Expert evaluation network delivering policy analysis on the performance of Cohesion policy 2007-2013
Year 2 – 2012

Task 1: Financial engineering

Spain

Version: Final

Faiña A., Lopez-Rodiguez J., Montes-Solla P., Varela Candamio L.
Jean Monnet Research Group on Competition and Development
University Of Coruña

A report to the European Commission
Directorate-General Regional Policy
Contents

Executive summary .............................................................................................................................................. 3
1. Use of financial engineering instruments ............................................................................................. 4
2. Rationale for using financial engineering instruments .......................................................................... 4
3. The effectiveness of financial engineering instruments: selected examples ........................................ 6
4. Main problems in using financial engineering instruments .............................................................. 11
5. Evaluations of financial engineering instruments ............................................................................... 12
6. Concluding remarks ............................................................................................................................... 13
References ............................................................................................................................................................. 15
Interviews .............................................................................................................................................................. 17

List of abbreviations

- AJHF  Andalusia JESSICA Holding Fund
- ASCRI  Spanish Association of Capital Risk Entities
- CDTI  Spanish Centre for Technological Industrial Development
- EEN  Expert Evaluation Network
- FEI  Financial Engineering Instrument
- FIDAE  Fund for Investments in Energy Saving and Diversification
- IB  Investment Board
- ICF  Catalonian Institute of Finances
- ICO  Spanish Institute for Official Credit
- IDEA  Spanish Institute for Energy Saving and Efficiency
- IFEM  Financial Instruments for Innovative Enterprises
- OP  Operational Programme
- PE  Private Equity
- ROP  Regional Operational Programme
- RTDI  Research, Technological Development and Innovation
- SMEs  Small and Medium Enterprises
- TFNOP  Technologic Fund National Operational Programme
- UDF  Urban Development Funds
- VC  Venture Capital
- VC/PE  Venture Capital and Private Equity
Executive summary

The use of Financial Engineering Instruments (FEIs) is not very extensive in the current programming period. Nonetheless, some important initiatives have been adopted. In the policy area of business development and innovation three JEREMIE funds have been endowed with EUR 330.7 million\(^1\). They have been launched in the framework of national and regional ERDF operational programmes (OPs). In the policy area of urban development, two JESSICA funds (EUR 213.3 million) have been set up. At a multiregional level, a JESSICA holding Fund for Investments in Energy Saving and Diversification (FIDAE) has been launched by the Spanish Institute for Energy Saving and Efficiency (IDEA) with collected contributions from ten ERDF Regional Operational Programmes (ROPs), amounting to a total of EUR 127.6 million. At a regional level, within the Andalusia ROP, another JESSICA holding fund (EUR 85.7 million) has been set up in the policy area of urban regeneration.

Policy makers and programme managers, consider the reimbursement of the funding and the "revolving" feature of the funds, the multiplication of investment through leverage and the capacity to support high risk projects that have great profit potential, as the main benefits of using FEIs.

The Spanish economy is based on an ecosystem of SMEs, the funding of which depends largely on short-term bank loans. The restriction of bank financing has made it increasingly difficult for most SMEs (those with an over-reliance on bank financing) to finance their current assets. As a consequence, investment in RTDI has been affected by cancellations, limitation of initial amounts, dilation of implementation periods, etc.

Some of the eligibility provisions in the programmes which use FEIs should be reconsidered in order to encourage a more efficient fulfillment of their objectives, also to address the current economic crisis.

---

\(^1\) Figures are expressed as total amounts, where they relate to European aid this is specified.
1. Use of financial engineering instruments

The current programming does not make a very extensive use of FEIs. Nonetheless, some important initiatives have been adopted. In the policy area of business development and innovation, three JEREMIE funds (one national and two regional) have been endowed with EUR 328 million (figures in total amount).

- At a national level, the JEREMIE fund (EUR 70 million) set up by the Spanish Institute for Official Credit (ICO) within the Technological Fund National OP (TFNOP), provides guarantees to those RTDI business projects that have been selected for support (loans) by the Spanish Centre for Industrial Technological Development (CDTI). These CDTI loans are also funded by ERDF within TFNOP.
- At a regional level, a JEREMIE fund was set up in the Andalusia ROP (EUR 235.7 million) by the regional development agency for innovation and business (IDEA). An additional JEREMIE fund was set up by the Financial Instruments for Innovative Enterprises (IFEM) in Catalonia (EUR 25 million) as part of the ROP. The IFEM is a company participated by the regional government under the auspices of the Catalan Institute of Finances (ICF).

In the policy area of urban development, two JESSICA funds (EUR 213.3 million) have been set up.

