European Structural and Investment Funds

European Regional Development Fund 2014 - 2020

Ex-ante Assessment of Financial Instruments

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Glossary

Acronym	Definition
ALF	Ayrshire Loan Fund
BIS	Department of Business, Innovation and Skills (UK Government)
BBA	British Bankers Association
COSLA	Convention of Scottish Local Authorities
CPR	Common Provision Regulation
DSL	Developing Strathclyde Ltd
ECB	European Central Bank
EIB	European Investment Bank
EIF	European Investment Fund
ERDF	European Regional Development Fund
ESIF	European Structural and Investment Funds
EU	European Union
FI	Financial Instrument
FSB	Federation of Small Businesses
FTTP	Fibre to the Premise
GIB	Green Investment Bank
IP	Investment Priority
JESSICA	Joint European Support for Sustainable Investment in City Areas
LA	Local Authority
LGF	London Green Fund
LCIF	Low Carbon Infrastructure Framework
LCTIP	Low Carbon Transition Initiative Programme
MA	Managing Authority
MFI	Microfinance Institution
NGA	Next Generation Access
OP	Operational Programme
SG	Scottish Government
SIB	Scottish Investment Bank
SME	Small and Medium Enterprises
SCF	Scottish Co-investment Fund
SPRUCE	Scottish Partnership for Regeneration in Urban Centres
SSF	Scottish Seed Fund
SVF	Scottish Venture Fund
TO	Thematic Objective
UK	United Kingdom
VC	Venture Capital
WSLF	West of Scotland Loan Fund

1. Introduction

A key distinction between the 2014-2020 European Structural and Investment Funds (ESIF) programme and previous programmes is the specific obligation for all Managing Authorities (MA) to conduct an ex-ante assessment into the potential relevance of and rationale for using financial instruments (FIs) as a delivery tool. This report is the ex-ante assessment for FIs under the 2014-2020 Scottish ESIF programmes, carried out by the Scottish Government (SG), as MA.

The overall objective of this technical assessment is to provide a foundation for evidence-based decision making when designing and implementing FIs. Article 37(2) of the Common Provision Regulation (CPR) 1303/2013[1] lays out the requirements when producing the ex-ante assessment, obligating MAs to provide evidence of the adequacy of the envisaged FIs against an identified market failure or suboptimal investment situation and to illustrate how the FI will deliver the objectives of the Operational Programme (OP).

1.1 Structure

To promote synergy with the OPs, this assessment has been structured around the Thematic Objectives (TO) and Investment Priorities (IP). This has resulted in three clear policy areas in which the suitability of FIs can be assessed:

- **Improving SME Access to Finance**: In line with TO 3: *'Enhancing the competitiveness of small and medium-sized enterprises'* and the following IP *'Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes'*[2], this section focuses upon utilising FIs to improve the levels and type of finance available to Scotland's SMEs. It addresses this through distinct areas in which FIs could be delivered: Lending including Microfinance; and Risk Capital.

- **Digital:** This section focuses upon TO 2: *'Enhancing access to, and use and quality of, information and communication technologies'* with IP '*Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy'*. These objectives are part of the Scottish Government's world-class infrastructure ambitions in Glasgow and other urban areas, as set out in "Scotland's Digital Future"[3]. This element examines the suitability of using FIs to deliver these goals by focusing upon broadband provision.

- **Low Carbon and Resource Efficiency:** Based on TO 4: *'Supporting the shift towards a low-carbon economy in all sectors'* and IP '*Promoting research and innovation in, and adoption of, low-carbon technologies'*, this section examines the potential for using FIs in support of the Low Carbon Infrastructure Transition Programme.

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[1] EC Common Provision Regulation 1303/2013, (available at http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1303&rid=1)

[2] Scottish Operational Programme - European Regional Development Fund 2014-2020', Scottish Government, p.26 (available at http://www.scotland.gov.uk/Resource/0045/00451891.pdf)

[3] Scotland's Digital Future: A Strategy for Scotland, Scottish Government, March 2011 (available at http://www.scotland.gov.uk/Publications/2011/03/04162416/0)

1.2 Methodology

This ex-ante assessment has been produced using the European Commission-issued methodology and other associated guidance.[4] While the approach these documents recommend is not mandatory for MAs, it ensures this assessment succinctly meets all requirements of Article 37(2) and as such, it is structured around the seven main groups identified in the regulation. These groupings allow for all aspects of an envisaged FI to be considered, while offering a flexible approach that permits certain steps to be missed, should they not be considered relevant.

Each of the policy areas listed-above will be reviewed with regard to these seven elements and their subsequent sub-groups:

Market Analysis

1. Identification of the market problems
2. Evidence the market failure, analysing supply and demand
3. Quantify the investment gap

Assessment of value of FI

1. Ensure FI proposed is consistent with other forms of public intervention
2. Consider any potential state aid implications, where relevant

Additional Resources to be raised for FI

1. Consider what additional resources need to be raised
2. Estimate the leverage of the FI

Lessons Learnt

1. Review past experience of similar FIs used
2. Consider how to enhance performance of previous FIs

Proposed Investment Strategy

1. Lay out the scale and focus of the FI – how it will meet the identified market needs.

Expected Results

1. Established and quantify the expect results
2. Define the monitoring system which will be used to identify any improvement areas

Review Process

1. Define the conditions and timing when this ex-ante assessment will be reviewed or updated.

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[4] *'Ex-ante assessment methodology for financial instruments in the 2014-2020 programming period'* , Vol I, III and IV, Price Waterhouse Cooper commissioned by European Investment Bank and DG Regio, European Commission, May 2014

1.3 Rationale for the Use of Financial Instruments

Before beginning the assessment for FIs under the 2014-2020 ESIF programmes, it is important to consider the rationale for using FIs on the whole, as opposed to other means of public support i.e. grant funding.

There are a number of advantages associated with the use of FIs:

Return on Investment: Perhaps the most significant advantage of the use of FIs is the opportunity to recycle public sector investment, including ERDF funds, and therefore achieve a far greater return on investment and long term momentum than would otherwise be the case under more traditional grant funding mechanisms: due to the revolving nature of FIs, they can benefit more SMEs with the same amount of money.

Levering Additional Private Sector Investment: The use of FIs is likely to lever in higher levels of private sector funding than might be the case under grant funding models. This sharing of risk between public and private sectors can create the potential for much larger scale investments than might otherwise be the case.

Ensuring Long Term Commitment: The nature of FIs means that private sector partners are likely to be engaged over a longer period of time than under other models. This in turn is likely to build stronger commitment, greater interaction with SMEs receiving support and foster good working relationships between the public and private sector.

Tapping into Wider Pools of Expertise: FIs which operate on a much larger scale can often access both a wider and higher quality pool of private sector expertise, both in terms of the management of the fund and in terms of fund delivery. This has positive implications in terms of the levels of expertise and experience that can be drawn upon to achieve shared objectives as well as in terms of decreasing and sharing project risk among a wider set of stakeholders.

Move away from grant funding culture: As discussed above, grant funding models have in the past dominated intervention at the European and Scottish levels. FIs are seen as an ideological move away from the provision and reliance of start-ups and growing SMEs on grant aid, in favour of a more collaborative and holistic approach which sees the public and private sectors working closer together to achieve shared objectives and benefits.

However, in the Scottish Government's past experience, the use of FIs also presents a number of challenges which need to be taken into account when considering their potential use, as listed below:

Cost of Setup and Delivery: Reflecting a range of factors, including the complexities of delivery and in some cases the lack of existing models and expertise, FIs can be more expensive to setup and deliver than grant-based approaches.

Complex Models of Delivery: FIs often involve more complex rules than traditional grant-based models, which in turn have implications for the delivery methodology adopted. These

complexities present a number of challenges, in terms of both the initial cost of set up and delivery (as discussed above) and of the scale of expertise required from policy makers, those delivering the support and also potential investors. This can potentially lead to increased delivery costs and subsequently reduce value for money.

Step Change in Approach: if FIs are to prove successful, they must be attractive both to potential private sector investors and SME recipients. Given the long track record in Scotland (as elsewhere) in grant funding models, some dependency on grant investment remains. While progress has been made to address this through successive ESIF programmes providing alternative funding models, further change is required from the perspective of both policy makers and the market, to ensure SMEs have an informed choice.

This ex-ante assessment will consider these broad benefits and challenges when reviewing the potential suitability of using FIs in Scotland to support SMEs' competitiveness in regional, national and international markets, and to boost innovation and growth thereby delivering increased productivity.

1.4 Key Findings

SME Access to Finance

- ERDF support should build on existing good practice in the provision of debt and equity-led financing solutions to targeted groups of SMEs, which will make a disproportionate impact on the Scottish economy;

- Despite a general improvement in the economic climate and (relative) easing of bank lending, there remains a gap between the demand for, and the supply of, debt finance for some SMEs in Scotland;

- In 2012, the UK-wide Breedon Review indicated an annual UK-wide debt gap of between £5.2 and £11.9bn for SMEs[5] which would proportionally be £0.33bn and £0.75bn in Scotland based on the Scottish share of UK SMEs. However, more recent work (2013) from the European Commission and the European Investment Fund estimates that the upper bound of the annual UK-wide debt gap to be €9.1bn (£7.4bn[6]), which would proportionally be €0.58bn (£0.47bn) annually in Scotland[7];

Recent evidence on the overall availability of finance for SMEs is mixed:

- Bank of England data shows that net lending to small and medium-sized UK businesses has been negative throughout 2013 and 2014. This is also shown in data on lending to SMEs in Scotland collated by the British Bankers Association (BBA) using data from seven large banks;

[5] '*Boosting Finance Options for Business'*, The Breedon Review, BIS, (March, 2012)
[6] Figures have been converted to £GBP using ECB reference exchange rate, http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=120.EXR.A.GBP.EUR.SP00.A
[7] 'Ex-ante assessment of EU SME Initiative', European Commission Staff Working Document (2013), p.22

- However, the BBA data is also split between small and medium-sized firms. This shows that while net lending to small firms (defined as turnover less than £1m annually) has been negative, it has been positive for much of 2013 and 2014 for medium sized firms;

- The Bank of England's Credit Conditions Survey has reported increasing credit availability throughout 2014, although conditions remain tightest for the smallest firms. While lenders expect credit conditions to remain unchanged for medium firms, they expect credit availability to decrease for small firms in the first part of 2015;

- Survey evidence from the SME Finance Monitor also shows that while credit conditions have improved, this has not led to increased borrowing from firms. In addition, among firms seeking finance there is a 'confidence gap', with firms' perceptions of their chances of success much lower than actual success rates;

- There has been a significant change in bank regulatory conditions. With the need to rebuild balance sheets to meet statutory capitalisation requirements in the UK and the general on-going problem of liquidity within the international banking system, the availability of debt finance remains constrained – even to well-established, quality businesses making higher-risk deals. Basel III requirements impose very high capital cover for SME lending. Companies without collateral but with viable business strategies have struggled and some expansion plans involving exporting are considered high risk. As such there is a need to respond to emerging gaps in bank lending;

- There are potentially around 4,500[8] viable SMEs in Scotland who require debt finance and were rejected, failed to secure the entire amount required, or were discouraged from applying for funding, based on applying EU ex-ante assessment methodology in a Scottish context;

- ERDF support to address the lending gap should prioritise viable SMEs with ambitions for growth and/or and exports. Typically these business longer-term investment, innovation to increase competitiveness, increases in employment; and

- ERDF support to address the equity gap should prioritise innovative SMEs with growth and export potential, especially those looking to increase international competitiveness. Equity instruments should learn from and build on existing expertise in the delivery of equity-led funds, and market expertise on the role equity can play alongside debt including venture debt. The early stage equity market in Scotland has been quantified at c.£84m annually[9] with the gap identified at £35m annually.

[8] Based upon EU Ex-ante assessment of SME Initiative – full explanation on p.18 of this assessment.
[9] 'Risk Capital Market in Scotland 2012-2013', Scottish Investment Bank, December 2014

Digital

- There is a clear market failure in the provision of fibre broadband. In terms of deployment, Scotland currently lags significantly behind the UK, which in turn lags significantly behind Europe;

- Use of ERDF funds for digital roll-out is highly constrained, with no precedent for using ERDF FIs in this area in Scotland;

- Despite a clear market need, state-aid rules, European Commission restrictions and uncertainty over financial return indicate that this area may be better served through means other than an FI.

Low Carbon and Resource Efficiency

- Despite this not being an area where Scotland has operated ERDF supported FI's before, there are numerous examples across the EU to draw on, not least the relatively local London Green Fund which invests in a combination of energy efficiency, waste and decentralised energy projects;

- The presence of a large number of investor funds – private as well as the European Investment Bank, the UK Green Investment Bank and the National Renewables Infrastructure Fund in Scotland – show that there is appetite for investment in this area;

- However, at this point, it is problematic to determine the size and nature of this gap and further research would be required before attempting to launch an FI in this area.

1.5 Recommendations

It is recommended that:

- A separate block of finance amounting to at least £40m ERDF is initially allocated specifically to set up a dedicated SME Holding Fund which would then invest directly in a small number of debt and equity funds (plus a grant allocation to further grow and professionalise Scotland's business angel syndicates) which demonstrate 'critical mass' (minimum requirements: Scotland-wide coverage, economies of scale, national approach sufficiently capitalised to meet viable demand for the initial 3 year period of the Holding Fund). Assessment of critical mass is dependent on the nature of the financial instrument deployed and the funding gap addressed.

- The Holding Fund be delivered by establishing a dedicated investment team with expertise in the field of economic development, European funding and investment. This team would manage the SME Holding Fund, independently issuing calls for applications, assessing individual bids (with technical input from an independently appointed advisory group) and allocating ERDF funding to relevant FIs that address the evidence-based market failure identified in this assessment. The team would

report directly to the MA, being responsible for monitoring, delivery and performance management against OP objectives.

- Due to the current position of the European Commission, the use of an FI to improve the provision of high-speed broadband should not be pursued at this time and should be reconsidered as part of the mid-point review.

- With over €26m allocated to low carbon and energy efficiency FIs but difficulties ascertaining the size and nature of the market gap, this sector should be revisited two years into the programming period, at which point it is expected that the other elements of the programme can be used to identify which areas are most suitable.

- The Scottish Government has announced plans to establish a 'Scottish Business Development Bank'. Part of the work that will be carried out to underpin the bank will be evidence-based, focusing on the future scope for FIs within the Scottish market place. The conclusions of this work will influence any future activity which may be undertaken through the SME Holding Fund and in doing so may lead to an enhancement of this ex-ante's conclusions and findings, and that option should remain open as work progresses on this initiative.

Following the analysis of the evidence available, the FIs listed are recommended for the 2014-2020 ERDF Programme:

AREA	**FINANCIAL INSTRUMENT**	**ERDF ALLOCATION**
Lending	Debt funds lending predominantly in the range £20k - £100k	£10m - £20m
Lending	Debt funds lending in the range up to £50k with most deals in the microfinance range <£25k	£2m - £3m
Risk Capital	Equity funds investing in amounts of up to £2m within a maximum deal size of £10m; most deals anticipated at early stage.	£20m - £30m
Grant support	Grant to build capacity in business angel syndicates in Scotland	£1m - £2m
	TOTAL	**>£40M**

2. Improving SME Access to Finance

2.1 Introduction

Scotland has utilised successive Structural Funds Programmes to create FIs which address failure in the SME Access to Finance markets, and in particular, in the equity and debt markets. Scotland has pioneered the use of ERDF to part capitalise such FIs, evolving from a regional and traditional fund manager approach in the 1994-1999 Programming period, to a national co-investment private sector-led approach in the 2000-2006 and 2007-2013 Programming periods. This has involved multiple 'fund managers' and more importantly the creation of business angel syndicates to deliver individual deals. This unique co-investment approach has been recognised as an example of best practice in public/private sector collaboration, such that it has been replicated in several countries across the world, with the most recent example being the London Co-investment Fund which was launched in December 2014. This co-investment approach is described in detail later in this chapter.

Due to this historical experience, Scotland benefits from a wealth of data at the level of the fund and uniquely so at the level of the risk capital market. Consequently, the recommendations of this ex-ante assessment with respect to SME Access to Finance will be centred on an evidence-based analysis of Scotland's historical use of financial instruments, building on the success of established funds and scope for new activity.

Under the Priority Axis 'Enhancing the Competitiveness of SMEs', the 2014-20 ERDF OP states that *"this priority axis will be implemented partially through financial instruments"* outlining the intention to continue the use of FIs in promoting the competitiveness of SMEs in Scotland.[10] Moreover, the OP seeks to use Scotland's extensive experience and success of operating FIs to improve access to finance; *"Scotland has good experience with access to finance through Financial instruments, and will build on these to continue to support SME growth aspirations".*[11] Existing FIs, such as those delivered by Scottish Enterprise and the Local Authority Loan Funds, are both well-recognised and established. This past experience gained from the last three ESIF programmes in delivering SME access to finance initiatives will be essential in the course of this assessment to determine the suitability of using FIs in this area and their best method of delivery.

