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INVESTMENT IN EUROPE: MAKING THE BEST OF THE JUNCKER PLAN

WITH CASE STUDIES ON DIGITAL INFRASTRUCTURE AND ENERGY EFFICIENCY

Eulalia Rubio
David Rinaldi
Thomas Pellerin-Carlin

Foreword by Enrico Letta

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with the support of the Caisse des Dépôts et Consignations

1. Eulalia Rubio is the scientific coordinator of the report, David Rinaldi and Thomas Pellerin-Carlin carried out the case studies on digital infrastructure and energy efficiency, respectively.

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FOREWORD BY ENRICO LETTA

The sudden lack of investments in Europe is one of the keys to understanding the severity of the economic and financial crisis which has been whipping up a great tempest in Europe since 2008. In many Member States, the significant drop in investments was either a consequence or a cause of the crisis. It is a consequence as the lack of public money forced many governments to maintain running expenses to the detriment of long-term investments. At the same time, the drop in investments can be deemed a cause as it made any strong recovery impossible at a time when, in 2015, macroeconomic conditions had improved. Zero percent interest rates, strong dollar and low oil prices should have driven recovery, yet the drop in investments has been an obstacle to this major opportunity presented to us by these favourable macroeconomic conditions.

Against this backdrop, many questions remain without clear answers with regard to what the media is calling the "Juncker Plan". Is this investment plan able to get Europeans out of the economic rut they have become stuck in? Is it the major offensive in favour of investment that President Juncker promised to the European Parliament upon his election, or is it, in more mundane terms, merely a communication tool? What actual results can be expected? Which solutions can be implemented to get the most out of the Juncker Plan?

These questions have somewhat fallen off the radar of European and national institutions and media. The impact of the announcement has now passed and political and media attention has moved onto other issues such as Brexit and the refugee crisis. This report by the Jacques Delors Institute follows up on the Juncker Plan to analyse its content, functioning, the main risks of its implementation and its potential long-term impact. In this report, Eulalia Rubio, David Rinaldi and Thomas Pellerin-Carlin put forward clear recommendations to improve the Plan and conduct an in-depth examination of its potential in two major areas: digital infrastructure and energy efficiency.

Upon reading this report, I would note a few lessons that are of the utmost importance for the state of Europe today.

Firstly, the Juncker Plan is not a miracle cure. Alone, it cannot make up the investment deficit from which Europe is suffering. The resources allocated to this Plan remain very low, too low in fact given the stakes at play. Using these scant resources, the Plan intends to mobilise slightly more than €100 billion per year. Even if it were to reach its goal, it would only significantly yet insufficiently reduce an investment deficit in Europe estimated at roughly €200-300 million per year. In other words, **the Juncker Plan is 'too little too late' to remedy investment and employment issues in Europe.** By means of comparison, the American Recovery and Reinvestment Act adopted by the Obama administration in 2009 injected more than $800 billion into the US economy between 2009 and 2013.

Who is to blame for this? The low amounts allocated to the Plan are clearly linked to the desires of some European Union Member States. The Juncker Plan is a reflection of certain Member States' reluctance to invest considerable resources to boost investment. This is not a first for Europe. In 1993, Jacques Delors, then President of the European Commission, proposed in his White Paper on growth, competitiveness and employment a major investment plan financed by a large-scale European loan. Adopted by heads of state and government leaders, it was never applied. More recently, the heads of state and government of the EU Member States adopted a Compact for Growth and Jobs in 2012. Following talks, this Compact was of a modest scale (approximately €120 billion) and for the most part based on the use of existing funds. It thereby acted more as a political communication tool than as a real investment plan.

The small size of the Juncker Plan is therefore the result of decisions made by European Union Member States. It is once again likely that these decisions were guided by an excessively narrow and short-term vision of national interests.

Despite its modest scale, the adoption of the Juncker Plan is a small victory in itself. It reflects the change in paradigm that is underway within European institutions: today, it is no longer contested that there is an investment problem in Europe, affecting all countries and not simply some Member States. Today,

there is consensus that the solution to this lack of investment requires, at least partially, action on a European scale. Today, it is clear that the economic strategy rolled out by the EU and Member States alike was a "fiscal consolidation" strategy, too focused on more or less unsuccessful attempts to reduce public spending in the short term.

Going beyond the question of its allocated amounts, the Juncker Plan presents some interesting new options. It is the most ambitious initiative currently proposed to use the EU's budget as a guarantee with a view to mobilising private financing. Unlike previous investment initiatives in the EU (such as the 2013 decision to increase the capital of the European Investment Bank (EIB)), the Plan also aims to remove some regulatory obstacles to investment (which, in some sectors, constitute the main disincentive to both public and private investment). It pays special attention to efficiency, and not only to the volume of investments, by supporting the preparation and financial package of projects. It encourages the participation of National Development Banks (NDBs), thereby proposing a common and integrated solution to investment challenges in Europe.

While it is still too early to tell what impact the Juncker Plan will have in terms of investment and employment, the preliminary results and lessons learned from similar experiences in the past can give us a few indications. There is a significant risk that the European Fund for Strategic Investments (EFSI) will finance projects that are not very additional, with the sole aim of reaching its target amount (€315 billion mobilised). In other words, European public money would be used to finance projects that could very well have been financed by national public funds or private capital. It is therefore highly likely that the EFSI would be disproportionately beneficial to the most developed areas, which are also those with the least need for investments supported by the European public powers. Cooperation with National Development Banks is a crucial condition for the Plan's success, yet, if it is not well organised, the EFSI could support projects that should have been financed by the National Development Bank, the EIB or existing European funds. Furthermore, it is uncertain whether the Juncker Plan will remove a considerable number of regulatory obstacles to investment, starting with the non-application of European legislation in some Member States.

The Juncker Plan does not, however, seem to have yet completely endorsed a crucial paradigm shift on the role of public authorities in stimulating useful investment. The often subconscious prejudice that there is a predetermined stock of good investments must be left behind. This static approach does not take into account the dynamic reality. A good investment project does not exist in a vacuum; it is instead built up by men and women who combine local knowledge, relevant economic analysis, an adequate regulatory framework and appropriate financing solutions. To put it simply, **public authorities must contribute to the creation of good investment projects.** While the Juncker Plan has started to embrace this reality, for instance by creating a new European Investment Advisory Hub (EIAH), the amounts allocated to the EIAH seem insufficient to cover all the tasks entrusted to it.

This report by the Jacques Delors Institute includes a set of recommendations with regard to the Juncker Plan in general, as well as on specific cases concerning the financing of digital infrastructure and energy efficiency. These recommendations aim to get the most out of the Juncker Plan, in order to help it to reach its targets in terms of investments, job creation and support of the European Union's political objectives.

The two case studies also provide a precious overview. In terms of both energy efficiency and digital infrastructure, the main cause of the lack of investment is the unfavourable, fragmented or uncertain regulatory framework. This reinforces the conviction that the third pillar of the Plan is the one that is supposed to have the strongest impact on investment. The case studies also highlight that EFSI funding, in relation to other sources of financing in the EU, may play a key role in supporting small-scale projects for the future. If it is used strategically, it can help to step up the digital, environmental and energy transition, so that the EU can be ready to face future challenges.

Probably one of the most interesting aspects of the Juncker Plan is its long-term scope. If it is ultimately successful, it could, in the long term, give rise to a welcome change in the EIB's practices, currently too reluctant to finance high-risk projects out of fear of losing its triple-A rating. The Juncker Plan could also lead to more solid and institutionalised forms of cooperation between the EIB and National Development Banks. It could also be used as an embryo

for a future stabilisation mechanism for the Euro area, as stated in the Five Presidents' Report.

The Juncker Plan's intuition has been very good and for this reason any failure of the plan would be fatal. We are on a knife's edge. It must succeed. At all costs.

Enrico Letta
Vice-president of the Jacques Delors Institute,
Dean of the School of International Affairs at Sciences Po Paris (PSIA),
former Italian Prime Minister

EXECUTIVE SUMMARY

1. Investment in Europe: making the best of the Juncker Plan
By Eulalia Rubio

1.1. Investment in Europe: facts, trends and on-going debates

- Europe suffers from an investment gap estimated at around €200-300 billion per year. Sluggish growth is the most important driver but empirical studies point at four additional factors: a slow process of deleveraging by households and non-financial corporations, the fragility of banks translating into a lack of finance for certain market segments and countries, high levels of political and economic uncertainty and the impact of fiscal consolidation processes on public investment.

- Closing the EU investment gap is crucial to revive short-term growth but also to attain other EU long-term objectives. More investment in intangibles is essential to enhance Europe's medium-term productivity growth. Significant investment is also needed to accompany the shift towards a low-carbon economy: according to the European Commission, an increase of public and private investment of around €270billion annually will be required over the next four decades to finance the backbone of efficient, low carbon energy and transport infrastructures.

- The crisis has triggered changes in the structure and composition of the EU financial system. These can be summarized in two: a progressive fragmentation of the euro area financial system and the growing reluctance of European banks to finance high-risk investment, due to the processes of deleveraging and the introduction of stricter capital and liquidity requirements.

- Investment in Europe has been also penalized by cuts in public spending. The fall in public investment was significant during the period 2010-2012. Since then, the levels of public investment have improved in the EU as a whole but not in the euro area, where public investment remains 12% below the level of 2007. Drops in public investment are particularly marked in Ireland, Spain, Greece, Portugal and Cyprus.

- Growing fiscal constraints have led to a paradigm shift as regards to the use of public resources to promote investment. Direct financing is leaving room to the use of 'financial instruments' aimed at catalysing private investment. While the use of these instruments reports major benefits, it also entails new risks and challenges, such as the risk of crowding out private financing or more administrative and technical complexity.

1. 2. The EU Investment Plan: assessing risks and opportunities

- The Investment Plan for Europe is a comprehensive agenda to tackle the multidimensional problems affecting investment in Europe. Its main goal is to mobilize up to €315billion of additional investment between 2015 and 2018 but the Plan has also other objectives, such as improving the quality of project preparation, increasing the efficiency of public investment or creating a more investment-friendly regulatory environment.

- It is too early to assess the functioning and impact of the Investment Plan for Europe. However, preliminary evidence as well as previous experiences with similar instruments point at **nine major implementation risks** that can threaten the success of the Investment Plan within the initial three-year period.

1. Although the performance of EFSI is encouraging so far and the target of €315 billion of mobilized investment seems attainable, all seems to indicate that **the Plan will not be sufficient to close the EU investment gap.**

2. Given the pressures to attain the €315 billion goal and the broad and flexible definition of 'additionality' included in the EFSI regulation,

there is a risk that EFSI ends up being used indiscriminately to expand all types of normal EIB and EIF operations.

3. There is also a concrete **risk of re-nationalisation**; in particular, of seeing the EFSI being used to back projects co-financed by a National Promotional Bank (NPBs) that would have been anyway financed by the NPB alone.

4. **EFSI is likely to benefit disproportionally some countries**, particularly those having sophisticated financial markets and previous experience in running EIB projects

5. While, so far, the number of low-carbon projects supported by EFSI is encouraging, **nothing guarantees that the Fund will provide a sustained support to low-carbon projects over the whole investment period**.

6. The **combination of EFSI with Cohesion and Structural Funds** offers interesting opportunities but **will be technically and administratively complex**. This might translate into very few tangible results at the end of the initial investment period (that is, mid-2018).

7. **Investment platforms present potential advantages but can also entail some risks**. If the EFSI guarantee is given directly to them, this will permit a more flexible deployment of funds but will also imply a loss of control over the selection of single projects (which will be done by the platform's governance body, and not the EFSI Investment Committee).

8. In the absence of clear 'carrots' or 'sticks' to induce reform **lack of progress in the third pillar of the Plan (fostering investment-friendly regulatory reforms) is a serious risk**

9. The **new European Project Portal (EIPP) will have a marginal impact on investment** unless accompanied of mechanisms to standardize information and help potential investors assess the risks and economic returns of the projects.

1.3. Making the best of the Investment Plan: ten policy recommendations

Grounded on the previous analysis, this study formulates **ten concrete proposals for action** to be implemented within the initial investment period:

- **Recommendation 1: Ensure that the budget of the European Investment Advisory Hub (EIAH) is commensurate to the needs.** We propose in particular to increase the contribution of the EU budget to EIAH from €30 million/year to at least €40 million/year.

- **Recommendation 2: Establish a stable network of national EIAH offices covering the whole Union.** The EIAH plans to build a network of national offices but the approach is rather voluntarist and based on the establishment of different cooperation agreements. We propose a stable and homogeneous network, with a national EIAH office in each EU member state acting as both the national point of entry for EIAH's potential beneficiaries and as provider of EIAH services. The creation of this network should be complemented with reinforced support to countries having less technical capacity to structure projects. In particular, we suggest the creation of a programme to encourage the exchange of staff between NPBs involved in the provision of EIAH services.

- **Recommendation 3: Ensure consistency with Europe's low carbon goals.** We propose in particular to: give to the removal of fossil fuel subsidies high priority in the 'third pillar' agenda; devote an important part of EIAH resources to support the structuring of low-carbon projects and mainstream climate and energy efficiency considerations into the appraisal of EFSI projects.

- **Recommendation 4: Define geographical indicators at both aggregate and sectoral level**. The EFSI steering board should make use of its capacity to define indicative geographical diversification and concentration targets, and take the appropriate actions to reach these targets at the end of the investment period.

- **Recommendation 5: Exploit synergies between the EIB and NPB in the co-financing of EFSI projects**. To facilitate cooperation, we

propose delegating the monitoring of the EFSI projects co-financed by a NPB to the national bank. We also suggest granting the EFSI guarantee to NPBS only for financing trans-national investment projects or projects located outside the Bank's national territory.

- **Recommendation 6: Provide further guidance for the combination of ESI-EFSI funds.** The European Commission has recently published a note providing some guidance but it does not seem sufficient. Further guidance and technical support (through the Fi-Compass, inserted into the EIAH) should be offered to ESI authorities to combine both instruments – and in particular, to structure 'layered funds' with ESI and EFSI contributions.

- **Recommendation 7: Clarify the conditions of eligibility for investment platforms.** Only those platforms presenting some minimum standards in regards to their governance should be eligible to receive the EFSI guarantee

- **Recommendation 8: Complement the European Investment Project Portal (EIPP) with mechanisms for standardization.** Examples of standardization measures are the establishment of a database of standardized credit information on SMEs or, in the field of energy efficiency, the development of on-line tools to measure and compare the energy efficiency performance of corporate and buildings.

- **Recommendation 9**: **Promote the creation of transparent and well-designed national and regional public project infrastructure pipelines**. We propose in particular imposing as a rule the systematic involvement of NPBs in the partnership bodies supporting the definition of national and regional ESIF programs and defining some minimum standards of transparency and eligibility criteria in the procedures for selection of ESIF projects.

- **Recommendation 10: Set up complementary measures to boost public investment.** We propose broadening the scope of the 'investment clause' within the Stability and Growth Pact, establishing a common

public investment vehicle for the euro area and diversifying the purchase of assets in the context of the ECB quantitative easing program.

1. 4. Looking ahead: discussing possible long-term scenarios

- If EFSI is successful within the initial investment period, public authorities might decide maintaining the scheme for a renewed period. If this happens, it would be highly desirable that Member States reconsider the possibility to put money into EFSI's capital.

- In the long term, EFSI will probably favour the intensification and expansion of cooperation initiatives between EIB and NPB. However, it is very unlikely that it leads to the creation of a hierarchically-based system of public investment banks in Europe, structured around the EIB as the central node.

- EFSI could also become the seed of a future euro area stabilization capacity, as foreseen by the Five Presidents' Report, but this would require important changes in its size, functioning and governance. This option would be more feasible if the goal is to create a fiscal mechanism to boost the euro area aggregate demand than if the fiscal capacity is understood as a cross-country shock absorbing mechanism.

2. Developing digital infrastructure in Europe: can the Juncker Plan play a role?
By David Rinaldi

2.1. Why prioritize digital infrastructure

- Digital infrastructure *empowers* citizens and businesses by offering all the services, opportunities and information which are available through the Internet. The European Commission has recognized that the availability of high-speed networks in Europe is a prerequisite for the digital economy to flourish and an essential part of the overall strategy for achieving job creation and economic growth.

- The ability of our economies to remain competitive globally, to grow and to promote job creation depends on how Europe will manage its digital

transformation. Besides providing a short-term boost to the economy, investments in NGA infrastructure creates the groundwork for long-term improved growth and productivity gains. It is estimated that broadband networks contributed to as much as 20% of total productivity growth in Europe and have the potential to add 0.5-1.5% to the GDP of the Union.

- As investment in infrastructure has lengthy payback periods and very low financial returns in certain scarcely populated areas, direct public intervention by means of financial instruments is advisable. Research highlights that the cumulative economic gains from universal high-speed broadband deployment are 32% above the total EU investment cost.

2.2. Digital infrastructure: where do we stand?

- Full coverage of basic broadband, i.e. the first of the three Digital Agenda targets for broadband was met. Nevertheless, Europe still lags behind other industrialized economies in the deployment and adoption of NGA networks. The actual take-up of broadband remains rather limited, particularly for fast and ultra-fast connections.

- There is a divide in terms of digital infrastructure deployment between member states, and even a more worrisome **divide within member states**, between urban and rural areas.

- The demand for connectivity has risen and will rise even faster in the near future. There are at least three crucial factors which will drive up the need for high-performance digital infrastructure in the near future: 1) the **advent of the IoT** will see an increase of connected devices and apps (about 8.5 billion connected devices by 2019); 2) **an increase in the number of users** (about 100 million new users by 2019), and 3) the **changing nature of usage**, with video traffic and Cloud-based services which will become more and more prominent. Broadband infrastructure needs to keep pace with these growing demands for broadband internet access.

- The regulatory framework in Europe is largely responsible for under-investment in NGA networks. The lack of a Single Market for Telecoms,

the absence of a common framework for spectrum allocation, the service-based competition approach and general regulatory uncertainty are the main obstacles to mobilizing private investment for broadband infrastructure.

