EC-OECD Seminar Series on Designing better economic development policies for regions and cities



Financial Instruments in Practice:

Uptake and Limitations

28 June 2017

Fiona WISHLADE

Professor and Director, European Policies Research Centre

Rona MICHIE Senior Research Fellow, European Policies Research Centre





Background information

This paper was prepared as a background document to the OECD-European Commission Seminar on 'When to use *financial instruments*" held on 28 June 2017 at the OECD Headquarters in Paris, France. It sets a basis for reflection and discussion.

About the Project

This seminar is part of a five-part seminar series in the context of an EC-OECD project "Designing better economic development policies for regions and cities". Other sessions in the series addressed the use of: contracts for flexibility/adaptability, performance indicators, financial instruments, and insights from behavioural science. The outcome of the seminars supports the work of the Regional Development Policy Committee and its mandate to promote the design and implementation of policies that are adapted to the relevant territorial scales or geographies, and that focus on the main factors that sustain the competitive advantages of regions and cities. The seminars also support the Directorate-General for Regional and Urban Policy (DG REGIO) of the European Commission in the preparation of the impact assessment for the post-2020 legislative proposals and to support broader discussion with stakeholders on the future direction of the delivery mechanisms of regional policy.

Follow us on Twitter: OECD SMEs, Regions, Cities (@OECD_local)

© OECD 2018

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the OECD or of the governments of its member countries or those of the European Union.

This document and any map included herein are without prejudice to the status or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city, or area.

Table of contents

Introduc	tion	.4		
	d context			
For whic	h policy areas and objectives are publicly backed financial instruments suited?	.7		
	tical rationales for public intervention			
	vs. financial instruments?			
	ere financial instruments used under Cohesion Policy in 2007-13?			
	ew of plans in 2014-20			
	tential for financial instruments in different areas of activity			
	e the key preconditions for the implementation of financial instruments?			
	ons	26		
	ch sectors would benefit most from financial instruments, what limits the uptake of			
	al instruments in these sectors and how can they be encouraged to make greater use of	74		
	at are the institutional framework conditions and complementary policy measures that			
	be in place to use financial instruments?			
	do regulatory frameworks promote or limit the use of financial instruments?			
	t capacity do businesses and public administrations need to apply for and use financial			
	nents and how can it be strengthened?	30		
	v can the administrative burden of applying for and using financial instruments be			
	1?	30		
Tables				
Table 1.	"Absorption" of funds through financing instruments	13		
Table 2.	Linking objectives, market imperfections, target recipients and financial products	18		
Figures				
Figure 1.	Amounts dispersed to final recipients and share of total by end 2015	13		
Figure 2.	Operational programme contributions to financial instruments, selected EU			
	countries	14		
Figure 3.	Operational programme commitments in selected EU countries to financial			
C	instruments, 2007-13 and 2014-20	15		
Figure 4.	Operational programme indicative allocations to financial instruments by			
U	thematic objective	16		
Boxes				
Box 1. Cana	ada Small Business Financing Program2	23		
	Box 2. Scottish Co-Investment Fund			
Box 3. NRV	V/EU Micro Loan Fund2	26		

Introduction

Financial instruments in the form of loans, guarantees and equity have long been important economic development policy measures in many countries, but have only recently become prominent in EU Cohesion Policy. The growing interest in financial instruments at the EU level partly owes to the perceived "sustainability" benefits of repayable instruments against the backdrop of budgetary constraints. Reflecting this, the European Commission has increasingly emphasised the role that financial instruments can play in the delivery of Cohesion Policy. In 1994-99, European Regional Development Fund (ERDF) spend in the form of financial instruments was estimated at just EUR 300 million, rising to some EUR 1.2 billion in 2000-06 (CSES, 2007); the most recent summary of financial instrument spend for 2007-13 (European Commission, 2016) shows ERDF and European Social Fund (ESF) Operational Programme (OP) commitments to financial instruments of just over EUR 12 billion.¹ In 2014-20, the role of financial instruments is being reinforced further, with the Commission encouraging member states to double the use of financial instruments in European Structural and Investment Funds (ESIF), in line with the objectives of the Investment Plan for Europe (European Commission, 2014). Implementation of the 2014-20 plans remains at a comparatively early stage, especially in the case of financial instruments, but indications from the operational programmes are that member states planned to commit over EUR 20 billion on financial instruments.² That said, it is important to note that the vast bulk of ESIF spend remains in the form of grants: even if the increase in ESIF financial instrument commitments from EUR 12 billion to EUR 20 billion materialises in 2014-20. this will only represent around 6% of total ESIF commitments, as opposed to about 4% in 2007-13.

Against this background, the aim of this paper is to explore the experiences related to the use of financial instruments and policies to encourage their uptake, as relevant to the remit of the Directorate-General for Regional and Urban Policy (DG REGIO) of the European Commission.³ It draws on the experiences with financial instruments, principally in the EU member states, and considers both purely domestic and co-financed instruments. This paper complements a contribution by Ross Brown and Neil Lee which offers a theoretical perspective on the circumstances in which financial instruments are particularly effective and the limits to their usefulness (Brown and Lee, 2017). By contrast, the present paper has a more practical focus and aims to address the following questions posed by the European Commission and the OECD in advance of the seminar:

- Which sectors would benefit the most from financial instruments, what limits the uptake of financial instruments in these sectors and how can they be encouraged to make greater use of them?
- What are the institutional framework conditions and complementary policy measures that need to be in place to use financial instruments?
- How do regulatory frameworks promote or limit the use of financial instruments?
- What capacity do businesses and public administrations need to apply for and use financial instruments and how can it be strengthened?
- How can the administrative burden of applying for and using financial instruments be reduced?

In considering these questions, the paper is structured as follows: the next section sets out some key issues of scope and context in considering the use of financial instruments; the following section considers the kinds of activities for which financial instruments are relevant, the extent to which they are currently used for these purposes under Cohesion Policy and illustrates the main areas where financial instruments might be relevant and drawing on domestic and co-financed examples; the paper then identifies some of the key preconditions for the successful implementation of financial instruments, focusing especially on support for enterprises, for which there is most experience, but also drawing on practice in other policy areas; the final section concludes.

Scope and context

The term "financial instrument"⁴ is now firmly embedded in Cohesion Policy parlance,⁵ but in fact embraces an array of financial products that not only operate in diverse ways, but are of widely differing orders of scale, address a variety of policy objectives, use various modes of governance and function within assorted socio-economic, institutional and geographic contexts. The common thread is essentially that financial instruments provide funding that is intended to be repayable. The important issue here is that a high degree of granularity is required in analysing the key issues involved in the design and implementation of financial instruments.

The conventional breakdown of financial products distinguishes loans, guarantees and equity, but there are a number of possible variants on these, as well as scope to combine measures to meet the needs of both the funder and the final recipient.

- Loans are the most widely used source of private finance for small and mediumsized enterprises (SMEs) and are offered almost everywhere in domestic and/or co-financed economic development policies; loans are also widely used by other project promoters, such as local authorities, for upgrading public buildings and spaces and other capital investments, and householders and landlords for energy renovation. Loans are comparatively easy to administer from a public administration perspective, to the extent that the implementation of a loan fund can be "outsourced" or funds can essentially be used to increase the volume of finance available through existing commercial sources. Loan products can help address credit rationing, as well as cost-of-credit issues (through interest rate subsidies or easier terms). Loans are often preferred by SMEs because there is no loss of control or ownership, as with equity, but they can lack the flexibility required by young firms.
- Guarantees are arguably the most straightforward financial product to design, implement and recalibrate as economic development needs change. They have most potential for impact where collateral-based lending is the norm and the business population is not asset-rich. The use of guarantees (in domestic and Cohesion Policy) is significant in only a few countries, and the sums covered are, on average, often modest, partly because they are frequently combined with loans in microfinance packages for start-ups and young firms. However, where they are used, their reach can be significant, with many thousands of publicly backed guarantees offered annually in some countries.
- Publicly backed equity or venture capital is the least used of the three "conventionally defined" financial products and is often regarded as a "niche" product for potentially fast-growing innovative firms. Private equity markets vary widely across Europe and equity and venture capital are not prominent sources of

finance for SMEs, especially smaller ones. Indeed, across Europe, over 80% of SMEs consider that "equity is not applicable to my firm" (European Commission, 2013). Equity products can provide significant amounts of medium- to long-term capital, but imply at least some loss of management control by founders and are typically more difficult to manage for public authorities.

The scale of financial instruments also varies widely. Summary information on cofinanced financial instruments (European Commission, 2016) suggests that some 975 funds were set up in the 2007-13 programming period, but the 15 largest of these account for approaching half of all payments to funds. There are several funds which exceed EUR 200 million – the largest being the Italian Research and Competiveness OP Guarantee Fund, which totalled EUR 871 million; however, the average fund size is around EUR 20 million and there are large numbers of funds of less than EUR 1 million. Differences in financial scale partly reflect their geographical scope, with most of the very large funds (over EUR 200 million) operating on a national or multi-regional basis. There is no comparative or systematic source of information on non-cofinanced financial instruments; indeed such instruments are both diverse and opaque, in part owing to the rebranding of financial products (Whittle, Malan and Bianchini, 2016), which renders an overall quantification of public funds for financial instruments an impossible task (Michie and Wishlade, 2015).

The policy objectives of financial instruments for economic development embrace a spectrum of specific aims. The principal focus is on addressing perceived gaps in the availability of finance to SMEs, but this itself is a varied segment, with prospective recipients including high-growth firms, high-tech spin-out companies, "mainstream" SMEs and well as individuals seeking self-employment. Within the overarching aim of supporting business development, these groups require quite different approaches in terms of financial product and delivery mechanisms, with specialised fund managers required for some, but relatively standardised banking products suitable for others. The 2007-13 Structural Fund regulations also made explicit provision for financial instruments for urban development and later for those for energy efficiency and renewable energy sources. The substance of financial instruments for these policy areas, and the way in which the instruments function, is different again from support for businesses, with final recipients also including public authorities, housing associations, landlords and private householders. As discussed below, the 2014-20 Regulations open the possibility of using financial instruments for all of the so-called thematic objectives covered by the ESIF.

The governance of financial instruments is very much context-driven: co-financed funds can be operated within holding funds, or "funds of funds", or as specific funds outwith a fund of funds. Often the European Investment Bank plays a significant role in holding fund management. In some countries, the implementation of co-financed instruments relies heavily on existing institutions – especially promotional banks – providing an additional block of funding to supplement domestic sources. In others, holding funds and/or specific funds maybe be procured and/or established as separate legal entities.

Away from ESIF co-financed measures, the domestic scene is varied, but three main approaches can be distinguished (Michie and Wishlade, 2015):

1. investment funds with a remit essentially limited to SME development: Innovation SME+ (Netherlands), Vaekstfonden (Denmark) and Industrifonden (Sweden) fall into this category

- 2. public financial institutions which operate more than one fund (or funds of funds) and often collaborate with other organisations, but whose focus remains on business development, especially SMEs: Finnvera (Finland), *Land* business banks (Germany), Bpi (France), Strategic Banking Corporation of Ireland (Ireland), Finance Wales and British Business Bank (United Kingdom)
- 3. public banks whose operations are on a more significant scale and extend into areas beyond SME development into infrastructure, lending to local authorities and potentially international operations: KfW (Germany), BGK (Poland), ICO (Spain), *Land* banks (Germany).