The related investment priority: *'Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes'*, links to Scotland's vision of becoming a world-leading entrepreneurial and innovative nation. Improving access to finance is particularly relevant for SMEs who are about to embark on innovation and commercialisation projects which may introduce them to risks they have not previously dealt with, whether in terms of product or process development or their introduction to new markets. The Scottish Government highlights the challenges facing entrepreneurial and innovative firms in securing finance and has set a priority to improve the supply of finance to new and growing ventures, ensuring that a range of public sector

[10] ERDF OP 2014-20, p.29
[11] *Ibid* p12

investment support is available.[12] Such synergy between the ERDF-funded and national priorities will allow for a concerted effort in improving SME access to finance in Scotland.

2.2 Chapter Summary

This chapter analyses the issues Scottish SMEs face in accessing external finance and considers the potential for using ERDF-funded FIs to improve the availability of funding. Recognising the limited resources currently available from the ERDF 2014-2020 programme, observations and recommendations are made in this report targeting those companies that make a disproportionate impact on the Scottish economy.

Despite the challenging environment for accessing finance after the financial crisis of 2008 and subsequent recessionary period, many SMEs that seek finance are able to obtain it. However, there are a number of market failures, affecting both the supply and demand of SME finance, which can lead to potentially viable businesses not being able to access the finance they require and this provides the rationale for government intervention. This is particularly the case for those firms who are exporters and/or have growth potential. These are considered to be the cohort of companies that can make a disproportionate impact on the Scottish economy and is therefore the group at which any future FIs should be critically targeted. Continuing market failure in recent years illustrates the need to provide ERDF support for FIs which address this failure, as well as utilising a recognised constituency of private sector investors, and in particular, business angel syndicates in Scotland who remain willing to co-invest alongside European Funds.

The proposed targeted focus follows the European Commission-recommended assessment process as specified in the introductory chapter, allowing each market segment to be analysed in detail and enabling the design of specific FIs to address any identified gaps. The areas covered, and the sources used are as follows:

- **Lending/Debt Finance** – we have based our work on identifying the lending gap for SMEs in Scotland on the European Commission's ex ante assessment of the European Investment Fund's SME Initiative, which identifies the gap at EU and Member State (in our case the UK) level.[13] In addition, the analyses of Scotland's East of Scotland Investment Fund and West of Scotland Loan fund, and an option appraisal of forming a pan-Local Authority Loan Fund in Scotland[14] have an important role in shaping our assessment. The Scottish Government 'SME Access to Finance Survey', published June 2012, and results from the Small Business Survey 2012 have provided more evidence on access to finance conditions from SMEs at that point in time. We have therefore been able to draw on data at EU, UK and Scotland level to inform our identification of gaps and potential solutions based on existing good practice. However, given the scale of lending gap identified, there will be emerging gaps at higher levels where an FI can effectively contribute, and in this case applicants need to ensure any gaps identified are evidence-based.

[12] 'Scotland Can Do: Becoming a World-Leading Entrepreneurial and Innovative Nation', Scottish Government, (November 2013). p.22 (available at http://www.scotland.gov.uk/Resource/0043/00438045.pdf)
[13] Ex-ante assessment of EU SME Initiative', European Commission Staff Working Document (2013)
[14] Local Authority Loan Fund Option Appraisal, EKOS, (March, 2014)

- **Microfinance –** Building upon the gap identified in the 'Lending' element (as the provision of loans to micro businesses is a subset of loans to SMEs), our analysis of the need for microfinance support to Scottish SMEs is based on reports at EU[15] and Scottish level[16]. In doing so there is a desire to address and ensure a balance of provision in business creation so that new firms can enter the Scottish market place and develop. In the initial stages, this will mainly be at a local level, servicing local markets but with wider ambitions to contribute to the Scottish economy. In doing so, this will lead to the creation of sustainable jobs in areas where business are not necessarily prevalent, allowing enterprise option to be available to all, specifically women and young people.

- **Risk Capital** – Unlike other Member States, Scotland has produced detailed analyses of its Risk Capital market for the last 10 years. Our assessment utilises the most recent analyses which provides data for up to 2014. Other independent sources include evaluations of the Scottish Seed Fund, the Scottish Co-investment Fund, and the Scottish Venture Fund, in addition to EU and UK-wide assessments of SME funding gaps in this field. Therefore, we are able to analyse robust data at the level of the FI and uniquely, the investment industry in Scotland.

2.3 Lending

2.3.1 Market Analysis

This section uses the most recently available data on SME access to finance conditions, drawing upon sources from EU and UK levels and then narrowing our focus to SMEs in Scotland. Market failure is evidenced and identified, focusing on the gap between supply and demand and identifying any suboptimal investment situations. Finally, it is then possible to estimate the size of the lending gap which informs section 2.3.5: 'Proposed Investment Strategy', although due to the commercial nature of lending, the gap will be speculative and may vary depending on the size and nature of the SME seeking finance.

Market Problems

SMEs[17] are the cornerstone of the European economy, representing 99.8% of EU companies, almost 60% of GDP, and nearly 70% of the total workforce.[18] They are also crucial to fuelling sustainable and inclusive growth due to their role in innovation and increasing productivity. However, SMEs are unable to fulfil this potential without clear access to the finance necessary to start and grow their business. In 2013, the European Central Bank (ECB) determined that access to finance was the second most pressing issue for EU

[15] European Small Business Finance Outlook, EIF, December 2014

[16] DSL Business Finance – Scottish Micro-Lending Project Nov 2008 – July 2012, Alistair Grimes & Niall Alexander, October 2012

[17] All references to SMEs in this assessment follow the EU definition: The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.(European Commission Recommendation of May 6, 2003 (2003/361/EC).

[18] 'Ex-ante assessment of EU SME Initiative', European Commission Staff Working Document (2013), p.22

SMEs. Despite early indications of recovery in global financial markets, the supply of credit in the EU has not fully recovered. The growth of loans to non-financial corporations is well below historical levels and companies, especially SMEs, in those Member States worst hit by the crisis, are facing tighter lending conditions. This can be explained in part by market fragmentation, continued deleveraging of the financial sector, economic uncertainty and the low level of demand in the economy.

As the European Commission states: *"the banking crisis is having a heavy impact on many European firms and especially on SMEs, while alternative sources of funding remain underused. Thus, broadening the choice of funding sources available to firms appears a necessary strategy not just to ensure access to capital, but also to sustain the growth of SMEs"*[19]. A weak and fragmented EU banking sector, SMEs' high reliance on banks for their funding and the importance of SMEs for economic growth make a clear case for public intervention to address these problems and improve SME access to finance.

It is a similar situation at UK level, as outlined in a UK Government Department for Business, Innovation and Skills (BIS) report that noted that since the financial crisis, there has been a significant fall in lending to SMEs. Part of this reflects a decrease in demand. However, there is also evidence of market failure, with viable firms often unable to secure funds at affordable rates as it is challenging for lenders to distinguish between high-risk and low-risk companies.[20]

The SME Finance Monitor provides UK-wide data on access to finance amongst SMEs. In Q3 2014, 40 per cent of SMEs reported using external finance and this has been relatively stable over time.[21] The latest SME Finance Monitor also finds that 28 per cent of UK SME were using one of the 'core' forms of finance (loans, overdrafts and/or credit cards) and this has now stabilised, following a decline from 40 per cent at the start of 2012.

Given the prevalence of use of loans and overdrafts, the structure of the SME banking market will also have an impact on access to finance conditions for SMEs. A recent inquiry by the Competition and Markets Authority (CMA) provides an up-to-date picture of the sector[22]. The CMA research found that the supply of business bank accounts remains concentrated with the majority of accounts provided by the largest providers, with the sector in Scotland even more concentrated. In addition, the supply of business loans also remains concentrated – almost 90 per cent by volume are provided by the largest providers in each of England and Wales, Scotland and Northern Ireland.

Another key issue at the UK level are the obstacles faced by innovative firms accessing finance. The Big Innovation Centre has found that while innovative firms are more likely to

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[19] 'Member States' Competitiveness Performance and Policies 2013', European Commission (2013)

[20] Department of Business, Innovation, and Skills, SME Access to External Finance, BIS Economics Paper 16, (January 2012)

[21] SME Finance Monitor Q3 2014: Management Summary, BDRC Continental, November 2014, http://bdrc-continental.com/wp-content/uploads/2014/12/BDRCContinental_SME_Finance_Monitor_Q3_2014.pdf

[22] *Banking services to small and medium-sized enterprises,* A CMA and FCA market study, 18 July 2014 https://assets.digital.cabinet-office.gov.uk/media/53eb6b73ed915d188800000c/SME-report_final.pdf

apply for finance they are less likely to receive it.[23] Their study found that 44 per cent of innovative firms who tried to obtain finance found it difficult to do so, which compared to 33 per cent of other firms.[24] This is likely to be due to the inherently riskier nature of many innovative SMEs, often without a track record, combined with the uncertainty of innovation and the lack of tangible assets to use as collateral.[25]

A further issue which could be affecting UK SMEs accessing finance is the notion of discouraged borrowers: Discouraged borrowers are businesses that would like to borrow but do not apply for bank finance because they either believe that they will be turned down (indirectly discouraged) or they started informal discussions with a lender but do not proceed because the bank seemed reluctant to lend (directly discouraged). It is estimated that 173,000 businesses in the UK can be classified as discouraged borrowers according to an Enterprise Research Centre report of March 2014[26].

Scotland's corporate base is similar to that of the UK and EU as a whole. As of March 2014, there were an estimated 332,720 SMEs operating in Scotland, constituting 99.3 per cent of all enterprises in Scotland[27]. SMEs account for 54.8 per cent of all private sector employment in Scotland - accounting for over 1.1 million jobs – and demonstrating the pivotal role they play in Scotland's economic performance, necessitating intervention to support their future innovation and growth.

The most recent Federation of Small Businesses (FSB) survey in Scotland highlights that 18 per cent of SMEs cite ability to obtain finance as their biggest obstacle to growth.[28] This suggests that similar constraints on access to finance exist in Scotland as in the UK as a whole.

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[23] (Big Innovation Centre is a policy group dedicated to making the UK a global open innovation hub, carrying out business-oriented research, taking emerging ideas and backing them with evidence, http://biginnovationcentre.com/Aboutus)

[24] 'Credit after the crisis: Access to finance for innovative small firms since the recession', Big Innovation Centre Working Group, June 2013

[25] Government Economic Service Group on Growth: Innovation Report, November 2014, p.69 (available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/370187/bis-14-1169-government-economic-service-group-on-growth-innovation.pdf)

[26] Back to Borrowing? Perspectives on the 'Arc of Discouragement', Stuart Fraser, ERC White Paper No. 8, March 2014, available at http://enterpriseresearch.ac.uk/wp-content/uploads/2014/03/ERC-White-Paper-8-Discouragement-Stuart-Fraser-Full-March-2014.pdf

[27] Business in Scotland Survey 2014, Scottish Government, October 2014, (available at http://www.scotland.gov.uk/Resource/0046/00462532.pdf)

[28] 'Voice of Small Business' Member Survey – Scotland Findings (2013) http://www.fsb.org.uk/policy/assets/publications/fsb-member-survey-2013-scotland.pdf

A review of the most recently available survey evidence on Scottish SME access to finance shows:

- **Demand for finance by SMEs has been subdued during the recessionary period**. The 2012 Scottish Government Access to Finance Survey[29] found that 45 per cent of firms had sought finance over the three years to 2012. Whilst this was a slight improvement from the 2010 survey, it was below the 2009 survey's estimate of demand. Similarly, the Small Business Survey (SBS) found that one in five (20 per cent) of Scottish SMEs in 2012 had sought finance in the previous 12 months.

- **Rejection rates have remained an issue, particularly in relation to loans**. Both the Scottish Government SME Access to Finance Survey and the 2012 SBS found issues with rejection rates, particularly with respect to loans. The SG Access to Finance survey found that just 17 per cent of firms did not manage to secure any of the financing they applied for. However, loans exhibited a much higher outright rejection rate than any other type of finance, with a 40 per cent rejection rate for secured loans and 25 per cent rejection rate for unsecured loans. The SBS found similar results with 55 per cent of Scottish SMEs who applied for finance unable to obtain bank loan finance from any source.

- **Some differences have emerged between the experiences of Scottish SMEs and those in the UK as a whole**. The SBS is a UK wide survey allowing comparisons to be made between Scottish and UK firms. Overall, Scottish SMEs had slightly more difficulty obtaining finance compared to UK SMEs - 56 per cent of Scottish SMEs applying for finance faced difficulties from the first source approached, compared to 50 per cent of UK SMEs. Scottish SMEs had particular difficulty obtaining bank loan finance, compared to UK SMEs. Other differences have emerged in relation to reasons for difficulties in arranging finance and the amount of finance sought (discussed below).

- **Reasons for difficulties in arranging finance**. The main reason given for having difficulties, with the first provider approached, was that the Scottish SMEs did not meet the lender's criteria, experienced by 19 per cent of those that applied for finance, slightly above the UK figure (17 per cent). In addition, Scottish SMEs faced more difficulties as a result of credit history compared to the UK (15 per cent of Scottish SMEs that applied versus 7 per cent for the UK).

- **Exporting and growth firms have different requirements from other SMEs**. The SG 2012 Access to Finance Survey found that exporting firms had the lowest application rates for finance and the highest rejection rates. However, this survey found that just 11 per cent of growth companies[30] were rejected for finance, lower than the rate for all SMEs. The SBS[31] found that higher rejection rates for exporting firms and higher application and rejection rates for growth experienced firms. The 2012 RSE report on the

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[29] SME Access to Finance 2012, Scottish Government, June 2012 (available at http://www.scotland.gov.uk/Resource/0039/00396501.pdf)

[30] The SG Access to Finance Survey defined growth firms as those firms whose turnover grew by 30 per cent or more per annum over the last three years.

[31] It should be noted that sample sizes for these type of firms are small in both surveys and results should be used with caution.

Financing of Business Innovation in Scotland also found that young firms with growth potential are constrained by a lack of access to finance.

The EKOS review[32] of SME access to finance in Scotland noted a common "stand-off" opinion between businesses who believe "we cannot get access to appropriate credit" and banks who state "we continue to support all good projects with credit", suggesting the applicants may be seen as too high risk or poor quality. Another issue identified in Scotland is that while conventional debt finance is still available, there have been readjustments in risk profiles, pricing, security requirements and credit terms, which make it more difficult for some SMEs to obtain funding – particularly for companies with limited or no collateral and/or market traction.

At this stage it is essential to fully analyse these problems by identifying the potential gap between demand and supply in SME access to finance in Scotland. Further work is planned by the SG in this area, to examine the impact of legitimate risk challenges with the scale of finance gap for viable ventures. Once identified and quantified, it will be possible to determine what sort of FI can address these market failures.

Market Failures – Gap between Demand and Supply

It is possible to quantify the number of SMEs who might face a financing gap in Scotland using the approach followed in the European Commission's 'Ex-ante assessment of the EU SME Initiative' and applying this in a Scottish context. It should be noted that the European Commission report estimates the EU-wide financing gap based on those SMEs that are unsuccessful in obtaining loan finance plus those that have turned down a bank loan and those that are discouraged from applying. However, not all unsuccessful applicants may be considered viable - for example, they may not have sufficiently developed business plans or affordability, which will have an impact on the size of the target group.

The EU ex-ante assessment estimates that the proportion of "financially viable" SMEs that faced problems accessing bank financing between 2009 and 2012 was between 0.7 per cent and 4.1 per cent of all EU SMEs, this is approximately 154,000 to 855,000 SMEs.

The ex-ante assessment estimates that the UK share of financially viable SMEs over this period is 8.7 per cent[33]. Scottish Government calculations estimate that this is equivalent to just under 71,000 UK SMEs – applying Scotland's share of the SME population provides an estimated 4,500 Scottish SMEs within this group[34].

Quantifying the Investment Gap

It is possible to quantify the SME funding gap in Scotland by using the European Commission's 'Ex-ante assessment of the EU SME Initiative'. This assessment has

[32] Local Authority Loan Fund Option Appraisal, EKOS, March 2014, p.19

[33] Ex-ante assessment of EU SME, European Commission Staff Working Document, (2013), p.129

[34] Total UK SMEs: 5,236,000. Total Sco SMEs: 332,720. Sco share of UK SMEs: 6.4 per cent. EU Ex-ante assessment estimate total number of viable UK SMEs denied finance: 71,000. Sco share of UK viable SMEs denied finance: 4,500.

calculated a total loan-financing gap in the EU for all SMEs of **€105bn (£84.6bn[35])**. The UK is estimated as having an annual upper bound gap of **€9.1bn (£7.4bn)**, 8.7 per cent of the EU-28 total[36].

