

Access to finance in Europe's disadvantaged regions: Can 'new' financial instruments fill the gap?

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Preface

This report was prepared by the European Policies Research Centre (EPRC) under the aegis of EoRPA (European Regional Policy Research Consortium), which is a grouping of national government authorities from countries across Europe. The Consortium provides sponsorship for EPRC to undertake regular monitoring and comparative analysis of the regional policies of European countries and the inter-relationships with EU Cohesion and Competition policies. Over the past year, EoRPA members have comprised the following partners:

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- Staatssekretariat für Wirtschaft (SECO, State Secretariat for Economic Affairs), Bern

United Kingdom

- Department for Business, Innovation and Skills, London
- The Scottish Government, Enterprise, Transport and Lifelong Learning Department, Glasgow

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Disclaimer

It should be noted that the content and conclusions of this paper do not necessarily represent the views of individual members of the EoRPA Consortium.

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EXECUTIVE SUMMARY

Support for SMEs and entrepreneurship is an important aspect of economic development policy and there has been increasing policy focus on nurturing of high growth firms. The role of access to finance has attracted increasing policymaker attention, partly because *ambitious* new firms cite access to finance as a constraint, and partly because of the role that private venture capital is considered to have played in the development of high technology firms in certain locations - like Silicon Valley and Israel - and in the development of some high profile firms such as Google and Facebook.

At the European level these considerations have led to various regulatory and policy initiatives, notably 'new' financial instruments through JEREMIE. The term 'financial instruments' generally refers to non-grant measures i.e. loans, equity and guarantees. These are perceived to have three important attributes: they increase the sustainability of public investment; they have a leverage effect; and they enable policymakers to make use of private sector expertise. At the national level, such instruments are not considered 'new': many countries have long used such instruments as part of economic development policy. Depending on the terms of such intervention, these instruments may raise complex regulatory issues in relation to State aid.

Much of the debate and most of the policy focus of financial instruments has a determinedly *horizontal* dimension: in recent times the principal concern has been with the stimulation of high growth firms and their potential contribution to *national* economic and employment growth. However, there is an important *spatial* dimension both to the availability of private capital and to public policy support for entrepreneurial finance.

There is an inherent spatial basis in access to finance. This is true in terms of the capacity of would-be 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.

In spite of the uneven geography of finance, Member State policies on access to finance are predominantly horizontal. Nevertheless, there is a spatial dimension to the use of financial instruments and four broad (but overlapping) types of approach can be identified.

- Financial instruments that are restricted to designated disadvantaged regions
- Nationwide financial instruments which favour designated development areas
- Nationwide financial instruments that are administered at the subnational level or earmark funding for certain regions
- Subnational funds that operate only in a given region

There is strong evidence to show that most support under (ostensibly non-spatially discriminating) *national* schemes goes to the most developed regions. However, evaluations show that *regionally*-focused instruments have a number of limitations, although the evidence mainly relates to venture capital.

To stimulate venture capital in the regions governments typically establish hybrid funds with private sector fund managers, a mix of public and private money incentives that improve the returns or reduce the risks for private investors. However, such funds are usually too small, so that their high fixed costs take up a large share of the fund and follow-on investment is constrained. There are also questions over whether public venture capital funds are as 'smart' as private ones and the tension between the pursuit of purely commercial investment strategies at the same time as regional policy objectives.

An important issue is whether geographical variations in investment activity reflect demand side rather than supply side gaps. In any economy, there are few firms able to provide the high return sought by venture capitalists; these firms are likely to be even fewer in the non-core regions. Arguably the key problem is one of 'thin' markets in disadvantaged regions, not just one of supply and demand.

1. INTRODUCTION

Support for SMEs and entrepreneurship is an important aspect of economic development policy. As part of this, there has been increasing policy focus, at European, national and subnational levels on the nurturing of high growth firms.¹ 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.² The role of access to finance in facilitating the expansion of such firms has attracted increasing policymaker attention. This partly owes to the fact that significant numbers of *ambitious* new firms cite access to finance as a constraint on their development,³ and partly the role that private venture capital is considered to have played in the development of high technology firms in certain locations - like Silicon Valley and Israel - and in the development of some high profile firms such as Google and Facebook.⁴ Reflecting this, concern has long been expressed at the relative underdevelopment of venture capital markets in European countries.⁵

At the European level these considerations have led to initiatives both to stimulate the development of EU venture capital markets through regulation and through direct measures to provide venture capital such as the Competitiveness and Innovation Framework Programme, CIP. Under Cohesion policy increasing emphasis has been placed on 'non-grant' support for SMEs. In the 2007-13 programming period, the main initiative has been JEREMIE, under which public sector capital can be used on a commercial basis (e.g. through holding funds, venture capital funds, loan funds and guarantee fund mechanisms) with the objectives of both supporting SMEs and stimulating the participation of private sector capital in order to increase the scale, effectiveness and efficiency of policy measures. Such instruments are perceived to have three important potential attributes: they increase the sustainability of public investment (because monies are recycled); they have a leverage effect, thus increasing the funds available to business; and they enable policymakers to make use of private sector skills and expertise.

At the national level, so-called 'new financial instruments' are not considered 'new': many countries have used such instruments as part of economic development policy for decades. The term 'financial instruments' generally refers to non-grant measures such as loans (where the capital is repaid and the terms may or may not be more advantageous than commercial ones); equity (where a holding or share is taken in a firm) or guarantees (where capital is wholly or partially secured in the event of a default); variants and combinations

¹ OECD (2010) *High Growth Enterprises: What governments can do to make a difference*, Paris: OECD.

² Henrekson, M and Johansson, D (2010) Gazelles as job creators: a survey and interpretation of the evidence, *Small Business Economics*, 35 (2), 227-244.

³ Maula, M, Murray G and Jämskeläinen, M (2007) *Public financing of young innovative companies in Finland*, Ministry of Trade and Industry, Helsinki, Publication 3/2007.

⁴ Gompers, P and J Lerner (2001) *The Money of Invention: How Venture Capital Creates New Wealth*, Boston: Harvard Business School Press.

⁵ Phillippon, T and Veron, N (2008) *Financing Europe's Fast Movers*, Bruegel Policy Brief 2008/10.

of these measures may also be used. Depending on the terms of such intervention, these instruments may raise complex regulatory issues in relation to State aid.

Much of the debate and most of the policy focus of financial instruments has a determinedly *horizontal* dimension: in recent times the principal concern has been with the stimulation of high growth firms and their potential contribution to national economic and employment growth. However, there is an important *spatial* dimension both to the availability of private capital and to public policy support for entrepreneurial finance.

Financial systems are, in fact, inherently spatial, characterised by complex institutional geographies that both reflect and influence their functioning.⁶ This, in turn, produces geographical effects on the ability of entrepreneurs to access finance, which typically work to the disadvantage of peripheral regional economies.

Against this background, this paper begins with a discussion of the geographical aspects of aspects to finance, highlighting the disparities that occur (Section 2). Section 3 goes on to review to what extent the EoRPA partners deploy 'new' financial instruments with an explicit geographical orientation. Section 4 offers a critique of geographically-focused financial instruments, especially venture capital. The final section raises a number of points for further discussion.

⁶ Martin, R (1999) *Money and the Space Economy*, Chichester: Wiley.

2. ACCESS TO FINANCE: GEOGRAPHICAL CONSIDERATIONS

The initial funding of new businesses typically comes from the personal savings of the founder or founders of the business; this may include taking equity value out the family home. Businesses may then turn to close family members, friends and neighbours for further funding. Many new businesses will also undertake bootstrapping - accessing resources at below their market rate or at no cost, often by using their social capital. Any bank loans will be secured on the basis of personal guarantees. Typically this means providing the family home as security. As both wealth, in the form of personal savings and levels of home ownership, and house prices vary geographically across countries this means that entrepreneurs have differential access to start-up finance depending upon their location. Even opportunities for bootstrapping vary geographically.⁷ This is likely to be related to differences in the munificence of different geographical environments. This, in turn, may suggest that a loan guarantee scheme should have a regional component to it, for example, in terms of the maximum size of the guarantee, the proportion of the loan that is guaranteed by the government or the premium that is charged to borrowers.

2.1 Space, place and capital flows

Whatever the personal resources available to the entrepreneur, businesses which grow will typically need to access external sources of finance: banks, business angels, venture capital funds and stock markets. The key focus is therefore on geographical variations in access to these sources of finance. Three geographical effects can be identified.⁸

First is *the effect of space*. This refers to the effects of physical distance on interaction and flows. There is a cost - both financial and time - in overcoming distance. Hence, other things being equal, the interaction between places is likely to be in inverse proportion to the distance that they are apart. In the case of finance greater geographic distance between small business borrowers and their banks would be expected to reduce in-person visits due to the high costs of travel by bank staff, particularly time costs, thereby exacerbating information asymmetries. This, in turn, increases the risk of adverse selection leading to higher default rates and loan losses. The economics literature contains support for both the relationship between loan rates and distance between firm and lender⁹ and between borrower-lender distance and loan default.¹⁰ Both business angels and venture capital are also characterised by localised investing which is attributed to the need to collect and analyse significant amounts of 'soft' information that is not amenable to

⁷ Winborg, J and Landström, H (2001) Financial bootstrapping in small businesses: examining small business managers' resource acquisition behaviours, *Journal of Business Venturing*, 16 (3), 235-254.

⁸ Mason, C (2010) Entrepreneurial finance in a regional economy, *Venture Capital: an international journal of entrepreneurial finance*, 12 (3), 167-172.

⁹ Degryse, H and Ongena, S (2005) Distance, lending relationships and competition, *Journal of Finance*, 60, 231-266.

¹⁰ DeYoung, R, Glennon, D, and Nigro, P (2008) Borrower-lender distance, credit scoring, and loan performance: evidence from informational-opaque small business borrowers, *Journal of Financial Intermediation*, 17, 113-143.

standardisation and automation.¹¹ Of course, longer distance flows of venture capital do occur, but generally this involves a process of syndication with local investors. Hence, such flows tend to gravitate to regions that already have significant sources of their own.¹² Cross-regional flows of business angel finance also flow from peripheral to economic core regions.¹³

Second are *place effects*. Financial institutions have their own geographies. The key contrast is between centralised and decentralised financial systems. It is argued that local and regional banking systems will be more supportive of local economies because of their lower information asymmetries and as local institutions they have a vested interest in the well-being of the local/regional economy. Under centralised branch banking systems regions and localities might vary in terms of the depth of supply (number of competitors), the discretion of local branches to make their own lending decisions, and the experience and turnover of staff. Studies which have used measures of 'functional' or 'organisational' distance (i.e. the distance between the borrower and the bank head office) in order to compare local with non-local banks identify effects on both interest rates¹⁴ and use of collateral¹⁵ which points to the informational advantages that local banks derive from their ability to establish close relationships with borrowers on account of their physical proximity. In recent decades many countries have seen their decentralised banking systems being transformed into centralised systems as a result of changes in the regulatory landscape. One example that has been well documented is Italy,¹⁶ where the decline in local banks has had particularly adverse effects for the south of the country.¹⁷ In the case of venture capital, its concentration in particular regions means that the business

¹¹ Martin, R, Berndt, C, Klagge, B and Sunley, P (2005) Spatial proximity effects and regional equity gaps in the venture capital market: evidence from Germany and the United Kingdom, *Environment and Planning A*, 37, 1207-1231; Mason, C M (2007) Venture capital: a geographical perspective in H Landström (ed.) *Handbook of Research on Venture Capital*, Cheltenham: Edward Elgar, pp 86-112; Cumming, D and Dai, N (2010) Local bias in venture capital investments, *Journal of Empirical Finance*, 17, 362-380; Avdeitchikova, S (2009) False expectations: reconsidering the role of informal venture capital in closing the regional equity gap, *Entrepreneurship and Regional Development*, 21 (2) 99-130; Harrison, R T, Mason, C M and Robson, P J A, (2010) Determinants of long-distance investing by business angels in the UK, *Entrepreneurship and Regional Development*, 22 (2) 113-137.

¹² Florida, R and Smith, D F jr (1991) Venture capital formation, investment, and regional industrialisation, *Annals of the Association of American Geographers*, 83, 434-451; Sorsenson, O. and T.E. Stuart (2001) 'Syndication networks and the spatial distribution of venture capital investments', *American Journal of Sociology*, 106 (6), 1546-1588.

¹³ Avdeitchikova, S (2009) False expectations: reconsidering the role of informal venture capital in closing the regional equity gap, *Entrepreneurship and Regional Development*, 21 (2) 99-130; Harrison, R T, Mason, C M and Robson, P J A, (2010) Determinants of long-distance investing by business angels in the UK, *Entrepreneurship and Regional Development*, 22 (2) 113-137.

¹⁴ Casolaro, L and Mistrulli, P (2008) Distance, lending technologies and interest rates, SSRN, available at SSRN: <http://ssrn.com/abstract=1243402>

¹⁵ Jiménez, G, Salas, V and Saurina, J (2009) Organisational distance and use of collateral for business loans, *Journal of Business and Banking*, 31, 234-243.