- At a multiregional level, a JESSICA holding fund, FIDAE, has been launched by the IDEA. This fund has been endowed with EUR 127.6 million from (10) ROPs.
- In the Andalusia ROP, another JESSICA Holding Fund (AJHF, EUR 85.7 million) has been implemented to give financial support to urban regeneration projects in a wider sense (not specifically in renewable energies and energy saving).

The JEREMIE funds in the ROPs of Andalusia and Catalonia include a whole range of tools: guarantees (Capital to mutual guarantees and convertible debt), Venture Capital (VC), equity loans and microloans. The FIDAE and Andalusia JESSICA funds consist of long term loans, equity and quasi-equity funding tools.

The use of FEIs in the current programming period increased significantly compared to the previous one and also during the most recent programming period. In Andalusia, the largest Spanish region in the convergence objective, the regional government has opted for the FEI model and has set up self-financed funds along the JEREMIE and JESSICA lines.

2. Rationale for using financial engineering instruments

The reasons given in the reports on equity markets and planning documents in Spain for the use of FEIs rather than grants relate mainly to the convenience of developing risk capital markets and the facilitated (ease) financial accessibility and sustainable funding for SMEs and RTDI business projects. According to the reports on equity markets and planning documents in Spain, the preference accorded to FEIs rather than grants is mainly

---

2 Mainly ASCRI (2011, economic and social impact of VC/PE, Spanish Association of Risk Capital Entities), IDEA (2010, risk capital in Andalucía) and EIF (2007, evaluation of SMEs’ access to funding in Catalonia).
related to the support of developing risk capital markets and the facilitated financial accessibility and sustainable funding for SMEs and RTDI business projects.

The development of Private Equity (PE) markets (virtually non-existent or very limited in Spain) is crucial for "sustainable financing" of business development and business RTDI activities in order to promote structural change and increase competitiveness (Spanish strategy for innovation, 2011, p. 28, TFNOP, p. 29).

The majority of PE investment is allocated to firms at the expansion stage of development. In their early stages, companies heavily rely on public sector funding complemented by thirty small PE companies (both funds and fund management companies) (webcapitalriesgo.com, 2012). VC firms also provide the market with additional knowledge and experience, strengthening the managerial capabilities of innovative SMEs. The concept of selecting the best managers on the market and making them shareholders has proven to be a successful model that works at any stage of the economic and credit cycles (ASCRI, 2010).

Apart from financing RTDI business activities, measures are needed to increase access to credit and capital for SMEs and micro enterprises and to reduce entry barriers to private investments in SMEs. Financial engineering tools and programmes must be designed to cope with market imperfections (Catalonia ROP, pg. 79). The Spanish economy is based on an ecosystem of SMEs whose funding largely depends on short term bank loans in the short term (Papeles de Economia, 2012, Mediterraneo Economico, 2011).

SMEs are particularly affected by market failures which cause credit rationing and determine high collateral requirements and/or higher interest spreads. FEIs are considered as "bridges" of access to finance: they reduce the gap in credit access between SMEs and large enterprises. Credit institutions may not be interested in this market niche due to its small size and higher perceived risk. Negotiating positions of SMEs or even Mutual Guarantee schemes are unfavourable (small size, territorial fragmentation) compared to an integrated credit system.

Large volumes of financial resources and credit worthiness may lead to significant gains in imperfect markets. The ICO mediation led to an improved final interest rate for customers through lowering the cost of the collected resources whilst simultaneously maintaining attractive margins for retail banks (1%) in order to encourage distribution. As a consequence, the financial role of the ICO was strengthened significantly throughout the current economic crisis and credit crunch (ICO Annual Report 2010, Press Note, March 22, 2012).

The main reasons for using non-refundable grants instead of FEIs in the policy areas of enterprise support and support for innovation are mainly related to uncertainty about project performance, technological risks and other barriers to innovation such as lack of experience and trust building in networking and cooperative RTDI.

Grants are needed to help SMEs overcome strong innovation barriers resulting from high risk and widespread uncertainty in those RTDI projects whose results cannot be promptly commercialised. One approach to addressing technological risk problems would be
repayments based on the project's demonstration of technological feasibility. This clause is used in some CDTI refundable aid schemes.

Non-refundable grants are also used to promote collaborative RTDI between companies and research centres in the Convergence regions in order to stimulate networking and regional innovation systems. The measures in the TFNOP which are implemented by the CDTI are not appropriate to these regions. Recently, new suitable actions for convergence regions (INTERCONECTA ERDF) have been designed in cooperation with regional governments (calls for Andalusia and Galicia were launched a few months ago). Grants are extensively used to foster cooperative RTDI between consortia of firms (minimum three firms) and research centres to encourage open innovation, networking and development of the regional innovation system.