Using Scotland's SMEs as a percentage of UK SMEs, it is possible to quantify the funding gap in Scotland. As Scotland's share of the UK SME population was estimated at 6.4 per cent in 2014, this provides an estimated financing gap of €0.58bn (£0.47bn)

The European Commission reached the EU and UK-wide figures by applying the following methodology:

1. Identify the number of *financially viable* SMEs that have been unsuccessful in obtaining loan financing (within an established time span). The definition of "unsuccessful" encompasses all SMEs who do not benefit from loan amounts meeting their financing needs (regardless of whether they have applied for a loan);

2. The loan financing gap is expressed as the average loan amount that is, or would have been, requested by each *financially viable* unsuccessful SME, multiplied by their number.

As stated earlier, not all unsuccessful applicants may be considered viable, for example, they may not have sufficiently developed business plans or affordability, which will have an impact on the size of the target group.

£0.47bn provides an indicative figure for the funding gap in Scotland and is of a similar magnitude to the Scottish Government estimates of the Breedon Review gap (estimated to be between £0.33bn and £0.75bn annually).

The British Business Bank has just published UK research which emphasises the gap in the provision of debt finance to SMEs and in particular to young or small businesses which are denied finance due to structural information failures in the UK debt market.[37]

2.3.2 Assessment of added value of FI

The proposed financial instruments to address the SME lending gap identified above should build on the public sector's long experience in utilising Structural Funds to create lending instruments which would address this gap. This does not exclude other potential applicants, addressing the market gap quantified earlier, utilising different delivery methods. The proposed FIs could build on the experience of the West of Scotland Loan Fund and the East of Scotland Investment Fund, with critical mass for each FI part financed from the 2014-2020 Scottish Programmes being evidenced in the ability to lend on a national basis and capitalised at a value which is expected to meet projected demand. Based on historical demand for these 2 local authority-delivered funds, taking into account demand from other local authority areas not covered by the funds, and allowing for demand growth as a

[35] Figures have been converted to £GDP using ECB reference exchange rate, http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=120.EXR.A.GBP.EUR.SP00.A)

[36] Ex-ante assessment of EU SME, European Commission Staff Working Document, (2013), p.129

[37] 'Small Business Finance Markets', British Business Bank, (December 2014).

consequence of national promotion, a Scotland-wide fund providing loans in the range £20,000 to £100,000 (range of existing schemes) should be capitalised in the range £15m-£20m or £6m-£8m ERDF. A national scheme at this level should bring additional benefits to SMEs which will include at least the following: fund value sufficiently large to make a measureable impact on the debt market for target SMEs; uniformity of coverage; economies of scale in management costs; improved governance procedures; subsidiary in decision making to regional and local levels. It should be noted that there are no other comparable national loan funds delivered by the public sector.

The use of equity as an FI is addressed elsewhere in this chapter and is more appropriate for high growth, technology-based export oriented companies at seed and early stage who do not have sufficient market traction or collateral to service debt, or where the scale of capital required is a lot greater than what could be provided through debt. Debt is a more appropriate instrument where SMEs seek lower investment sums, shorter-term loans, or are unwilling/unable to sell a portion of their business for equity but require debt to finance their growth ambitions. This is particularly relevant in Scotland as 64 per cent of Scottish SMEs are family-owned businesses[38]. Other public sector support to the target SMEs for a national debt instrument is delivered in the form of grants, however grant support is inappropriate as it does not offer the efficiency and effectiveness gains which accrue to debt and equity funds, neither does it offer their lasting legacy for the 2014/20 Scottish Programmes.

The existing local authority debt funds have demonstrated that they can partially meet local demand whilst delivering debt on fully commercial terms to target viable SMEs. Consequently, any national debt scheme should be delivered on a fully commercial basis, with the decisions taken by market-oriented professionals who make lending decisions on a business basis. The exception to this could be SMEs which are disadvantaged by their remote location, far from main transport hubs, e.g. rural-based businesses. However, in these circumstances interest rates offered should comply with the European Commission's General Block Exemption Regulation.

2.3.3 Additional Public and Private Funding

The debt financing gap for Scotland's SMEs is estimated at around £0.47bn annually. Loan funds which are part capitalised by ERDF must demonstrate that they can make a meaningful impact on the lending gap, and so should be targeted at SMEs which can make a disproportionate impact on the Scottish economy. Public sector debt funds supported under the 2014-2020 Scottish Programmes will invest in lower risk businesses as opposed to equity funds, and so the expected financial returns will be lower but will fund higher risk viable companies to which banks are currently unwilling to lend. Margins should be priced to balance the risk/reward profile. Such funds should be capitalised at least at a value of £15m where lending is in the range £20,000 to £100,000 per business (fund capital value based on average lending, lending volumes, and lending period). National co-finance expected to be available from April 2015.

Based on evaluation evidence of similar schemes delivered at regional and local level in Scotland, ERDF leverage is expected to be 1:2.5, with returns sufficient to balance

[38] Small Business Survey 2012, Scottish Government

risk/reward with no erosion of fund capital value. But given the scale of lending gap identified, there will be emerging gaps at higher levels where an FI can effectively contribute, and in this case applicants need to ensure any gaps identified are evidence-based.

2.3.4 Historical Use of FIs: Lessons Learnt – Debt Finance

The most significant public sector lending FIs in Scotland are the ERDF-supported West of Scotland Loan Fund (longest established) and the East of Scotland Investment Fund, which both offer finance of between £20,000 and £100,000 to new and growing viable SMEs. The following assessment of these FIs has been based on evaluation evidence and both qualitative and quantitative methods, utilising the annual reports of each loan fund and a wide consultation with relevant stakeholders, including the Scottish Government, Convention of Scottish Local Authorities (COSLA), Scottish Enterprise, the Highlands & Islands Enterprise and each of the Scottish Local Authorities. It also draws heavily upon an options appraisal, carried out in March 2014 by EKOS, which sought to determine the future for these FIs – how best to fill the lending gap and improve access to finance for target SMEs in Scotland.

West of Scotland Loan Fund

The West of Scotland Loan Fund Ltd (WSLF) is a consortium of the 12 West of Scotland local authorities[39] and was formed in 1996, following Scottish local government reorganisation. The WSLF also manages the Ayrshire Loan Fund (ALF), which focuses support exclusively on the three Ayrshire local authorities and received £1.5m from Scottish Enterprise following the winding up of the Ayrshire Development Fund.[40]

In 2009 the Fund received £6m of ERDF funding and £4.5m match funding from Barclays and £4.5m from WSLF, giving a total budget for the 2009–2015 period of £15 million. With this period ending in March 2015, this gave a quarterly budget of £625,000.

Strategic management of the Fund rests with the board of directors, which is made up of a representative from each local authority, usually an elected member or another senior official. The management and operation of the Fund is undertaken by four permanent members of staff, reporting to the board of directors.

Applications and decisions on loans are made by the relevant local authority's economic development team, with assistance from the loan fund officer if necessary. The exception to this is loans of £50,000 to £100,000 which are subject to WSLF board approval.

The interest rate is commercial and the period of the loan is a maximum of seven years.
In general, loans under £20,000 require no legal security, and for loans above £20,000 security is usually taken as a floating charge against the assets of the business.

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[39] Argyll & Bute, East Ayrshire, East Dunbartonshire, East Renfrewshire, Glasgow, Inverclyde, North Ayrshire, North Lanarkshire, Renfrewshire, South Ayrshire, South Lanarkshire and West Dunbartonshire.

	Quarterly Budget	Total Budget to 2015	% of Total	Spend to Date	% Target Spend to date
Argyll and Bute	£4,167	£104,175	0.7%	£0	0%
East Ayrshire	£62,500	£1,562,500	10.4%	£831,875	67%
East Dunbartonshire	£12,500	£312,500	2.1%	£231,900	93%
East Renfrewshire	£8,333	£208,325	1.4%	£111,000	67%
Glasgow	£145,833	£3,645,825	24.3%	£2,922,700	100%
Inverclyde	£12,917	£322,925	2.1%	£229,250	89%
North Ayrshire	£83,333	£2,083,325	13.9%	£1,377,700	83%
North Lanarkshire	£83,333	£2,083,325	13.9%	£1,207,500	72%
Renfrewshire	£41,667	£1,041,675	6.9%	£658,000	79%
South Ayrshire	£37,500	£937,500	6.2%	£499,500	67%
South Lanarkshire	£91,667	£2,291,675	15.2%	£1,690,000	92%
West Dunbartonshire	£17,500	£437,500	2.9%	£254,000	73%
Total	£601,250	£15,031,250	100.0%	£10,013,425	83%

Figure 1: WSLF as of March 2014[41]

Figure 1 above outlines the activities of the WSLF as of March 2014, supplying quarterly budgets, total budgets and total spending to date by each LA. The WSLF has proved popular with target SMEs and participating local authorities, with 11 out of the 12 LAs lending over two thirds of their target. The exception to this is Argyll and Bute which has made no loans as of March 2014, with 0.7% of the Fund budget. Those LAs with the larger proportions of the total budget are closer to their target with lending activity greatest in Glasgow followed by South Lanarkshire. Glasgow was allocated 24.3 per cent of the Fund's budget achieving full spend, with South Lanarkshire at 15.2 per cent of the budget and spending 92 per cent of its allocation.

It is a similar situation with the ALF, as indicated in figure 2 below. Two of the three LAs have spent over two thirds of their targets with North Ayrshire only spending 40 per cent as of March 2014.

	Quarterly Budget	Total Budget (To Q4 2013)	Total Spend	% Spent
East Ayrshire	£25,000	£375,000	£275,000	73%
North Ayrshire	£25,000	£375,000	£148,750	40%
South Ayrshire	£25,000	£375,000	£369,000	98%
Ayrshire	£75,000	£1,125,000	£792,750	70%

Figure 2: ALF as of March 2014

[41] 'Local Authority Loan Fund Option Appraisal: Report for WSLF Management Services Ltd', EKOS, (March 2014), p.6

East of Scotland Investment Fund

The East of Scotland Investment Fund is made up of a consortium of ten Local authorities from the East of Scotland. It was designed on the WSLF model and received £1.781m in ERDF funding, match-funded by the various local authorities and the East of Scotland Investment Fund, giving a total of £5m to be invested over the 2010 – 2015 period.

Similar to the WSLF, the East of Scotland Investment Fund offers loans of up £100,000 to new and existing businesses with potential for growth. Up to 50 per cent of a total funding package can be provided, with the other 50 per cent coming from the private sector. The interest rate is commercial and the maximum repayment period is 5 years

Most sectors can apply, however, the following sectors are currently ineligible for East of Scotland Investment Fund funding due to likely high displacement and low additionality: retail, sale of motor vehicles, real estate services, professional services, social and personal services, pubs, clubs and restaurants and local services.

Figure 3 below outlines the ESIF's activities until March 2014. While almost £3m has been invested in SMEs, there are substantial disparities between individual LAs ability to spend funds. LAs such as Edinburgh, Moray and Stirling have exceeded target spends, spending 113 per cent, 138 per cent and 133 per cent respectively whereas Angus, with 29 per cent and Falkirk 46 per cent are significantly below targets.

	Initial Quarterly Budget	Total Budget to Q1 2014	% of Total	Spend to Date	% of Target Spend to Date
Angus	£3,125	£87,508	3%	£25,000	29%
Dundee	£8,126	£227,528	7%	£132,000	58%
Edinburgh	£9,001	£252,032	8%	£285,000	113%
Falkirk	£7,813	£218,764	7%	£100,000	46%
Fife	£18,752	£525,056	17%	£395,000	75%
Midlothian	£18,752	£525,056	17%	£448,500	85%
Moray	£5,001	£140,016	4%	£193,000	138%
Perth & Kinross	£12,501	£350,040	11%	£330,000	94%
Stirling	£4,425	£123,904	4%	£165,000	133%
West Lothian	£25,003	£700,080	22%	£673,000	96%
Total	£112,499	£3,149,984	100%	£2,746,500	87%

Figure 3: East of Scotland Investment Fund as of March 2014[42]

[42] Local Authority Loan Fund Option Appraisal, EKOS, (March 2014), p.8

Performance of WSLF and East of Scotland Investment Fund

The performance of each the funds can be viewed in figures 4, 5 and 6. The data indicates that these FIs have hit a number of their targets. WSIF has been very successful in supporting existing businesses, exceeding its target of increasing jobs and turnover, according to forecasts, and the ALF safeguarded 292 jobs across three local authorities. ESIF too has exceeded targets of increasing jobs and turnover, for both new and existing businesses.

Despite achieving many of the ERDF targets, there remains a shortfall in some areas, especially with the WSIF. These include:

- number of companies supported;
- funds invested and private leverage; and
- jobs created for new businesses.

It is likely that this is due to broader issues including the low total value of funds invested. Increasing this would see improvements across all other indicators.

	Actual to 31/12/2013	Target to 31/12/2013
NEW businesses supported		
No. of SME's supported	102	190
Value of WSLF invested	£2.59M	£4.75M
Value of Private Sector funding package	£10M	£19M
Private Sector Leverage	1 : 4	1 : 4
Average loan value	£25,355	£25,000
Increase in Turnover (forecast)	£59.4M	£28.5M
Increase in Jobs (forecast)	636	760
EXISTING businesses supported		
No. of SME's supported	238	285
Value of WSLF invested	£7.4M	£7.13M
Value of Private Sector funding package	£17.7M	£28.5M
Private Sector Leverage	1 : 2.4	1 : 4
Average loan value	£31,093	£25,000
Increase in Turnover (forecast)	£79M	£42.75M
Increase in Jobs (forecast)	1,438	1,140

Figure 4: WSLF Performance Against Targets

Businesses supported	As of 31 March 2014
No. SME's supported	30
Value of ALF invested	£882,750
Value of Other Public and Private Sector funding	£3,811,840
Value of Total funding package	£4,694,590
Private Sector Leverage	1:4:3
Trading performance of business supported	
Increase in Turnover in new businesses (forecast)	£9.0m
Increase in Jobs in new businesses (forecast)	241
Number of jobs safeguarded (actual)	292

Figure 5: ALF Performance [43]

	Actual to 31/12/2013	Target to 31/12/2013
NEW businesses supported		
No. of SME's supported	16	25
Value of WSLF invested	£568,000	£1M
Value of Private Sector funding package	£2.6M	£3M
Private sector leverage	1:4.6	1 : 3
Average loan value	£35,500	£40,000
Increase in Turnover (forecast)	£10.1M	£3.7M
Increase in Jobs (forecast)	146	75
EXISTING businesses supported		
No. of SME's supported	52	59
Value of WSLF invested	£2.2M	£2.4M
Value of Private Sector funding package	£8.5M	£7M
Private Sector Leverage	1 : 3.9	1 : 3
Average loan value	£41,894	£40,000
Increase in Turnover (forecast)	£19.8M	£8.9M
Increase in Jobs (forecast)	372	177

Figure 6: ESIF Performance Against Targets[44]

It is important to note the context within which these FIs have been operating: a period of unprecedented economic uncertainty making it extremely difficult to predict the likely viable demand for loans available, or the performance of the companies post investment. Fund managers have had to spend extra time and effort on due diligence and financial

[43] Analysis of ALF Investments Made, Annual Report, 1st April 2010 – 31 March 2014 , West of Scotland Loan Fund, (March 2014), p.2
[44] Local Authority Loan Fund Option Appraisal, EKOS, (March 2014), p.11

assessment of applicants, both because of the difficult trading conditions experienced by all business increasing the overall risk of default, but also because of the difficulty experienced by many applicants in securing the required 50 per cent private match funding.

Lessons Learnt

The evaluation of these three loans illustrates that there is a clear appetite among public sector partners and demand from target viable SMEs for a debt-oriented financial instrument to be available to support economic and business development in the longer term.

The research carried out by EKOS undertook an appraisal of the different options that could deliver a SME loan fund in the longer term.

A recommendation based on the evidence and research supported by the opinions of stakeholders indicates that an alternative model would serve Scottish SMEs better. The research recommends the establishment of a **Scotland-wide fund** based on and replacing the existing regional models and would offer the greatest economic benefits in terms of strategic rationale, cost/value, flexibility, impact, and added value.

There are various challenges that will need to be addressed if this option is pursued but the potential benefits outweigh the costs and as such should be further developed to scope out the design and address the issues highlighted in the report.

2.3.5 Proposed Investment Strategy: Debt Finance

Expected level of detail

The investment strategy for the SME Holding Fund is to invest in a small number of sub funds with critical mass, which address gaps in the debt and equity markets as highlighted in this ex ante assessment. This report has identified clear market failure in the supply of debt finance to SMEs with growth and export potential. Investment strategies of sub funds/financial instruments lending to SMEs to be supported by the SME Holding Fund should, as a minimum, specify: fund objective; profile of target companies (age, stage); specific gap to be addressed; geographic and sectoral focus; deal preference; lending range; lending period; private sector leverage; job creation; jobs safeguarded; returns; alignment with the objectives of the Holding Fund and Operational Programme.