¹⁶ Alessandrini, P and Zazzaro, A (1999) A 'possibilist' approach to local financial systems and regional development: the Italian experience. In Martin, R (ed.) *Money and the Space Economy*, Chichester: Wiley, pp. 71-92.

¹⁷ Alessandrini, P, Presbitero, A F and Zazzaro, A (2009) Banks, distances and firms' financing constraints, *Review of Finance*, 13 (2) 261-307.

community (firms and intermediaries) in such regions will have a much greater knowledge of the role of venture capital and ways to access it, thus stimulating demand, whereas in regions with few venture capital firms knowledge is weak and incomplete, reducing demand and the prospects of success for those firms that do seek venture capital.¹⁸

Third are *flows of capital*. The functioning of financial institutions involves the collecting, receiving or earning of money from all the localities and regions of a country and from other nations which is then recycled through various circuits of capital (lending, investing, trading, speculation) in different regional and international geographies. In other words, the savings of a local or regional population may be reinvested in other geographies rather than being recycled locally and for the benefit of the local economy.¹⁹ The pension fund industry in particular is associated with creating uneven financial geographies.²⁰ In the UK the contributors to occupational pension schemes are distributed across all regions. However, the vast majority of these pension fund flows are managed and controlled from London and South East England and mostly invested in the shares of companies based in, or headquartered, in the South East, with little of the money trickling down to other regions in the form of capital investment or business expansion.²¹ Another example of this process is the UK's Business Expansion Scheme (BES) - the predecessor of the current Enterprise Investment Scheme - which provided tax incentives to private individuals to invest in certain types of unquoted companies. This also has contrasting geographies of investors and investments, with a net inflow of investment into the South East and net outflows from every other region, reflecting the dominance of BES Fund Managers in London. Interestingly, BES Funds that were based in regional financial centres typically had mainly local investors and predominantly invested in local businesses.²²

2.2 Geographies of finance

2.2.1 Bank lending

There is considerable evidence of geographical variations in the availability of bank loans, loan rejections (or, put differently, credit rationing), and the cost of loans (in terms of

¹⁸ Martin, R, Berndt, C, Klagge, B and Sunley, P (2005) Spatial proximity effects and regional equity gaps in the venture capital market: evidence from Germany and the United Kingdom, *Environment and Planning A*, 37, 1207-1231.

¹⁹ MacLeod's account of the Mondragon Co-Operative in the Basque Region of Spain comments on the critical importance of its own banking system - the *Caja Laboral Popular* (a credit union - to enable local financial resources to be invested in the creation of new businesses in the region. The Caja's motto 'savings or suitcases' emphasises the point that savings which flow out of the region create jobs elsewhere whereas money that is saved through the Caja helps sustain the regional economy, thereby preventing out-migration - MacLeod, G (1997) *From Monragon to America: Experiments in Community Economic Development*. Sydney, Cape Breton: UCCB Press.

²⁰ Clark, G L (2000) *Pension Fund Capitalism*. Oxford: Oxford University Press.

²¹ Martin, R and Minns, R (1995) Undermining the financial basis of regions: the spatial structure and implications of the UK pension funds system, *Regional Studies*, 29 (2) 125-144.

²² Mason, C M and Harrison, R T (1989) Small firms policy and the 'north-south' divide in the United Kingdom: the case of the Business Expansion Scheme, *Transactions of the Institute of British Geographers*, 14 (1) 37-58.

interest rates and collateral required).²³ As noted previously, this can be attributed to two main factors: (i) informational asymmetries which increase with distance, making it more costly both to collect information on distant businesses and monitor them, and (ii) the organisational structure of banks, with smaller banks making greater use of relationship banking, involving greater reliance on 'soft' information, which is hard to transmit across hierarchies, whereas larger banks rely on transactional lending.²⁴

However, apart from the Italian case cited earlier, there is little evidence, especially for other European countries, of how such features of bank lending will affect the availability of debt finance to small firms in different types of regions. Nevertheless, there is considerable evidence that financial exclusion is greatest in deprived inner city areas and rural areas as a result of branch closures. Such areas will have relatively few banks and hence reduced competition to lend. Moreover, the branches will have limited autonomy, with decisions on even relatively small loans being passed up the hierarchy and thereby reducing the role of soft information in the lending decision. Declining industrial areas and remoter regional areas in the UK have seen the emergence of Regional Community Development Loan Funds since 2000. However, a number of issues have been identified that seem likely to limit their ability to have a significant impact.²⁵

2.2.2 Business Angels

Research shows that the majority of angel investing is local.²⁶ There are three reasons for this. First, information flows are subject to 'distance decay', hence, as Wetzel observed, 'the likelihood of an investment opportunity coming to an individual's attention increases, probably exponentially, the shorter the distance between the two parties.'²⁷ Most business angels derive their information on investment opportunities from informal networks of trusted friends and business associates who tend to be local. Second, business angels place high emphasis on the entrepreneur in their investment appraisal. Their knowledge of the local business community means that by investing locally they can limit their investments to entrepreneurs that they either know themselves or who are known to their associates and so can be trusted. A third reason is the tendency for business angels to be hands-on investors in order to minimise agency risk.²⁸ Maintaining close working relationships with

²³ Peterson, M A and Ragan, R G (2002) Does distance still matter? The information revolution in small business lending, *Journal of Finance*, 57 (6) 2533-2570; Degryse, H and Ongena, S (2005) Distance, lending relationships and competition, *Journal of Finance*, 60, 231-266.

²⁴ Berger, A N and Udell, G F (2002) Small business credit availability and relationship lending: the importance of bank organisational structure, *Economic Journal*, 112, F32-F53; Agarwal, S and Hauswald, R (2010) Distance and private information in lending, *Review of Financial Studies*, 23 (7), 2757-2788.

²⁵ Bryson, J and Buttle, M (2005) Enabling inclusion through alternative discursive formations: the regional development of community loan funds in the United Kingdom, *Service Industries Journal*, 25 (2) 273-288.

²⁶ Mason, C M (2007) Venture capital: a geographical perspective in H Landström (ed.) *Handbook of Research on Venture Capital*, Cheltenham: Edward Elgar, pp. 86-112.

²⁷ Wetzel, W E, jr. (1983) 'Angels and informal risk capital', *Sloan Management Review*, 24 (4): 23-34.

²⁸ Landström, H. (1992) 'The relationship between private investors and small firms: an agency theory approach', *Entrepreneurship and Regional Development*, 4, 199-223.

their investee businesses is facilitated by geographical proximity.²⁹ In their study of Swedish informal investors, Avdeitchikova and Landström found that investors who rely on personal social and business networks as their primary method for sourcing deals, and active investors who provide hands-on support to their investee businesses, are the most likely to invest close to their home or office.³⁰

Thus, the availability of angel finance is largely determined by the stock of business angels. Moreover, as most business angels are either successful entrepreneurs or senior managers in large companies, their distribution is likely to be driven by geographical variations in entrepreneurial activity and the location of corporate head offices. In the only attempt to map the geographical distribution of business angels and their investments, Avdeitchikova shows for Sweden that angel investing is both concentrated and over-represented in metropolitan regions, although some rural areas are also well supplied.³¹

There may also be significant regional differences in the characteristics of business. For example, business angels in Canada's Maritime Provinces (Nova Scotia, Prince Edward Island and New Brunswick) are distinctive in terms of the typical size of their investments, sectoral preferences, rate of return expectations and expected time to achieve an exit.³² Investors in Atlantic Canada and Quebec are also the most parochial (63 percent and 58 percent of investments within 50 miles of home compared with a national average of 53 percent). Johnstone suggests that remote and declining industrial regions are likely to suffer from a mismatch between the supply of angel finance and the demand for this form of funding;³³ he demonstrates that in the case of Cape Breton, in the Canadian province of Nova Scotia, the main source of demand for early stage venture capital is from knowledge-based businesses started by well-educated entrepreneurs (mostly graduates) with formal technical education and training who are seeking value-added investors with industry and technology relevant marketing and management skills and industrial contracts. However, the business angels in the region have typically made their money in the service economy (retail, transport, etc.), have little formal education or training, are reluctant to invest in early stage businesses and are not comfortable with the IT sector. Moreover, their value-added contributions are confined to finance, planning and operations. This suggests that 'depleted communities' are characterised by stage, sector and knowledge mismatches in the demand for, and supply of, angel funding.

²⁹ Wetzel, W E, jr. (1983) *Op. cit.*

³⁰ Avdeitchikova, S. and H. Landström (2005) 'Informal venture capital: scope and geographical distribution in Sweden', paper to the Babson Kauffman Entrepreneurship Research Conference, Babson College, 9-11 June.

³¹ Avdeitchikova, S (2009) False expectations: reconsidering the role of informal venture capital in closing the regional equity gap, *Entrepreneurship and Regional Development*, 21 (2) 99-130.

³² Feeney, L., H. Johnstone and A.L. Riding (1998) 'A profile of informal investors in Canada: a comparison of Canadian and Maritime investors', paper to the CCSBE 15th annual conference, Halifax; Riding, A.L., P. Dal Cin, L. Duxbury, G. Haines and R. Safrata (1993) *Informal Investors in Canada: The Identification of Salient Characteristics*, Ottawa: Carleton University.

³³ Johnstone, H., 2001, Equity gaps in depleted communities: an entrepreneurial response, in W. During, R. Oakey and S. Kauser (eds.) *New Technology-Based Firms in the New Millennium*, Oxford: Pergamon, pp 84-94.

Nevertheless, some long distance angel investing *does* occur - anywhere from ten percent to 30 percent depending upon definitions.³⁴ In their exploratory study of long distance investing by business angels in the UK, Harrison *et al* suggest that investors in London, South East England and the East of England - the most economically dynamic and most entrepreneurial regions in the UK - are the most likely to invest locally.³⁵ Investments in technology businesses are also likely to be local. This is consistent with Avdeitchikova's Swedish evidence which indicates that metropolitan regions have the highest propensity for local investing, while peripheral regions have the lowest proportion of local investments.³⁶ Moreover, long distance investments typically flow from peripheral to economic core regions. Thus, there is nothing in the available evidence to suggest that regions with a deficiency of informal venture capital can import their capital needs from elsewhere. Avdeitchikova further notes that investors who cannot or do not wish to play a hands on role in their investments were more likely to make long distance investments.³⁷ This suggests that any inflow of business angel investing in peripheral regions will be dominated by 'dumb' rather than 'smart' money.

2.2.3 Venture capital

The tendency for venture capital investments to be highly concentrated in particular regions is a consistent finding in research on the USA,³⁸ Canada, UK³⁹ and other European countries.⁴⁰ In all cases venture capital investing is concentrated in economic core regions

³⁴ Mason, C M (2007) Venture capital: a geographical perspective in H Landström (ed.) *Handbook of Research on Venture Capital*, Cheltenham: Edward Elgar, pp 86-112.

³⁵ Harrison, R T, Mason, C M and Robson, P J A, (2010) Determinants of long-distance investing by business angels in the UK, *Entrepreneurship and Regional Development*, 22 (2) 113-137.

³⁶ Avdeitchikova, S (2009) Op cit; Avdeitchikova, S (2012) The geographical organisation of venture capital and business angels, in H Landström and C Mason (eds.) *The Handbook of Research on Venture Capital. Volume 2*. Cheltenham: Edward Elgar.

³⁷ Avdeitchikova, S (2008) On the structure of the informal venture capital market in Sweden: developing investment roles, *Venture Capital: an international journal of entrepreneurial finance*, 10 (1), 55-85.

³⁸ Florida, R. and Kenney, M. (1988) Venture capital, high technology and regional development, *Regional Studies*, 22 (1), 33-48; Florida, R and Smith, D F jr (1991) Venture capital formation, investment, and regional industrialisation, *Annals of the Association of American Geographers*, 83, 434-451; Zook, M.A. (2002) 'Grounded capital: venture financing and the geography of the Internet industry, 1994-2000', *Journal of Economic Geography*, 2 (2), 151-177; Chen, H, Gompers, P and Kovner, A (2010) Buy local? The geography of venture capital, *Journal of Urban Economics*, 67 (1), 90-102.

³⁹ Mason, C. M. and R.T. Harrison (2002) 'The geography of venture capital investments in the UK', *Transactions of the Institute of British Geographers*, 27, 427-451; Martin, R, P. Sunley, P and D. Turner (2002) 'Taking risks in regions: the geographical anatomy of Europe's emerging venture capital market', *Journal of Economic Geography*, 2 (2), 121-150; Mason, C and Pierrakis, Y (2011) 'Venture capital, the regions and public policy: the United Kingdom since the post-2000 technology crash', *Regional Studies*, online.