A notable trend is the emergence of new promotional banks in countries where they did not exist previously, and a strengthening of their mandates, largely in response to the impact of the financial crisis and the loss of investor confidence in the aftermath.

Last, it is important to emphasise the variety of contexts in which financial instruments operate and to which, at least in part, they are intended to respond. There are significant differences between countries in terms of levels of economic development, administrative capacity and the nature of private finance. There is also an inherent spatial basis in access to finance within countries (Martin, 1999). This is true in terms of the capacity of wouldbe entrepreneurs to raise their own finance (from family, friends or secured on property), bank lending, business angels, and the operation of the venture capital and stock markets. Financial systems are characterised by complex institutional geographies that both reflect and influence their functioning. This, in turn, produces geographical effects on the ability of entrepreneurs to access finance, which typically work to the disadvantage of peripheral regional economies. The geography of finance is an important part of this context. This is not just because Cohesion Policy seeks to address disparities between countries and regions, but also because institutional and administrative capacity, both public and private, are typically weaker in less-advantaged regions, which in turn has implications for the capacity successfully to implement financial instruments. In the Cohesion Policy context, it is also important to note that the scale of funding varies greatly between countries and regions: in some countries, notably in central and eastern Europe, the scale of Cohesion Policy is of macroeconomic significance and is the principal source of economic development funding. In others, especially in northern and western Europe, the scale of funding can be relatively marginal to the wider domestic economic development policy effort.

For which policy areas and objectives are publicly backed financial instruments suited?

Theoretical rationales for public intervention

This paper mainly deals with the practical experiences with financial instruments, the companion paper by Brown and Lee focusing on the theoretical dimension. Nevertheless, it is worth recalling some issues of principle here since the nature of the justification for public intervention has a direct bearing on whether financial instruments are an appropriate delivery mechanism for policy.⁶

In broad terms, the justification for public intervention in economic development policy is to support activities that market operators cannot or will not undertake alone, but which are considered in the wider public interest. This is sometimes characterised as "market failure", but in fact can arise in situations where there simply is no market and the private sector is operating quite rationally, or where the market is imperfect and operating suboptimally. These include the following (Meiklejohn, 1999):

- The provision of public goods. These are generally defined as "non-excludable" and "non-rivalrous", meaning that access to the goods concerned cannot be limited to those who pay for them and their use by one party does not diminish their availability to others. Classic examples of public goods include lighthouses and street lighting, but clean air and certain types of public infrastructure such as flood defences might also be considered public goods since there is no scope to create an efficient market for them.
- **The supply of merit goods,** that is, those goods and services which governments consider would be consumed at a lower level than desirable if determined solely by the free market, and where public authorities should intervene in order to ensure uptake at optimal levels. Examples include aspects of education, culture, health services, museums and libraries.
- **The presence of externalities,** the notion that the activities of an individual or a firm have spillovers which affect others and that these are not reflected in market prices. In other words, commercial assessments of returns on investment do not necessarily capture the wider social or longer term benefits. The conventional example of a positive externality is research and development. Firms may be deterred from investing in R&D because they cannot reap all the gains from their investment (assuming a successful outcome) and there are risks that others will "free ride" on their innovation. This may result in suboptimal levels of investment in R&D, and yet the dissemination of new technology has wider societal benefits justifying public sector intervention to provide, among other things, the "patient long-term finance" important for innovation (Mazzucato and Penna, 2015). Similarly, firms may be discouraged from bearing the costs of vocational training to the extent that it increases the likelihood of staff being "poached" by other employers who have made no such investment, and yet there are wider benefits to society (and individuals) of a better skilled workforce. Urban development is another area where there is potential for longer term societal and environmental gains, but where the cost and/or risk means that insufficient commercial funding can be attracted to deliver on these wider benefits (Nadler and Nadler, 2017). Of particular relevance in the present context are energy efficiency and renewable energy sources (RES). The market alone is not currently delivering sufficient energy from RES to meet agreed climate change targets. RES often requires significant upfront capital investment, but in contexts where returns are uncertain, partly owing to market and regulatory imperfections and the risks associated with different technologies. Energy efficiency may also require significant investment, but a number of barriers impede investment at levels needed to achieve energysaving targets - they include cultural barriers among lenders whose mindset is more oriented towards growth than cost optimisation, payback times that exceed the time that home owners expect to live in the property and split incentives - for example, in the case of rented property where the investment cost is born by the landlord but the savings accrue to tenants (Wishlade, Michie and Vernon, 2017).
- **Imperfect information** in financial markets. Of course, "perfect" information is a purely theoretical construct, and risk aversion where insufficient information is available is a rational market response by an investor. However, information asymmetries can be particularly acute among start-ups which have no track record

and new firms in high-technology sectors, where the risks are difficult to assess precisely because their activities are innovative. Such firms often lack the collateral needed to secure capital or the cost of capital is too high because of their risk profile; analysis has suggested that access to finance is likely to be especially difficult for certain categories of SME, notably start-ups, small and/or young firms, and high-tech enterprises (Siedschlag et al., 2014). This is an important policy consideration because there has been increasing policy focus, at European, national and subnational levels, on the nurturing of high-growth firms (OECD, 2010). This reflects the fact that a very small proportion of new firm starts will account for the majority of benefits in terms of investment, employment and exports (Henrekson and Johansson, 2010), but significant numbers of ambitious new firms cite access to finance as a constraint on their development (Maula, Murray and Jääskeläinen, 2007). This focus also partly reflects the role that private venture capital is considered to have played in the development of new technology firms in certain locations - like Silicon Valley and Israel - and in the development of some high-profile firms such as Google and Facebook (Gompers and Lerner, 2001). Indeed, concern has long been expressed at the relative underdevelopment of venture capital markets in European countries (Phillippon and Veron, 2008), and at the role of space and place in the availability of capital, with capital heavily concentrated in the more prosperous areas.

In practice, two or more of these situations justifying public intervention may be present simultaneously. For example, information asymmetries may mean that assessments of very small projects requiring microfinance incur disproportionate transaction costs for investors, leading to a dearth of funds for initiatives that could have a positive impact on society by reintegrating individuals into the labour market, supporting disadvantaged groups and/or reducing welfare dependency. Similarly, investments in renewable energy sources could have positive environmental impact, but information asymmetries arising from the capacity to assess the risk involved in new technologies can mean suboptimal investment.

Grants vs. financial instruments?

From a policy design perspective, financial instruments are an alternative delivery mechanism to grants. It is important to highlight this since the use of financial instruments is often cast in terms of addressing a "gap" in access to finance – typically difficulties that SMEs have in accessing loan funding or investment capital. However, grants can also be used to address gaps in access to finance and the key issue here lies not in the objective of funding per se, but rather in what difference the delivery mechanism can make to the achievement of that objective and wider policy effects.

In practical terms, a role for financial instruments is only feasible where the ultimate investment is income-generating or cost-saving, enabling the initial support to be repaid. This means that where public intervention is justified by the need for public goods, repayable support is unlikely to be well-suited. In other words, appropriate forms of finance need to be tailored to the market imperfection being addressed. Three principal benefits of financial instruments as opposed to grants are conventionally highlighted (European Commission, 2012).

First, financial instruments are more sustainable because funds are repaid, creating a legacy to invest again. For policy makers with long experience of financial instruments, this is often regarded as the key benefit, even if it is not always the primary consideration

among newer practitioners (Wishlade et al., 2016a). Importantly, however, the scale of returns depends not only on the presence of sufficient numbers and scale of viable projects that are not commercially funded and the scope for timely exits and repayments, but also on the extent to which management costs and fees, defaults and losses erode returns.

Second, financial instruments can improve project quality – this may be partly through the due diligence involved in private sector project assessment, but also because the recipient is more focused on project viability because of the obligation to repay. This rationale is partly founded on the idea that the level of deadweight involved in financial instruments is lower than for grants; there is also a psychological dimension as both investee and investor share the risk, though how this is distributed will depend on how the instrument is designed. In addition, the use of financial instruments is influenced by the view that private sector expertise in assessing business plans improves the viability of projects compared to grants.

Third, and partly related to the sustainability argument, financial instruments can make more cost-effective use of public funds partly because funds may be recycled, but also because of their potential to attract private funds. This argument was particularly significant in the context of the financial crisis, which affected not only public spending, but also the willingness of the private sector to lend and invest. That said, there is limited evidence of the capacity of public financial instruments to draw in private capital, and many ESIF co-funded instruments use public capital alone (Wishlade et al., 2016a). Moreover, and as discussed in the seminar, it is important to note that the ESIF aim to promote convergence between regions and countries and as such co-financed financial instruments are an investment tool and not a countercyclical instrument.

A secondary benefit related to private capital is the scope for publicly backed financial instruments to support the development of local (or sometimes larger) private financial markets and there is some evidence of success in this area. For example, in Lithuania and in the North-East of England, ERDF co-financed financial instruments for enterprises are considered to have had a positive impact on the development of the market (Wishlade et al., 2016a), while in Estonia, ERDF co-financing of a renovation loan for energy efficiency in housing in 2007-13 has been phased out in 2014-20 on the basis that the private market for such funding had developed to the extent that public financing was no longer required (Wishlade, Michie and Vernon, 2017).

The relationship between grants and financial instruments and their respective roles is rarely well-articulated in policy – whether in the domestic arena or in the implementation of Cohesion Policy by national and regional authorities. There is a need for the SME support offer to be co-ordinated – financial instruments are not attractive when grants are available for similar purposes (Faiña et al., 2012), but as discussed in the seminar, financial instruments are considered to play an important role in limiting grant dependency, provided that financial instruments and grants are appropriately dovetailed. While this has not received much attention in the past, the recent evaluation of financial instruments for enterprises in Cohesion Policy in 2007-13 suggests that this is rising up the agenda following the wider use of such instruments in 2007-13. Some managing authorities perceived financial instruments as improving the capacity of Cohesion Policy to meet targets, in comparison with grants (Wishlade et al., 2016b), with a key benefit being that financial instruments discourage grant dependency, promote an "entrepreneurial culture" and may support (niche) market development. Moreover, they require more corporate finance expertise, potentially improving sound decision making among applicants and policy makers (Regeneris Consulting and Old Bell 3, 2014). That said, grants are generally considered easier to administer by policy makers, though there is not necessarily a substantial difference between the two for recipients and some policy makers note that good-quality applicants may prefer loans because a larger proportion of their cost can be covered (Wishlade et al., 2016a). Moreover, as discussed in the seminar, financial instruments are not universally considered more complex by managing authorities, with one participant noting that they can, in fact, be simpler than grants at the audit stage, provided that procurement processes are compliant. The scope to combine different forms of support has been given limited consideration in Cohesion Policy, but blending loans and grants has become common practice in international development finance (Bilal and Krätke, 2013). This involves the combination of grant aid from official development assistance with other public or private sources of finance such as loans and risk capital. This approach is perceived to offer a number of advantages, in particular:

- the scope to do "more with less", as already mentioned
- the possibility to ensure the uptake of international political and technical standards
- the ability to enhance "ownership" through close involvement in the design and implementation of the funding
- the capacity to open up and provide incentives for entry into new or otherwise too risky markets for the private sector, and lever in private funds.