According to policy makers and programme managers the main benefits of using FEIs are: the reimbursement of funding and the "revolving" feature of the funds, the multiplication of investment through leverage and, as regards VC and PE, an increased capacity for risk assumption, which can cover the gap left by the market (IDEA, 2010, risk capital in Andalucia).

A cultural change in the governance of development policy would also be desirable. Funding and support is granted on the basis of specific features of the company; its commercial and financial situations are analysed and financial terms (at market conditions) are tailored to its specific needs.

The greater costs involved in the use of FEIs are related to more complex management and the need of controlling investment projects over a long period of time. It takes about one year to launch a JEREMIE fund. However, the time of maturity of the investments is considerably longer, ranging from 5 to 7 years. In JESSICA funds, in which less experience has been acquired, the implementation time is even longer (minimum two years). The projects are also more complex and long-term.

3. The effectiveness of financial engineering instruments: selected examples

Differences in objectives and in the way that they operate between FEIs which are part of Cohesion policy and private ones

A major strategic difference between the FEIs used as part of the Cohesion policy and private FEIs lies in the former’s general goal of fostering economic development and structural change by means of increasing accessibility to loans and equity funding for business development and innovation. This strategic goal is operationally pursued through a number of selection criteria that are not only based on economic profitability but also take regional development objectives into account (e.g. employment).

Financial engineering instruments in Cohesion policy are granted at market conditions, are fully refundable and are formalized by a commercial law relationship. In this regard, they are similar to private FEIs.

The JEREMIE fund TFNOP ICO provides an interesting example of this instrument. It made a more aggressive policy of cash advances possible to increase the momentum of CDTI support to business RTDI. The CDTI depends heavily on its own capital and manages
repayable grants. Funding is disbursed as the beneficiaries meet the milestones of their project and provide guarantees for the loan. Cash advances are rare in CDTI practice and are always subject to guarantees and extremely stringent conditions.

In order to accelerate the pace of project implementation by companies and to mitigate the effects of the credit crunch (especially in SMEs which are the most affected), the system of cash advances was greatly reinforced (providing up to 75% of the loan approved and committed). To this purpose, the ICO JEREMIE fund delivers a highly specific financial product which is subject to the requirements of the CDTI loans: it provides guarantees to cover the failure of firms that receive cash advances of accomplishing the project's technical milestones (and the subsequent guarantees required to formalise loans). ICO guarantees covering CDTI cash advances can only be applied to the refundable component of CDTI loans (Martín Larroque, 2012). ICO guarantees are supplied at market conditions: commission of 1% per annum, the proceeds are reinvested in the fund itself. The possibility of companies supplying guarantees obtained in other financial institutions is not precluded.

With this initiative, the CDTI has managed to accelerate the implementation of the Technology Fund (CDTI, 2012) and has also provided important support to innovative companies, especially SMEs (over 75% of the total), in overcoming the difficulties arising from credit rationing in the current financial market conditions. The total approved operations at the end of 2011 amounted to 374 projects at a value of EUR 133.6 million (EUR 0.36 million on average).

Regarding the role of financial engineering instruments in facilitating access to credit and capital for innovation and business development, most managers in the field of Cohesion policy agree that their roles in the private systems are very similar, but also highlight a significant difference in the way FEIs operate in the framework of the Cohesion policy. FEIs funded through Cohesion policy pursue also a regional development and social agenda (rather than only maximisation of profit), and this is reflected in different project selection criteria.

Managers and experts also reported other differences. There is scope (especially in imperfect markets, and oligopolies dominated by large banking organisations) for reducing the spreads of interest rates applied to SMEs and innovative start-ups, especially when markets for microcredit and VC play a marginal role or no role at all.

In the JEREMIE fund of Catalonia ROP, IFEM's management has found that operating in market conditions is effective in overcoming SMEs access barriers to stable funding. The effectiveness of capital injections in mutual guarantee schemes and convertible debt greatly facilitate SMEs (interviewed Managers). The leverage in the guarantee funds is very high (in the range of 10-15) and directly addresses a widespread problem of SMEs in Catalonia: An excessive proportion of short-term bank loans in their balance sheet. These findings can be extended to most of Spain.

The VCand PE initiatives have also shown their effectiveness, although the pace of project implementation is slower than in the guarantee fund due to the complex procedures of signing agreements with shareholders, drafting contracts and arranging legal instrumentation. Qualified human resources and highly trained professionals who provide
appropriate consultancy are available. However, the implementation process implies an apprenticeship in management before project flow reaches cruising speed.