⁴⁰ Martin, R, P. Sunley, P and D. Turner (2002) Op cit.; Martin, R, Berndt, C, Klagge, B and Sunley, P (2005) Spatial proximity effects and regional equity gaps in the venture capital market: evidence from Germany and the United Kingdom, *Environment and Planning A*, 37, 1207-1231; Fritsch, M. and D. Schilder (2006) 'Does venture capital really require spatial proximity? An empirical investigation', Technical University of Freiberg, Faculty of Economics and Business Administration, unpublished Working Paper.

and in locations with strong technology clusters, and under-represented in older-industrial and peripheral regions. Moreover, in such regions the supply of venture capital is heavily under-written by the state and so dominated by public sector VC funds and co-investment vehicles.⁴¹

The distinctive geography of venture capital investments arises from the combination of two factors: the clustering of the venture capital industry in a relatively small number of cities and the localised nature of investing. Venture capital companies are clustered in just a small number of cities, typically major financial centres and cities in high tech regions. In the case of the UK, upwards of 70 percent of venture capital firms have their head offices in Greater London. The concentration is lower in Germany: nevertheless, just six cities account for 65 percent of all venture capital firms.⁴² The spatial clustering of investments arises because venture capital firms have spatial biases which favour investing in businesses located close to where the venture capitalists themselves are located. This characteristic is supported by several studies.⁴³ Making local investments is one of the ways in which venture capitalists attempt to minimise the risks involved in investing in young businesses, which typically have unproven business models, untested management teams, new technologies and inchoate markets.⁴⁴ Venture capitalists seek to overcome this uncertainty by information sharing with other investors, consultants, accountants and a wider range of other informants. Information sharing of this type is built on mutual trust that has been created through repeated interactions, while the nature of this information flow tends to be personal and informal. Both features make such interaction difficult to conduct effectively over distance. Local investing also enables venture capitalists both to monitor their investments more easily by visiting them on a regular basis and supporting them with advice. However, Griffith *et al* argue that the propensity for local investing (the 'one hour driving time' rule) is not as strong as conventionally suggested and is weakening, with technology and new organisational design increasingly able to mitigate the effects of distance.⁴⁵

⁴¹ Mason, C and Pierrakis, Y (2011) 'Venture capital, the regions and public policy: the United Kingdom since the post-2000 technology crash, *Regional Studies*, online

⁴² Fritsch, M. and D. Schilder (2006) Op cit.

⁴³ Florida, R and Smith, D F jr (1991) Venture capital formation, investment, and regional industrialisation, *Annals of the Association of American Geographers*, 83, 434-451; Florida, R. and D.F. Smith jr (1992) Venture capital's role in economic development: an empirical analysis, in E. S. Mills and J.F. McDonald (eds.) *Sources of Metropolitan Growth*, New Brunswick, NJ: Center for Urban Policy Research, pp 183-209.; Powell, W.W., K.W. Koput, J.I. Bowie and L. Smith-Doerr (2002) 'The spatial clustering of science and capital: accounting for biotech firm-venture capital relationships', *Regional Studies*, 36 (2), 291-305; Zook, M.A. (2005) *The Geography of the Internet Industry*, Oxford: Blackwell Publishing; Martin, R, Berndt, C, Klagge, B and Sunley, P (2005) Spatial proximity effects and regional equity gaps in the venture capital market: evidence from Germany and the United Kingdom, *Environment and Planning A*, 37, 1207-1231.

⁴⁴ Sorsenson, O. and T.E. Stuart (2001) 'Syndication networks and the spatial distribution of venture capital investments', *American Journal of Sociology*, 106 (6), 1546-1588.

⁴⁵ Griffith, T L, Yam, P J and Subramanian, S (2007) Silicon Valley's 'one hour' distance rule and managing return on location, *Venture Capital: an international journal of entrepreneurial finance*, 9 (2), 85-106.

A significant proportion of long distance venture capital investments do occur, including the growth of cross-border investing, particularly in Europe where close to 40 percent of all new venture capital investments originate in another country.⁴⁶ This might also suggest that the importance of proximity is over-stated. However, it is important to appreciate that long distance investing typically occurs in the context of syndication in which two or more venture capitalists will invest in a business. Syndication arises because young, growing businesses - particularly technology businesses - typically require several rounds of investment before they are successful, with each round involving larger amounts. However, venture capital firms seek to mitigate risk through diversification, investing in a portfolio of businesses, some of which they hope will be successful, offsetting the losses from unsuccessful investments. Clearly, the initial investor - which is likely to be local - would cease to have a diversified portfolio if it continued to provide *all* of the funding that a business needed. Investee businesses also benefit from having additional investors co-funding later rounds because they are able to access a wider range of value-added skills. Indeed, their initial investor's value-added skills may be more appropriate to businesses at their start-up or early growth stages, whereas businesses which have successfully negotiated this stage will require a different set of value-added contributions which their initial investor may not possess. Because of the presence of the original lead investor which is local, distance is not important to these later stage co-investors, who themselves can either be local or non-local. They are willing to trust the local venture capital fund to undertake the deal evaluation, monitoring and support functions, including taking a seat on the board, leaving them to take a purely passive role. If the long distance investors do contribute value-added functions then they are of a type that do not require close contacts with the investee business. Syndication therefore *reinforces* the geographical clustering of venture capital investing rather than producing a more dispersed distribution of investments. In the case of cross-border investments these are suggested to be dominated by larger management buy-out/buy-in and later stage deals.⁴⁷ Anecdotal evidence also suggests that such investments are dominated by venture capital firms in major cities investing in businesses located in *other* major cities that can easily be reached by a direct flight (suggesting the possibility of a new 'one hour flight time' rule).

2.2.4 Stock Market Listings

Only a small number of companies obtain a stock market listing. However, the majority of the companies that undertake an initial public offering (IPO) are emerging growth companies which are already significant in terms of employment and revenues. With the access to public capital markets that comes from a listing such firms achieve even more significant growth following their IPO.⁴⁸ The slump in IPOs in the USA⁴⁹ and Europe⁵⁰

⁴⁶ Avdeitchikova, S (2012) The geographical organisation of venture capital and business angels. In H Landström and C Mason (eds.) *The Handbook of Research on Venture Capital. Volume 2*. Cheltenham: Edward Elgar.

⁴⁷ Avdeitchikova, S (2012) The geographical organisation of venture capital and business angels. In H Landström and C Mason (eds.) *The Handbook of Research on Venture Capital. Volume 2*. Cheltenham: Edward Elgar.

⁴⁸ Kenney, M, Patton, D and Ritter, J R (2012) Post-IPO Revenue and Employment Growth for US IPOs, June 1996-2010. Kauffman Foundation: Kansas City.

therefore has potential adverse implications for employment and economic growth. Equally significant for this paper is the geographical clustering of firms achieving IPOs. In the USA just four states - California, Massachusetts, New York and Texas - account for more than 50 percent of IPOs between 1996 and 2010 while on a per capita basis Massachusetts dominates.⁵¹ In the UK 40 percent of IPOs on the Alternative Investment Market (AIM) are based in London and over 50 percent are located in London and the South East, well in excess of their pro-rata share; at the other extreme Scotland, Wales and Northern Ireland together account for just five percent.⁵² In both the US and UK the explanation is attributed to demand factors with differences between states and regions in their ability to incubate firms that have the potential to grow sufficiently to be eligible for an IPO. Access to venture capital is less significant. In the USA although venture capitalists funded more than 50 percent of emerging growth company IPOs, the location of IPOs does not mirror that of venture capital-backed firms because such firms are mainly in high technology sectors whereas a relatively small proportion of IPOs in manufacturing, services and retail were venture capital backed.⁵³ Johnston and Sohl further show that IPOs that are exclusively angel-backed have a very different locational distribution to venture capital backed IPOs.⁵⁴

⁴⁹ Weild, D and Kim, E (2009) *A Wake Up Call for America*. Grant Thornton: Capital Market Series; Weild, D and Kim, E (2010) *Market Structure is Causing the IPO Crisis and More*. Grant Thornton: Capital Market Series.

⁵⁰ Mason, C (2011) *Trends in IPO Listings by SMEs in the EU*, City of London.
http://217.154.230.218/NR/rdonlyres/A7A91933-570E-4D8F-8322-E183A57D0CA3/0/BC_RS_Finalpublicationreport_withfrontbackcover.pdf

⁵¹ Kenney et al, (2012) *Op. cit.*

⁵² Amini, S, Keasey, KI and Hudson, R (2010) The equity funding of smaller growing companies and regional stock exchanges, *International Small Business Journal*, online.

⁵³ Kenney et al, (2012) *Op. Cit.*

⁵⁴ Johnson, W and Sohl, J (2012) Angels and venture capital companies in then Initial Public Offering market, *Venture Capital: an international journal of entrepreneurial finance*, 14 (1), 27-42.

3. 'NEW' FINANCIAL INSTRUMENTS AND REGIONAL DEVELOPMENT POLICY

The discussion in the preceding section has demonstrated that access by entrepreneurs to finance varies by location, with those in peripheral regions seemingly at a disadvantage. Lower average incomes and savings in such regions means that they have fewer financial resources to fund the start-up stage. This is compounded by their ability to offer security to obtain bank funding and may be compromised by the lower levels of owner-occupation and lower average house prices. They are also less likely to be able to attract angel funding, while their prospects of raising venture capital or achieving an IPO are much lower than their counterparts in core regions. This section considers to what extent new financial instruments have been deployed as part of a policy response to the uneven geography of finance.

'New financial instruments' essentially refers to 'non grant' or repayable interventions. Few Member States consider such measures to be new - but they were viewed as innovative (and termed 'financial engineering instruments') by the European Commission in the early Cohesion policy planning periods and came to prominence with the Commission and the European Investment Bank JEREMIE and JESSICA initiatives in the current period; they are expected to account for an even greater proportion of Structural Funds programmes post 2014. The three principal forms of financial instrument are guarantees, loans and equity, each of which can be operated in a variety of ways (and in combination), often leading to significant differences between measures that bear the same label. More generally, these three types of instrument are very different in their means of operation, the implications for the recipient firm and their budgetary impact and risk. Also important is the fact that, unlike grants, such measures do not necessarily involve State aid, since there is scope for public authorities to run such measures on a commercial basis, taking them beyond the purview of DG Competition.⁵⁵ That said, one of the major complexities of operating such instruments within economic development policy is that of ensuring State aid compliance.⁵⁶

To the extent that financial instruments *do* involve aid, expenditure is relatively modest, which of course partly owes to the fact the aim of financial instruments is to reduce spending. Figure 3.1 suggests that, across the EU27 only around six percent of spending is accounted for by soft loans, guarantees and equity participation. For the three EEA non-EU countries, the figure is substantially lower. These figures must be treated with caution since they are highly aggregated and no information is available on the precise objectives or targets of spend.

⁵⁵ See also in this context Michie R and Wishlade F (2011) *Between Scylla and Charybdis: Navigating financial engineering instruments through Structural Fund and State aid requirements*, *IQ-Net Thematic Paper 29(2)*, European Policies Research Centre, Glasgow.

⁵⁶ These difficulties are compounded where measures are co-financed from the Structural Funds, adding a further regulatory challenge - again, see Michie and Wishlade, *Op. cit.*

Figure 3.1: State aid by type of intervention (%) 2008-10

	Grants	Tax reductions	Equity participation	Soft loans	Guarantees
EU27	52.0	41.6	1.1	3.2	2.1
Germany	47.0	50.0	0.2	2.1	0.6
France	36.8	60.0	0.1	2.9	0.2
Italy	78.9	13.7	0.3	6.8	0.3
Netherlands	78.8	18.7	1.5	0.1	0.9
Austria	79.4	3.2	0.0	3.0	14.3
Poland	70.9	24.6	2.8	1.5	0.1
Finland	62.5	29.9	1.6	5.8	0.2
Sweden	18.1	81.7	0.1	0.2	0.0
United Kingdom	42.8	44.6	11.7	1.0	0.0
EEA	35.1	63.1	1.1	0.6	0.2

Note: Disaggregated information is not available for EEA non-EU countries but Norway's share is unlikely to be significantly different from the EEA total.

Source: DG Competition and EFTA Surveillance Authority.

A general informational issue is that there is no comprehensive overview of financial instruments as measures of public policy - the fact that such instruments do not necessarily constitute State aid has probably contributed to this as there is no mechanism formally requiring notification or reporting of such activity. Moreover, the ownership structures of many funds are complex and many that are ostensibly run wholly along commercial lines may be owned and underwritten by several public sector organisations.

While there is no single source of comparative information, there have been a number of reviews of different aspects of policy. The recent CSES report to the Commission⁵⁷ provides an overview of current loan, guarantee and equity schemes supported by national resources in the EU27, and an in-depth assessment of funds in five Member States: France, Germany, Poland, Sweden and the UK. A study by Technopolis examines the type of funding model most likely to stimulate the creation of innovative new companies, and the most appropriate mix of funding support. The scope of the study includes the US and Europe (EU plus selected countries such as Israel), and distinguishes between indirect and direct measures in support of venture capital.⁵⁸ The OECD scoreboard also aims to fill an information gap on SME finance, providing a framework to monitor trends in SMEs and entrepreneurial access to finance in OECD countries. The 2012 report includes information on government responses to improve SME access to finance during the 2008-09 crisis.⁵⁹ The European Business Angels Network produces a regular compendium⁶⁰ of so-called co-

⁵⁷ Centre for Strategy and Evaluation Services (CSES) (2012) *Evaluation of Member State Policies to Facilitate Access to Finance for SMEs*, Brussels.

⁵⁸ Technopolis (2011) *The role of different funding models in stimulating the creation of innovative new companies. What is the appropriate model for Europe?* A study for the European Research Area Board. Final report October 2011.

⁵⁹ OECD (2012) *Financing SMEs and Entrepreneurs 2012, an OECD Scoreboard*.

