otherwise have not taken place. However, member states' budgetary constraints have created incentives for EFSI to focus excessively on increasing leverage at the expense of policy steer. Furthermore, the use of complex

<sup>2</sup> [https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_20\\_947](https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_947)

financial products and opaque pricing methods with terms too generous for private investors has in some cases generated excessive “financial risk” at the expense of “real economy risk”. In order to increase investment in the real economy and play an effective role in European industrial policy, it is important that the EIB’s post-COVID response has a greater focus on the final beneficiaries of projects rather than on the private financial intermediaries themselves. In those cases where it is necessary to use intermediaries, performance-related conditionalities should be enforced to have greater control over projects.

The paper proceeds as follows. In part 2 we outline an analytical framework for evaluating these initiatives. In part 3 we give some background on the EIB’s historical evolution before discussing its post-2008 activities. In part 4 we detail EFSI’s leverage mechanism and the instruments and financial products it uses, in order to illustrate the tradeoffs between financial and real economy risk, and leverage and policy steer. Finally, in part 5 we discuss the distribution of risks of losses and profits between public and private actors and put forward a framework by which to assess the consequences of risk sharing arrangements. We conclude by discussing the implications for the EIB’s post-COVID response.

## 2. A FRAMEWORK FOR EVALUATING RISK SHARING IN PUBLIC DEVELOPMENT BANKS

In evaluating the types of instruments these initiatives use to finance investment, two related issues emerge. The first concerns the types of risks various instruments entail for the public sector. The second concerns the trade-off between increasing loan volume through leverage and policy steer<sup>3</sup>.

### 2.1. ANALYTICAL FRAMEWORK FOR RISK TAKING

There is a key distinction on the nature of risk that is essential to clarify, both from an analytical point of view and a policy perspective. This should be important to evaluate initiatives like EFSI and InvestEU.

There is first the “real economy” type of risks; these are basically related to the natural uncertainty related to projects or sectors. These are typical, first, in infrastructure projects, as discussed for example in Griffith-Jones, 1993 (e.g. risks of construction difficulties and delays, especially in engineering ambitious projects, like the Channel Tunnel). We illustrate this in Box 1 below, with an offshore wind example, funded by EFSI. Second, such “real economy” risks are also very prevalent in the funding of innovative companies, such as start-ups, often based on potentially excellent ideas, but lacking assets for guarantees and/or track record. Third, financing of SMEs is generally considered more risky

<sup>3</sup> Because EFSI is recent, and because many of the projects have long maturities, the full impact of which will only be known in longer term, it is hard to determine concretely at this stage what the full economic and budgetary implications are. Nonetheless, in this paper we attempt to delineate a framework for assessing likely results.

in most countries, except in countries – like Germany – with very decentralised banking systems, which allow for a greater knowledge of companies, thus reducing asymmetries of information (Stiglitz and Weiss, 1981), as well as a long tradition of broadly successful lending to SMEs. SME financing becomes more risky if financial crises happen, when the benefits of diversification are reduced. Fourth, very importantly, “real economy” risks can also relate to sectorial or cross-sectorial innovation that may lead to major increases in productivity and/or significant structural transformation, for example to a greener economy (see Mazzucato, 2013). Fifth, also assuming “economic” risk implies lending to or investing in countries that are (usually temporarily) seen as less creditworthy by financial and banking markets, especially during – and in the often long aftermath of – financial crises, or other shocks with major macroeconomic effects. For example, countries (like Italy) with weak banking systems may require more support from EIB for their banks to make more loans. In other countries (like France and Germany, with apparently stronger banking systems) the EIB can focus more in its lending on more innovative projects, including the financing of R&D.

These “real economy” type of risks are in sharp contrast with “financial” risks, created by financial actors, often partly hidden by opaque and complex structures, and whose impact only often emerge ex-post in crises situations. The alleged, and sometimes legitimate, aim may in some cases partly be to increase leverage of public resources, and for this reason may be backed also by policymakers, with the aim of doing “more with less”. However, the main general aim of creating instruments with “financial” risk is to increase profitability for private financial actors, whilst minimising their risk of losses. While the mobilisation of private capital brings potential benefits in terms of leveraging scarce budgetary resources, it also generates potential fiscal risks, via contingent liabilities, that need to be properly accounted and provisioned for.

The distinction between “real economy” and “financial” risk was less important in the aftermath of the 2008 and Eurozone debt crisis, as there was a great need to counter- cyclically increase lending volume to maintain investment as the private financial sector became risk averse. However, now that the private financial sector has become more willing to lend, and even does so at very low margins, there is not much benefit in most countries and sectors to de-risking them further. Indeed, they may even need to be held back from causing a bubble in certain sectors (interview material). However, there remains a need to take “real economy risk”, especially for sectors important for industrial policy/structural transformation, or developmental objectives, such as green energy, innovative companies, or riskier less-developed EU countries. Financial risk on the other hand needs to be limited in total scale, very carefully evaluated ex-ante, to avoid large contingent liabilities, and thus possible significant losses. The financial sector must serve the real economy, and financial objectives, for example, the development of capital markets, must never be an end in themselves. EFSI and InvestEU must have a greater

focus on the final beneficiaries of projects rather than on the private financial intermediaries.

## 2.2. LEVERAGE VS. POLICY STEER

Industrial policy is defined as “any policy that attempts to affect the evolution of specific industries through state intervention in order to effect national efficiency and growth” (Chang, 1994). It includes the allocation of subsidies to private actors, in exchange for these actors performing economically valuable functions they otherwise would not. In order for this to work, it is vital the public sector is able to strictly monitor and enforce performance-related conditionality on the recipients of subsidies, and withdraw supports if the conditionalities are not being met (Amsden, 1992).

There is some trade-off between the EC’s objectives of achieving policy steer, for example as part of an industrial policy, and achieving the highest possible loan volume through leverage, because the instruments that provide leverage also make the activity much more indirect. On the one hand, increasing the loan volume through leverage is positive, as it should facilitate higher levels of investment in the context of budget constraints by “doing more with less fiscal resources”. However, there is a risk that the greater the loan volume achieved through involving private intermediaries, the more indirect the operations become, and the less strategic direction the European institutions are able to exert over projects. Involving intermediaries makes monitoring and enforcing conditionalities more difficult. When it comes to involving private intermediaries in particular, the range of projects is greatly limited, because some projects cannot be made attractive to private investors no matter the amount of subsidy given due to the risk involved, or because the project will remain loss making for too long (e.g. the development of a new technology). These projects may however be very socially or economically valuable. While high leverage at the expense of policy steer may have been more appropriate for EFSI as it focused on countercyclical provision of long-term finance, the post-COVID response, once recovery starts, should be more focused on industrial policy, “to build back better”, and therefore could rethink the balance between leverage and policy steer.