Scale and focus

The estimated value of the lending gap in Scotland to financially viable SMEs is estimated to be around **£0.47bn** annually; financially viable companies being those whose historic and projected revenues demonstrate that they can service a bank loan but: a) have been refused a bank loan; b) have turned down a bank loan; or c) have been discourages from even applying for a bank loan. As demonstrated earlier in this chapter, market failure has occurred as a result of economic and regulatory capital constraints, credit risk considerations and suppressed SME demand.

Market failure in the provision of lending to SMEs exists at three distinct levels identified earlier in this report: the provision of microfinance (loans of up to €25,000 in companies employing up to 10 staff); the provision of loans of up to £100,000; and the provision of loans in the range £100,000 to £1million, based upon the external evaluations of the schemes referenced. Demand from SMEs is greatest for the first two categories and any financial instrument created to lend to those companies would do so on a high volume basis. In considering the proportionality of the proposed lending interventions in addressing the SME financing gap in Scotland, these should be complimentary to existing provision and should demonstrate critical mass (national coverage, sufficient scale to meet projected demand over a three year lending period). ERDF investment of between £10m and £20m towards the capitalisation of not more than three debt sub funds would result in a fund capital value of £50m at the upper end of the range (6 per cent of lending gap) which would make a significant and measurable impact on the lending gap, since target companies will be those who can make a disproportionate impact on the Scottish economy.

Commission guidance to MAs on critical mass for FIs advised that funds should be national in nature. In Scotland, the Holding Fund will be capitalised for a three year period and therefore FIs receiving support from the Holding Fund should be capitalised at a level sufficient to meet demand for that three period for their particular target groups. Based on past performance and evaluation evidence on the FIs, referenced earlier critical mass will vary dependent upon the FI and target group. As such, critical mass for a microcredit fund is estimated at minimum £5m (lending to 300 companies over three years at an average of £15,000 per company); critical mass for a fund providing loans up to £100,000 is estimated at minimum £15m (lending to 375 companies over three years at an average of £40,000 per company); and critical mass for a fund providing loans in the range £100,000 to £1m is estimated at £20m (lending to 80 companies over three years at an average of £250,000 per company). Interest rates should reflect degree of risk, repayment period, and geographic location since there is a case for providing State aid in loans to rurally based companies (parameters described in the General Block Exemption Regulation).

2.3.6 Expected Results

Output and performance indicators

Based on evaluation evidence to date and an assumption that the Holding Fund will invest between £10m and £20m ERDF into debt instruments, the following outputs and performance are expected over the 3 year life of the Holding Fund: activity indicators - £10m ERDF invested into debt sub funds; £10m ERDF invested into SMEs; £40m leverage from public and private sector investors; 500 companies receiving loans; 2,000 jobs created; 2,000 jobs safeguarded; £100m turnover growth.

How FI meets OP strategic objective

A key Thematic Objective of the Operational Programme is to ‘enhance the competitiveness of SMEs’. The debt instruments supported by the Holding Fund will address this objective by providing loans to SMEs who wish to grow their business but whose growth ambitions are constrained by lack of access to debt finance. The European Small Business Finance

Outlook confirms that many SMEs continue to face major obstacles in accessing finance, and that debt financing remains the most popular form of external financing for SMEs.[45]

Monitoring system

Successful applicants to the Holding Fund will submit quarterly performance reports to the Holding Fund manager who will closely monitor progress of sub funds against agreed objectives, analysing and acting on variances. The Holding Fund manager will also carry out at least two monitoring visits and one audit per annum of each financial instrument supported. These will verify spend and performance outputs based on a sample performance report. Additional monitoring visits and audits may be conducted where analysis of quarterly performance reports show significant variance from targets. Sub Fund managers will also commission external evaluations at the level of the fund after 3 years which will analyse performance against objectives, additionality and displacement calculations, with recommendations for improvements. An evaluation at the level of the industry should also be conducted at least every three years in order to determine the cumulative public sector impact on the operation and efficiency of the industry.

The Holding Fund manager will present a performance update report on the Holding Fund annually to the Joint Programme Monitoring Committee (JPMC) and the MA including performance at the level of the sub fund, highlighting variances, necessary remedial action, and recommendations for improvement. The Holding Fund manager will also provide quarterly reports on the performance of the Holding Fund and Sub funds to the Managing Authority – this will also include details of the outcome of monitoring visits and audits to sub fund managers.

2.3.7 Review Process

The Holding Fund manager will carry out an annual review at the level of the Holding Fund and sub funds, presenting findings and recommendations for improvement to the JPMC and MA in the form of an Annual Report, the structure and contents to be agreed with the MA. Where possible, the review should also include an impact analysis or evaluation at market level to determine the cumulative effect of debt and equity interventions on their respective markets. As a minimum, this should be delivered at the end of the first three years of the Holding Fund, and ideally more frequently subject to the availability of data at Scotland level.

2.4 Microfinance

2.4.1 Market Analysis

The market analysis for micro-finance builds upon the results carried out in section 2.3.1 - the market analysis for loan funds to SMEs. The lending gap identified for SMEs in Scotland, estimated at **£0.47bn** annually, focuses on the gap in lending to SMEs in its entirety, while this examines the specific provision of microfinance in Scotland and any market problems that are encountered.

[45] European Small Business Finance Outlook, EIF, (December 2014), p.68

Market Problems

The European Commission outlines that *"microfinance is generally recognised as an effective financing channel for job creation and social inclusion, which can attenuate the adverse effects of the current financial crisis while contributing to entrepreneurship and economic growth in the EU"*[46] but despite this, even in a thriving economy, it is the smallest firms that encounter the most significant problems in accessing finance. A common problem encountered is that young and small companies rarely have reliable track records or a long standing relationship with a financier and this inevitably impacts on their ability to find the funds they need to grow.[47]

According to the data from the latest ECB survey on the access to finance of SMEs in the euro area, the share of enterprises which see access to finance as their most pressing problem is greater for microenterprises than among their larger peers. Moreover, microenterprises have perceived an increase in the external financing gap.

Micro-finance institutions (MFIs) and their capacity to lend has also been impacted by the economic climate with higher 'bad debt' rates among their clients and in some cases difficulties accessing external finance themselves, strengthening the case for public intervention.

In Scotland, the current ERDF-funded MFI noted that as a result of the current climate, micro-finance is *"having to meet a definite need amongst SME's for finance which is no longer being provided by banks."*[48]

Market Failures – Gap between Demand and Supply

Building upon the analysis of section 2.2.1 on the funding gap in Scotland, it is possible to outline the demand and supply for micro credit.

Proportionally more micro-enterprises perceive an increased gap in external financing than small or medium-sized enterprises (see Figure 7). Moreover, the external financing gap for microfinance increased to 20 per cent (from +13 per cent in the previous survey period). As can be seen, the difference in the gap between micro enterprises and medium and large enterprises remains constant until the second half of 2013, where it widens significantly. This demonstrates the difference in risk, with medium and large enterprises being the safer bet and dominating available bank financing.

[46] European Small Business Finance Outlook, EIF, December 2014, p.64
[47] *Ibid*, p.72
[48] DSL Business Finance – Scottish Micro-Lending Project Nov 2008 – July 2012, Alistair Grimes & Niall Alexander, October 2012, p. 4

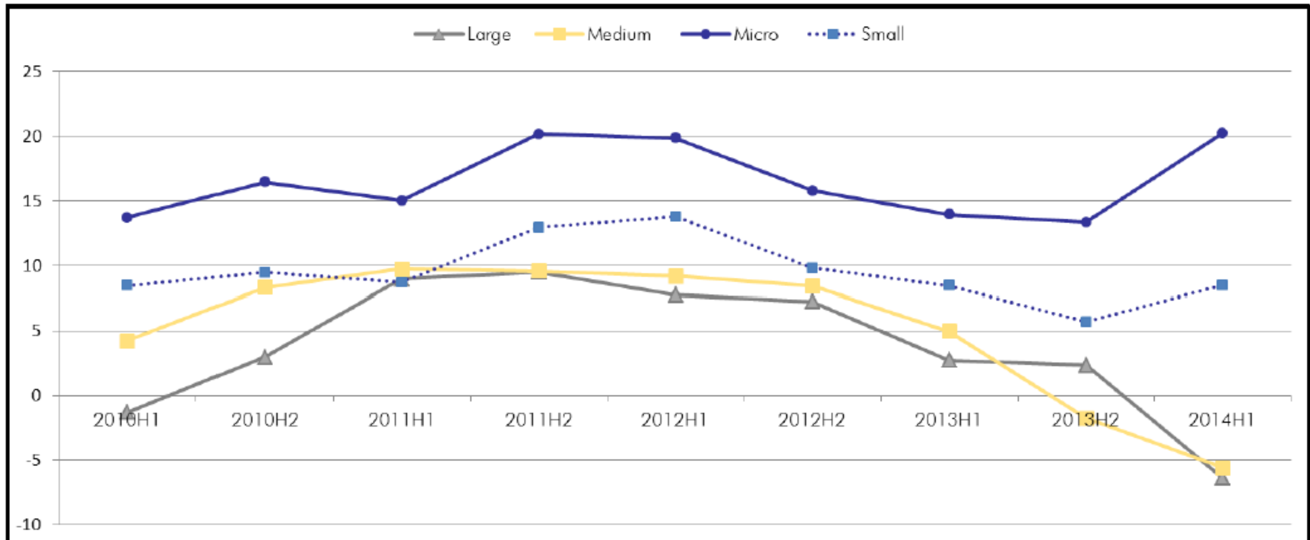


Figure 7 : Perceived change in EU external financing gap (by firm size)[49]

2.4.2 Added Value of FI

The FI should be based upon past experience with success evidenced via external evaluation, with the fund manager resourced at a level to efficiently manage the volumes of demand to the fund and ensuring decisions are taken by market-oriented professionals who make lending decisions on a business basis. Resourcing should include a referral and support network for target SMEs, and successful applicants should receive appropriate portfolio support and other assistance to help them make best use of the finance. Lending will be to viable businesses which cannot access bank finance, with rates set at levels to reflect risk such that losses do not diminish the fund's capital value, increasing the likelihood that the fund will be sustainable over the life of the Holding Fund.

2.4.3 Additional Public and Private Funding

The gap in the provision of lending to SMEs in amounts of up to £50,000 and in particular lending in the microfinance range (up to £25,000) is evidenced in the evaluation referred to at 2.4.4 below and quantified at £2m annually, so a loan fund capitalised at a value of at least £5m will make a material impact in addressing such market failure. National co-financing is likely to be available from April 2015 and around the deadline for the first round of applications to the Holding Fund. This, and other financial instruments to be supported by the Holding Fund, could commence operations from this time. Given the fund's target group of SMEs, it is expected that leverage will be 1:1 Based on historic performance, returns should be sufficient to maintain the fund's capital value.

2.4.4 Historical Use of FIs: Lessons Learnt

Key to this market analysis is the 2008 – 2012 evaluation of the ERDF-funded Scottish MFI, which was operated by Developing Strathclyde Ltd (DSL). This evaluation conducted interviews with DSL fund managers, borrowing firms and relevant development bodies, while surveying micro enterprises for their opinions on availability and quality of finance.

[49] European Small Business Finance Outlook, EIF, December 2014, p.71

DSL was formed in 1993 to tackle the difficulties faced by people from under-invested communities in accessing funding for new or existing businesses. Since 1993, DSL has grown from lending just in Glasgow and Dunbartonshire to the wider Strathclyde area and then in the last three years central Scotland (Lowland Urban Programme areas). From its formation to the beginning of this project in 2008, DSL had lent £13M to 1338 Scottish businesses, creating over 2500 jobs. From 2008, the project was partially funded by ERDF (£229,486 or 40%); the remaining £358,474 was funded by DSL.

The key findings of this evaluation can be listed as follows:

- The ERDF-supported micro-lending project has been responsible for creating and sustaining 415 jobs in Scotland
- The cost per job created has been £1,441;
- It is estimated that this MFI has contributed around 20.6% in increased turnover;
- It provided loans to 69 start-up enterprises;
- It has provided loans to 39 existing companies;
- It advanced loans to a value of £1.642m;
- DSL brought in an additional £3.1 million through other financial institutions and investment by clients;
- 57% of all loans involved additional investment;

Lessons Learnt

It has been possible to draw targeted recommendations from the evaluation which can inform the discussion on the design and delivery of a MFI in the future. These include:

- Build on relationships with existing bank personnel and, potentially through a new sales/marketing manager, increase contacts with accountancy firms, business advisors, and banks.
- DSL staff can make decisions on loan values under £5,000 at the discretion of the CEO, thereby speeding up the process by removing approval of a loan panel.
- Recommend that DSL limit the aftercare visits on sub £5,000 borrowers to one annual visit. Aftercare partially funded by ERDF has been very effective over the last three years of this project. Future aftercare will need to be paid for out of any profits from loan repayments. Given the tight margins, any in-depth aftercare will be very difficult for those clients that are more expensive to service.

2.4.5 Proposed Investment Strategy: Microfinance

- Provision of debt finance up to £50,000 with most activity being in the microfinance range
- Target companies are viable SMEs and social enterprises which have experienced difficulty in accessing funding from mainstream commercial sources such as banks

- Geographic coverage – Scotlandwide;
- Lending rates reflecting degree of risk;
- Demonstrate fit with Operational Programme objectives and Government Economic Strategy.

2.4.6 Expected Results

Based on evaluation evidence to date of microfinance funds in Scotland, a fund capitalised at a minimum of £5m will lend on average £15,000 per company which will result in 300 micro businesses and social enterprises receiving support over a three year period.

This fund could deliver the following outputs and performance over three years:
- activity indicators - £2m ERDF invested into a micro finance sub fund;
- £2m ERDF invested into SMEs;
- £8m leverage from public and private sector investors;
- 300 companies receiving loans;
- 750 jobs created or safeguarded;
- 20 per cent turnover growth in SMEs supported.

2.4.7 Review Process

The Holding Fund manager will carry out an annual review at the level of the Holding Fund and sub funds, presenting findings and recommendations for improvement to the JPMC and MA in the form of an Annual Report, the structure and contents to be agreed with the MA. After three years, the review should also include an impact analysis or evaluation at market level to determine the cumulative effect of debt and equity interventions on their respective markets.

2.5 Risk Capital

2.5.1 Market Analysis

The contribution of new growth firms to the economy is considerable, and the Scottish Government firmly believe that it is vital that they have access to appropriate finance to ensure their future growth and development. For example, risk capital can be a good source of finance for a business but not necessarily one that is accessible to all firms. Recent movements by Venture Capitalists leaving the early stage technology and innovative based end of the market were causing problems for new and early stage businesses in Scotland and led to successful interventions being made by the public sector. ERDF support was provided not just to replace the venture capitalists which had left the market or increase the number of individual investment deals but also to improve and expand the supply by increasing the number of Business Angel syndicates actively investing in this area. This in turn attracted additional investors from across the UK, mainland Europe, and beyond.

However, if Scotland is to generate long-term growth and decrease the productivity gap with our competitors, the Scottish economy must permanently raise the level of productivity. The number and quality of businesses and the state of the business environment are key

determinants of productivity. The challenge facing the Scottish economy, therefore, is not only to see the number of businesses increase in an expanding private sector, but to see the quality of those businesses improve significantly in terms of their potential for growth in international markets – and to develop a local business environment which can support/accelerate this process.

The importance of high-growth businesses to economic performance is emphasised in recent independent reports, which indicate that high growth firms are found to contribute a disproportionate amount to employment growth. High growth firms also display higher levels of productivity than average. This combination of high productivity and increased employment implies that high growth firms are responsible for a substantial proportion of economic growth.

With respect to new technology ventures, the challenge for Scotland is especially acute: relatively few indigenous technology ventures tend to succeed and those which do often become acquisition targets for larger businesses based elsewhere. Moreover, while Scotland has re-focused its inward investment efforts with some success, the scale and value which such projects add directly to the output of the economy has significantly declined by historic standards.

The relative decline in cross-border direct investment in combination with Scotland's growing need for such businesses places greater onus than ever before on indigenous new firm formation and business-building processes. Early-stage risk capital is clearly a key enabler and driver of these processes and as such Scotland's future growth prospects are inextricably linked to the health and dynamism of the early-stage risk capital market.

Historically, due to the relatively high risks and costs involved, the banking system has proven reluctant to support the start-up and early-stage development of young technology ventures through debt finance.

Under these conditions, there is more pressure on businesses, especially new/young technology ventures, to pursue equity-based solutions to their funding requirements. Consequently, as supply and demand-side pressures intensify, the strategic role of the early-stage risk capital can be expected to grow commensurately in importance in terms of the stimulation and support of the start-up and early-stage growth of indigenous technology ventures. Although, whilst risk capital is important, it is also advantageous if these indigenous businesses can also access other financial products that can aid their development and internationalisation.