⁶⁰ <http://www.eban.org/>

investment funds, but this is selective in coverage and the information, especially on the size of funds, incomplete. Similarly, the European Venture Capital Association⁶¹ and many of its national counterparts produce regular information, but the scope of this partly depends on their membership and by definition, their interests are oriented towards private sector investment rather than instruments of public policy.

An important dimension to policy intervention concerns the extent to which measures both provide access to finance for firms *and* aim to improve private sector supply of capital. This varies widely. At one end of the spectrum are policy approaches that simply entail public sector provision of capital to firms (in the form of loans or equity, for example) without seeking directly to involve the private sector. Such intervention may be on commercial terms, or may involve State aid. Examples of such intervention are loans offered by the *Landesbanken* in Germany and by Innovation Norway.

Further along the continuum, the use of guarantees aims to facilitate access to credit by mitigating the risk borne by the lender, but involves less initial capital outlay than loans on the part of public bodies. Guarantee schemes are widely used in the EoRPA partner countries - for instance, Oséo guarantees in France, and the Enterprise Finance Guarantee Scheme in the UK. Again, such measures may or may not involve State aid, depending on their coverage, the risk associated and the premia payable.

Seed or venture capital funds established by public bodies often seek private sector involvement through the management of the fund and through private sector funding; however, there is frequently significant public sector backing to such initiatives - through provision for losses or to cover administrative expenses such that a greater risk is borne by public sector partners and private sector investors are shielded from some of the real costs. The Norwegian seed capital funds, for example, were established with public funds and are backed by a subordinated loan from Innovation Norway, although the funds are ostensibly privately-owned and managed.

The co-investment approach operated in Scotland and Sweden seeks to engage the private sector more proactively by investing on a *pari passu* basis in projects selected by private investors, which increases the funds available for investment. This approach specifically aims to take advantage of private sector expertise in the identification of appropriate investments.

A yet more indirect way to encourage private sector investment in firms is through the tax system - mechanisms such as the tax regime for the *fonds commun de placement à risque* in France and the UK Enterprise Investment Scheme are among the examples.

At a general level it is evident that national and subnational authorities have been highly active in the provision of financial instruments, primarily focused on SMEs, and often (certainly in the case of equity finance) targeting high technology sectors, particularly in the face of the so-called 'equity gap'. However, while the discussion in Section 2 makes

⁶¹ <http://evca.eu/>

clear that access to finance has a specific geography, and one which tends to discriminate against disadvantaged regions, an explicit *spatial* orientation to the use of financial instruments is not prevalent. Notwithstanding this, the EoRPA partner countries *do* operate a number of instruments that seek directly or indirectly to address the geography of finance. In reviewing the instruments available, four broad groupings of policy approach can be identified:⁶²

- Financial instruments that are restricted to designated disadvantaged regions.
- Financial instruments that are available nationwide, but which favour designated areas either because the investment policy has an explicit social/regional dimension or through higher financial contributions.
- Financial instruments that are available nationwide, but where there is an explicit spatial dimension in, for example, the regional administration of the measure (thereby seeking to address the issue of proximity to sources of finance) or the earmarking of funds on a regional basis (with the aim of ensuring an adequate supply of funds other than in the core regions).
- Financial instruments that are operated at the subnational level, corresponding to the jurisdiction of the agency responsible for the measure; such measures *may* be a response to a perception that the region is disadvantaged in the national context regarding access to finance, but this is not always so. Typically such measures do not discriminate between areas within their jurisdictions.

3.1 Financial instruments restricted to disadvantaged areas

In the main, the financial instruments that are restricted to designated assisted areas (ie. those approved under Regional aid guidelines) take the form of loans, although there are also examples of equity-based schemes being focused on 'problem regions'. Germany and Austria both operate longstanding loan-based measures financed from the original endowment of the Marshall Fund. In both countries, the regional 'strand' is but one of a number of loan schemes operated under the aegis of the ERP.

In **Germany**, the ERP Programme is a relatively important component of German domestic regional policy, contributing to the broad regional policy aim of encouraging investment in structurally weak regions. The map to which the ERP loan applies extends beyond the 'a' and 'c' regions to provide support for SMEs in areas designated for this purpose (subject to the SME aid ceilings). Loans are offered on a commercial basis in the sense that projects must be sound and interest rates depend on the recipient's credit rating and guarantees. The maximum loan is 85 percent of project costs in the new *Länder* and Berlin, and 50 percent in the old *Länder*, subject to a ceiling of €3 million. Loans are available for up to

⁶² In practice, these categories are not quite mutually exclusive; they nevertheless provide a useful basis for describing the main approaches adopted.

five years, with one interest-free year, or up to 15 years (20 years for construction projects), with up to five interest-free years.

Germany - ERP Regional Aid Programme (*ERP-Regionalförderprogramm*)

The Federal Ministry for Economy and Technology is responsible for the ERP Fund, which is administered by the Credit Institution for Reconstruction (*Kreditanstalt für Wiederaufbau*, KfW), a public bank in which the federal government holds an 80 percent share and the *Länder* hold a 20 percent share.

Supports SMEs in designated assisted areas through low-interest loans for fixed asset investment, technology transfer, consultancy and trade fair participation.

Available in the areas designated under the Joint Task for the 'improvement of the regional economic structure' (*Gemeinschaftsaufgabe zur 'Verbesserung der regionalen Wirtschaftsstruktur'*, GRW). The GRW map covers 40.17 percent of the German population, of which 28.1 percent with 'a' or 'c' region status.

Scale: Budget of €450m in 2011

In **Austria** the ERP Regional Programme is not conventionally considered to be part of Austrian regional development policy, though it displays all the relevant characteristics - most notably that of being restricted to areas designated for regional aid purposes and approved as such by the European Commission. Like the German ERP Programme, support takes the form of soft loans, the subsidy element of which is determined by the Regional aid guidelines.

Austria - ERP Regional Programme

Administered through the AWS (*Austria Wirtschaftsservice GmbH*, a federal Austrian development and financing bank).

The ERP Fund offers a range of support schemes for the business sector. ERP *Regionalprogramm* provides low-interest loans for technologically sophisticated projects in assisted areas only.

Provides soft loans of between €100,000 and €7.5 million, for six to ten years, with up to three years repayment holiday. Aid ceilings vary by region in line with Regional aid guidelines. Eligible investments include buildings, plant and equipment of firms.

The scheme supports firms in structurally weaker regions, particularly peripheral, rural and old-industrial areas, as defined by the regional aid map. For the purposes of administrative simplification, ERDF funds that co-finance ERP-loans are administered as grants (using the net grant-equivalent of the loans as the co-financing basis).

Scale: Budget of €173 million in 2011.

There are also long-standing loan schemes operated in **Sweden** and **Norway**, focused on the sparsely-populated regions. The Swedish *Norrlandsfonden* provides a range of forms of finance, with the funds available originally coming from a state-owned mining group LKAB, but later supplemented by government and monies raised through the activities of fund. Support is restricted to the five northernmost counties - Norrbotten, Västerbotten, Västernorrland, Jämtland and Gävleborg - areas meeting the low population density criterion. The Norrland Fund finances firms, primarily SMEs, at all stages of development (start-up to expansion), especially in new technology sectors or business areas with growth

potential. The financial instruments offered take the form of flexible loans, convertible bonds and guarantees.⁶³ In addition to its lending activities, the fund aims to influence the economic and venture capital infrastructure of the area, notably through co-investing in equity with other investors. The fund invests approximately SEK 250 million (€30m) annually and currently has investments in around 350 firms. Overall the fund has equity capital of over SEK 1 billion (€120m) under management.

In **Norway**, the 'regional risk loan' is operated by Innovation Norway and is available to high risk projects undertaken in designated problem regions. The aim of the scheme is to provide support for high risk projects that could not be undertaken otherwise. The scheme is restricted to designated assisted areas (but Innovation Norway also operates loans schemes throughout Norway). The target group is small and medium-sized firms, usually with up to 100 employees. Support takes the form of a subsidised loan, the value of which is subject to the grant-equivalent ceilings set out in the Regional aid guidelines. Loans may cover up to 50 percent of eligible costs and are for a maximum duration of 15 years, with a two-year repayment holiday. By end 2010 current loans and commitments stood at NOK 1,410 million (c. €188 million). In 2010 NOK 60.9 million (€8.1 million) were set aside for the loss reserve fund which totalled NOK 584 million (€78 million) by end 2010.⁶⁴

In **Italy**, support for investment and competitiveness is available as part of a wider programme of soft loans (*Agevolazioni per investimenti produttivi*) from Invitalia. Two strands of the scheme are restricted to the four Convergence regions of the south, with loan funding totalling €200 million disbursed in two calls for proposals; the last call was in April 2011. The scheme falls within the 'omnibus' business aid measure notified on the basis of the GBER. Loans are for a period of up to eight years, plus a repayment holiday, with interest rates at 20 percent of the reference rate (but overall aid value subject to the Regional aid guidelines). More generally, and as noted in Section 2, access to finance in the south of Italy is perceived to be a particular issue and in response the *Banca del Mezzogiorno* has recently been established to provide loans to SMEs located in the south of Italy. These are provided on commercial terms.

In both France and England new financial instruments targeting problem regions have been introduced in response to the impact of the recession. In **France**, the *Fonds national de revitalisation des territoires*, FNRT (National fund for regional renewal) is administered by Oséo, the national agency for SME development and innovation, through its regional offices. The FNRT was launched in 2009. Over a three-year period, the objective was to make available €135 million through the fund, which would in turn leverage a further €400 million public and private sector funding through loans and guarantees. The fund supports firms in areas particularly affected by the recession and where firms were perceived to be especially constrained by the unwillingness of banks to lend. Interestingly, the map of

⁶³ Research and development and infrastructure may be grant-aided from the fund.

⁶⁴ Ministry of local government and regional development at:
<http://www.regjeringen.no/nb/dep/krd/dok/regpubl/prop/2011-2012/prop-1-s-20112012/14.html?id=658375> (accessed September 2012).

years; the loan may cover up to 50 percent of the price of the holding, subject to a ceiling of €2.06 million in any single investment. The budget for the regional policy element of the scheme is €132 million, (a separate budget is earmarked for high technology firms throughout Italy), but feedback from *Mediocredito Centrale* reported in the CSES study suggest a low rate of uptake.⁶⁶

In **Norway**, most seed stage capital (whether national or region-specific) is provided by public schemes and the supply of competent and active seed capital outside of the public schemes is still considered limited.⁶⁷ There are also incubators, technology transfer centres and science parks, but these are mainly oriented at pre-seed stages and have limited amounts of capital to invest in any given company. The provision of government-backed seed capital dates back to the 1990s when the government established a nationwide seed capital fund with a subordinated loan together with five regional funds, also with government backing (to provide for a loss fund and cover administration costs). Further funds were established between 2006 and 2008 - four nationwide and five 'district' funds restricted to investing in the designated northern or peripheral regions. This 'second wave' responded to some of the criticisms of the first round, especially regarding the small size of the funds, the extent of risk reduction for the private sector, the quality of fund management;⁶⁸ the use of subordinated loans was also criticised, but this aspect of the scheme was not changed in the second round. All of the funds comprise substantial public financing, part of which is defined as a loss fund that can be used when holdings are fully written down.

Norway: Examples of State-backed 'district' seed capital funds

KapNord⁶⁹ established in 2006 and will operate to 2021. It has capital of NOK 255 million (c. €35 million). It invests in new businesses and SMEs by providing equity and convertible shareholder loans. KapNord AS aims to complete 1-2 investments annually. Each investment is typically NOK 5-15 million (c. €0.67-€2 million), divided into phases and performance according to defined milestones.

Fjord Invest Sørvest⁷⁰. Operates in Sogn og Fjordane. Established in 2006 with capital of €27 million).⁷¹ Invests in south-western Norway and is supported through a subordinated loan from Innovation Norway.

Norinnova Invest.⁷² was set up in 2007 and is scheduled to be dissolved by 2022. The aim of the fund is to invest in technology and research-based growth companies in northern

⁶⁶ Centre for Strategy and Evaluation Services (2012), *Op. cit.*

⁶⁷ Grünfeld, L, Iversen, L and Grimsby, G(2011) *The need for government supported capital measures for early stage risk capital in Norway*. Menon-publication no. 18/2011, Menon Business Economics, Oslo.

⁶⁸ Growth analysis (2011) *Competent capital? Three countries, three trials*, Swedish Agency for Growth Policy Analysis, Östersund.

⁶⁹ <http://www.pronord.no/>

⁷⁰ <http://1111fjordinvest.gasta.no/Startside.aspx>

⁷¹ <http://www.argentum.no>

⁷² <http://www.norinnovainvest.no/>

Norway. The fund comprises private investment of around NOK 96.5 million (c €12.9 million); in addition Innovation Norway provides a subordinated loan of NOK 175 million (c. €23.4 million), taking the total capital to NOK €271.5 million (c €36.3 million).