## 3. THE EIB, EFSI AND INVEST EU

### 3.1. HISTORY AND EVOLUTION OF EIB’S FOCUS AND INSTRUMENTS

The EIB was established in 1958 by the Treaty of Rome, and has historically provided infrastructure, energy and industrial financing, usually through long-term fixed interest rate loans<sup>4</sup>, backed by member state guarantees for projects. The EIB essentially took little risks on its activities, and had an AAA credit rating, which

<sup>4</sup> Loans became variable rate after 1984.

it could use to cheaply finance its activities on international financial markets, and then on-lend very cheaply to its customers (Clifton et al., 2018; Honohan, 1995). Although the EIB was constrained by mandate not to provide interest subsidies itself through cross-subsidisation or out of its own capital resources, it acted as a conduit for interest rate subsidies from EU budgetary subventions for special programmes (Honohan, 1995, p. 328).

From the late 1980s/early 1990s, the EIB began changing its business model to take on more risk, as its statute was amended to manage the new European Investment Fund (EIF)<sup>5</sup>. The instruments evolved. The EIB and EIF increasingly gave loan guarantees<sup>6</sup> to local intermediaries rather than on-lending (Honohan, 1995). Guarantees have two important advantages: firstly, they provide leverage, and secondly, they are like a revolving fund and resources can be used again if there are no major losses<sup>7</sup>. On the other hand, if major losses occur (for example during a financial crisis, when uncorrelated risks become correlated), and the provisions are not sufficient, and the guarantees have not been fully priced, then governments (taxpayers) ultimately have to pay, and thus contribute additional resources.

The EIB's approach to innovation also changed. Until 2007, innovation was only funded through grants. In 2007, the EC and the EIB set up the Risk Sharing Finance Facility (RSFF) with the stated aim of improving access to finance for activities in the field of R&D and innovation. It was built on the principle of *pari passu* (equal) credit risk sharing between the EC and the EIB, which was designed to give the EIB capital relief, and therefore allow it to take more risk by providing loans or guarantees with a sub-investment grade risk profile<sup>8</sup>. This could be said to be the first time the EU institutions used financial engineering to make risk-sharing agreements, and was to become the blueprint for EFSI (interview material). After the first mid-term review, the risk sharing agreements between EC and EIB changed from *pari passu* to portfolio. This meant the EC would take the first loss, and the EIB the residual, allowing the EIB to take even more leverage (interview material).

### 3.2. POST-2008 ACTIVITIES: THE EIB, EFSI, INVESTEU AND THE POST-COVID RESPONSE

Following the 2008 crisis, and harsh austerity in its wake, the EIB's paid-in capital was doubled with contributions from all member states in 2012 – leading to significant increases in lending, guarantee and equity operations by the EIB Group (for the original proposal, see for example, Griffith-Jones S and

<sup>5</sup> EIF was established in 1994 to support infrastructure and SMEs, and in 2000 became the EIB's specialist arm for providing risk capital to SMEs: [https://www.eif.org/who\\_we\\_are/20years/index.htm](https://www.eif.org/who_we_are/20years/index.htm)

<sup>6</sup> In exchange for a guarantee fee paid to the EIB, the EIB agrees to reimburse a fixed percentage of losses on the financial institutions loan or loan portfolio. The aim is to encourage the FI to increase their lending in a particular area.

<sup>7</sup> It is argued by some EIB staff members that guarantees are less risky than grants because with grants there is certainty that the funds will not be paid back.

<sup>8</sup> <https://www.eib.org/en/infocentre/press/news/all/risk-sharing-finance-facility-rsff.htm>

Kollatz Ahnen, 2012). However, this was far from sufficient, leading to calls for a further recapitalisation.

However, in the context of the debt crisis, the creditor governments (especially Germany, but also the Netherlands and Finland) blocked a traditional Keynesian response at both the national and EU levels<sup>9</sup>. EU countries were prevented from increasing their national deficits to fund investment by an extremely rigid interpretation of the Stability and Growth Pact. An alternative option would have been to increase EU level investment through increasing the EU budget or through further increasing directly the capitalisation of the EIB to enable it to increase loan volume. Although it was difficult to formally expand EU level investment (e.g. via Structural Funds), because the budget had already been approved till 2020, supplementary funds could have been made available had member states been willing to increase their contributions to the EU budget. This approach was again blocked by the creditor countries.

Therefore, although a more traditional Keynesian response would arguably have been more efficient in 2010, as it would have allowed for maximum policy steer while minimising financial risks, and possibly been cheaper in the long run, this was politically not feasible at the time. Increased investment, therefore, was a key demand for Juncker from the S&D (Social Democrats in the European Parliament and institutions) to achieve their support for him to be elected as President of the European Commission. The result was the EFSI, and its incorporation into Juncker's program for the election thus was a key offer for S&D to support him for this position (interview material). The EFSI was formulated under real and perceived severe fiscal constraints, as a Keynesian mechanism sans dire, with no additional public money. The EIB/EIF became the natural institution to implement EFSI, given its long-established record in lending to/investing in infrastructure and SMEs.

EFSI is a EUR 26bn guarantee from the EU budget, which comes mainly from existing research and innovation and transport budget lines, complemented by a EUR 7.5bn allocation of the EIB's own capital, given EU budget limitations. The total amount of EUR 33.5bn aims to leverage additional investment of at least EUR 500bn between 2015 and 2020. As a result of member states' budget constraints, rather than committing additional EU budgetary funds, EFSI essentially uses a small fraction of the EU budget as a guarantee for EIB projects that have a higher risk profile than the usual ones. EFSI has two components, the innovation and infrastructure window managed by the EIB, and the SME window implemented by the EIF<sup>10</sup>.

The aim is to push the EIB to increase "additionality" by increasing the percentage of its lending that supports higher risk projects and involves new

<sup>9</sup> In 2012 the EIB's paid-in capital was doubled with contributions from all member states - leading to significant increases in lending, guarantee and equity operations by the EIB Group (for the original proposal, see for example, Griffith-Jones and Kollatz Ahnen, 2012). However, this was far from sufficient, leading to calls for a further recapitalisation.