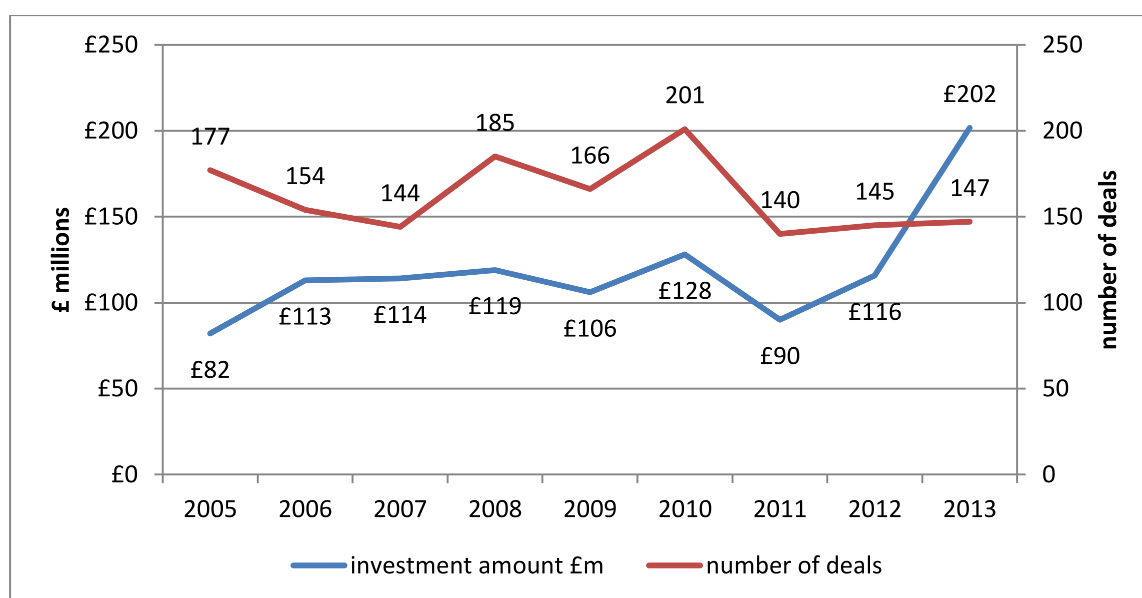
The data below is based on the most recent version of the Scottish Risk Capital Market report, a longitudinal analysis of aggregate risk capital investment activity in Scotland analysing Companies House 88 (2) returns for all companies known to have raised equity finance during the period of the report and augmented by a series of interviews with angel syndicate gatekeepers. The Scottish risk capital market continues to be fragmented but with thorough longitudinal research published through successive Scottish Risk Capital Market reports, it is possible to quantify the impact of early stage equity investment vehicles and in particular those which have been supported from successive ERDF Programmes (Scottish Co-investment and Scottish Venture Fund), ensuring that they remain "fit for purpose" and

can optimise their economic impact. The most recent research for the period 2012-13 was published in December 2014.

Previously, Scotland has successfully used ERDF in SME FIs to support risk capital investments through successive Structural Funds Programmes with the long-term objectives of: increasing the number of active investors (from within Scotland and elsewhere) in the early stage risk capital market; increase the number of deals; and re-cycling receipts for future funding in this area. The innovative co-investment approach described below has been well-received by Scotland's investment community and has attracted interest across Europe and beyond. It includes measures such as investing on equal commercial terms with private sector partners, private sector partners then sourcing investment deals and making the investment decisions on behalf of the public sector. The partners then "manage" the investments, with the public sector having the ability to provide follow-on investment and exits being conducted on the same commercial terms.

Scotland has been successful in utilising ERDF previously to part capitalise equity financial instruments; for example, the Scottish Co-investment Fund (SCF) was introduced in 2003 to address the early stage equity gap and increase the number of active professional investors in the market. The SCF received substantial ERDF support under both the 2000-06 and 2007-13 Structural Fund Programmes – originally resourced with £47m (of which, £27m was sourced from the 2000-06 ERDF Programme), the Fund was re-capitalised in 2008 with £72 m (including £29 m ERDF). Since the Fund's inception the number of angel syndicates in Scotland has grown from 2 in 2003 to 19 in 2014. Investment in individual companies, and increase in active private sector investment partners clearly demonstrates the level of market demand and the impact that can be achieved. Performance is dependent on maintaining a strong pipeline of future investment propositions which will emerge as long as the market continues to have confidence of significant public sector intervention to underpin and share the risk (and reward) taken in this element of the market.

Figure 8: Number of deals and amount invested in Scottish Risk Capital Market 2005 - 2013[50]



50 'Risk Capital Market in Scotland 2012-2013', Scottish Investment Bank, December 2014

Figure 9: Investment by band in Scottish Risk Capital Market 2005 - 2013[51]

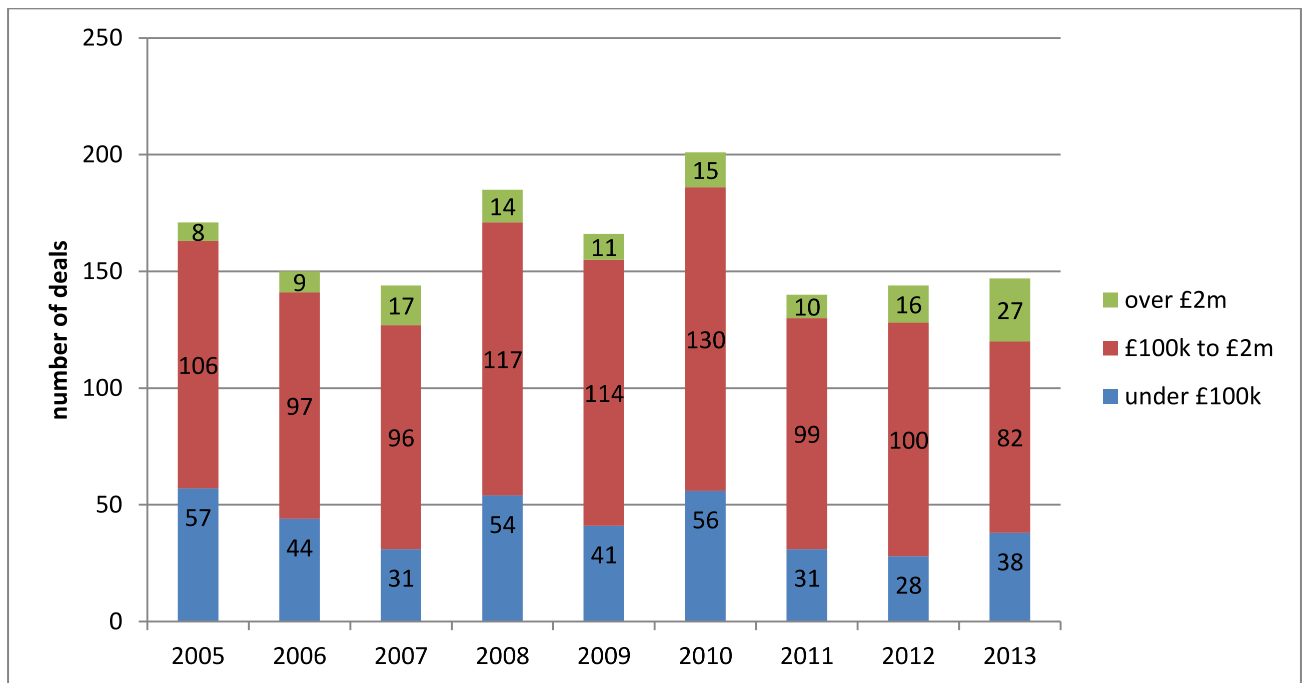
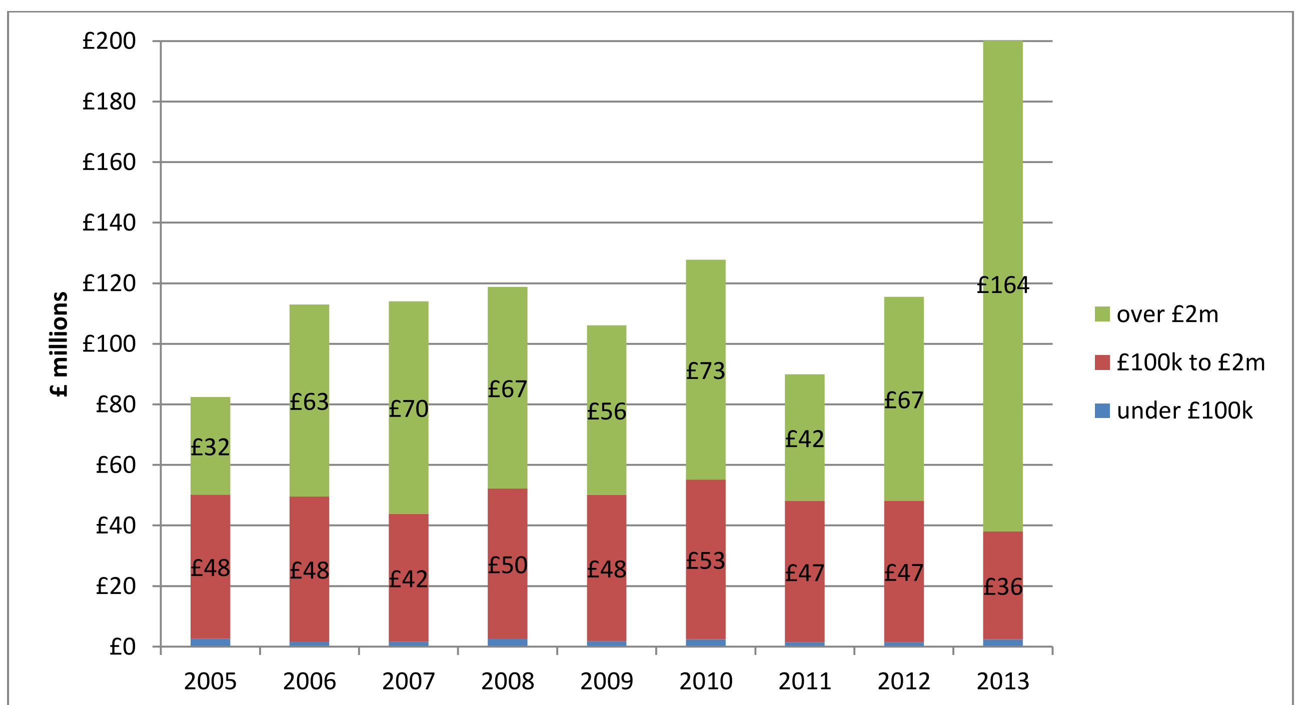


Figure 10: Scottish Risk Capital Market Investment Breakdown 2005-2013[52]



51 'Risk Capital Market in Scotland 2012-2013', SIB, December 2014

52 *Ibid*

Lower value deals have fluctuated in number over the nine years shown, but account for a very small share of total investment.

As stated in the SIB's Risk Capital Market in Scotland 2012-2013 report, despite a period of unprecedented economic uncertainty, the Scottish risk capital market has held up relatively well due to the public sector support complementing private sector investment - especially in the deals between £100,000 and £2 million.[53] In 2005, investment in Scotland's early stage companies reached a low point but has subsequently recovered and stayed constant, despite the economic downturn, before reaching a six year high point in 2010. The investments tracked by this report show a distinct decline in 2011, but the first few months of 2012 show investment levels at recent norms, indicating that the decline in 2011 was caused more by the timing of large investment deals than a continuing downward trend. This has been confirmed when looking at 2013 and the significant expansion of deals over £2m (See Figure.10).

Most of the year to year fluctuations in the overall level of investment are accounted for by the variability of deals over £2 million. With only 8 to 17 deals over £2 million annually, the overall level of risk capital investment continues to be susceptible to variations in a small number of projects.

The middle band of investments (£100,000 to £2 million – Figure 9) gives a better picture of how the market is constituted, as it includes over two thirds of the deals. This middle band has held up over the long term and has shown some growth in recent years, whereas deals below £100,000 and over £2 million have fluctuated, with particularly disappointing results in 2011. The underlying market activity for 2013 is quantified at £84m (66 per cent of the deals) – discounting for 'exceptional' deals over £2 million – representing a 16 per cent increase in the equivalent underlying market figure for 2012. It is this underlying figure which we will later use as the basis for quantifying the gap in the supply of risk capital at early stage.

There has been an increase in follow-on investments in established companies rather than new investments, with over 90% by value of investments in 2011 being follow-on rounds. However, the pattern is variable, and the percentages in 2009 and 2010 were similar to those in 2005 and 2006 (either side of the 80% mark), with 2007 and 2008 showing higher levels of 'first time' investments.

Investments over £2 million represent a large share of the total market, but are few in number: 10 in 2011 16 in 2012 and 27 in 2013 (Figure 9). An analysis of deals listings by those VCs which publish figures suggests that Scotland appears to fare worse than other regions of the UK in securing large investments from VC firms, and most of those that have invested in Scottish companies do not do so on a regular basis. VC firms themselves are going through a period of considerable change. From the consultations held in parallel with the data research of Scottish Investment Bank's (SIB) report, it has become clear that there is scope for Scottish companies to increase substantially their engagement with VC firms outside Scotland; however, increasing the level of investment above the £2 million per deal level is a question of building demand, encouraging companies to develop more compelling

[53] 'Risk Capital Market in Scotland 2012-2013', SIB, December 2014

propositions whilst identifying appropriate international investors (regardless of location) and presenting those propositions to them.

At the opposite end of the scale, investments under £100k were in 2011 at their lowest level for seven years, in terms of both number and amount invested. This end of the market is also experiencing considerable change. As the SIB report states, VC firms have abandoned start-up and seed phases of investment, now demanding companies have achieved a stable market position before they will invest. Despite these reservations, the period from 2009-2011 saw 101 companies secure investment for the first time.

2.5.2 Assessment of added value of FI: Equity

Based on extensive evaluation evidence at fund and market/industry level, equity based financial instruments supported under the 2014-2020 Programmes should adopt the co-investment approach described above, with at least one of the instruments being the SCF. This, combined with a complementary equity instrument(s) which allows syndication with professional private sector investors who cannot (or will not) become SCF Partners, will make a significant impact on the early stage equity gap identified earlier in this chapter, and in a manner that complements and enhances existing private sector activity. The current value of the Scottish risk capital market is £202m per annum (see figure 10). Discounting for exceptional and large deals (above £2m), the underlying value of the market is £84m (referred to at 2.4.1 above) with a gap of at least £35m being existing public sector and ERDF supported financial instrument activity, so that the minimum gap over the initial 3 years of the Holding Fund is £105m. In order to address this gap, the Holding Fund should invest £20m-£30m ERDF into the equity led instruments described, resulting in combined equity-led sub fund capitalisation in excess of £50m, or 50% of the gap. An ERDF range of £20m - £30m is recommended so that public sector intervention can stimulate market growth (see increase from 2012 to 2013). Market growth can be stimulated by greater private sector confidence as a result of the availability of appropriate public sector financial instruments which encourages them to do more deals, bigger deals, and invest in sectors out with their normal deal preferences – public sector additionality effect, evidenced in fund and market level evaluations.

Based on evaluation evidence, ERDF leverage for such equity led financial instruments is expected to be at least 1:5 which if achieved would address the equity gap at current market activity.

The current SCF model conforms with the private investor principle, or the ‘market economy operator test’, and so demonstrates that the economic and commercial objectives can be achieved without the need for any form of state aid at the level of the fund/fund manager and end beneficiary.

A primary driver for private sector investors at early stage in Scotland and the UK is the need to syndicate each deal with a long term, reliable partner with substantial resources – this need is met by the SCF. The most active investors at early stage in Scotland and the UK are business angels and business angel syndicates, who receive State aid support in the form of tax relief for seed and early stage investments via UK Government schemes which have

been noted and approved by the European Commission. When the SCF was introduced in 2003, there were 2 active business angel syndicates – this has risen to 19 as a direct result of public sector intervention in this area, in particular through the use of ERDF support.

The European Commission's General Block exemption on state aid describes the circumstances and parameters where the public sector can offer state aid for risk capital schemes in order to incentivise and encourage the private sector to invest at seed and early stage. Historic public sector activity has demonstrated that such asymmetric incentives are unnecessary to attract private sector investors to Scotland's risk capital market. Consequently, it is recommended that any future ERDF-supported FIs are based on existing instruments and conform with the private investor principle, operating on a fully commercial basis and sharing risk/reward with the private sector to optimise the probability that such publicly-funded schemes become economically and financially sustainable in the long term.

2.5.3 Additional Public and Private Funding

The size of the equity market has been quantified earlier in this chapter at c.£84m annually (discounting for extraordinary large deals) or £252m over the first 3 years of the Holding Fund. The gap has been identified as at least £35m annually or £105m over 3 years, being the value of existing public sector equity instruments (with no allowance for the multiplier and additionality effects of public sector intervention). Taking into account the historical performance of public sector equity financial instruments including private sector leverage, it is estimated that 2 or 3 equity led funds (the SCF and at least one other which invests in the traditional manner i.e. syndication) could make a material impact on the equity gap if their combined capitalisation was at a level of at least £50m, including at least £20m ERDF. Historic ERDF leverage is approximately 1:5 so the greater the leverage the narrower the equity gap, with the qualification that private sector leverage is not so great as to materially reduce the additionality effect of public sector intervention.

