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A Pilot for the Europe 2020 Project Bond Initiative

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EUROPEAN COMMISSION

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**COMMISSION STAFF WORKING PAPER**

**IMPACT ASSESSMENT**

*Accompanying the document*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**A pilot for the Europe 2020 Project Bond Initiative**

**Proposal for a**

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Decision No 1639/2006/EC establishing a Competitiveness and Innovation  
Framework Programme (2007-2013) and Regulation (EC) No 680/2007 laying down  
general rules for the granting of Community financial aid in the field of the trans-  
European transport and energy networks**

{COM(2011) 659 final}

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## **1.1. PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES**

### Identification

Lead DG: Directorate-General for Economic and Financial Affairs (ECFIN)

Agenda Planning: 2011/ECFIN/022

### **1.1.1. Background for the development of the Europe 2020 Project Bond Initiative**

Despite long-standing EU policy and grant spending on Trans-European Networks (TENs), the Commission has found that the completion of key infrastructure projects is delayed or abandoned with one of the principal reasons being lack of investment. The Connecting Europe Facility (CEF) for the period 2014-2020 will put European funding for transport, energy and telecommunications infrastructure on a solid and coherent basis for the longer term<sup>1</sup>.

However, Europe is facing financing problems already now. Government spending is being reduced and long-term bank lending continues to be scarce. Project finance volumes, after recovering somewhat in 2010, have declined dramatically in the first half of 2011<sup>2</sup>. Thus, at a point in time, where infrastructure projects could contribute most to aid the European recovery, the financing is more challenging than it need be<sup>3</sup>.

Currently, infrastructure projects in the EU have de facto no possibility to access finance from the bond markets. Therefore, the Commission suggests putting in place a support mechanism that would increase projects' access to capital market debt funding to complement grants and bank financing. The Europe 2020 Project Bond Initiative would be a cross-sector initiative to expand the available sources of financing of infrastructure projects, especially in the transport, energy and ICT sectors where current traditional sources of financing are insufficient. The aim is to attract institutional investors to the capital market financing of projects with stable, predictable cash flows by raising the credit quality of project bonds issued by private companies. The pilot phase of this Initiative would be rolled out with the European Investment Bank (EIB) in 2012 and 2013.

The Initiative will build on more than ten years of experience of using financial instruments<sup>4</sup> to implement EU policies. In the 2007-2013 financial framework, a new generation of successful financial instruments were put in place in cooperation with the EIB, notably the Risk-Sharing Finance Facility (RSFF) under the 7th R&D Framework Programme and the Loan Guarantee

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<sup>1</sup> See further point 2.1.2

<sup>2</sup> Source Infrastructure Journal (IJ). Western Europe declines from EUR 33 billion to 26 billion, half of which is transport and energy (IJ's data for Eastern Europe distorted by Russia and Turkey, hence not included).

<sup>3</sup> See also the Impact Assessment on the Connecting Europe Facility and the Impact Assessment accompanying the legislative proposals for the ERDF and Cohesion Fund.

<sup>4</sup> Pioneered in the area of SMEs

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Instrument for TEN-T projects (LGTT)<sup>5</sup>. The mid-term reviews of the latter two, which are of particular relevance in the context of the project bond initiative, are attached in Annex II.

As a project bond-type, cross-sectoral financial instrument does not yet exist at European level, the pilot phase in 2012-2013 would allow testing its design and market acceptance in order to improve its effectiveness under CEF for the 2014-2020 period. In the pilot phase, the focus would be on projects at a relatively advanced stage<sup>6</sup> to accelerate the implementation and facilitate the creation of a project portfolio. In order to gather relevant experience to ensure rapid take-up post-2013, EIB is willing to work on concrete operations in parallel with the legislative process (i.e. prior to the formal political decision) in order to have first transactions executed in 2012.

This impact assessment covers mainly the pilot phase of the Europe 2020 Project Bond initiative, but refers to the 2014-2020 operational phase where relevant, and focuses on financing in the projects in transport, energy and telecommunication areas. The pilot phase will be limited in scope, budget and number of projects compared to the post-2013 phase.

Finally, the instrument would not necessarily need to be limited to the areas of CEF in future; projects in other infrastructure sectors, such as social sectors, renewable energy or certain space projects could be eligible provided they meet the economic and financial prerequisites. Thus the instrument should be open to use in other policy contexts including structural and cohesion funds and external policies. The formulation of the CEF proposal should not preclude this. In addition, further financial institutions should have the possibility to participate in 2014-2020 in line with the Financial Regulation.

## **1.2. Organisation and timing**

Since the announcement of the Initiative, Directorate General (DG) ECFIN has been working with EIB services in order to define its main parameters and with DGs MOVE, ENER and INFSO.

An inter-service steering group was formed to ensure that the impact assessment for the formal legislative proposal captures all necessary policy aspects that have to be clarified to ensure the success of the Initiative. In addition to DGs ECFIN, MOVE, ENER and INFSO it comprises DGs BUDG, COMP, ENTR, ESTAT, MARKT, REGIO, RTD, SJ and SG as well as the TEN-T Executive Agency. The group met 3 times between May and July 2011.

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<sup>5</sup> LGTT aims to attract long-term bank lending in TEN-transport projects. Under LGTT, the EIB provides financing (credit enhancement) to the projects whereby the Commission covers a share of potential losses through a risk-sharing mechanism. The EU budget earmarked for LGTT amounted to EUR 500 million with matching funding from the EIB. The multiplier effect is 20, i.e. LGTT is expected to attract EUR 20 billion of senior loans.

<sup>6</sup> E.g. projects already at preferred bidder stage and/or refinancing of projects during construction)

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### **1.3. Consultation and expertise**

#### *External consultation*

With a view to assess market demand for the Initiative and possible obstacles prior to the development of a fully fledged proposal, a public consultation was launched on 28 February 2011. The consultation paper was subsequently made available on the website of the DG for ECFIN. In addition, it was sent out to numerous stakeholders directly. It thus benefited from the maximum publicity possible to compensate for the minimal prior notification.

Stakeholders had until 2 May 2011 to make their contributions via the Europa website or via a functional mailbox. Over 130 responses were received. In addition, a conference was held on 11 April in Brussels with more than 250 participants. The Initiative was generally viewed favourably and many suggestions made, mainly to extend its scope to social infrastructure, environmental infrastructure and renewable energy projects. The positive impact of the project bond initiative in attracting private finance and in particular institutional investors to infrastructure projects was also highlighted by the stakeholders. The majority of responses considered that the initiative will facilitate financing due to a more solid structuring of long-dated projects.

As the detailed summary of the consultation in Annex I shows, the minimum standards of consultation were met.

### **1.4. Results of the consultation of the Impact Assessment Board**

Following the hearing with the Impact Assessment Board on 31 August 2011, the Board sent its opinion on 2 September 2011. This impact assessment report concentrates on the pilot phase which is subject of the draft Regulation and also explains the link to the CEF financial instruments as requested by the Board. Based on the recommendations received, the report has been redrafted along the following main lines:

The Board's request to strengthen the justification of the initiative has been included throughout the document. The current market situation has been explained more in details in particular under points 1.1 and 2.2 with link to the impact assessment accompanying CEF. The aspect of value added of the initiative is included as a new subject under point 4.1. A new Annex V provides an example of a possible project in order to facilitate the understanding of the readers on the functioning of the initiative. In addition, a section on pricing is included under points 5.3 and 4.1.

As the Board considered that the options and their impacts should be more clearly formulated, the sections 4, 5 and 6 have been redrafted, including subsidiarity and administrative burden, for which more detailed comments were provided by the Board earlier during the process. Section 7 on monitoring and evaluation has been improved to better reflect the Board's request to spell out more extensively the monitoring and evaluation arrangements including performance indicators. This reflects the monitoring and evaluation arrangements laid down in the draft Regulation on the launch of the pilot phase.

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## **2.CONTEXT AND PROBLEM DEFINITION**

### **2.1.Political context and legal base**

#### **2.1.1.Policy for the future: Europe 2020**

Given the challenges of a changing and increasingly inter-connected world, the EU developed the Europe 2020 Strategy, which takes a holistic view of Europe's policy goals and was endorsed by the European Council on 17 June 2010. The objective is to make Europe a smart, sustainable and inclusive economy, which delivers high levels of employment, productivity and social cohesion in a sustainable manner. To this end, the EU has identified seven flagship initiatives, of which the Digital Agenda and Resource Efficient Europe are of particular relevance. The Digital Agenda objectives are to ensure that every European has access to basic broadband by 2013 and to fast or ultrafast broadband by 2020<sup>7</sup>. The Resource-efficient Europe flagship aims to support the shift towards a resource-efficient and low-carbon economy, thereby decoupling economic growth from resource and energy use, reducing CO<sub>2</sub> emissions and promoting greater energy security while enhancing competitiveness. This will require a significant transition in transport and energy systems.

#### **2.1.2.Connecting Europe Facility**

CEF will provide the longer-term framework ensuring that projects in energy, transport and telecommunication are developed and implemented in a timely and effective manner. A comprehensive strategy of prioritised opportunities of infrastructure projects, as proposed by the Commission on 29 June 2011<sup>8</sup>, has significant potential to attract more private sector financing and at the same time help to complete the internal market. The strategy, including the selection of projects eligible for funding is transparent, thus ensuring a high level of certainty for all stakeholders. Within this strategy the setting of policy priorities, regulations, incentive schemes, close co-ordination between stakeholders, information and awareness campaigns are required to establish the overall framework conditions for infrastructure investments, enforcing behavioural changes amongst stakeholders and accelerating the pace of intervention. Grants and financial instruments, each under a distinct set of financial rules, would be available in a co-ordinated manner.

Financial instruments are needed to reduce specific barriers that prevent the flow of debt and equity finance. Their main objective is to attract and facilitate private sector finance of projects. At the same time, increased investment activity in infrastructure projects stimulates the global development of post-crisis financial markets, enhances the pace of economic recovery and promotes growth. The Europe 2020 Project Bond Initiative will become an integral part of the risk-sharing instruments of CEF for the period 2014-2020. The main objective of the pilot phase in 2012-2013 would be immediate support for infrastructure projects and preparation of the operational phase of the Initiative in 2014-2020.

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<sup>7</sup> The 2020 goal has two parts: (i) all Europeans have access to much higher internet speeds of above 30 Mbps and (ii) 50% or more of European households subscribe to internet connections above 100 Mbps.

<sup>8</sup> COM(2011)665

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### 2.1.3. Funding

In the past, a large number of projects of common interest have benefited from grant support from the Union budget<sup>9</sup>. The European Investment Bank (EIB) has also greatly contributed to the financing of these projects through loans<sup>10</sup>. Nonetheless, many TENs remain incomplete and recent communications and white papers<sup>11</sup> all indicate the lack of investment as a significant obstacle to the implementation of projects. The area of transport is most advanced in the use of financial instruments with the joint EU-EIB LGTT facility and the Marguerite Fund, where the EU is a co-investor alongside several banks. Experience so far shows a clear need to prepare the ground for the implementation of such schemes in order to have sufficient stakeholder awareness and acceptance.

However, both grants and financial instruments have tended to be segregated by policy area until now, although financing requirements are often similar. By putting its infrastructure financing on a more coherent footing, the EU can ensure that key projects can draw on all available sources of funds and funding instruments in a cost efficient manner.

The bond markets in Europe are de facto not used for the financing of infrastructure projects. The proposed Europe 2020 Project Bond Initiative aims to increase the access to debt capital markets for infrastructure projects of European interest, using appropriations from the EU budget.

Initially, the three target areas transport, energy and telecommunication will be covered, but later on the Initiative may also benefit other types of infrastructure. To allow the launch of the pilot phase, it is proposed that EUR 200 million are redeployed from the TEN-T budget, EUR 10 million from the TEN-E budget and EUR 20 million from the CIP budget.

As regards funding under CEF for the period 2014-2020 up to 20% of the available budget could be used for risk-sharing and equity instruments depending on the identified funding gap.

## 2.2. Problem definition

### 2.2.1. Infrastructure funding gap: Nature and extent

Europe faces enormous infrastructure investment needs in transport, energy and ICT networks in this decade, totalling EUR 1.5 trillion to EUR 2 trillion<sup>12</sup>, to meet the policy goals of the Europe 2020 strategy, i.e. annual financing volumes of EUR 200 billion or more. Of course, there are also substantial investment needs in other areas of infrastructure, but these will not be considered further at this stage.

<sup>9</sup> TEN budget lines, Structural Funds and Cohesion Fund.

<sup>10</sup> See Annex III for further details.

<sup>11</sup> Digital Agenda for Europe COM(2010)245, European Broadband: investing in digitally driven growth COM(2010)472, Roadmap to a single European Transport Area COM(2011)144, Transport White Paper SEC(2011)359 and Energy infrastructure priorities for 2020 and beyond COM(2010)677.

<sup>12</sup> Sources Transport White Paper SEC 0359/2011, Energy Communication 2010/677, A Budget for Europe 2020 - Part II, COM(2011) 500, see also the impact assessment accompanying the Connecting Europe Facility proposal.

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At present, public sector infrastructure investment in the EU averages approximately 1% of GDP<sup>13</sup> or around EUR 120 billion per annum. It is estimated that about 80%, EUR 95 billion is investment in transport and most of the rest in social infrastructure, i.e. schools and hospitals<sup>14</sup>.

Increasingly, governments have encouraged the private sector to finance infrastructure investment, either on a purely private sector basis through privatisation, through concessions or, more recently, using the public-private partnership (PPP) model as a basis. Traditionally, users paid directly for each use of an infrastructure project, e.g. in the case of toll roads. Although user charges work well for such cases, not all types of infrastructure can be financed this way. The concept of availability payments has therefore been developed, whereby a public sector body makes regular payments over an agreed period to the supplier of the infrastructure and associated services for their availability subject to specific conditions. Such payments can also be combined with user charges if charging the full cost would lead to too large of a burden on users. PPP and other privately funded projects are typically financed with equity from sponsors or other investors and bank loans.

The step change in total projected investment volumes to meet the Europe 2020 objectives is beyond the total financing available, especially given that existing sources may stagnate or even decrease as Annex III explains<sup>15</sup>. This alone requires a reconsideration of funding generally and EU funding in particular.

In addition, the financing of cross-border projects poses a particular challenge due to the implication of several governments and their regulatory/legal systems and current incentives of individual Member States and/or private investors may not suffice to realise such projects.

Of course, there are still projects that are not financially viable, but which nonetheless has great value to society. These will continue to be financed with grants.

Finally, infrastructure projects typically require very long-term financing, something that is not widely on offer presently. Infrastructure generally has high costs of capital coupled with low operating costs. However, its usually stable and predictable cash flows make long-term financing particularly attractive. The infrastructure debt generally has low default rates and higher recovery rates in case of default than comparable corporate debt. In addition, it shows a low correlation with other assets<sup>16</sup>, which is fundamental to the reduction of risk in a diversified portfolio and as such is sought after by asset managers.

### 2.2.2 *Funding: Drivers and underlying causes*

During the financial crisis, due to the liquidity and risk challenges, banks in the EU reacted by shortening of maturities, increased pricing and collateral requirements. This led to a smaller

<sup>13</sup> Ranging from ½ to 2% depending on the Member State.

<sup>14</sup> Utilities and telecom providers are generally private sector entities, thus public sector investment is minimal.

<sup>15</sup> See also the impact assessment accompanying the Connecting Europe Facility proposal.

<sup>16</sup> Moody's Special Comment on Default and Recovery Rates for Project Finance Loans 1983-2008, 20 October 2010 and P. Davies, MBIA

number of lending operations and smaller volume of operations per bank. In addition, there are a large number of loans to existing projects that were granted in 2006 and 2007 at high interest margins on a short term basis that are now coming up and requiring new financing arrangements, often with higher financing cost. This will place an additional strain on the amount of debt available to finance the construction of new infrastructure.