Finally, regarding the microloan initiative, the selection of financial entities with experience in the field is a critical point. The current restructuring of the savings banks in Spain is expected to reduce the supply of qualified entities, because they were specialists in this area.

Figure 1: Andalusia JEREMIE Fund Structure:

![Diagram of Andalusia JEREMIE Fund Structure]

*Spanish National Commission for Stock Market*


The Andalusian regional Government and the IDEA agency have launched a new scheme of incentives with financial engineering instruments (based on market conditions) which are funded with the resources of the Junta de Andalusia. Between 2005 and 2009 over 100 firms benefited from the aforementioned instruments and direct investments amounted to over EUR 50 million (IDEA, 2010, p. 77-79). After launching the JEREMIE fund- see structure of the fund in figure 1 and its main lines in figure 2- the risk capital fund management was assigned to INVERCARIA. It also includes private stakeholders, according to the rules of the Spanish stock exchange regulatory society-(Comisión Nacional del Mercado de Valores). The norm to manage the fund was approved on July 23 2010.

---

3 Recently the regional audit court submitted a report in which, after commenting on the reliability of data and the results of the operations regarding the INVERCARIA financial situation in the 2009 exercise, it also highlighted some failures to execute its actions correctly according to the rules (Cámara Cuentas, 2011, p. 29). However the JEREMIE fund is not involved in this report.
Figure 2: Main features of the Andalucia JEREMIE fund

<table>
<thead>
<tr>
<th></th>
<th>(a) Support Fund for Enterprise Development</th>
<th>(b) Sustainable Economy Fund</th>
<th>(c) Fund for the promotion of renewable energy and energy efficiency</th>
<th>(a + b + c) JEREMIE Multi-instrument</th>
<th>JEREMIE Risk Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>EUR 204 million</td>
<td>EUR 50 million</td>
<td>EUR 30 million</td>
<td>EUR 185 million</td>
<td>EUR 75 million</td>
</tr>
<tr>
<td>Recipients</td>
<td>• Start Up / Expansion</td>
<td>• Preferably micro</td>
<td>• Preferably SMEs</td>
<td>• Business start-up and expansion</td>
<td>• Business start-up</td>
</tr>
<tr>
<td></td>
<td>• SMEs / Not SMEs</td>
<td>• Not firms in difficulty</td>
<td>• Not firms in difficulty</td>
<td>stage</td>
<td>and expansion stage</td>
</tr>
<tr>
<td></td>
<td>• Not firms in difficulty</td>
<td>• Not firms in difficulty</td>
<td>• Not firms in difficulty</td>
<td>• Not firms in difficulty</td>
<td>• Not firms in difficulty</td>
</tr>
<tr>
<td>Sectorial approach</td>
<td>Not</td>
<td>Not</td>
<td>Limited to renewable energies and energy efficiency</td>
<td>Agrifood Sector Excluded</td>
<td>Agrifood Sector Excluded</td>
</tr>
<tr>
<td>Amount by Operation</td>
<td>Min. EUR 0.2 million</td>
<td>EUR 20,000</td>
<td>EUR 20,000</td>
<td>EUR 0.2 million</td>
<td>EUR 1.5 million</td>
</tr>
<tr>
<td></td>
<td>Max. EUR 10 million</td>
<td>EUR 0.2 million</td>
<td>EUR 2 million</td>
<td>EUR 10 million</td>
<td>EUR 3 million</td>
</tr>
<tr>
<td>% Max. of Financing</td>
<td>70%</td>
<td>80%</td>
<td>70%</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>Tools Financial</td>
<td>• Ordinary Loan</td>
<td>• Ordinary Loan</td>
<td>• Ordinary Loan</td>
<td>• Ordinary Loan</td>
<td>• Capital</td>
</tr>
<tr>
<td></td>
<td>• Quasi-Equity</td>
<td>• Quasi-Equity</td>
<td>• Quasi-Equity</td>
<td>• Quasi-Equity</td>
<td>• Quasi-Equity</td>
</tr>
<tr>
<td></td>
<td>• Guarantee</td>
<td>• Guarantee</td>
<td>• Guarantee</td>
<td>• Guarantee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• PE</td>
<td></td>
<td></td>
<td>• PE</td>
<td></td>
</tr>
</tbody>
</table>

Source: IDEA (2010), p. 84

Regarding reimbursable operations, loans and shared-loans, in 2011, 78 operations were approved (most of them in the risk equity fund (21). The operations amounted to a total of EUR 138 million with an induced investment of EUR 735 million. The items with more weight are the risk capital fund, EUR 114 million and the one devoted to entrepreneurial development, EUR 611 million (Information based on IDEA data).