2.5.4 Historical Use of FIs: Lessons Learnt

Successive market analyses and policy publications at EU level argue that an efficient and effective risk capital market is a prerequisite for economic development and is essential for job creation. The use of ESIF as an important policy tool in setting up financial instruments to develop risk capital markets has long been recognised in successive EU policy interventions in order to address the recognised gap in the availability of equity finance for start-up and early stage SMEs, with the objective of stimulating job creation and economic growth. Market failures, or gaps, exist where viable SMEs with a proven track record - or good prospects in the case of start-ups - and growth potential experience difficulties in raising the appropriate levels of equity required to finance their continued growth. Scotland has been an exemplar and early adopter in the use of ESIF to develop FIs which address market failures in the supply of risk capital to innovative SMEs with growth and export potential. These were designed to improve the efficiency of the market rather than target a specific group of investors (as is the case with most EU publicly supported FIs), so they complement and stimulate the activity of all the investors in that market. At early stage, this means angels and angel syndicates, and to a lesser extent VCs and Corporate investors.

There are identified equity gaps in the supply of risk capital at seed, early and development/expansion stages for SMEs seeking to raise risk capital in amounts of up to £10m, and Scotland has pioneered the use of ESIF to address these gaps by stimulating the supply of equity investment since the 1994-1999 programmes. Scotland's investment approach has evolved over successive ESIF Programmes, from direct investment at a regional level in the 1994-1999 Programmes to co-investment alongside private sector investors at a national level in the 2000-2006 and 2007-2013 Programmes, always seeking to catalyse the market by addressing market failures in supply and demand. Supply side interventions seek to stimulate existing private sector investor provision through the creation of co-investment funds and support for the creation of angel and angel syndicates via LINC Scotland (building on UK government tax incentives to encourage High Net Worth individuals to act as angel investors, then encouraging them to form angel syndicates, then improving the professional capacity and capability of such syndicates). Demand side interventions focus on the provision of investment readiness support to innovative companies with growth and export potential, and this service is provided by a range of public and private sector agencies.

The policy context for such interventions is clearly articulated by SG: *"Enhancing the quality and focus of support for business and innovation will have a direct impact on business competitiveness and growth. Responsive, accessible business support services will allow all areas of Scotland to contribute to and benefit from a shared approach to economic growth"*.[54] Specifically, "*the Strategy should not be to pick individual companies as winners – the market does that. Rather, the job of government should be to facilitate and accelerate the growth sectors and to provide the necessary environment to make sure that it happens in Scotland.*" More recently: "*Our ability to promote prosperity and jobs depends on the performance of our businesses…this is why we are committed to maintaining and further investing in a Supportive Business Environment. Our approach will focus our efforts on growth companies, growth sectors and growth markets. This includes using the Scottish Investment Bank to support early stage innovative technology based businesses and growth and exporting companies."*[55]

It is within this context that the Scottish Seed Fund (SSF), Scottish Co-investment Fund (SCF), and the Scottish Venture Fund (SVF) were set up, with the first of these – SCF - established in 2003 as a £72m equity investment fund part funded by ERDF from the 2000-2006 ESIF Programmes. The SSF, invests in the range £20k to £100k, with SCF investing between £100k and £1m in deals of up to £2m, and the SVF investing £500k to £2m within a deal range of £2m-£10m. SVF has also received substantial ERDF support from the 2007-2013 ESIF Programmes. These three linked funds follow a co-investment approach (see SCF description) and operate on a fully commercial basis using the Market Economy Investor Principle. They are set up as a funding escalator so that a company receiving investment at seed stage via the SSF can continue to secure growth capital through to development and expansion stage via the SCF and SVF.

[54] Scottish Government (2007) *Government Economic Strategy*
[55] Scottish Government (2014) *Government Economic Strategy*

The following sections describe each of the three funds, including lessons learnt from evaluation evidence:

Scottish Seed Fund – rationale and impact

The SSF was set up in November 2006 to address the gap in the supply of risk capital to start ups and very early stage innovative companies in Scotland. Market failure occurs as a result of a shortage of risk capital for businesses seeking relatively modest amounts of external funding through raising equity because information costs and other transaction costs are disproportionately large for smaller investments. This failure has become particularly acute in recent years due to lengthening exit periods (now in excess of 10 years) which has led to an investor concentration in support of existing portfolio companies at the expense of new investments.

The objectives of the SSF are to: improve access to risk capital for young innovative companies raising their first round of external finance by filling a critical gap in the availability of risk capital; and provide greater liquidity and share risk on equal terms with private sector investors at seed stage.

An external evaluation[56] of the fund was conducted in January 2011 covering the 4 years to December 2011. During that period the Fund invested £6.7m into 83 companies alongside private sector investment of £14.5m, primarily business angels, for a total of £21.2m invested or a leverage ratio of 1:2.2. Evaluation evidence demonstrated that the fund had stimulated innovation and R&D, providing high levels of additionality such that all private investors intimating that the Fund had improved both the scale and quality of seed funding available in Scotland. SSF has led to an injection of funding in Scotland provided by business angels and other risk capital investors.

Just over half the companies surveyed had actually increased their productivity as a result of SSF, and three-quarters expected to do so over the next ten years. In terms of exports, around half of businesses had started to export, 38 per cent had increased their exporting sales, and just under half had entered new export markets. At the time of the evaluation two-thirds of businesses had increased their employment, and nine out of ten expected to do so over the next 10 years. At the same time, 62 per cent of businesses had increased their turnover, and nine out of ten expected to do so over the next ten years.

Some seven in ten businesses would not have achieved these impacts without SSF.

Overall the research shows that at the time of the evaluation the net additional employment attributable to SSF was 151 (FTE) jobs which were likely to rise to 269 in the short term (5 years) and 364 in the medium term (10 years). The main thrust of the impacts has taken place in the priority and innovation sectors in Scotland, for example, digital media and life sciences.

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[56] Evaluation of Scottish Enterprise Seed Fund, 2011, PACEC

The SSF was also selected for inclusion in an evaluation of EU 27 Member States policies in implementing FIs[57]. This evaluation also demonstrated high levels of additionality, with positive impact on turnover and jobs growth, and concluded by citing the Fund as an exemplar of good practice for other Member States considering setting up FIs at pre-seed and seed stage.

Scottish Co-investment Fund – rationale and impact

The SCF is one of the longest established co-investment funds in Europe, and is widely regarded as an exemplar of best practice as a private sector led FI, combining public sector interests and private sector expertise and standards. It is also an example demonstrating the role and potential for public sector support to the early stage risk capital market, to the extent that it has been replicated around the world (New Zealand, Canada, Europe – EIF), most recently in the December 2014 launch of the London Co-investment Fund.

The Fund implements Scottish Government strategy in this area by 'addressing gaps in access to capital that are constraining Scottish businesses from reaching their full potential, whilst helping to build capacity in the investment community to remove barriers to investment'.

Unlike a standard VC fund or business angel investor the SCF does not find and negotiate deals of its own. Instead it forms contractual partnerships with active VC fund managers, business angels and business angel syndicates from the private sector. These partners find the opportunity, undertake the due diligence, negotiate the terms of the deal and commit their own resources to the equity investment. If the opportunity requires more investment than the partner can provide it can call upon SCF to co-invest, directly into the opportunity, alongside on equal terms. It is the SCF Partner that determines how much the SCF can invest in a deal, subject to the requirement that under the terms and conditions for the operation of the Fund the SCF cannot invest more than the SCF Partner. Companies seeking investment approach partners directly, and the SCF itself has no influence in the investment decision making process at any stage, which is delegated to the private partner funds.

This design avoids the common criticisms of public sector intervention in venture capital markets, in that it removes the state from the decision making and fund management processes, relying instead on the private sector to make all investment decisions, and it avoids introducing distortion into the market, assuming a position as a *pari passu* investor rather than as a subordinate investor accepting lower or capped returns and taking the first loss on erosion of fund capital. As such, this fund design offers the prospect of mobilizing investment capital within a regional economy from existing investors, by enabling them to do more and larger deals, attracting investment capital from investors outside the region, addressing one of the weaknesses of regional economies with weak indigenous VC markets, and doing so in a manner that minimizes the cost to the public purse and the risk to public funds. The evidence to date is that this approach works, and that as a result Scotland is now

[57] Evaluation of Member States Policies to Facilitate Access to Finance for SMEs, June 2012, CSES for European Commission.

estimated to have the most generous and effective framework for the support of risk capital investment in early stage companies in the UK[58]'.

Successive evaluation evidence demonstrates: good private sector leverage, quick decision making, improved liquidity for private sector partners, extended investor reach (eg, deal preference and deal size), increased syndication, and high levels of additionality. For example, an evaluation based on an analysis of the first 100 SCF investments demonstrated clear turnover and employment growth as a result of SCF support, and that the Fund has been responsible for increasing the investment infrastructure in Scotland, mainly through the facilitation of and support for more angel syndicates.[59]

Scottish Venture Fund – rationale and impact

The early stage risk capital market in Scotland is characterised by a growing second equity gap arising from the structure of both the individual venture capital firms and the industry. The second equity gap arises from the capital scarcity attributable to the absence of follow-on funding from the initial investor, due to the need to match small scale investments with small fund size. Large funds (in terms of capital under management) concentrate on large deals (above £10m) because the risk is lower and potential returns greater in large deals than the risks/returns for small deals, yet transaction costs are similar.

The SVF was established by Scottish Enterprise in 2007 to address the second equity gap at early stage for ambitious young growth companies by increasing the money supply available to investors and companies seeking risk capital support and introducing new investors from out with Scotland. The Fund invests from £500,000 to £2m in SMEs with high growth potential. SVF invests on equal terms and on a fully commercial basis with SVF Partners within a deal range of £2m to £10m, and invests throughout Scotland.

The SVF's influence on this segment of the risk capital market is substantial, contributing to a 50% increase in market activity after the introduction of SVF: the value of the £2, to £10m deal market was £8m in 2005, £9m in 2006, and £17m in 2007. A significant part of the renewed buoyancy in the Scottish risk capital market can, therefore, be attributed to the intervention of Scottish Enterprise and its investment activities[60].

An evaluation of the fund covering the period to 2011 examined SVF investment of £39.9m into 28 companies, leveraging £91.2m from other sources, primarily VCs.[61] The evaluation highlighted a number of positive impacts, and concluded that SVF had made significant progress in terms of its objectives and brought positive benefits to the Scottish economy including:

- Economic – 580 net additional jobs generated in the short term, rising to 791 by 2021;

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[58] Public Policy and Regional Risk Capital Markets – A Case Analysis of the Scottish Co-investment Fund, Prof R Harrison for NESTA, 2009.

[59] Evaluation of the Scottish Co-investment Fund, Hayton and GEN Consulting, 2008

[60] The Risk Capital Market in Scotland 2005 – 2007. Professor Richard Harrison, Queen's University Belfast, and York Consulting, August 2008

[61] Economic Impact of the Scottish Venture Fund, PACEC, 2012

- Improving the supply of risk capital – SVF has been successful in increasing the amount of early stage risk capital in Scotland;
- Key sectors – most of the impacts has been in Scotland's priority sectors, e.g. digital media, life sciences and energy;
- Intermediate business impacts – investee companies have strengthened their R&D, innovation and technological capability which have resulted in improved and new products and processes reaching the market.

2.5.5 Investment Strategy: Equity

The existing equity funds are designed to stimulate and support the market by providing a funding escalator that addresses the needs of early stage companies at key stages in their development. Growth potential and commercial viability are the key investment criteria, together with management skills and availability of matching private sector funding. The funds provide support where the existing funding market would not provide the necessary funding at the levels required to support the growth of firms that have the potential to create jobs and drive significant economic growth in Scotland. The equity funds approach is to co-invest on a fully commercial basis alongside the private sector recognising the important additional skills and expertise that external private investors bring to Scottish companies.

A fundamental operating principle for the equity funds is that they operate at minimal cost to the public purse on a fully commercial basis and do not provide any form of subsidy or guarantee to private partners or the individual companies in which partners invest. In applying a fully commercial approach the investments that are made respect state aid rules with no subordination of public funds. It is anticipated that this approach will be replicated in future funds.

Due to the impact of the financial crisis, exit opportunities have been severely curtailed reducing investors capacity to recycle investment income into new ventures. Companies and their investors (public as well as private) have had to be more patient, with the average age for an investment reaching an exit increasing from 9 years in 2010 to 10 years in 2011 and increasing further in recent years, such that Scotland's early stage investment community has not yet reached the end of the current liquidity cycle. Exits are crucial to liquidity for investors, and the supply side measures such as the equity led co-investment funds, have enabled them to maintain a level of activity higher than would have otherwise been the case. Further ERDF support for the co-investment funds throughout the 2014-2020 Programming Period via the SME Holding Fund will be critical in maintaining investor confidence, building and increasing high activity levels, and reaching the end of the current liquidity cycle, thereby reducing any future demand on public budgets.

The creation of a small number of 'critical mass' (Scotland wide coverage, economies of scale, sufficiently capitalised to meet viable demand for the initial 3 year period of the Holding Fund) equity financial instruments for SMEs in the 2014-20 Programme could be an opportunity to improve SME access to finance and thereby improving their competitiveness and the level of exporting. The Scottish experience demonstrates that European (and domestic) funds can be operated on a fully commercial basis (market economy investor principle) sharing risk equally with private sector investors and avoiding crowding out of existing private sector investment to maximise additionality.

A potential joint public/private approach to the existing instruments as demonstrated by the Scottish experience provides the opportunity to enhance the scale of private sector activity but does so in a way that allows the public sector to equally share in financial returns and build a legacy for the future. It is suggested that such instruments focus on equity investments in innovative technology-based SMEs with growth and export potential as they generate more added value, leverage for private investment, and often bring "expertise" to the company, as well as money, and thereby provide long-term sustainability. This would also align financial instruments with the developing plans under the ERDF programme for Scotland to establish a growth 'pipeline' for businesses, through which they can access different types of expertise and advice as they grow and their needs become more complex.

Expected level of detail

The investment strategy for the SME Holding Fund is to invest in a small number of sub funds with critical mass, which address gaps in the debt and equity markets as highlighted in this ex-ante assessment. This report has identified clear market failure in the supply of risk capital to innovative SMEs with growth and export potential. These exist at seed, early and development/expansion stage for such companies seeking to raise risk capital in amounts of up to £10m per deal. Consequently, investment strategies of sub funds/financial instruments investing in SMEs and to be supported by the SME Holding Fund should, as a minimum, specify: fund objective; profile of target companies (age, stage); specific gap to be addressed; geographical and sectoral focus; deal preference; investment range; deal range; private sector leverage; follow on; job creation; returns (eg, IRR, money multiples); exit strategy; alignment with the objectives of the Holding Fund and OP.

Whilst the Holding Fund will allocate the majority of its resources in the capitalisation of a small number of debt and equity funds with critical mass, no more than 10% of the Holding Funds resources may be allocated in the form of grant support to a relevant body which will grow Scotland's business angels and angel syndicate community. Scotland has seen a remarkable increase in the number of angel syndicates from 2 in 2002 to 19 in 2014, giving Scotland the most active angel community in Europe. However, much more needs to be done in terms of continued growth and professionalisation of angel syndicates, and ERDF support will continue to be vital to the growth of this element of Scotland's risk capital market.

Scale and focus

The latest Scottish Risk Capital Market Report shows that the underlying market size is £84m annually, underpinned by approximately £35m of predominately ERDF-supported public sector risk capital funds. In the absence of public sector intervention, the Scottish market would reduce by a minimum of £35m per annum, or £105m over the initial 3 years of the Holding Fund. This does not take into account the scale of additional activity that is generated by private sector investor confidence due to the availability of public sector funds and established market profile. Therefore the annual £35m estimate of the equity gap is conservative. In order to maintain and build on existing market activity, the Holding fund should invest £20m-£30m ERDF into a relevant equity sub funds with national coverage

which can demonstrate critical mass and invest in innovative technology-based SMEs with growth and export potential at seed, early development/expansion stages. This would capitalise such funds at a level of at least £50m to be invested over a 3 year period, or 20% of current market activity (£255m over 3 years), sufficient to make a material impact on the gap.

Governance structure of FI

The Holding Fund will invest in FIs which demonstrate critical mass and economies of scale, since it is the intention that such funds are evergreen (returns re-invested in the funds for future investment) and become long-term economically sustainable thereby reducing the burden on public budgets and leaving a lasting legacy from the 2014-2020 ESIF Programmes in Scotland. Achieving sustainability will be challenging where asymmetric returns are offered to encourage private sector participation in Scotland’s risk capital market, since this increases the probability that the public sector funds value will diminish over time as a consequence of providing aid to private sector investors.