"Although the US has traditionally dominated the world's bond markets, bonds issued in the US now account for less than half –about 44% of the global bond market volume. In Europe, bonds are about 2/3 of the total amount of securities outstanding in bonds and shares; in the US, the bond market is about the same size as the stock market. Historically fragmented, the bond markets of the world comprise a great variety of bond products with complex and different characteristics. About 60% of the European bond market is government bond debt, 29% is corporate, and 11% is asset-backed; in the US, the proportion of bonds issued by the corporate sector is much larger.<sup>17</sup>" This illustrates the fact that the European bond markets still play a relatively minor role for the financing of European companies, and by extension of projects, which are still predominantly financed via bank loans. Research suggests that because most direct investment in bonds has traditionally been in the government bond markets, there is a need for investors in the EU to increase their understanding of corporate and project bond related risks, which are generally more complex.

Prior to 2008 a very limited number of EU infrastructure projects accessed the bond markets via privately guaranteed bonds. Essentially, insurance companies known as "monolines" guaranteed the timely payment of 100% of the interest and principal, so the rating of the bond depended on the credit quality of the monoline insurance company and not on that of the project<sup>18</sup>. In 2009-2010, however, the infrastructure bond markets in the EU have shown de facto no activity.

Multilateral development banks did step up their lending volumes as a crisis response. However, this trend may not become permanent and due to capital constraints the lending volumes need to be scaled down.

As the Monti Report recognised, the full potential of the single market can only be delivered with the provision of the appropriate physical infrastructure and the creation of a single digital market<sup>19</sup> *"Major public infrastructure in Europe, such as the TENs, is transnational, unfit for the currently fragmented national schemes, and their funding suffers from the absence of a liquid bond market for very long maturities, while long-term investors such as pension funds cannot find a supply of bonds matching their investment needs."*

The Monti report suggests to *"[...] explore all combinations between public and private funding [...]"*, to *"[...] improve incentives for long term investors [...] to direct their resources to long term infrastructure projects"* by encouraging *"[...] the development in Europe of a liquid bond market for very long maturities"*.

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<sup>17</sup> Source: Association for Financial Markets in Europe (AFME): Investing in bonds in Europe on [www.afme.eu](http://www.afme.eu).

<sup>18</sup> See also Annex III.

<sup>19</sup> M. Monti: A new strategy for the single market, at the service of Europe's economy and society, p.8

Most institutional investors in infrastructure have so far invested by taking in particular indirect equity stakes. Investing in infrastructure debt is less straight-forward, one of the rationales for the Project Bond Initiative. A more detailed review of public and private infrastructure financing; past, current and future provided in Annex III.

### 2.3. Baseline scenario, assumptions and affected parties

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In the areas of transport, energy and telecommunications, the concept of TENs was enshrined in the Maastricht Treaty in 1992 (now Article 170 and 171 TFEU) and has been shaped by successive TEN-E, TEN-T and eTEN Guidelines and corresponding financial regulations since 1996 with EU financing being envisaged since 1995 according to Council Regulation 2236/95.

Given the long-standing commitment to infrastructure, the natural baseline scenario would be for the EU to continue with grant funding, not to cease support for infrastructure projects altogether. During the pilot phase, the use of financial instruments in the area of transport such as the Loan Guarantee Facility for TEN-T (LGTT) forms part of the baseline scenario. LGTT aims at attracting long-term bank lending to certain types of transport projects.

The LGTT<sup>20</sup> applies only to transport projects that face revenue risk due to variations in traffic, i.e. through user charges that are directly dependent on actual use, in the early operational phase of a project. As Member States have been using availability payments as a basis for most transport projects rather than real tolls, most projects have not met the LGTT eligibility criteria. The assumptions underlying the baseline scenario, based on the drivers mentioned in point 2.2.2 and discussed more in detail in Annex III, are as follows:

- ☐ Public sector finances will continue to be under pressure for most of the next Multi-annual Financial Framework.
- ☐ While the impact of Basel III on liquidity in terms of categorisation of financial assets based on infrastructure is being kept neutral in this assessment, an increase in lending prices is taken into account<sup>21</sup>. Monoline insurance companies will not re-enter the markets.
- ☐ There will be sufficient number of potential projects to take advantage of this instrument that tie in with EU strategies of project pipeline development and building institutional capacity among the Member States.
- ☐ There will be investor demand for infrastructure bonds.

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Thus the stakeholders primarily affected by the absence or presence of infrastructure are:

- ☐ Citizens in all Member States, who benefit from the infrastructure and ultimately fund it, either as consumers or tax payers.
- ☐ Tendering authorities which may not have competitive financing.

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<sup>20</sup> See footnote 9 on description of LGTT.

<sup>21</sup> The impact assessment on prudential requirements for credit institutions and investment firms (SEC(2010)949) concludes in point 5.9 that "the proposals are expected to lead to a higher cost of bank credit across the entire spectrum of bank customers, which is compensated by social benefits." In addition, the paper of the Bank for International Settlements on the assessment of long-term economic impact of stronger capital and liquidity requirements, August 2010, point to the fact that projected impacts arise mainly from banks passing on higher costs to borrowers, which results in a slowdown in investment.

Project promoters which may not be able to get financing for their projects at present. This affects their employees and those of subcontractors, including SMEs.

## 2.4. Subsidiarity

The right for the EU to act in the field of infrastructure financing is set out in Article 171 which provides that in order to achieve the relevant objectives the Union (...) may support projects of common interest supported by Member States. Furthermore, the EU's competence in the area of energy is also enshrined in TFEU, Article 194.

The Europe 2020 Project Bond Initiative complies with the subsidiarity principle as the choice of the EU Regulation for financing trans-European networks projects with project bonds is best suited to provide an efficient and inexpensive means to attract high levels of private sector financing. The expected multiplier effect in terms of EU budget contribution compared to the overall financing is estimated at 15-20<sup>22</sup>. By focusing on optimising the use of EU funds, the initiative will aim to improve the effectiveness of both EU and Member States action within this division of competencies.

Individual Member States have recognised there is a funding problem and have put in place temporary schemes which provide loans or loan guarantees, but the schemes are about to expire.

Whereas LGTT targets only loans to transport projects, the Europe 2020 Project Bond Initiative will be the first EU financial instrument benefiting infrastructure projects across several sectors with similar financing needs and will as such produce higher benefits in terms of market impact, administrative efficiency and resource utilisation. It will provide a coherent EU financial instrument to infrastructure stakeholders such as financiers, public authorities, construction companies and operators.

As capital markets transcend national borders, so efficiency dictates that a financing scheme should do the same. This also avoids distorting financial markets. Countries outside of the EU have their own policies to support infrastructure financing. Thus, a European initiative would level the international playing field for European projects seeking funding.

In summary, the EU has the potential to achieve the twin objectives of increasing infrastructure financing and creating an infrastructure bond market better in the EU and more completely than the Member States.

## 3. OBJECTIVES

### 3.1. General policy objectives

While the private sector is expected to continue to play a significant role in delivering the required economic infrastructure, some key infrastructure investment may be delayed or

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<sup>22</sup> The exact multiplier depends on the financing structure and the exact risk-sharing arrangements, which may have to be adapted to the budgetary availability in each policy area.

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cancelled due to the widening of the financing gap as described in Section 2 and Annex III. Thus, additional sources of financing are needed in order to secure future infrastructure investment and the long-term bond market is the obvious solution at a time when long-term bank lending is difficult to access and competitive options are required. Financial instruments align the economic incentives of market actors, thereby facilitating such bond issues. Through appropriate pricing of the financial support and its limited nature, the EU will seek to avoid distorting competition. In fact, the objective is to facilitate projects' access to finance through alternative debt financing sources, i.e. project bonds.

The general objectives of the Project Bond Initiative are therefore two-fold:

- (1) Stimulating investment in infrastructure in the area of transport, energy and ICT.
- (2) Establishing debt capital markets as a new source of financing in the area of infrastructure.

### 3.2. Operational objectives

During the pilot phase of the initiative, the EIB will provide guarantees or loans to eligible projects. This would allow the senior debt to reach a credit quality necessary to attract private investors and thus permit its financing via a bond issue. The Initiative is intended to act as a catalyst to create an infrastructure bond market, which does not rely on 100% guarantees.

The Europe 2020 Project Bond Initiative would aim to reach the following measurable targets:

- ☐ Considering the budget allocations available during the pilot phase, which need to be committed in the respective sectors, it is expected that until 31 December 2014 up to 6 TEN-T projects can be included in the EIB portfolio, up to 1 TEN-E project and up to 3 telecommunication projects. The number of projects will depend on the volume of financing required for each project, ie the higher the volume, the more EU budget allocations are needed for one single transaction.
- ☐ The EU budget allocation of EUR 230 million is expected to attract 15-20 times of additional investment, ie the multiplier effect is expected to be between 15 and 20.
- ☐ The number of public and private sector initiatives launched to facilitate project bond financing and the performance of these initiatives.

Market demand and supply will determine the uptake of the scheme; it is not mandatory to use it.

### 3.3. Link with EU Strategies

Europe's economic future requires smart, sustainable and fully interconnected transport, energy and digital networks. They are indeed a necessary condition for the completion of the European single market, sustainable growth and stability and the achievement of the objectives outlined in

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the Europe 2020 strategy as well as the ambitious energy and climate policy goals: the "20-20-20" objectives<sup>23</sup>.

The Initiative is an important building block for the CEF proposed for the transport, energy and ICT sectors in the Multi-annual Financial Framework (MFF) 2014-2020.

One key aim of the MFF, and therefore the CEF, is to use a greater proportion of budget funds in a more efficient way by increasing the share of financial instruments. The notion of smart funding was a key element of the Budget Review COM(2010)700 with the project bond initiative cited as an example of using EU funds to leverage private sector capital investment. According to a study requested by the European Parliament's Committee on Budgets "The implications of EIB and EBRD co-financing for the EU budget" (2011), co-financing has been undertaken in areas which have seen considerable success in delivering EU policy priorities, such as innovation, research and competitiveness – all of which are fundamental strategic objectives of the EU – despite some concerns that co-financing may be best suited to those markets which are relatively developed.

However, the Commission sees a need to standardise and simplify the use of and reporting on financial instruments. The Europe 2020 Project Bond Initiative is the first EU financial instrument covering several sectors with similar financing needs. The Initiative will support the development of the CEF financial instruments for the post-2013 period, but may also be extended to other sectors that fulfill the financial criteria. Since a key aim is to attract private sector financing, the increased transparency of such a simplification will be helpful in this respect and encourage the use of PPP structures, which is also a stated goal<sup>24</sup> of the EU.

#### **4.IDENTIFICATION OF POSSIBLE EU OPTIONS IN THE PILOT PHASE**

##### **4.1.Option 1: Grant funding, no new financial instrument (baseline scenario)**

This would entail the exclusive reliance on the use of grants from the public purse, including the EU, with bank loans as the main source of private sector debt financing.

In this Multi-annual Financial Framework, under TEN-T, an amount of EUR 8 billion is available to support transport projects. Out of this EUR 580 million is dedicated to financial instruments, i.e. the LGTT (EUR 500 million) and participation in the Marguerite equity fund (EUR 80 million).

As banks face balance sheet and maturity constraints for a number of reasons including higher funding costs, higher capital requirements and a continuing need to provision for losses, it cannot be assumed that long-term bank lending will continue at their previous level, let alone rise to the higher levels needed to implement the Europe 2020 strategy. This also applies, albeit to a lesser extent, to the multilateral development banks, such as the EIB.

<sup>23</sup> 20% reduction in greenhouse gas emissions, 20% share of renewable energy in EU final energy consumption and 20% improvement in energy efficiency by 2020

<sup>24</sup> PPP Communication COM(2009) 615

Formattati: Elenchi puntati e numerati

#### **4.2. Option 2: Regulatory incentives to increase infrastructure financing, no financial instrument**

Formattati: Elenchi puntati e numerati

The EU as a whole does not have, nor has it had, a true project bond market. Financing in Europe has traditionally been dominated by banks and a truly integrated and liquid bond market only started developing after the introduction of the single currency. This contrasts with the situation in e.g. the US, where banking has been fragmented along state lines with the bond market providing the better financing terms and liquidity.

As a result of the banks' better knowledge of their customer and ability to analyse infrastructure financing proposals, European deals have generally been structured to reach a lower credit quality than e.g. in Canada, where bond solutions are common. Where bonds were issued, they were guaranteed by monoline insurance companies.

This might suggest that one way of addressing the infrastructure financing problem, short of stopping the banks from lending to the sector, would be to take regulatory steps to improve the incentives for infrastructure funding. This could take the form of requiring better security packages from sponsors or more advantageous treatment of investment in infrastructure in terms of capital required, taxation etc

#### **4.3. Option 3: The use of a financial instrument to attract additional infrastructure financing**

Formattati: Elenchi puntati e numerati

The main proposal is to introduce a financial market solution to address market imperfections.

As instruments to support of bank lending (LGTT) and equity (Marguerite) already exist, the new instrument would aim at facilitating project bond finance. The financial instrument would take a form of an EIB guarantee or an EIB loan. The Initiative would cover pre-identified transport, energy and ICT priority infrastructures in 2012-2013. Under CEF 2014-2020, it could be opened to other financial institutions, to other sectors that wish to avail themselves of project bonds, if considered appropriate from the EU policy perspective.

The Initiative will complement, rather than replace, the existing sources of project financing through bank loans. The aim is to expand the investor base for private debt funding of projects to bond investors.

##### *Added value*

Considering the stage of development of project bond markets in the EU, the fiscal situation of the Member States and the significant investment needs in the three core sectors, only the EU and the EIB have the credibility and can make the long-term commitment required. There have been a few temporary national crisis responses aiming at supporting infrastructure investments, but these schemes are coming to an end.

Bond financing clearly has potential in infrastructure financing, but enabling bond financing is not targeted by any other EU financial instrument. The Loan Guarantee Facility for TEN-Transport, LGTT, targets infrastructure loans, but only in the transport sector, for very narrowly



defined risks and only during the early operational phase of projects, thus the project bond initiative would be a complement as regards type of financing, sectors and project phases.

Marguerite, is an equity fund, thus also not focused on bond markets. Finally, project bonds will help redress existing distortions in markets as for the time being infrastructure projects can draw only on bank lending as a financing source.

The expected multiplier effect is between 15 and 20 depending on the size on the subordinated debt of a project and the precise risk-sharing arrangement. There is no risk to the budget beyond the determined contribution as remaining potential losses are covered by the EIB.

*Financial design: basic principle*

Infrastructure projects generally benefit from relatively stable revenues. Therefore they are normally structured on a stand-alone basis by one or more sponsors of a project, which are corporate entities, setting up a dedicated project company with the sole purpose of financing, building operating and maintaining the project in question. In return the project company will receive all revenue accruing to the project. The project will be financed with a mix of equity from the sponsors and other investors and debt.

The essential principle of the project bond initiative is to split the debt into two so-called tranches: a senior, or high-ranking, tranche and a subordinated, or lower-ranking, tranche using standard structuring techniques. The subordinated tranche will be provided by EIB, either in the form of a loan or a contingent credit line (partial guarantee) and may be up to 20% of the senior debt. Since the subordinated tranche is repaid after the senior debt, it can help the project absorb several years of revenue shortfalls and still ensure repayment of the senior debt. This raises the credit quality and attractiveness of the senior debt to a level, i.e. investment grade as illustrated in the chart on page 16, where it can be issued in the form of project bonds. An example and more details are contained in Annexes V and VI.

S&P	Moody's	Fitch
AAA	Aaa	AAA
AA+	Aa1	AA+
AA	Aa2	AA
AA-	Aa3	AA-
A+	A1	A+
A	A2	A
A-	A3	A-
BBB+	Baa1	BBB+
BBB	Baa2	BBB
BBB-	Baa3	BBB-
BB+	Ba1	BB+
BB	Ba2	BB
BB-	Ba3	BB-
B+	B1	B+
B	B2	B
B-	B3	B-
CCC+	Caa1	CCC
CCC	Caa2	CC
CCC-	Caa3	C
CC	Ca	DDD
SD	C	DD
D		D

Investment grade.  
Many investors can only buy such bonds

Non-investment grade  
or high yield bonds

Most infrastructure deals in Europe are structured to have a rating that is just above or just below investment grade (see chart above). Many investors, on the other hand, can only buy investment-grade bonds and want to be sure that a single downgrade does not force them to sell, but they may not feel able to evaluate the risks properly. This asymmetry between sponsors and investors would not occur in perfectly free and efficient capital markets, but in the real world it is possible to find solutions that lets an intermediary price the risk correctly and still yields benefits to both sides<sup>25</sup>.