Potential downsides are also identified, including:

- the risk that financial incentives outweigh development objectives
- the possibility that finance becomes too concentrated on certain sectors if funding follows "market-led" trends
- ill-defined monitoring and evaluation
- inefficiencies in the way in which private investment is incentivised.

As discussed later, financial instruments should not be viewed in isolation, or purely as part of a funding package; instead, a holistic approach that combines advice and other support, whether training, consultancy, energy audits, etc. is needed to optimise intervention.

It is important to note that financial instruments are not suitable for all types of intervention. As outlined earlier, the justifications for intervening vary and these in turn affect the choice of delivery mode (whether non-repayable or financial instruments). In practice, however, the academic and policy literature reveals little research on the relative merits of grants versus financial instruments in different situations. A recent "think piece" posited that there should be a presumption in favour of using financial instruments in supporting SMEs, but that grants might be appropriate in four scenarios (Regeneris Consulting and Old Bell 3, 2014):

• For early-stage research and development (where there is an established precedent for the provision of grants to new ventures to support proof of concept and provide seed funding, and grants may be appropriate for early rounds of funding for young, small technology-based SMEs).

- To encourage change in behaviour, such as investment in energy-saving measures (using a grant to incentivise behaviour change to tackle an important market failure and to deliver public goods).
- At key points in their development, for social enterprises and charities (some of which will never be traded on markets or be financially self-sustaining).
- Addressing a viability gap to enable a project to proceed (where own contributions and commercial sources are insufficient but additionality and value-for-money criteria are met). In these circumstances there may be a case for a grant to fill the viability gap and enable the project to go ahead, if additionality and value-for-money criteria are met.

How were financial instruments used under Cohesion Policy in 2007-13?

As already mentioned, the emphasis on the use of financial instruments in Cohesion Policy has been reinforced for 2014-20, with the Commission promoting both high levels of financial commitment to financial instruments, and the use of financial instruments potentially across all policy areas. In looking at 2007-13, the following "headline" figures emerge, based on the situation at the end of 2015 (Wishlade and Michie, 2016):

- Twenty-five member states had established co-financed financial instruments in 2007-15 (Croatia, Ireland and Luxembourg had not) involving support from 188 operational programmes.
- EUR 17.9 billion in operational programme contributions had been committed to financial instruments, of which EUR 16.9 billion had been paid into holding funds or specific funds and EUR 12.7 billion had reached final recipients an overall "absorption rate" of 75% of operational programme contributions.
- Seventy-seven holding funds and 975 "specific" funds (i.e. loan, guarantee, equity or other funds) had been set up; of the specific funds, 513 were established within holding funds and 462 were implemented directly.
- The average holding fund size was just over EUR 100 million; 25 holding funds were larger than EUR 100 million and the largest (in Hungary) has received allocations of EUR 873 million. In contrast, five holding funds were below EUR 15 million, with the smallest being just over EUR 7 million (in Poland).
- Specific funds had an average size of just over EUR 20 million, but ranged from over EUR 100 million (15 financial instruments) to under EUR 1 million (86 financial instruments of which 53 were in France).
- Most of the funds (887 specific funds) provided support to enterprises and all member states using financial instruments supported enterprises; 11 member states financed urban development through a total 51 specific funds; and 10 member states supported energy efficiency through 27 specific funds.
- Of the total dispersed by the end of 2015, some 45% was in the form of loans to enterprises (Figure 1).

There were significant differences in scale and absorption rates between the different policy areas targeted, as indicated in Table 1. However, in all cases, there was an improvement in the rate of absorption between the end of 2014 and 2015 (European Commission, 2016).

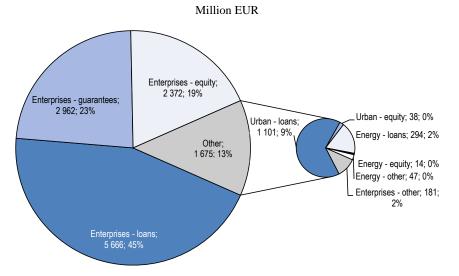


Figure 1. Amounts dispersed to final recipients and share of total by end 2015

Source: Own calculations from European Commission (2016).

Table 1. "Absorption" of funds through financing instruments

	Operational programme contributions paid to holding funds or specific funds	Operational programme contributions paid to final recipients	Operational programme contributions remaining in holding funds or specific funds	"Absorption" rate
Enterprises	14 543	11 181	3 292	76.9%
Urban development	1 658	1 138	275	68.6%
Energy efficiency	703	355	291	50.5%

Million EUR as at end December 2015

Note: The operational programme contributions here include both EU funds and domestic co-financing.

Source: European Commission (2016).

There were also wide variations between member states, both in their use of financial instruments and in the levels of absorption:

- Italy alone accounted for over 29% of operational programme contributions paid to financial instruments (almost EUR 5 billion) by the end of 2015; however, only 53% of this was actually invested in final recipients.
- Other large member states had also made significant payments to financial instruments by the end of 2015, including Germany (EUR 1.7 billion) and the United Kingdom (EUR 1.6 billion), but **payments were not directly related to country size**, with Poland and Spain also each paying over EUR 1.2 billion to funds, but France just EUR 461 million.
- By the end of 2015, 90 financial instruments had either not yet made any investments in final recipients or had not reported them. Of these, 56 were in France and 17 in Italy.
- In nine countries, over 90% of monies paid to financial instruments had been paid to final recipients Bulgaria, Denmark, Estonia, Finland, Germany,

Hungary, Lithuania, Poland and Portugal; the lowest absorption rates were found in the Slovak Republic and Spain (37%) and Italy (53%). The large scale of sums paid to financial instruments in Italy and Spain (EUR 6.2 billion and over 36% of all payments to financial instruments), coupled with these low levels of investment in final recipients, meant that over 73% of the amounts remaining in holding funds or specific funds were accounted for by these two countries.

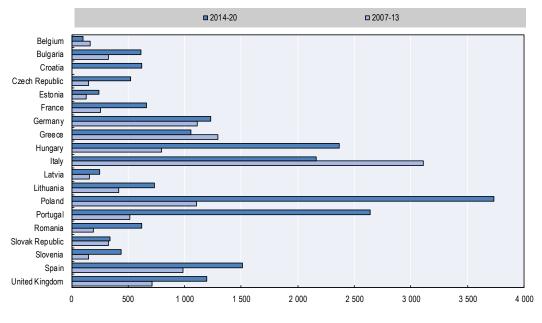
In the reporting for 2007-13, there is limited information on measures of performance. For example, little is known about leverage: the data suggest that private co-financing at the level of the operational programmes only plays a significant role in Austria, Latvia, the Netherlands and the United Kingdom; however, private sector contributions are not limited to this level, so these data may underplay private sector involvement. Other important indicators were not collected, or not collected systematically for 2007-13 because their reporting was not mandatory. This includes data on defaults and repayments, management costs and fees, as well as broader indicators of the wider impacts, such as investment or jobs associated.

In 2007-13, the vast majority of financial instruments under Cohesion Policy were ERDF co-financed, and used for supporting enterprise development, especially SMEs, notably in the form of loans (Figure 2). A total of 11 countries used financial instruments for urban development; and 11 used them for energy efficiency and renewables.

Overview of plans in 2014-20

Turning to how financial instruments are being used in the 2014-20 planning period, data on plans to use them in the operational programmes reveal that overall member states plan to almost double their spend on financial instruments in 2014-20, to over EUR 20 billion from ESIF resources, compared to around EUR 12 billion committed to financial instruments in 2007-13.





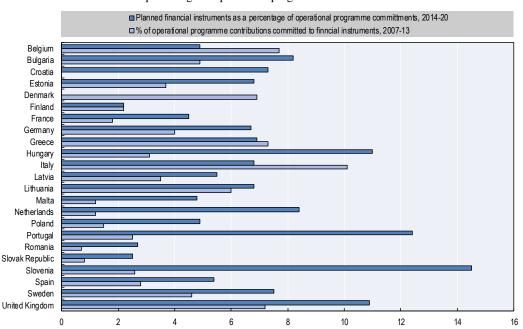
EU funds only, million EUR

Source: Authors' calculations from European Commission (2016); and OP data available at: <u>https://cohesiondata.ec.europa.eu</u>.

Plans vary widely between countries, as Figure 3 shows:

- Nineteen countries plan to increase allocations to financial instruments in absolute terms. In some cases these increases are substantial in the Czech Republic, the Netherlands, Poland and Portugal, for example, financial instrument allocations for 2014-20 are more than three times those for 2007-13.
- Several member states plan lower contributions to financial instruments in 2014-20 than in the previous period (Austria, Belgium, Denmark, Finland, Greece and Italy) with significant reductions foreseen in Italy. As in 2007-13, Ireland and Luxembourg do not currently plan to use financial instruments.

Figure 3. Operational programme commitments in selected EU countries to financial instruments, 2007-13 and 2014-20



As a percentage of operational programme commitments

At the EU level, calculations based on the summary report (European Commission, 2016) suggest that about 4% of operational programme contributions were committed to financial instruments in 2007-13; for 2014-20, the operational programme data indicate that this is planned to rise to over 6% for 2014-20. However, the share earmarked for financial instruments also varies widely between countries, as indicated in Figure 3:

- seven countries intend to commit more than 8% of operational programme contributions in the form of financial instruments (Bulgaria, Hungary, Lithuania, the Netherlands, Portugal, Slovenia and the United Kingdom)
- Italy, Belgium and Denmark committed the largest shares of operational programme contributions to financial instruments in 2007-13, but planned amounts are considerably reduced in 2014-20

Source: Authors' calculations from European Commission (2016); and OP data available at: https://cohesiondata.ec.europa.eu.

A total of fourteen operational programmes have planned financial instrument spend exceeding EUR 400 million;⁷ collectively these programmes alone account for over 55% of planned financial instrument spend across the EU-28. At the opposite end of the spectrum, some fifty programmes plan to allocate around EUR 20 million or less to financial instruments (though this may account for a large share of spend in operational programmes with small budgets).

These data provide an interesting snapshot of intent, but must be treated with caution, as managing authorities have dealt differently with the obligation to "set down a marker" for financial instruments in their operational programmes: some provided an indicative amount, others recorded "zero" against financial instruments as form of finance or left the entry blank, though the narrative of the operational programme left the possibility of using such tools in the future open. Plans for using financial instruments will also be affected by the outcomes of the now mandatory *ex ante* assessments, which can increase or decrease financial allocations or alter their thematic profile. Changes to the operational programme plans for financial instruments may also occur if economic conditions change, or local domestic priorities shift. Decisions to contribute to joint and EU-level instruments such as the SME Initiative are not reflected in these data, but so far, six member states are implementing the SME Initiative (Bulgaria, Finland, Italy, Malta, Romania and Spain). Under this approach an entire OP allocation is in the form of a financial instrument and a separate operational programme document must be prepared for the member state's contribution to the SME Initiative.

As already mentioned, a feature of the reforms was extension of financial instruments beyond enterprises, urban development and energy efficiency to embrace all of the Commission's thematic objectives. The information available in the operational programmes is indicative, but as Figure 4 shows, early indications are that SME support is likely to continue to dominate the use of financial instruments. That said, financial instruments for low carbon are also significant.