This report has analysed performance of existing ERDF-supported FIs such as the SCF and notes that it has not been necessary for the public sector to provide any state aid in order to stimulate private sector participation, since private sector investors are primarily concerned with syndicating alongside reliable, well resourced, professional investors particularly at seed and early stages. Existing public sector investment funds in Scotland operate on a fully commercial basis investing alongside private sector investors and following the Market Economy Investor Principle, investing on terms and in conditions which would be acceptable to a private investor operating under normal market economy conditions. Since the public sector shares risk and reward equally with private sector investors, it follows that – so long as good investment decisions are made – the probability of long term sustainability for such funds increases with this approach.

In addition to following the Market Economy Investor Principle, and based on evaluation evidence of existing public sector equity financial instruments, it is recommended that the Holding Fund invests in sub funds which follow the structure and approach of the SCF (investing on equal terms, private sector Partners make the investment decisions, etc). In those cases where private sector investors are unwilling or unable to enter into a co-investment contractual agreement, it is recommended that the Holding Fund invests in sub funds which syndicate with private sector investors on fully commercial and, ideally, equal terms. In addition to fund and market level evaluation evidence, the SCF model is recognised as an exemplar of public sector intervention in risk capital markets to complement and stimulate private sector provision.

How FI will work with grant support

Scottish Government policy to address market failure in supply has historically and effectively been delivered by two interdependent mechanisms: increasing the supply of angel and angel syndicate investors through the efforts of their trade body, LINC Scotland, and further increasing the supply of capital by developing appropriate FIs which allow angel syndicates to do more and bigger deals, i.e. co-investment funds. Business angel and angel syndicates are the most active investors at early stage across Europe and the key source of

entrepreneurial finance for innovative SMEs with growth and export potential. As a result of Scottish Government policy in this area and in particular the activities of LINC Scotland, there has been a substantial growth and evolution in Scotland's angel syndicates, from 2 in 2002 (Archangel and Braveheart) to 19 in 2014, the most radical shift in market organisation of any region in Europe and anywhere else outside of the USA. *"The United Kingdom has been the most active angel market in Europe, with Scotland being particularly active".*[62] Total aggregate investment (including co-investors) by Scottish angel syndicates increased from £6.8m in 2002 to £30.9m in 2012 (source: LINC Scotland).

LINC's activities have been financed in recent years through a combination of support from Scottish Enterprise, the private sector, and ERDF grant support. LINC's access to ERDF has been *"critical in terms of the number and diversity of angel groups that have been created….the co-investment fund…has also been critical."*[63] In order to continue to address market failure in supply, and in particular to enable further growth in the number and professionalism of angel syndicates, it is recommended that ERDF support is provided to continue working in this area throughout the 2014-2020 Scottish Programmes and in particular through the SME Holding Fund. In addition to ongoing capacity building, ERDF support should seek to: increase the capability and skills of angels and angel syndicates as well as entrepreneurs and management teams of investee companies, including the attraction of external talent (for example, Non-Executive Directors); and engage with the international corporate venturing community so that companies larger and later stage financing needs can be met.

Based on previous ERDF uptake, evaluation evidence to confirm effectiveness of intervention, and allowing for the development of the activities as described above with associated additional delivery costs, it is recommended that the SME Holding Fund allocate £1m to £2m ERDF to part finance these activities over a three year period.

2.5.6 Expected results

Output and performance indicators

Based on evaluation evidence to date and an assumption that at least £20m ERDF will be invested in equity instruments, the following outputs and performance are expected over the three year life of the Holding Fund: £20m ERDF invested into equity sub funds; £20m ERDF invested into SMEs; £80m leverage from public and private sector investors, that is, ERDF: public + private; 258 companies receiving equity support; 664 jobs created over 5 years growing to 1,072 over 10 years; increase in Gross Value Added of £98.9m over 5 years growing to £365m over 10 years.

How FI meets OP strategic objective

A key strategic objective of the OP is 'Smart Growth': Scottish Government economic strategy focuses on growth sectors, growth companies and growth markets - the target

[62] "Financing High Growth Firms, the Role of Angel Investors"; OECD, December 2011.
[63] "the Transformation of the Business Angel Market: Evidence from Scotland"; Colin Mason, Tiago Botelho and Richard Harrison, University of Glasgow and Queens University Belfast, August 2013.

group of SMEs for ERDF supported equity FIs as these are expected to make a disproportionate impact on the Scottish economy. In particular the equity FIs will address the OP's Thematic Objective to 'enhance the competitiveness of SMEs' by addressing the equity gaps which constrains the ambitions of innovative SMEs with growth and export potential.

Monitoring system, including how to improve

Successful applicants to the Holding Fund will submit quarterly performance reports to the Holding Fund manager who will closely monitor progress of sub funds against agreed objectives, analysing and acting on variances. The Holding Fund manager will also carry out at least two monitoring visits and two audit per annum to each sub fund, verifying spend and performance outputs based on a sample performance report. Additional monitoring visits and audits may be conducted where analysis of quarterly performance reports show significant variance from targets. Sub Fund managers will also commission external evaluations at the level of the fund after three years which will analyse performance against objectives, additionality and displacement calculations, with recommendations on improvements. An evaluation at the level of the industry should also be conducted at least every 3 years in order to determine the cumulative public sector impact on the operation and efficiency of the industry.

The Holding Fund manager will present a performance update report on the Holding Fund annually to the JPMC and the MA, including performance at sub fund level, highlighting variances, necessary remedial action, and recommendations for improvement. The Holding Fund manager will also provide quarterly reports on the performance of the Holding Fund and Sub funds to the MA – this will also include details of the outcome of monitoring visits and audits to sub fund managers.

2.5.7 Review Process

The Holding Fund manager will carry out an annual review at the level of the Holding Fund and sub funds, presenting findings and recommendations for improvement to the JPMC and MA in the form of an Annual Report, the structure and contents to be agreed with the MA. Where possible, the review should also include an impact analysis or evaluation at market level to determine the cumulative effect of debt and equity interventions on their respective markets. As a minimum, this should be delivered at the end of the first three years of the Holding Fund, and ideally more frequently subject to the availability of data at Scotland level.

2.6 Conclusion

In order to address market failure in the supply of risk capital to innovative SMEs with growth and export potential, this report recommends that the SME Holding Fund provides ERDF support to the creation of at least 2 equity led financial instruments and the provision of grant support. These complementary and interdependent measures will, on the one hand, allow for the further growth of Scotland's business angel syndicate community and on the other, enable those syndicates to increase their investment capacity by co-investing with a reliable public sector investor. Combined, these measures will substantially increase the supply of risk capital to Scotland's innovative SMEs. The scale of ERDF recommended has been calculated on the basis of: past evaluation evidence at fund and market level; scale of investment activity required to impact on equity gap; and an assessment of 'critical mass' for equity led financial instruments.

3. Digital: Broadband Provision

3.1 Introduction

Digitalisation has concrete benefits for business, including time-savings, increasing customer base, market expansion and cost savings. However, despite this, digital connectivity and advanced usage continues to be an issue particularly in rural areas of Scotland and although the market is beginning to address some of these issues, the geography of Scotland, with some of the most sparse populations in Europe, means that there are some areas which the market will simply never gain, nor seek to gain, a return in.

Unlike in other sectors, Scotland has no direct experience of using FIs to support broadband roll-out and as such there is no precedent on which to build this use of FIs upon. Moreover, although the 2014-2020 ERDF OP supports the Investment Priority 2a – '*Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy*'[64] and 5.24% (€25 million) of the total ERDF allocation has been designated to its thematic objective *'Enhancing access to, and use and quality of, information and communication technologies'*[65], the OP clearly states *"Financial instruments are not foreseen for this priority axis"*[66]. The reasons behind this are the stringent European Commission restrictions in this area, State Aid regulations and the perceived lack of private sector investment in sparsely-populated areas.

However, despite the intention of the OP, it is still necessary to fully consider the potential for using FIs in the future to accelerate broadband roll-out. An essential part of this ex-ante assessment is the mid-point review process, which is to reconsider the suitability for FIs later in the programme and the cursory market analysis carried out here and the conclusions drawn can be used as a foundation for any subsequent studies.

3.2 Chapter Summary

This chapter seeks to layout the key findings of the ex-ante assessment on the scope to use FIs to deliver SG's world-class digital infrastructure ambitions, as set out in "Scotland's Digital Future".

It follows the European Commission-recommended assessment process as specified in the introductory chapter, allowing each market segment to be analysed in detail and crucially this approach allows the analysis to only cover the steps which are relevant. Therefore, for considering FIs for broadband provision, due to regulatory restrictions at this stage, it will not be necessary to follow all the steps listed in the structure i.e. Assessment of added value of FI, proposed investment strategy or additional resources to be raised.

[64] ERDF OP, p.46
[65] *Ibid*, p.26
[66] *Ibid*, p.50

To carry out the market analysis, this chapter draws upon a number of sources. These include:

- The European Commission's extensive 'Broadband coverage in Europe 2012' report, along with the latest EU level statistics and indicators;
- The SG 2014 'Digital Business Economy Survey', which carried out interviews with businesses throughout Scotland to ascertain the level of digitalisation and provide an insight into what businesses may require to exploit digital technology;
- An analysis of EU regulatory fiches on the use ERDF funding for high-speed broadband and advisory documents on state aid provisions in this area; and
- The current UK-wide scheme to encourage broadband take-up, the 'Super Connected Cities Programme'

3.3 Broadband Provision

3.3.1 Market Analysis

As has been previously stated, there are significant benefits attached to the roll-out and enhancement of broadband networks. Broadband, as the then Commission Vice President for Digital Agenda, Neelie Kroes states *"…is economic oxygen"*[67]. The SG is committed to making next-generation broadband available to all by 2020[68] and a significant element of this commitment is the roll-out of services to the sparsely-populated transition region and Scotland's 'white-areas'. For these areas, a lack of connectivity could in the long-term serve as a further disadvantage to competitiveness and social cohesion and inclusion. The geography and population concentrations in remote parts of the Highlands and Islands mean there is a continuing need to support and catalyse investment in broadband infrastructure for communities which would otherwise be left with no coverage, or with very low speeds unsuitable for even current applications and usage.

The importance of this connectivity and digital technologies in general, is further emphasised with the results of the 2014 SG 'Digital Business Economy Survey': 29 per cent of businesses stated that digital technologies were essential for current operations, with 47 per cent saying they considered it very important[69]. On the question of digital technologies use for future growth, 74 per cent stated it was either essential or very important.[70] Ofcom received similar results with 82 per cent of Scottish SMEs agreeing that *"Communications services are fundamental to our business and without them we could not achieve our goals"* and rating fixed internet services as 8.8/10 for importance to their business[71].

[67] "Getting every home and town in Europe "broadband ready", Neelie Kroos, European Commission Press Release, 26 March 2013, (available at http://europa.eu/rapid/press-release_SPEECH-13-263_en.htm)
[68] Scotland's Digital Future: A Strategy for Scotland, Scottish Government, (available at http://www.scotland.gov.uk/Publications/2011/03/04162416/5)
[69] Digital Economy Business Survey Results, Scottish Government, October 2014
[70] (28% essential; 46% very important)
[71] The Communication Market Report: Scotland, Figure 1.02, Ofcom, (available at http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cmr14/scotland/sco-1.02)

Therefore, while access to broadband is undoubtedly essential for both SMEs and the consumer, it is important to consider current provision. The Broadband Coverage in Europe 2012 Report states there is 99.8 per cent (see Figure 14) coverage of standard-fixed broadband in the UK exceeding the EU average and this is considered to be generally uniform throughout the UK.[72] However, this changes somewhat when we examine the provision of Next Generation Access (NGA) throughout the UK[73]. Figure14 below shows that total NGA coverage in the UK was 70.3 per cent in 2012 and again this exceeds the EU average. However, this is not the case in Scotland. Figure 15 demonstrates that Scotland has 6 areas with 0 per cent NGA coverage. The SG Digital Economy Business Survey supports this with similar findings, as out of the 94 per cent of SMEs who stated they had an internet connection, only 19 per cent said they had NGA[74]. This gives us an early indication that the broadband market in Scotland is failing to provide NGA.

	UK - 2012		UK - 2011		EU27 - 2012	
Technology	**Total**	**Rural**	**Total**	**Rural**	**Total**	**Rural**
DSL	99.6%	99.6%	99.2%	92.9%	92.9%	76.3%
VDSL	46.9%	14.3%	26.1%	3.8%	24.9%	4.8%
FTTP	0.7%	0.1%	0.2%	0.0%	12.3%	3.0%
WiMAX	4.1%	2.7%	4.0%	2.7%	17.2%	16.2%
Standard cable	48.0%	5.0%	46.5%	0.0%	42.0%	7.3%
Docsis 3 cable	48.0%	5.0%	46.1%	0.0%	39.3%	5.8%
HSPA	98.4%	84.8%	98.8%	86.5%	96.3%	82.1%
LTE	17.3%	0.0%	0.0%	0.0%	27.0%	10.2%
Satellite	100.0%	100.0%	100.0%	100.0%	98.6%	98.6%
Standard	>99.95%	99.9%			99.4%	96.1%
Standard fixed	99.8%	99.8%	99.6%	93.2%	95.5%	83.2%
NGA	70.3%	18.2%	58.3%	3.8%	53.7%	12.4%

Figure 10: Broadband provision by technology UK[75]

[72] 'Broadband Coverage in Europe 2012', European Commission, p.193 (available at http://ec.europa.eu/digital-agenda/en/news/broadband-coverage-europe-2012-final-report)
[73] NGA defined here, by the European Commission, as broadband products providing speeds greater than 30 Mbps.
[74] Digital Economy Business Survey Results
[75] Broadband Coverage in Europe 2012', European Commission, p.192

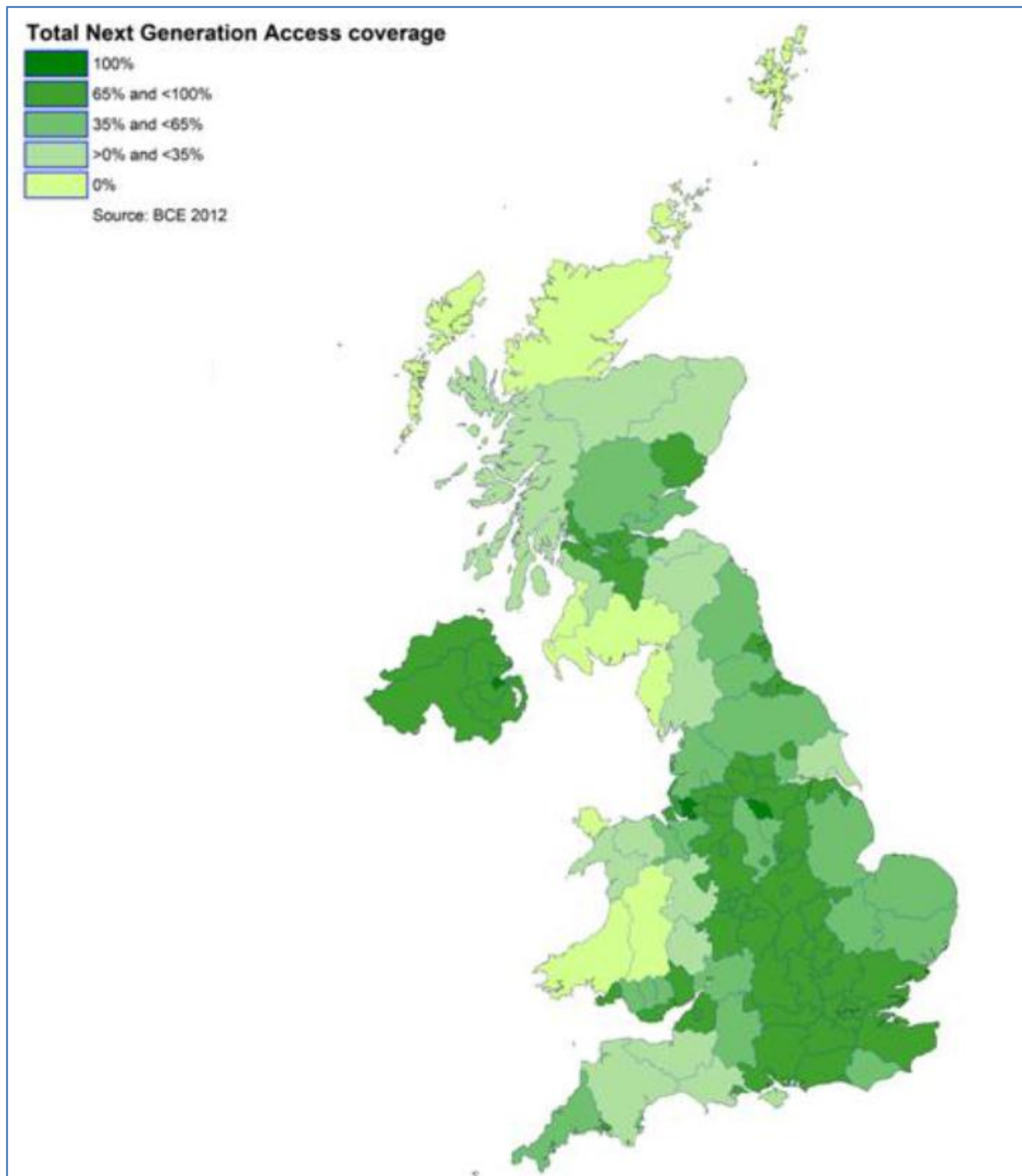

Figure 11: Total Next Generation Access coverage UK[76]

This market failure is heightened when we examine fibre deployment. The most future-proof broadband technology, Fibre to the Premise (FTTP), is considered essential to achieving a 'world-class' network. However, as Figure 14 indicates, the UK lags behind the EU average, having only 0.7 per cent coverage, compared to the EU average of 12.3 per cent and drastically far off certain Member States, such as Lithuania on 80 per cent[77] and Sweden on 46.2 per cent[78]. It is clear the market is failing to deliver FTTP in Scotland (and the UK generally) at anywhere like the pace required and with rural coverage of 0.1 per cent, this is a problem throughout the country. Greater FTTP penetration, in our cities especially, will be essential to ensuring that investment provides the most future-proofed solution, and that Scotland will not be disadvantaged internationally, for example, when attracting inward

[76] *Ibid,* p.193
[77] '*Ibid*, p.135
[78] *Ibid*, p.186

investment, in fostering our own innovative start-ups or by continuing relatively low levels of digital participation by business.[79]

3.3.2 European Commission Position and State Aid rules

If we take the stance of the OP regarding shortage of private investment to support an FI in Scotland's rural areas, this suggests firstly that an FI is not the most appropriate means of addressing the shortage of broadband provision in Scotland's transition region and this will be better served through the strategy outlined in the OP i.e. through smaller, regionalised projects covering those areas where mainstream delivery is not possible. Secondly, the only appropriate way to use an FI would be through the provision of fibre services in Scotland's urban regions and at this point it is necessary to review the position of the European Commission on this matter.