For the current (second) wave of 'district' funds, Innovation Norway initially provided subordinated loans amounting to NOK 700 million (€95 million), contributed to the administrative costs (NOK 50 million - €6.8 million) and provided a loss fund (NOK 175 million - €23.7 million);⁷³ collectively the five district funds have over NOK 1.1 billion (€150 million) under management. The funds and the fund managers are privately owned and run, but up to 70 percent of the funds are financed from public sources, with the private sector providing a minimum of 30 percent. By 2009, the five district funds had invested in 24 companies⁷⁴ and while an evaluation of the impact of this second wave is still premature, there have been criticisms of the small size of the funds and their demanding multiple objectives (namely targeting firms in sparsely-populated areas capable of providing sufficient returns to attract private investors).⁷⁵ The government response has been to boost policy for *nationwide* government-backed seed funds, but the future development of district funds is unclear.

In **England** the Angel CoFund was established in November 2011 with £50m (€62m) from the Regional Growth Fund and is run by Capital for Enterprise, a fund management company wholly owned by BIS, the UK government department for Business Innovation and Skills. The aim of the measure is to support business angel investments in high-growth potential, early-stage SMEs, particularly in areas most affected by public spending cuts. The geographical areas targeted are not made explicit, but are determined with reference to the DCLG⁷⁶ Index of Multiple Deprivation. This provides a ranking on a postcode basis in relation to education, employment and income. The Angel CoFund will *not* invest in postcodes which score in the top quartile against all three of these measures. To this extent, the *real* regional orientation of the instrument is unclear - there is no explicit mapping of the *ineligible* areas (though clearly these could be identified with reference to the DCLG Index) and it is clear that the eligible areas are far more extensive than the formal assisted areas map. That said, the Angel CoFund is explicitly *not* intended to provide State aid (so its operation would not be bound by the regional aid map), though investee firms must fall within the EU definition of SMEs. The fund makes initial equity investments of between £100,000 and £1m (€126,000 to €1.26m) to SMEs alongside syndicates of business angels, subject to an upper limit of 49 percent of any investment round. Since November 2011 it has made five investments - in companies located in London, Loughborough, Bristol and Luton.

⁷³ Authorisation of State measure pursuant to Article 61 of the EEA Agreement, OJEU No C57/26 of 9 March 2006.

⁷⁴ Menon (2009) Veksthus eller såkorn til spille? Evaluering av ordningene for såkornfond under Innovasjon Norge MENON-publikasjon nr. 5/2009

⁷⁵ Growth analysis (2011) *Op cit.*

⁷⁶ Department of Communities and Local Government.

3.2 National financial instruments which favour disadvantaged areas

There are several examples of financial instruments in the EoRPA partners countries which, while available nationwide, offer favourable terms in disadvantaged areas. The examples are all loans or loan guarantees.

Finnvera, a specialised financing company owned by the State in Finland, provides a range of different types of loan and equity funding for different stages of the business cycle. In addition to its objective of providing risk finance to SMEs in cases of identifiable market failure and supporting SME promotion and development of indigenous SMEs, the agency also promotes national industrial and national and EU regional policy objectives. Finnvera makes investment decisions based on commercial profit-driven criteria, but the attainment of social and regional objectives such as job creation is also emphasised.⁷⁷

Finnvera instruments are available nationwide, but since 2001 ERDF has been used to provide interest subsidies for investment and working capital loans, loans for women entrepreneurs, microloans, entrepreneur loans and environmental loans in Eastern and Northern Finland, as well as the most disadvantaged parts of Southern Finland and Western Finland. In addition, guarantee fee subsidies from ERDF are channelled to guarantees for investment and working capital loans. In 2010, Finnvera's financing in the disadvantaged areas totalled €118 million,⁷⁸ with financing granted to these areas representing around 44 percent of all financing granted to domestic operations. More recently, Finnvera introduced ERDF funding into venture capital provision; the four venture capital funds funded under the ERDF Operational Programmes cover the whole of Finland between them, but selection criteria are relaxed for projects in the Eastern and Northern regions.

Similarly, in France, the support for reindustrialisation instrument (ARI), administered by OSEO on behalf of the Ministry for Industry and DATAR, provides interest-free loans with more advantageous terms in assisted areas (see box).

⁷⁷ CSES (2002) *Guide to Risk Capital Financing in regional policy: Best practice case studies*, report to DG Regional Policy.

⁷⁸ Finnvera (2010) *Vuosikatsaus 2010*.

France: Support for reindustrialisation (ARI)

The ARI is administered by Oséo on behalf of the Ministry for Industry and DATAR. The aim of the measure is to support industrial development in France, especially in the assisted areas, and especially in the context of international competition for investment.

Intervention takes the form of an interest-free loan with a two-year repayment holiday after project completion and a five-year repayment period. The loan is available for investments exceeding €5 million and creating at least 25 jobs. In assisted areas, loans may cover 60 percent of eligible costs for SMEs and 40 percent for intermediate firms (so-called ETI, firms with up to 5,000 employees and below certain turnover and balance sheet thresholds). Outside the assisted areas, the loans cover 60 percent of eligible costs for small firms and 30 percent for medium-sized firms; loans to ETI are based on the *de minimis* State aid rule.

The measure has a strong spatial dimension insofar as the loan coverage varies according to whether firms are located in assisted areas. By end 2011, 20 projects had been aided, of which 11 in assisted areas.

Scale: The ARI was established with funding of €200 million. The 20 projects approved from August 2010 to end December 2011 involved €344 million investments, 1,525 jobs within three years and ARI loans of €77 million.⁷⁹

Last, in Italy, the Central SME Guarantee Fund (*Fondo Centrale di Garanzia per le Piccole e Medie Imprese*) provides counter-guarantees on bank loans to SMEs.⁸⁰ The fund is managed by Banca del Mezzogiorno - *Mediocredito Centrale*. Counter-guarantees are second-level guarantees on guarantees given by first level guarantee providers, which in Italy are for the most part regional CONFIDI (credit guarantee consortia). Project selection is carried out by the first level guarantee providers. Firms approach banks or a CONFIDI to obtain a loan or a direct guarantee and thereafter, through the bank or CONFIDI, requests the intervention of the Central Guarantee Fund. Although the Fund operates throughout Italy, its conditions are more favourable in the regional aid Article 107(3)(a) areas, as well as in areas covered by development contracts and other forms of negotiated programming. A sub-fund of €100 million was set up in 2009 from the ERDF National Operational Programme for Research and Competitiveness (NOP Reserve) for the Convergence regions. This 'Reserve' is only available to SMEs operating in the four Italian Convergence regions.

In 2011, the Fund approved over 186,000 operations (35 percent of these in the South) at a value of €17.8 billion (36 percent in the South), relating to investments of €33.4 billion (29 percent in the South). However, financial intermediaries have been reported to prefer the non-ERDF-funded element of the SME Guarantee Fund, preferring to go to the part of the fund financed from domestic resources, as this is perceived to entail a lower bureaucratic burden, less monitoring, and less risk of additional audits. For this reason, a programme modification was requested introducing a modified procedure intended to lighten the burden of banks and CONFIDI, i.e. taking away the step of having to check the 'coherence'

⁷⁹ <http://www.industrie.gouv.fr/egi/aidereindust/>

⁸⁰ http://www.fondidigaranzia.it/fondo_di_garanzia.html#

of the proposed investments with the goals of the NOP, which has proven to be one of the main obstacles.

3.3 Nationwide financial instruments with regional 'sensitivity'

There are numerous examples of instruments which operate on a nationwide basis, but which comprise a degree of regional sensitivity either through regional-level representation/governance, or through a network of sub-national funds, all overseen by a central national body. Administering FEIs through sub-national offices can be seen to address concerns about access to funds and funding institutions associated with distance and proximity in less developed regions, and helps disseminate publicity and information where take-up may be low.

There are examples of financial instruments which are implemented through a regional-level network in France and Finland. Finnvera loans and guarantees are administered through a network of 16 regional offices in **Finland**. The strong regional presence is considered to result in a close relationship with and better understanding of the client base, helping ensure a low rate of default and contributing to a better understanding of the industries in which Finnvera's clients operate.⁸¹ The sub-national representation of administering authorities can help encourage public-private collaboration, and investee firms gain from input by both sectors. In **France**, Oséo is partly based on a strong regional presence as well as close cooperation with SME structures such as the French small business association.⁸²

In Finland, Sweden, and England there are networks of individual regional funds covering the whole territory, and overseen by a central public body. In **Finland**, Finnvera oversees the provision of capital for and development of 13 regional venture capital funds organised as limited companies. These funds are managed by Veraventure Ltd, which is 100 percent owned by Finnvera. Efforts have also been made to increase the share of private capital in the regional funds, and discussions are ongoing concerning the promotion of private sector involvement more generally (e.g. through the use of tax incentives).

Similarly in **Sweden**, 12 regional venture capital funds managed by public sector agencies cover the entire country. The funds are run in the form of projects financed by ERDF and co-financed by the regions. All 12 funds are managed by five different project owners. Almi Invest manages seven of the regional funds; the other funds are managed by Almi/Norrlands fund, Saminvest II, Sjötte AP-fonden and Innovationsbron. Almi Invest, for example, was founded in 2009 by Almi Företagspartner, a state-owned company offering loans, export financing and business support, together with regional investors. Half of their capital comes from Structural Funds. The funds invest together with private commercial actors on equal terms, which mean that ERDF and the national public agency each contribute 25 percent and private actors 50 percent of the investment. Each fund is only allowed to invest in its

⁸¹ CSES (2002) *Op cit.*

⁸² Centre For Strategy and Evaluation Services (2012) *Op cit.*

own region. Two funds differ in that they work with lending instruments alongside equity capital. The funds have a total budget of €264 million, of which €73m is from the ERDF, the rest equal contributions from public and private sectors. A total of 124 investment decisions have been made in all so far, involving total investment of SEK 786 million (€93 million) - SEK 328 million (€39 million) from the ERDF and public sources, and SEK 458 million (€54 million) in private co-financing.

In the past, a network of regional funds was also deployed in **England** through the Regional Venture Capital Funds (RVCFs) - a country-wide programme to provide risk capital finance in amounts up to £500,000 (c. €626,000) to SMEs who demonstrated growth potential. The funds were managed by experienced venture capital professionals and were commercially focused. One of the objectives of the scheme was to establish at least one viable, commercial fund in each of the nine English regions which increased the amount of equity gap venture capital available to SMEs and which would not displace any existing fund activity in this segment of the market. Funds duly became operational in each English region. The funds were managed by private sector venture capital fund managers, procured through an open bidding tender process, in 2000. In each RVCF, the DTI⁸³ invested alongside the European Investment Fund (in most cases, approximately 50 per cent of the funding was from these two sources); fund managers then had to secure the remaining percentage from other private sector investors. In order to assist fund managers to attract private sector investors, the government subordinated its investment position in two ways: by putting a cap on its investment return, thereby boosting the anticipated return to private sector investor and the EIF; and by providing a 'first loss' facility. It was intended that the then-RDAs would support the RCVFs by helping the fund manager raise the necessary private sector investment by using their contacts and knowledge of the business support network within the region. As discussed later, the RCVFs have been heavily criticised on a number of grounds, notably lack of appropriate fund management skills, small fund size, targeting and the failure to consider the demand side. The RCVFs have now been replaced by nine Enterprise Capital Funds in England, which provide equity finance to SMEs by using government funding alongside private sector investment to establish funds operating within identified 'equity gaps'. Bids to run an ECF are not restricted to particular geographic areas or sectors, and there are no regional or sectoral targets for ECFs; the emphasis is rather on the identification and targeting of an equity gap.

Last, the New Regional Policy in **Switzerland** places a significant focus on financial instruments, which amount to around half of the overall envelope. Cantons are obliged to contribute 50 percent for individual projects, and they must assume 50 percent of any incurred loss (of their own and the federal contribution), encouraging them to take precautions to avoid such losses. Project promoters are required to contribute a sizeable share of funding (e.g. at least 20 percent) to the project depending on their financial resources.

⁸³ Department of Trade and Industry.

3.4 Sub-national financial instruments

There is evidence of increasing involvement of sub-national instruments operating at a sub-national level in the EoRPA countries, for example in Austria, Poland, Germany, the UK, France and Italy. These are predominantly loans but increasingly venture capital instruments are being set up, particularly supported by Cohesion policy and facilitated through the JEREMIE Initiative.

In **France**, regional-level awareness has been growing regarding the importance of financial instruments, and even less dynamic regions have started setting up funds, partly due to the driving force of EU Cohesion policy. This includes risk capital funds that were considered difficult to establish in the context the State aid rules. Funds set up with ERDF support must be managed by (elected) regional authorities rather than the central government offices in the regions, who cannot participate. It is estimated that around half of the French regions use loans to support business, and by early 2011, ten regions out of 22 had established an equity instrument. Eight regions have set up a guarantee fund, in most cases through funding of an existing fund, in most cases the funds operated by Oséo.

France: Aquitaine Co-Investment Fund

The Aqui-Invest co-investment fund was set up in December 2010. The co-investment fund is 100 percent owned by the region, which invests alongside the private sector and Business Angels on a pari-passu basis. For the first two years of its operation, the budget is €3 million (€1.5 million ERDF and €1.5 million regional funds). It is planned to top up the budget by another €1.5 million of ERDF in 2012 and a further €1.5 million of regional funds in 2013. The fund is managed in a similar way as a limited company (*Société par Actions Simplifiée*) under the tax scheme in place for venture capital societies. It is aimed at contributing to investments in 20 SMEs in the start-up, creation or development phase and active in the fields of innovation and sustainable development. This is done in cooperation with venture capital societies and groupings of business angels. By late 2011, five investments had been carried out involving €875,000 and further investments were lined up. This has levered in private funding of €2.8 million.