2.3. Investment needs and gaps

- The investment gap is sizable. Data for the 2007-2013 period shows that level of capital expenditure (CAPEX) in wireless infrastructure grew by over 70% in the U.S., while it declined in Europe. The studies we surveyed point out that the estimated investment need to achieve the Digital Agenda targets and deploy world-class NGA technology is likely to be in the order of € 200 billion.

- About € 22 billion of public funds (mostly ESIF and NPBs) and about € 85 billion of private investment have already been allotted to digital infrastructure development. That results in an investment gap of roughly € 95 billion.

- ESIF planned financing for 2014-2020 and the limited CEF funds for transnational broadband projects do not appear adequate to help catching up with more connected countries or to address the rural divide.

2.5. How can the Juncker Plan be of help?

- Up to December 2015, out of the 42 projects approved by the EIB in the Infrastructure and Innovation Window of the EFSI guarantee, only three consist of digital infrastructure roll-out. Two in France and one in Italy. According to the data available, the average leverage effect is in the order of x11.2.

- Preliminary evidence suggests that EFSI-backed projects in digital infrastructure are additional in the sense that, like any other EIB operation, they intervene in areas and sectors where the level of investment is actually sub-optimal. However, these first three projects do not meet the additionality clause *stricto sensu* as, so far, the EU guarantee was employed by the EIB not differently than other normal operations. Telecom Italia as

well as regional and national French authorities have a track record of similar activities financed by the EIB.

- There is a concrete risk that the EU guarantee ends up benefiting disproportionally those countries which have experience in running EIB projects, which would leave certain countries behind.

- Additionality can still be detected and achieved thanks to: 1) the improved leverage on private investment, which can allow the financing of a higher number of projects, and 2) additionality in technology, in the sense that, thanks to the support of the EFSI, infrastructure projects are more likely to take place with more costly, 'future-proof' technologies.

- The case study puts forward five recommendations:

1. **Delivering on the third pillar**. As the first barrier preventing private investment in NGA technologies is linked to the unfavourable, fractionalized and uncertain regulatory framework, achieving a Single Market for Telecoms and a reform of radio spectrum allocations are the two crucial aspects where political consensus should be found pressingly.

2. **Coupling CEF and EFSI for transnational projects**. Since there is a relative liberty in the type of instrument to be used to allocate the € 170 million available for broadband deployment in the CEF framework, it is essential to create an interplay between CEF debt instruments and EFSI financing in order to amplify the otherwise limited contribution of CEF to the deployment of transnational projects in core infrastructure.

3. **Creating ad hoc Investment Platforms for projects in rural areas**. Special efforts, driven by national public authorities in cooperation with EU institutions, should be put in place in order to facilitate private investment where it is absent; investment platforms can serve this purpose and bring together public sector institutions, firms and investors to work together for a specific geographic area. We recommend two models for Investment Platforms that help channelling financial resources for NGA technologies in rural areas: the French *syndicat mixte* model and the energy efficiency fund model.

4. **Combining digital with energy transition**. As the physical roll-out of broadband infrastructure is the primary cause of the high cost for network development, it is appropriate to coordinate work in public infrastructure to reduce the cost of networks' physical deployment. Particular synergies should be explored between the modernization of infrastructure for electricity distribution and the roll-out of fibre networks.

5. **A closer focus on financing for digital infrastructure from the side of the European Commission**, which could be achieved by including a session on investment data on the Digital Agenda Scoreboard, by improving Cohesion Data with more precise information on ICT projects, and by creating a Digital Infrastructure Financing Group to bring together the expertise of both the private and public sector and investigate the way to improve on the financing of digital infrastructure in less-covered countries and disadvantaged regions.

3. How can the Juncker Plan unlock energy efficiency investment in the short and long term? *By Thomas Pellerin-Carlin*

3.1. Why prioritize energy efficiency

- Energy efficiency investments aim at delivering an energy service, such as heating, but in a more efficient manner that leads to less energy consumption. As such, energy efficiency development is critical to help the EU achieve its objective to deliver sustainable, secure and affordable energy for all. It makes the energy system **more sustainable** as it reduces the consumption of coal, oil and gas, thus reducing both local air pollution and the global pollution of greenhouse gases that lead to climate change. The energy system becomes also **more secure** as it allows the EU to rely less on imports of coal, oil, gas and uranium from foreign countries, particularly from Russia. Last and not least, as less energy is needed, **the energy bill paid by the consumer diminishes** accordingly, ensuring that energy services remain or even become affordable for all households and businesses.

- The EU has three energy targets. Two focus on the reduction of greenhouse gas emissions and the rise of renewable energies, and are legally-binding at the EU and/or national level. This is not the case for **the third EU energy target that is a purely indicative target for energy efficiency**. It is therefore critical for the EU to propose incentives, such as EFSI's support, to public and private actors as to enhance the chances of the EU energy efficiency target being effectively reached.

- **Energy efficiency investments are virtually always profitable, but their payback times vary drastically**, from a few months to a couple of decades. This payback time is significantly influenced by the evolution of the end-user price for energy that is itself driven mainly by a mix of global prices and policy decisions.

3.2. Energy efficiency investment: where do we stand?

- The European Commission estimates that energy efficiency investments of over 100 billion euros a year are needed to allow the EU to reach its energy efficiency target. **The investment gap is currently estimated to be in between 38 and 54 billion euros/year.**

- Many EU public financing tools already exist. The practical choices on whether and how to use such tools mostly lies in Member States. **The current situation is a lack of correlation between where EU money on energy efficiency is actually spent, and where energy efficiency is most needed.**

- The regulatory framework in Europe is largely responsible for under-investment in energy efficiency. First and foremost, the EU energy efficiency legislation is poorly enforced in virtually all EU Member States. This creates useless uncertainties slowing-down energy efficiency investments in Europe. Second, both the EU and many Member States continue to subsidise fossil fuels, thus spending public money in a way that is detrimental to energy efficiency investments.

3.4. How can the Juncker Plan be of help?

- The Juncker Plan can be used to test innovative ways of financing and/or performing energy efficiency. It can experiment the roll-out of new financing methods, such as on-bill repayment and on-tax finance. It may also ensure that energy consumption data is accessible by everyone, and most notably by energy efficiency providers. This can only help in diminishing the vast pool of profitable energy efficiency projects that exists but remains untapped because of lack of access to relevant information.

- The Juncker Plan cannot solve the energy efficiency investment gap on its own, but it can be of help, **in particular in Central-Eastern Europe**. Focusing EFSI on boosting energy efficiency in those countries is critical as it allows investment where the needs are the greatest, as they inherited very inefficient energy systems from the Soviet regimes. It is also critical as those countries are the ones most exposed to energy security concerns: esp. a disruption of gas supply from Russia.

- Profitable **energy efficiency projects do not exist in a vacuum, they are created** at the junction of an energy efficiency beneficiary, an energy efficiency provider, and an adequate financing method. **The Juncker Plan can therefore help in creating more and better energy efficiency projects in Europe.** In concrete terms, it is critical to ensure that the budget of the European Investment Advisory Hub (EIAH) is commensurate to the needs, and that it is for instance used to hire specific members of staff with a specific knowledge of energy efficiency and a good understanding of the energy efficiency situation in specific EU Member States, most notably in Central and Eastern Europe.

INTRODUCTION

Weak investment in Europe is a major source of concern. Six years after the start of the crisis, investment is still 12% below 2007 levels in the EU and more than 15% below 2007 levels in the euro area, which means that Europe suffers from an investment gap equivalent to around 200-300 billion/year. Among experts and policymakers, there is general agreement that this investment gap constitutes a significant drag on growth and holds back Europe's growth potential in the long-term.

To close this investment gap, the new European Commission launched a reflection with the member states that culminated in 2015 with the adoption of a major Investment Plan for Europe, the so-called "Juncker Plan". Composed of three pillars, the centrepiece of the Plan is the European Fund for Strategic Investments (EFSI), a programme backed by a 21 billion-euro guarantee (16 billion coming from the EU budget and 5 billion from the EIB's own capital), which has to allow the EIB mobilize up to € 315 billion of additional private investment in Europe.

When first announced in November 2014, the Juncker Plan was met with a cold reception. Many experts were disappointed by its size and ambition, and criticized in particular the tiny amount of public funding involved in the Plan. They deplored the Commission and member states' lack of appetite for a massive public investment plan and questioned the capacity of the Plan to make a significant impact on growth and jobs.

More than one year later, the Juncker Plan has become a tangible reality. EFSI is already functioning and the European Commission is adopting some of the initiatives foreseen in the third pillar of the Plan. It is time to ask ourselves what we can expect from this Plan and how to ensure that it delivers the best possible results.

This is exactly the goal of this report. We do not pretend to discuss the merits of the Juncker Plan vis-à-vis other possible EU investment plans, but rather to assess the strengths and weaknesses of the Investment Plan in its current form. The structure of the report is as follows. After a summary of the main debates on investment in Europe (Section 1.1.), we identify various implementation risks that can threaten the success of the Investment Plan within the initial three-year period, and discuss different options for implementation, particularly in regards to the coordination between the EIB and the National Promotional Banks (NPBs) and the co-financing between EFSI and other EU spending programs (Section 1.2.). Grounded on this analysis, we formulate ten policy recommendations with concrete proposals for action to be adopted within the initial investment period that we believe can help secure the success of the Plan in the short term (Section 1.3.). We then discuss the potential long-term impact of the Plan, by paying particular attention to two possible long-term scenarios: a) the possibility that the Plan leads to the establishment of a permanent EU investment scheme based on a stable, federal-based articulated system of public investment banks in Europe and b) the possibility that EFSI becomes the seed of a future euro area macro-economic stabilization capacity (Section 1.4.). Finally, through two case studies, we provide a more on-the-ground analysis of the possible contributions of the Juncker Plan in two specific areas: digital infrastructure and energy efficiency (Sections 2 and 3).

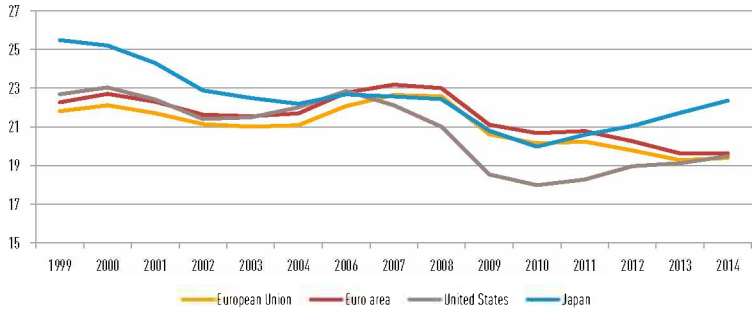
1. Investment in Europe: making the best of the Juncker Plan

by Eulalia Rubio

1.1. Investment in Europe: facts, trends and on-going debates

Investment constitutes an important component of aggregate demand, accounting for around 20% of real GDP in Europe. Despite the ECB's quantitative easing program, historically-low interest rates and a weak development of the euro exchange rate, investment in Europe remains markedly below its pre-crisis levels, even seven years after the start of the crisis. Even more worrying, unlike other economies that experienced major investment shortfalls following the crisis, the investment gap in Europe is not closing (see Figure 1). According to the European Commission's most recent forecast[1], the rate of investment slightly improved in the first quarter of 2015 (1.4% q-o-q in the euro area and the EU) but declined again in the second quarter (-0.5% in the euro area, - 0.1% in the EU).

FIGURE 1 ► Investment levels (Gross Fixed Capital Formation as % of GDP), 1999-2014



Source: Eurostat.

1. European Commission, "European Economic Forecast- Autumn 2015", in European Economy 2015, num 11.

In this context, a discussion has emerged about the magnitude of the EU investment gap, its causes and the way to close it. This discussion takes place against the background of secular trends affecting investment in advanced economies, such as the shift of the location of investment to emerging economies, the growing importance of intangible investment and the declining share of highly investment-intensive industrial sectors (OECD: 2015)[2]. In Europe, it is also shaped by discussions about the changes in the structure and composition of the European financial system, the impact of the new EU fiscal rules on public investment and the benefits and drawbacks of using financial instruments to mobilize private investment.

1.1.1. Estimating and explaining the EU investment gap

Following the financial and economic crisis of 2007-2008, investment levels in Europe dropped precipitously and are still depressed. In 2015, investment was still 12% below the 2007 levels in Europe (in volume), and more than 15% below 2007 figures in the euro area. Comparing current levels with 2007 levels is somehow misleading, because investment rates were abnormally high in the years preceding the crisis (over 22%GDP at the peak of the credit and housing boom in 2007). However, the decline in investment has not been limited to the housing sector. Besides, empirical analysis made on the basis of long-term historical trends reveals that the level of investment in Europe today is below its long-term historical average.

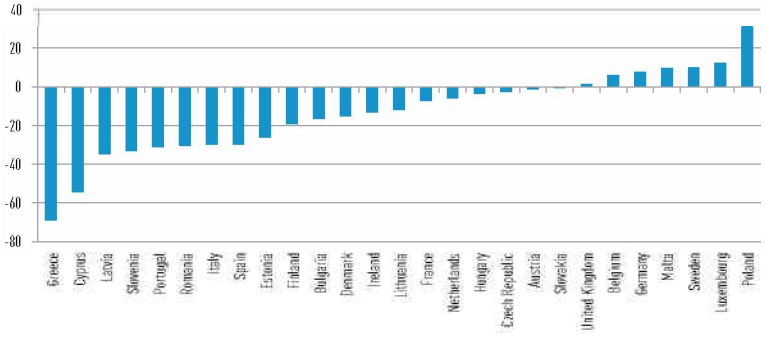
Different estimations have been made of the magnitude of the investment gap. The European Commission assumes that the EU investment level should be at least 21% of GDP to be sustainable in the long term. On this basis, it estimates the investment gap at € 270-330 billion per year[3]. Independent experts provide similar estimates. The think tank Bruegel considers that the gap for the EU15 is of about € 260 billion/year (€ 160 billion when excluding residential investment), and of about € 20 billion for the EU-12 (the member states having joined the EU since 2004)[4]. The German Institute for Economic Research (DiW Berlin)

2. OECD, "Lifting Investment for Higher Sustainable Growth", in OECD Economic Outlook, volume 2015/1.
3. European Commission and European Investment Bank, Why does the EU need an Investment Plan?, Factsheet one.
4. Grégory Claeys, Pia Hüttl, André Sapir and Guntram B Wolff, "*Measuring Europe's investment problems*", Bruegel blog post, November 25, 2014.

has estimated that the euro area investment gap was of about 2% of euro area GDP between 2010 and 2012; that is, € 190 billion/year approximately[5].

The aggregate investment gap hides important cross-country differences. As shown in graphic 2, Greece, Cyprus, Latvia, Portugal, Romania, Slovenia and Spain have registered the largest declines, with levels of investment being currently over 30% below 2007 levels. At the other extreme, five EU countries (Poland, Luxembourg, Sweden, Germany and Belgium) have now a level of investment superior to their 2007 levels. The weakening of investment has been broad-based, affecting residential investment (housing), corporate investment (machinery and equipment) and infrastructures, but the extent to which these various sectors have been touched also varies across countries. Some countries have experienced major declines in investment in machinery and equipment, but relatively modest declines in infrastructure investment (e.g. Greece, Latvia), or even increases in infrastructure investment over the last six years (e.g. Bulgaria). In other countries the opposite is true: major falls in infrastructure investment are accompanied by minor declines in corporate investment (e.g. Spain, Estonia) or even a full recovery of pre-crisis corporate investment rates (e.g. Ireland, Slovakia). Finally, in countries such as Italy, Slovenia or Portugal, drops have been significant in both categories of investment.

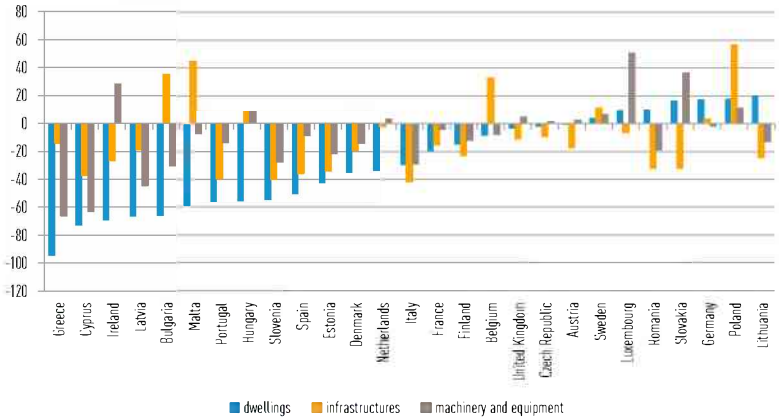
FIGURE 2 ► Gross fixed capital formation, difference 2007-2015 in constant prices (in percentage terms)



Source: Eulalia Rubio, based on AMECO data.

5. Guido Baldi, Ferdinand Fichtner, Claus Michelsen and Malte Rieth, "Weak Investment Dampens Europe's growth", in DIW Economic Bulletin, ***Economic Impulses in Europe***, vol. 7, 2014.

FIGURE 3 ► Investment per sector, difference 2007-2015 in constant prices (in percentage terms)



Source: Eulalia Rubio, based on AMECO data.

There are multiple causes behind the EU investment shortfall. Sluggish growth is the most important driver, which means that growth recovery is ultimately the most important policy response to that. While this is true, weak investment is precisely one of the factors hampering growth. One can therefore argue that Europe is today affected by a negative spiral of low investment and low growth, which can be only broken by a combination of specific policy actions to stimulate both investments and growth (structural reforms, growth-friendly fiscal consolidation, actions to strengthen EMU governance and reduce uncertainty).