In the policy area of urban development, the JESSICA fund in Andalusia ROP delivers loans but can also provide equity and quasi-equity. JESSICA’s reimbursable contributions are levered up by bank loans with normal conditions of interest. The ratio Jessica / bank loan is usually around 50% if the social benefits of the projects are taken into account. As a rule JESSICA funding is delivered at market conditions. Nevertheless, the JESSICA interest rate can be adjusted on the basis of a project’s creditworthiness and collaterals⁴, so that projects become financially viable and yield a reasonable return on investment⁵.

⁴ Communication from the Commission on the revision of the method for setting the reference and discount rates (2008/C 14/02).
⁵ It is worth mentioning that the mechanism consisting of the JESSICA contribution at an adjustable-rate plus a tranche of bank financing at market prices is not equivalent to a general bonus on interest rates. The bonus on the JESSICA contribution (for reasons of social benefit) is reduced to the minimum necessary to achieve the viability threshold and profitable projects do not receive a bonus.
Control or influence exerted by managing authorities

Managing authorities can exert a high degree of control over the way that the funds set up through FIEs are allocated.

In the policy area of enterprise support and RTDI, control is exerted through the participation of the managing authorities, agencies, and regional governments in the boards of the funds. In the case of the ICO JEREMIE fund, which is outsourced to the ICO, the managing authority participates directly in the monitoring board. In Andalusia applications for financial instruments are managed by the Board of Directors and funds are delivered by the Regional Development Agency (IDEA), under the auspices of the regional government, through two organisations (SOPREMA, company shareholdings of Andalusia participated by the regional government, and INVERCARIA, which is owned by the regional government). In the CATALONIA JEREMIE, management is outsourced to the intermediate body IFEM (integrated in the group of the ICF, participated by the regional government). IFEM signs operational contracts with financial intermediaries (selected through calls) which specify the conditions companies have to comply with in order to access funding as well as the selection criteria, the objectives to be achieved, the procedures for assessing funding applications and so on. The management and control systems to be followed by the aforementioned financial intermediaries are also established. In turn, financial intermediaries sign investment agreements with the beneficiaries.

In the urban development sphere, the Andalusia JESSICA holding fund (AJHF) is a separate block of financial resources managed by the EIB. The AJHF is implemented by means of two Urban Development Funds (BBVA JESSICA ANDALUSIA loans, and AC JESSICA ANDALUSIA equity and quasi-equity selected through a call of expression of interest). The AJHF’s operation is supervised by its Investment Board (IB), currently consisting of five members appointed by five regional Councils of the regional government of Andalusia, and observers appointed by the EIB.

Criteria that final beneficiaries need to fulfil

As a general rule, final beneficiaries of FIEs must fulfil the eligibility criteria set out in programming documents (according to the aims and targets of corresponding priority themes). The rules governing particular funds must also be respected.

In the policy area of business development and innovation, final beneficiaries of the ICO JEREMIE fund must meet the eligibility criteria of the Technology Fund NOP and must be awarded CDTI reimbursable aid. In brief, the firms must be carrying out business RTDI projects.

In the IFEM JEREMIE fund in the Catalonia ROP, final beneficiaries must carry out viable investments to start or expand micro and SMEs as well as undertake business RTDI activities. Generally, these investments must foster growth, competitiveness and employment in the region. The IDEA JEREMIE fund in the Andalusia ROP is subject to similar conditions and covers many strategic sectors in the region (aerospace, agribusiness, biotechnology, ICTs, culture, metalworking, renewable energy, other emerging sectors, hostelry and tourism services and health).
In the urban development policy area, the final beneficiaries of the JESSICA fund of Andalusia ROP must be involved in urban regeneration projects included in an integrated plan of sustainable urban development. Urban development projects may adopt different forms: public, private or public-private partnerships. But they must invariably be income generating projects in order to pay back the leveraged funding delivered by the Urban Development Funds (UDF).

**Criteria applied to assessing performance**

An obvious, but quite important, outcome measure is financial sustainability. This implies that expected returns from FEIs should be sufficient to cover the risk of default. The expected return is one the assessment criteria and varies for the different types of instruments. In the case of guarantees, no interest on permanent capital for mutual guarantees schemes is expected, while convertible debt is expected to pay market interest rates for the portion that is not converted in equity. Microloans are expected to pay market interest rates on drawn amounts and to return the capital at expiration. VC is expected to obtain capital gains through divestments. Finally, equity loans are expected to pay Interest (fixed and variable), as well as the return of the capital at maturity.