Around half the 20 regional development agencies in **Austria** use subsidised loans and guarantees in addition to grants, and several *Länder* have also set up equity instruments. For example, in Burgenland a venture capital fund was set up in October 2010.⁸⁴ The Fund is run by the *Burgenländische Risikokapital Beteiligungen AG* (BRB) and is endowed with €15.7 million. WiBAG, the business agency in Burgenland, provides 64 percent of the money from EU and *Land* sources. The remaining 36 percent come from the Economic Chamber (*Wirtschaftskammer*) in Burgenland, and from banks and insurance companies operating in the *Land*. Investments in all sectors are eligible, and the investment volume ranges from €200,000 to €1.5 million. The holding period is expected to range from five-to-seven years. While all businesses in Burgenland are potential beneficiaries, the focus of the fund is on SMEs that require funding in order to invest and grow.

⁸⁴ <http://www.boerse-express.com/pages/913749> (German) and <http://www.brb-ag.at/>

A network of loan and guarantee funds has developed in recent years in **Poland**. Guarantees have become particularly important, because the financial crisis has led banks to look for guarantees for projects which they would previously have funded without security. Although the main instrument is the National Credit Guarantee Fund (NCGF) at the Bank Gospodarstwa Krajowego (National Economy Bank, BGK), which has a fund of around €180 million, the bank also oversees 13 regional funds (with 16 planned), worth around €120 million. Shareholders include regional governments, RDAs, business organisations and the BGK. There are also 47 local funds (with 100 planned), accounting for around €30 million with county or municipal authorities and the BGK as shareholders. Between 1994 and 2007, regional and local guarantee funds issued 20,067 guarantees, amounting to €400 million. In addition to loan and guarantee funds, supported by the establishment of stronger regional business support institutions and access to Cohesion policy funding, regions are increasingly initiating venture capital and business angel funds.

The financial needs of SMEs have been found to vary in the Polish regions. For example, SMEs in Eastern Poland need basic support because of particular difficulties they face in accessing finance. Start-ups in poor (particularly agricultural) regions need micro-finance, because they lack self-financing opportunities. Nevertheless, the regional distribution of loan funds is uneven, with only three in the north east and one in the east (Lublin). The provision of these instruments tends to reflect the demand for finance rather than addressing a market deficiency: it has never been State policy to prioritise less-developed regions through loan or guarantee fund allocations. Moreover, discussions with regional actors emphasised the constraints they face in implementing policy.

There is considerable experience with the operation of subnational financial instruments in **Germany**, notably through the individual public *Land* banks. As noted earlier, these are an important part of the financial landscape in Germany and operate a range of loan schemes targeting SMEs in particular - see box for a description of the microloan scheme in North Rhine-Westphalia, which uses ERDF monies to co-finance loans to very small projects in the region.

Germany: NRW/EU Micro Loan Fund

The NRW/EU Micro Loan Fund is managed by the fully owned public bank, NRW.BANK. Loans are obtained via the 'STARTERCENTER NRW', a network of 83 local business advisers located in industry/trade chambers, craft chambers and local economic development agencies.

The Fund provides loans of €5,000-25,000 to SMEs, which are 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. This is seen as a means of increasing firm survival rates and addressing any difficulties early on. Initially, the fund was set up as a pilot project covering around one third of the local STARTERCENTERS in the *Land*, with these centres deciding whether or not to opt into the scheme. Almost all local STARTERCENTERS have now decided to participate in the fund.

The NRW/EU Micro Loan Fund is perceived to have been very successful in attracting sufficient high-quality projects. Indeed, in Nordrhein-Westfalen, the economic crisis is seen to have increased demand for micro-loans, and success has been such that there has been a television series based on the fund, with the story of a different start-up firm being presented each week. Because the NRW/EU Micro Loan Fund was initially set up on a pilot basis, the NRW managing authority decided to undertake an evaluation relatively quickly (in 2010, after launching the fund in 2008), in order to see whether the fund should be extended and made permanent, or whether any of its key features needed to be amended.⁸⁵ The Fund is seen to have supported a relatively high number of firms and thus reduced funding constraints for start-ups and increased their chance of survival. The 2010 evaluation found that the Fund had succeeded in filling a financing gap and in addressing a market segment with genuine demand. Recommendations included reducing repayment-free period to increase awareness among the firm-owners of the need to repay the loan and to plan accordingly. This recommendation has since been adopted and the repayment-free period has been reduced from one year to six months. It was also found that the integration of advisory services with loans had worked well.

The Fund is co-funded by the ERDF programme; between 2008 and 30 September 2011, the fund had provided loans to around 430 projects, amounting to €8.7m.

A co-investment fund (see box) was established with a view to addressing the perceived gap in the early stage venture capital market in **Scotland**. The fund invests alongside private investors who undertake the due diligence and negotiate terms with investee firms, but its contribution is always 50 percent or less of the amount invested. Within Scotland the fund has no explicit geographical orientation (i.e. no areas are favoured). However, an important aspect of the SCF has been the development of angel syndicates in Scotland, both in and in the more rural regions. Interestingly, while this had led to a growth in the number of angel investors from rural areas, in practice such investors have tended to invest in the in areas where coinvestment already predominates - the eastern part of Scotland (Edinburgh, Dundee, Aberdeen), confirming the tendency indicated in Section 2 for funds to be drawn away from more peripheral regions rather than towards them through such mechanisms.⁸⁶

⁸⁵ S. Meyer and N. Biermann (2010) *Evaluation NRW/EU Mikrodarlehen*, Bremen: MR Gesellschaft für Regionalberatung mbH.

⁸⁶ Growth Analysis (2011) *Op cit*.

UK - Scottish Co-Investment Fund (SCF)

Introduced in 2003 and managed by Scottish Investment Bank, part of Scottish Enterprise, a public-sector economic development agency, the €66.7 million SCF operates by co-investing alongside pre-validated private sector co-investment partners, who identify investment opportunities, undertake the necessary due diligence, negotiate the terms and conditions of the investment transaction and decide whether to access SCF capital, through an agreed SCF Partner capital allocation, for equity investments on a *pari passu* basis.

Now with a budget of €78m, of which €31m is from the ERDF and €47m from regional sources, SCIF II had invested a total of €40 million in 110 companies between April 2008-September 2010. The overall largest recipient sector by value is software and computer services. Life sciences is also a significant emerging sector. The fund currently has 39 approved investment partners. Much of the success of the SCF model can be seen in the growth of angel syndicates. From an initial two main groups involved in Scotland, this has grown to 20 syndicates within ten years.

4. FINANCIAL INSTRUMENTS: A CRITIQUE OF THE REGIONAL DIMENSION

Access to finance is recognised as a major barrier to the development of SMEs, and to entrepreneurial activity in general. The focus of much of the policy response has been on growing businesses where access to finance - specifically equity finance - is seen as a particular problem. However, smaller firms with more modest ambitions are also constrained by difficulties in access to finance, and there continues to be a lack of appropriate instruments for financing social businesses. The financial crisis has exacerbated the supply of finance to SMEs, with a contraction in venture capital availability and a decline in bank lending. This, in turn, has created a new problem of firms that are now discouraged from seeking finance, especially bank loans, because they think that they will be unsuccessful. Hutton and Nightingale have termed this *The Discouraged Economy*.⁸⁷

This paper has noted that firms in disadvantaged regions have particular problems in terms of access to finance because of the way in which financial markets operate over space. It has also reviewed some of the mechanisms through which public policy in the EoRPA partners countries intervenes to improve access to finance, whether through measures targeted at disadvantaged regions or approaches that embody different degrees of regional sensitivity. This section of the paper considers some of the obstacles that such actions encounter, focusing primarily on efforts to provide, or stimulate the provision of, venture capital in the disadvantaged regions. This partly reflects the high profile given to equity finance in current discussions on financial instruments, and partly the greater volume of academic research and evaluations of such measures; by contrast, assessments of regionally oriented loan and guarantee scheme are few. Nevertheless, as may become apparent from the discussion that follows, such instruments may in fact be better suited to addressing the issue of access to finance in the disadvantaged regions than venture capital based measures.

4.1 The regional impact of *national* policy instruments

First, it is important to consider the spatial impact of non-regionally-focused instruments i.e. those with no *intended* spatial bias. There is evidence dating back more than twenty years that making support available on a *national* basis will result in a geographically differential impact, with the greatest benefits going to the most entrepreneurial regions - which are typically the most economically developed regions. A number of examples can be given.

Murray reports on the impact of the EU Seed Capital Initiative which was intended to increase the availability of early stage equity for technology businesses.⁸⁸ Funds received support towards their operating costs. However, a regional dimension was also

⁸⁷ Hutton, W and Nightingale, P (2012) *The Discouraged Economy*. London: The Work Foundation.

⁸⁸ Murray, G C (1998) A policy response to regional disparities in the supply of risk capital to new technology-based firms in the European Union, *Regional Studies*, 32, 405-419.

incorporated, with funds in assisted areas of the EU receiving higher support, including a capital loan. A total of 22 funds were established across ten countries and located in both assisted and unassisted regions. The funds in the unassisted areas - the more economically dynamic regions of the EU - were larger than those in the assisted regions, hence they were able to make bigger investments. They also provided greater hands-on support to their investee companies. Their operating costs as a proportion of funds under management were lower. The investee businesses of the regional funds were smaller, grew less quickly, were less technologically sophisticated and were more likely to fail.

Mason and Harrison report on the impact of the UK's Business Expansion Scheme, predecessor of the Enterprise Investment Scheme, which offered tax incentives to private individuals investing in eligible unquoted companies.⁸⁹ This scheme attracted disproportionately more investors than investee businesses from northern regions, whereas Greater London and the South East had higher proportions of businesses than investors. So, clearly, the effect of the scheme was to result in an outflow of savings from peripheral regions to core regions.

Nightingale *et al* analysed the impact of six UK government backed hybrid venture capital funds.⁹⁰ Although the regional dimension was not strong, the level of funding received by firms located in South East England was higher than in other regions.

Loan Guarantee Schemes also exhibit regional differences in take-up rates. However, based on evidence from the UK's Loan Guarantee Scheme, these are more complex than a simple core-periphery contrast. In the early years of the scheme, the North West and South East/East Anglia had the highest take-up rates.⁹¹ However, in later years the regional effects, in terms of number of loans, value and average size, reduced in magnitude but remained, and also changed, with the Northern regions of England achieving the greatest benefits overall, with the South East attracting roughly its 'fair share' of loans given its share of the SME population.⁹² It is not clear what drives this regional effect but as the administration of the scheme is in the hands of the banks it may be that they devote differing levels of resources across regions in supporting the scheme. The regional effects are also sensitive to changes in the parameters of the scheme. There are also regional differences in failure rates under the scheme.⁹³

⁸⁹ Mason, C M and Harrison, R T (1989) Small firms policy and the 'north-south' divide in the United Kingdom: the case of the Business Expansion Scheme, *Transactions of the Institute of British Geographers*, 14 (1) 37-58.

⁹⁰ Nightingale, P et al (2009) *From Funding Gaps to Thin Markets: Designing Hybrid VC Schemes for the 21st century*, SPRU, University of Sussex for BVCA and NESTA.

⁹¹ Harrison, R T and Mason, C M (1986) 'The regional impact of the Small Firms Loan Guarantee Scheme in the United Kingdom', *Regional Studies*, 20, 535-549.

⁹² Cowling, M (1998) Regional determinants of small firm loans under the UK Loan Guarantee Scheme, *Small Business Economics*, 11 (2) 155-167.

⁹³ Harrison, R T and Mason, C M (1986) *Op. cit.*

All of this would suggest that regionally-focused interventions are more appropriate way in which to promote entrepreneur-led economic development in disadvantaged regions. For example, the Northern Way - a consortium of Regional Development Agencies and local authorities in the North of England that existed prior to 2011 - argued that a proposed restructuring of public sector venture capital in the UK should retain a regional focus because of the importance of local fund management presence in the regions to stimulate demand and seek out investment opportunities. They argued that although national initiatives bring scale advantages they 'lack a regional dimension and therefore replicate the geographical imbalance of the private sector market'.⁹⁴

4.2 The limitations of regionally-focused instruments

A regionally-focused approach also has inherent limitations. These are most apparent with the case of publicly-supported venture capital funds. There is considerable evidence that venture capital is a key factor in the emergence of high growth firms, particularly those based on technological innovation. Indeed, recent evidence shows that venture capital backed firms perform much more strongly than their counterparts which have not raised venture capital funding.⁹⁵ Governments have been active in introducing such schemes at both the national and regional scales to fill what are perceived to be gaps in the supply of seed and early stage venture capital which are thought to hold back firms which have the potential for high growth.