Apart from weak market prospects, empirical studies point to four additional factors explaining the low investment levels in the EU, and in the euro area in particular (Buti and Mohl: 2014, OECD: 2015, Barkbu et al.:2015)[6]. First, the process of deleveraging by households and non-financial corporations has been slower in the euro area than in the US or the UK[7]. This has negatively affected

6. Marco Buti and Phillip Mohl, *Lacklustre investment in the Eurozone: is there a puzzle?*, VOX CEPR's Policy portal, 4 June 2014; OECD, *op. cit.*; Bergtjot Barkbu, S. Pelin Berkmen, Pavel Lukyanstau, Sergejs Saksonovs and Hanni Schoelermann, "Investment in the euro area: why it has been weak?", *IMF working paper*, WP/15/32, February 2014.
7. European Commission, *European economic forecast autumn 2014*.

investment, as private actors have cut investment and other forms of spending to fund the repair of their balance-sheets. Second, whereas the investment crisis has not resulted from a generalized lack of finance, the supply of finance has constrained investment in certain market segments and countries. In particular, the fragility of banks following the financial and sovereign debt crisis together with the adoption of reforms tightening banks' capital and liquidity requirements have translated into either reductions in lending or changes in the risk profile of asset holdings. Small and medium-sized companies in peripheral euro economies have been the hardest hit, but also long-term investment projects have suffered from the shift in banks' investment behaviour. Third, high levels of policy and economic uncertainty are also impeding investment in the EU. Downsize risks to the growth outlook remain significant because of the external environment, but also because of the possibility that the structural, fiscal and institutional reforms that are necessary to complete EMU could stall. Finally, the processes of fiscal consolidation have also affected capital formation in EU. Although public investment accounts for about 10-12% of total investment in EU economies, it is a significant source of finance for some types of investment (particularly infrastructures - see Section 1.1.4 below).

1.1.2. The challenge of enhancing Europe's medium-term productivity growth

The recent investment gap should be examined against the background of more secular trends underlying growth and productivity in Europe. Over the last decades, advanced economies have registered a secular decline in output and productivity growth, triggered by various factors (a slowdown in technological progress, a structural shift to lower productivity sectors, shrinking working-age populations and very high levels of public debt among others). Against this backdrop, many people fear that the current post-crisis slowdown will be more than a temporary hangover, and that advanced economies will enter into a long period of low growth, what is usually referred as "secular stagnation"[8].

Europe has strong reasons to be concerned by the threat of secular stagnation. Before the crisis, growth rates and productivity growth were already lower in Europe than in the US. In particular, Total Factor Productivity growth (TFP growth) - the main growth driver for economies at the technological frontier

8. Coen Teulings, Richard Baldwin, Secular Stagnation: Facts, causes and cures, VoxEU.org eBook, CEPR Press 2014 ()

- has been persistently lower in Europe over the last decade[9]. In addition to that, demographic prospects are more worrying than in other advanced economies and debt-to-GDP ratios are particularly high.

To combat the risk of secular stagnation, Europe needs to improve its medium-term productivity growth prospects. Investment is crucial in this respect, but the latter should take place in those areas providing the greatest productivity payoffs. In the case of Europe, many experts consider that the main reason for the collapse of TFP growth is the failure to invest in the intangible assets of the economy (Gorning and Schiersch: 2014, Aiginger et al: 2015, Van Ark: 2015)[10].

BOX 1 ► What are 'intangible investments' ?

The capacity to produce and compete in advanced economies is increasingly driven by intangible assets, also known as knowledge-based capital (KBC). KBC comprises different types of assets. One widely accepted classification groups them in three types (OECD 2013[11]): computerized information (software and databases), innovative property (patents, copyrights, designs) and economic competences (firm-specific human capital, networks of people and institutions, organizational know-how increasing the firm's efficiency).

Intangible investments refer to those investment-like activities used to increase and renew the knowledge capital stock of a company or a country. Some of these investments are treated as 'fixed capital investments' in national accounts and corporate balances, but many of them are not. In particular, since the implementation of ESA2010 in September 2014, firms' purchases of software programs and licenses and expenditures in research and development (R&D) are recorded as 'fixed capital investment' in EU national accounts[12]. Expenditure on marketing, market research, in-house training or managerial skills are not treated as 'investment' in national accounts.

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9. Between 1999 and 2007, TFP growth in the EU-28 was 0.6 percent (two thirds of the US growth rate at 0.9 percent) and only 0.4 percent in the euro area (less than half of US growth rate (Bart van Ark: 2015).
10. Martin Gorning and Alexander Schiersch, "Europe's investment stump", in *Economic impulses in Europe*, DIW Economic Bulletin, vo. 4, Num. 7, July 2014; Karl Aiginger and Jürgen Janger, "Intangible and green investment for restarting growth", in Austrian Federal Ministry of Science, Research and Economy, *Investing in Europe's Future: Restarting the growth engine*, Vienna, June 2015.
11. OCDE, *Supporting Investment in Knowledge Capital, Growth and Innovation: Introduction and overview*, Paris: OECD, October 2013.
12. ESA2010 (European System of National and Regional Accounts) refers to the new harmonized methodology used for the production of national accounts data in the European Union (EU). Implemented since September 2014, one of the main changes introduced by ESA2010 is the fact of treating R&D spending as 'fixed capital investment.

Estimations on intangible investment are difficult to make but a series of comparable estimates has been put together as part of various EU-funded projects[13]. These estimates show that the investment intensity in intangibles (that is, the level of investment in intangibles relative to market sector GDP) is lower in the EU-15 than in the US (see Table 1). While the intensity is below that of the U.S. in all categories, it is particularly weak in R&D and other innovative property, as well as organizational capital. It should also be noted that the gap with the US on intangibles is worsening over time. Between 2001 and 2010, the US saw a sharper increase in intangibles intensity, rising by 3 percentage points against a rise of 1 percentage point in Europe (Van Ark:2015).

TABLE 1 ► Investment intensity of intangible assets (level of investment as a percentage of market sector GDP) in EU-15 and US, 2003-2007

	EU-15	USA
Computerized information	1.6	2.1
Scientific R&D	1.7	2.6
Other innovative property	1.7	2.7
Market research and advertising	1.3	2.1
Training	1.3	1.8
Organisational capital	2.5	3.5
Total intangible capital	10	14.7

Source: Van Ark (2015), based on data from Corrado, Haskel, Jonas-Lasinio and Iommi (2013).

Closing the gap in intangible investment requires action in various fronts. It is important for instance to prevent further cuts in public spending on basic research as a result of fiscal consolidation processes. Having said so, most of Europe's investment gap in intangibles is related to private sector investment, requiring structural reforms to enhance competition and allow new innovative firms to enter in the markets, as well as specific measures to foster private investment in R&D (such as tax incentives, or specific public guarantee

13. In particular, the Intan-Invest project discussed in Carol Corrado, Jonathan Haskel, Cecilia Jona-Lasinio and Massimiliano Iommi, "Innovation and Intangible Investment in Europe, Japan and the United States", *Oxford Review of Economic Policy*, 29 (2), 2013, pp. 261-286.

schemes to mobilize risky investment). A well-trained workforce is also a precondition to innovate and make appropriate use of the new knowledge capital. In this respect, labour and education policies should be also part of the strategies to shift EU towards a knowledge-based economy.

Whereas a specific effort to boost intangible investment is warranted, other measures are also important to boost EU's medium-term productivity growth. First of all, there is still much potential to unleash productivity gains from regulatory reforms. Secondly, some tangible investments can provide major productivity payoffs. This is particularly the case for trans-national infrastructures, which play a crucial role in ensuring the mobility of production factors and the interconnection between EU economies

1.1.3. The imperative to shift towards a low-carbon economy

Another major imperative to increase investment in Europe in the years ahead is the need to accelerate the transition towards a low-carbon economy. This requires substituting on a large scale the existing in-built infrastructure (in the energy, transport, water and building sectors) into more efficient, low-carbon and climate-resilient infrastructure (see Box 1). Notice that many of the investments required to complete this transition have a dual dividend: they provide a benefit for the environment but can also render Europe's economy more cost-efficient and help maintain or enhance Europe's competitive advantage in certain sectors (i.e. wind industry, energy efficiency).

BOX 2 ► Definition of "low carbon, climate-resilient infrastructure investments"

The OECD defines low-carbon, climate-resilient infrastructures as those infrastructures that either help mitigate greenhouse gas emissions (e.g. low-carbon energy production and transformation, low-emission transportation systems, carbon capture and storage, investments to improve the energy efficiency of buildings and firms) or those that will support adaptation to climate change (e.g. in the water, forestry, urban development or in-built infrastructures). This type of investment may be directed at renovation of existing infrastructures ("brownfield investments) or at the building or extension of new infrastructure ("greenfield investments").

The volume of investment needed to achieve this transition is significant. The Commission's Low Carbon Economic Roadmap calculates that an increase in public and private investment of around € 270 billion annually will be needed over the next four decades to finance the backbone of efficient, low carbon energy and transport systems[14]. Different studies that look into investment needs highlight that a majority of capital investment is likely to be concentrated in a few key areas. These include renewable energies and electricity infrastructures capable of higher shares of renewables (grids, transmission, storage); energy savings in the housing stock and industry as well as low-carbon transport infrastructure (Medarova-Bergstrom, K. et al 2013)[15].

Given the magnitude of the infrastructure needs and the context of fiscal constraints, such transformational change will require large-scale private sector engagement. Private engagement in these areas is however constrained by various factors. A main obstacle is the lack of effective carbon pricing, which distorts the cost of clean versus polluting infrastructure. Low-carbon projects are also particularly vulnerable to regulatory changes and lack of long-term policy orientation, as they are subjected to strict regulatory requirements and sometimes benefit from public support – in form of tax allowances, subsidies or others. They also face higher technological and operational risk than conventional projects. Finally, markets for low-carbon technologies and projects are rather new, and are characterized by important information and awareness gaps. In some cases, potential investors have difficulties to assess the long-term benefits and are not aware of the existing funding opportunities. In certain sectors (i.e., energy efficiency), the average size of the projects is small, inducing high transaction costs which makes less interesting for conventional investors (i.e. banks) to get in.

Setting an effective carbon price and creating a stable, long-term, appropriate policy framework in sectors such as energy and transport is essential to bring private investment to low-carbon technology and infrastructures. In addition to that, the use of the so-called 'financial instruments (see Box 3) can help catalyse private investment to low-carbon projects by reducing the financial risk

14. European Commission, A Roadmap for moving to a competitive low carbon economy in 2050, COM (2011) 112 final, 8 March 2011.
15. Medarova-Bergstrom, K, Volkery, A. Sauter, R, Skinner, I. Nuñez-Ferrer, J, (2013) Optimal use of the EU grant and financial instruments in the next multiannual financial framework to address the climate objective, Final Report for DG Climate Action of the European Commission, Institute for European Environmental Policy, London/Brussels.

associated to this type of projects. Apart from reducing the financial risks of these projects, through the provision of targeted technical assistance financial instruments can also tackle the information problems and lack of expertise that hamper investment in low-carbon projects, as well as helping develop new financial models for this type of projects. Finally, whereas the private sector is expected to provide the bulk of funding, the public sector will continue to play a critical role in directly financing certain low-carbon, climate-resilient infrastructure projects. Medarova-Bergstrom et al (2013) note that grant finance will remain the main type of public financial support for a number of low-carbon transport systems as well as for the majority of risk prevention and adaptation projects (areas in which more experimentation and pilot-testing is needed before market commercialization).

1.1.4. Changes in the European financial system

While the crisis has triggered a debate about the magnitude of the investment gap, it has also prompted changes and reflections about the structure and composition of European financial systems. The short-term effects of the crisis can be summarized in two points: a progressive fragmentation of the euro area financial system, and the growing reluctance of European banks to finance high-risk investment due to the processes of deleveraging and the introduction of stricter capital and liquidity requirements.

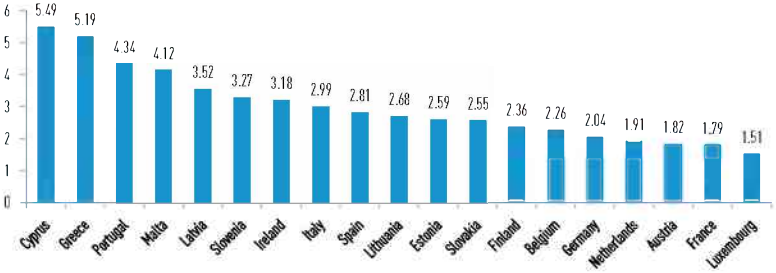
With regards to the first, whereas euro area bank retail systems have never been fully integrated, before the crisis there were significant inter-bank flows across euro area countries. Since the crisis, these credit flows have suddenly stopped and risk aversion and uncertainty have accentuated the 'home bias' of investors (Fernández de Guevara et al.: 2013)[16]. Returning to the pre-crisis situation is not desirable, as the crisis has shown the dangers of unsustainable growth based on foreign credit. Having said so, further integration of euro area financial and capital markets is important to share financial risks and ultimately render the euro area more stable. Rather than integration through inter-bank flows, what it is needed in the future is integration through more

16. Juan Fernández de Guevara, Robert Inklaar and Joaquín Maudos, "The impact of the financial crisis on financiatial integration and investment in the European Union", in EIB, *Investment and Investment Finance in Europe*, 2013.

stable flows of investment, such as cross-border bank loans, cross-border corporate bond holdings and cross-border equity.

As regards the second point, the crisis has highlighted the vulnerability of a system that is strongly dependent on bank financing. In Europe, around 80% of debt financing to the economy is provided by banks, in contrast to the US where bank financing represents around 20%. There is now a general consensus on the need to promote the role of capital markets in Europe, and in particular the development of equity financing. The commission has launched an ambitious project on this purpose (the Capital Market Union project – CMU) and there also seem to be incipient signs of a shift of EU private corporates from bank lending to market funding[17]. However, it is important to recognize that the full implementation of CMU will take long time, and that bank intermediation will continue to play a major role in financing Europe's economy, particularly in local markets and for SMEs. In this respect, one should note that there are still persistent cross-country differences in the cost of borrowing across the euro area, affecting in particular small and medium enterprises (see Figure 4).

FIGURE 4 ► Average interest rates applied to loans for non-financial corporations in Europe (February 2015)



Source: PwC, inspired on ECB data (PwC, *Capital Markets Union: Integration of Capital Markets in the European Union*, September 2015, p. 33).

17. European Commission, *European Economic Forecast*, autumn 2015, p. 60.

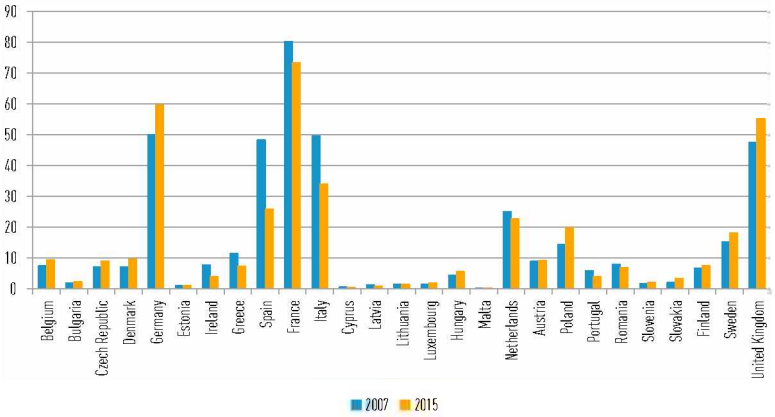
1.1.5. The impact of fiscal consolidation efforts on public investment

The crisis has also resulted in major fiscal consolidation efforts in almost all developed economies. These efforts have been significant in the euro area periphery countries (Greece, Ireland, Italy, Portugal, Spain), forced by the markets and/or the 'Troika' rescue programs to apply harsh austerity measures. As a result of this, from 2009 to 2013 the fiscal effort as an aggregate in the peripheral countries was as large as almost 10 percent of GDP (Truger: 2015)[18]

Public investment has been particularly penalized by fiscal consolidation efforts. According to the OECD, between 2010 and 2013 investment has accounted for about one quarter of fiscal consolidation efforts undertaken in developed countries, and in some countries the impact has been much larger (e.g. two-thirds of the consolidation undertaken in Spain). The largest cuts in public investment took place between 2010 and 2012. Since 2012, public investment has gradually improved, to the point that today (that is, in 2015), the volume of public investment in the EU is roughly equivalent to that of 2007. The same however cannot be said as regards to the euro area: in 2015, public investment in constant prices in the euro area was still 12% below the level of 2007. The drops in public investment are particularly marked in Ireland (-48% from 2007 to 2015), Spain (-46,5%), Greece (-36,4%), Cyprus (-32,1%), Portugal (-33,5%) and Italy (-31,6%). This contrast with the situation in other euro area countries, where public investment is now much higher than in 2007 – see Figure 5 and Table 2.

18. Truger, Achim, "Implementing the Golden Rule for Public Investment in Europe. Safeguarding public investment and supporting the recovery", Materialen zu Wirtschaft und Gesellschaft Nr. 138, Working Paper-Reihe der AK-Wien, 2015.

FIGURE 5 ► Expenditure in 'gross fixed capital formation' by government, 2007 and 2015 (in constant prices)



Source: Eulalia Rubio, based on AMECO data.

TABLE 2 ► Government gross fixed capital investment in the euro area, % change from 2007 to 2015 (in constant prices)

COUNTRY	% CHANGE
Belgium	25.8
Germany	18.9
Estonia	6.2
Ireland	- 48.0
Greece	- 36.4
Spain	- 46.5
France	- 8.4
Italy	- 31.6
Cyprus	- 32.1
Latvia	- 22.9

COUNTRY	% CHANGE
Lithuania	- 12.5
Luxembourg	33.2
Malta	16.6
Netherlands	-9.5
Austria	3.5
Portugal	- 33.5
Slovenia	20.1
Slovakia	71.4
Finland	12.7

Source: Eulalia Rubio, based on AMECO data.

The evidence presented above leads to two questions: how much worrying is the downward trend in public investment in the euro area as a whole, and whether or not we should be worried by the drop in public investment in the euro area periphery.

With respect to the first, although public investment represents a minor part of total investment (about 10-12% of total investment in Europe), the observed trend with public investment in the EMU is worrying. To start with, public investment in Europe has been in a downward trend since the 1980s, declining from rates of around 4% to the current rates of 2% of GDP approximately. In addition to that, the euro area is particularly concerned by the risk of secular stagnation and in terms of demand stabilization, the fiscal multiplier associated with government investment spending is higher than for other types of public spending (OECD: 2015; IMF: 2014). In this context, an increase in public investment in the euro area seems particularly recommendable – all the more that, in the current circumstances of very low interest rates for public sovereign bonds, such an increase would pay off for itself.