The targets fixed for the financial engineering instruments refer to business promotion and development in the areas of RTDI and in other sectors of strategic activities. The indicators for FEIs are the standard indicators set in the programming documents. They are mostly output indicators (number of projects per line, number of brokers per line and invested amounts) and some overall impact indicators (induced private investment and associated employment). However, a more complete set of result-oriented indicators has not yet been developed (business survival, failure and success rates, growth rates of sales and employment, new products and new processes, etc.)

4. **Main problems in using financial engineering instruments**

The current economic crisis has led to a general shift in the investment priorities of target companies in the area of business RTDI. The restriction of bank financing has made it increasingly more difficult for a majority of SMEs to finance their current assets. As a consequence, investment in RTDI has been affected: cancellations, limiting initial amounts, dilation of implementation periods, etc. Some of the provisions of the program should be reconsidered to encourage a more efficient fulfilment of its objectives, also to address the current economic crisis. The programming documents containing JEREMIE (Selection criteria and Financing Agreement) were designed to promote business development in general and to prioritise technology-based companies and companies with high growth potential in R&TDI and in the transfer of technology. The Monitoring Committee of Catalonia ROP has suggested that their funding initiatives should also cover the growth and strengthening of businesses.

A significant problem experienced in using FEIs as part of Cohesion policy, is created by the complexity of management and verification systems. All managers interviewed pointed out that: 1) usual management and control procedures do not always match some financial products, 2) lack of cooperation between controlling bodies at different levels (management body, regional Intermediary bodies, national management authorities plus
regional government audits, national government audits and European audits) lead to unnecessary repetition of processes. Checks and audits to final beneficiaries are carried out independently, without top-level supervision or consideration of previous checks undertaken by lower audit levels. The measures to counteract these problems focused on administrative burdens and on strengthening the training and assistance to beneficiaries. But even in Catalonia, where the ICF has developed good practices in this regard, the individual characteristics of many commercial projects give rise to complex negotiations; moreover, it is difficult to fit implementation and maturity periods with the timing of ERDF procedures.

Unlike the JEREMIE fund, there was not much experience with JESSICA FEIs. Initial information was sparse in relation to the complexities and details of management. Cultural and governance changes which are necessary to implement FEIs in the area of urban development are quite complicated. Preparing the selection specifications for financial institutions and signing contracts for the creation of UDFs require a lot of knowledge (know-how) and time. Moreover, the preparation and submission of project applications for funding also require a considerable effort. It is an area in which local governments lack experience and where public-private partnerships are quite complex. The introduction of the holding fund into the EIB and the support of its office in Seville significant helped to advance this process. Finally, after two years all the phases of implementation have been completed, two UDFs have been launched and several projects are being analysed in the management company portfolios, although none has been funded to date.

5. Evaluations of financial engineering instruments

Three relevant evaluations have been carried out on the use of FEIs as part of the development policy in Spain: an evaluation of the impacts of CDTI reimbursable aid for business RTDI, a survey of the socio-economic impacts of Venture Capital and Private Equity (PE) (VC/PE) in Spain, a similar survey of the impact of VC/PE in Andalusia and finally the assessment of JEREMIE instruments carried out as part of the mid-term evaluation of the Catalonia ROP (priority one).

The evaluation of the impacts of CDTI reimbursable aid for business RTDI (CDTI, 2009) is a high quality study and has provided solid evidence on companies’ increasing propensity to undertake business RTDI.

The survey on the economic and social impact of VC/PE in Spain was carried out by the Spanish Association of Capital Risk Entities (ASCR, 2010). Their findings are summarised as follows: companies which benefited from VC/PE injections create more employment (15.2% per annum on average versus 4.3% in comparable companies not financed by VC/PE in the “control group”), grow faster (around 14%, twice the percentage of the control group), obtain better results and invest more. The different growth rate of intangible assets should be stressed: 20.7% per year in real terms, versus a decline of 1.2% in companies in the control group. These differences are even greater (i.e. growth rates 5-6 times higher) if we consider the subgroup of beneficiaries in the start-up and expansion stage of development. The current ASCRI (2011) survey shows how these companies performed in the first year of the crisis (2008). Whereas companies with no
VC/PE backing clearly suffered from the effects of the crisis, those with VC/PE support were still showing significant growth in most sectors.

Relatively similar results were obtained in the survey on the impact of VC/PE in Andalusia which was largely the result of public support provided by the IDEA Agency programs (IDEA, 2011).