The typical approach of governments to stimulate venture capital in the regions is to establish hybrid funds with private sector fund managers which comprise a mixture of public and private money, with private investors given certain incentives that either increases their up-side or reduces their down-side, or both.⁹⁶ However, it is debatable whether constraining funds by restricting their investments regionally is good practice⁹⁷ - although there may well be regional-level resistance to the idea of funds being pooled, notably, but not only, in the context of Structural Funds co-financed measures. Funds created under the hybrid model outlined involve relatively small amounts of capital under management. Indeed, as noted above, in the case of the EU Seed Capital Funds, the funds in the assisted regions were smaller than those in other locations, despite having more generous financial incentives for private sector investors.⁹⁸ The same feature was evident in

⁹⁴ Deloitte (2009: 60) *Preparing the ground: Private investment in the regions in the recovery phase and beyond*, The Northern Way: Private Investment Commission.

⁹⁵ Experian (2012) *The Insight Report: Tomorrow's Champions: finding the small business engines for economic growth*. <http://www.experian.co.uk/assets/insight-reports/brochures/experian-insight-report-q4-2010.pdf>

⁹⁶ Murray, G C (2007) Venture capital and government policy, in H Landström (ed) *Handbook of Research on Venture Capital*, Cheltenham: Edward Elgar, pp 113-151.

⁹⁷ Veugelers R (2011) *Mind Europe's early equity gap*, Bruegel policy contribution, Issue 2011/18. December 2011.

⁹⁸ Murray, G C (1998) A policy response to regional disparities in the supply of risk capital to new technology-based firms in the European Union, *Regional Studies*, 32, 405-419.

the English regional venture capital scheme,⁹⁹ and in the Norwegian regional seed capital fund.¹⁰⁰ More generally, small funds have a number of disadvantages.¹⁰¹

- Both the costs of reducing information asymmetries and providing management support for early stage investee companies are fixed and so largely unrelated to the size of the investment. In the case of small funds such costs therefore account for a much higher proportion of operating costs. According to the European Court of Auditors, providing access to finance with fund sizes below critical mass is very likely to be unsustainable, as the overhead costs and the risks associated with investments or loans cannot be spread over a sufficient number of SMEs.¹⁰²
- Returns to venture capital investing are skewed, with fund performance depending on a small number of winners. Hence, diversification is essential. However, small funds are less able to fully diversify their fund. A portfolio of 20-30 investments is regarded as appropriate to spread the risks.
- Small funds are only able to make small initial investments and have limited ability to make follow-on investments. Their limited ability to follow their initial investments means that they are unable to fully share in successful investments. It also exposes them to dilution should their investee businesses need to raise further finance from other investors.

This is potentially detrimental to the investee businesses of such funds. Because of the small size of public sector venture capital funds, allied to a maximum investment size, imposed by government to prevent them from undergoing 'investment drift', the investments that they make are typically too small to meet the funding needs of high-growth firms. In addition, the funds are generally too small to have the capacity to make significant follow-on investments. The consequence for the management teams of the investee businesses is that they are forced to spend a disproportionate amount of their time seeking further finance. If follow-on investment is not found then the business may become one of the 'living dead', generating enough sales to survive but unable to grow. Alternatively, it may prompt the premature sale of the company, or even its closure. On the other hand, if follow-on investment is raised there is the risk of friction between the multiple co-investors who sit on their board, for example, in terms of the strategic direction of the business or when to seek an exit. However, being unable to participate in the follow-on funding means that the public sector fund is likely to suffer punitive dilution which will significantly erode the value of its investment in the company. Various authors

⁹⁹ Mason, C M and Harrison, R T (2003) 'Closing the regional equity gap? A critique of the Department of Trade and Industry's Regional Venture Capital Funds initiative', *Regional Studies*, 37, 855-868.

¹⁰⁰ Growth analysis (2011) *Op cit.*

¹⁰¹ Murray, G C (2007) *Op. cit.*

¹⁰² European Court of Auditors (2012) *Financial Instruments for SMEs Co-financed by the European Regional Development Fund, Special Report No. 2*, 2012.

have found an association between large funds and superior fund performance.¹⁰³ Murray demonstrates that the fixed costs involved in venture capital investing have a severe effect on the net performance of small funds.¹⁰⁴ Indeed, the interaction of high fixed costs and small fund size would have meant that the regionally located EU Seed Capital funds would have run out of money after eight years, and the other funds after 12 years, without making any investments.¹⁰⁵

A further limitation related to the small size of funds is that public sector venture capital funds may not be as 'smart' as private sector venture capital in terms of adding value, as Schäfer and Schilder suggest is the case for Germany.¹⁰⁶ Hood's account of public sector venture capital in Scotland emphasises the 'necessity to attract, reward and hold together experienced and committed venture capital executives to manage public funds.'¹⁰⁷ Without respect in the market place public sector funds will find it difficult to attract private sector investors to co-invest or provide follow-on investment. This requires that the individuals running public sector funds are highly rewarded and incentivised to make the best possible returns. However, the ability of public sector venture capital funds to attract capable investment managers is constrained by their small size (i.e. funds under management) because the annual management fee is based on a percentage of the committed capital (up to two percent). The capabilities of public sector fund managers are therefore often questioned, both in terms of their ability to make good investments (quality of deal flow, domain knowledge, effectiveness of their due diligence) and to add value to their investee companies (e.g. mentoring skills, strategic insights, networks). However, it should be noted that Pinch and Sunley suggest that the ability of private sector venture capitalists to add value may be exaggerated.¹⁰⁸

A recent evaluation¹⁰⁹ of Finnvera (see Section 3), which pursues regional policy objectives while ostensibly making investment decisions based on commercial profit-driven criteria highlights the difficulties inherent in this twin approach - for example, when setting performance goals, such as the target of a minimum of 40 percent of loans, guarantees and

¹⁰³ Dimov, D and Murray, G (2008) Determinants of the incidence and scale of seed capital investments by venture capital firms, *Small Business Economics*, 30 (2), 127-152; Söderblum, A and Wiklund, J (2006) *Factors Determining the Performance of Early Stage High technology Venture Capital Funds: A review of the Academic Literature*, London: DTI.

¹⁰⁴ Murray, G. (1999) Seed Capital Funds and The Effect of Scale Economies. *Venture Capital: An International Journal of Entrepreneurial Finance*, 1 (4) 351-384.

¹⁰⁵ Murray, G C (1998) A policy response to regional disparities in the supply of risk capital to new technology-based firms in the European Union, *Regional Studies*, 32, 405-419.

¹⁰⁶ Schäfer and Schilder, D (2009) Smart capital in German start-ups: an empirical analysis, *Venture Capital: an international journal of entrepreneurial finance*, 11 (2) 163-183.

¹⁰⁷ Hood, N. (2000) Public venture capital and economic development: the case of Scotland, *Venture Capital: an international journal of entrepreneurial finance*, 2, 313-341.

¹⁰⁸ Pinch, S and Sunley, P (2009) Understanding the role of venture capitalists in knowledge dissemination in high-technology agglomerations: a case study of the University of Southampton spin-off cluster, *Venture Capital: an international journal of entrepreneurial finance*, 11 (4) 311-333.

¹⁰⁹ Ministry of Employment and the Economy (2012) *Evaluation of Finnvera plc, Final report*, Publications of the Ministry of Employment and Economy 28/2012.

export guarantees to be granted to in assisted areas, the study notes that it is not possible to assess *ex ante* how many start-up firms or companies situated in assisted areas will face gaps in their financing in the year ahead. The evaluation also questions whether Finnvera as a public risk financier is the optimal or even relevant actor to address regional policy targets, and that a lack of growth companies in the regions might not simply be due to lack of funding availability.

4.3 A demand or a supply side issue?

An important issue is the extent to which geographical variations in investment activity reflect demand side factors rather than supply side gaps. In any economy there are likely to be only a small proportion of firms that are capable of earning the high returns that are sought by venture capital funds. Moreover, although high growth firms can be found in all regions the evidence indicates that they are disproportionately concentrated in core regions.¹¹⁰ There are also qualitative differences between high growth firms in core and peripheral regions, for example in terms of size (both turnover and employment) and industrial composition.¹¹¹ The lack of venture capital investment in disadvantaged regions may therefore be a result of perfectly rational behaviour by private sector investors. Given these circumstances, injecting public sector venture capital into such regions is likely to have little or no effect in increasing the number of high growth firms simply because there are insufficient firms capable of using such investment to expand. This might be attributable to the types of activities undertaken by firms or by managerial limitations. Constraining such funds to invest in specific geographical regions where there are limited investment opportunities will, in turn, have a negative impact on fund performance.¹¹² A study by Nightingale *et al* which examined the impact of investment from six UK government-backed venture capital funds on investee companies identified a positive but modest impact when compared to a matched control sample.¹¹³ Moreover, as noted earlier, the most positive impact was experienced by firms based in the South East. This would tend to support the view that simply increasing the supply of venture capital without enhancing the demand side is unlikely to lead to significant entrepreneur-led economic development.

It also follows that if there is a relatively fixed demand for venture capital and if public sector venture capital funds are able to 'outbid' other investors for investments, thereby

¹¹⁰ BERR (2008) High Growth firms in the UK: Lessons from an analysis of comparative UK performance, *BERR Economics Paper No.3*, Department for Business Enterprise & Regulatory Reform, London.; Anyadike-Danes, M, Bonner, K, Hart, M and Mason, C (2009) *Mapping Firm Growth in the UK: Identification of High Growth Firms and their Economic Impact*, London: NESTA; Stam, E (2005) The geography of gazelles in The Netherlands, *Tijdschrift voor Economische en Sociale Geografie*, 96 (1)121-127.

¹¹¹ Gallagher, C and Miller, P (1991) The performance of new firms in Scotland and the South East, 1980-7, *Royal Bank of Scotland Review*, 170, 38-50.

¹¹² Technopolis (2011) *The role of different funding models in stimulating the creation of innovative new companies. What is the appropriate model for Europe?* A study for the European Research Area Board, Final Report, October 2011

¹¹³ Nightingale, P et al (2009) *From Funding Gaps to Thin Markets: Designing Hybrid VC Schemes for the 21st century*, SPRU, University of Sussex for BVCA and NESTA.

driving up deal prices and reducing returns, then this will 'crowd out' private sector venture capital funds. Cumming and MacIntosh find support that the Labor-Sponsored Venture Capital Funds in Canada which enjoyed tax advantages over private sector funds resulted in an overall reduction in the pool of venture capital.¹¹⁴ However, in a pan-European study, Leleux and Surlemont find no evidence of a crowding out effect.¹¹⁵

A recent mid-term evaluation of the regional funds in Sweden¹¹⁶ found that demand varied between regions, and in particular, had decreased in some parts of Sweden (especially in the peripheral north) because of the economic downturn; there have also been some problems with finding private co-funding. Given these problems, SEK10-15 million (€1.2-1.8 million) from one fund (located in northern Sweden) was transferred to funds in other regions. At the time of the evaluation, most funds were still in the start-up phase. However, the study noted that it was challenging for many of the funds to ensure a sufficient flow of good deals and suitable investment partners, particularly in those regions dominated by large companies and industrial environments which had not historically had a culture of venture capital financing.

4.4 Market 'thinness'

Recently it has been argued that the problem facing regional public sector venture capital funds is not simply on account of their size, investment model or ability to support investee companies. Nightingale *et al* suggest that the key problem is one of 'thin' markets in disadvantaged regions.¹¹⁷ An alternative terminology would be that these regions lack an appropriate eco-system to support venture capital investing. Thin markets are characterised by a situation in which there are limited numbers of investors and entrepreneurial growth companies which have difficulty in finding and contracting with each other at reasonable cost. In other words, it is not simply a problem of demand or supply.

A fully functioning venture capital market requires a variety of components to be in place:¹¹⁸

- Informed institutional investors (pension funds, endowments, etc.) willing to accept the risks of early stage equity investment
- A strong deal flow of attractive high-potential portfolio companies

¹¹⁴ Cumming, D J and Macintosh, J G (2006) Crowding out private equity: Canadian evidence, *Journal of Business Venturing*, 21 (5), 569-609.

¹¹⁵ Leleux, B and Surlemont, B (2003) Public versus private venture capital: a pan-European analysis, *Journal of Business Venturing*, 18 (1), 81-104.

¹¹⁶ Tillväxtverket, 'Mid-term evaluation of regional venture capital funds, Implementation and lessons learnt', September 2011. <http://publikationer.tillvaxtverket.se/ProductView.aspx?ID=1680>

¹¹⁷ Nightingale, P et al (2009) *From Funding Gaps to Thin Markets: Designing Hybrid VC Schemes for the 21st century*, SPRU, University of Sussex for BVCA and NESTA.

¹¹⁸ *Op. cit.*

- Large professional venture capital funds of sufficient size and managerial competence to make initial and follow-on investments and grow portfolio firms until attractive exit opportunities are identified
- A supportive network of high quality advisers
- Efficient and liquid exit markets, including both a stock market conducive to venture capital exits and a strong trade sale market.