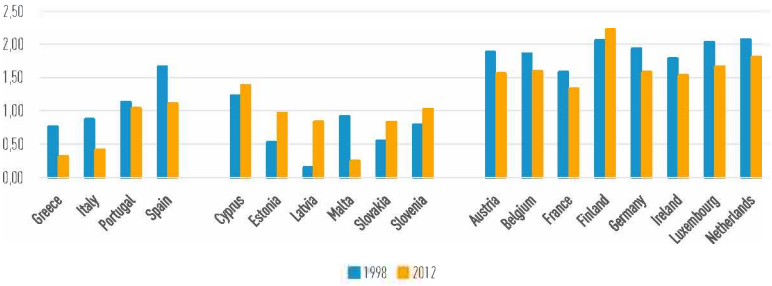
With respect to the second question, one might argue that the decline of public investment in the euro area periphery partly reflects a correction for overinvestment during the boom years. However, all sectoral areas of expenditure (and not only public infrastructures and amenities) have suffered important investment cuts[19]. Cuts have been particularly severe in public R&I expenditure. A study by Veugelers shows that the crisis has in fact widened the gap between EU countries in R&I: whereas "innovation leaders" (such as Denmark, Finland, Germany) increased public expenditure on R&D during the crisis by more than their increase in other expenditure categories, innovation-lagging and fiscally weak countries (such as Italy, Spain or Greece) cut their public research and innovation (R&I) budgets even more so than other parts of their budgets[20]

A growing EU divide in public investment, in particular in areas such as research and innovation, is worrying. It is even more worrying if the divide

19. Francesca Barbiero and Zsolt Darvas, "In sickness and in health: protecting and supporting public investment in Europe", Bruegel policy contribution, 7 February 7 2014.
20. Reinhilde Veugelers, "Undercutting the future? European research spending in times of fiscal consolidation", Bruegel policy contribution, 9 June 2014.

occurs within the euro area, as competitiveness divergences can endanger the sustainability of the area in the long term. Having said so, there is also evidence of a low efficiency of public investment in these countries. As shown in figure 6, the four southern euro area countries (Greece, Italy, Portugal and Spain) score quite badly in terms of 'government effectiveness' and, contrary to what has happened to most of their Eastern and Central European counterparts, the situation has worsened over the last decade.

FIGURE 6 ► Government effectiveness in euro area countries, 1998 and 2012



Source: World Bank Governance dataset. Indicator ranking from - 2.5 to 2.5.

To sum up: there is a case to support the recovery of public investment in the euro area periphery but any measure to boost investment in these countries should be accompanied by measures to improve the quality of public governance and, in particular, the procedures for ex-ante assessment, planning and implementation of public investment projects.

1.1.6. The growing use of 'financial instruments' in the EU

Growing fiscal constraints have also led to a change of paradigm as regards to the way of using public resources to promote investment. In particular, there is growing emphasis on the need to shift from a logic of direct public financing to a logic of catalysing private investment through the use of the so-called 'financial instruments' (FIs) (see Box 1). This idea is particularly dominant in EU discourses. Since the start of the crisis, the use of financial instruments has become very attractive as a way to expand the reach and increase the effectiveness of the EU budget without increasing its size.

BOX 3 ► What is meant by 'Financial Instruments' (FIs)?

The term 'Financial Instruments' (FIs) is used in EU documents to refer to instruments providing financial support in non-grant forms that are backed by the EU budget. The type of financial support provided can be very varied: it can consist of loans, guarantees, equity participation or other risk-sharing facilities (i.e. project bonds).

The use of FIs is not new in Europe. The first use of these instruments dates back to more than ten years ago, and during the previous programming period (2007-2014) there were at least 25 different types of FIs at work. The new financial framework (2014-2020) has merged some of the FIs, reducing the number of centrally managed FIs to 6. The latter does not include FIs used in external action, nor some special initiatives that have been created outside the MFF during the last years (such as the European Energy Efficiency Fund – EEEF – created in 2011, or the Marguerite Fund, created in 2008).

FIs are usually implemented by financial institutions on behalf of the European Commission. Many of them are implemented by the EIB or the EIF (such as the loan guarantee instrument for TEN-T, the risk-sharing facility for R&D projects or the InnovFin SME guarantee facility). Apart from those FIs that are centrally managed, member states can spend part of their structural and cohesion funds envelope through Financial Instruments. Those FIs will be then managed by national/regional authorities, either directly or with the help of a financial intermediary, such as the EIB, a national or regional investment bank or a commercial bank.

The use of financial instruments reports major benefits in terms of leverage effect and the sustainability of the invested public funds (due to their revolving character). It is also deemed to increase the efficiency of public spending, by imposing discipline to the beneficiary (which has to pay back the loan received). More generally speaking, it allows the public sector to confine the use of grants to the financing of projects having very low or negative economic return, while using market instruments to support projects having positive economic returns but being unbankable because of the risk entailed.

Despite these advantages, the use of FIs also entails some risks and challenges. Studies and reports evaluating the functioning of FIs during the last

2007-2013 EU Multi-annual Financial Framework[21] raise some caveats, particularly as regards to the following points:

Weak rationale and 'added value' - Evaluations of the 2007-2013 period report various cases in which FIs were used in the absence of clear market failures constraining private financing, thus crowding out private investment. They also put into evidence the dubious 'added value' of some European FIs that overlapped with similar schemes at national level (i.e. the SME guarantee Facility - SMEG-, providing support to SMEs).

Overlap and lack of synergy between different FIs and between them and other types of EU financial interventions. Evaluations also reveal the existence of overlap between different European FIs targeting the same beneficiaries and areas (particularly instruments in support to SMEs), as well as inconsistencies and lack of synergy between different types of EU financial interventions (EU budget grants, EIB loans and FIs).

Weak reporting/control structures. During the 2007-13 period, FIs were developed on an 'ad hoc' basis. As a result of this, in some cases their governance and implementation structures were ill designed to guarantee the EU's steering capacity and democratic control over the use of EU resources. Limited data availability and the complex nature of the instruments also resulted into important limitations for reporting, monitoring and evaluation.

Large cross-country variation in the use of FIs. During the 2007-13 period there were also substantial differences in the use of FIs across countries. For instance, reports on the use of FIs under shared management (that is, financed by Structural and Cohesion funding) show a strong concentration in a few member states, with Poland, France, Italy, the UK and Germany accounting for 75% of all structural funding contribution to FIs by the end of 2011. Unsophisticated financial markets, weak administrative capacity and lack of

21. Jorge Núñez Ferrer et. al, The implications for the EU and national budgets of the use of innovative financial instruments for the financing of EU policies and objectives, Study, European Parliament, May 2012; Peter Schneidewind *et al.*, Financial engineering instruments in cohesion policy, Study, European Parliament, May 2013; James Spence et al., Overview of financial instruments used in the EU multiannual financial framework period 2007-2013 and the Commission's proposals for 2014-2020, Study, European Parliament, March 2012.

know-how in the use of market-based instruments may explain the low take-up in certain member states.

Weak visibility and lack of awareness. Finally, there is also evidence of low levels of absorption for some FIs during the period 2007-2013, mostly related to a lack of awareness among potential recipients about the existence and availability of such instruments.

Most of these problems have been corrected with the new generation of FIs put into place for the 2014-2020 period. The number of FIs for competitiveness and cohesion has been reduced from 25 to 6[22] and an appropriate cross-policy grouping of FIs has been proposed to avoid overlaps and enhance consistency. In addition to that, a new EU Financial Regulation has been approved, including for the first time a special chapter on "financial instruments" that details the conditions for the use of FIs and some common rules concerning their governance, management and reporting/evaluation. Among other things, for instance, the new Financial Regulation conditions the establishment of FIs to the elaboration of an 'ex ante evaluation' identifying market failures and sub-optimal investment situations and demonstrating the 'added value' of using FIs to address these failures. It also enhances the duties of reporting and evaluation.

The new Fund created under the EU Investment Plan (the EFSI – European Fund for Strategic Investments), while presenting many of the features characterizing FIs – in particular, the fact of being supported by the EU budget – has not been legally defined as 'Financial Instrument'. This implies that the Fund is not submitted to the obligation of 'ex ante' assessment' set up in the Financial Regulation.

The decision of excluding EFSI from the application of the Financial Regulation seems to respond to the Commission and EIB's willingness to guarantee maximum flexibility and a fast deployment of the new Fund. While this is understandable, the lack of *ex ante* assessment should be logically compensated by an extra effort to guarantee an effective ongoing monitoring and ex post assessment of the 'additionality' and EU added value of the Fund (see § 2.2.).

22. That is, excluding FIs used in external action.

1.2. The EU investment plan: assessing risks and opportunities

The EU Investment Plan is a comprehensive agenda to tackle the multidimensional problems affecting investment in Europe. Structured in three interrelated pillars (see Box 4), its main objective is to help close the current EU investment gap by mobilizing up to € 315 billion of additional private investments over 2015-18. But the Plan has also other objectives. It aims at improving project preparation and financial structuring. By encouraging the involvement of NPBs and co-financing with EU cohesion and structural funds, it is expected to improve the coordination between different sources of public financing in Europe. There is also a general expectation that the Plan will contribute to attain important EU long term goals, such as raising EU's medium-term growth potential and accelerating the transition towards a low-carbon economy. Finally, through its third pillar, it is also aimed at creating a more investment-friendly regulatory framework at both national and EU level.

BOX 4 ► The EU Investment Plan

The "Investment Plan for Europe" (so-called `Juncker Plan') is one of the first major political initiatives of the Juncker Commission. Announced in November 2014, the Plan aims to bridge the gap between the abundant liquidity in global capital markets and the pressing need for investment in Europe. It proposes to do so through action in three interrelated strands:

The **first strand** is devoted to mobilize additional investment through the establishment of a new Fund for Strategic Investments (EFSI) and some complementary measures (such as the commitment to double the use of financial instruments within structural and cohesion policy).

EFSI is not, properly speaking, a Fund but a programme backed by a 16 billion guarantee from the EU budget, complemented by a € 5 billion allocation of the EIB's own capital. On the basis of this guarantee, the EIB will issue additional bonds for an amount of around three times the guarantee provided (€ 60 billion – internal multiplier of 3). The funds thus raised will then be used by the EIB (or the EIF) to invest in high-risk projects of EU interest, taking a first-loss position so as to attract private investment by four times the amount invested (€ 315 billion – external multiplier of 5). Around three quarters of the investment will go to finance 'strategic' investments of European interest and one quarter will be devoted to improve access to financing for SMEs and mid-caps.

The **second strand** of the Plan includes targeted initiatives to make sure that this additional investment meets the needs of the real economy. In particular, it foresees the creation of an EU Investment Project

Portal (EIPP) to provide visibility to ongoing and future projects across the Union and an EU Investment Advisory Hub (EIAH) providing advice and technical assistance for project structuring.
The **third strand** is devoted to improve the investment environment, by removing barriers to investment at national level and further reinforcing the Single Market in certain specific sectors (creation of an Energy Union, Capital Markets Union and Digital Union in the short-medium term).

The announcement of the Plan in November 2014 opened up a wide debate about, among others, the scope and expected leverage of the Fund, the risks of crowding out, its governance structure and the size and nature of the guarantee attached to it. Many of these questions have been already settled but others are still relevant. In the following, we will discuss what we believe are the main short-term risks for implementation as well as the potential opportunities opened by the Plan.

1.2.1. Not sufficient to close the investment gap

When the proposal of EFSI was presented, many experts raised doubts about the capacity of the new Fund to mobilize the expected multiplier effect of 15, which implies a total volume of € 315 billion of mobilized investment. The EIB always reassured on that, pointing out that the leverage effect of 15 is a prudent estimate based on historical experience.

The performance of the Fund so far is quite encouraging. Between April and January 2016, EIB has committed € 7.5 billion on behalf of EFSI to 126 projects accounting for a total estimated investment of € 50 billion. The approval of the EFSI guarantee is pending for some of these operations[23], but if these projects are confirmed, this will be equivalent to an external multiplier of 6.6 instead of 5. If this trend is maintained, the target of € 315 billion will be largely surpassed. However, even if this happens, and even if some progress in the third pillar of the Plan may also be expected, it is very unlikely that the EU investment plan alone suffice to close the investment gap in Europe. As seen

23. In order to secure a quick implementation of the Juncker Plan, before the establishment of the new Fund the EIB started to frontload financing for projects susceptible to receive the EFSI guarantee. These projects fulfil all the requisites to receive EIB support, and the idea is that, in case they are not granted the EFSI guarantee, they will be financed by EIB under normal procedures.

in Section 1.1., according to most experts this gap is of around € 200-300 billion per year.

Other measures to boost investment in Europe therefore seem necessary. As the focus of the Juncker Plan is on mobilizing private investment, what seems more reasonable is to envisage some complementary actions to boost public investment. In this respect, some experts have recommended complementing EFSI with a European Fund to support public investment. There are different proposals in the air, but in essence most of them envisage a Fund that would play a redistributive role, transferring resources from countries having more fiscal space to those being fiscally constrained[24]. Another option is to give to all governments more fiscal leeway to finance growth-enhancing investment. The latter could be done by enhancing the scope of the 'investment clause' included in the Stability and Growth Pact or including a 'golden rule' to safeguard public investment from the calculus of deficit levels and mid-term budgetary objectives in the application of the Stability and Growth Pact and the Fiscal Compact[25].

1.2.2. Lack of additionality

As seen above, it is quite probable that EFSI attains the target of € 315 billion mobilized investments. In fact, most independent experts consider that the main risk is that the Fund attains this figure by mobilizing investments not really 'additional' – that is, investments that would have anyway taken place in the absence of EFSI.

Since the announcement of EFSI, there has been a vivid debate about the importance of ensuring 'additionality'. Two risks have attracted particular attention: the risk that EFSI finances operations that could have otherwise been financed by the private market alone (that is, the risk of crowding out private investment instead of crowding it in) and the risk that EFSI ends up being used by the EIB to extend its normal operations rather than to finance new types of activities.

24. See for instance the proposals from Enderlein and Pisani-Ferry (2015).
25. See for instance Goulard and Monti (2014), Maystadt (2014) and Truger (2015).

In principle, the way to avoid these two risks is by confining the use of EFSI to the financing of high-risk projects. The EIB already finances some high-risk projects (defined as "special activities" in EIB jargon[26]) but these represent today a minimum part of the total EIB's activity (around 6% of total EIB signatures). The EU guarantee should permit the EIB to expand these types of activities. Indeed, the Bank foresees to push the level of special activities in 2016 and 2017 to an average of 30% of total EIB signatures[27].

This idea is clearly reflected into the EFSI regulation. Art 5.1. states that EFI projects *"shall typically have a higher risk profile than projects supported by EIB normal operations and the EFSI portfolio shall have overall a higher risk profile than the portfolio of investments supported by the EIB"* (see Box 5). However, a strict focus of EFSI on high-risk projects could pose problems. The number of these projects ready to be implemented over the next three years might be quite limited, and insufficient to reach the target of 315 billion. A rigorous approach on 'additionality' could hence hamper the capacity of the Fund to have a massive impact on investment, growth and employment, thus questioning its ultimate '*raison d'être*'.

To avoid this, the EFSI regulation has opted for a larger definition of 'additionality'. According to article 5.1., EFSI can finance projects having a lower risk profile if the latter is required to address market failures or sub-optimal investment situations, *providing that the projects cannot be carried out in the three-years period of EFSI coverage, or not to the same extent, by the EIB, the EIF or under existing Union financial instruments without EFSI support*. In other terms, the EIB can use EFSI to expand EIB and EIF normal activities, under condition of proving the existence of a market failure or sub-optimal investment situation (a condition which is basically met by all EIB and EIF operations, given the public mission of the Bank).

26. EIB special activities include two different things: a) loan, guarantee or equity operations where the bigger risk is entirely borne by the EIB and b) operations where the risk is shared with third parties (typically the EU budget under agreements with the Commission). Examples of b) are InnovFin for innovation projects, JEREMIE for SMEs, Private Finance for Energy Efficiency (PF4EE) or the Loan Guarantee Instrument for Trans-European Transport Network Projects (LGTT).
27. EIB group, *Operational Plan 2015-2017*, Luxembourg, April 2015.

BOX 5 ► Definition of additionality (art 5.1 EFSI regulation)

Art 5.1 For the purposes of this regulation, additionality means the support by the EFSI of operations which address market failures or sub-optimal investment situations and which could not have been carried out in the period during which the EU guarantee can be used, or not to the same extent, by the EIB, the EIF or under existing Union financial instruments without EFSI support. Projects supported by the EFSI shall typically have a higher risk profile than projects supported by EIB normal operations and the EFSI portfolio shall have overall a higher risk profile than the portfolio of investments supported by the EIB under its normal investment policies before the entry into force of this Regulation.
The projects supported by the EFSI, while striving to create employment and sustainable growth, shall be considered to provide additionality if they carry a risk corresponding to EIB special activities, as defined in Article 16 of the EIB Statute and by the credit risk policy guidelines of the EIB
EIB projects carrying a risk lower than the minimum risk under EIB special activities may also be supported by the EFSI if the use of the EU guarantee is required to ensure additionality as defined in the first sub-paragraph of this paragraph.

While this broader approach to 'additionality' might allow EFSI to have a significant impact on aggregate investment, it also renders the assessment of "additionality" more difficult. Without a clear strategic orientation, we can end up in a situation in which EFSI is indiscriminately used to expand all type of normal EIB and EIF operations. In other terms, there is a need to further concretize which types of 'normal' EIB and EIF investment projects, or which areas of intervention are important enough (or 'strategic' enough, to use the EFSI jargon) to be upscaled with the help of EFSI over the next three years. The role of the EFSI Steering Board in defining and adjusting the investment guidelines will be crucial in this respect.

1.2.3. Risk of re-nationalisation

Whereas the EFSI regulation stresses the need to ensure additionality with respect to both private finance and existing EIB and EU interventions, little attention has been given to the need to ensure 'additionality' of EFSI with respect to national public investment.