In addition, infrastructure projects may face numerous risks due the possibilities of construction delays, payment delays etc. Investors react to risk and uncertainty by not undertaking or investing in a project, by requiring a higher rate of return or by using insurance. At present, only a few specialised investors are prepared to do the necessary analytical work.

Thus, the project bond initiative addresses the credit quality issue generally, as well as the issue of project specific risks. As mentioned, it has to be possible to split the debt into several tranches in order to issue a project bond. The other crucial factor for the detailed design outlined in Annex V is whether it is feasible to ring-fence the revenues of a project. Ring-fencing allows the earmarking of revenue to service project debt, the typical basis for project finance.

Finally, as for LGTT, pricing would be set according to EIB standard pricing grid, which reflects risk of projects and includes an administrative margin for the EIB. The Commission would be remunerated for the portion of the risk it takes, thus the instrument would not entail any subsidy element.

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<sup>25</sup> SEF Alliance with UNEP: Publicly backed guarantees as policy instruments to promote clean energy (2010)

### *Role of the EU and EIB*

As explained, the EU would work with the EIB to implement the pilot phase, whereas in the operational phase the EU is open to working with other financial partners as permitted by the Financial Regulation.

The EIB and the Commission already have extensive experience implementing joint financial instruments using the risk sharing concept, as for example LGTT and RSFF. As an EU institution with the mission to support EU policies, it has, within the EU, a unique long-standing experience in the financing of infrastructure projects. Its share capital is held by the 27 member states, its role is long term financing in support of EU policy objectives and it reports to all relevant European Institutions; it is politically accountable to the European Parliament and subject to the control of the Court of Auditors where it is responsible for spending EU Budgetary resources. Therefore, it is natural that this Project bond initiative should build on the experience of EIB for structuring; the implementation and early marketing and risk management.

The eligibility of the projects is determined under the TEN-T, TEN-E and eTEN policy guidelines which are endorsed by Council and the European Parliament. The EIB would appraise individual projects, carry out the due diligence and financial analysis in the structuring phase and price the guarantee or loan. Projects would need to provide stable and strong cash flows in addition to being economically and technically feasible. They would also need to demonstrate ability to run a funding competition and carry out a project successfully.

If the project sponsor decides to use the facility, the project would be approved by the governing bodies of the EIB in line with standard procedures. The EIB would subsequently monitor the project in accordance with EIB's standard policies and procedures including its Credit Risk Policy Guidelines.

The EIB and the EU would share the risk. For the EU, this would take the form of an upfront budgetary contribution to cover its agreed share of the risk of the project, concretely a share of the expected and the unexpected loss. The residual loss would be borne by the EIB. As the intervention is at the subordinated debt level rather than at the senior level, where EIB normally lends, the activity is intrinsically riskier. However, the EIB's exposure would be limited to 20% of the value of the senior debt, instead of up to 50% of the project cost in its normal senior lending activity.

#### **4.4. Alternative financial options discarded at an early stage**

##### *Direct senior lending by EU or EIB*

The EU cannot lend its budgetary funds and the raising of off-budget funds is limited to specific purposes such as assistance to EU Member States and countries outside the EU.

The EIB, which is owned by the EU Member States, played an increasingly important role over the past three years in addressing Europe's financial crisis and recession by keeping credit flowing to businesses and financing projects that promote EU integration and development. It stepped up its lending capacity during the crisis, to the point where it now has to consolidate the

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activity in order to safeguard its rating and capital base. EIB lending activity was scheduled to increase by EUR 15 billion above targets set for 2008 both in 2009 and 2010. In both years, the Bank even exceeded these targets. After total signatures amounting to EUR 76 billion in 2009, EIB signatures reached EUR 83.2 billion in 2010, of which EUR 72.8 billion in the EU and EUR 10.4 billion outside the EU. This represented a 43% increase compared to the volume of lending achieved in 2008 (EUR 58 billion). Further expansion would require a capital increase even though the last capital increase was rather recent, in 2009<sup>26</sup>.

In addition to being difficult to implement, direct lending is one of the least efficient means of supporting long-term infrastructure projects. It attracts additional funds only to the extent of the co-investment requirement, i.e. if EIB can lend up to 50% of project costs, the other 50% are from other sources. Finally, this option does not develop capital markets.

#### *Full debt service guarantee*

The EIB and/or EU could provide a full, 100%, debt service guarantee in respect of the payments due on a bond issued by a project company. If structured in the same manner as monoline guarantees, timeliness of payments would certainly be assured, but it creates a classic moral hazard issue, as investors and sponsors would not face the consequences of excessively risky projects and therefore would not limit risk-taking.

On the financial side, if roll-out is required on a substantial scale, this option would also require an EIB capital increase. If the scheme is implemented along the lines of the subordinated instrument described, i.e. the EU provides a budgetary contribution towards the risk sharing, this contribution would have to be correspondingly large. Direct guarantees by the EU are not feasible as there is no room under the own resource ceiling.

In addition, to being more expensive than a partial guarantee, fully guaranteed project debt would create products far too similar to the EIB's and/or EU's own bond issuance<sup>27</sup>.

#### *A loss reserve fund*

A fund would be created by the Commission to provision for certain losses on a portfolio of assets. The concept is similar to that of the partial debt service guarantee, especially from the point of view of the Commission, but it would entail higher direct administrative costs as the Commission would repeat the tasks carried out by its risk-sharing partners, such as the EIB.

#### *Creating a European Infrastructure Bank or Guarantee Agency*

This would require the set-up of an entirely new institution in both cases, which could fund itself on the capital markets.

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<sup>26</sup> The EIB increased its subscribed capital by EUR 67 billion to an overall amount of EUR 232.4 billion.

<sup>27</sup> The Commission issues bonds in order to fund for example Balance of Payments (BoP) operations, such as loans granted to Hungary, Romania or Latvia, or under Macro-Financial Assistance (MFA) loans granted to third countries.

The infrastructure bank would essentially be a more focused EIB, while the guarantee agency would have an even more specialised function. However, both would in a sense duplicate some functions of EIB and financial institutions such as Kreditanstalt für Wiederaufbau, Nordic Investment Bank or Cassa Depositi e Prestiti.

On the one hand, this entails significant expenditure to set up the institution including capitalisation, which is outside the remit of the EU budget, and develop the necessary expertise. On the other hand, the bonds issued by the institution would provide a new credit for investors to invest in, who would then automatically benefit from the diversification of the institution's balance sheet.

## 5. ANALYSIS OF IMPACTS

Since the objective is to attract additional financing to infrastructure projects, the following analysis considers the impacts of the financing, not the impacts of the projects themselves.

### 5.1. Option 1: Grant funding, no financial instrument

#### *Economic impact*

Grant funding predominates in transport, energy and ICT at present (baseline scenario), thus there the economic impact would not change from the current assumptions in this Multiannual Financial Framework. It is likely that some efficiency gains could be made in the management of the calls for proposals and award of grant money, however, these will likely be small.

It is clear that projects with cross-border elements and of wider European interest are particularly disadvantaged by national funding schemes. Indeed, the recent Commission Staff Working Document accompanying the White Paper Roadmap to a Single European Transport Area<sup>28</sup> concluded that the EU already does not have sufficient financial leverage<sup>29</sup> and EU funding has not focused sufficiently on the implementation of TEN-T projects.

From a macro-economic point of view, the EU would continue its under-investment in infrastructure to the detriment of the long-term growth potential and competitiveness of the European economy (see Annex IV for further details on the economic benefits of infrastructure) and the infrastructure implemented would be built at a higher than necessary cost to society. In addition, even though marginal private sector efforts in the form of debt funds for example, are being set up, but this is unlikely to be sufficient to create a project bond market.

Whilst private finance will continue to be available to some projects, alternative financing models, which will replace or lessen the dependency on public sector grant financing, are required to sustain long-term capital investment for infrastructure. In particular, the EU priority projects entail features and risks such as greenfield development, uncertain business case as regards future revenue flows, regional aspects including the influence of the sovereign crisis and

<sup>28</sup> SEC(2011)391

<sup>29</sup> Page 108: "The TEN-T Programme budget is limited in size and [provides] relatively low co-funding rates"

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cross-border impacts, such projects continue to be less attractive for private sector financiers and investors.

In addition, in case of private sector financing, depending on the sector, the project, the economic situation in the country or region as well as national regulations and the maturity of the financial/capital markets there can be a greater need for either debt or equity support. As the risk-return profile of infrastructure projects change during the project lifecycle (preparation and planning, construction and ramp-up operations and the subsequent operational period with more predictable revenue flow) different types of investors and financiers are needed. Both debt and equity instruments are needed in order to be able to promptly respond to cyclical adjustment needs.

Project finance has been proven to be extremely resilient despite all the challenges during the last few years. Moodys and Fitch have concluded that project finance credits have same default frequency and lower loss given defaults than like rated corporates<sup>30</sup>.

Under this option, LGTT would continue to be implemented by the EIB without the possibility of proposing alternative financing structures for the TEN-transport projects currently in the pipeline. In addition, the Commission would continue providing grant support. As regards TEN-E and INFSO, projects would continue to benefit only from grant support without having the possibility to attract additional financing to the eligible projects and without having the possibility to multiply the effect of the EU budget.

#### *Social impact*

While the continuation of grant funding has no social impact *per se*, it is likely that grant funding would also go to projects that could have been financed in the market with the support of financial instruments. This could lead to lack of grants for weaker projects not deemed worthy of support to the detriment of disadvantaged regions.

Since there is no structural shift in the distribution of spending between the national and EU level, there is a risk that key EU infrastructure would be sacrificed for national priorities. This would penalise cross-border projects disproportionately, to the detriment of cohesion in the EU.

#### *Environmental impact*

The environmental impact would remain neutral as the status quo of the use of EU funding would not change.

### **5.2.Option 2: Regulatory incentives**

#### *Economic impact*

Under certain conditions, incentives may serve either as an additional enhancement in an already attractive enabling environment for investment or as a compensation for market imperfections

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<sup>30</sup> The Need For Innovation, Mubadala.

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that cannot be otherwise addressed. Improving regulatory incentives for infrastructure financing might lead to more bond financing. This could take several forms:

- a) Requiring project sponsors to put up more capital to increase the rating of the project.
- b) Lower capital charges for infrastructure investors through the creation of a separate asset class for infrastructure bonds

Both of these solutions would depart from the Commission's principle of having a regulatory structure that is as neutral as possible to investment decisions. By their very nature, they would distort the decision making of sponsors (due to increased costs of financing, they are likely to be looking exceptionally for the highest return projects, which could lead to non-implementation of weaker but still viable projects in particular sectors) or investors (investors, who would invest in infrastructure projects due to regulatory advantages rather than the quality of the underlined projects), which would lead to the mis-allocation of funds and cause potentially as many problems as they solve.

In the case of (a), putting up more capital would be costly for sponsors and limit the number and volume of projects due to balance sheet constraints of sponsors. They would therefore likely resist it at first and thereafter pass on the costs to tendering authorities and thereby ultimately to tax payers. Thus, the net result would be more costly infrastructure, likely leading to less being built.

On a more differentiated level, such a rule would apply to all sponsors and impose costs of compliance regardless of whether the sponsor wishes to use capital market financing. There are two problems with this:

- | ☐ The requirement would apply to different sectors, some regulated, perhaps in different ways, some unregulated, while other sectors would not face these requirements. Not only would this cause problems across the three initial sectors, it would also create a barrier to extending the initiative to further sectors.
- | ☐ Compliance costs are likely to be disproportionately large for SMEs, which would therefore be penalised.

The assessment of the relevance of the incentives, their appropriateness and economic benefits against their budgetary and other costs, including long-term impacts on domestic allocative efficiency are very demanding. Significant improvements of the enabling environment for investment (e.g. the removal of undue impediments and improvement of regulatory frameworks) can often be achieved at a low budgetary cost. Nevertheless, unless the incentives go some way toward correcting the concrete shortcomings, their impact on investors is uncertain.

Finally, it would be very challenging if not impossible, to establish new regulatory measures at the EU level which would have an impact on the availability of bond financing within the period 2012-2013.

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### *Social impact*

There are no particular social impacts of this option. To the extent that costs for sponsors are higher, they will look for the projects with the highest return. As under Option 1, this may lead to the non-implementation of weaker projects.

### *Environmental impact*

The use of different financing options has no particular environmental impact. To the extent that financing costs increase, less infrastructure would be built *ceteris paribus*, meaning that the (positive or negative) impacts of whatever infrastructure would be reduced.

## **5.3.Option 3: Use of a financial instrument**

### *Economic impact*

Increased capital financing availability would stimulate and ease the implementation of large infrastructure projects with significant national and cross-border benefits. Thus the direct beneficiaries of the Project Bond Initiative would be mostly tendering authorities, which could get more competitive financing offers, and infrastructure project promoters, which would be able to attract the necessary financing to their projects. However, the number of projects benefiting from grant funding from TEN-E and CIP budget lines would be reduced. The TEN-T projects would benefit from two alternative debt financing sources; the possibility to draw on bank lending under LGTT and on bonds under the project bond initiative.

EU financial instruments target specific financing gaps. In infrastructure, projects with low risk at high investment grade will continue to be financed without EU support and with rather attractive pricing. The EU will target projects for which banks would price the risk rather expensively thus making access to long-term debt finance difficult for these projects. The EIB financing will reduce the risk for investors, thereby improving the credit rating of the underlying bonds and thus reducing the cost of the bonds to be issued.

Although less direct than grants, this option is not less powerful in terms of overcoming the different risk perceptions of market participants and aligning their interests. It has the advantage of not being imposed, but driven by market demand. If well-designed, it is highly flexible and can respond to market needs in a timely manner. This type of intervention is recognised<sup>31</sup> as being one of the lowest-cost ways of facilitating transactions<sup>32</sup> and being particularly valuable in times of tight credit and market uncertainty<sup>33</sup> such as the present.

The Initiative aims to avoid unnecessary multiplication of instruments of a similar nature or with similar target beneficiaries, financing and project structures. This will maximise the visibility of

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<sup>31</sup> Including by the World Bank, see for instance Matsukawa and Habeck: "Review of Risk Mitigation Instruments for Infrastructure Financing and Recent Trends and Developments (World Bank, PPIAF)

<sup>32</sup> Depending on the pricing of the credit line or loan

<sup>33</sup> UNEP-SEF, Publicly backed guarantees as policy instruments to promote clean energy, 2010.



such instruments, reduce the administrative burden on beneficiaries and intermediaries and results in simplification also from the viewpoint of the Commission and also the EIB. Both EU individuals and business entities are expected to indirectly benefit from this Initiative as they would be the final users of the infrastructure provided at a reasonable price. In addition, it would also give users access to the infrastructure and services, which were not available before, thus enhancing the competitiveness of the EU generally.

Instruments which are not fully commercial can distort a market, and crowd out the private sector, if not properly targeted at revealed market imperfections, and can restrain the long term development of private sector investments in infrastructure. On the other hand, financial instruments may stimulate the growth of particular markets and create opportunities for the private sector in the future, as well as helping the infrastructure projects through difficult economic times. The Europe 2020 Project Bond Initiative will be priced according to EIB's pricing methodology whereby the Commission will be remunerated for the risk it is taking. Thus, there is no subsidy element to the beneficiaries.

No negative impact or supplementary costs can be identified to micro, small, medium or large enterprises in particular. Due to the complexity and resource requirements of key infrastructure projects, large companies and consortiums generally have more possibilities to participate in infrastructure projects. However, SMEs could also be positively affected due to sub-contracting.

However, this option requires that tendering authorities do not preclude the option of bond financing in their procurement procedures. Without a greater acceptance of bond financing as a potential long-term cost-efficient financing source, the initiative will have difficulties taking off.

In addition, project development capacity, experience and know how by the local, regional and national authorities is key. In particular at regional level the authorities often lack resources and expertise to develop and implement complex infrastructure projects which require well organised procurement including technical and financial specifications and negotiations with a range of stakeholders, also outside of the country borders.

Finally, financial instruments need to be adequately promoted in order to be recognised by the stakeholders already at an early stage and in order to allow an efficient take up.