<sup>10</sup> [https://www.eif.org/what\\_we\\_do/efsi/index.htm](https://www.eif.org/what_we_do/efsi/index.htm)

FIGURE 1: STRUCTURE OF EFSI



Source: Interview material.

clients, and to adopt a junior position with respect to co-financiers, in order to reduce the risks taken by private investors and increase the chances of attracting their investment (Claeys and Leandro, 2016; interview material). The implicit aim is therefore to increase the EIB's "real economy risk" by supporting valuable projects and clients that could not secure funding on their own.

For the next EU budget (2021–27), the Commission is developing the InvestEU Fund<sup>11</sup>. Although details are not completely final at the time of writing, the original InvestEU proposal is being updated to incorporate the EU's post-COVID response, as well as the European Green Deal, and includes the creation of a new EUR 31 bn strategic European investment window, which is more explicitly industrial policy oriented. The new window is designed to promote sectors in line with the new Industrial Strategy for Europe, including encouraging large corporates to maintain and develop their production within the EU or under the control of European investors, and in scaling up the deployment of innovative technologies in key sectors such as industrial biotechnology and pharmaceuticals<sup>12</sup>.

<sup>11</sup> Originally, InvestEU was a €30bn guarantee, which was expected to crowd in an additional total of €650bn of public and private investments over the 7 year period.

<sup>12</sup> [https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_20\\_947](https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_947)

InvestEU will follow the Juncker Plan model of using an EU budget guarantee to mobilise additional public and private funds for investment. The size of the InvestEU guarantee has been increased to EUR 75bn<sup>13</sup>. It is argued that the guarantee mechanism will result in investment of up to EUR 1000bn as a preliminary estimate, far greater than is possible via public investment in the context of member states' budget constraints, or via conventional EIB activities.

#### 4. INSTRUMENTS USED IN EFSI

##### 4.1. EFSI'S LEVERAGE MECHANISM: LOAN VOLUME VS. POLICY STEER

The decision to create an investment plan based on leverage rather than additional public money created incentives to use the EIB as the key implementing partner for EFSI, due to its ability to add leverage through raising funds on the private capital markets (the internal multiplier). Furthermore, in order to achieve the necessary loan volumes, policymakers were incentivised to rely on the involvement of financial intermediaries to as great an extent as possible, as these added further leverage (the external multiplier).

EFSI has a high overall multiplier target of 15x (Claeys and Leandro, 2016)<sup>14</sup>. The first step is the internal multiplier of 3x, where the EFSI guarantee of EUR 33.5bn from the European budget is expected to generate 100bn of EIB financing on international financial markets. The second step is the external multiplier of 5x, where the internal funds of 100bn are expected to catalyse additional private and public financing to reach a total mobilised investment volume of 500bn. In practice, the external multiplier varies across financial products, so the 5x target applies to the entire portfolio of operations. The overall multiplier target of 15x is the relation between expected total investment mobilised (500bn) and the initial EFSI guarantee (33.5bn) (EIB 2019a). The final mobilised investment is measured as the Eligible Project Investment Cost (EPIC) defined according to EIB Methodology (EIB 2019a, 5).

In order to achieve these targets, EFSI has taken a number of steps including the creation and use of new financial instruments<sup>15</sup> with higher multipliers, and encouraging the greater involvement of public and private actors, in particular national development banks (NDBs) and institutional investors. This has increased leverage, but at the expense of policy steer and, in some cases, with higher "financial risk".

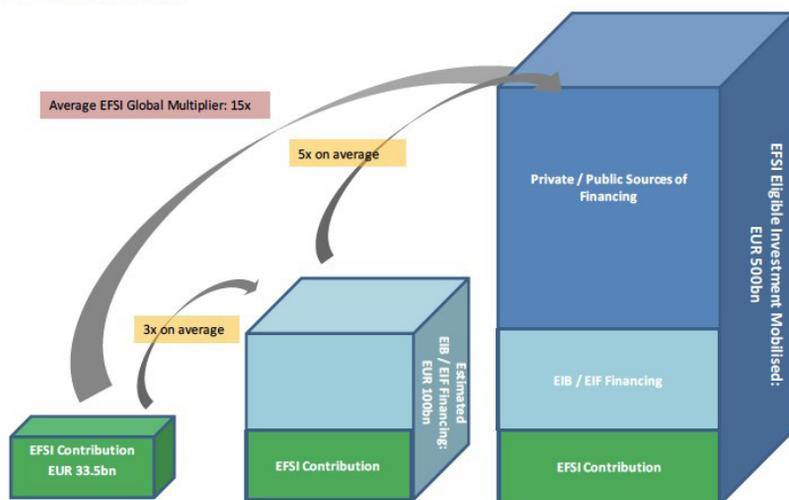
<sup>13</sup> [https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_20\\_947](https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_947)

<sup>14</sup> The EIB's EFSI Multiplier calculation methodology for the infrastructure window and the EIF's EFSI Multiplier calculation methodology for the SME window follow the same principles, although laid out in different documents (EIB 2019a; EIB 2019b).

<sup>15</sup> This was especially the case for EIB operations under the Infrastructure window, because EIF operations for SMEs already relied on such instruments. This enabled quicker expansion of lending of lending under the SME window.

FIGURE 2: OVERALL MULTIPLIER FOR EFSI

EIB Group EFSI Investment Target  
Simplified illustration (not at scale)



Source: EIB 2019a.

Under the infrastructure window, in terms of product type, traditional senior loans which have the greatest policy steer and lowest “financial risk”, have the lowest (expected) external multiplier of 3x, followed by junior debt (5x), with equity type products having the highest multiplier of 15x (EIB 2019a, 4).

Direct operations include inter alia investment loans, framework loans, direct guarantees and credit enhancement provided to investment projects, hybrid-debt instruments, equity-type financing for corporates and project finance, and quasi-equity financing for SMEs and Mid- Caps, and have multipliers ranging from 3x to 8.9x.

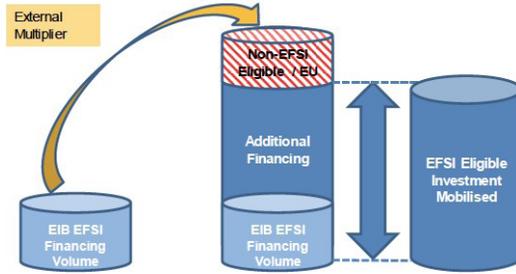
Intermediated operations which can have higher “financial risk” tend to have a higher external multiplier due to the so-called ‘catalytic effect’ which is the financing provided by the public or private financial intermediary (which may be an NDB, private bank, leasing company, or investment fund). The external multiplier of intermediated operations is calculated by multiplying the catalytic effect by the project level external multiplier (EIB 2019a, 6).