The evaluation of Priority one (policy measures aimed at fostering innovation, business development, knowledge economy and information society) in the Catalonia ROP (DEC, 2011, produced by PWC) assessed the implementation and main results of the IFEM JEREMIE fund. The fund has helped to cover a gap in financial instruments for SMEs: start-ups or high tech/high risk firms that were not covered properly. The main results of the initiatives are described below.

The guarantee funds have been successfully implemented, endorsing more than 360 SMEs (however most of them were aimed at facilitating SME access to funding rather than linked to business RTDI projects). Capital injections (by means of mutual guarantee schemes and convertible debt) have enabled SMEs to carry out processes of growth and consolidation, which resulted in an increase in the number of employees: 9% for the mutual guarantees segment, and 4% for convertible debt.

The implementation of the equity fund is considered good practice. This pioneer financial instrument has been well received in the territory and is promoting innovative projects with a high impact potential.

The microloans require more intermediary institutions specialised in this type of loans or the reallocation of the budget to other higher performing initiatives.

6. Concluding remarks

Regarding measures to alleviate (relieve) the current financial crisis, in line with the reforms of December 2011, FEIs may be used for facilitating SME access to funding and for improving their equity and long-term liability rates in their balance sheets. Firm financing in the ROP of Catalonia should be expanded. However, enterprises targeted under the Technological Fund NOP should have an innovative character. These types of actions with the involvement of the EIF and the EIB could provide an important line to alleviate/mitigate problems and enhance growth in the countries most affected by the crisis in the EU.

Access of SMEs to the FEIs should be facilitated by reducing barriers and administrative costs that discourage participation and delay implementation. The preparation of a catalogue or portfolio consisting of a few simple and streamlined products, contracts and procedures for using ERDF funding could effectively reduce SME access barriers to FEIs. The trade-off between the obligations of the ultimate beneficiaries (documentation custody, invariable operations, etc.) and their benefits must be enhanced.

The experience with the JESSICA fund in Andalusia ROP (Eguilior Arranz, 2011) provides positive feedback on the collaboration of the EIB in the implementation and management of the fund, the leverage of funds from the private sector and the cultural change in the field of public infrastructures for urban development (financial sustainability).
Some interesting issues to be addressed for the next period should be mentioned: 1) the key implementation stages of JESSICA funds (Bhana, 2011), from the pre-negotiation stage/holding fund agreement to the putting in place of operational agreements (HF/UDF), take at least two years; streamlined and standardised formats to reduce the average duration of start-ups should be designed to save time. 2) The Cohesion policy and regional development cannot be achieved solely by means of FEIs. Additional support in the form of non-refundable grants is needed for long term projects with significant levels of risk and uncertainty. A general framework or guidelines for State Aid for urban regeneration is necessary. The Andalusia experience with the definition and approval of a State Aid scheme is on the whole positive. However, in the opinion of regional managers the exclusion of large projects from the State aid scheme (exceeding EUR 50 million) should depend on aid amounts, and not on investments (Eguilior Arranz, 2011).
References

AFI (2009), Implementación de JESSICA en Andalucía. Estudio de evaluación: Perspectivas y Oportunidades”, estudio encargado por el BEI a AFi, consultores administraciones públicas.


Eguilior Arranz, P (2011), The JESSICA Holding Fund Andalucía, presentation given to the 3rd JESSICA and JEREMIE Conference, Warsaw, 28th October 2011, by the General Director of Planning and European Funds, Regional Ministry of Economy, Innovation and Science, Junta de Andalusia.


IFEM (2011), El Proyecto JEREMIE en Cataluña: IFEM, Informe al Comité de Seguimiento PO Feder Barcelona, 17-05- 2011 http://www20.gencat.cat/portal/site/finempresa/menuitem.440d1a29e94cb7e429384b10b0c0e1a0/?vgnextoid=614d8b71cafe21310VgnVCM2000009b0c1e0aRCRD&vgnextchannel=614d8b71cafe21310VgnVCM2000009b0c1e0aRCRD&vgnextfmt=default


Papeles de Economía (2012), El futuro del sector bancario, especial issue on the banking crisis in Spain, Funcas, Madrid

WEB pages
Banco Europeo de Inversiones, www.eib.org/jessica

Oficina JESSICA Andalucía,
http://www.juntadeAndalusia.es/economiainnovacionyciencia/fondoseuropeosenAndalucia/jessica.php

FDU BBVA JESSICA Andalucía, https://www.bbva.es/jessicaAndalusia


IFEM, Instruments Financers per a Empreses Innovadores, http://www.icf.cat/ifem
## Interviews