The EFSI regulation says practically nothing on that, except for some mentions in the preamble of the regulation on the fact that EFSI "*should not be a*

substitute (...) for products provided by national promotional banks or institutions" (recital 23 of the preamble) and "*should complement, and be additional to, ongoing regional, national (...) programmes*" (recital 42 of the preamble)

The absence of debate on this topic is striking, given longstanding discussions on the 'added value' of EU spending and the stress put in other EU policy domains to ensure that EU investment is 'additional' to national public investment. In many spending areas, additionality vis-à-vis national spending is guaranteed by a focus on activities or projects having clear cross-national externalities (typically, cross-border infrastructures) or providing economies of scale. In other areas it is assessed on more general basis. In cohesion policy, for instance, the principle of additionality means that cohesion spending should not substitute or replace national equivalent expenditure by a member state. Compliance with the principle is assessed by looking at aggregate levels of public investment at national level.

Clearly, risks of substitution are more visible in areas dominated by public grants, than in the context of EFSI, which is basically an instrument to catalyse private investment. However, they might also be situations in which EFSI substitutes to national spending. The clearest case is in EFSI operations co-financed by National Promotional Banks (NPBs). It should be noted that EFSI regulation allows the EIB to grant a guarantee under the counter-guarantee of the EU to National Promotional Banks co-financing EFSI projects (art 10.2 c). This implies, in practice, that NPBs can enjoy from the benefits of a guarantee that is ultimately backed by all EU taxpayers. While this makes full sense in cases when the National bank uses this guarantee to finance projects having a clear European dimension (e.g. cross-border investment, or investment located outside the territory of the national bank), it is less straightforward in cases in which the EU guarantee serves to back projects that would have anyway been financed by the NPB alone.

1.2.4. Risk of geographical concentration

There is also a risk that EFSI disproportionally benefits some countries/regions. In particular, some experts fear a concentration of EFSI projects in those countries having more sophisticated financial markets and more stable political and economic contexts. Four factors might play in this direction.

First, whereas the EFSI regulation makes some references to the need to be consistent with the EU objective of territorial cohesion as well as to avoid EFSI-supported operations to be concentrated in any specific territory, EFSI's main goal is to increase the aggregate level of investment in Europe. The EIB knows that, and it knows it will be mainly judged on the total volume of investment mobilized (and more particularly, on its capacity to attain the figure of € 315 billion of mobilized investment). Accordingly, it will logically have a tendency to privilege projects that are ready and well-prepared. This will benefit those countries having more technical capacity – at both the public and private sector – to use financial instruments and structure high-risk projects.

Second, the Fund is conceived as an instrument to attract private investment. The amount of projects financed in a country or region will ultimately depend on the existence of potential investors willing to investing in it. This will probably penalize certain countries presenting high levels of political and economic uncertainty, or having unreliable and ill-conceived sectoral policy frameworks.

Third, there is also a risk that, as a result of the strong involvement of NPBs in the functioning of EFSI, the latter mostly benefits those countries having powerful National Promotional Banks. If one looks at the existing experiences of joint co-financing funds (Marguerite Fund, EEEF), the core investors, together with the EIB and the Commission, have been major NPBs such as KfW (Germany), CDC (France), CDP (Italy), ICO (Spain) and PKO Bank Polski SA (Poland). And these are the same Banks that have announced the biggest participations to the EFSI project so far (see Box 6).

BOX 6 ► Announced national contributions to EFSI via National Promotional Banks

To date, eight countries have announced that they will participate in the EFSI via their NPBs. The amounts announced are as follows:

- Bulgaria (Bulgarian Development Bank): € 100 million
- Slovakia (Slovenský Investičný Holding and Slovenská Záručná a Rozvojová Banka): €400 million
- Poland (BGK and PIR): € 8 billion
- Luxembourg (SNCI): € 80 million
- France (CDC and BPI): € 8 billion
- Italy (CDP): € 8 billion
- Spain (ICO):€ 1.5 billion
- Germany (KfW): € 8 billion

In addition, the United Kingdom announced in July that it will co-finance £6bn (€ 8.5 billion) in EFSI projects. The UK contribution is not via an NPB.

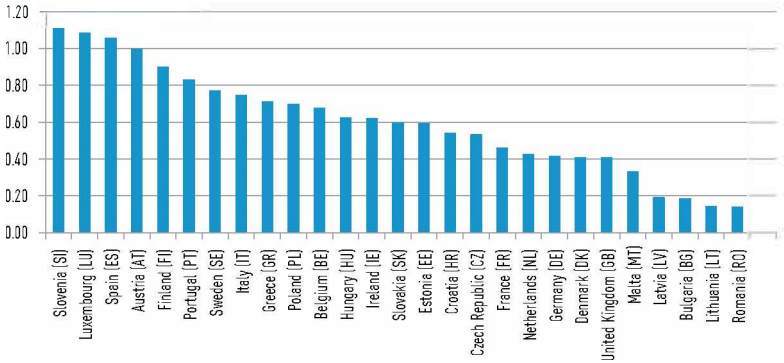
Finally, the implementation of the so called 'investment clause' of the Stability and Growth Pact might influence the distribution of EFSI investment. This clause allows a member state co-financing an EFSI project to deviate temporarily from its Medium-Term Budgetary Objective (MTO), or from the adjustment path towards it, to accommodate the costs of the investment[28]. This possibility, however, is only open for countries under the preventive arm of the Pact and whose GDP growth is negative or remains well below its potential (resulting in a negative output gap greater than 1.5% of GDP). Thus, many of the EU countries presenting the largest public investment gaps (such as Greece, Cyprus, Spain or Portugal) are excluded from the benefit of this clause.

As a result of these four factors, some experts fear a concentration of EFSI investment in Central and Northern European countries at the expenses of Southern and Eastern Europe. While this risk exists, a look at the current geographical distribution of EIB financing seems to nuance its importance. In effect, whereas most EIB funding follows a demand-driven approach,

28. Apart from establishing an upper limit of 3%GDP for the nominal deficit, the Stability and Growth Pact obliges all member states to pursue a medium-term budgetary objective (MTO) defined in structural terms. In particular, all member states should commit to attain and maintain a structural deficit (net of cyclical and one-off measures), not superior to 1% GDP. Those member states that have not yet reached their MTO are obliged to follow an 'adjustment path' implying the reduction of the structural deficit by at least 0.5% of GDP per year.

poorer countries are not particularly disadvantaged in terms of EIB allocation. Indeed, Southern European countries (Spain, Portugal, Italy and Greece), receive important amounts of EIB funding per capita. It is less the case however for Central and Eastern European Countries, and particularly for countries such as Bulgaria, Romania, Lithuania, Latvia and Malta. The tiny amount of EIB investment per capita these countries receive seems to indicate the existence of country-specific obstacles to private investment in these countries, which may hamper their capacity to benefit from EFSI. Besides, it should be also noted that EIB normal investment is more fairly spread among countries than EIB investment on special activities (that is, high-risk projects). The experience with the EU Risk Sharing Finance Facility (RSFF) illustrates this fact: after two years of operations, the bulk of RSFF finance went only to two countries, Germany (25.7% of total investment) and Spain (14.3%)[29].

FIGURE 7 ► EIB investment per capita (2010-2014)



Source: EIB statistical report 2014.

If we look at the list of EIB projects submitted to EFSI approval until now (January 2016), we can observe some worrying trends. Among the 42 projects approved under the window "infrastructure and innovation" (see Figure 7), only three are located in Central and Eastern Europe. Some of the euro area

29. EIB, *Evaluation of activities under the Risk-Sharing Finance Facility (RSFF)*, April 2010.

countries most hit by the crisis are benefiting well from the Fund (Spain, Italy, Ireland) but others not (Portugal, Greece).

TABLE 3 ► List of EIB operations submitted to approval for EFSI – infrastructure and innovation window (until January 2016)

COUNTRY	NUMBER OF EIB OPERATIONS SUBMITTED FOR APPROVAL FOR EFSI
France	7
Italy	7
UK	7
Spain	6
Ireland	3
Denmark	2
Croatia	1
Belgium	1
Finland	1
The Netherlands	1
Finland	1
Poland	1
Slovakia	1
Sweden	1
Germany/France	1
France/Belgium/EU	1
TOTAL	42

Source: European Commission.
Note: some of these projects are pending approval for the use of the EU guarantee.

TABLE 4 ► List of EIF equity signatures and debt transactions operations approved for EFSI (until end of September 2015)

COUNTRY	NUMBER OF EQUITY SIGNATURES	NUMBER OF DEBT TRANSACTIONS	TOTAL
Multi-Country	15		15
France	3	1	4
Italy	2	2	4
Germany	3		3
UK	2	1	3
Czech Republic		1	1
Luxembourg	1		1
Poland		1	1
The Netherlands	1		1
TOTAL	27	6	33

Source: EIF.
Note: some of these projects are pending approval for the use of the EU guarantee.

The EFSI governance bodies have some tools at their disposal to react if the risk of geographical concentration materializes over time. EFSI Regulation allows the Steering Board to adjust the project mix in regards to sectors and countries in line with development of market conditions and of the investment environment (art 5.2.). It can also define indicative geographical diversification and concentration guidelines to avoid excessive concentration at the end of the investment period (Annex II).

In addition to these 'top-down' mechanisms, some 'bottom up' initiatives can also help mitigate the risk of geographical concentration. Given that part of this risk comes from differences across countries in the capacity to use financial instruments and structure high-risk projects, it would be important that the new European Investment Advisory Hub (EIAH) compensate for that by providing specific attention to these countries. For the moment, it seems that concerns about the geographical distribution of EIAH services have been absent in the reflection about the goals and design of the new Hub. Indeed, since the service is expected to build upon the cooperation with National and Regional Promotional Banks to expand its coverage across the territory, there

is the risk that EIAH perpetuates existing cross-country inequalities in the supply of technical assistance and advisory support.

1.2.5. EFSI investment inconsistent with EU's climate goals

There is a general expectation that EFSI not only serves to boost investment, jobs and growth in the short term but also contributes to attaining important long term EU goals, such as raising EU's growth potential, accelerating the transition towards a low-carbon economy or favouring the integration of EU financial markets. While in theory short-term and long-term goals are compatible, in practice there might be some tensions between them. A purely countercyclical approach recommends prioritizing the quick deployment of EFSI, and this implies focusing on mature, ready-to-be-implemented projects having significant short-term effects on growth and employment, at the expense of others requiring more efforts of structuring and providing important long-term benefits but weak short-term return.

This might be particularly penalizing for low-carbon projects. They provide important long-term benefits but not necessarily major short-term gains in terms of growth and jobs. Besides, markets for low-carbon technologies and projects are rather new; which means that the identification, preparation and structuring of those projects is longer and more complex than for ordinary projects. In addition to that, one should note that the attainment of the EU's climate objectives not only requires an increase in investment in low-carbon infrastructures and technologies, but also a stop to investment in high-carbon intensive infrastructures. As some of these infrastructures might have significant short-term economic returns, an EFSI purely inspired on a short-term logic might end up financing an important number of these projects.

It is difficult to assess the importance of this risk. If we look at the performance of EFSI so far, the picture is mixed. 17 out of the 42 EIB operations approved or currently under assessment for EFSI support are in the field of climate/energy, and the overwhelming majority correspond to low-carbon projects (see Table 5). The balance however is less positive if one looks at the transport sector (see Table 6): the EIB has currently 8 transport projects under assessment: three of them consist into the construction/widening of a motorway and none is a "smart and sustainable urban mobility project", despite the fact that the

latter is a priority area for investment according to the EFSI regulation (see Box 8).

TABLE 5 ► List of EIB operations approved or under assessment for EFSI on energy/climate (until January 2016)

	RENEWABLE ENERGY	ENERGY EFFICIENCY	SMART GRIDS	GAS INFRASTRUCTURE
UK	3	2	1	
France	2	1		
Denmark	2			
Italy		1	1	
Belgium	1			
Germany	1			
Ireland	1			
Spain				1
Sweden	1			
TOTAL	11	4	2	1

Source: European Commission, The Investment Plan for Europe. State of play 13 January 2016 - Energy and climate action.

TABLE 6 ► List of EIB operations under assessment for EFSI support on transport (as of January 2016)

	IMPROVEMENT INLAND WATERWAYS	CONSTRUCTION/ WIDENING OF MOTORWAY	ACQUISITION OF NEW STOCK FOR RAIL SERVICES	IMPROVEMENT OF ROAD AND RAIL ACCESS TO PORTS	GREEN SHIPPING	TRANSPORT INFRASTRUCTURE (NOT SPECIFIED)
Italy		1	1			
France		1				
Slovakia		1				
Spain				1	1	1
The Netherlands	1					
TOTAL	1	3	1	1	1	1

Source: European Commission, The Investment Plan for Europe. State of play 13 January 2016 - Transport.

In any case, nothing guarantees that the Fund will provide a sustained support to low carbon projects over the whole investment period. A necessary condition for that to happen is the existence of sufficient demand for this type of investment over time and across countries, and capacity to structure bankable, high-quality projects. A combination of national regulatory reforms and targeted technical assistance in certain countries and sectors – such as energy efficiency and sustainable transportation – seems essential.

In addition to that, it should be noted that the procedures for the selection of EFSI projects are 'carbon-neutral'. There are no sectoral pre-allocation quotas, and EFSI project proposals are appraised and selected by a committee composed of independent experts (the Investment Committee) using a 'scoreboard' defined by the Commission through a delegated act (see Box 7). The scoreboard values the contribution of projects based on the attainment of EFSI policy objectives but the list of EFSI objectives and priority areas is very large (see Box 8) and projects in 'low carbon' sectors (energy efficiency, renewables, sustainable transport) are not prioritized[30]. Finally, as climate considerations are not mainstreamed in the appraisal and selection of all projects, projects having a significant carbon footprint can eventually receive EFSI support.

BOX 7 ► The scoreboard of indicators

The scoreboard of indicators builds on the EIB's 3-pillar value added assessment framework (3PVA). It is composed of four pillars of indicators, which are assessed individually without aggregation into one single rating. The EIB calculates the scores for each pillar and values for each indicator, and sends them to the Investment committee. The Committee uses this information to prioritize projects, assigning equal importance to each pillar.

Pillar 1 – Contribution to EFSI policy objectives

- **Contribution of EFSI objectives:** all projects must contribute to at least one of the 7 general objectives listed in article 9 of the Regulation.
- **Key objectives:** each general objective is composed of a number of key policy areas (27 in total). Projects in these key policy areas will have more points.

30. To be precise, environmental considerations will be taken into account when assessing the contribution of the project to growth (see box 7) but it is not clear how exactly this will be applied in practice and which effect it will have in the selection of projects.

Pillar 2 – Quality and soundness of the project

- **Growth:** impact on growth will be quantified (where possible) by using the economic rate of return (ERR), but classification will take into account sectoral considerations. In particular, those sectors being less environmentally sustainable will only be financed if they have an ERR of at least 7-10%, whereas projects with long-term climate benefits might be financed with an ERR of 3.5-5%.
- **Promoter capabilities:** qualitative judgement on the promoters' ability to deliver the project in a timely, efficient manner.
- **Sustainability:** sustainability of the project in environmental and social terms.
- **Employment:** employment generated during construction and operation phases.

Pillar 3 – Technical and financial contribution

- **Financial contribution:** whether the support from EFSI improves the counterparts' funding terms compared to alternative sources of financing.
- **Financial facilitation:** whether EFSI support increases the efficiency of other stakeholder support or leverages third party resources.
- **EIB contribution and advice:** whether there is an EIB non-financial contribution in form of expert input/knowledge transfer to facilitate project implementation.

Pillar 4 – complementary indicators

- **Additionality:** whether the project provides additionality as defined in EFSI regulation.
- **Macroeconomic environment:** potential impact of the project on economic disparities within the Union and long term growth potential where the project is taking place.
- **Expected multiplier effect of EFSI intervention.**
- **Amount of private finance mobilized.**
- **Co-operation with National Promotional Banks and support to Investment Platforms.**
- **Co-financing with European Structural and Investment funds.**
- **Co-financing with other EU instruments** (i.e, Horizon 2020, Connecting Europe Facility, etc.).
- **Energy efficiencies realized** (for relevant operations).
- **Climate action indicator** (for relevant operations).

BOX 8 ► EFSI general objectives and priority areas (art 9.2 EFSI regulation)

(a) Research, development and innovation, in particular through:
- Projects fitting with Horizon 2020;
- Research infrastructures;
- Demonstration projects and programs as well as deployment of relating infrastructures, technologies and processes;
- Support to Academia including collaboration with industry;
- Knowledge and technology transfer;

b) Development of the energy sector in accordance with the Energy Union priorities, including security of energy supply, and the 2020, 2030 and 2050 Climate and Energy frameworks, in particular through:
- Expansion of renewable energy;
- Energy efficiency and energy savings (with a focus on reducing demand through demand side management and the refurbishment of buildings);
- Development and modernization of energy infrastructure (in particular interconnections, smart grids at distribution level, energy storage and synchronisation of networks);

(c) Development of transport infrastructures, equipment and innovative technologies for transport, in particular through:
- Projects and horizontal priorities eligible under Connecting Europe Facility;
- Smart and sustainable urban mobility projects (targeting accessibility, reduction of greenhouse gases, energy and accidents);
- Projects connecting nodes to TEN-T infrastructures;

d) Financial support through the EIF and EIB to companies as well as other entities having up to 3000 employees, with a focus on SMEs, in particular through:
- Provision of working capital and investment;
- Provision of risk financing from seed to expansion stages for SMEs, startups, small mid-caps and mid-caps companies, to ensure technology leadership in innovative and sustainable sectors;

e) Development and deployment of information and communication technologies, in particular through:
- Digital content;
- Digital services;
- Telecommunications infrastructures of high speed;
- Broadband network;

f) Environment and resource efficiency, in particular through:
- Projects and infrastructures in the field of environmental protection and management;
- Strengthening of eco-system services;
- Sustainable urban and rural development;
- Climate change actions;

g) Human capital, culture and health, in particular through:
- Education and training;
- Cultural and creative industries;
- Innovative health solutions;
- New effective medicines;
- Social infrastructures, social and solidarity economy;
- Tourism.