EFSI is therefore a much more indirect instrument than grants given out by various EC DGs, increased public investment by national governments, or more traditional loans given by EIB. This has led to some important achievements in terms of taking increased “real economy risk”, while conserving fiscal resources. The plan seems to be broadly on track, with EUR 70.4bn of financing approved,

FIGURE 3: EXTERNAL MULTIPLIER FOR DIRECT OPERATIONS

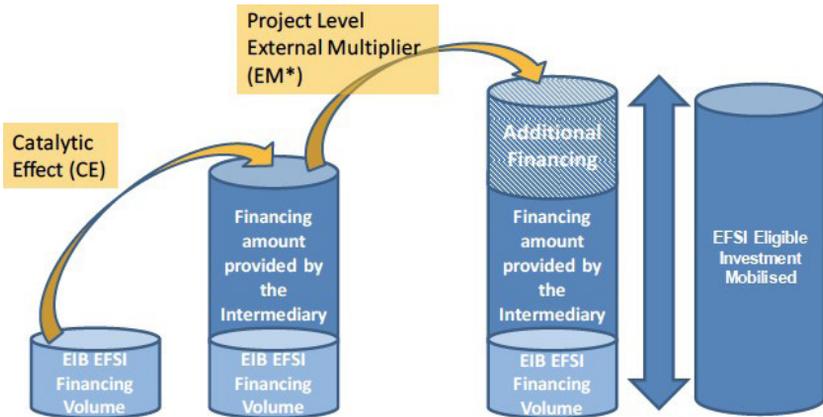
$$\text{Formula (B) } EM = (\text{EFSI Eligible Investment Mobilised}) / (\text{EIB EFSI Financing Volume})$$

The EM relationship between EIB EFSI Financing Volume and EFSI Eligible Investment Mobilised is illustrated in the diagram below.



Source: EIB 2019a.

FIGURE 4: EXTERNAL MULTIPLIER FOR INTERMEDIATED OPERATIONS



Source: EIB 2019a.



from which EFSI claims to have mobilised a total of EUR 375.5bn, as of July 2018<sup>16</sup>.

One important achievement of EFSI is that of the clients it has served; 75% are new, who had never borrowed before from the EIB. This is encouraging, in terms of the additionality achieved in terms of new clients. Furthermore, before EFSI, the EIB is reported to have had amongst its operations only 5% of risky business; however, by 2018, 20% of EIB operations are reportedly risky business (interview material). This is a positive achievement to the extent that increased risk means increased real economy risk and not purely financial risk. In the context of supporting innovative technologies, with climate mitigation aspects, it is impressive that the EIB has funded 40% of offshore wind installed capacity in Europe; it has often moved to support the more innovative aspects of offshore (larger scale of blades and even floating offshore wind farms; see Box1)

BOX 1. GALLOPER OFFSHORE WIND PROJECT; AN EXAMPLE OF "REAL ECONOMY" RISK ASSUMED BY EFSI

The EFSI guarantee was used to support the EIB's financing of the Galloper offshore wind farm. It was the first project backed by EFSI funded in the UK. The Galloper offshore wind farm is a 336MW offshore wind farm located 27km off the coast of South East England composed of 56 wind turbines, one offshore substation and associated cabling to deliver the power to the grid. EIB provided financing of GBP 225m (of a total cost of GBP 1.5bn) for the project. The financing was closed in 2016 and the construction of the project was completed in October 2018.

The EFSI guarantee was important in allowing to bridge the financing gap that existed/exists in the offshore wind industry. Issues that have led to this gap include:

PACE OF TECHNOLOGICAL CHANGE

From the start of the introduction of subsidies for renewable energy sources required to de-carbonise electricity production, there has been a public policy goal to reduce the cost of renewable electricity so that it can replace traditional fossil fuel sources of electricity production. This has been achieved through constant innovation on the part of suppliers to the industry eg the introduction of larger, more efficient blades and turbines. The Galloper project selected the cutting-edge technology available at the time, a Siemens 6.3MW turbine with a maximum blade length of 154m. This was a significant increase in size compared to the previous model manufactured by Siemens (4.0MW capacity, 63m blades) and still substantially smaller than today's cutting edge which have capacity of 9–12MW. The use of new technology has meant that lenders to the

<sup>16</sup> <https://www.eib.org/en/efsi/>

offshore industry have been exposed to new technologies with limited track records and this has meant credit committees have been reluctant to authorise large amounts of lending to these projects. EIB benefits from having engineers on its staff with expertise in offshore wind which has helped the Bank assess these risks. The EFSI guarantee has provided further comfort to the Bank to lend to these projects using the latest technology.

#### MULTI-CONTRACTOR RISK

Banks in general prefer to have a single entity (this could be multiple companies contracting through a joint venture) taking responsibility for the design and construction of any large infrastructure project as it avoids the risk of disputes between contractors in the event of delays or unforeseen risks arising. Working offshore on large projects with new construction methods is inherently risky for contractors and, because of this, contractors have only been comfortable signing up to do discrete tasks for the project eg one might lay cables, another may install the foundations. This gives risk to a multi-contracting strategy, which is sub-optimal for lenders. This is true for the Galloper project, which used five main contracts for the construction of the wind farm. Again, the EFSI guarantee allowed EIB to provide significant support despite this being the case.

#### SIZE OF THE INVESTMENTS REQUIRED IN RENEWABLE ENERGY AND IN PARTICULAR OFFSHORE WIND

As is typical for offshore wind farms, the size of upfront investment is large for the Galloper project, at GBP 1.5bn. For the technical reasons above and due to the commercial banks (being those possessing the necessary technical expertise to lend to offshore wind projects) having concentration limits on single projects, there existed a funding gap in the market for offshore wind farms. The EFSI guarantee allowed EIB to provide an increased amount of funds (EUR 225m) to the project, which helped catalyse the rest of the investment and allowed it to sign in a timely fashion.