#### *Social impact*

The option considered in this impact assessment will benefit institutional investors such as pension and insurance funds, and therefore indirectly policy holders. It can be anticipated that expected greater market integrity will lead to higher investor confidence and greater participation in financial markets, thereby making it easier for economic entities to raise capital, provide necessary infrastructure, stimulate growth and create more jobs.

#### *Environmental impact*

The project bond proposal only relates to the financing of projects, which are the entities that might have environmental impacts. *In extremis*, to the extent the scheme accelerates financing or enables it for projects that would not otherwise have taken place, it can be said to have an

environmental impact. This impact is, however, not separable from the projects. In general implementation of the Europe 2020 strategy to make Europe a smart, sustainable and inclusive economy, which delivers high levels of employment, productivity and social cohesion in a sustainable manner, should result in an overall positive impact. Finally, environmental and social sustainability are a condition for projects to receive financing from the EIB, which would be managing the pilot phase of the project bond initiative. Environmental and social assessment is therefore an integral part of the EIB's appraisal and monitoring process.

#### 5.4. Budgetary impact

In the pilot phase, Options 1 and 2 corresponds to the status quo, while Option 2 cannot be implemented due to the time consuming decisions required. Option 3 will be financed through a redeployment from the TEN-T, TEN-E and CIP budget lines totalling EUR 230 million.

In the operating phase, Option 2, being regulatory, would have no direct budgetary impact and Options 1 and 3 would both be contained within the current budgetary envelopes with the amount and allocation eventually agreed. The project bond initiative would, however, attract additional private financing for projects and thus constitute "smarter funding" in the sense of the next MFF.

Normally, a guarantee would establish a contingent claim on budgets<sup>34</sup>, but here the EU benefits from working with the EIB or other risk-sharing partners. This means that the EU can limit the risk to the budget at a specified amount, while the financial partner takes the residual risk, which it is much better equipped to evaluate<sup>35</sup>. In other words, the EU budget contributions would be strictly capped and not create contingent liabilities of the EU budget.

All of the co-financed instruments in use at present involve allocations to programmes which are capped in size and so none of these instruments pose a risk to the budget beyond that which is initially committed under the budget lines.

However, unlike the case of grants, there may be a reflow of funds to the EU budget from fees that are not re-used for new projects or other purposes within the programming period.

#### 5.5. Administrative burden

Options 1 and 3 discussed are not expected to cause administrative burden to entities due to legal obligations. Option 3, the launch of the Europe 2020 Project Bond Initiative would be managed in the same manner as current grant schemes under option 1. The main difference would be that applications and approval procedures would be managed by the EIB, thus the costs for applications by the stakeholders would remain similar to those under grant programmes managed by the Commission.

In the past, stakeholders have complained about the complexity generated by overlapping financing schemes, different rules for EU support across the sectors or by lack of coordination at

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<sup>34</sup> UNEP-SEF

<sup>35</sup> *The implications of EIB and EBRD co-financing for the EU budget* (2011), a study requested by the European Parliament's Committee on Budgets

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strategic level. This is reportedly confusing and translates into obstacles to effective access and correct implementation. Therefore, implementation of a single financial instrument for several sectors is a positive in itself and likely to result in a reduction in the administrative cost and administrative burden for financial institutions, sponsors and public authorities is strengthened by the one-stop shop approach to the relevant stakeholders with one programme managing partner and contact point, the EIB.

As regards option 2, regulatory incentives and legal requirements in terms of increased levels of equity could lead to sub-optimal investment decisions by stakeholders thus potentially increasing cost of capital and investment costs and having a negative impact on long-term planning of investment programmes by Member States, utilities and operators. A second disadvantage of this option is the cost of compliance and administrative burden on investors as well as authorities who would have to monitor compliance. Lower capital charges for investors would potentially reduce the overall investment cost, but would also lead to misallocation of funds in case investment decisions are not based on the quality of the project but on the impact on capital charges. A trade-off would have to be sought between regulatory aspects and long-term economic effects.

#### **5.6. Risk analysis/uncertainties of policy choices**

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This is a market-driven instrument, thus its ultimate success depends on its use by project sponsors and its acceptability to investors and tendering authorities. Some flexibility would be needed in the design of the instrument to make sure that it is not side-lined by changes in capital markets or other changes to the assumptions. Member States would have to respond in a flexible manner to not preclude bond financing in their tendering criteria and stimulating an enabling environment conducive for long-term investment.

The trade-off between the advantages and disadvantages of bank versus bond financing will have significant influence on the take-up. For example, under bond financing the amount available can normally not be drawn in instalments based on the completion of the various construction phases, while this is possible in bank financing. Bond financing can easily be arranged with long-term maturities, in contrast long-term bank financing is not readily available. Bonds can be traded easily, loans cannot. Bond financing may induce additional costs due to ratings required for ratings or listings at the stock exchange. This may be offset by the value of long-term committed financing and the lack of refinancing risk which would persist with bank lending.

Finally, should the instrument not be continued under CEF, the stimulus for enhanced capital market debt financing would be left entirely on the shoulders of Member States and the private sector which might not have the capacity or the interest in doing so at EU level for the benefit of EU priorities. The Initiative is likely to act as a catalyst for private sector initiatives .

However, as the EIB covers the remaining risks there is a theoretical possibility that due to external events all projects under the initiative would default. However, this worst case scenario is addressed by EIB's risk management and monitoring systems starting at the stage of project appraisal and due diligence until the termination of the EIB financing. In addition, EIB's lending ceilings, annually and per sector, provide further comfort.

## 6. COMPARISON OF OPTIONS AND CHOICE OF PREFERRED ACTION

### 6.1. Comparison of impacts of different options

The table below summarises major impacts of the options identified in section 4.1 in terms of positive and negative effects, achieved dual objective, potential market distortion, costs and administrative burden on different kinds of stakeholders. Thorough quantitative assessment of the options is difficult due to the complexity of the enabling environment and the general nature of the options.

Option	Option 1: Grants	Option 2: Regulatory incentives	Option 3: Financial instrument
<b>Criteria</b>			
<b>Main positive impact</b>	Projects would continue to benefit from grant funding. Transport projects from two existing instruments	No direct cost to budget	Attracts private sector funding, positive multiplier effect and thus lower costs
<b>Main negative impact</b>	No possibility to attract investors	Impact on investors uncertain, potential unintended negative effects on other areas	Investor education required
<b>Achieved objectives</b>			
TENs	Partly	Partly	Yes
Capital markets	No	Maybe	Yes
<b>Costs</b>			
- project sponsors	As now	Higher	Lower
- users	As now	Higher	Lower
- Member States' authorities (down to municipalities)	As now	Higher	Lower
- investors	As now	Higher	Lower
<b>Market distortion</b>	As now, potential crowding out of private investment by EU budget	Punishes companies in chosen sectors	Not if appropriate pricing and risk-taking including appropriate size of the instrument
<b>Administrative burden</b>			
- project sponsors	Low (as now)	Low	Low
- users	N/a	N/a	N/a
- Member States' authorities	Low	Medium	Medium
- investors	Neutral	Medium	High

The following summary table sets out the advantages and disadvantages of the different options, related to their effectiveness in achieving the related objectives, and their efficiency in terms of achieving these options for a given level of resources or at least cost. Impacts on relevant stakeholders are also considered.

Each scenario is rated between "---" (very negative), 0 (neutral) and "+++" (very positive). The assessment highlights the option which is best placed to reach the related general and operational objectives outlined in section 3 and is therefore the preferred one.

Criteria	Impact on stakeholders	Effectiveness	Efficiency
<b>Option</b>			
<b>Objective 1: Stimulating investment in infrastructure, especially TEN-related</b>			
<b>Option 1: Grants</b>	0	0	0
<b>Option 2: Regulatory incentives</b>	(-- ) some administrative burden for both companies and investors, but (0) unchanged for Member States in case no additional monitoring required	(+ ) partially enables implementation of some TENs (-- ) could create conflicts between regulation in each sector and requirement for more capital	(0) does not increase cost on budget (---) increases cost to almost all types of stakeholders (-- ) would affect all projects and financiers, not only those using bonds
<b>Option 3: Financial instrument</b>	(- ) Lower administrative burden for companies and Member States, but (---) higher for investors (-- ) requires investor education	(++) facilitates the implementation of TENs (++) encourages single market (+++ ) stimulates competition between bank and bond markets (---) depends on other conditions such as market acceptance, procurement practices, regulatory framework and perceived uncertainties by investors	(+ ) budget contributions will be strictly capped (+++ ) lower infrastructure investment cost expected over the project lifetime
<b>Objective 2: Establishing debt capital markets as a new source of financing</b>			
<b>Option 1: Grants</b>	(---) no incentive available for investors and projects	(---)	(---)
<b>Option 2: Regulatory incentives</b>	(0) does not create new investment tool (+ ) some private initiatives as a niche activity might evolve	(+ ) may establish debt capital markets as financing source (+ ) may attract some funding	(---) higher financing costs (---) unclear whether it will attract additional funding, in which case the additional cost would have been unnecessary
<b>Option 3: Financial instrument</b>	(++) widens choice of financing instruments (-- ) promotion and education required	(+++ ) stimulates new sources of financing and (++) possibly creates new asset class (+++ ) attracts most of	(++) lower financing cost expected (- ) uncertainties remain as regards additional costs such as rating or listing

	for a novel EU instrument	funding (-) factors such as controlling or monitoring creditor requires multiple approaches	
--	---------------------------	---	--

Although option 2 is the least costly from an EU perspective, it may impose costs on all project sponsors, small and large, without a clearly demonstrated benefit. Since there is no incentive for banks and investors to adjust behaviour, the desired development of capital markets may not take place. It is expected to have a rather negative impact on stakeholders as well as perform poorly in terms of effectiveness and efficiency compared to other options. This is therefore the least preferred option.

Option 1 does not *per se* raise costs on any stakeholders, but nor does it generate additional funding from loan or capital markets. It would also have no influence on effectiveness and efficiency of achieving identified objectives. This is therefore the second-most/least preferred option.

The preferred option is the use of a financial instrument (option 3), since it gives market participants economic incentives to adapt their behaviour without imposing blanket regulatory costs. It is considered to be the most effective solution with the most positive impact on stakeholders and the most tangible improvement of the financing of infrastructure.

Formattati: Elenchi puntati e numerati

## 7. MONITORING AND EVALUATION

### *Monitoring of implementing financial partner and markets*

The Commission may work through one or several financial institutions with a public mission, which will normally receive and assess the applications for support, the financial structure of the project, its economic viability etc. according to their internal rules and procedures. The pilot phase of the Initiative will be managed by the EIB. However, the possibility to extend it to other risk-sharing partners will be explored.

EIB Financing Operations will be managed by the EIB in accordance with the EIB's own rules and procedures, including appropriate audit, control and monitoring measures. As foreseen in the EIB Statute, the Audit Committee of the EIB, which is supported by external auditors, is responsible for verifying the regularity of the EIB operations and accounts. The EIB accounts are approved annually by its Board of Governors.

Furthermore, the EIB Board of Directors, where the Commission is represented by a Director and an alternate Director, approves each EIB Financing Operation and monitors that the EIB is managed in accordance with its Statute and with the general directives laid down by the Board of Governors.

Furthermore, the EIB shall provide the Commission with statistical, financial and accounting data on each of the EIB Financing Operations as necessary to fulfil its reporting duties or requests by the European Court of Auditors as well as an auditor's certificate on the outstanding amounts of the EIB Financing Operations.

Monitoring by the Commission in accordance with sound financial management shall include the drawing up of regular reports on progress made in implementing the initiative by means of financial implementation, results and impact indicators. The Commission already collects data on the EU bond market. Provided issues are public and sufficiently large, they should be captured by this reporting. However, the Commission may consider requesting information from the banks that place the project bonds. The detailed contents would have to be specified together with the issuers. One key objective would be to monitor whether unsupported issuance emerges.

#### *Monitoring of performance and evaluation*

Based on all of the above sources of information, the Commission should have all the elements necessary for a review of the pilot phase by end 2013 in order to draw conclusions for the implementation of the risk-sharing instruments under CEF. Key elements to consider will be

- ▣ the uptake and why it is high/low
- ▣ in particular how the cost of financing compares with other sources of debt financing
- ▣ whether some of the alternative solutions have been implemented in national context
- ▣ whether unsupported bond issuance has emerged
- ▣ whether the risk-sharing methodology can be applied to other relevant IFIs or whether modifications are needed
- ▣ whether other IFIs have the resources to implement and participate in a similar initiative under CEF and whether their legal structure allows a participation.

Based thereon, the Commission should be able to assess whether the scheme (still) adds value and therefore should be continued. Information on the financial features of the instruments such as risk-sharing modalities, portion of credit enhancement required by projects, pricing, etc will be collected during the implementation phase by both the EIB and the Commission thus feeding directly in the preparation of the implementation under CEF in 2014. The following performance indicators will be included in the assessment:

- ▣ The number of TEN-T, TEN-E and telecommunication projects having received EIB financing under the initiative and the terms of the transactions.
- ▣ The achieved multiplier effect, cumulative and per sector. The expected multiplier effect is expected to be around 15-20 in terms of EU budget support compared to the total investment raised for the projects supported under the initiative.
- ▣ Volume of capital market debt financing being raised for these projects, cumulative and per sector.

The monitoring of the results will be based on the reporting by the EIB and market research. Finally, under CEF, a mid-term evaluation should be carried out on the Project Bond Initiative together with the evaluation of other financial instruments planned under CEF.

Formattati: Elenchi puntati e numerati

Formattati: Elenchi puntati e numerati



### *Extension to other financial partners*

As stated, the pilot phase of the Initiative will be implemented with EIB. The intention is to allow other financing partners to participate in the 2014-2020 phase if they wish to and have the statutory flexibility to do so. These financing partners will typically be as international financial institutions (IFIs) and/or Member States' banks with a public mission, with experience in the financing of EU infrastructure projects and the willingness to share the associated risks in partnership with the EU or any national or regional bodies if applicable. These financial partners must also have the absorption capacity and resources to implement the instruments.

This participation could take several forms:

- ▣ **Cooperation with EIB on the Europe 2020 initiative.** The practice of collaboration with between IFIs and other banks has already proven successful both inside and outside the EU. For example, IFIs and others may share aspects of the due diligence when looking at a joint project. This would also be feasible in the context of this initiative, bearing in mind of course the limitations of each institution in terms of geographical focus and statute. In addition, they could perhaps contribute with senior loans if required. It is more difficult to envisage a pooling of risks between multiple IFIs.
- ▣ **Replication** The Initiative is expected to be a model for other similar credit enhancement schemes, where other institutions will be required to contribute both funding and expertise. EU and EIB could provide advice on setting up national or regional schemes.

A decision on whether to extend the Initiative to other financial partners is likely to depend on the success of the pilot phase and tailoring to the needs and capabilities of the relevant financial institution and would be subject to the guidelines laid down in the new Financial Regulation, its Implementing Rules and any other relevant guidance on the delivery of financial instruments.

### *Exit strategies*

During 2013 the performance of the pilot phase will be known as well as the parameters needing adjustment in order to properly address project financing needs. As regards CEF instruments, based on the mid-term evaluation, the Commission and EIB would assess whether there is still a market requirement to continue the scheme after 2020 (subject to political agreement). Alternatively, given that the initiative is market driven, the price of the support mechanism could simply be raised until the point when project companies choose to obtain an unsupported bond. Any exit strategy would also need to make clear under what provisions the foreseen budget could be re-allocated to other financial instruments within the CEF.

Formattati: Elenchi puntati e numerati

### **Annex I: Public consultation**

The consultation paper was launched on 28 February 2011 at a press conference by Commissioner Rehn and President Maystadt and subsequently made available on the website of the DG for Economic and Financial Affairs. In addition, it was sent out to numerous stakeholders directly and a mid-term conference took place in April. It thus benefited from the maximum publicity possible. The consultation phase ended on 2 May 2011.

The paper posed seven questions, to which stakeholder reactions will be described first. Additional stakeholder concerns will be discussed thereafter.

#### **Questions**

*Question 1: Is the chosen mechanism likely to attract private sector institutional investors to the sectors of transport, energy and ICT in particular? If you are an investor, would you be prepared to buy project bonds of TEN-T and TEN-E priority projects?*

Most stakeholders were of the view that the scheme would help attract private sector investment to the three sectors mentioned, although some stakeholders saw less potential for broadband investment. This appears to be mainly due to the past low volume of project finance in this sector. However, PPP deals are currently been put together with the debt component financed via bank loans.