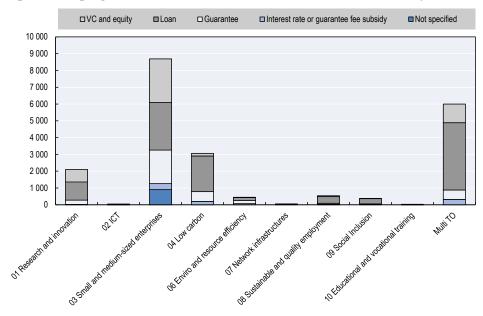


Figure 4. Operational programme indicative allocations to financial instruments by thematic objective

Source: Authors' calculations from OP data available at: https://cohesiondata.ec.europa.eu.

A number of financial instruments are set within operational programme priority axes which address multiple thematic objectives (Multi TO in Figure 4), making it difficult to determine how financial instruments will be targeted until they are closer to the implementation stage. However, it seems that most will either address TO1 and TO3, focusing on innovation and SMEs; or TO3, TO4 and TO9, focusing on urban development, including support for start-ups and disadvantaged groups in regeneration areas. The precise composition cannot be known at this stage of implementation.

The potential for financial instruments in different areas of activity

One of the research questions posed for this paper concerns the potential for financial instruments and activities that could benefit from their use. This is not a straightforward question to address. However, Table 2 summarises the main policy areas relevant to DG REGIO where financial instruments are used domestically and/or with co-financing from the ESI funds.

The key point to emerge from this is the high degree of granularity involved. This applies to the more specific goals relevant to each theme and to the categories of final recipient. For example, within the broad goal of encouraging SME growth, different approaches would be relevant to firms that had been identified as potential high-growth SMEs, compared with those interested in undertaking routine investment but not on an expansion trajectory. These different requirements translate not only into needs for different financial products, but also to different forms of governance, with some financial products involving bespoke risk assessment and project appraisal (especially equity-based products), while others, such as guarantees, and potentially, energy efficiency loans for householders, can be deployed on a relatively standardised basis through the retail banking sector.

Table 2 also provides examples of domestic and co-financed instruments relevant to the various policy objectives – more information on these is provided in Annex A. Importantly, however, even where measures seemingly address the same goals and same target recipients, the approach taken may vary widely.

What are the key preconditions for the implementation of financial instruments?

Framework conditions relevant to the implementation of financial instruments include the existing financial ecosystem/economic context, institutional capacity, the regulatory framework and a range of more operational issues. In considering these contextual issues in the discussion that follows, the main focus is on support for SMEs, where there is most experience in the use of financial instruments across EU member states, but these factors are also relevant to the use of financial instruments in other policy areas, together with more specific elements.

The context within which financial instruments are implemented will affect how and how well they work. Circumstances vary between member states and regions, so there is no "one-size-fits-all" approach (Wishlade et al., 2016a). Financial instrument models are seldom transferable without modification to take local, regional or national conditions into account. These include differences in local economic conditions, in banking and legal systems, previous experience with implementing financial instruments, etc. The financial intrument model must be shaped by local circumstances and needs. Various academic studies have emphasised the need for instruments to be tailored to different areas (Veugelers, 2011; Tykvová, Borell and Kroencke, 2012; Berggren and Silver, 2012). In short, financial instrument design must be alert to context and take it into consideration (Wilson and Silva, 2013).

Theme	Goal	Target recipient	Market imperfection/ finance gap	Financial products	Standardisation/ specialisation	Examples
Innovation	Development and commercialisation of new products, processes, services	High tech firms; spin-out companies	Asymmetric information; difficulty of risk assessment; scale of capital required in relation to cash flow; externalities	Equity: seed, start-up or early-stage capital; loans; guarantees	Small numbers of specialised investment decisions involving fund manager expertise; potentially large investments	France: Breizh up (ERDF) Spain: ICO Technological Innovation Fund (ERDF)
	Promoting entrepreneurship	Start-ups/individuals	Lack of collateral, track record; transaction costs; credit rationing	Loans, guarantees, microfinance	Potentially large numbers of investment decisions involving small sums; standard products	Germany: NRW Micro Loan Fund (ERDF) Hungary: Combined Microcredit scheme (ERDF) United Kingdom: Start-up loans (Nat)
SME competitiveness	Supporting SME growth	High-growth firms	Difficulty of risk assessment; credit rationing	Loans, guarantees, equity; mezzanine finance	Bespoke decisions	France: JEREMIE Languedoc-Roussillon (ERDF) Sweden: Regional venture capital funds (ERDF) United Kingdom: Scottish Co-Investment Fund (ERDF)
	Supporting SME growth	Mainstream SMEs	Credit rationing; asymmetric information	Loans, guarantees	Standardised products	Austria: ERP loan fund (Nat) France: JEREMIE Languedoc-Roussillon (ERDF) Lithuania: INVEGA Guarantee Fund (ERDF) Portugal: Venture capital funds under the OP COMPETE (ERDF) Spain: ICO Guarantee Fund (ERDF) United Kingdom: Enterprise Guarantee Fund (Nat)
Low-carbon economy	Promoting energy efficiency and renewable energy sources in enterprises	SMEs	Credit rationing; asymmetric information; externalities	Loans, guarantees	Standardised products, supported by energy audits	Germany: KfW Energy efficiency programme (Nat) United Kingdom: Green Deal (Nat)
	Energy efficient buildings	Householders	Transaction costs; cost of credit; externalities	Long-term loans, guarantees	Standardised products, supported by energy audits	Estonia: Renovation loan (ERDF) Greece: JESSICA (ERDF) United Kingdom: Green Deal (Nat)
		Private landlords	Split incentives; externalities	Long-term loans	Standardised products, supported by energy audits	Estonia: Renovation Loan (ERDF) Slovak Republic: JESSICA (ERDF)
		Public authorities	Split incentives; cost of credit; externalities	Long-term loans	Bespoke decisions	Lithuania: ENEF (ERDF)
		Housing associations	Split incentives; cost of credit; externalities	Long-term loans	Standardised products, supported by energy audits	Estonia: Renovation Loan (ERDF) Slovak Republic: JESSICA (ERDF)
	Energy efficient public infrastructure, e.g. transport, street lighting	Public authorities	Cost of credit; positive externalities	Long-term loans	Bespoke investment decisions	Spain: FIDAE (ERDF)

Table 2. Linking objectives, market imperfections, target recipients and financial products

FINANCIAL INSTRUMENTS IN PRACTICE: UPTAKE AND LIMITATIONS © OECD 2017

Theme	Goal	Target recipient	Market imperfection/ finance gap	Financial products	Standardisation/ specialisation	Examples
Low-carbon economy (continued)	Renewables infrastructure	Enterprises	Risk; externalities	Loans, guarantees, equity	Bespoke decisions – specific to technology involved	Germany: KfW Renewables energy programme (Nat) Spain: FIDAE (ERDF)
	Development and commercialisation of new energy efficiency and renewable energy source technologies	High-tech firms, spin-out companies	Asymmetric information; difficulty of risk assessment; externalities	Equity: seed, start-up or early-stage capital	Bespoke decisions involving specialised fund management	Sweden: Green Fund (ERDF) United Kingdom: Low carbon innovation fund (ERDF)
Transport and network infrastructure	Development of low-carbon transport systems	Public authorities	Cost of credit; externalities	Long-term loans	Bespoke decisions involving specialised fund management	Spain: FIDAE (ERDF)
Transp netv infrast	Improving energy efficiency and security of supply	Energy suppliers/ distributors	Externalities; credit rationing	Long-term loans and financing packages	Bespoke decisions involving specialised fund management	Germany: KfW syndicated loan for energy and environment (Nat)
Employment	Supporting self-employment, micro-enterprises	Individuals, especially in disadvantaged groups – unemployed, women, minorities	Lack of collateral, track record; transaction costs; credit rationing	Loans, guarantees, microfinance	Potentially large numbers of investment decisions involving small sums; standard products	Belgium: BRUSOC (ERDF)
Social inclusion	Regenerating deprived communities in urban areas	Public authorities, public-private partnerships property developers, firms	Externalities; risk	Loans, guarantees, equity	Bespoke decisions involving specialised fund management	France: Bpi – Prêt entreprises et quartiers (Nat)
Social	Supporting social enterprise	New and existing social enterprises	Risk; lack of collateral; credit rationing	Loans, guarantees, microfinance	Standardised decision making and products	France: Bpi – Prêt économie sociale et solidaire (Nat)
Education and training		Individuals	Lack of collateral; risk; externalities	Loans, guarantees	Standardised products	DE: Aufstiegs-BAfoG loans (Nat) UK: Career development loans (Nat)

Table 2. Linking objectives, market imperfections, target recipients and financial products (continued)

Source: Author's elaboration.

As part of this, it is fundamental that financial instrument implementation builds on an accurate assessment of the market situation, which provides clear evidence of the need for public intervention. Because market conditions are so diverse, research on market gaps and economic structures is key to accurate instrument design and the allocation of funds (Cowling, 2012). Managing authorities implementing financial instruments in 2007-13 identified three main shortcomings to the approaches taken to market assessment at the start of that period.⁸ These were: insufficient involvement of local actors; inadequate analyses of the market situation leading to under- or over-allocation of funds to financial instruments, or inappropriately targeted instruments because the analyses were not detailed or comprehensive enough to provide a basis for policy; and failure to anticipate economic change (Michie, Wishlade and Gloazzo, 2014). Several key lessons emerged from this experience, which implied the following specific needs to support the implementation of financial instruments:

- a thorough understanding of the locality in order to take account of the specific characteristics of a region and the impact of this context on market failures and potential
- specialist analysis of the SME financing market to improve the reliability of the overall assessment
- involvement of public and private stakeholders to facilitate the market analysis and help to ensure a balanced perspective on the market situation
- assessment of the administrative and technical capacity of the stakeholders within that particular territory to set up and run appropriate instruments
- the development of an investment strategy based on an in-depth analysis that takes account of strategic objectives, funding sources (including proportion of private co-funding), options for fund structure and management, financial and legal aspects
- a forward-looking element to take account of changing economic conditions and the funding needs of firms
- a regular review to check economic circumstances and market needs.

Many of these conditions are now mandatory elements of the *ex ante* assessment process required before ESIF are committed to financial instruments.

More generally, market conditions must be favourable for the implementation of financial instruments – there must be sufficient "density" in terms of numbers of suitable projects/final recipients/investee companies, as well as potential co-investors, and appropriate financial intermediaries, whether these are banks or fund managers. The lack of a functioning ecosystem of project promoters/investors, or the lack of stakeholders with the required expertise, may lead to an uneven dissemination of instruments, such as urban development funds under the Joint European Support for Sustainable Investment in City Areas (JESSICA) initiatives (Nadler and Nadler, 2017). On the other hand, financial instruments can be used to build up the market, e.g. by encouraging co-investors, business angels or fund managers to invest in and perhaps move or relocate to an area. For example, the Scottish Co-Investment Fund has been found to have grown both capacity and capability in the market; it has had an observable effect on the development of the financial community, especially angel syndicates, and the encouragement of new lenders to enter the Scottish market (CSES, 2008). The presence of an appropriate "ecosystem" of

firms and investors to generate a critical mass of activity is less likely in disadvantaged regions – highlighting the need to address other dimensions of the business environment to ensure an adequate flow of investor-ready projects, including training, pre- and post-investment advice, and perhaps non-repayable support to complement the financial instrument.