Sources:

- 1) Interview material;
- 2) <https://www.eib.org/en/projects/pipelines/pipeline/20150382>;
- 3) <https://www.eib.org/en/press/all/2015-247-galloper-wind-farm-first-uk-project-backed-by-eur-315-billion-investment-plan-for-europe.htm>

Therefore, in some cases EFSI does allow for financing of some projects with valuable “real economy risk”. In other cases, the “real economy risk” is simply too high to be financed through this mechanism. For example, basic research cannot be financed in this manner, as there is no way to make it bankable. In these cases, direct instruments like grants or EIB direct loans are more appropriate. In sum, there is a trade-off between achieving specific policy objectives, and the appropriate balance must be decided according to public policy goals.

#### 4.2. FINANCIAL INSTRUMENTS AND PRODUCTS USED IN EFSI

EFSI has widened its range of financial products to include not only its traditional loans and guarantees, but also credit enhancement products, using the RSFF blueprint and equity-type products. The EFSI operational strategy further specifies the different products that the EIB can use to deploy EFSI. These include senior and junior loans, risk-sharing instruments, capital market instruments (e.g. corporate hybrid bonds), and equity or quasi-equity participations (European Court of Auditors, 2019, p. 18). Equity-type products imply more risk than loans, but have the advantage of also being able to “capture the upside” if projects are more profitable than expected. One such instrument being currently applied is venture debt (see below).

#### 4.3. SME WINDOW

Under the SME window, EIF continues to rely on existing products already used under COSME, InnovFin, Creative Europe Guarantee facility (CCS), Employment and Social Innovation Programme (EaSI) and EIB-EIF Risk Capital Resources mandates. It was reportedly an advantage that for the SME window, EFSI, especially initially, used existing, well-tested product lines. This seemed a wise decision. It may have contributed to the more rapid deployment of EFSI finance for SMEs, which especially initially were seen as more successful. Since 2016, three new products were added to the SME window, including uncapped guarantees for riskier (subordinated) loans to innovative SMEs and small mid-caps; capped guarantees for the EU Programme for Employment and Social Innovation (“EaSI”); and Investment Platforms. There is ongoing discussion between the EIF and the European Commission about using securitisation as part of the SME window, but as of early 2019 no securitised products have been rolled out (ICF, 2018, pp. 56–57), although the EIF has been conducting SME securitisation since the 1990s outside of EFSI (EIB, 2017b). EIF’s securitised transactions total EUR 8.2bn between 2004 and 2015 (EIB, 2017b).

The EIF’s volume of operations has been increased very significantly thanks to EFSI, growing from EUR 3.3bn in 2014 to EUR 10bn in 2018 – that is, more than tripling in four years (interview material). EIF’s focus is to enhance access

to finance for SMEs as part of its EU mandate, but also provide ecosystem support like the development of the European venture capital market, as well as developing the market for business angels via a fund to co-finance with angels, helping develop fintech, crowdfunding etc. EIF is a for-profit organisation for their shareholders while EIB is not for profit<sup>17</sup> – this means they need to have a different pricing model. In terms of products, EIF covers the whole financing chain, starting with funding for seed capital to later-stage growth to mid-cap market, but is also active in more mature markets with guaranteed products.

EIF does not finance SMEs directly, but always goes through intermediaries – the guarantee is provided to banks or counter guarantees are provided to guarantee institutions (NDBs mainly like BPI France, KfW). The counterparty has to do riskier business than they would do normally if they get EIF guarantees. For example, Cosme is a first loss guarantee so the financial intermediary needs to take at least 20% of risk to have “sufficient skin in the game”.

Cosme has a very high target leverage of 20–30 – that is, one euro should catalyse 20–30 euros. EIF achieves that because are targeting very high-risk SMEs – the rules for the banks are such that they need to target high risk or un-served SMEs in order to receive the guarantee. The financial intermediary is the owner of their portfolio but, within a certain framework and criteria that EIF specifies, they report back to EIF. EIF is more focused on whether the loan is given or not, so price is secondary but they do check that the benefit of resources is passed to the SME (interview material).

Some guarantees are free; some are not. There are usually embedded costs to the intermediary in the product; it was argued that as the intermediary has to serve higher risk clients, there is an implicit cost in the product even if the guarantee is free. Risk increase is defined by EIF for a commercial bank, for example if they lend more to the bottom quartile of existing loan book (in terms of credit ratings) or lend to segments of SMEs not currently served. This is a matter that seems to require further study, especially if guarantees are given free, in times when SMEs already have access to credit from banks and the sectors are not so innovative or risky; in such cases, it would seem that guarantees should be priced fully for the intermediary.

Because Cosme is focused on smaller transactions, over 1 million SMEs have been supported. EFSI support has also not just increased the number of SMEs served, but also more risky SMEs, in more countries. Start-ups are often neglected on the side of debt and some sectors are neglected eg cultural and creative, but even in traditional sectors there are niches of sectors that are not well served.

<sup>17</sup> EIB was created as a ‘non-profit making’ organization. In 1999 this was changed to ‘non-profit seeking’ (BG (98/C 269/05 OF 29.8.98)) and in 2010, non-profit maximising’ (ActR2011).

#### 4.4. INFRASTRUCTURE WINDOW

Under the infrastructure window, in addition to relying on traditional long-term senior loans (about 60% of the total), the EIB expanded the use of existing higher-risk products and developed new ones. These include corporate hybrid bonds which focus on low-risk utilities, infrastructure aggregation platform, ABS Mezzanine that supports lower rated beneficiaries, Layered funds mezzanine, Captive funds and investment platforms that target NPBI, and Venture Debt (analysed in some detail below) and other “quasi-equity” products (ICF, 2018, pp. 54–55). The EIB has conducted securitised transactions under the infrastructure window in partnership with the EIF. As of March 2019, EUR 5bn of guarantees under securitisation have been signed as part of 24 transactions (interview material).

FIGURE 5: VENTURE DEBT PRODUCT STRUCTURE



Source: Interview material.

#### 4.5. CASE STUDY ON VENTURE DEBT

One of the new products is venture debt, where EIB provides debt – but there is a so-called equity kicker. If business does well, EIB also gets part of that higher profit as compensation for taking higher risk, implying this is an instrument where EIB captures the upside, which is clearly desirable, as EIB is not just sharing risks but also profits. This is done usually by an equity-linked instrument (warrants) or profit participation. Venture debt also has the virtue of financing the growth stages of companies, for example for scaling up from

pilot to mass manufacturing, further development of R&D, and international expansion.