#### *Commission remark:*

This is a very positive verdict overall. In some cases, it may be necessary to introduce new ways of thinking about financing investment, which has traditionally been financed on a corporate balance sheet. However, this is an educational process, the success of which can be evaluated in terms of projects financed.

*Question 2: Are there other sectors that should be included?*

Numerous stakeholders, among them investors, sponsors and financial institutions, suggested including more sectors in the initiative in particular

- low carbon generation capacity with renewables being mentioned more frequently than nuclear capacity
- the water sector (supply and treatment)
- social infrastructure

Some others considered renewables too immature generally, although this judgment must be refined to distinguish between established and less proven technologies.

Few stakeholders involved in financing infrastructure were in favour of the narrow sector focus suggested by the Commission, although it was felt to be helpful in terms of investor and sponsor

focus. One policy think tank strongly advocated an even narrower focus in order to ensure that investment would not be redirected away from the completion of core networks and compliance with subsidiarity concerns.

*Commission remark:*

The Project Bond Initiative will initially focus on the core networks of the transport, energy and ICT sectors, where the EU-wide impact is most clearly seen and EU value-added most clearly defined.

However, it will leave open the possibility of adding the water sector and low carbon generation which will facilitate the adaptation and mitigation of climate change and is thus in line with the goal of creating a sustainable European economy, while meeting the greenhouse gas emission reduction goals.

It should also be borne in mind that project bonds will not be the only EU-supported means of financing in the area of infrastructure. Indeed, the Initiative is intended to complement traditional instruments using grants or supporting equity and risk sharing mechanisms for loans. These instruments will be covered under a general instrument for infrastructure investment currently under preparation by MOVE, ENER and INFSO.

Furthermore, there will be a comprehensive network in addition to the core network. This will be defined with the input of the European Commission and which will, where appropriate, be financed by national funds and structural funds and which will be able to use a similar range of instruments.

*Question 3: Would the guarantee facilitate/accelerate the conclusion of financing packages?*

Here it is actually necessary to distinguish between facilitating and accelerating.

Most stakeholders were of the view that financing would be facilitated due to the more solid structuring of the project. The verdict on acceleration was more mixed as some thought the solid structuring would also help here, while others speculated that the inclusion of at least one more actor, in the form of EIB, and possibly more, in the form of one or more rating agencies, in the process would lengthen the time needed to conclude a financing package.

*Commission remark:*

The EIB will do its utmost not to be the cause of a delay. As for other actors, this is not for the Commission to comment. However, it is of course conceivable that, once the facility and its conditions are well-established and -known, certain standards develop which will accelerate processes.

*Question 4: Is a credit enhancement of 20% of outstanding senior bonds sufficient to cover the construction and operational period?*

Only one sponsor felt that 20% of credit enhancement might be on the low side (coincidentally this sponsor also suggested riskier projects for inclusion in the initiative), while all others deemed the degree of credit enhancement likely to be sufficient although it would clearly depend on the project.

Tranching, i.e. the 20% must be subordinated, is seen as crucial to have the necessary effect on ratings.

*Commission remark:*

The EIB has based its assessment of the 20% on extensive modelling as well experience gained operating the LGTT. The three major rating agencies have all issued special reports or comments, saying that they expect a subordinated tranche of this size to improve the credit quality of a project sufficiently given the right conditions.

*Question 5: Is the targeted minimum rating of the bonds of A- in your opinion sufficient to attract investors or are there other factors influencing the investment decisions?*

A rating of BBB or BBB+ was widely regarded as sufficient, but as was repeatedly pointed out, a rating around A gives access to a broader investor universe, depending on jurisdiction.

It was felt that this rating would be achievable, although the usual practice of some rating agencies to use the sovereign rating as a ceiling for all ratings in a given jurisdiction may cause problems. Two ratings were seen as preferable, but one would suffice.

Several investors stressed that they do not merely look at ratings, but also at the general legal framework of the jurisdiction of the project, the exact contractual arrangements as well as the quality of the financial package.

*Commission remark*

Considering factors other than ratings are clearly vital in forming a clear opinion of a project. The Initiative, by seeking to create a new asset class, intends to make it worthwhile for investors to conduct such analysis and developing the necessary expertise.

*Question 6: Which impact would the Initiative have on financing costs and on maturities?*

It is generally expected that the initiative will reduce the overall cost of capital or at worst be neutral, while resulting in a lengthening of maturities offered to projects, so they are more aligned with the terms of the concession or contract.

Nevertheless, sponsors are worried about negative carry as the full financing amount is drawdown at the outset rather than in phases as for a bank loan. Some also feared that bond financing would prove less flexible. Investors, of course, favour less flexibility, so they can plan reinvestments appropriately and will already have to become more familiar with amortising maturity structures, where repayment is not at one future date, but spread over several dates. The encouraging message was that they are generally prepared to be more flexible than is normally

assumed: they can handle or will learn to handle amortisation structures and they will put together the teams necessary to analyse a new investment class, if they are convinced of its long-term existence and viability.

Some investors saw the possibility of inflation-linked bonds as an advantage and some sponsors do indeed have projects with inflation-linked revenue profiles.

*Commission remark:*

Clearly the Initiative will have to produce funding that is at once competitive with bank loans, while offering investors a return sufficient to compensate them for the structure of the bond.

At the same time, it should open up possibilities in terms of maturities and repayment options that have their own intrinsic value.

*Question 7: Is it essential that a single entity acts as controlling creditor?*

Most stakeholders saw one controlling creditor as essential, especially during the conclusion of the financial package and the construction phase, where speed is of the essence. Investors seemed open to which entity should perform such tasks, as long as the entity has the appropriate skills and experience and interests are appropriately aligned with that of investors.

The need for transparency in the form regular reporting to investors, ideally on a quarterly basis, was also felt to be crucial.

*Commission remark:*

The Commission keeps an open mind on this issue.

*Further feedback*

There was general support for any reasonable solution, and the project bond initiative was felt to be one, to support capital market financing of infrastructure as this was seen as crucial to the development of Europe's economy. It was also felt that the initiative could act as a catalyst for other solutions, whether on the market or to be developed, which would easily co-exist in view of the vastness of the market with no risks of crowding out of one by the other as approaches are sufficiently diverse to suit the diverse requirements of investors.

Views on which size of project is appropriate for bond funding varied widely with quoted ticket sizes per investor varying from EUR 20 million to EUR 100 million, which would translate into deal sizes ranging from EUR 50 to EUR 250 million, assuming a minimum of two investors.

*Commission remark:*

Investor rules differ widely, so it is conceivable that there is a market for all ticket sizes

### *Funded versus unfunded facility*

There was a general preference for the unfunded facility, which was widely seen to be more efficient and more flexible in terms of being able to reduce the facility post-construction.

A minority preferred the funded solution as more pedagogical in terms of forcing investors to analyse deals as well as simpler and more transparent. Others advocated flexibility, even allowing funded and unfunded facilities to be used in the same project.

### *Pricing*

It was suggested by one stakeholder that pricing for the facility should be composed of an upfront and a running component with a view to not discouraging the use of the instrument. However, it should also be made sure that the guarantee would continue even if the running fee were not paid.

Another stakeholder suggested that the price should be proportionate with the cost saving to the company in order not to distort competition.

### *Commission remark:*

Ad 1) Having a substantial running fee, while demanding coverage if it is not paid would seem incompatible. A 100% upfront fee will therefore be considered.

Ad 2) The intention is that pricing should reflect the risk of a project. Unless financial markets are deliberately distorted, this should normally mean that pricing is related to the cost saving.

### *Refinancing*

Using the scheme for refinancing was supported by some banks, which saw it as a simpler way of introducing project bonds to investors as well as potentially providing financing on reasonable terms to projects that will otherwise be facing step-ups on current loans or refinancing of their bank loan at current high rates. The latter concern was also cited by some legal firms. Others felt this would complicate the message of the scheme and perhaps become the default option.

### *Commission remark:*

From an EU-EIB perspective, offering bond solutions at the refinancing stage would accelerate the building up of a portfolio. Nonetheless projects need financing from the outset and this should be the initiative's priority.

### *Procurement*

Practically all stakeholders confirmed that the procurement process and its obstacles in terms of requiring fully funded and committed fixed price offers to a tight timeline generally does not favour or even allow bond solutions. Naturally, the process differs across Member States, but in general the demand was that the procurement process should be more flexible to allow bond solutions with their different benchmark, volatility of spread and timing requirements.

*Commission remark*

As discussed in the impact assessment, there seems to be a number of ways in which to address this problem, which therefore does not seem insurmountable.

*Other regulatory issues: Solvency II, CRD*

Most investors cited Solvency II as a main obstacle to investing in longer-term, lower-rated assets as such bonds would attract higher capital charges, although some actors are of the view that the regulation favours the longest-term assets, since capital charges increase no further beyond a certain point.

Insurers are at different stages of advancement regarding implementation of the Solvency II directive. Few players have a clear idea of whether the increased capital in this area will be more or less offset by the capital relief from better asset-liability matching or more diversification of assets, both of which could benefit infrastructure. It is to be hoped that more information will be available as insurers get closer to implementation, but it is unlikely as this could lead to the disclosure of commercially sensitive information. The matter is further complicated by the fact that insurers may be permitted to use their own models.

As a result, there are no pertinent studies with sufficient detail from insurers' associations nor has the Commission itself conducted one.

Some conference participants also advocated lower capital requirements for infrastructure assets, in view of the lower default rates and higher recovery rates documented by several studies by the rating agencies.

A few banks were worried that project bonds could fall under the ABS regulation of the CRD, indeed many investors would cover infrastructure from the ABS desk directive

*Commission remark:*

See section 6.3 of the impact assessment.

*Statistical treatment*

The need for clarification of the EUROSTAT statistical treatment of projects benefiting from a support facility was emphasised by several actors. This is of course of particular importance in countries with a high deficit.

*Commission remark:*

This shows how much the market needs reassurance. It should be clear that an EU-EIB guarantee of 20% will not be classified as the public sector debt of any country and the rest of the classification process does not change, i.e. it looks at the allocation of risks between the national public sector and the private sector. However, availability based projects may still be consolidated if there is insufficient transfer of risk.

*Other ideas:*

Stakeholders also made several practical proposals for additional ways to support the project bond market including the creation of appropriate benchmarks for investors, market making by banks and development of trading platforms. These are questions that can best be addressed in a more mature phase of the Initiative, when several bonds have been issued. Other suggestions involve EIB guaranteeing the price of a bond in one way or the other, which would potentially be highly distortionary of markets. Finally, some proposals such as tax incentives for infrastructure investment are the remit of individual Member States.



## **Annex II: Past EU experience with financial instruments**

The initiative builds on the techniques employed by the two successful risk-sharing instruments, Risk-Sharing Finance Facility (RSFF) and Loan Guarantee for TEN-Transport (LGTT) during 2007-2013 and the lessons learned from their implementation. The RSFF, in particular, is seen as having dramatically expanded finance in the area of research, while the LGTT has helped infrastructure deals, which would otherwise have been abandoned, reach financial close during the crisis.

The mid-term reports are attached as Annex IIa and Annex IIb.

### **Annex III: Past and future infrastructure financing**

#### **(1) Public sector financing in the past**

In recognition of this, most infrastructure projects were financed from public budgets until the 1980s. However, from then onwards privatisation was increasingly seen as a way to ensure efficient implementation of projects in terms of both time and costs. Transport operators, utilities and telecommunications companies were sold off to varying extent in different countries and decided on new investment.

As the complete transfer of all rights, responsibilities and risk to the private sector was found to have unintended consequences in some cases, the hybrid model of public-private partnership (PPP) developed in addition to existing public or private regulated models.

This shift from public to private financing partly explains the drop in public sector investment seen in the past. However, in the main impact assessment text, public sector financing remains important.

Finally, the European Regional Development Fund has made a major contribution to the development of infrastructure. For example in 2000-2006, EUR 34 billion or 28% of the total budget was allocated to transport.

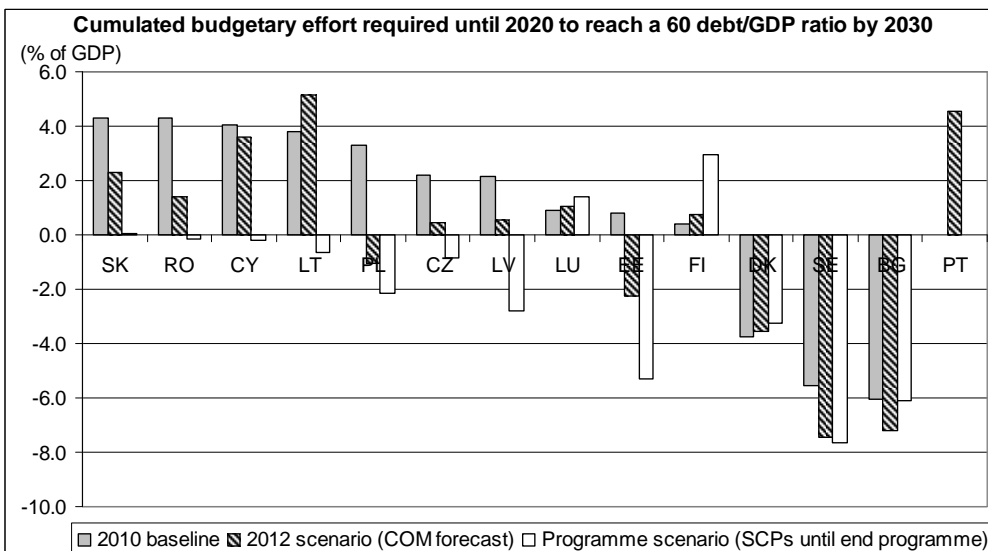
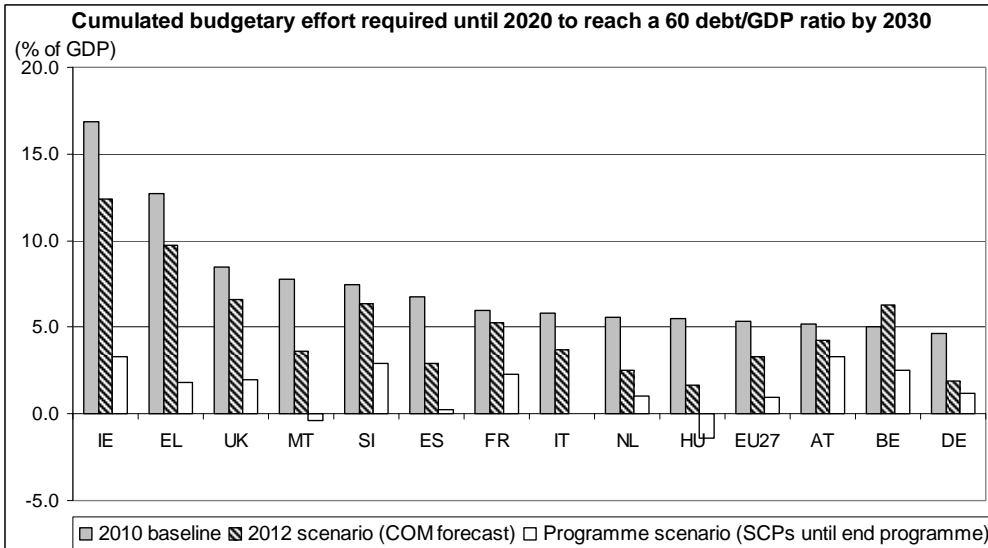
#### **(2) Public sector financing – current and future trends**

In the context of the economic and financial crisis, governments have enacted substantial stimulus packages in addition to injecting capital into the banks worst affected by the financial crisis. This has brought deficits and debt to unprecedented levels and public budgets will remain constrained as consolidation follows crisis as illustrated in Figure 1.

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**Figure 1 – Fiscal adjustment required until 2020 to reach a 60% public debt/GDP ratio by 2030 (as a percentage of GDP)**



Source: Commission services.