Stability and predictability are also key contextual factors. Financial instruments require a long-term perspective and predictability to work well; irregular public sector interventions, uncertainty as to whether ongoing interventions will be continued, changes in terms and conditions, etc. affect both the willingness of the private sector to invest and the ability to build up competence and capacity (growth analysis, 2016).

The implementation of financial instruments requires considerable institutional and administrative capacity. This is not unique to financial instruments and also applies to grants, but some aspects of financial instrument implementation may be more demanding. For example, while the state aid rules are relatively straightforward in relation to grants, they are much more complex for financial instruments, for which there must be an assessment of the presence of state aid at several levels - not just the final recipient but also financial intermediaries. Urban development plans implemented through JESSICA proved particularly challenging from a state aid point of view, but also required an understanding of the complex and sometimes conflicting motivations of parties involved in urban regeneration, including an understanding of property markets and the impact of issues such as pollution on investment decisions. More generally, the increased use of financial instruments under Cohesion Policy in 2007-13 created significant challenges for managing authorities with limited experience in implementing financial instruments, and it was demanding in terms of the administrative capacity required at national and regional levels (Wishlade et al., 2017a). The extension of financial instruments to all ESIF thematic objectives in 2014-20 means that managing authorities may have to engage with different stakeholders, and involves considerations for the use of financial instruments which are quite distinct from those for SME support. For example, experts may be required to play a role in conducting energy audits or assessments and projects may be very technical, so applications take longer to prepare and specific expertise is required (Vironen, 2016). In some cases, the chain of responsibility is lengthy and involves relying on expertise that is somewhat removed from those responsible for the funds and risks conflicts of interest. Where specialist input is required, this must be credible. For example, for the UK Green Deal scheme (a domestic programme), accredited assessors determined the scope and financing needs for energy efficiency investments in households, but some 10% of certified assessors were struck off for non-compliance with the Green Deal code, undermining public confidence in the scheme (Chandler, 2015). This was one of the factors underpinning low take-up and the ultimate demise of the scheme.

The creation of successful financial instruments is an iterative process, involving trial and error, so implementation that builds on previous experience/existing structures can gain an important advantage. In Nordrhein-Westfalen (Germany), for example, when co-financing financial instruments under the ERDF OP in 2007-13, it was considered to make more sense to draw on the existing expertise and structures within the NRW *Land*owned public investment bank, NRW.BANK, rather than setting up a parallel institutional framework. It was also hoped that the use of the *Land* investment bank would ensure that the fund was fully neutral and would not favour any particular lending institutions. The perceived advantages of the *Land* investment bank are that it is very familiar with the financial situation and difficulties of local firms and that it is used to working closely and constructively with the different *Land* ministries and playing a bridging role between the *Land* government, commercial/co-operative banks and local SMEs (Michie and Wishlade, 2011).

The regulatory framework within which financial instruments are implemented has a crucial role to play in providing the framework conditions for the successful implementation of financial instruments. The ability of the public sector to intervene in markets through the introduction of financial instruments must be rooted in legislation, the nature of which (complex, slow to change, stringently monitored, and subject to a heavy reporting and audit burden) may conflict with private sector/commercial practices. The regulatory framework under which ESIF financial instruments are implemented has changed significantly over successive programming periods – from essentially being implemented under legislation designed for grants to a more detailed framework within the main regulations along with numerous associated delegated acts and implementing regulations. As a result, the regulatory framework for ESIF financial instruments in 2014-20 now provides more clarity and certainty, but also considerable complexity. However, the regulatory framework has consolidated lessons learnt during previous periods, and, through the regulations, the Commission has encouraged the use of financial instruments by introducing changes such as:

- increasing the implementation options available (e.g. providing options for contributing to EU-level financial instruments, or using "off-the-shelf" template financial instruments which are pre-cleared for state aid)
- increasing certainty by incorporating into the legislation detail which had previously been provided in guidance
- ensuring accurate assessment of the market before ESIF are committed to financial instruments by introducing a mandatory *ex ante* assessment process.

At a policy level, European Commissioners responsible for ESIF have encouraged the use of financial instruments by suggesting that member states meet spending targets linked to the thematic objectives; however, it may be difficult to reconcile minimum targets or ring-fencing with the findings of an *ex ante* assessment, which is now intended to underpin the design, scale and governance of co-financed financial instruments.

Despite these improvements, managing authorities still find some aspects of the regulatory framework to be barriers to the use of financial instruments, including the administrative burden, the restrictions imposed by the seven-year programming period (in reality, it is much shorter than this given the protracted set-up time for financial instruments), and the restrictions on management costs and fees. These constraints are not limited to ESIF financial instruments – for example, an internal evaluation of the Canada Small Business Program in 2014 found that the demands placed by the programme's regulatory and legislative framework, coupled with the slow pace of change to the framework, was placing its relationships with private sector stakeholders under stress, and had diminished the programme's appeal for lenders (Box 1). That said, many consider that the administrative burden is primarily carried by financial intermediaries and managing authorities, with limited impact on final recipients.

On a more operational level, there are various framework pre-conditions that facilitate the success of financial instrument implementation, including management of the relationship with the private sector, rigorous monitoring including of returned funds, effective publicity activity to communicate the existence of the financial instrument, and complementary policy activities such as advice, consultancy support, technical assistance and complementary grants.

Box 1. Canada Small Business Financing Program

The Canada Small Business Financing Program supports start-ups and existing businesses by providing guarantees on loans of up to CAD 500 000 offered through commercial banks. The Canada Small Business Financing Program covers 85% of eligible losses on defaulted loans registered under the programme. The borrower is charged an upfront fee of 2% of the loan value (which can be rolled into the loan) and a yearly fee of 1.25% of the loan value paid through the interest rate and remitted to the Canada Small Business Financing Program. The interest rate is variable and set by the lender, but under the programme is capped at 3 percentage points above the financial institution's prime lending rate.

Relationship management with the private sector includes ensuring the alignment of incentives and effective control procedures. One of the major attractions of the use of financial instruments is their ability to mobilise private sector resources and expertise. Building effective links with the private sector may require incentives such as the introduction of yield restriction or loss mitigation clauses (as in the ERDF-funded New Hungary Venture Capital Programme in 2007-13) or asymmetric models for the distribution of profit (as in the IN2:BA – Business Angels Co-investment scheme funded under the Portugal COMPETE OP in 2007-13) (Michie, Wishlade and Gloazzo, 2014). Careful consideration must be given to the design of such incentives in order to ensure adequate alignment of public policy objectives with private sector motives for involvement.

As well as incentives, there must be controls put in place to guard against objective drift. An evaluation of ERDF-funded venture capital and loan funds carried out for the Commission in 2007 pointed out that the extent of public or private involvement in venture capital and loan funds can have implications for risk management and the relative emphasis on regional development objectives versus purely financial objectives (CSES, 2007). Evidence from the evaluation suggested that public sector involvement leads to a greater focus on purely regional development objectives. Also, because the public sector shareholders perceive the impact on regional development as one of the most important aims of the interventions, they are often willing to assume greater risks and accept lower financial returns. This can increase deal flow and widen the impact on jobs. In contrast, private shareholders are likely to be more concerned with financial returns and see regional development impacts more in terms of the "demonstration effect" arising from a professionally managed venture capital operation. Interestingly, this may not be easy to predict – a 2016 evaluation of the ERDF co-financed Swedish regional venture capital funds found notable differences between the regional funds in their ethos - some identified themselves as regional development players while others perceived themselves as traditional venture capitalists (growth analysis, 2016).

The investment strategies, which form part of the funding agreement drawn up between the ESIF managing authorities and the entities selected to manage funds, along with contractual arrangements and management incentives, help ensure that operational programme objectives are not sidelined in the pursuit of other potentially complementary, but sometimes competing, goals (e.g. profit). Monitoring and evaluation have an important role to play in maintaining a close link between policy objectives and outcomes (Wilson and Silva, 2013; NEA2F, 2013). Nevertheless, this is not straightforward to manage and anecdotal evidence suggests that changing economic circumstances – like the financial crisis – can lead fund managers to interpret investment strategies in ways that were not necessarily anticipated in areas like property development. As mentioned above, one of the main perceived benefits of using financial instruments in place of grants is their repayable nature and the possibility of reusing resources, and potentially creating a "legacy" or "evergreen" fund. Managing authorities must set up processes to deal with (and report) returns from financial instruments. In 2007-13, there was little evidence of explicit planning for this, and reporting of returns has generally been poor (Wishlade et al., 2016b).

Regular monitoring of financial instrument performance, and also of the market more widely, has an important role to play in providing feedback on performance, perhaps even more so than for grants. In 2007-13, most managing authorities had to deviate from their initial financial instrument implementation plans due to changing circumstances (Van Ginkel et al., 2013). One example of a regular market review is the Scottish Market Report, which is carried out annually by Scottish Enterprise, manager of the Scottish Co-Investment Fund. The fund manager considers that the development of a method and approach designed to provide accurate data on the market has been key to the success of its policy interventions in the early-stage risk capital market.⁹ The Market Report sets out the structure, conduct and performance of the early-stage risk capital market, and it can be used to assess the impact of financial instruments at industry level, and therefore whether the instruments are doing what they were intended to do at macroeconomic level. While fund evaluations provide information about what is happening at the level of the fund, the Market Report provides information on what is happening at the level of the economy, and builds up a store of longitudinal data. Similarly, Investitionsbank Berlin works in partnership with a local credit research company which conducts interviews with 1 000 SMEs in Berlin each year. These interviews assess the ease of access to debt finance and the extent to which companies use public finance. The results of this survey are then used to evaluate, improve or adjust financial instruments (Michie, Wishlade and Gloazzo, 2014).

Box 2. Scottish Co-Investment Fund

The Scottish Co-Investment Fund is designed to increase private sector investment in early-stage enterprise development as a result of the private sector sharing the investment risk. The national development agency, Scottish Enterprise, identifies investment propositions and recruits private sector investors to co-invest alongside the public sector on a *pari passu* basis, up to a maximum of GBP 1 million (total deal value of up to GBP 2 million). The role of the private sector investors is to undertake all due diligence and that of the public sector to follow its lead, so long as investments meet certain criteria. The administrative burden is born by the investors rather than the businesses. The Scottish Co-Investment Fund has received ERDF funding in three successive programming periods: 2000-06, 2007-13 and 2014-20.

Linked to the monitoring of financial instrument performance and the needs of the market, flexibility must be built into the system to reflect changing needs or circumstances or to deal with unintended outcomes. Feedback loops resulting from monitoring and evaluation and from revisiting the finance gap are an important component of the capacity to adapt to changing requirements and conditions. The implementation structures chosen must ensure that flexibility is possible. In terms of flexibility in implementation structures, holding funds/fund of funds models can provide the ability to move resources between funds depending on demand, although they bring an additional tier of costs (Michie, Wishlade and Gloazzo, 2014). Related to the need to adapt to the changing environment, and the potentially changing needs of recipients, the financial instrument investment strategy should also be modified in line with the updating of the *ex ante* assessment.