## 5. RELATIONSHIP WITH FINANCIAL INTERMEDIARIES AND PRIVATE INVESTORS

### 5.1. PRIVATE INTERMEDIARIES AND POLICY STEER

An important component of the leverage in EFSI comes from private financial sector lending or investment. EIB can either co-finance projects with private banks and investors, and/or use a private financial intermediary. The advantage of involving private intermediaries is that this increases leverage, and in theory enables better risk assessment and monitoring of projects due to local knowledge and relationships. On the other hand, this creates the danger of taking excessive “financial risk” (see below) and decreases policy steer. This is because only projects with the potential to be bankable in the short to medium term can attract private investors. For example, if the EC wants to finance energy efficiency projects that are not just applying current technologies, but investing in new technologies, such an activity might be too risky to be attractive to private investors, even with EIB support.

The SME window in particular relies mainly on intermediaries, while the infrastructure window co-finances a large portion of its portfolio directly.

Private banks can be involved through traditional on-lending<sup>18</sup>, or through “de-risking” the private bank’s loan portfolio, with the expectation that they will then increase lending to beneficial areas. For an example of the latter, EIF can make a bilateral loss-sharing agreement between the EIF and a financial institution under which the EIF reimburses the financial institution for up to a certain percentage of the principal losses incurred on portfolio loans in exchange for a guarantee fee.

This arrangement is used especially for SME lending. The EIB and EIF hope that sharing a portion of the risk will encourage the financial institution to expand their SME lending, especially to more risky SMEs. This should also help the financial institution to increase business volume without exceeding their risk limits (country, industry exposure, single obligor) and would reduce the amount of capital the FI needs to allocate towards the SME portfolio (“EIB Support to the Financial Sector,” n.d.). Since the 1990s, the EIF has used SME securitisation (though not yet as part of EFSI), where SME loans are securitised and moved off the bank’s balance sheet, freeing up space for the bank to increase lending (interview material; EIB, 2017b).

According to EIF, private banks prefer to receive transactions that involve de-risking and securitisation over traditional on-lending because it is more flexible for the banks’ portfolio management strategies. Additionally, because

<sup>18</sup> Where a low interest loan is given to the intermediary, which then on-lends the funds at a slightly higher interest rate, profiting from the spread.

securitisation makes SME risk tradable, it is seen by some to have the added benefit of capital market development, in line with EU objectives on Capital Market Union (interview material). It should, however, be pointed out that other commentators (for example Finance Watch and academics) have been critical of the emphasis on securitising SMEs, pointing to potential large risks of such transactions, as was shown in the case of US securitisation of mortgages that contributed to the US sub- prime crisis, which led to the North Atlantic financial crisis.

## 5.2. PRIVATE INVESTORS AND RISK ASSESSMENT

One of the main aims of the Juncker plan and EFSI is to provide finance to valuable projects that would not get financed on private markets alone, or through normal EIB channels due to their high risk. Although these risky projects might not be bankable in the sense of resulting in short-term profits, they are vital for long-run growth and structural transformation. The Juncker plan envisions doing this by getting the EIB to take on more risk than it normally would. While EFSI (in its Phase 1) initially had a counter-cyclical focus in the post-crisis environment, EFSI 2 and InvestEU have more of a structural transformation objective.

The EU institution's matrix for assessing whether this developmental role is being played is to take into account the risk profile of the EIB's financial products, rather than that of the final beneficiaries. This can be problematic in some cases, as "real economy" and "financial" risks can at times diverge, and projects that the EIB classified as "high risk" according to the EFSI objectives may in fact only be risky in the financial sense. In some cases, the same project was classified as a more risky EFSI project rather than a normal EIB project, purely because the financial products changed to riskier ones (interview material).

For example, the EIB's Board of Directors had approved financing for the investment programme of a listed energy company through a traditional senior loan outside of EFSI. This approved loan was never signed as the EIB then offered the company a Corporate Hybrid Debt product, which it was developing at the time. Due to the use of this new product, the rating of this operation was downgraded, qualifying it as a "Special Activity" under EFSI. This was because the new financial product offered weaker contractual protection and a longer grace period for interest repayments as compared to the senior loan. In this case, while "financial" risk to the EIB increased, the "real economy" risk of the project clearly remained the same (interview material; European Court of Auditors, 2019, 26).

### 5.3. COLLABORATION WITH NATIONAL DEVELOPMENT BANKS

The EIB's cooperation with member states' national development banks (NDBs) has been strongly enhanced as part of EFSI, including its leverage strategy. As discussed above, participation of an NDB as a financial intermediary increases EFSI's leverage due to the catalytic effect. NDB participation also helps with overcoming fiscal constraints. Although NDB activities do count as contingent liabilities, they do not count towards the Maastricht criteria (EC, 2015). Cooperation between the EIB and NDBs can take four forms: 1) Co-investment at the project level; 2) Intermediated financing where the EIB provides loans or guarantees to NDBs for on-lending; 3) Risk-sharing instruments where the EIB makes an agreement to cover up to a certain percentage of credit risk associated with a portfolio of loans – this reduces the exposure of the NDB to certain sectors or client segments and frees up capital and other resources to grant new loans; 4) Collaborative investment platforms that involve joint cooperation among the EIB Group, several NDBs and potentially other IFIs, the latter especially in the context of InvestEU (EIB, 2016). An example is the EIF-NPI Securitization Initiative (ENSI) that aims to provide more SME finance through boosting the SME securitisation market (ICF, 2018, pp. 58–59). As of December 2017, EUR 7,393mn of funds have been signed with NDBs – 2,682 under the SME window and 4,711 under the infrastructure window<sup>19</sup>.

Cooperation with NDBs rather than private financial actors has the potential to increase “real economy” risk-taking while reducing “financial” risk-taking. Since NDBs are public actors not bound purely by short-term profit motives, and benefit from public guarantees, they may be more likely to take on “real economy” risks than private financial actors. Furthermore, excessive subsidies or de-risking by the EIB would go back to the public sector rather than benefit private actors.

### 5.4. ASSESSING THE CONSEQUENCES OF RISK SHARING ARRANGEMENTS

While funding projects with “real economy” risk is good, taking excessive “financial” risk through complex financial products or through too-high risk sharing with the private sector creates the danger that the public entities (and ultimately the taxpayers) will bear the risks, while the private sector reaps all the rewards. It could also have negative long-term budgetary implications via contingent liabilities.