1.2.6. Synergies and complementarities between EFSI and Structural Funding

Another open question is whether the Commission and the EIB will succeed in creating synergies and complementarities between EFSI and other EU instruments, maximizing the impact of the public funds, or on the contrary will overlap or crowd out other existing EU programs.

The question is particularly relevant as regards to Cohesion and Structural Funds (ESIF). There are a number of differences between EFSI and ESIF (see Table 7), which indicates potential for complementarities and tensions. The Commission emphasizes the complementary nature of the two instruments and has recently published a note providing guidance on how to combine them[31]. The note suggests different possible patterns of collaboration, which can be summarized as follows:

- EFSI and ESI funds can combine at a project level, exploiting the complementarity between grants and market-based instruments. For instance, EFSI can finance the revenue-generating parts of an infrastructure project supported by ESI grants.

31. European Commission, *European Structural and Investment Funds and European Fund for Strategic Investment Complementarities: ensuring coordination, synergy and complementarities*, February 2016.

- EFSI and ESI funds can combine at a project level, but with ESI funds providing support through a financial instrument.

- EFSI and ESI funds can combine at a higher level, through a financial instrument. For instance, an EFSI investment platform can participate as investor into a financial instrument (or a 'holding fund') set up by an ESI managing authority.

- EFSI and ESI funds can combine at a higher level, through an investment platform. In this case, the Commission recommends establishing 'layered funds' in which ESI Funds take the 'first loss piece' position, EFSI and the EIB take the 'mezzanine tranche' and private investors take the 'senior' position.

- In the context of the "SME window" (the ESIF's compartment managed by EIF and providing support to SMEs and mid-caps), ESI funds can make a contribution to one of the EU-level financial instruments having received frontloaded funding from EFSI (InnovFin SMEG, COSME Loan Guarantee Facility).

- Also in the context of the "SME window", ESI funds can co-invest with EFSI in an equity or quasi-equity investment facility managed by EIF.

Among all these options, number one and four are particularly interesting, as they are those really exploiting the complementary nature of the two instruments. In particular, the use of ESI funds to absorb part of the risk of ESFI investments can be important for countries having less sophisticated financial markets and presenting higher political and regulatory risks. In these countries, ESI funds programme contributions in form of grants can be the only way to reduce the overall risks of projects and make projects bankable, thus attracting private sector to areas and sectors where they would not have invested otherwise. However, it is not clear that ESI managing authorities in these countries will find politically attractive to use ESI as a first-loss absorber. The establishment of 'layered funds' might also be technically difficult for these public authorities.

Apart from that, the combination of EFSI and ESI funds can be administratively complex. Beyond the difficulties inherent to the set up and implementation of financial instruments, it will require coordinating two different approval procedures (the approval of the use ESI funds by the competent ESI authority and the approval of the EIB and EFSI 'investment committee on the use of the EFSI guarantee) and applying different regulations for the use, monitoring and auditing of ESI and EFSI funding. During the period 2007-2013, the novelty in the use of financial instruments and lack of clear EU regulation resulted into substantial delays in the set-up of financial instruments (delays of up to 2 years in some cases)[32]. Against this backdrop, one might wonder whether there will be tangible results in terms of EFSI-ESI combination before the end of the EFSI investment period (that is, 2018).

32. Fiona Wishlade and Rona Michie, "Financial instruments in 2014-20: learning from 2007-13 and adapting to the new environment", paper presented at the 2nd joint EU Cohesion Policy conference, "Challenges for the New Cohesion Policy 2014-20: an Academic and Policy Debate", Riga, 4-6 February 2014.

TABLE 7 ► Differences between the EFSI and ESIF

	EFSI	ESIF
Objective	Increase aggregate levels of investment in Europe	Reduce territorial disparities across Europe
Funding	€ 21 billion of capital, leading to € 60 billion of financing capacity	€ 454 billion
Geographical targeting	No geographical pre-allocation	Concentration on less-developed countries/regions through pre-allocated envelopes
Thematic targeting	No thematic pre-allocations/ring-fencing (although € 5 billion of capital fund reserved to SMEs and mid-caps)	Ring-fencing of allocations to thematic objectives (11) and investment priorities, according to EU regulation and National and Regional Operational Programs
Financial instruments	Market instruments (e.g. loans, guarantees, equity or quasi-equity participations)	Most of the funding (>75%) spent in form of grants. Market instruments ("financial instruments") representing around € 20 billion of funding in 2014-20
Management	Centralized management (EFSI governance bodies) Project selection by EU-level Investment Committee of experts	Shared management (Commission, member states and regions) Project selection by regional and national managing authorities and implementing bodies
Time-frame	3 years (2015-2018) with option for extension	7 years (2014-2020)

Source: Eulalia Rubio.

Beyond the concrete solutions that can be used for joint financing with EFSI and ESI funds, a broader question for the long term is whether ESIF could set the basis of a more structured cooperation between EIB and DG REGIO in general.

Whereas Structural and Cohesion funds and EIB operations are the main sources of public investment in Europe, coordination between the two instruments is usually on a project basis. A study commissioned by the European Parliament in 2006 already pointed out the existence of good working

relationships between DG Regio and the EIB but based on an 'ad hoc', case-by-case approach; that is, focused on collaboration on individual projects for project assessments, joint financing and joint project preparation.

Things have improved a bit since 2006. Some institutional forms of cooperation have been put into place, particularly joint initiatives aimed at providing technical assistance to regional and national managing authorities (JASPERS, JEREMIE and JESSICA in 2007-2013, Fi-Compass recently). Leverage through blending EIB loans with Cohesion grants has also been enhanced, thanks to the increasing use of Framework Loans and Structural Programme Loans, which allow the Bank to provide funding to public authorities for the financing of multi-project programs and to help them co-finance Operational Programs under Cohesion policy (see Box 9 for more details).

BOX 9 ► Framework Loans and Structural Programme Loans

Framework Loans (FL) are EIB loans to public authorities for the financing of programs covering a group of typically smaller projects (with a cost below the normal EIB lending threshold of € 25 million). Created in the mid-80s, FLs have grown from less than 1% of EIB operations in the mid-nineties to a level consistently over 10% since 2002, representing 16% of total EIB signatures in 2010. FL may be multi-sector loans or targeted to specific sector (i.e. a loan to finance a local renewable energy strategic plan). They can be used to co-finance projects included in Cohesion policy's Operational Programs, but can also finance projects not receiving structural and cohesion funding.

Structural Programme Loans (SPL) are EIB loans to national and regional governments to help them co-finance Operational Programs under Cohesion Policy. This type of loan has become increasingly important since the start of the crisis, helping governments with strained finances to maintain access to EU cohesion grants. In the 2007-2013 programming period, the EIB lent nearly € 20 billion to national and regional governments through SPL.

Despite these changes, there is potential for improvement. To start with, there are important deficiencies in the exchange of information. At present, DG Regio officials do not have precise information of which projects included in Operational Programs are co-financed by EIB direct or framework loans, and the same is true for EIB officials regarding whether some projects benefit from

EU grants. Increasing knowledge of mutual operations could make a significant contribution to boost synergies.

Second, and partly linked to the lack of information exchange, there is no coordination at the level of planning and programming. This is in part inevitable, as the EIB and DG Regio differ significantly in terms of implementation times, schemes for deployment and selection procedures. However, both institutions have their specific know-how and strengths with regard to planning and programming, and thus they would both gain from better coordination. DG Regio, with its close relationship with national and regional authorities, has a wide and comprehensive knowledge of the overall investment needs per region and country and a working knowledge of national regulations and procedures. The EIB has a particular expertise on a variety of infrastructure-related issues, and obviously in financial engineering and the business environment.

1.2.7. Coordination between EIB and national or regional promotional banks

Enhanced cooperation between the EIB and National and Regional Promotional Banks (NPBs) is seen as a key condition for the success of the Plan. This cooperation is necessary not only to ensure an optimal use of public funds in Europe, avoiding overlap and crowding-out effects, but also to exploit complementarities in terms of competences and expertise, particularly in the provision of technical assistance.

In the past few years, cooperation between the EIB and NPBs has already expanded to cover a wide spectrum of activities, including the financing of public infrastructure operations (through the project bond initiative launched in 2011), or the joint participation in new equity funds (Marguerite Fund, European Energy Efficiency Fund). This has been in parallel with efforts to foster the exchange between NPBs and develop common positions in Europe, in particular with the creation of the European Long-Term Investment Association (ELTI). This cooperation, however, rest on an 'ad hoc' basis. In this regard, many experts believe that EFSI offers an opportunity to reinforce the partnership between the EIB and NPBs and to place it on more solid institutional basis (Valla et al: 2014).

BOX 10 ► What are "National Promotional Banks"?

The EC Communication on the role of national promotional banks in supporting the EU investment refers to NPBs as "legal entities carrying out financial activities on a professional basis which are given a mandate by a member state or a member state entity, to carry out development or promotional activities".
The landscape of NPBs in Europe is very heterogeneous. All of them are fully or mostly owned by public governments, which also provide strategic direction and are often involved in the selection of board members. They differ however in terms of size, mandate, sources of funding and business models.
Some NPBs are sizable, both by global standards and relative to the size of national banking systems (German Kfw, Italian CDP), whereas others are relatively small (e.g. Latvia Altum, Estonia's KredEx).
NPBs can have a broad mandate ("promoting economic development") or be designed to fulfil a specific mandate (e.g., UK green development bank). Some countries have several national institutions, each one with a dedicated promotional task (e.g., French CDC and BPI), whereas others have bundled different activities within a single entity. Some entities (e.g., Kfw, the new British Business Bank) have a commercial arm alongside the promotional arm.
In terms of funding, most NPBs rely on a mix of funding sources, but some (French CDC, Italian CDP) are mostly funded via deposits, whereas others (German Kfw, Spanish ICO) raise money through capital markets on the basis of a public guarantee.
Finally, NPBs channel promotional funds through commercial banks (second-tier lending) or lend directly to end-customers (first-tier lending). Second-tier lending is particularly dominant in countries where the banking system is strong (Germany, Spain). In other countries (e.g., Bulgaria), greater emphasis is placed on direct lending.

Sources: Valla et al (2014), Wruuck (2015)

Financial cooperation between the EIB and NPBs in the context of EFSI can take different forms. In principle, national banks can put money directly into the EFSI's capital, but the latter is unlikely to happen as the Regulation does not give them any seat in the EFSI Steering Board if they do so. Apart from directly participate to EFSI's capital, NPBs can participate either on a bilateral basis, by co-financing individual projects with EFSI, or on a multilateral basis, by investing together in Investment platforms eligible for EFSI support.

A hot issue at debate during the negotiations of the EFSI regulation was the extent to which NPBs could benefit from the EFSI guarantee. NPBs asked to be treated "pari passu" with the EIB when co-financing a project eligible for EFSI. While this has not been granted, the EFSI regulation allows the EIB to

partially transferring the EFSI guarantee to NPBs or investment platforms by granting them a guarantee under a counter-guarantee of the EU guarantee[33]. It is not clear how will be used this option; if it will be used by default in any operation involving NPBs or only in certain cases, when it is clear that NPBs involvement provides important 'European added value'. If it is used indiscriminately, a 'crowding out' effect might occur to the benefit of the NPBs. The EFSI guarantee might end up being used to finance projects that would have anyway taken place.

Another question is how much of NPBs involvement will take place through co-financing of individual projects and how much through investment platforms. The Commission has a clear preference for the second option. It intends to promote the creation of investment platforms and has already announced its intention to reinforce existing multilateral platforms such as the Marguerite Fund or the European Energy Efficiency Fund (EEEF).

Investment platforms present potential advantages. They are a means to aggregate small-size projects; they reduce transaction and information costs and they provide a more efficient allocation of risks between various investors. Multi-country platforms can also promote cross-border project and help reduce fragmentation in Europe's financial markets, whereas thematic platforms provide scale benefits by pooling resources and expertise for a given sector. However, platforms also entail some risks. If the EFSI guarantee is given directly to them, this will permit a more flexible deployment of funds but it also entails some loss of control from the EFSI Investment Committee on the selection of single projects (which will be done by the platform's governance body). In this respect, there is a need to ensure that those Investment Platforms receiving the EFSI guarantee comply with some minimum standards, in particular as regards their procedures for the appraisal and selection of projects.

33. According to art 10 of the EFSI regulation, the EIB can make use of the EFSI guarantee to cover; a) EIB contributions to projects or investment platforms (in form or loans, guarantees, equity participation or others), b) EIB funding or guarantees to the EIF or c) "EIB guarantees to national promotional banks or institutions, investment platforms or funds under a counter-guarantee of the EU guarantee" (art 10.2 c).

BOX 11 ► What are 'investment platforms'?

Art 2.4. of the EFSI regulation defines investment platforms as "special purpose vehicles, managed accounts, contract-based co-financing or risk-sharing arrangements or arrangements established by any other means by which entities channel a financial contribution in order to finance a number of investment projects, and which may include:
(a) national or sub-national platforms that group together several investment projects on the territory of a given member state;
(b) multi-country or regional platforms that group together partners from several member states or third countries interested in projects in a given geographic area;
(c) thematic platforms that group together investment projects in a given sector.

Finally, there remain significant differences between NPB's in Europe in terms of mandate, size, governance and funding. In this respect, as said above, a strong involvement of NPBs in the functioning of EFSI might accentuate the risks of geographical concentration if not accompanied by measures to harmonize the landscape of NPBs in Europe.

1.2.8. Lack of progress in the third pillar

The third pillar of the Plan is the one expected to have the strongest impact on investment according to the Commission. It includes two types of actions: efforts to render EU regulation more investment-friendly (single market regulation in sectors such as transport, digital or energy, but also horizontal rules concerning the provision of state aid or public procurement for instance), and actions aimed at removing national regulatory barriers to investment.

Among the first type of actions, the most important one is undoubtedly the efforts to build a Capital Market Union (CMU). In September 2015 the Commission presented an Action Plan for building a CMU[34]. It is not here the place to comment on the content of this Plan, but it is important to notice that, while some measures included in this plan might have important short-term effect (e.g. the recalibration of the calculation of capital that banks and insurance companies should hold against infrastructure investment, through the

34. European Commission, Communication "Action Plan on Building a Capital Markets Union", COM (2015) 468 final.

review of the Capital Requirements Directive and of Solvency II) overall the project of CMU must be seen as an attempt to produce a structural, long-term transformation of the EU financial system. In this respect, many experts consider that actions to build a CMU will not trigger major short-term effects on investment[35].

The second type of action, on the contrary, could eventually have an important short-term impact in particular in those countries having largest investment needs (euro area peripheral countries and Central and Eastern European countries). To push member states to reform, during 2015 the services of the Commission have analysed the main challenges to investment at national level and have elaborated country-specific investment profiles for each EU member. These challenges to investment have been included as priority in the context of the 2016 European Semester, and the Country Reports of February 2016 will take stock of the progress made by national governments in this area. Despite all these efforts, however, one cannot forget that the European semester is ultimately a process based on non-binding recommendations. In the absence of a clear "carrot" or "stick", the capacity of EU actors to induce national reforms is rather low.

Some experts have suggested the possibility to condition the disbursement of EFSI to the adoption of reforms at the national level. This does not seem possible, as EFSI investment goes to the private sector and does not seem logical to condition the support of a private project to actions taken by the public sector (even if one can argue that, when assessing the technical viability of the project, the EIB will indirectly take into account the quality and stability of the national regulatory context). This can only be envisaged for ESIF funds, granted to public authorities. In fact, ESIF are already submitted to ex-ante conditionality and in principle public authorities can risk suspension of payments if they do not adopt the required sectoral reforms (see Box 12).

35. Nicolas Véron, "Capital Markets Union: A vision for the long term", Bruegel policy contribution issue 2015/5, April 2015.

BOX 12 ► Thematic ex-ante conditionality in ESIF funds

Occasionally applied during the 2007-13 period, the application of thematic ex-ante conditionality in ESIF (cohesion and structural funding) has been generalized in the period 2014-20. Ex-ante conditionality consists of the requirement of certain ex-ante conditions (adoption of certain regulatory changes, formulation of a policy strategic plan) which need to be in place before the disbursement of the aid and which are deemed important to guarantee the effectiveness of the EU support.
Lack of fulfilment of ex-ante conditions can lead to a suspension of the payments. However, this condition is applied in a flexible and constructive manner. Thus, where the conditions are not met at the start of the programming period, the Commission can give two years to the country to fulfil these conditions. The country then shall set out the detailed actions relating to the fulfilment of ex ante conditionalities, including the timetable for their implementation, and the Commission shall strictly monitor the compliance with the agreed timetable of implementation in the framework of its assessment of the Partnership Contract and programs.

1.2.9. Marginal impact of the European Investment Project Portal (EIPP)

Finally, the Plan also foresees the creation of a European Investment Project Portal (EIPP). This Portal is still under construction, but according to the EFSI regulation it will consist of a publicly accessible and user-friendly project database, gathering information of current and future investment projects in the Union.

The EFSI regulation stresses that the Portal will mainly have information and visibility-related purposes and that inclusion to it will in any case imply preferred access to national or EU financing. It does not say anything in regards to the criteria for inclusion to the Portal, but according to some presentations by the European Commission, they will be very light[36]. In order to be included the Portal, the project will have to: a) be worth at least € 10 million, b) be expected to start within three years of their submission to EIPP, c) be promoted by a public or private legal entity established in an EU member state and d) be compatible with applicable EU and national laws. The Commission and the EIB will also keep the right of denying the publication of a project "on legal, reputational or other grounds." Finally, a non-refundable fee may be charged to

36. "The Investment Plan for Europe", Powerpoint presentation by the Commissioner Katainen, 21 December 2015.

private project promoters for processing project applications for admission to the portal.

It is striking the difference between this Portal and the original idea included in the EU Investment Plan presented in November 2014: the creation of a "EU pipeline of investable projects of European interest." This had to be more than a website to publicize projects at the demand of the individual promoters. Grounded on the belief that a major obstacle to investment is the difficulties for potential investors in assessing the risks involved in the project, the pipeline was expected to provide "independent and transparent assessments of large-scale, long-term investment projects of European interest." It had to give a clear "credibility label" for 'bankable' projects of European interest.