Alongside regular monitoring, evaluation has an important role to play in the successful implementation of financial instruments. Relevant evaluative material is sparse, partly due to the time lag in being able to measure the impact of financial instruments (growth analysis, 2016). Evaluation plans should be drawn up at the outset as part of the management of financial instruments, to ensure that the effective use of public funds can be accounted for, and also to help with the management and targeting of the funds on an ongoing basis. Evaluation can also provide guidance on future needs and funding strategies (Michie, Wishlade and Gloazzo, 2014).

Communication and publicity measures are crucial to raise awareness, help generate deal flow and publicise the (new) policy approach. Communication activities on financial instruments were not given very high priority in 2007-13 and there was some tension noted between Structural Funds publicity obligations and the confidentiality requirements of final recipients. Activities such as seminars and networking were found to be the most effective publicity methods and some managing authorities have made successful use of innovative techniques such as campaigns on social media and more widely (Michie, Wishlade and Gloazzo, 2014). For example, the INVEGA Guarantee Fund and Entrepreneurship Promotion Funds in Lithuania used a range of complementary measures, including information and project visit trips for journalists; annual events; press releases; press conferences; radio and TV programmes; items on major news portals; participation in events and fairs; communication in social media; joint activities with government; social, economic and media partners; and websites. One of the most innovative and successful activities was a media campaign launched in 2013 illustrating 13 business success stories on the largest Lithuanian Internet news portal. The campaign included radio shows and TV reports about business success stories, and how EU support and different financial instruments had helped them start and expand their businesses (Michie, Wishlade and Gloazzo, 2014).

The existence of complementary support can be crucial for the implementation of financial instruments – from networking activity to promote business angels/angel networks and to introduce supply and demand sides to programmes for improving the investment readiness of companies, improving knowledge of financing instruments or developing companies' ability to present their business plans (growth analysis, 2016). Seminars, events and networking can be effective for improving deal flow, in particular for equity instruments. The 2016 evaluation of the Swedish regional venture capital funds identified a need for supplementary policy instruments, such as training programmes for investors and initiatives aimed at increasing companies' investibility.

Where financial instruments are a new tool, applicants may need intensive support. For equity financial instruments, in particular, investee companies may need ongoing mentoring, before and after investment, and equity finance is less successful where this support infrastructure is not developed (Cowling, 2012; Baldock and North, 2012). Demand-side policies to develop entrepreneurial and investment talent and networks are also critical and there is a strong need for information, advice and hands-on support (Wilson and Silva, 2013; NEA2F, 2013). Final recipients of microfinance may also need intensive support. Microloans from the ERDF co-financed NRW/EU Micro Loan Fund (*Mikrodarlehen*; Box 3) in Nordrhein-Westfalen in 2007-13 were conditional on the firm participating in an initial advisory session with the business advice organisation STARTERCENTER NRW, as well as ongoing coaching sessions with other business advisers.

Box 3. NRW/EU Micro Loan Fund

The NRW/EU Micro Loan Fund (*Mikrodarlehen*) provides access to loan capital for start-ups and for the consolidation of young enterprises. The fund is managed by NRW.BANK, the *Land* investment bank, offering loans of EUR 5 000-25 000 to small and medium-sized enterprises. Loans were conditional on the firm participating in an initial advisory session with a business advice organisation as well as ongoing coaching sessions with other business advisers. The fund has been co-financed under the Nordrhein-Westfalen ERDF operational programme in 2007-13 and 2014-20.

The need for technical assistance and knowledge transfer on what works is also true beyond the level of final recipients – it is required between EU-level managing authorities and financial intermediaries/fund managers, as exemplified by *fi-compass*, the joint EC/EIB technical assistance platform.¹⁰

Conclusions

This paper has provided some insights into experiences with financial instruments using both purely domestic funds and co-financed with ESI funds. This final section returns to the key questions posed in the brief for this paper.

1. Which sectors would benefit most from financial instruments, what limits the uptake of financial instruments in these sectors and how can they be encouraged to make greater use of them?

There are essentially three dimensions to this question.

First, regarding the "sectors" which would benefit the most from financial instruments, the key criteria are that: the activity must have the potential to be revenue-generating or cost-saving, but the market alone will not provide sufficient finance for it. A number of key policy objectives or goals potentially meet these criteria, notably:

- Innovation, where substantial additional capital may be needed to validate and commercialise new products, processes or services, but where private market players are either unable to bear the level of risk involved or unable to assess it, potentially leading to suboptimal levels of investment in new technologies.
- Support for SMEs, where different segments of the market face different challenges in accessing finance including lack of collateral, high transaction costs, credit rationing, information asymmetries which may lead to underinvestment.
- Energy efficiency, where cost savings may accrue only over the very long term and may be subject to "cultural" barriers among private investors geared towards income generation rather than cost-optimisation projects potentially undermining wider climate change objectives.
- Renewable energy, where large upfront capital investment maybe required, but projects require specialised appraisal and long-term financial returns are sensitive to changes in policies on tariffs resulting in underinvestment in infrastructure that could contribute to the achievement of renewable energy source targets.
- Urban development, where projects which are individually insufficiently financially viable to access market funding may share risks with an urban development fund and generate wider benefits for disadvantaged areas, including remediation of brownfield sites and development of cultural or sports infrastructure.

Second, regarding limits to the uptake of financial instruments, implicit in this question is the suggestion that the use of financial instruments is insufficient. In practice, considerable use is made of financial instruments in domestic policy, though the scale and extent of this is very difficult to quantify. There are several different aspects to the question of uptake of financial instruments, the starting point for which is to consider "uptake by whom?"

- Starting with the intended targets of financial instruments, a first consideration is the demand side. Is there a pipeline of investment projects of suitable quality that is not being serviced by private financial markets? The reluctance to engage with financial instruments, to the extent that this is indeed the case, varies by type of recipient, the purpose for which the financial instrument is available and the type of financial product. These different dimensions need to be explored at a level of detail that goes beyond the scope of this paper, but include:
 - reluctance to increase levels of indebtedness in the case of loans to firms
 - reluctance to relinquish control in the case of equity investment in small firms
 - split incentives in the case of some energy efficiency investments
 - unpredictability of the wider regulatory framework in the case of renewables
 - reluctance to take on debt and long payback periods in the case of energy efficiency schemes directed at householders.
- Take-up of financial instruments may also be affected by the role of financial intermediaries, for whom the bureaucracy and specific requirements associated with implementing publicly backed financial instruments can act as a disincentive to their involvement. Management fees and costs need to be sufficient to attract the calibre of fund managers required or they need to consider that their involvement in implementing publicly backed schemes provides market-building opportunities in the longer term.
- Within the specific context of Cohesion Policy, the Commission has encouraged the use of financial instruments, but this has not always been met with enthusiasm by managing authorities, even for activities where there appears to be potential. For instance, a recent survey of managing authorities which planned to support SMEs, but through grant support only, asked why they had eschewed financial instruments (Wishlade et al., 2017b). The most frequently cited reasons were: lack of demand from final recipients (i.e. SMEs); that financial instruments were unsuitable for planned projects; insufficient critical mass (i.e. the operational programme was too small); and lack of administrative capacity. Issues of critical mass and capacity were the subject of some discussion in the seminar, with some noting that a minimum fund size was required in order for funds to be efficient and to ensure that management costs were proportionate, whereas others noted that funds should be designed for the specific needs of the locality, including the overall scale of finance needed (as reflected in the ex ante assessment). This, in turn, raises the question of whether funds should be "pooled" at a larger administrative level in order to secure the capacity and economies of scale required. This highlights the tension between the need to design funds that are sufficiently responsive to local needs but large enough to be efficient and operated at an administrative level with the appropriate capacity.

The third element of this question concerns how to increase the uptake of financial instruments. Here the response to the question depends on the target to be persuaded. As discussed in the seminar, there is no "one-size-fits-all" solution, and careful tailoring is required to specific circumstances.

For final recipients, the obstacles to take-up of financial instruments may be cultural or informational, related to a tradition of dependence on direct subsidies and/or a reluctance to take on debt, especially where the returns may accrue only in the very long term, as is the case for energy efficiency, for example. Key to shifting opinion, in addition to suitably designed instruments, are information and communication campaigns, as well as complementary measures such as consultancy and advisory support from credible sources.

For financial intermediaries involved in the implementation of publicly backed financial instruments, the key issues concern the administrative demands made by involvement in such instruments, which come in addition to their own procedures and protocols, as well as wider financial regulations. In addition, the level of risk needs to be appropriately calibrated to be sufficiently attractive, and management costs and fees need to be set at levels that attract qualified intermediaries.

At the level of domestic public administrations, as mentioned, significant use is already made of financial instruments of various types, but in the present context an important question is the extent to which it is attractive to implement the ESIF through financial instruments. There are arguably two main ways in which the uptake of financial instruments by ESIF managing authorities might be increased.

The first is essentially cultural and relates to the need to shift to a presumption that support for projects that are potentially revenue-generating but that do not attract market funding should, in principle, be repayable. At present, managing authorities have to justify the use of financial instruments on the basis of an *ex ante* assessment; they do not have to justify the use of grant funding for the same type of projects.

The second is the issue of legacy. This is an underexplored issue, which is a potentially significant incentive to managing authorities,. Legacy is promoted as one of the key benefits of financial instruments, and there is a requirement under the ESIF rules that returned funds are spent at least once in the operational programme area for a similar purpose. In practice, however, very little is known about how this is operationalised and the extent to which managing authorities actually have "ownership" and control of recycled funds; more understanding of the domestic rules regarding control of legacy funds could shed light on the incentives for managing authorities to use financial instruments.

There are also some regulatory changes that could facilitate the use of financial instruments, and these are discussed in relation to Question 3.

2. What are the institutional framework conditions and complementary policy measures that need to be in place to use financial instruments?

The framework conditions and complementary measures required have already been discussed, and differ between policy areas – for instance, the requirements for the successful implementation of financial instruments for energy efficiency in housing will be distinct from those for the promotion of innovation. For some types of financial instrument, regional or nationwide banking networks are required, while for others highly specialised fund managers with the expertise to assess small numbers of non-standard projects are essential. As such, it is not possible to generalise about the preconditions,

which must be the subject of a fine-grained approach linked to policy objectives. Nevertheless, it is important to note that, for any policy area and target recipient, financial instruments are but one financing option, and also that financing in any form needs to be part of an appropriately designed and focused strategy.

In the case of support for SMEs, for example, financial instruments are only one component of the business support ecosystem. It is important to take account of the wider business support/entrepreneurship and innovation environment (and ensure its development), as these structures help develop a pipeline of projects and investible propositions. Publicly backed equity, in particular, is shown to be less likely to be successful where this support infrastructure is immature. More generally, however, there are important differences between and within countries in terms of the use and suitability of financial instruments of different types, as well as in the geography of access to finance. Demandside policies to develop entrepreneurial and investment talent and networks are critical and there is a need for information, advice and hands-on support; it is not simply a question of possible credit market imperfections, but also an inadequate flow of "bankable" projects. Linked to this is a need for a co-ordinated approach between different government departments and the private sector, which may in turn reveal that support should be focused on developing investible propositions, as opposed to providing finance per se. It is also important for the SME "support offer" to be co-ordinated (e.g. financial instruments are not attractive when grants are available for similar purposes) and a plethora of schemes causes confusion for recipients.