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### (3) EIB financing volumes

As a response to the financial crisis, similar to other multilateral development banks, the EIB increased its lending volumes. The table below shows a breakdown of the EIB lending volumes per year and per sector since 2007:

EIB lending volumes (EUR bn)	2007	2008	2009	2010	2011 (to 08/2011)
<b>Transport</b>	11,5	14,9	17,5	14,5	9,2
<b>Energy</b>	6,5	9,2	11,1	14,6	5
<b>Broadband</b>	1,5	1,4	2,3	1,3	NA
<b>Total</b>	19,5	25,5	30,9	30,4	14,2
<b>Transport/Energy/Broadband</b>					
<b>Total EIB lending (all sectors)</b>	<b>47,5</b>	<b>57,8</b>	<b>74,8</b>	<b>72</b>	<b>33</b>

The table below shows a forecast based on the corporate operational plan of the EIB:

EIB lending targets (EUR bn)	2011	2012	2013
<b>TENs (transport+Energy)</b>	9,8	8,6	8,5
<b>Energy</b>	10,8	9,5	10,8
<b>Telecommunications</b>	TBC	TBC	TBC
<b>Total</b>			
<b>Transport/Energy/Telecom</b>	TBC	TBC	TBC
<b>Total EIB lending (all sectors)</b>	<b>57,6</b>	<b>50,6</b>	<b>49,6</b>

### (4) Private sector financing – why PPP?

Under a PPP arrangement, the public sector authority moves from being the owner and operator of infrastructure to being a purchaser and regulator. The private sector finances, supplies and manages the assets and/or services<sup>36</sup> usually through a dedicated project company. Most definitions point to the following key characteristics: private execution and financing of public investment, service provision by the private sector and risk transfer from the public sector authority to the private sector. The private sector keeps the revenue from user charges (i.e. toll roads) or "availability payments", payments from some level of government that depends on the availability of the service. However, delivering infrastructure services through PPPs is not without risks. The benefits of private sector participation and PPP depend on several factors, ranging

<sup>36</sup> Inderst, OECD

Formattati: Elenchi puntati e numerati

from correct identification of the most efficient bidder to appropriate risk sharing and the contractual relationship established with a private partner. Furthermore, when PPPs are inappropriately used to circumvent budgetary constraints, they present risks to government budgets by creating contingent liabilities. It also has to be emphasized that success of a PPP project depends strongly on the structure of the contract and project itself. Thus technical and economic feasibility of the projects is highly important in order to ensure that existing resources are targeted to where they are most effective and needed.

The discussion about which risks to transfer has been a constant accompaniment, both because of the private and public sectors arguing over which is better equipped to manage certain types of risks, but also, in the EU, due to Eurostat rules on the classification of PPPs for the purposes of public sector debt and deficit figures.

The advantages are seen in terms of greater discipline in ensuring that only viable projects go ahead and in terms of efficiency gains from private sector management and innovation. These efficiency gains must outweigh the additional cost of capital of the private sector and the complexity of the PPP contracts<sup>37</sup>.

#### **(5) Private sector financing in the past**

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With some variations between Member States, the financial market model of the EU has been dominated by banks rather than by capital markets as in the US.

Bank lending has been the traditional route of PPP financing in Europe for several reasons:

- Banks' willingness to lend long-dated on attractive terms,
- Banks' ability to assess the risk of the project often coupled with detailed knowledge of the project sponsor

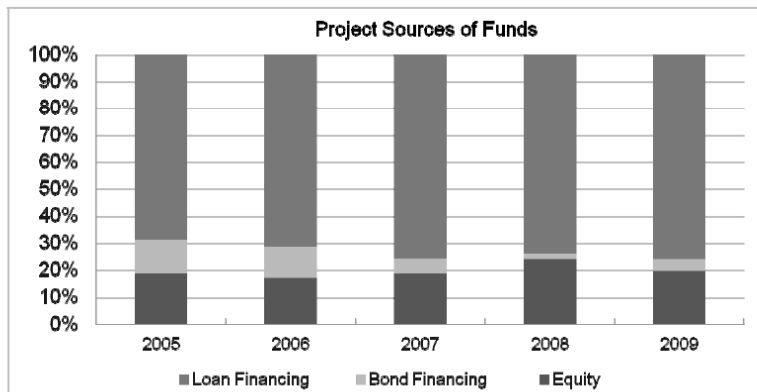
In the 1990s, a form of capital market financing developed. However, it depended on specialist insurers, the so-called monoline insurers<sup>38</sup>, which guaranteed the timely payment of 100% of interest and principal of the infrastructure bonds. The resulting "wrapped bonds" had a rating of AAA, reflecting the rating of the monoline and allowing investors to ignore the characteristics of the underlying project. In addition, the monolines monitored the underlying project on behalf of investors. This provided competition in the funding market with banks and monolines competing on terms.

As a result of the crisis and associated losses on their subprime business, most of the monolines were downgraded to varying degrees and since their business model depended on "lending" their rating to the bonds they wrapped, this in most cases undermined their business model. Only two monoline insurers are still active in the market, but for much smaller amounts (see next section). Although the infrastructure bonds they had wrapped remained sound, this has at least temporarily spelled the end for new large scale infrastructure bond issuance. The few bond issues since 2008

<sup>37</sup> Indeed this is one reason why the UK has limited the minimum size of PPPs to GBP 21 million

<sup>38</sup> Because they had only one line of business: financial insurance.

have been unguaranteed, generally small (less than EUR 100 million usually) and generally refinancings, i.e. done to replace initial bank loans once the operational phase is reached.



Source: Societe Generale – Dealogic – June 2011

#### 6) Private sector financing – current and future trends<sup>39</sup>

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While pre-crisis institutional financing was invested through project bonds directly into infrastructure projects with monoline credit enhancement, market participants will continue to try to create multi-investor debt or credit enhancement funds or find structured products that can de-risk senior debt. However, this activity is only a niche market.

##### *Insurance solutions*

One monoline insurer still underwrites new business, including infrastructure as it has only been downgraded one-two notches by the major rating agencies. The basic product remains a 100% guarantee, i.e. a full "wrap" with the attached monitoring services, although some of the provisions pertaining to information flow have been modified to respond to investor demands for more transparency. Nonetheless, as the company has become more cautious and the business environment more challenging, deal sizes are smaller than before the crisis.

##### *Monitoring solutions*

Another active monoline insurer is focusing on offering a monitoring service, which has been created in response to investor demand and after extensive market analysis. The tasks range from providing advice and due diligence during structuring as well as monitoring, reporting and decision-making after financial close of a transaction. The service would be available to investment grade bonds from pre-construction to completion. If required to align interest, the company will provide a partial guarantee of 10% maximum.

<sup>39</sup> See also the impact assessment on Connecting Europe Facility, Annex 4.

Asset managers have approached the same problem differently: they offer a package of investment in and day-to-day management of corporate debt structures. The management includes detailed analysis and monitoring, represents investors on steering committees and has the expertise to restructure investments. This relieves clients of the often complex and time-consuming decision-making.

#### *Rating support solutions*

While the insurance solution clearly improves the rating of the underlying debt, the monitoring solutions do not. Hybrid solutions, where a subordinated tranche is used to improve the rating of the remaining debt are also being set up, however getting the structuring right is challenging. While such packaging can be done on a project-by-project basis, several projects can also be bundled into a fund. The fund can then offer one or several classes of shares to investors, each reflecting a different part of the debt structure and sell other tranches in the market, potentially in the form of bonds.

Such solutions share some of the issues of project bonds. For example, as structuring entails additional fees, it is likely to be more efficient for larger projects or companies.

#### Equity

Despite the financial crisis, infrastructure funds have successfully continued their fund raising. The funds have succeeded in raising 16 new funds in 2010 in EU with a total target size of EUR 6 billion. This brings the cumulative number of infrastructure equity funds actively raising capital to 47 with an overall investment capacity of around EUR 23 billion<sup>40</sup>. In fact, many project sponsors have started setting up funds, to which they sell their mature, stable assets. However, greenfield and long-term investment in infrastructure sectors remain problematic due to the additional risks during the construction phase and the reluctance of equity funds to wait longer than five to seven years to see a proper return<sup>41</sup>. The availability of equity will not be discussed further in this Impact Assessment, but will be addressed in the context of the implementation of the Connecting Europe Facility.

#### Debt funds

A few debt funds have been created recently in Europe which will primarily aim to provide subordinated debt for infrastructure projects across the globe. An example of a credit enhancement fund is Hadrian's Wall with a target size of around EUR 1 billion, which will use a subordinated debt tranche to enhance the rating of the project debt and sell it to capital market investors. As with all subordinated debt, the fund acts as a first loss component of a transaction, and this helps to enhance the credit rating of the project by shielding the senior debt and equity from a certain amount of revenue risk.

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<sup>40</sup> \$33 billion, exchange rate of June 2011, Preqin data.

<sup>41</sup> A notable exception is Meridiam, which has a 25-year horizon, and the Marguerite fund, in which the European Commission has invested EUR 80 million alongside EIB, Caisse des Depots, Cassa Depositi e Prestiti and PKO Bank.

## Outlook

All of these abovementioned designs contribute to the financing of the TENs infrastructure. However, so far they do not have the scale to address the enormous investment needs in the coming decade and do not remedy the underlying market imperfections. Also, greenfield structures, in particular, have always required more support from public sources than more straight-forward brownfield projects.

As described, two monolines continue to provide to some extent their previous services although for reduced nominal amounts<sup>42</sup> or as a smaller percentage of the overall debt accompanying a monitoring solution.

The business model of the other monolines, as well as their ratings, depended to some extent on the regulatory structure in the State of New York, which permitted them to hold minimal capital. However, New York has changed its approach and it is therefore unlikely that any of the monolines that have effectively exited the market will reappear and equally unlikely that new players will appear in that same format.

At the same time, bank lending, the dominant element in project finance, had already dropped in the context of the crisis. According to market participants the liquidity of the market at the long end of the maturity spectrum (20 years at present) is barely enough for a single large infrastructure deal or alternatively for competing bids on a medium-sized one and comes at a high price in terms of spread. In future, to face structural challenges are likely as banks re-assess risk and match their assets and liabilities more closely. The effect is that loans will be scarcer, available for even shorter maturities and at higher spreads than before.

In addition, unregulated utilities have, to quote Moody's<sup>43</sup>, "utilised a significant amount of their original debt capacity", while regulated ones typically face very unattractive incentives for anything that goes beyond incremental investment.

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<sup>42</sup> It must be noted that the infrastructure business of the monolines was not the cause of the downgrade.

<sup>43</sup> Moody's Special Comment "Unregulated European Utilities: Investment & political risk add to note of caution, 29 July 2010.



#### **Annex IV: The general economic and social case for infrastructure investment**

Infrastructure has long been regarded as a key enabling factor for future growth and competitiveness of an economy as it links economic actors together. However, such indirect network-type benefits are more difficult, if not impossible, to capture in the form of monetary returns on investment compared with direct effects. Investment in infrastructure is therefore at a level that is sub-optimal from the point of view of the economy and society at large.

##### Direct effects

Infrastructure projects create jobs directly, especially during the construction phase, but also for maintenance and provision of linked services during the operational period.

##### Indirect effects

Infrastructure is characterised by positive externalities as it has benefits beyond its direct use, which accrues to beneficiaries other than the owners of the asset. Indeed infrastructure can be considered an unpaid factor of production, an augmenting factor and an incentive for relocation<sup>44</sup>. At its simplest, connecting two points, that were not connected before, opens the possibilities of new ways of routing traffic, energy or information which are likely to have dynamic, follow-on effects.

Several papers have found a clear positive effect of infrastructure investment<sup>45</sup>, while others have presented a more mixed picture, which nonetheless points to positive effects in the long run, even though they are perhaps smaller<sup>46</sup>.

Thus, *ceteris paribus*, the more of the right kind of infrastructure, the better.

In addition, infrastructure may help the EU meet its climate change goals:

The main focus in the area of transport and energy will be on TEN projects rather than local projects in order to remove bottlenecks and waste to yield more efficient transport and energy networks. This will support the move towards a resource-efficient and low-carbon economy by providing the networks needed to accommodate low-carbon transport modes and low-carbon power generation. Whereas small local projects will continue receiving financing from structural funds and other financial instruments dedicated for that purpose.

Broadband is a genuinely transformational technology in that it supports the move to an e-driven economy where more transactions and work take place via the internet rather than in person. In that sense, the impact of communication technology on the mobility of goods and people and in creating new location factors as sources of competitive advantage is perhaps not yet well

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<sup>44</sup> Crescenzi & Rogriguez, EIB Papers Volume 13, Volume 2 (2008)

<sup>45</sup> Aschauer (1989): The Impact of Road Infrastructure on Productivity and Growth: Some Preliminary Results for the German Manufacturing sector, CIG Working Papers

<sup>46</sup> EIB Papers, Volume 13.

understood<sup>47</sup>, but is likely to be significant. For instance, the Monti report<sup>48</sup> put the cost of "non-digital Europe" at around 4% of GDP or almost EUR 500 billion. This would be the gain of stimulating the fast development of the digital single market by 2020 and is similar to the impact of the 1992 internal market programme.

Greenfield projects show the highest deviations between initial forecasts and actual operational performance as it is harder to forecast their use than e.g. that of the extension of an existing project, for which historical data exists.

Bearing in mind the indirect effects and the imperative of the transition to a low-carbon economy, it is in the general public interest to move towards the optimal allocation of resources in this new economic equilibrium as quickly as possible and at the least cost to the economy and tax payers at large. The acceleration of financing would assist this, but is not independent of the projects.

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<sup>47</sup> Crescenzi & Rogriguez, EIB Papers Volume 13, Volume 2 (2008)

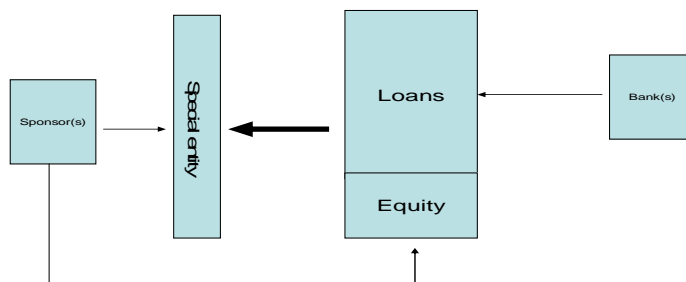
<sup>48</sup> Monti report p.44

### **Annex V: An illustrative project example**

The following is an illustrative and simplified example of how the Europe 2020 Project Bond initiative could function at the level of the project and capital market investors. It should be borne in mind that the intention is to support capital market financing of projects as an alternative to loan financing, not to replace other sources of financing, such as grants, nor to affect stages prior to financing, such as feasibility studies, assessments or procurement, where grants are also widely used.

A transport project, such as a section of railway, is planned by a group of companies (sponsors) and tendered by public authorities. The sponsors create a project company to raise the financing, construct and operate the railway for a period agreed with the public authorities. The sponsors provide own funds to the project company in the form of equity and shareholder loans. The remaining financing is raised by the project company in the form of debt, traditionally in the form of a bank loan.

### **Project financing model**



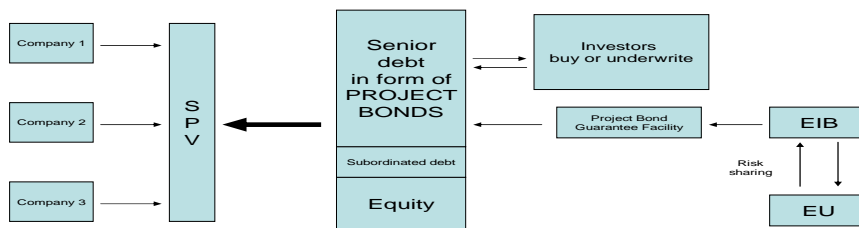
Instead of financing debt using traditional bank lending, the project company could raise the senior debt through project bond issues with long maturities. Capital market investors would buy the bonds if an investment grade credit rating, preferably at least A-, could be achieved.

Under the Europe 2020 Project Bond initiative, the EIB would provide a loan or guarantee (EIB facility) to the project company in order to raise the likelihood of a timely repayment of principal and interest to bond holders during the lifetime of the bonds. The EU would enable the EIB to provide such a facility by sharing the risks with the EIB. In other words, the EU would use EU budget to pay capital contributions to the EIB to cover a portion of the risk the EIB incurs.