Indeed, broadband provision and roll-out has been so affected by competition concerns that DG Competition took the rare step of publishing a specific State aid guidance fiche for high-speed broadband roll-out. It clearly states that ERDF-support could only be considered permissible *"…in 'white areas' in which there are no networks of the same kind as the ones planed (basic or next generation) and where they are unlikely to be developed in the near future"* as these are far more likely to be compatible with State Aid regulations but would not be suitable for the areas we would seek to improve FTTP provision.[80]

Moreover, the guidance goes on to refer more closely to the urban areas we would seek to set up an FI: *"In 'black areas' where there are or there will be in the near future (3 years) at least two broadband networks of the same type from different operators and broadband services are provided under competitive conditions, there is very little scope for State intervention."*[81]

The difficulties of using public support in this area can be illustrated with the initial issues to the UK Government's 'Super Connected Cities Programme'[82] subsidy scheme, which was an series of local schemes at 22 cities throughout the UK. While this was eventually approved following amendments to state aid regulations and a redesign of the scheme, the programme is meant to focus primarily on *"typically low-density, rural areas, where commercial operators are unlikely to invest in high quality broadband networks"*[83].

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[80] Thematic guidance fiche for desk officers enhancing access to and use and quality of ICT: High-speed broadband roll-out , European Commission, March 2014 p.10 (available at http://ec.europa.eu/regional_policy/sources/docgener/informat/2014/thematic_guidance_fiche_ict_broadband.pdf)
[81] Ibid, p.11
[82] https://www.connectionvouchers.co.uk/superconnected-cities/
[83] State aid: Commission clears UK umbrella support scheme for broadband investment 'BDUK', European Commission Press Release, 20 November 2012 (available at http://europa.eu/rapid/press-release_IP-12-1244_en.htm)

3.4 Conclusion

One of the key factors in launching an FI is the future profitability offered to private investors, essential to making the instrument viable. This uncertainty on any financial return in Scotland's transition region means that ERDF support for addressing white areas is better served through the strategy outlined in the OP.

The impact of the State aid rules on this sector has already been noted above and at this stage presents a number of challenges for attempting to use ERDF-support for FTTP roll-out.

However, as has been demonstrated, there is a clear market failure of high-speed broadband and the mid-term review point for the programing period may present an opportunity to reassess the suitability of financial instruments to advance the Scottish Government's ambitions to be a world class digital nation by 2020 through various projects such as urban FTTP projects, the acceleration of ultrafast and 4G/5G deployment whilst ensuring ubiquitous superfast coverage. It is suggested that this area be kept under review as the programme develops and delivered over the first few years, but unless a targeted gap and eligible investment strategy can be identified, an FI will not be pursued for the 2014-2020 programme.

4. Low Carbon and Energy Efficiency

4.1 Introduction

Scotland's performance against EU 2020 targets on emission reduction and renewable energy generation has already exceeded the headline targets, with a 24.3 per cent reduction in greenhouse gas emissions, and 24.1 per cent of electricity requirements met from renewable sources; a figure which has nearly trebled in ten years.[84] This demonstrates a real commitment to developing renewables and reducing emissions - a commitment which is continued in the 2014-2020 ERDF programme. Over €131m, 27.49 per cent of the entire ERDF Scotland allocation, has been earmarked for low-carbon initiatives, under Thematic Objective 4 '*Supporting the shift towards a low carbon economy in all sectors'* and the subsequent Investment Priority '*Promoting research and innovation in, and adoption of, low-carbon technologies'*[85]*,* with over €26m of that (approx. 20 per cent of the total Low Carbon), notionally allocated to fund FIs.

With rising energy costs, changing legislation and challenging carbon reduction targets, organisations are being forced to think creatively about sustainable investment. Scotland holds significant potential for renewable energy generation, with associated investments in supply chains, infrastructure and distribution, all of which would generate returns for investors. As such, with significant private investment interest, this is considered an area with substantial potential for using ERDF-funded FIs.

However, as is stated in the ERDF OP, difficulties arise when attempting to ascertain the exact size and nature of the market failure which an FI would seek to address. This is essential to the design and investment strategy of the FI and it is anticipated that the early work on establishing the project pipeline under this programme will help to identify this gap, and potentially find a suitable role for establishing an FI. Therefore, the allocation for FIs under the low carbon priority axis is indicative at this stage, and the split between FIs and grant may need to be adjusted over the programming period. It is proposed that this area be revisited as part of the first two years of delivery, as we hope to have evidence of what elements are attracting financing and those that are not. Following this assessment, we would aim to launch FIs to support low carbon projects at the mid-stage of the programming period.

Despite this intention to launch an FI following the mid-point review, it is still necessary to include low carbon elements in this ex-ante assessment. This signifies the early scoping of this area and the cursory market analysis carried out here, with the conclusions drawn, can be used as a foundation for any subsequent studies.

[84] ERDF OP, p.10
[85] *Ibid*, p.26

4.3 Chapter Summary

This section seeks to layout the key findings of the ex-ante assessment on the scope to use FIs to build upon the Low Carbon Economic Strategy and is designed to help grasp the economic opportunities arising from this fundamental transformation of Scotland's infrastructure.

It follows the European Commission-recommended assessment process as specified in the introductory chapter, allowing each market segment to be analysed in detail and crucially this approach allows the analysis to only cover the steps which are relevant. Therefore, for considering FIs to support low carbon initiatives, due to issues surrounding the precise market gap, it will not be necessary to follow all the steps listed in the structure i.e. avoiding assessment of added value of FI, proposed investment strategy or additional resources to be raised.

However, it is still possible to consider other relevant elements in the limited market analysis, such as:

- Examine other examples of FIs in this area, at both EU and UK level
- Use the level of interest in such FIs as a basis for potential appetite in a Scottish ERDF FI
- Consider the delivery models and investment strategies implemented through other FIs as possible options for our own

4.4 Market Analysis

The significant Low Carbon Infrastructure Transition Programme (LCITP) is at the core of the ERDF Scotland programme. This proposal builds on the Low Carbon Economic Strategy and is designed to help grasp the economic opportunities arising from this fundamental transformation of Scotland's infrastructure. Operating across a range of sectors that have significant potential for de-carbonisation and enterprise growth, the programme builds on the National Renewables Infrastructure Plan model[86]. The programme, which could combine grant funding with an FI, would work with partners to ensure our policies are investment friendly, as well as focussing on the development of financial models and products that de-risk low carbon technology investments - particularly those in the energy sector. This will further develop our international profile to secure investment and promote our low carbon exporters. The aim is to ensure Scotland is programme, project and supply chain ready as investors increasingly turn to Scotland looking for opportunities.

However, as has been previously stated, the market is under-developed in Scotland and therefore the market gap is not yet clearly identifiable. Moreover, Scotland has very limited experience in delivering a low carbon and energy efficiency FI[87] and with no real precedent,

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[86] National Renewables Infrastructure Plan, Scottish Enterprise and Highlands and Islands Enterprise, July 2010, (available at http://www.scottish-enterprise.com/nationalrenewablesinfrastructureplan.pdf)

[87] Only possible example would be the Scottish Partnership for Regeneration in Urban Centres (SPRUCE), which was delivered on JESSICA (Joint European Support for Sustainable Investment in City Areas) principles, providing funding for regeneration and energy efficiency, with the EIB acting as Holding Fund Manager.

we are reliant upon the numerous examples across the EU to inform our own discussion to set up an FI.

The London Green Fund (LGF) is one such example and its implementation and success can provide much useful information[88]. The LGF began as a £100m fund set up to invest in schemes that will cut London's carbon emissions. It was initially made up of £50m from the London ERDF Programme, £32m from the Greater London Authority and £18m from the London Waste and Recycling Board. It provides funding for three urban development funds that invest directly in waste, energy efficiency, and social housing projects. These are 'revolving' investment funds, where monies invested in one project are repaid and then reinvested in other projects, ensuring a last legacy from the original investment. The EIB manages the LGF on behalf of the Greater London Authority and London Waste and Recycling Board. It has been noted as a particular success, already generating returns despite only being set up in 2009. This success is further demonstrated by it securing a part-match funding investment package of £500m[89] from the EIB, which will be used for urban infrastructure, new and upgraded social housing and energy efficiency projects. This demonstrates the interest and appetite in launching an FI in this area and signals the notional level of potential investment such an FI could attract in Scotland.

Moreover, this indicates the crucial support the EIB specifically could offer a low carbon an FI. The EIB's commitment to delivering sustainable growth and job creation by supporting environmental sustainability and energy efficiency has seen a recent growth in the number of green FIs. In March of last year, Spain received a €120m loan for environmental investment to protect its coastal and forest regions[90], whereas in 2013, the EIB lent €19bn, constituting 25% of their entire lending portfolio, in climate action initiatives, €6.4bn of which went to renewables.[91] This lending signifies the prospective support a Scottish ERDF-funded FI could draw upon, at some stage or in some form.

The projects financed by the UK Green Investment Bank (GIB) are also relevant. Established by the UK Government and initially capitalised with £3.8bn, it backs green projects, on commercial terms, throughout the UK. It has already invested in every part of the UK backing large projects with a capital expenditure of more than £1bn and small projects of £2m. It also has five funds to specifically target smaller projects. The level of interest shown and private sector investment offered in such projects demonstrate the attention a low carbon FI in Scotland could attract.

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[88] 'JESSICA – London Green Fund', Greater London Authority, (available at https://www.london.gov.uk/priorities/business-economy/championing-london/london-and-european-structural-funds/european-regional-development-fund/jessica-london-green-fund)

[89] 'EIB backing unlocks GBP 1 billion social and urban investment across London', EIB Press Release, 24 October 2014 (available at http://www.eib.org/infocentre/press/releases/all/2014/2014-233-eib-backing-unlocks-gbp-1-billion-social-and-urban-investment-across-london.htm)

[90]Spain: EUR 120 million for environmental investment, EIB Press Release, 17 March 2014, http://www.eib.org/infocentre/press/releases/all/2014/2014-057-eur-120-million-for-environmental-investment-in-spain.htm

[91] 'EIB Climate Action Lending 2013' (available at http://www.eib.org/projects/priorities/climate-action/index.htm)

4.1 FI Delivery

There are a number of means through which we could deliver an FI, ranging from large capital loan funds to guarantee schemes although at this stage it is not possible to specify the delivery model(s) suitable, without knowing the exact nature of the market and what form of FI could address the failure.

However, it is possible to make general observations on a potential design, which may or may not inform the subsequent assessment carried out as part of the mid-term review, depending on the market analysis. One potential option would be to extend the remit of the current JESSICA Fund, currently managed by the EIB , delivering the SPRUCE initiative and has the same private fund manager as the LGF. As has been previously suggested, this would tap into a significant amount of EIB investment available for this type of FI, as well as exploiting the fund manager's contact network for similar investments in waste, energy efficiency and local energy generation.

Also, the presence of a large number of investor funds – private as well as EIB, the Green investment Bank in the UK and the National Renewables Infrastructure Fund in Scotland – show that there is significant appetite for investment in this area, and this could suggest that the bottleneck in Scotland is not necessarily funding. There are multiple private investors interested, who would be willing and able to make significant projects happen on the ground and yet potentially good quality projects never gain investment as the business plans are underdeveloped, returns expected over a very long timeframe, or the projects are too small or localised to be of interest to serious investors. A part of the FI delivery model could be to help these projects become a robust and reliable pipeline of investable propositions; tying in with the existing elements of the low carbon ERDF programme, to de-risk the early stages of development of technology; and to bring smaller projects together to form larger, more investable ones. Investors should know and be confident that the support is there to develop proposals; and smaller projects should be helped to access to market. Bringing about that change is likely to require the FI to have a role in risk sharing on projects which have long pay-off periods, or high initial risk profiles.

Moreover, for a FI to work effectively in this sector, it clearly needs to be aligned to the advice and grant functions under the remainder of the ERDF programme and any FI delivered would seek synergy with the other elements of the programme.

With regards to potential legal hurdles, given the likely unique circumstances associated with each project, State aid issues will be assessed on a project by project basis. In general terms we are aware that any loans will need to reflect market conditions and that equity shares will need to be commensurate with the level of risk in the project.

4.5 Conclusion

Low Carbon and Resource Efficiency appears a favourable area for FI investment under the ERDF, with previous success stories and a number of potential investors, both private and public. As such, a quarter of the total ERDF low-carbon allocation has been dedicated indicatively to FIs.

For the reasons that have been discussed, it is not clear what the exact size and nature of the market gap in this area is, which impacts on the nature of funding an FI would require. Likewise, the correct delivery model(s) for such FIs remains unclear, and should be given further thought prior to commencing such an FI. It is expected that the first two years of the programme will shed light on these issues and help inform a further assessment to be carried as part of the mid-term review, after which point it is our intention to launch low carbon and energy efficiency FIs.

5. Conclusion

This ex-ante assessment has followed the European Commission-recommended methodology to analyse the suitability of using FIs in the areas of SME access to finance, the provision of NGA broadband and low carbon and energy efficiency.

When considering the potential to use an FI in the roll-out of high speed broadband, it was possible to see a clear gap where the market is currently failing to deliver, both in Scotland's transition regions' - 'white areas' where no service exists - and in urban areas, with the slow provision of FTTP. However, a review of European Commission restrictions demonstrated the impossibility of using ERDF support to fund an FI addressing urban high-speed broadband roll-out. For rural areas, a lack of private investment and poor returns make this also unsuitable for an FI. As a result, it was decided that the provision of broadband remains under consideration at this stage and can be revisited as part of the midpoint review, where the conditions can once again be assessed.

Under Thematic Objective 4 *'Supporting the shift towards a low carbon economy in all sectors'*, over €26m has been allocated to fund an FI. However, issues exist in determining the exact size and nature of the market gap the FI(s) would address. As has been demonstrated there is significant interest in this sector, with the presence of a large number of investor funds and numerous similar FIs on which we could model our own. Therefore, it has been recommended here that we resist launching a low carbon and energy efficiency FI at this stage and review the market with the evidence gathered in the first two years of the programme, by which time it is expected to demonstrates which areas could benefit most.

Despite a general improvement in the economic climate and (relative) easing of bank lending, there remains a gap between the demand for, and the supply of, debt finance for some SMEs in Scotland. To assess the market gap for Scottish SMEs accessing finance, we have applied the European Commission's methodology used for their ex-ante assessment of the 'SME Initiative'. Under this method, there is a potential financing gap of £0.47bn annually in Scotland, with a possible 4,500 viable SMEs unable to secure finance.

In terms of a possible financing gap in the Scottish risk capital market, the early stage equity market in Scotland has been quantified at c.£84m annually, with the gap identified at £35m annually.

To address this, it is recommended that £40m of ERDF funding is initially allocated specifically to establish a dedicated SME Holding Fund which would then invest directly in a small number of debt and equity funds. The Holding Fund would be delivered by establishing a dedicated investment team with expertise in the field of economic development, European funding and investment. Through these measures, we are confident that these FIs can make a crucial contribution to the objectives of the 2014-2020 ERDF programme.