In the case of innovation and other specialised areas such as investment in renewable energy, specialised knowledge is required to assess investments; this too is likely to require a certain density of expertise in the local business environment. Where the target final recipients are individuals or householders, a widespread credible network of intermediaries is needed to advise recipients and deliver financial instruments.

The development of a sound communication strategy that ensures that the initiatives concerned have the required profile among the intended final recipients is important for all types of intervention.

3. How do regulatory frameworks promote or limit the use of financial instruments?

The ESIF regulations provide a very specific context for the use of financial instruments that is distinct from, but interacts with, the domestic regulatory environment. In some respects it can be argued that the ESIF regulations actively facilitate the use of financial instruments – setting out the requirements for an *ex ante* assessment (a requirement which has generally been regarded positively by managing authorities, as noted at the seminar and elsewhere) (Wishlade et al., 2017b) and outlining possible implementation options – including templates in the form of so-called "off-the-shelf" instruments and encouraging uptake through low co-financing from domestic authorities. However, in many respects, the ESIF regulatory framework is problematic for managing authorities, and a number of specific constraints can be identified:

• The seven-year programming period is an impediment to the operation of funds; this timescale is arbitrary and short, especially given the delays involved in the planning and approval of operational programmes. From an economic development perspective, there is no logic to the need to close funds at the end of the programming period, and retender for fund managers.

- Co-financed financial instruments tend to follow one of two models. First, an existing domestic mechanism is provided with an additional block of funding (for instance, a national promotional bank establishes an additional credit line), but this is essentially disbursed along the same or similar lines as existing domestic funding. Second, a bespoke fund is established in response to specific identified needs. The first option might be regarded as somewhat mundane since ESIFs are simply supplementing domestic funding streams, but this is not only a relatively quick and "safe" route to implementation, but it takes advantage of existing institutional and administrative capacity. The second approach is considerably more risky from the managing authority's point of view, and more time-consuming, though the outcome might be more innovative; it may also be necessary, since there may not be an existing domestic vehicle on which to "piggy back". The London Green Fund presented at the seminar is a good example of the second approach. In both cases, however, there are significant additional layers in the chain of command compared to purely domestic funding. These relate to monitoring, reporting and auditing requirements, all of which are typically distinct from purely domestic arrangements, and in the case of the first model outlined above, are additional to existing arrangements and auditing with the intermediary. In addition, ESIF co-financed measures are subject to more scrutiny than domestic measures in relation to state aid, potentially creating a disincentive to co-finance measures in the "grey" area of state aid definition, because of the political embarrassment associated with payment suspension in the case of non-compliance.
- The combination of the short programming period and the N+3 requirements can conspire to make managing authorities more risk-averse. In operating ESIFs there is considerable emphasis on actually disbursing funds in order to ensure they are not lost. This can result in the prioritisation of "shovel ready" or "safe" projects. This may perversely encourage a situation where co-financed financial instruments are more likely to crowd-out private funding.

4. What capacity do businesses and public administrations need to apply for and use financial instruments and how can it be strengthened?

This question is closely linked to Question 3. As already mentioned, given the breadth of policy areas in which Cohesion Policy intervenes, there needs to be a detailed approach to analysing capacity needs – for example, while national promotional banks and the retail sector can be used to implement standardised products, specialist appraisal of non-standard, large-scale investment is required. Moreover, the effective delegation of aspects of programme implementation requires careful oversight to ensure that programme objectives are met and not diverted or diluted by other actors, such as fund managers.

At the level of final recipients, again as noted earlier, financial instruments need to be complemented by other inputs such as business advisory services in order to develop a pipeline of investible propositions in small firms, or energy audits to establish optimal forms of renovation for energy efficiency.

5. How can the administrative burden of applying for and using financial instruments be reduced?

It has become commonplace to bemoan the bureaucracy involved in implementing financial instruments under the ESIF. Crucially, however, there is an important trade-off between administrative burden and accountability; moreover, it is incumbent upon public authorities to be able to demonstrate not only that public money has been spent properly, but also to be able to show whether it has been spent well – and adjust policy accordingly if not. In the Commission's recent evaluation of financial instruments for enterprises, few managing authorities had collected sufficient information to be able to evaluate the impact or efficiency of the measures they were financing – this suggests that closer monitoring of financial instruments, potentially implying a greater burden, is required.

However, there may be scope to reduce the burden on financial intermediaries by relying more on information collected through their own internal due diligence, reporting and audit requirements, rather than requiring additional information. As to final recipients, some managing authorities have suggested that applying for financial instruments is less onerous than for grants and that there is no real difference from applying for bank lending, for example. Some have also actively taken steps to "hide the wiring" from final recipients, though this may render the ultimate source of funding – i.e. ESIF – less visible, with implications for the public profile of ESIF spend.

The need for accountability within a shared management system inevitably makes administration more onerous than it would be for purely domestic policy. Moreover, the effective delegation of some implementation responsibilities to actors outside the public administration heightens the need for appropriate checks to avoid "objective drift" – managing authorities must ensure that the investment strategy is being followed by the fund manager in line with the objectives of the operational programme.

This suggests that the scope to reduce the administrative burden may be limited. That said, a combination of experience, together with stability in the ESIF regulatory framework and some "smoothing", notably by removing the link between the lifetime of the operational programmes and the lifespan of the financial instruments, could reduce the administrative burden in the longer term. However, such concerns should not be at the expense of more and better quality data on implementation and results. To date, the dominance of operational and process issues has inhibited a better understanding of how ESIF financial instruments work, and the circumstances in which they work well.

Notes

- 1. This amounts to around EUR 17.8 billion when domestic co-financing is included.
- 2. See the Open Portal Data for the European Structural and Investment Funds: <u>https://cohesiondata.ec.europa.eu</u>.
- 3. A draft of this paper was prepared for the OECD seminar on 28 June 2017. This revised version takes account of discussions during the course of that seminar.
- 4. Note that these are distinct from repayable grants or repayable assistance, where reimbursement is conditional on the outcome of the project.
- 5. Despite having a rather different connotations in capital market terminology.
- 6. This discussion draws on a recent study by Wishlade et al. (2017b).
- 7. EU amount.

- 8. This predated the *ex ante* assessment of the need for financial instruments, which has become a mandatory component of the design and implementation of ESIF financial instruments in 2014-20.
- 9. www.evaluationsonline.org.uk/evaluations/Browse.do?ui=browse&action=show&id=57 7&taxonomy=INV (accessed in August 2017).
- 10. <u>https://www.fi-compass.eu</u> (accessed in August 2017).

References

- Baldock, R. and D. North (2012), "The role of UK government equity funds in addressing the finance gap facing SMEs with growth potential", paper for the Institute for Small Business and Entrepreneurship Conference, 7-8 November 2012, Dublin.
- Berggren, B. and L. Silver (2012), "Financing entrepreneurship in different regions: The failure to decentralise financing to regional centres in Sweden", *Journal of Small Business and Enterprise Development*, Vol. 17/2, <u>https://doi.org/10.1108/1462600101</u> 1041238.
- Bilal, S. and F. Krätke (2013), "Blending loans and grants for development: An effective mix for the EU?", ECDPM Briefing Note, No. 55, European Centre for Development Policy Management, Maastricht, Netherlands, <u>http://ecdpm.org/publications/blendingloans-grants-for-development-effective-mix-eu</u>.
- Brown, R. and N. Lee (2017), "The theory and practice of financial instruments", draft paper to the OECD, May.
- Chandler, J. (2015), "Energy efficiency in the United Kingdom: The failure of the Green Deal", *Renewable Energy Law and Policy Review*, Vol. 3, pp. 191-195.
- Cowling, M. (2012), "Credit rationing, equity gaps and policy solutions for financing entrepreneurial business in Europe: Theory, tests, evidence and the design and effectiveness of policy instruments", report to the European Commission.
- CSES (2008), "Evaluation of ERDF supported venture capital and loan funds", report to the Scottish government, Centre for Strategy & Evaluation Services, <u>www.scotland.gov.uk/Resource/Doc/209231/0055411.pdf</u>.
- CSES (2007), "Comparative study of venture capital and loan funds supported by the Structural Funds", final report, August, Centre for Strategy & Evaluation Services, <u>http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/2007_venture.pdf</u>.
- European Commission (2016), Summary of Data on the Progress Made in Financing and Implementing Financial Engineering Instruments Reported by the Managing Authorities in Accordance with Article 67(2)(j) of Council Regulation (EC) No 1083/2006. Programming Period 2007-2013. Situation as at 31 December 2015, European Union, Brussels, <u>http://ec.europa.eu/regional_policy/sources/thefunds/fin_in_st/pdf/summary_data_fei_2015.pdf</u>.

European Commission (2014), "Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank: An investment plan for Europe", COM(2014)903 final, European Commission, Brussels, 26 November, <u>http://ec.europa.eu/transparency/regdoc/rep/1/2014/EN/1-2014-903-EN-F1-1.Pdf</u>.

European Commission (2013), "SME Access to Finance Survey".

- European Commission (2012), "Financial instruments in Cohesion Policy", Commission Staff Working Document, SWD(2012)36 final, European Commission, Brussels, 27 February, <u>http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/financial_instruments_2012_en.pdf</u>.
- Faiña, A. et al. (2012), "Expert evaluation network delivering policy analysis on the performance of Cohesion Policy 2007-2013. Task 1: Financial engineering".
- Gompers, P. and J. Lerner (2001), *The Money of Invention: How Venture Capital Creates New Wealth*, Harvard Business School Press, Boston, Massachusetts.
- growth analysis (2016), "Effects & experiences: Final evaluation of the Swedish regional co-investment funds 2009-15", Swedish Agency for Growth Analysis, Östersund, Sweden, <u>https://www.tillvaxtanalys.se/in-english/publications/reports/reports/2016-04-18-effects-and-experiences----final-evaluation-of-the-swedish-regional-co-investments-funds-2009-2015.html.</u>
- Henrekson, M. and D. Johansson (2010), "Gazelles as job creators: A survey and interpretation of the evidence", *Small Business Economics*, Vol. 35/2, pp. 227-244, Springer US, <u>https://doi.org/10.1007/s11187-009-9172-z</u>.
- Martin, R. (1999), Money and the Space Economy, Wiley, Chichester.
- Maula, M., G. Murray and M. Jääskeläinen (2007), *Public Financing of Young Innovative Companies in Finland*, Ministry of Trade and Industry, Helsinki, <u>https://ore.exeter.ac.uk/repository/bitstream/handle/10036/14853/jul3elo_2007_eng_n</u> etti.pdf?sequence=1.
- Mazzucato, M. and C. Penna (2015), "The rise of mission-oriented state investment banks: The cases of Germany's KfW and Brazil's BNDES", SPRU Working Paper Series, SWPS 2015-26 (September), University of Sussex.
- Meiklejohn, R. (1999), "The economics of state aid", in: *State Aid and the Single Market*, European Economy, No. 3.
- Michie, R. and F. Wishlade (2015), "Business development banks and funds in Europe: Selected examples", briefing to Scottish government in the context of the Scottish Business Bank Proposal, European Policies Research Centre, University of Strathclyde, Glasgow, United Kingdom, <u>https://pure.strath.ac.uk/portal/files/44537414</u> /<u>Michie Wishlade EPRC 2014 Business development banks and funds in Europe</u> selected examples.pdf.
- Michie, R. and F. Wishlade (2011), "Between Scylla and Charybdis: Navigating FIs through Structural Fund and state aid requirements", *IQ-Net Thematic Paper*, Vol. 29/2, European Policies Research Centre, University of Strathclyde, Glasgow, United Kingdom, <u>http://www.eprc-strath.eu/iqnet/knowledge-exchange/research-papers.html</u>.