The facility could cover all project-related risks affecting the cash flow generation from the start of the operating period, as well as any funding shortfall during the construction period. It would be sized project by project as a percentage of total bond funding subject to a cap, for instance 20% of the overall senior debt and could take for example the form of a credit line which could

be drawn upon either to service senior bonds or to meet funding shortfalls during the construction phase.

### Project bond initiative



Once drawn upon, the EIB facility would take the form of subordinated debt. This debt would be reimbursed by the project company over time from the cash resources available after senior debt service, but prior to payments to equity and related financing (shareholder loans, other subordinated loans). As the EIB facility is revolving and available during the lifetime of the bonds, it may be drawn upon and repaid, and later drawn upon and repaid again. It is foreseen that the available amounts will amortise according to the amortisation schedule of the bonds.

## **Annex VI: Detailed design and risk-sharing**

### **1. General principle**

As illustrated in the the example in Annex V, projects are financed using equity and debt.

The sponsors provide equity of typically 10-20% of the project value. The project bond initiative employs standard structuring techniques to divide the project debt into a senior tranche and a subordinated tranche<sup>49</sup>, which is in turn senior to equity. The subordinated tranche may either be in the form of a subordinated loan given to the company at the outset, i.e. it is funded, or it may be in the form of a contingent credit line, which the company can draw on in case of need, i.e. it is unfunded. Once drawn upon, the credit line becomes a subordinated tranche. The key to the use of project bonds is that the revenue of a project can be sufficiently ring-fenced.

The funded version has the advantage of requiring less senior debt; the unfunded solution has the advantage of being more flexible, i.e. if there is no need to draw the project has no additional obligations beyond paying the fee for having the guarantee available. A mix of a funded and unfunded tranche could also be envisaged. The precise support would depend on the characteristics of the project.

In either case, the presence of a (contingent) subordinated tranche, which has a lesser claim on the project's resources than the senior debt, improves the risk profile of the senior debt. Concretely speaking, the probability of default and the loss given default both decline. This increases the attractiveness of the senior debt to investors, as expressed e.g. by a credit rating, allowing the senior tranche to be issued as a bond. Note that it is not intended to allow the project sponsors to reduce their equity stake.

### **2. Degree of credit enhancement**

The desired credit quality can be generally described as one reaching a rating of BBB+ or above. Larger projects are likely to need a higher rating of e.g. single A, while smaller ones may not. In addition, the required credit quality may also depend on the identity of the sponsor(s), the source of revenues and other factors.

Achieving this is likely to require a subordinated tranche of up to 20% of the senior debt of the project. This figure is based on Monte Carlo simulations<sup>50</sup> of the project under a variety of revenue scenarios. In addition, it is largely in line with LGTT experience.

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<sup>49</sup> The senior debt has priority rights to the revenue of the project company during normal operations and to its assets in the event of bankruptcy, while subordinated investors are paid off afterwards, but before equity holders.

<sup>50</sup> Monte Carlo simulation is a method for iteratively evaluating a deterministic model using sets of random numbers as inputs. This method is often used when the model is complex, nonlinear, or involves more than just a couple of uncertain parameters. Simulation is based on probabilities of certain events.

### 3. Pricing of subordinated tranche

A price for the support is justified as it produces a gain to the borrower in the form of the project company. Indeed, the absence of a price would represent a subsidy and would distort markets heavily in favour of a few project sponsors, while not ensuring alignment of interests between the EU, the financial intermediary and the project company. On the other hand, the price should not be so excessive as to discourage use of the scheme.

Pricing below costs can only really be justified due to wider societal benefits and increased expected uptake, however, even in that case the fee should reflect the risk of the individual project. In order to avoid any element of subsidy, the price should also cover costs in addition to reflecting the risk of the project, the proposed financing package and the sponsor(s) even though this will entail that the support may not be offered to all players at the same price. The EU will ensure that any financial partners have an appropriate pricing methodology, which may be based on historical data or option prices if available, on the expected cost plus a margin<sup>51</sup> or other appropriate data.

In the case of the unfunded option, it is likely to be a combination of an upfront fee plus annual payments thereafter, while in the case of the funded option the price would be expressed as the interest rate margin applied to the loan.

### 4. Issues associated with the managing/controlling creditor role

By their very nature, large complex infrastructure projects rarely progress exactly according to plan.

This requires investors to make numerous decisions (waiver requests, changes to technical specifications) on a daily basis, especially in the construction phase. Since most investors do not have the experience or the capacity to handle the volume of requests in a timely manner, most investors choose to delegate this function to a third party. This "managing creditor" monitors general financial and construction performance and may make routine day-to-day decisions linked thereto, which also has the virtue of simplifying the communication with sponsors and authorities.

If a project goes badly, a decision on acceleration of the debt or termination of the project may have to be made. Investors may choose to make these decisions themselves or to delegate the function to one or more "controlling creditors".

The exact responsibilities are dealt with in appropriately formulated "inter-creditor agreements" as they may be different from deal to deal.

While the EIB will certainly have to monitor a project and represent its and the EU's interests, the Commission encourages creditors to find mutually suitable arrangements to accommodate all parties requirements. This may or may not include appointing EIB or third parties to carry out

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<sup>51</sup> UNEP-SIF

some functions on behalf of all creditors, but in no case does it free those creditors entirely of the need to do their own due diligence analysis to satisfy themselves that the project is sound.

## 5. Risk-sharing between financial partners and the EU

To ensure rapid implementation, the pilot phase would be entrusted to EIB, the EU bank and therefore this section is drafted with reference to established arrangements with EIB. In the operational phase post-2013, the initiative would also be open to other financial partners, although the exact implementation would naturally have to be discussed in the context of the mission and remit of these financial partners.

Lending or contingent lending at the subordinated level in order to support and leverage the senior debt is riskier than a standard senior loan. To some extent this is mitigated by the fact that the financial partner's exposure to the capital structure is smaller, maximum 20% instead of the usual 50%. Nonetheless, if the EU wants to achieve its objectives of increasing infrastructure financing and developing capital markets it would seem reasonable to compensate the financial partner for some of the extra risk taken.

Conceptually there are two main ways in which this could be done

- on a pro-rata basis (vertical risk sharing)
- on a first-loss, second-loss etc. basis (horizontal risk sharing)

Under pro-rata risk-sharing all losses are shared project by project on a fixed percentage basis. Horizontal risk-sharing on the contrary attributes specific loss events to the risk-sharing partners.

A first loss approach would involve the EU absorbing the first losses (i.e. from 0%) up to a certain pre-agreed percentage and maximum amount on a portfolio. The percentage would typically be set at just above the historical average loss, which can be modelled from previous lending of the financial partner in the sectors and should thus be fairly reliable. A second loss guarantee would have to cover all losses exceeding a certain percentage of the portfolio up to another fixed percentage.

Simply put the “first losses” are more likely to occur than losses above a specified level, therefore carving out these for support would optimise the multiplier effect of EU budgetary funds as it provides the most efficient guarantee in terms of total guarantee liability versus size of portfolio. Therefore it yields the maximum benefit to sponsors and ultimately tendering authorities and tax payers with the least amount of funds.

The pilot phase would initially apply either on vertical or horizontal risk sharing. The Commission will agree the appropriate risk-sharing method with the EIB.

However, with a larger number of projects, portfolio diversification comes into play. This may make it advantageous to use the risk-sharing arrangement as first-loss type risk-sharing, particularly in the fully operational phase from 2014 or if and when robust demand for the scheme calls for a wider roll-out. The maximum risk-sharing percentage can be revised based on

Formattati: Elenchi puntati e numerati

the properties of the portfolio which will have been built up at that stage. The financial partner would in any case retain a 5% share of the first loss piece as well as covering the residual risk beyond the first loss. This will ensure alignment of interest between the EU and its financial partner(s).



## **Annex VII: Other issues potentially affecting the success of the project bond initiative**

Although the objective of the project bond initiative is to remove specific financial barriers, it is clearly desirable to ensure an overall regulatory framework that is conducive to investment in infrastructure. A number of issues related thereto are covered below. Options to address these issues, if necessary, will be assessed in the light of experience gained in the pilot phase.

### *Solvency II*

Solvency II aims to harmonise the treatment of market consistent balance sheets, risk-based capital, own risk and solvency assessment (ORSA), senior management accountability and supervisory assessment. The new regime will apply to all insurance firms with gross premium income exceeding EUR 5 million or gross technical provisions in excess of EUR 25 million.

Solvency II follows the "Lamfalussy" approach, whereby the EU prudential framework is divided into three hierarchical levels : the first pillar contains the quantitative capital requirements, the second pillar contains qualitative requirements on undertakings such as risk management and supervisory activities, while the third pillar covers supervisory reporting and disclosure.

Solvency II will move insurance companies to a risk-based solvency regime. Market risk on different asset categories will be reflected in capital requirements depending on their risk. Market risk is not explicitly included in the capital requirements under the present regime. However, as the proposal also operates with a correlation matrix between asset classes and a higher capital requirement for mismatches between assets and liabilities, there are benefits to insurers which diversify their investments and which match their assets and liabilities more closely. Since these benefits might off-set the increased risk-weightings for longer-maturity, lower-rated bonds it is not possible to say unambiguously that project bonds will be penalised as an asset class generally. It depends on the insurance company's business.

### *Capital requirements*

The CRR package<sup>52</sup> is a comprehensive review of EU banking prudential rules and supervisory arrangements, currently provided for in Directives 2006/48/EC (the Capital Requirements Directive) and 2006/49/EC

The overarching goal is to ensure that the effectiveness of institution capital regulation in the EU is strengthened and its adverse impacts on depositor protection and pro-cyclicality of the financial system are contained while maintaining the competitive position of the EU banking industry. CRR lays down rules for when a bond is a securitisation. The specific guidelines at EU level would most likely not encompass project bonds. The definition of securitisation is the same as in Solvency II (so-called cross-consistency). Future proposals for the regulation of pension funds would also be likely to follow a risk-based approach. This would also be cross-consistent by design although it will not be identical to the regulation of banks and insurance companies.

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<sup>52</sup> Adopted on 20th July 2011.

### *Procurement*

In order for a contracting authority/entity to assess the tenders in compliance with EU procurement rules, all aspects of a tender which are subject to its assessment must be fixed and comparable at the submission of the final offer. This normally includes financing and here the main issue is to which degree of detail the financing offer is known at this stage.

In bond markets, as in loan markets, financial terms are usually quoted as a spread (interest rate differentials) over a benchmark interest rate, which is LIBOR or EURIBOR in the case of loans and a suitable government bond or swap rate in case of bonds.

Although the spread of a bond financing may be known with reasonable certainty, in most cases the price is only known when it has been fully subscribed by investors. Therefore its cost is not definitively known at the time of closing, but it may be either above or below the projected cost.

There are some potential solutions to address this uncertainty. Solutions include accepting that the interest rate will not be known, developing appropriate benchmarks which will allow the least fluctuation of the spread<sup>53</sup> or addressing it either through other financial instruments (a bridging loan, or a derivative product to cover the risk). These solutions may be entirely at the expenses of the bidding company(ies) or include various degrees of risk-sharing for the tendering authority.

In each case, the specific solution adopted should be assessed from the point of view of its compatibility with public procurement rules, notably with the principle of equal treatment. In particular, changes in the price may not lead to alteration of the ranking of the bids (e.g. if the winner's final higher price had been known at the moment of the award, it would have been less advantageous than another tenderer's price or wouldn't have compensated another tenderer's quality advantage etc).

### *ESA95 classification*

Market participants questioned whether the use of the project bond facility would automatically tip the project into the general government sector for national accounts purposes.

However, EU risk-sharing does not change the Eurostat assessment of whether the project belongs on the balance sheet of the national general government sector or the private sector. In other words, if the EU takes up to 20% of the risk, the test would simply apply to the remaining 80% of the project. Since the intention is to attract private funding for these 80%, the project should normally be classified as private. However, if the government provides a guarantee higher than the part financed by the private sector, partner, this will trigger a classification into the general government sector. These guarantees should include guarantees for a loan from an international financial institution (IFI). In addition, if a national government unit provides minimum revenue guarantees and minimum demand guarantees, such that government would

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<sup>53</sup> One option could be to use a basket of comparable bonds as a benchmark. Their comparability would have to be such in terms of credit characteristics that the project bond would fluctuate less against this basket than e.g. a government bond benchmark. This will be easier once a project bond market has been established.

bear a majority of the risks in the project, the debt would be classified as general government debt.

#### *Capital market development*

The use of the project bond facility presupposes a reasonably well-functioning capital market. Member States' financial markets are different in terms of size, liquidity, achievable maturities etc., but are progressively getting more integrated, but the initiative would contribute further to the development of an integrated capital market in the EU.

In addition to the new instruments, it is important to assist market players to achieve multiple goals including:

- Sponsors accepting public disclosure of project financials in order to issue project bonds;
- Investors developing their understanding of project dynamics, making asset allocation to infrastructure and managing e.g. the amortising structure of these bonds
- Tendering authorities allowing more flexibility e.g. with different benchmarks ;
- Rating agencies benchmarking their project finance rating processes in a transparent and consistent manner;
- Bond issuers and lead managers increasing dialogue with investors to enhance their understanding of project bonds.

#### *Crowding out of other players*

As discussed in Section 6.2.3.2, the support for project bonds should be appropriately priced so as to avoid distortions of competition and so as to not constitute subsidies. For this reason and due to the vastness of the infrastructure financing market (EUR 100 billion and growing) in comparison with the volume supported initially (EUR 2-3 billion), it is highly unlikely that the Europe 2020 Project Bond Initiative will crowd out other players in the market. However, the Commission will closely monitor the effects on other players in the market (see secti expressed on 7).

It is the hope that the EU scheme would act as a catalyst for private schemes currently under development or in their early stages, a view that has also been expressed by the private sector. The emergence of privately supported or unsupported infrastructure bond finance would be a sign for the EU to exit the market as described in Section 7.



**COUNCIL OF  
THE EUROPEAN UNION**

**Brussels, 10 November 2011**

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**Interinstitutional File:  
2011/0301 (COD)**

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ADD 2**

**ECOFIN 753  
COMPET 498  
TRANS 306  
RECH 364  
ENER 355  
ENV 854  
TELECOM 173  
ECO 134  
CODEC 1946**

**COVER NOTE**

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from: Secretary-General of the European Commission,  
signed by Mr Jordi AYET PUIGARNAU, Director

dated: 24 October 2011

to: Mr Uwe CORSEPIUS, Secretary-General of the Council of the European  
Union

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No Cion doc.: SEC(2011) 1239 final

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Subject: Commission Staff Working Paper  
Executive Summary of the Impact Assessment  
Accompanying the document Communication from the Commission to the  
European Parliament, the Council, the European Economic and Social  
Committee and the Committee of the Regions - A pilot for the Europe 2020  
Project Bond Initiative

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Delegations will find attached Commission document SEC(2011) 1239 final.

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Encl.: SEC(2011) 1239 final



EUROPEAN COMMISSION

Brussels, 19.10.2011  
SEC(2011) 1239 final

**COMMISSION STAFF WORKING PAPER**

**EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT**

*Accompanying the document*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**A pilot for the Europe 2020 Project Bond Initiative**

**Proposal for a**

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Decision No 1639/2006/EC establishing a Competitiveness and Innovation  
Framework Programme (2007-2013) and Regulation (EC) No 680/2007 laying down  
general rules for the granting of Community financial aid in the field of the trans-  
European transport and energy networks**

{COM(2011) 659 final}  
{SEC(2011) 1237 final}

## INTRODUCTION

This document provides the executive summary of the Impact Assessment on the pilot phase of the Europe 2020 Project Bond Initiative. The intention is to put in place a support mechanism that would allow infrastructure projects to access capital market funding to complement more traditional bank lending. In view of the financing problems faced by projects at present, the need to test the design and ensure market acceptance of a new Initiative it is proposed to launch a pilot phase for the transport, energy and ICT sectors already in 2012-13. The pilot phase will be funded by redeploing a total of EUR 230 million from the TEN-T, TEN-E and CIP budget lines.

The pilot will serve to improve its effectiveness under the Connecting Europe Facility (CEF), which will place EU infrastructure financing on a more coherent basis in the 2014-2020 period. This impact assessment covers primarily the pilot phase.