<table>
<thead>
<tr>
<th>COMPANY/INSTITUTION</th>
<th>NAME</th>
<th>POSITION</th>
<th>EMAIL</th>
<th>TYPE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agencia Idea</td>
<td>Antonio Galán</td>
<td>Coordinador General</td>
<td></td>
<td>*</td>
<td>15/03/2012</td>
</tr>
<tr>
<td>D.G. Fondos Europeos y Planificación, Junta de Andalucía</td>
<td>Patricia Eguilior</td>
<td>Directora</td>
<td></td>
<td>*</td>
<td>16/03/2012</td>
</tr>
<tr>
<td>JESSICA Holding Fund Andalucía</td>
<td>Carlos Ruiz Beneyto</td>
<td>Responsable Local</td>
<td></td>
<td>*</td>
<td>16/03/2012</td>
</tr>
<tr>
<td>D.G. Fondos Europeos y Planificación, Junta de Andalucía</td>
<td>Ricardo Enrique Piña Martínez</td>
<td>Jefe de Servicio de Fondos FEDER</td>
<td><a href="mailto:ricardo.mpina@juntadeandalucia.es">ricardo.mpina@juntadeandalucia.es</a></td>
<td>*</td>
<td>16/03/2012</td>
</tr>
<tr>
<td>D.G. Fondos Europeos y Planificación, Junta de Andalucía</td>
<td>Adolfin Martínez Girado</td>
<td>Jefa de Servicio de Planificación y Coordinación Pública</td>
<td><a href="mailto:adolfina.martinez@juntadeandalucia.es">adolfina.martinez@juntadeandalucia.es</a></td>
<td>*</td>
<td>16/03/2012</td>
</tr>
<tr>
<td>S.G. Programación Territorial y Evaluación de Programas Comunitarios, Ministerio de Economía y Hacienda</td>
<td>María Gorriti Gutiérrez-Cortines</td>
<td>Subdirectora General Adjunta</td>
<td><a href="mailto:mgorriti@sgpg.meh.es">mgorriti@sgpg.meh.es</a></td>
<td>**</td>
<td>26/03/2012</td>
</tr>
<tr>
<td>S.G. Programación Territorial y Evaluación de Programas Comunitarios, Ministerio de Economía y Hacienda</td>
<td>Ignacio Martínez Huertas</td>
<td></td>
<td></td>
<td>*</td>
<td>28/03/2012</td>
</tr>
<tr>
<td>S.G. Programación Territorial y Evaluación de Programas Comunitarios, Ministerio de Economía y Hacienda</td>
<td>María Muñoz</td>
<td></td>
<td></td>
<td>*</td>
<td>28/03/2012</td>
</tr>
<tr>
<td>D.G. Planificación Económica y Fondos Comunitarios, Xunta de Galicia</td>
<td>Francisco Javier Rodríguez Seijo</td>
<td>Director General de Planificación y Fondos</td>
<td><a href="mailto:dxplanificacion@conselleriadefacenda.es">dxplanificacion@conselleriadefacenda.es</a></td>
<td>**</td>
<td>29/03/2012</td>
</tr>
<tr>
<td>D.G. Planificación Económica y Fondos Comunitarios, Xunta de Galicia</td>
<td>Juan Conde</td>
<td>Jefe Servicio Evaluación</td>
<td></td>
<td>**</td>
<td>29/03/2012</td>
</tr>
<tr>
<td>Fondo JEREMIE, ICO.</td>
<td>Martín Larroque</td>
<td>Responsable Local</td>
<td></td>
<td>**</td>
<td>24/04/2012</td>
</tr>
<tr>
<td>Direcció General d’Afers Econòmics, Subdirecció de Programació Econòmica, Generalitat de Catalunya</td>
<td>Sílvia Vives i Pastor</td>
<td>Responsable de Coordinació de Polítiques Estructurals</td>
<td></td>
<td>***</td>
<td>27/04/2012</td>
</tr>
<tr>
<td>Instruments Financers per a Empreses Innovadores, SL (IFEM). Institut Català de Finances.</td>
<td>Teresa Torres</td>
<td>Directora</td>
<td><a href="mailto:teresat@icf.cat">teresat@icf.cat</a></td>
<td>***</td>
<td>27/04/2012</td>
</tr>
<tr>
<td>Agencia IDEA</td>
<td>Carlos Fernández-Palacios</td>
<td>Coordinador</td>
<td><a href="mailto:cfernandezzp@agenciaidea.es">cfernandezzp@agenciaidea.es</a></td>
<td>*</td>
<td>14/05/2012</td>
</tr>
</tbody>
</table>

*Code: * In situ interview, ** Telephonic Interview, *** Videoconference Interview