- Michie, R., F. Wishlade and C. Gloazzo (2014), "Guidelines for the implementation of financial instruments: Building on FIN-EN – Sharing methodologies on FINancial ENgineering for enterprises", Finlombarda S.p.A., European Department, Milan, Italy.
- Nadler, M. and C. Nadler (2017), "Promoting investment in sustainable urban development with JESSICA: Outcomes of a new EU policy initiative", *Urban Studies*, pp. 1-20, <u>https://doi.org/10.1177/0042098017702815</u>.
- NEA2F (2013), North East Access to Finance: The Future Shape of Access to Finance: Strategic Overview and Recommendations, <u>http://www.nea2f.co.uk/wp-content/uploads/2013/06/NEA2F-06-13-Future-A2F-Strategic-Overview.pdf</u>.
- OECD (2010), *High Growth Enterprises: What Governments Can Do to Make a Difference*, OECD Publishing, Paris, <u>http://dx.doi.org/10.1787/9789264048782-en</u>.
- Phillippon, T. and N. Veron (2008), "Financing Europe's fast movers", *Bruegel Policy Brief*, No. 2008/10, Bruegel, Brussels, <u>http://bruegel.org/2008/01/financing-europes-fast-movers</u>.
- Regeneris Consulting and Old Bell 3 (2014), "Grants for SMEs in Wales", Regeneris Consulting Ltd., <u>http://gov.wales/docs/wefo/publications/150127thinkpiecesmegrantsi</u> <u>nwales.pdf</u>.
- Siedschlag, I. et al. (2014), "Access to external financing and firm growth: Background study for the European Competitiveness Report 2014", ESRI, <u>https://ec.europa.eu/doc sroom/documents/8786/attachments/1/translations/en/renditions/pdf</u>.
- Tykvová, T., M. Borell and T.A. Kroencke (2012), "Potential of venture capital in the European Union", European Parliament, Directorate-General for Internal Policies, European Union, Brussels, <u>www.europarl.europa.eu/RegData/etudes/etudes/join/2012/</u> 475088/IPOL-ITRE_ET%282012%29475088_EN.pdf.
- Van Ginkel, J. et al. (2013), "Financial instruments: A stocktaking exercise in preparation for the 2014-2020 programming period", report to the European Investment Bank, <u>http://ec.europa.eu/regional_policy/sources/thefunds/instruments/doc/fls_stocktaking_final.pdf</u>.
- Veugelers, R. (2011), "Mind Europe's early equity gap", Bruegel policy contribution, Issue 2011/18, December.
- Vironen, H. (2016), "Progress with the 2014-20 programmes in challenging times", *IQ-Net Review Paper*, No. 39/1, European Policies Research Centre, University of Strathclyde, Glasgow, United Kingdom, <u>https://pure.strath.ac.uk/portal/files/69736609</u> /Vironen_IQ_Net_2016_Progress_with the 2014_20 programmes_in_challenging_ti mes.pdf.
- Whittle, M., J. Malan and D. Bianchini (2016), "New financial instruments and the role of national promotional banks", report to the European Parliament, Directorate-General for Internal Policies, Policy Department D, Budgetary Affairs, European Union, Brussels, www.europarl.europa.eu/RegData/etudes/STUD/2016/572687/IPOL STU(2016)572687_EN.pdf.
- Wilson, K. and F. Silva (2013), "Policies for seed and early stage finance: Findings from the 2012 OECD Financing Questionnaire", OECD Science, Technology and Industry Policy Papers, No. 9, OECD Publishing, Paris, <u>http://dx.doi.org/10.1787/5k3xqsf00j3</u> <u>3-en</u>.

- Wishlade, F. and R. Michie (2016), "Financial instruments in ESI funds: A look to the future with a view to past", *European Structural and Investment Funds Journal*, Vol. 4/4, pp.204-213.
- Wishlade, F., R. Michie and P. Vernon (2017), "Research for REGI Committee: Financial instruments for energy efficiency and renewable energy", European Parliament, Policy Department for Structural and Cohesion Policies, Brussels, <u>www.europarl.europa.eu/R</u> <u>egData/etudes/STUD/2017/601992/IPOL_STU(2017)601992_EN.pdf</u>.
- Wishlade, F. et al. (2017a), "Financial instruments for enterprises in 2007-13: A practice run for 2014-20?", *European Investment and Structural Funds Journal*, Vol. 5/2, pp. 111-119.
- Wishlade, F. et al. (2017b), Improving the Take-up and Effectiveness of Financial Instruments, final report, European Union, Brussels, <u>http://dx.doi.org/10.2776/981010</u>.
- Wishlade, F. et al. (2016a), "Ex-post evaluation of Cohesion Policy programmes 2007-2013, focusing on the European Regional Development Fund (ERDF) and Cohesion Fund (CF) – Work package 3: Financial instruments for enterprise support: Final report to the European Commission", <u>http://ec.europa.eu/regional_policy/en/information/publications/evaluations/2016/fina</u> <u>ncial-instruments-for-enterprises-final-report-work-package-3-ex-post-evaluation-ofcohesion-policy-programmes-2007-2013-focusing-on-the-european-regionaldevelopment-fund-erdf-and-the-cohesion-fund-cf.</u>
- Wishlade, F. et al. (2016b), "Financial instruments under Cohesion Policy 2007-13: How have member states and selected financial institutions respected and preserved EU financial interests?", report prepared for the European Parliament Committee on Budgetary Control, European Union, Brussels, <u>www.europarl.europa.eu/RegData/etud</u> es/STUD/2016/552306/IPOL_STU(2016)552306_EN.pdf.

Annex A. Selected financial instruments

Austria: ERP loan fund (Nat)	The ERP Fund offers a range of support schemes for the business sector. Support takes the form of soft loans administered through the AWS (Austria Wirtschaftsservice GmbH, a federal Austrian development and financing bank).
Belgium: BRUSOC (ERDF)	A subsidiary of Finance.brussels, its mission is to support the creation and development of very small businesses in fragile neighbourhoods and to support the region's social integration initiatives. Co-financed with the European Regional Development Fund (ERDF) in 2007-13.
Estonia: Renovation loan (ERDF)	Soft loans via KredEx aimed at housing associations or local government for the renovation of apartment buildings built before 1993, with flexible repayment periods and low interest rates to encourage renovation work to reduce buildings' energy consumption. Co-financed with the ERDF in 2007-13.
France: Breizh up (ERDF)	A co-investment fund in Brittany. The target companies will be young regional small and medium-sized enterprises (SMEs) with innovation potential, primarily related to the areas of the regional Smart Specialisation Strategy. Co-financed with the ERDF in 2014-20.
France: Bpi - Prêt économie sociale et solidaire (Nat)	Unsecured loans to social enterprises at fixed rates of interest, generally for a maximum of EUR 50 000.
France: Bpi - Prêt entreprises et quartiers (Nat)	Unsecured loans for SMEs located in disadvantaged urban areas at fixed rates of interest, generally for a maximum of EUR 50 000.
France: JEREMIE Languedoc-Roussillon (ERDF)	A holding fund set up with ERDF co-financing in 2007-13, supporting SMEs via a seed loan instrument, a co-investment (equity) instrument and a guarantee instrument.
Germany: Aufstiegs-BAfoG loans (Nat)	A combination of grant and loan for living expenses when undergoing full-time professional development, covering also course and examination fees.
Germany: KfW syndicated loan for energy and environment (Nat)	Loans available through banks for large-scale investment projects in Germany in the areas of energy efficiency, innovative projects in the areas of energy conservation, electricity generation, storage and transmission as well as the use of renewable energies.
Germany: KfW Energy Efficiency Programme (Nat)	Loans at favourable interest rates through banks to finance investments in energy efficiency measures for: production facilities and processes; waste heat; and energy efficient construction or refurbishment.
Germany: KfW Renewables Energy Programme (Nat)	Low-interest loans through banks for plants in which power or heat is generated from renewable energies and installations of stationary battery storage systems combined with photovoltaic systems.
Hungary: Combined	Co-financed with the ERDF in 2007-13, supported micro and small businesses with combined small loans and grants.

Microcredit scheme (ERDF)	
Lithuania: ENEF (ERDF)	The Energy Efficiency Fund (ENEF) supports energy savings with loans for public infrastructure investment (modernisation of central government buildings and street lighting). The ENEF is managed by VIPA, the Public Investment Development Agency. Co-financed with the ERDF in 2014-20.
Lithuania: INVEGA Guarantee Fund (ERDF)	Guarantees for SMEs co-funded under the ERDF in 2007-13.
Portugal: Venture capital funds under the OP COMPETE (ERDF)	In 2007-13, 23 venture capital funds were co-financed from the ERDF under the OP COMPETE, these were divided into six main categories: innovation and internationalisation; audiovisual; early stages; pre-seed; corporate venture capital and "Revive" (expansion projects).
Slovak Republic: JESSICA (ERDF)	Soft loans for the renovation of apartment buildings to improve energy efficiency through the State Fund for Housing Development. Co-financed with the ERDF in 2007-13.
Spain: FIDAE (ERDF)	JESSICA FIDAE provided long-term senior debt to public entities, energy service companies (ESCOs), private enterprises or public-private partnerships through three commercial banks, for projects related to: energy efficiency and energy management; thermal solar energy, photovoltaic solar energy and biomass; or clean transport which contributed to energy efficiency and the use of renewable energy. Co- financed with the ERDF in 2007-13.
Spain: ICO (ERDF)	The Instituto de Crédito Oficial (ICO) provides technological loan funds, mainstream loan funds and guarantee funds.
Sweden: Green Fund (ERDF)	Will provide risk capital to invest in innovative SMEs involved in developing or providing products and services that reduce CO_2 emissions. Co-financed with the ERDF in 2014-20.
	Bank loans to pay for courses and training, usually offered at a reduced interest rate. The government pays the interest until after the course, after which the recipient repays the loan and interest.
United Kingdom: Enterprise Guarantee Fund (Nat)	Provides government-backed guarantees to accredited lenders (including high street banks) to encourage them to lend to smaller businesses that are viable but unable to obtain finance due to insufficient security.
United Kingdom: Green Deal (Nat)	A government scheme that provided loans to households to finance energy-efficient home improvements, to be paid back through the savings made on energy bills. Government support for the scheme ceased in 2015.
United Kingdom: Low-Carbon Innovation Fund (ERDF)	A venture capital fund providing equity finance for SMEs on a co-investment basis in the East of England for investments with an impact on carbon reduction. Co-financed with the ERDF in 2007-13.
United Kingdom: Start-up loans (Nat)	Government-backed unsecured personal loans available to individuals looking to start or grow a business accompanied by 12 months of free mentoring. Administered by a subsidiary of the British Business Bank through a network of delivery partners.