The pipeline in its original version presented problems. To become a clear credibility label, the inclusion of a project to the pipeline would have to be submitted to a rigorous economic assessment. The latter would be very cumbersome, and eventually redundant to the ordinary EIB assessment procedure. Having said so, the assumption that inspired the original pipeline is still valid. It is dubious that the website alone will mobilize and unlock private investments, if not accompanied of mechanisms to help potential investors to assess the risks and economic viability of the projects.

1.3. Making the best of the EU Investment Plan: ten policy recommendations

The analysis from the previous section reveals the existence of various potential risks that, if not properly addressed, might endanger the capacity of the EU Investment Plan to attain the expected results. In the following, we present ten policy recommendations with concrete proposals for action to be implemented over the next two years. We believe that the adoption of these actions can help secure the success of the Plan within the initial investment period.

1.3.1. Ensure that the budget of the European Investment Advisory Hub is commensurate to the needs

As seen in the previous sections, the main challenge for EFSI is not to attain the figure of € 315 billion, but to do it by financing additional investment of strategic value for Europe. The new European Investment Advisory Hub (EIAH) has to play a crucial role in this respect, helping structure a sufficient number of EFSI eligible projects across Europe.

The EFSI regulation confers many tasks to this new hub. The EIAH is built on the various existing EIB and Commission advisory services (particularly JASPERS, ELENA, EPEC, Fi-Compass and Innovfin) and thus it should continue to guarantee the support provided under those programs. Among other things, the hub shall provide support for the identification, preparation, structuring and implementation of all types of investment projects in Europe (not only those eligible for EFSI or EIB financing), provide advisory and capacity building support for the implementation of ESIF financial instruments and support national and regional authorities on the use of public-private partnerships. In addition to that, the EIAH shall provide specific advisory services related to EFSI. This includes the assistance to project promoters in developing and structuring EFSI-eligible projects, the provision of advice for the establishment of investment platforms (art 14.3 EFSI regulation), and the provision of targeted assistance for project structuring in those areas eligible for EFSI, with particular emphasis on energy efficiency, TEN-T and urban mobility (art 14.2 EFSI regulation). Last but not least, the EIAH is also supposed to reach new sectors and clients by identifying and serving new investment needs.

The preamble of the EFSI regulation emphasizes that the new services provided by the EIAH should be in addition to those already available, and that those additional services "should be adequately funded". However, the additional dedicated financing for the EIAH will be less than € 30 million per year. This amount seems clearly insufficient to cover all the additional EIAH tasks. As a matter of comparison, the size of the EIB advisory business before the creation of the EIAH (in terms of allocated staff costs and consultancy budget) is estimated in the range of €120-130 million/year[37]. JASPERS alone (a programme specifically targeted to providing technical assistance to the 12 least-developed EU countries for the preparation of high quality major projects eligible for ESIF co-financing) has an annual budget of 30 million, financed by contributions from the EU budget and the EIB that are superior to those envisaged for the EIAH (see Table 3)[38]

TABLE 8 ► Comparison of JASPERS and EIAH's dedicated budget (in million €)

	JASPERS BUDGET 2014	EIAH BUDGET 2014	EIAH BUDGET 2015	EIAH BUDGET 2016
EU Commission	21.7	10	20	20
EIB	7.5*	3.3	6.6	6.6
TOTAL	30.3**	13.3	26.6	26.6

Source: JASPERS annual report 2014 and Framework Partnership agreement between the EIB and the European Commission on the European Investment Advisory Hub (July 2015).
Note: *In form of in-kind contributions. **The total does not correspond to the sum of EU Commission and EIB contributions because there is an additional contribution of 1.1 million from the EBRD

As highlighted by many experts in a seminar on the EU Juncker Plan organised by the Jacques Delors Institute in October 2015, technical assistance is very time-consuming and requires strong management and professional skills. External consultancy can be helpful, but can never substitute for strong internal teams. This requires commensurate public resources. The JASPERS program, for instance, uses more than half of its budget to finance management and professional staff. The programme counts a team of 82 professional

37. Interview with a EIB official.
38. JASPERS, Annual Report 2014.

experts. The EIAH, in comparison, is expected to host roughly 50-70 additional EIB expert staff.[39] JASPERS is considered a successful program; evaluations report positive results. To guarantee similar success for the EIAH, we propose **to increase the annual contribution of the EU budget of EIAH to at least 40 million/year**.

1.3.2. Establish a stable network of national EIAH offices covering the whole Union

The EIAH is also expected to play a major role in mitigating the risks of geographical concentration. To this end, it is important to secure an adequate and targeted support from EIAH to those countries having less expertise in the use of financial instruments and lacking a powerful National Promotional Bank.

Currently the Hub operates mainly via the EIB headquarter in Luxembourg and the 18 EIB local offices. The EIB plans to open an office in all EU capitals within the next two years and the EIAH will certainly leverage on that to build its own network of advisory services to cover the whole EU-28. To this end, the EIB approach however is rather voluntarist and based on the establishment of different cooperation agreements depending on the type of local partner (NPBs or other service providers) and the level of engagement (see Box 13).

BOX 13 ► Cooperation between EIAH, NPBs and other local service providers

To ensure broad coverage of services provided and optimize synergies, the EIAH will offer to each NPBs three possible forms of participation:

Level 1 – Participation in knowledge/best practices sharing and dissemination

Level 2 – Acting as a local point of entry/local screening for EIAH's potential beneficiaries and promotional and visibility actions

Level 3 – Decentralized delivery of services on behalf of EIAH

Irrespective of the form of cooperation chosen, each partner NPB and the BEI (on behalf of the EIAH) will sign an engagement letter or a Memorandum of Understanding (MoU) setting the general terms of cooperation. Participation to level 3 will be governed by a service contract.

39. Interview with a EIB official.

In those countries where any NPBs are available or interested in joining the EIAH, the EIAH will seek to cooperate with similar service providers (national, regional, local authorities). In this case, cooperation will be formalized with the signature of a contractual partnership.

Source: Framework Partnership agreement between the EIB and the European Commission on the European Investment Advisory Hub (July 2015).

To secure broad coverage of EIAH services, level 3 participation (see Box 11) should be the norm rather than the exception. In other terms, **the Hub should have an office in each of the 28 member states, acting both as a local point of entry for EIAH's potential beneficiaries and as a provider of EIAH services**. The body in charge of these offices can vary from one country to another. In some countries, NPBs can play this role; in others it will be the EIB local office in charge of that. Still in others, national ESIF management authorities might act on behalf of EIAH. The financing of these offices can also vary from one country to another, and in some countries they can be co-financed by ESIF funds (particularly using part of the ESIF budget for "technical assistance"). Beyond these differences, all EIAH offices should be governed by the same service contract signed with the EIB. It is also important to confer to each national EIAH office the capacity to coordinate all the different national and sub-national services providing technical assistance for investment in the respective country. Only in this way can the EIAH effectively become the 'single point of entry' for the provision of technical assistance to public authorities and promoters across Europe.

The creation of this network of national EIAH offices should be complemented with reinforced support to those countries having less sophisticated financial markets and weaker public administrations, in order to reduce differences in the capacity to identify, develop and structure high-quality projects across the EU. **We suggest in this respect the creation of a programme to encourage the exchange of staff between NPBs involved in the provision of EIAH services.** More EIB staff and resources should also be allocated to these countries' national EIAH offices.

Finally, notice that the establishment of a stable network of regional EIAH offices, if built on NPBs, can constitute a first experience of stable cooperation between EIB and NPBS, and could eventually break ground for the

establishment of a more articulated system of public promotional banks in Europe in the long term (see Section 1.4.1.).

1.3.3. Ensure consistency with Europe's low carbon goals

While the main goal of EFSI is to increase the level of investment in Europe within the next three years, it will be problematic, and highly criticized, if EFSI investment is not consistent with important EU long-term goals, in particular that of supporting the transition towards a low-carbon economy. For the time being, this risk does not seem to be an issue (see Section 1.2.5). A significant number of the EIB operations approved or under appraisal for EFSI support correspond to projects having very low carbon footprints (e.g., in research and innovation, broadband) or explicitly aimed at mitigating the level of GHC emissions (renewables, energy efficiency).

Yet, one cannot guarantee that the Fund will provide sustained support to the transition to a low carbon economy over the whole investment period. To a large extent, this will depend on the capacity to generate a sustainable demand for this type of investment, and on the capacity to structure bankable and high-quality low carbon projects. One of the main reasons behind the low demand in low-carbon investment is the existence of fossil fuel subsidies or other distortions to energy prices. **Removing these fuel subsidies and distortions in energy prices should be one of the priorities of the 'third pillar' of the Plan**. In particular, the Commission should consider the removal of regulatory obstacles to low-carbon investment to be a priority when formulating country-specific recommendations and should pay particular attention to the progress made by national governments in this area when analysing member states' responsiveness to EU recommendations.

In addition to that, to guarantee a sufficient number of well-structured low-carbon projects, **the EIAH should provide reinforced advisory support and technical assistance in low-carbon investment areas.** This should be reflected in terms of EIAH's allocated staff and consultancy budget. The type of assistance provided can be varied; it can consist of the provision of technical and financial expertise for project development but also of support

to the creation of thematic low-carbon investment platforms or the creation of diagnostic tools to help investors evaluate the benefits and costs of low-carbon projects[40].

Finally, **climate and energy efficiency considerations should be mainstreamed into the appraisal of projects submitted to EFSI**. Choices made today about the types and features of new and renovated infrastructure will lock in the EU's capacity to reduce future levels of GHC emissions. It is therefore important to exclude high-carbon and low-performance energy projects from EFSI support. At present, the scoreboard includes a 'climate action indicator' and an indicator of 'energy efficiencies realized', but these two indicators are only "for relevant operations" (that is, projects on energy networks, energy generation or energy efficiency). These indicators should apply to all projects submitted.

1.3.4. Define geographical indicators at both aggregate and sectoral level

As documented in previous sections, there is a risk that EFSI mostly benefits central and northern European countries at the expenses of southern and eastern European countries. This is clearly problematic: while EFSI is not a cohesion instrument, it should not run against EU cohesion objectives, increasing existing economic gaps.

Some measures should be taken to avoid this. The most important one is to provide reinforced EIAH support to those countries having less sophisticated financial markets and weaker public administrations (see Section 5.2.). Apart from that, the EFSI steering board should make use of its capacity to define indicative geographical diversification and concentration targets, and take the necessary actions to reach these targets at the end of the investment period.

40. Such as the "Barometre Carbone", a free tool for decision making support for urban planning developed by the French NPB - the Caisse des Dépôts et Consignations (CDC) – f or use in the Paris capital region (Grand Paris). The objective of the tool is to allow local decision makers to integrate the issue of greenhouse gas emissions into the development planning documents and financing contracts. The tool assists local actors in establishing an ex-ante GHG profile of their jurisdiction as well as different development scenarios.

Geographical indicators should be defined both at aggregate and sectoral levels. **At the aggregate level, EFSI governing bodies should strive to ensure that a significant part of EFSI funding goes to those countries presenting the largest aggregate investment and output gaps. At the sectoral level, it would be desirable that EFSI funding be allocated as much as possible where there are the largest sector-specific investment needs**. Thus, for instance, EFSI support to SMEs and mid-caps should go in priority to those countries where the cost of borrowing for non-financial corporations is the highest (mostly euro area peripheral countries) In the field of energy efficiency, on the contrary, EFSI investment would be more effective if concentrated on Central and Eastern countries, as these countries are those with more energy-intensive economies (and thus potential energy efficiency gains are larger there than in Western Europe) and those being more dependent on the Russian gas (and thus a decrease in energy consumption is strategically important in these countries to reduce energy security risks).

1.3.5. Exploit synergies between the EIB and National and Regional Promotional Banks in the co-financing of EFSI projects

There is much scope for cooperation between National Promotional Banks (NPBs) and the EIB in the implementation of EFSI. Being both public promotional banks, there is a clear alignment of interest in correcting market failures and promoting investment in areas of high public value. In addition to that, NPB engagement is very valuable in that it offers particular expertise and knowledge of the local context, business and investor communities as well as national policies and strategies.

Some measures could be put into place to facilitate NPB-EIB co-financing of EFSI projects. For instance, **in order to reduce the administrative burden, the EIB could delegate the monitoring of the projects co-financed with NPBs to the National Bank, on the basis of mutual recognition**. This could be the rule in those countries in which the NPBs assume the provision of services on behalf of EIAH (that is, in countries in which the NPB acts as the local antenna of the EIAH).

At the same time, NPBs and the EIB present differences in their mandates. The EIB's mission is to support growth and employment in Europe whereas

NPBs, while legally allowed to intervene outside their territory, are mandated to support growth, employment and the economic and territorial development of their own country. In principle this does not pose a problem: projects contributing to one of the objectives defined in EFSI regulation (see Box 8) are both of national and European interest. Both institutions (EFSI and NPB) pool resources to finance the project, and each one assumes their part of the risk incurred.

The EFSI regulation, however, stipulates that NPBs can in some cases be covered by the EIB guarantee provided by EFSI under a counter guarantee of the EU Guarantee. The EIB and the Commission should make a limited and strategic use of this prerogative. Granting the EU guarantee to the NPBs implies, in practice, that the risks incurred by the NPBs when financing the operation will be covered by a guarantee backed by all EU taxpayers. This should be only granted in operations having a strong European dimension, and in which the engagement of the NPBs creates positive externalities beyond its own national territory. Following this reasoning, we suggest to **grant the EU guarantee to NPBs only for financing trans-national investment projects or projects located outside the Bank's national territor**y.

1.3.6. Provide information, support and further guidance for the combination of ESI-EFSI funds

As argued in section 1.2., cohesion policy managers may be reluctant to set up common projects because they will have to comply with the regulations of both instruments. This may increase the complexity of structuring and managing the project, and the risks of lack of compliance for cohesion managers.

Creating synergies and complementarities between EFSI and ESI funds is important to maximize the impact of EU funds. The European Commission has recently published a note providing some guidance to how to combine EFSI and ESIF funds. The note however is quite vague, or even silent, in particular operational aspects that are very relevant for ESI managing authorities such as the application of State Aid rules or the methods for reporting, evaluation and auditing. **Further guidance and technical support (through the Fi-Compass, inserted into the EIAH) should be offered to ESI authorities to combine both instruments.**

In particular, the Commission and the EIAH should **provide more information, specific technical assistance and guidance for the establishment of 'layered funds' in countries having less sophisticated financial markets and presenting higher political and regulatory risks.** The use of layered funds in these countries is very promising, as they might help attract private investment in areas and sectors where they would not have invested otherwise. ESI managing authorities in these countries, however, might find politically unattractive to use ESI as a first-loss absorber. They might also lack the technical capacity to set up a layered fund.

1.3.7. Clarify the conditions of eligibility for investment platforms

Investment platforms are in essence co-investment arrangements structured around some public actors (NPBs, the EIB and/or public authorities) with a view to catalysing investments in a set of projects (as opposed to individual projects).

Platforms are called to play a major role in the implementation of the EFSI. They can be important in helping to bundle small-size projects and pooling resources and expertise in a given sector. Multi-country platforms can also promote cross-border investment and help reduce the fragmentation of Europe's financial markets.

When the EIB decides to intervene into a platform, the EU guarantee can be given directly to the platform or to the contribution of the EIB to the platform. To allow for a quicker and more flexible deployment of EFSI, the first option is preferable. However, this implies giving the platform a direct mandate to perform on their own the selection of individual projects. In this respect, while encouraging this option, it is important that the EFSI steering board detail the conditions of eligibility for investment platforms. In particular, **those platforms receiving the EU guarantee should present some minimum standards in regards to their governance**. Avoiding all political influence over the selection of projects was very important to give credibility to EFSI. It is just as logical to require the same condition to all platforms eligible for EFSI support. Besides, it is recommendable to establish ex-post sample controls by the Investment Committee on the projects selected by these platforms.

1.3.8. Complement the European Investment Project Portal (EIPP) with mechanisms for standardization

The European Investment Project Portal (EIPP) can provide visibility to some projects, but will do nothing to address one of the main obstacles to investment in Europe: the difficulties in assessing the risks and economic viability of potential projects. These difficulties are particularly acute among small investors, which are in fact not concerned about the Portal (as it will be open to projects of more than € 10 million).

The **Commission should complement the establishment of the Portal with measures aimed at standardizing data of small sized projects in specific sectors or market segments**. An often-cited demand, for instance, is the creation of standardized credit information on SMEs. Another demand is in the energy efficiency investment market. In this sector, it is well documented that one of the obstacles to investment is a general lack of reliable and trusted energy efficient investment performance data. The Commission could address this problem by developing on-line tools to measure performance and establishing EU corporates and buildings' energy efficiency performance databases.

1.3.9. Promote the creation of transparent and well-designed national and regional public project infrastructure pipelines

Long-term infrastructure planning is a crucial tool to identify infrastructure needs and prioritise those sectors or regions whose investment is important from a public policy, long-term perspective. While the majority of the member states have long-term infrastructure plans and sectorial strategies, only a few, such as the UK and the Netherlands, translate these aggregate needs and priorities into specific commitments for investment in particular infrastructure projects through the establishment of transparent public project pipelines.

The establishment of pipelines of planned projects presents various advantages. It can help the private sector identify the projects where their participation might be mutually beneficial. It can help exploit the synergies between different sources of public financing (e.g. local, regional and national budgets, structural and cohesion funding, NPBs, the EIB). Finally, if articulated on the

basis of rigorous and transparent criteria, a public pipeline can also guarantee an efficient allocation of public resources and avoid the financing of politically motivated projects of dubious public value.