This leads us to the issue of the distribution of risks of losses and profits between the public actors (in this case EIB and European Commission funds, for example deployed as guarantees) and the private financial actors (lenders and investors). If, in the aim to attract additional private lending or investing,

<sup>19</sup> [https://www.eib.org/attachments/strategies/efsi\\_2017\\_report\\_ep\\_council\\_en.pdf](https://www.eib.org/attachments/strategies/efsi_2017_report_ep_council_en.pdf)

financial products are created that generate too much additional financial risk and transfer too high a proportion of that risk to the public sector, (especially without transferring any of the potential upside of profits to the public sector), then this is highly undesirable from a welfare and public policy perspective. This is particularly the case if these instruments lead to high losses, which can only be known ex- post in the future; such losses could be costly to the public sector if the instruments are not properly priced and can generate future problems if there are no adequate provisions against such potential future losses.

Because many of the projects have long maturities, it is hard to know for certain what the longer-term possible losses and thus budgetary implications of the risk sharing agreements are before loans become due (interview material). However, there are a number of clues:

#### NATURE OF FINANCIAL INSTRUMENTS

The use of opaque new financial instrumentals can increase unnecessary “financial” risk of the type that resulted in the 2007 subprime mortgage crisis, without increasing necessary and valuable “real economy” risks. Excessive securitisation and financial innovation should be avoided, and traditional instruments used wherever possible, even if this sacrifices some leverage. EFSI should use instruments that also capture the upside for the public sector, and impose monitored conditionalities on intermediaries in return for EFSI support. It is worth noting, however, that the bulk of infrastructure lending under EFSI still continues to be conducted through traditional instruments.

#### PRICING OF GUARANTEES

If loan guarantees are underpriced or have no charge, then this is an implicit subsidy for the recipient. The implicit subsidy is not a problem per se, but does become problematic if it is excessive beyond what is required to attract the private investors’ participation, or if it does not come with performance related conditionalities.

If future losses were to become very high, for example in another financial crisis, they could imply large liabilities for EU member governments, precisely at a time when fiscal budgets are tight. This is why it is important that: 1) guarantees covering risks are properly costed, and an appropriate fee is charged for them; 2) adequate provisions are made; and 3) there is adequate sharing of risks between the private and the public sector.

There is evidence that, though the EIB and EIF pay fully the price of the European Commission guarantee, it is likely that an important part of EFSI guarantees granted to commercial banks do not price fully their cost. Above all, the pricing of guarantees seems to be opaque. This is reportedly in contrast with loans, where products are more fully standardised and more transparent. It is difficult to ensure the level of implicit subsidy in guarantees given, but further

research is required on this important topic – research that would be welcomed by the EIB itself (interview material).

#### LEVEL OF PROVISIONS

EFSI has lowered provisions from the 20% required in the RSSF to 9%. This increases the risk of potential losses for EU institutions in the case of increased default were there to be another economic downturn or, worse, another financial crisis. Lower provisioning regulations free up capital, which fits with EFSI's aims to do more with less but further increases potential risks for the public sector.

If EFSI wants to take more risk, it is key it identifies higher-risk projects/sectors/countries, as opposed to identifying higher-risk financial products as it currently does in its risk evaluations. A problem is that some member states like the Dutch and the Danish reportedly did not favour a more sectorial approach under EFSI, which would give priority to EFSI lending/investing in particular sectors. InvestEU does, however, seem to move towards greater sectorial priorities through the establishment of policy windows controlled by policy DGs, and especially via the new strategic European investment window.

#### PERFORMANCE RELATED CONDITIONALITIES

Attaching performance-related conditionalities – for example, increased lending to economically riskier SMEs, in new/underserved sectors/countries, etc. – to any subsidies given to financial intermediaries are necessary in order to make EFSI operations effective in terms of catalysing additional private investment and achieving policy steer.

In risk-sharing operations, the EIB assumes the risk on underlying transactions in order to support the origination of an EFSI-eligible new portfolio of loans. In partial delegation models, EIB retains the right to approve/reject any addition to the portfolio. In full delegation models, the EIB delegates the selection of the loans based on pre-defined criteria to the financial intermediary (ICF, 2018, p. 57). It is key that the EIB and EIF set and strictly monitor whether financial intermediaries are taking increased real economy risk on worthwhile projects.

## 6. CONCLUSION: ACHIEVEMENTS, RISKS AND LESSONS FOR THE EIB'S POST-COVID RESPONSE

EFSI has important achievements, including the significant leverage it is providing on scarce EU budget resources to help provide lending and guarantees to new riskier businesses, important innovative projects and additional resources to countries that have suffered from the Eurozone crisis, or who are new EU members, as well as supporting increased investment in the EU more broadly. It has also allowed the EIF to significantly increase its operations, in its important role of catalysing financing for SMEs.

However, this paper has shown how the EIB's mode of engagement with private investors creates a trade-off between policy steer – implied in European moves towards industrial policy – and the greater leverage – implied in a strategy to mobilise private resources. This trade-off is also linked to the crucial distinction between “real economy” risk and “financial” risk. While funding projects with “real economy” risk is valuable, taking excessive “financial” risk through complex financial products or through excessive risk sharing with the private sector is not. Socialising the risks while privatising the rewards leads to excessively subsidising private financial intermediaries without necessarily increasing the funding of “real economy” risk. This is highly undesirable from a welfare and public policy perspective. If the EIB wants to take more risk, it is key it identifies higher economic risk projects/sectors/countries and focuses more on final beneficiaries, as opposed to identifying higher-risk financial products and focusing on financial intermediaries, as it currently does to a certain extent in its risk evaluations. The unwillingness of the European Commission and member states behind it to put in additional budgetary resources may create obstacles to increasing “real economy” risk, while creating incentives for greater “financial” risk-taking.

Similarly, while the mobilisation of private capital brings benefits (achieving higher levels of investment by “doing more with less fiscal resources”), it also generates potential risks, via contingent liabilities, that need to be properly accounted and provisioned for. There is also a risk that the greater the loan volume achieved through involving private intermediaries, the more indirect the operations become, the harder it becomes to impose conditionalities, and the less strategic direction the European institutions are able to exert over projects.