In order to fulfill the ambitious goals of the Europe 2020 strategy significant investment is required. Despite the financial support of the Community budget through grants from the TEN-budget line, the Structural Funds and Cohesion Fund, the Competitiveness and Innovation programme as well as the European Investment Bank loans, many TENs and other infrastructure projects remain incomplete for various reasons. The Commission has identified the lack of investment as a significant obstacle to the implementation of the goals<sup>1</sup>.

This Initiative is a part of the **Europe 2020 strategy**, which was endorsed by the European Council on 17 June 2010 and aims to make Europe a smart, sustainable and inclusive economy, which delivers high levels of employment, productivity and social cohesion in a sustainable manner. To boost growth and jobs, the EU has identified seven flagship initiatives, two of which are the "**Digital Agenda**" and the "**Resource Efficient Europe**". They relate to Trans-European Networks (TENs) in the areas of transport, energy and telecommunications.

In the period 2014-2020, the instrument would not necessarily need to be limited to the areas of CEF in future; projects in other infrastructure sectors, such as social sectors, renewable energy or certain space projects, could be eligible provided they meet the economic and financial prerequisites. Thus the instrument should be open to use in other policy contexts including structural and cohesion funds and external policies. The formulation of the CEF proposal should not preclude this.

## PROBLEM DEFINITION

Europe faces enormous infrastructure investment needs in transport, energy and ICT networks, estimated to be of EUR 1.5 trillion to EUR 2 trillion, to meet the policy goals of the Europe 2020 strategy. Of course, there are also substantial investment needs in other areas of infrastructure, but these will not be considered further at this stage. In other words, the

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<sup>1</sup> See for instance the Transport White Paper - SEC(2011) 359; the Communication on Energy Infrastructure Priorities to 2020 and beyond : A blueprint for an integrated European energy network - COM(2010) 677; Digital Agenda for Europe - COM(2010) 245; European Broadband: investing in digitally driven growth - COM(2010) 472.

aggregate figures could easily translate into annual financing volumes of EUR 200 billion or more. The lack of investment as a significant obstacle to the implementation of the goals presented above is the cause for the TEN projects being delayed or abandoned. Therefore, the existing problem is mainly defined by the nature and extent of infrastructure funding gap.

At present, public sector infrastructure investment in the EU averages approximately 1% of GDP or EUR 120 billion per annum, out of which about 80% is investment in transport and most of the remainder in social infrastructure such as schools and hospitals.

Increasingly, governments have encouraged the private sector to finance infrastructure investment, either on a purely private sector basis through privatisation, through concessions or, more recently, using the public-private partnership (PPP) model as a basis. Such privately funded projects are typically financed with equity from sponsors or other investors and bank loans.

However, the step change in investment needed to meet the Europe 2020 objectives is well beyond "business as usual" and requires a reconsideration of funding and the EU intervention.

Without the initiative (baseline scenario) the EU would continue with the current system of grant financing for individual projects without any use of so-called financial instruments in the energy and ICT sectors. In the transport sector, the two existing financial instruments, the Loan Guarantee Facility for TEN-T (LGTT), which supports bank loans to certain types of transport projects, and the Marguerite Fund, which takes equity investments in transport, energy and climate-related projects, will continue until their expiry.

The lack of infrastructure financing would subsequently affect all countries in the EU due to being transit countries or geographical periphery. The affected groups include citizens in all Member States, who benefit from the infrastructure and ultimately fund it, either as consumers or tax payers, tendering authorities which may not have multiple competitive financing offers and project promoters, who may not be able to get financing for their projects at present, affecting employment directly. This would also affect their sub-contractors, potentially including SMEs.

## **ANALYSIS OF SUBSIDIARITY**

The right for the EU to act in the field of infrastructure financing is set out in Articles 172 and 173 which provide that in order to achieve the relevant objectives the Union (...) may support projects of common interest supported by Member States.

The Europe 2020 Project Bond Initiative complies with the subsidiarity principle as the choice of the EU Regulation for financing trans-European networks projects with project bonds is best suited to provide an efficient and inexpensive means to attract high levels of private sector financing. It will be the first EU financial instrument benefiting infrastructure projects across several sectors with similar financing needs and will as such produce higher benefits in terms of market impact, coherence, administrative efficiency and resource utilisation. By focusing on optimising the use of EU funds, the initiative will aim to improve the effectiveness of both EU and Member States action within this division of competencies.

As capital markets transcend national borders, so efficiency dictates that a financing scheme should do the same. This also avoids distorting financial markets. Countries outside of the EU

have their own policies to support infrastructure financing. Thus, a European initiative would level the international playing field for European projects seeking funding.

In summary, the EU has the potential to achieve the twin objectives of increasing infrastructure financing and creating an infrastructure bond market better in the EU and more completely than the Member States.

## OBJECTIVES OF THE EU INITIATIVE

The general two-fold objective of the Initiative to stimulate investment in infrastructure and to establish debt capital markets as a new source of financing. The specific targets of the pilot phase Initiative include enhancing up to 3-6 TEN-T projects, 1 TEN-E and up to 1-3 broadband projects to allow them to issue bonds. The number of projects will depend on the volume of financing required for each project, ie the higher the volume, the more EU budget allocations are needed for one single transaction. The EU budget contribution is expected to attract 15-20 times in additional investment. As the pilot phase is necessarily limited in scope, budget and time this can only be a first step towards creating an infrastructure bond market in the EU by acting as a catalyst for private-sector bond solutions.

These objectives dovetail with existing EU policies and strategies, such as Europe 2020 as well as the ambitious energy and climate policy goals – the "20-20-20" objectives. The Initiative, together with other financial instruments, is an important building block for the **Connecting Europe Facility** (CEF) proposed for the transport, energy and ICT sectors in the **Multi-annual Financial Framework** (MFF) 2014-2020.

## POLICY OPTIONS

On the basis of the measure in use to address the existing financing gap and achieve the identified objectives in the area of infrastructure, three main options have been explored:

**Option 1: Grant funding, no new financial instrument (baseline scenario).** This would entail the exclusive reliance on the use of grants from the public purse, including the EU with bank loans as the main source of private sector financing. In the area of transport, the two existing financial instruments would continue during the pilot phase.

**Option 2: Regulatory incentives for infrastructure financing** The EU as a whole does not have a true project bond market Financing in Europe has traditionally been dominated by banks and a truly integrated and liquid bond market only started developing after the introduction of the single currency. As a result of the banks' better knowledge of their customer and ability to analyse infrastructure financing proposals, they are able to accept riskier financing structures than bond investors. Thus one of way of addressing the infrastructure financing problem would be to require better security packages from sponsors or making investment more attractive to investors.

**Option 3: The use of a financial instrument** The financial instrument would take a form of an EIB guarantee or an EIB loan. It has the advantage of not being imposed, but driven by market demand. If well-designed, it is highly flexible and can respond to market needs in a timely manner.



The Initiative would cover pre-identified transport, energy and ICT priority infrastructure and would complement the existing sources of project financing through bank loans. The initiative divides the project debt into a senior tranche and a subordinated tranche, which is, in turn, senior to equity. The subordinated tranche may either be in the form of a subordinated loan given to the company at the outset, i.e. it is funded, or it may be in the form of a contingent credit line, which the company can draw on in case of need, i.e. it is unfunded. A mix of a funded and unfunded tranche could also be envisaged, depending on the characteristics of the project.

The presence of a subordinated tranche improves the risk profile of the senior debt, which increases the attractiveness of the senior debt to investors allowing the senior tranche to be issued as a bond. The desired credit quality can be generally described as one reaching a rating of BBB+ or above, which is likely to require a subordinated tranche of up to 20% of the senior debt of the project. The aim is to expand the investor base for private debt funding of projects to bond investors. The mechanism of the Initiative would rely on the risk-sharing between EIB and the EU.

Other alternatives considered but discarded at an early stage and not assessed in detail include direct senior lending by EU or EIB, a full debt service guarantee, a loss reserve fund and creating a European Infrastructure Bank or Guarantee Agency, which either do not promote capital market financing or distort the incentives of the different players.

## ASSESSMENT OF IMPACTS

**Option 1: Grant funding** would mean accepting a continuing shortfall in infrastructure investment and private financing sources, to the detriment of European long-term sustainable growth. The economic and social impact of built projects would be otherwise unaffected. The infrastructure that would be implemented would likely be built at a higher than necessary cost to society. There is a risk that key EU infrastructure would be sacrificed for national priorities.

**Option 2: Regulatory incentives** may allow more bond financing. The economic and social impact of built projects would be otherwise unaffected. However, the final cost to the tax payer is likely to be higher as the cost of additional capital is passed on. Further, the costs of compliance in the selected sectors may also be high and lead to market distortions, but this is difficult to evaluate. In any case, this option is unlikely to be implemented quickly.

**Option 3: The financial instrument** would take a form of a contingent credit line or a subordinated loan. Again, the economic and social impact of built projects would be otherwise unaffected, but the cost to tax payers is expected to be lower.

The table below presents an synoptic description of the different impacts of the options considered in what concerns other economic, social and environmental impacts.

Option	Option 1: Grant funding	Option 2: Regulatory incentive	Option 3: Financial instrument + possibly regulation of the capital markets
<b>Criteria</b>			
<b>Achieved objectives</b>			
<b>TENs</b>	Partly	Partly	Yes
<b>Capital markets</b>	No	Maybe	Yes
<b>Impacts of the options</b>			
<b>Economics impacts</b>	<ul style="list-style-type: none"> <li>- Only small efficiency gains possible</li> <li>- Continuing lack of financing</li> <li>- Relative decrease of the long-term EU growth potential and competitiveness</li> <li>- Higher than necessary infrastructure cost to society</li> </ul>	<ul style="list-style-type: none"> <li>- No cost on budget</li> <li>- Distortion of the decision making leading to the mis-allocation of funds<sup>2</sup></li> <li>- More costly for sponsors, tendering authorities and tax payers, thus less infrastructure being built</li> <li>- Less potential of extension due to barriers of different regulation</li> <li>- Disproportionately large compliance costs for SMEs</li> </ul>	<ul style="list-style-type: none"> <li>- Most final funding attracted at lower cost</li> <li>- Stimulated implementation of large infrastructure projects with national and cross-border benefits</li> <li>- More access to the infrastructure provided at a reasonable price</li> <li>- More diverse financing possibilities created</li> <li>- Positive effect on growth and competitiveness of the EU</li> <li>- Market-driven</li> </ul>
<b>Social impacts</b>	<ul style="list-style-type: none"> <li>- Grant funding to projects that could be financed in the market</li> <li>- Potential lack of funding for weaker projects</li> <li>- Key EU infrastructure subordinated to national priorities</li> <li>- Disproportionality of cross-border projects reducing cohesion in EU</li> </ul>	<ul style="list-style-type: none"> <li>- Sponsors looking for the highest return projects due to higher costs</li> <li>- Non-implementation of weaker projects</li> <li>- Increasing disproportionality cross-borders and lower cohesion in EU</li> </ul>	<ul style="list-style-type: none"> <li>- Pension and insurance funds securing a higher rate of return for pension policy holders, i.e. citizens</li> <li>- Greater market integrity leading to better services, higher investor confidence and greater participation in financial markets</li> <li>- More jobs created by stimulating new infrastructure and economic growth</li> </ul>
<b>Environmental impacts</b>	<ul style="list-style-type: none"> <li>- No particular environmental impact</li> </ul>	<ul style="list-style-type: none"> <li>- Higher costs leading to less infrastructure built with reduced potential (positive and negative) effects</li> </ul>	<ul style="list-style-type: none"> <li>- Acceleration or enabling of financing for projects with environmental impacts that would not otherwise take place</li> <li>- Implementation of the Europe 2020 strategy with positive environmental impact</li> </ul>

<sup>2</sup> Due to increased costs of financing, sponsors are likely to be looking exceptionally for the highest return projects, which could lead to non-implementation of weaker but still viable projects in particular sectors, while investors might invest in infrastructure projects due to regulatory advantages rather than the quality of the underlined projects, which would lead to the mis-allocation of funds.

The table above shows that:

- **From an economic point of view**, Option 3 seems to be preferable overall. In fact, while achieving both objectives identified at lower overall costs, if appropriately priced it creates no market distortion and lower administrative burden.
- **From a social point of view**, both Option 2 and 3 could make it easier for economic entities to raise capital, provide the necessary infrastructure, stimulate growth and create more jobs. However, Option 3 is more desirable as it would benefit institutional investors such as pension and insurance funds, who invest in financial instruments in order to secure a higher rate of return for pension policy holders, i.e. citizens.
- **From an environmental point of view**, the general objectives of the EU initiative only relate to the financing of projects. Projects themselves are the entities that might cause environmental impacts.

The following summary table set out the advantages and disadvantages of the different options, measured against the criteria of their effectiveness in achieving the related objectives, and their efficiency in terms of achieving these options for a given level of resources or at least cost. Each scenario is rated between "---" (very negative), 0 (neutral) and "+++" (very positive).

Criteria \ Option	Impact on stakeholders	Effectiveness	Efficiency
<b>Objective 1: Stimulating investment in infrastructure, especially TEN-related</b>			
<b>Option 1: Grants</b>	0	0	0
<b>Option 2: Regulatory incentives</b>	(--) some administrative burden for both companies and investors, but (0) unchanged for Member States in case no additional monitoring required	(+) partially enables implementation of some TENs (--) could create conflicts between regulation in each sector and requirement for more capital	(0) does not increase cost on budget (---) increases cost to almost all types of stakeholders (--) would affect all projects and financiers, not only those using bonds
<b>Option 3: Financial instrument</b>	(-) Lower administrative burden for companies and Member States, but (---) higher for investors (--) requires investor education	(++) facilitates the implementation of TENs (++) encourages single market (+++) stimulates competition between bank and bond markets (---) depends on other conditions such as market acceptance, procurement practices, regulatory framework and perceived uncertainties by investors	(+) budget contributions will be strictly capped (+++) lower infrastructure investment cost expected over the project lifetime
<b>Objective 2: Establishing debt capital markets as a new source of financing</b>			
<b>Option 1: Grants</b>	(---) no incentive available for investors and projects	(---)	(---)
<b>Option 2: Regulatory incentives</b>	(0) does not create new investment tool (+) some private initiatives as a niche activity might evolve	(+) may establish debt capital markets as financing source (+) may attract some funding	(---) higher financing costs (---) unclear whether it will attract additional funding, in which case the additional cost would have been unnecessary
<b>Option 3: Financial instrument</b>	(++) widens choice of financing instruments (--) promotion and education required	(+++) stimulates new sources of financing and (++) possibly creates new asset class (+++) attracts most of	(++) lower financing cost expected (-) uncertainties remain as regards additional costs such as rating or listing

	for a novel EU instrument	funding (--) factors such as controlling or monitoring creditor requires multiple approaches	
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**Option 2** is the least costly from a Commission perspective, but it imposes costs on all project sponsors, small and large, without a clear benefit. Since there is no incentive for banks and investors to adjust behaviour, the desired development of capital markets may not take place. It is expected to have rather negative impact on stakeholders as well as perform poorly in terms of effectiveness and efficiency compared to other options. It is therefore the least preferred option.

**Option 1** does not per se raise costs on any stakeholders, but nor does it generate additional funding from loan or capital markets. It would also have no influence on effectiveness and efficiency of achieving identified objectives. This is therefore the second-most/least desirable option.

The preferred option is the use of a financial instrument – **Option 3**, since it gives market participants economic incentives to adapt their behaviour without imposing blanket regulatory costs. It is considered to be the most effective solution with the most positive impact on stakeholders and the most tangible improvement of the financing of infrastructure.

## MONITORING AND EVALUATION

The Commission may work through one or several financial institutions with a public mission, which would normally receive and assess the applications for support, the financial structure of the project, its economic viability etc according to their internal rules and procedures. The pilot phase will be implemented in particular with EIB.

EIB Financing Operations will be managed by the EIB in accordance with the EIB's own rules and procedures, including appropriate approval, audit, control and monitoring measures which are the subject of regular reporting to the Commission.

The Commission already collects data on the EU bond market and may also request information from the banks that place the project bonds. These sources and specific performance indicators will help the Commission to review the pilot phase before the end of 2013 in order to draw conclusions on the future design. The mid-term review of the CEF facility will assess whether the scheme introduced (still) adds value and should be maintained.