When all parts of this system are functioning effectively it can generate a self-sustainable cycle. Venture capital firms can demonstrate high returns to their institutional investors which will be encouraged to reinvest in new funds that invest in the next wave of innovative entrepreneurial ventures. The availability of finance encourages entrepreneurs to build high potential businesses in the knowledge that funding is likely to be available. The firms that are funded provide a learning environment for their entrepreneurs, top management team, professional advisers and venture capitalists, further strengthening the system. However, this system is fragile as it requires all of the elements to be present and able to work together over long periods of time.¹¹⁹ It therefore follows from this interpretation that the predominant approach of public policy to focus on the funding is unlikely to be effective not only because the form which the funding takes is inappropriate (e.g. fund size, investment limits, investment focus), but also because other parts of the system are absent or undeveloped, such as specialised human capital investment skills and high growth potential firms.

There is now an emerging consensus that a regionally-based public sector venture capital model is ineffective in stimulating indigenous entrepreneurship because of the need for scale in terms of the size of funds¹²⁰ and insufficient volumes of investment opportunities at the regional scale. The latter constraint is particularly significant as venture capital shifts from being generalist and increasingly adopts a sector focus which, in turn, requires geographical diversification.¹²¹

¹¹⁹ The venture capital cycle - raising the fund, attracting deal flow and making investments, supporting investee companies and seeking exits - typically takes up to ten years and at the present time is taking even longer than this.

¹²⁰ Murray, G. (1999) Seed Capital Funds and The Effect Of Scale Economies. *Venture Capital: An International Journal of Entrepreneurial Finance*, 1 (4) 351-384; Murray, G C (2007) Venture capital and government policy, in H Landström (ed) *Handbook of Research on Venture Capital*, Cheltenham: Edward Elgar, pp 113-151; Nightingale, P et al (2009) *From Funding Gaps to Thin Markets: Designing Hybrid VC Schemes for the 21st century*, SPRU, University of Sussex for BVCA and NESTA; Pierrakis, Y and Westlake, S (2009) *Reshaping the UK Economy: the role of public investment in financing growth*, Research Report 91, NESTA: London.

¹²¹ De Clercq, D, Goulet, P K, Kumpulainen, M and Mäkelä, M (2001) Portfolio investment strategies in the Finnish venture capital industry: a longitudinal study, *Venture Capital: an international journal of entrepreneurial finance*, 3 (1), 41-62; Sorsenson, O. and T.E. Stuart (2001) 'Syndication networks and the spatial distribution of venture capital investments', *American Journal of Sociology*, 106 (6), 1546-1588.; Christensen, J L (2007) The development of geographical specialisation of venture capital, *European Planning Studies*, 15, 817-833.

4.5 Attracting venture capital in disadvantaged regions

These issues turn raise the question of whether disadvantaged regions can attract venture capital, and if so how. There are three critical requirements. First, on the demand side, there is a need to build investable businesses in the regions. This requires regionally-delivered grant schemes to develop technology to the point that it is commercially viable (and beyond). It is important to stress 'commercial'. Much of the interventions that come under the heading of technology policy are technology-push, supporting the development of technologies and giving little or no attention to market opportunities, end-users or commercialisation skills. Instead, programmes should focus on funding promising technologies from the laboratory to the market place, such as the Advanced Technology Programme in the USA.¹²² Human capital interventions are also likely to be required. US evidence suggests that the presence of outstanding scientists is much more significant than local sources of venture capital in explaining the number of venture capital-backed university spin-outs.¹²³ Attracting prominent scientists and research teams to universities in the regions might therefore be an effective way in which to generate businesses that are attractive to venture capital funds. In similar vein, mobile scientists (regardless of whether they move domestically or internationally) may be more likely to be nascent entrepreneurs.¹²⁴

Second, on the supply side, there is a need to foster the development of regionally-based angel groups. With traditional venture capital funds facing challenges to their investment model, angel groups are now assuming a much more significant role as a source of early stage venture capital.¹²⁵ Equally important is that their hands on involvement plays a significant accreditation role and moves their investee businesses to the point where they are potentially investable by venture capital firms).¹²⁶ However, angels typically invest up to a maximum of €1m to €2m per business whereas it is likely to take upwards of €10m to build a global business.

Third, and related, it is therefore necessary to attract venture capital from elsewhere to make these larger Series B and C rounds. For these types of investors geographical proximity to investee businesses is much less significant. Instead, these investors place an

¹²² Wessner, C W (2002) Entrepreneurial finance and the new economy, *Venture Capital: an international journal of entrepreneurial finance*, 4 (4), 349-355; Chang, C K N, Shipp, S S and Wang, A J (2002) The Advanced Technology Program: a public-private partnership for early stage technology development, *Venture Capital: an international journal of entrepreneurial finance*, 4 (4), 363-370.

¹²³ Zhang, J (2009) Why do some US universities generate more venture capital-backed academic entrepreneurs than others? *Venture Capital: an international journal of entrepreneurial finance*, 11 (2), 133-162.

¹²⁴ Krabel, S, Siegel, D S and Slavtchev, V (2009) *The Internationalisation of Science and its Influence on Academic Entrepreneurship*, Jerusalem Institute for Market Studies, DP 280109.

¹²⁵ Mason, C (2009) Venture capital in crisis? *Venture Capital: an international journal of entrepreneurial finance*, 11 (4), 279-285; Mason, C and Landström, H (2012) Introduction, in Landström, H and Mason, C (eds) *Handbook of Research on Venture Capital: Volume II*, Cheltenham: Edward Elgar, in press.

¹²⁶ Madill, J. J., G. H. Haines, jr. and A.L. Riding (2005) The role of angels in technology SMEs: a link to venture capital, *Venture Capital: An International Journal of Entrepreneurial Finance*, 7: 107-129.

emphasis on trusted networks for deal referrals. This may include the seed investors in the businesses: later stage venture capital funds are likely to syndicate their investments with local investors. Hence, disadvantaged regions need to develop funding 'pipelines'¹²⁷ between the key players in the regional entrepreneurial eco-systems (e.g. universities, incubators, angel groups, local venture capital funds) and non-local private sector venture capital sources. Wray's study of the external relationships of the finance intermediaries in two English regions (North East and East Midlands) highlights the importance of geographically connected financial intermediaries.¹²⁸ In the better connected region (East Midlands) the financial intermediaries had superior financial knowledge, better prepared businesses, hosted better attended events and the entrepreneurs had greater non-local engagement.

¹²⁷ Bathelt, H, Malmberg, A and Maskell, P (2004) Clusters and knowledge, local buzz, global pipelines and the process of knowledge creation, *Progress in Human Geography*, 28 (1), 31-56.

¹²⁸ Wray, F (2012) Rethinking the venture capital industry: relational geographies and impacts of venture capitalists in two UK regions, *Journal of Economic Geography*, 12, 297-319.

5. DISCUSSION ISSUES

This paper has explored the issues surrounding the uneven geography of access to finance. It has reviewed policy approaches to addressing this gap through the use of non-grant financial instruments in the EoRPA partner countries, especially in the context of regional policy, and considered some of the limitations of existing approaches. The aim of this final section is to draw out some of the key themes and issues as a basis for discussion.

- (i) *Much of the debate and most of the evaluations of financial instruments have focused on equity, but traditional loan and guarantee instruments may have more to offer in the disadvantaged regions.*

Much of the discussion on financial instruments in some countries and at the EU level has been concerned with the equity gap facing high growth firms and the scope to stimulate private sector investment to address this. Moreover, most of the evaluations of financial instruments of late have also focused on equity finance. In the present context, these studies have two key findings. First, that nationwide venture capital measures tend to replicate and reinforce existing patterns of geographical (dis)advantage. Second, that geographically-focused measures often deliver poor results. This is attributed to a number of factors but at the core is an inherent tension between the commercial management of funds and the pursuit social or regional objectives.

Although recent attention has focused on equity investment, several countries have long traditions of providing soft loans and or guarantees with a geographical focus. Such instruments appear to be relatively under-evaluated, particularly in countries without a strong tradition of regular policy reappraisal. However, there is some evidence that guaranteed loans may have more positive effects on employment in disadvantaged areas than elsewhere. A study of Small Business Administration guaranteed lending in the US showed a correlation between the level of guaranteed lending and the level of employment in a local market;¹²⁹ however, crucially, this correlation was only significant in low income markets, perhaps suggesting a crowding-out effect in more prosperous areas, but also providing support for arguments in favour of regionally-discriminating guarantee schemes.

- (ii) *Access to finance is only part of the problem in disadvantaged regions, and financial instruments are only part of the answer*

While disadvantaged regions clearly face greater difficulties in accessing capital, they also typically exhibit market 'thinness'. However, there is an emerging consensus that regionally-focused public venture capital models are not effective in the absence of an entrepreneurial 'ecosystem'. This points to the need for policy operate with a broader mix of tools to support the needs of actual or potential beneficiaries. In terms of finance, this could include grants to support the development of viable projects and a mix of

¹²⁹ Craig, B, Jackson, W and Thomson, B (2008) Credit market failure intervention: Do government sponsored small business credit programs enrich poorer areas? *Small Business Economics*, 30, pp345-360.

repayable/non-repayable sources of finance tailored to the needs of a given project. However, non-financial support is also key in the form of capacity-building initiatives that promote the emergence of 'investor-ready' firms.

(iii) The combination of Cohesion policy regulatory requirements and the current economic climate conspires against the capacity of regions to mobilise private sector involvement in EU-backed financial instruments

Recent experience with Cohesion policy funded financial instruments has been mixed. The set-up and operation of financial instruments is administratively complex in any case, and requires detailed knowledge of investment principles and State aid compliance. The co-financing of such instruments through Structural Funds and potentially with European Investment Bank Group involvement adds further layers of complexity. Some managing authorities of Structural Funds programmes have been negative about the role of the European Investment Fund (EIF), for example, in Holding Fund management and complaints at the lack of coordination within the Commission, the lack of clarity in the guidelines and the consequent uncertainties for policymakers and beneficiaries are rife.

This in turn has had a direct impact on the willingness of national and regional authorities to draw on Structural Funds co-finance for financial instruments, with a number eschewing the co-financed instruments in favour of purely national/regional measures. Of key importance, however, administrative complexities are a significant deterrent to private sector involvement, with many managing authorities reporting the reluctance of potential private sector partners to engage with co-financed financial instruments for this reason. Furthermore, the difficulties in leveraging-in private capital are likely to be exacerbated by the current economic climate.

(iv) EU State aid policy as it stands does not facilitate the design and implementation of financial instruments

State aid control emerges as a major issue in the design and implementation of financial instruments. There are practical concerns with the application of the rules,¹³⁰ but also conceptual difficulties associated with the precise contours of 'aid' and a geographical mismatch in the approach to disciplining intervention.

Non-repayable grant funding always involves State aid,¹³¹ but this is not necessarily the case for other financial instruments. Loans, equity and guarantees can all be offered by public bodies on a commercial basis and designed in such a way as to avoid State aid notification - the Scottish co-investment fund, for example, is designed on this basis. However, there are complex issues surrounding whether a measure actually constitutes State aid and, if so, whether it qualifies for one of the exemptions from the general prohibition. Definitional

¹³⁰ Michie R and Wishlade F (2011) Between Scylla and Charybdis: Navigating financial engineering instruments through Structural Fund and State aid requirements, *IQ-Net Thematic Paper 29(2)*, European Policies Research Centre, Glasgow.

¹³¹ Unless it is below the *de minimis* threshold.

problems are particularly acute in the context of equity schemes, but if the public sector invests on a *pari passu* basis with the private sector, the fund manager is selected by open tender and the target firms are invested in on a 'market economy investor principle' basis then there is no aid at the level of the fund, the manager or the target firm. However, where it is proposed, for example, that the public sector provides 75 percent of the fund, that other conditions are tilted in favour of private sector partners, or that investments exceed a certain threshold, then Commission approval is predicated on the existence and evidence of market failure. In practice, as shown earlier, the lack of private venture capital investment in a region may well reflect a *rational* market response, rather than a market failure. If there is no market, this raises the question of whether there is aid.

The State aid rules ease the conditions under which equity base scheme can be authorised and enables higher rates of guarantees and interest subsidies in the assisted areas of the Member States. However, the assisted area maps negotiated with the Commission are not consistent with the uneven geography of finance prevalent in many Member States, constraining the capacity of national and subnational authorities to target support where it is actually needed.

(v) *The promotion financial instruments and the 'horizontal' push inherent in the Europe 2020 objectives may work to the detriment of the disadvantaged regions in the next Cohesion policy planning period.*

Preparations for the 2014-20 Cohesion policy planning period are well underway, and a key feature of the Commission proposals is an unprecedented emphasis on the use of financial instruments in virtually all areas of policy, in preference to non-repayable grant measures. An important feature of the 2014-20 proposals has been the emphasis on horizontal policy objectives linked to the aims of European 2020, notably in the fields of RTD and innovation.

The question arises as to whether the combined effects of these policy emphases will disadvantage less prosperous regions in accessing Cohesion policy funding. Managing Authorities are under pressure to increase the proportion of their programmes spent on financial instruments in future programme periods, but given the administrative burden (and expertise) involved they are viewed as less useful in small programmes and in sparsely-populated areas where there are both few SMEs and a less well-developed capital market. This is consistent with the findings in Section 4. However, it may result in a tendency to operate nationwide operational programmes, which as noted already, tend to reinforce existing disparities in access to finance rather than resolve them. This seems likely to be compounded by the emphasis on RTD and innovation.