For this reason, InvestEU and the EIB's post-COVID response should focus more on “real economy” risk and less on “financial” risk, and on the final beneficiaries of projects rather than on the private financial intermediaries. This is especially so for the strategic European investment window, which is oriented towards industrial policy rather than counter-cyclicality, and so control over the instruments becomes more important, and loan volume somewhat less important. This becomes easier to implement if greater resources are granted by the European Commission and/or member states to the EIB, for example to increase the EIB's capital. When private intermediaries are used, performance related conditionalities should be attached and strictly monitored. In the cases where this is impossible to do, it might be more desirable for the EIB to provide support directly. Ultimately, the financial sector must serve the real economy, and financial objectives, for example, the development of capital markets, must never be an end in itself.

## REFERENCES

Amsden, A. H. (1992). *Asia's Next Giant: South Korea and Late Industrialization*. Oxford University Press on Demand.

- Chang, H.-J. (1994). *The Political Economy of Industrial Policy*. New York, NY: St. Martin's Press.
- Claeys, G., Leandro, A. (2016). Assessing the Juncker Plan after one Year. *Bruegel*. URL <http://bruegel.org/2016/05/assessing-the-juncker-plan-after-one-year/> (accessed 3.31.19).
- Clifton, J., Díaz-Fuentes, D., Gómez, A.L. (2018). The European Investment Bank: Development, Integration, Investment? *JCMS: Journal of Common Market Studies* 56, 733– 750.
- EIB Support to the Financial Sector: Risk Sharing Guarantees [WWW Document], n.d. URL <https://www.eib.org/infocentre/publications/all/acp-fs-risk-sharing-guarantees.htm> (accessed 3.31.19).
- European Commission (2015). “Working Together for Jobs and Growth: The Role of National Promotional Banks (NPBs) in Supporting the Investment Plan for Europe”. Communication from the Commission to the European Parliament and the Council. Available at: <http://europeanmemoranda.cabinetoffice.gov.uk/files/2015/07/11283-15.pdf>
- EIB (2016), “Rules Applicable to Operations with Investment Platforms and National Promotional Banks or Institutions”. Available at: [https://www.eib.org/attachments/strategies/efsi\\_steering\\_board\\_rules\\_applicable\\_to\\_operations\\_with\\_investment\\_platforms\\_and\\_npbs\\_or\\_institutions\\_en.pdf](https://www.eib.org/attachments/strategies/efsi_steering_board_rules_applicable_to_operations_with_investment_platforms_and_npbs_or_institutions_en.pdf)
- EIB (2017a). “EIB Financial Report”. Available at: <https://www.eib.org/attachments/general/reports/fr2017en.pdf>
- EIB (2017b). “Evaluation of the EIF’s SME Securitisation Activities, 2004-2015”. Available at: [https://www.eif.org/eib.org/attachments/ev/ev\\_report\\_eif\\_sme\\_securitisation\\_activities\\_en.pdf](https://www.eif.org/eib.org/attachments/ev/ev_report_eif_sme_securitisation_activities_en.pdf)
- EIB (2019a). “EIB-EFSI Multiplier Methodology Calculation. Available at: [https://www.eib.org/attachments/strategies/efsi\\_steering\\_board\\_efsi\\_multiplier\\_methodology\\_calculation\\_en.pdf](https://www.eib.org/attachments/strategies/efsi_steering_board_efsi_multiplier_methodology_calculation_en.pdf)
- EIB (2019b). “EIF-EFSI Multiplier Calculation Methodology. Available at: [https://www.eib.org/attachments/strategies/efsi\\_steering\\_board\\_eif\\_efsi\\_multiplier\\_methodology\\_calculation\\_en.pdf](https://www.eib.org/attachments/strategies/efsi_steering_board_eif_efsi_multiplier_methodology_calculation_en.pdf)
- European Court of Auditors (2019). Special Report no 03/2019: “European Fund for Strategic Investments: Action Needed to Make EFSI a Full Success”. Available at: <https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=49051>
- Griffith-Jones, S. and Kollatz Ahnen, M. (2012). *Financial Times*. <http://www.stephanygj.net/press/sjg-e-forum.pdf>
- Griffith-Jones, S. and Ocampo J.A. (eds.) (2018). *The Future of National Development Banks*. Oxford: *Oxford University Press*.
- Honohan, P. (1995). The Public Policy Role of the European Investment Bank within the EU. *JCMS: Journal of Common Market Studies* 33, 315–330.
- ICF (2018). Independent Evaluation of the EFSI Regulation.
- Kraemer-Eis, H., Passaris, G., Tappi, A., and Inglisa, G. (2015). SME Securitisation – at a crossroads?. EIF Working Paper 2015/31 52.

- Liebe, M., and Howarth, D. (2019). The European Investment Bank as Policy Entrepreneur and the Promotion of Public-Private Partnerships. *New Political Economy* 1–18.
- Mazzucato, M. (2013). *The Entrepreneurial State: Debunking Public vs. Private sector myths*.
- Mertens, D., Thiemann, M. and Volberding, P. (2021): *The Reinvention of Development Banking in the European Union. Industrial Policy in the Single Market and the Emergence of a Field*, Oxford University Press.
- Stiglitz, J. E., and Weiss, A. (1981). Credit Rationing in Markets with Imperfect Information. *The American Economic Review*, 71(3), 393-410.

#### ANEXO. LIST OF INTERVIEWS

- Ambroise Fayolle, European Investment Bank, Vice-President.
- Julie Chevallier, European Investment Bank, Advisor to Vice-President Ambroise Fayolle.
- Alessandro Izzo, European Investment Bank, Head of Project Finance Division, Western Europe, Operations Directorate.
- Caroline Gaye, European Investment Bank, Head of Unit Mandator Management, Institutional Mandates Division, Operations Directorate.
- Markus Berndt, European Investment Bank, Director of Institutional Strategy
- Matthieu Bertrand, European Investment Bank, EFSI and CEF Mandate Officer.
- Shiva Dustdar, European Investment Bank, Head of Innovation Finance Advisory
- Jaroslav Toth, European Investment Bank, Innovation Finance Advisory.
- Edward Calthrop, European Investment Bank, Senior Economist, Environment, Climate and Social Office.
- Helmut Kramer-Eis, European Investment Fund, Head of Research and Market Analysis.
- David Gonzales Martin, European Investment Fund, Head of Growth and Investment Programs.
- Martin Puc, European Court of Auditors, Senior Auditor.
- James Mcquade, European Court of Auditors, Senior Administrator Matthias Kollatz, Finance Senator for Berlin, former EIB.
- David Rinaldi, Foundation for Progressive European Studies Estelle Goeger, European Commission, Team Leader, DG Ecfm Lukas Vesely, European Commission.