As part of the EU Investment Plan, **the European Commission should promote the creation of well-designed and transparent public project infrastructure pipelines at the national and regional levels.** In some countries, the creation of these pipelines will require fundamental changes in the modes of programming public investment. To start with, a comprehensive pipeline requires coordination and regular exchanges of information between the NPBs and ESIF authorities. The Commission could guarantee this condition by **imposing as a rule the systematic involvement of NPBs in the partnership bodies supporting the definition of national and regional ESIF programs.** In addition to that, **the procedures for the selection of projects receiving ESIF funds should be de-politicized as much as possible**. There is wide evidence of the use of ESIF funds in the past to finance expensive and visible projects of questionable public value ("white elephants"). Whereas project selection within ESIF is considered a member states' responsibility, the Commission should establish some minimum criteria to ensure that the projects co-financed by ESIF present some minimum requisites of economic, technical and social value.

1.3.10. Set up complementary measures to boost public investment

Finally, the EU Investment Plan should be accompanied by some complementary actions to boost public investment.

First, there is a need to re-formulate **the 'investment clause' included in the Stability and Growth Pact**. As it is written today, it is largely ineffective as it does not cover those countries most in need of investment and the list of eligible investment is very restrictive (the clause allows EU countries to deviate from their EU budgetary objectives to provide co-financing to EU-funded projects – under ESIF, EFSI, Connecting Europe Facility or other programs). A minimum necessary step is to expand the clause to cover those countries under the corrective arm of the Stability and Growth Pact. In addition to that, the scope of the investment clause should be broadened to include other categories of eligible investment. The difficulties in deciding which expenditure

categories should be eligible are well known but they are not as important as to prevent any consideration to that.

Second, reforming the 'investment clause' is necessary but probably not sufficient to reverse the downward trend in public investment in the euro area. Ultimately, the decision to expand investment within the SGP rules depends of national governments. However, what we observe today is that those euro area countries more in need of investment are also those in worst economic and fiscal condition, whereas those having more fiscal space are not willing to increase their levels of public investment. To remedy that, we need a common vehicle able to channel public investment to those countries or sectors more in need of it. One option is the establishment of a "**European investment budget**", as proposed by Enderlein and Haas[41]. This budget would have a double purpose: channeling funds for investment to countries or regions hit by specific shocks and supporting reform efforts through accompanying investment measures. This budget could be financed through different means (national contributions, new taxes, re-allocating existing EU budget funds), but at a moment when the cost of borrowing approaches zero, a total or partial financing through the joint issuance of new debt seems an interesting option.

Third, the ECB could reflect on the possibility to further **diversify the purchases of assets in the context of the quantitative easing program**. At present, this programme is mostly based on purchases of sovereign bonds, following the share of each EMU member state in the ECB's capital (the "capital key"). This implies that almost half of all purchases are of German and French bonds, markets that already benefit from exceptionally low interest rates. A more direct way of supporting public investment and growth is buying securities from National Promotional Banks or from the EIB. The ECB and the euro area central banks (NCBs) are allowed to buy bonds from "European institutions" (including the EIB) but only up to 12% of total purchases. NCBs can also decide to buy bonds issued by "national agencies" (including NPBs) instead of sovereign bonds to reach the pre-established volume of monthly purchases per country. However, as rightly pointed out by Szczerbowic and Valla[42], the list of

41. Henrik Enderlein and Jörg Haas, "What would a European finance minister would do? A proposal", Policy paper No. 145, Jacques Delors Institut - Berlin, October 2015.
42. Urszula Szczerbowicz and Natacha Valla, *QE - "European style": be bolder, but parsimonious!*, CEPII blogpost, 24 March 2015.

eligible agencies is very heterogeneous and includes some institutions whose debt has little to do with productive investment. As the two researchers from CEPII recommend, the ECB might be well advised to increase its purchases of bonds from EIB and to select the eligible national agencies not only according to their credit worthiness but also taking into account their economic purpose. It should be noted that the ECB seems to go in this direction already: in July 2015, it decided to enlarge the list of eligible 'national agencies' and 12 out 13 new agencies included correspond to infrastructure-related issuers.

1.4. Looking ahead: discussing possible long-term scenarios

The EFSI regulation specifies that, after the three-year initial investment period, if the Fund has been successful in attaining his objectives, the Commission can propose to the European Parliament and the Council to maintain the scheme for a renewed investment period. This eventually opens the door to the establishment of a more permanent investment scheme in Europe. It is not clear which form this permanent scheme could take. The most likely scenario is an improved EFSI, with changes in the size, structure and governance to address some of the risks and problems observed in the first period. Over time, however, this permanent investment scheme in the form of EFSI may evolve towards something different. Two possible long-term scenarios have attracted our attention.

1.4.1. The Juncker Plan as the first step towards the establishment of a system of public investment banks in Europe?

A permanent EFSI will surely intensify cooperation between the EIB and NPBs. In the long term, this can lead to the establishment of more solid and institutionalized forms of cooperation.

The most radical outcome would be the creation of a 'system of public investment banks' as imagined by Valla, Brand and Doisy in a paper published some

months before the announcement of EFSI[43]. Such a system would be structured around a central node (the EIB) and national entities (the various NPBs). The centre would work as a truly federal entity, coordinating the activities of the national entities with a clear European map in mind. To a certain extent it would resemble the European system of central banks, which comprises the ECB and the national central banks in the euro area.

As pointed out by Valla *et al.*, coordinating the activities of all NPBs through a system could have important advantages. It would ensure coherence and would channel Europe's excess savings towards investment in the right places across the continent. The establishment of a system of this sort would probably be conditioned to changes in the governance of EIB. Today, the EIB governing council is composed of the Ministers of Finance of all member states (which are the shareholders of the Bank) but most decisions are taken by majority vote, representing at least 50% of the subscribed capital. To be politically acceptable, a system in which EIB decisions may impose on national investment banks' decisions would probably require more qualified majorities, or a change in the way of weighting the votes (e.g., setting voting rights in line with the capital key of the EIB). But this would be a minor obstacle, compared to two other major hurdles to the establishment of a system of European public investment banks.

The first is the enormous heterogeneity that exists between NPBs in Europe. As described in Section 1.2.7., there are major differences across NPBs in terms of size, mandate, funding sources, business models and governance, and supervisory structures. Some are very similar to ordinary banks to the extent that they operate with a banking license and are covered by the ECB's single banking supervision. Others have special status and are supervised at the national level. In some EU countries there are no NPBs at all. A pre-condition for the creation of a system would be the establishment of NPBs in all 28 member states as well as some harmonisation with regards to national banks' mandates, sources of funding and structures of governance. This is very difficult to imagine, given the fundamental differences that exists among investment

43. Natasha Valla, Thomas Brand and Sébastien Doisy, "A New Architecture for Public Investment in Europe: The Eurosystem of Investment Banks and the Fede Fund, CEPII policy brief, n. 4, July 2014.

banks in Europe, which are largely a reflection of their different founding histories.

A second major obstacle is the hierarchical nature of the system. The system, as envisaged by Valla *et al.*, would imply granting an EU entity (the EIB) the capacity to impose decisions on national entities (the national promotional banks). It is unclear if there is a political appetite for such a radical move in Europe. In some countries (particularly richer countries with sizeable NPBs) this could be interpreted as a veiled way to impose fiscal solidarity in Europe. In any case, it would require a change in the EU Treaties.

In addition to these obstacles, a hierarchical system might not be the best possible outcome. As noted by Wruuck, it could have costs in terms of the collection of information about the local market situation[44]. Contrary to what happens with the formulation of monetary policy (which relies on easily-available macro-economic data), a good knowledge of the local investment context is essential to define the appropriate investment strategy and identify local market failures. A centralized system for public investment could deliver well from an aggregate, macro-economic perspective but would not necessarily be able to guarantee an effective allocation of resources at the micro-economic level.

Rather than moving towards a hierarchical system for coordination, a more desirable and likely outcome for the long-term is to reinforce and expand cooperation initiatives between the EIB and NPBs. At the very minimum, one can expect that the experience with EFSI serves to increase the size of existing cross-country funds (Marguerite, Energy Efficiency Fund) and to create new thematic, cross-country platforms (linked to EFSI or otherwise). Another possibility for the long-term is to see NPBs putting money into EFSI's capital, thus converting the permanent EU investment fund into a real joint initiative. Finally, 'soft' mechanisms for coordination could be envisaged. One can imagine, for instance, the creation of a new EU advisory council on investment involving the EIB and all NPBs in Europe. Aside from providing advice to the Council, the Commission and the European Parliament on matters related to

44. Patricia Wruuck, Promoting investment and growth: the role of development Banks in Europe, EU monitor, Deutsche Bank Research, 23 December 2015.

investment in Europe, it could serve as platform for coordinating NPB investment strategies.

1.4.2. The EFSI as the seed of a future euro area stabilization mechanism?

Another possible long-term scenario would be the conversion of EFSI into a stabilization capacity for the euro area. The Five Presidents' Report on completing the EMU[45] calls for the establishment of a "common macroeconomic stabilization function" for the euro area to better deal with shocks that cannot be managed at the national level alone. The creation of this function is foreseen for stage two (that is, after June 2017) and the report details some guiding principles that should inform the design of this capacity (see Box 14).

BOX 14 ► Guiding principles for a euro area stabilization function (according to the Five Presidents' Report on completing the EMU)

The Five President's Report details the following guiding principles for the design of a euro area stabilization function:

- It should not lead to permanent transfers between countries or to transfers in one direction only.
- It should not be conceived as a way to equalize incomes between member states.
- It should neither undermine the incentives for sound fiscal policy-making at the national level, nor the incentives to address national structural weaknesses.
- It should be tightly linked to compliance with the broad EU governance framework.
- It should be developed within the framework of the European Union.
- It should be open and transparent vis-à-vis all EU member states.
- It should not be an instrument for crisis management, but an instrument aimed at improving the economic resilience of EMU and individual euro area countries.

The report explicitly mentions that such a stabilization function could "build on the European Fund for Strategic Investments as a first step, by identifying

45. Jean-Claude Juncker, Donald Tusk, Jeroen Dijsselbloem, Mario Draghi, and Martin Schulz, *Completing Europe's Economic and Monetary Union*, 2015.

a pool of financing sources and investment projects specific to the euro area, to be tapped into"[46].

At first sight, it is difficult to imagine EFSI performing this function. As said above, the Fund works as a demand-driven instrument, free of any geographical or sectorial pre-allocation. It is backed by a guarantee from the EU budget, and therefore, it should logically cover the whole EU (and not only the euro area countries). One might imagine some way of accommodating this function into EFSI, but the capacity to do so depends on the type of fiscal stabilization we envisage for the euro area.

If the goal is to create a cross-country shock-absorbing instrument (that is, an insurance mechanism for euro area countries, pooling resources from all euro area member states and providing financial assistance to those affected by a shock), it is very implausible that EFSI can perform this function. This would require a strict focus on euro area countries, and thus a change in the nature of the guarantee backing EFSI (EFSI should be backed by guarantees from insured countries and not from the EU budget). It would also necessitate the introduction of strict geographical criteria for spending allocation and the introduction of conditionality to prevent ESFI allocation from undermining the incentives for sound economic and fiscal policy. In short, the very nature of EFSI would be put into question.

If the goal is instead to create a fiscal mechanism to boost the aggregate demand of the whole euro area in difficult times (e.g. recessions, periods of very low growth), then it is easier to imagine EFSI performing this function. One possibility could be to establish a euro area investment platform co-financed by EFSI and the NPBs from the euro area. This platform could be granted by an EIB guarantee on the basis of EFSI guarantee, which would allow it to perform on its own the selection of investment projects specific to the euro area. Like for the rest of EFSI projects, the selection of these projects would not be subject to geographical pre-allocation. To have a significant macro-economic impact, however, this platform would have to be quite big or at least be able to mobilize a significant part of funding in difficult times (either through increased EFSI funding or through increased contributions from euro

46. Juncker et al., *Op. Cit.*, p. 15

area NPBs) Unlike EFSI, it should follow a pure stabilization logic, prioritizing projects having significant short-term impacts on growth and jobs at the expense of more 'strategic,' long-term projects.

Finally, another alternative could be forgetting the idea of using EFSI for this purpose and modifying instead the statute of the European Investment Bank to force the Bank to play a more active, anti-cyclical role in exceptional circumstances. During the current crisis, there has been some criticism of the EIB's conservative approach and its reluctance to increase the lending capacity so as to avoid endangering its triple A. We have also witnessed how difficult it has been to reach the required unanimity among member states to increase the capital of the EIB. To prevent this from happening again, one could for instance stipulate the obligation for member states to increase the capital of the Bank up to a certain percentage, or for the Bank to increase its lending capacity, in certain circumstances. Notice that action in this case would benefit the whole EU and not only the euro area. It would be a 'second best' alternative to a truly euro area stabilization mechanism.

2. Developing digital infrastructure in Europe: can the Juncker Plan play a role?

by David Rinaldi

2.1. Why prioritize digital infrastructure

If moving towards a knowledge economy and re-launching economic growth are the political goals of European governments, high-quality broadband networks should be regarded as fundamental infrastructure. De facto, digital infrastructure *empowers* citizens and businesses by offering all the services, opportunities and information which are available through the Internet. The European Commission has recognized that the availability of high-speed networks in Europe is a prerequisite for the digital economy to flourish and an essential part of the overall strategy for achieving job creation and economic growth. In fact, the ambitious Digital Agenda is one of the pillars of the Europe 2020 Strategy and the goals of ensuring fast and ultra fast internet access across Europe are seen as key to the objective of promoting inclusive and smart growth. There are two specific targets concerning broadband networks[47] to be met by 2020: 1) extending broadband coverage of at least 30 Mbps to all Europeans, i.e. 100% coverage for *fast* broadband, and 2) ensuring that at least half of European households subscribe to connections of at least 100 Mbps, i.e. household penetration[48] of at least 50% for *ultra-fast* broadband[49].

To meet these targets, substantial investments are required to extend existing digital infrastructure and roll out new NGA[50] networks. To set and maintain

47. The original targets were three, but one has already been achieved. See Section 2.2.
48. Coverage identifies the number of homes and businesses that in principle have access to broadband; penetration refers instead to the actual number of subscribers.
49. There is no univocal definition of broadband and, since categories relate to the speed of data transfers, they are subject to changes over time, as technology advances. The European Commission conveniently refers to standard broadband when download speeds are between 144 Kbps and 30 Mbps, fast broadband with speeds between 30 and 100 Mbps and ultra-fast broadband for speeds higher than 100 Mbps.
50. Next Generation Access (NGA) typically refers to access speeds of at least 30 Mbps, provided by fiber or cable TV lines.

networks of high quality, *conspicuous* investment is needed; moreover because of fast-growing demand and rapidly evolving technology, *continuous* investment must be ensured.

The investment needed to update, build and maintain digital infrastructure is not only relevant to secure broadband of adequate *speed*. Investment is necessary to secure other aspects of broadband quality as well. Continuous investment is in fact needed to improve on the *latency*[51], *security* and *reliability* of the lines, as more and more critical applications – e.g. self-driving cars, security devices, traffic management devices – will rely on broadband connections.

Most likely, the next wave of growth will be triggered by the advent of the Internet of Things (IoT). Over the next three years only, more than 8.5 million connected machines, sensors, data collectors and other smart devices will be installed across Europe. According to a BCG study, the IoT could contribute about € 330 billion to industry revenues by 2020 and the European Commission estimates that the developments of the digital economy are worth three million new jobs. However, to fully benefit from digital transition and unleash the potential of ICT solutions in Europe, deploying appropriate infrastructure is a necessary condition.

The ability of our economies to remain competitive globally, to grow and to promote job creation depends on how Europe will manage its digital transformation. Besides providing a short-term boost to the economy, investments in NGA infrastructure creates the groundwork for long-term improved growth and productivity gains. In fact, digital infrastructure impacts far beyond the digital economy; it promotes growth in virtually all industries. Over recent years, about one third of economic growth is due to investment in ICT, which has proven to have a counter-cyclical effect and a long term impact on growth. (Wieck and Vidal, 2011). The European Commission, the EIB, and the OECD confirm that over the past decade, broadband networks have contributed to as much as 20% of total

51. Latency, usually expressed in milliseconds, denotes the amount of time it takes information to arrive from one networked device to another node. The lower the latency, the better: the majority of apps require a latency of less than 40 m. Bandwidth defines instead the amount of data that can be transferred during a second and is measured in bits per second. Together, latency and bandwidth define the speed and capacity of a network. When bandwidth is saturated, congestion occurs and latency increases; however, when bandwidth is not at peak, latency does not decrease automatically: time delay (i.e. latency) depends on the electrical characteristics of the circuit.

productivity growth in Europe.[52] They also estimate that NGA infrastructure has the potential to add 0.5-1.5% to the GDP of the Union. (EIB, 2016)

In order to meet the EU Digital Agenda goals by 2020, it is estimated that about € 200 billion in investment is needed, for an investment gap of roughly € 95 billion[53]. That equates to about one third of the total investment that the European Fund for Strategic Investments (EFSI) is supposed to mobilize over the next three years. It is unreasonable to expect EFSI alone to cover the entire investment gap in digital infrastructure, but there are indeed expectations that the European Commission and EIB flagship initiative for investment and growth can at least partly contribute to the development of word-class broadband networks in Europe.

Until December 2015, out of the 39 EFSI-backed projects approved or pending EC approval, only three relate to digital infrastructure development and ICT, and are concentrated in just two countries, France and Italy.

Direct public intervention by means of financial instruments is advisable, as investment in infrastructure has lengthy payback periods and very low financial returns in certain scarcely populated areas. Gruber, Hätönen and Koutroumpis (2014) point out that investment in digital infrastructure has relatively high economic returns and that EU subsidies to meet the Digital Agenda infrastructure objectives are to be considered as an efficient use of public funds. They analyse the returns from broadband infrastructure for the 2005-2011 period and find that the cumulative economic gains from universal high-speed broadband deployment are 32% above the total EU investment cost; in other words, for the European Union as a whole, the overall benefits outweigh the costs by 32%.

However, it is not only through direct financing that EU and national institutions can support investment in digital infrastructure. BCG (2015), Briglauer, Cambini and Grajek (2015) and CERRE (2016), among others, confirm that achieving the goals of the EU's Digital Agenda is not a matter of available technology, nor of scarcity of potential private investment; it is rather a funding

52. See EIB (2016).
53. See BCG (2015) and Section 2.3.