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**FINANCING HIGH GROWTH FIRMS: THE ROLE OF BUSINESS ANGELS - FINAL DRAFT
REPORT**

The project focuses on the role of business angels in financing high growth firms, the market for angel financing, and possible policy implications.

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FINANCING HIGH GROWTH FIRMS: THE ROLE OF ANGEL INVESTORS

FINAL DRAFT REPORT (AS OF OCTOBER 2011)

Abstract

This publication covers seed and early stage financing for high growth companies in OECD and non-OECD countries with a primary focus on angel investment. Angel investment is the primary source of outside equity financing for start-ups in a number of countries, yet it is frequently overlooked as angel investors are often not visible. Following the recent financial crisis and continued difficult economic environment, angel investors have been playing an important role in filling financing gaps left by banks and venture capital firms. This publication provides an in-depth look into angel investment, including definitions, data and processes. It reviews developments around the world and identifies some of the key success factors, challenges and recent trends. It then discusses policy measures for promoting angel investment, with examples from countries which have been active in this area. As part of the background research for this project, over 100 people were interviewed from 32 countries.

This paper summarises the work of the High Growth Financing Project of the OECD Science, Technology and Industry Directorate's Committee for Industry, Innovation and Entrepreneurship (CIIE). The project was generously supported by the Australian government with input provided by the member countries of the OECD represented in the CIIE. The paper provides an overview of angel financing, including a description of how it has evolved in OECD and non-OECD countries and policy interventions taken within some countries. The project has been managed and this paper written by Karen Wilson, Consultant for the Structural Policy Division of the OECD Science, Technology and Industry Directorate.

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- Australian Association of Angel Investors AAI (Australia)
- Angel Association of New Zealand (New Zealand)
- Angel Capital Association ACA (United States)
- British Business Angels Association BBAA (United Kingdom)
- European Trade Association for Business Angels, Seed Funds and other Early Stage Market Players EBAN (Europe)
- European Private Equity and Venture Capital Association EVCA (Europe)
- LINC Scotland (Scotland)
- National Angel Capital Organization NACO (Canada)
- World Business Angel Association WBAA (International)

The complete list of people interviewed can be found in the appendix. The author would like to give special thanks to Richard Snabel, Damien Ellwood, Arthur Lau, Margaret Lee and Veronica Morales, from the Department of Innovation, Industry, Science & Research in the Australian government for their support, time and input on the project.

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I. Executive summary

1. Access to finance for new and innovative small firms involves both debt and equity finance. Even before the recent financial crisis, banks were reluctant to lend to small, young firms due to their perceived riskiness and lack of collateral. The financial crisis widened the existing gap at the seed and early stage with bank lending to falling start-ups and venture capital firms moving to later investments stages where risks are lower.

2. Angel investors, who are often experienced entrepreneurs or business people, have become increasingly recognised as an important source of equity capital at the seed and early stage of company formation. With fewer and fewer venture capitalists investing at the early stage, the equity funding gap between individual angel investment and venture capital has grown dramatically. Angel investors have sought to fill this gap by investing with other angel investors through groups and syndicates, increasing the total deal size for companies seeking early stage financing.

Why angel investment is important

3. While angel investment has existed in practice for centuries, the concept of angel investors as a powerful source of financing for high growth companies has emerged over the past couple of decades in the United States and Europe and is rapidly growing in other regions around the world. The angel investment sector is not only growing, but it is becoming more formalised and organised through the creation of angel groups and networks. In addition to the money provided, angel investors play a key role in providing strategic and operational expertise for new ventures as well as social capital (i.e. their personal networks).

4. The angel investment market is much larger than most people realise. Estimates from both the United States and the United Kingdom from over the past ten years indicate that angel investment has been consistently larger than seed and early stage venture capital investment despite some fall off following the dot com era in the late 90's as well as some drop during the recent financial crisis. While methods of estimating the full angel market size vary, it has been documented through many studies over the past decade that total angel investment is much greater than overall VC investment in the United States and as well as in some countries in Europe.

5. While venture capital tends to attract the bulk of the attention from policy makers, the primary source of external seed and early stage equity financing in many countries is angel financing not venture capital. In addition, angel investors tend to be less sensitive to market cycles than venture capitalists, although a "wealth effect" could impact how much they are willing to invest when markets fluctuate. However, in the current market environment, the lack of exits (whether through an IPO or M&A) has put a strain on both angel and venture investment.

6. At the same time, the internet has created opportunities for the creation of firms with smaller amounts of initial capital than more traditional technology and science sectors. These firms have been termed "lean start-ups" as they allow greater capital efficiency and more rapid testing and adjustment of products and/or business models. Angel investors have been able to invest in this space and support companies through an "early exit" (usually M&A) without needing VCs to come in for later rounds.

7. Angel investors support a much wider range of innovation than VC firms as they traditionally invest locally and in a wider range of sectors than venture capitalists. This means there is broader investment coverage both in terms of industry sectors and geography (angels live everywhere, not only in areas where VCs have offices, which tend to be concentrated in a few technology or science hubs). However, it also means that angel investors can also be involved in companies that are not necessarily technology intensive or high growth as well as companies in later stages of development. Like VCs, angel investors tend to invest in a portfolio of companies, not just in one or two.

8. Universities are often highlighted as an important potential source of start-ups, however, often these companies are more research rather than commercially focused and therefore do not succeed as often in securing angel or venture capital as often as assumed. This example points to a potential disconnect between innovation policies, which tend to focus on R&D rather than commercialisation, and entrepreneurship policies which focus on the translation of innovation into firms.

Is there a role for policy?

9. Angel investors are playing an increasingly important role in the economy in countries around the world. As a result, they have attracted the attention of policy makers. Yet little is known about angel investors. This publication seeks to shed light on what the angel market is and how it works, how it has evolved and what types of policies have been utilised with the goal of facilitating the development of the market.

10. Given the local nature of angel investing, there is no homogeneous national angel market. The level, sophistication and dynamics of angel investment can vary greatly across regions within countries and therefore policy makers must take this into account. In fact, in a number of countries such as Canada and the United States, angel policies are implemented at the regional rather than the national level. In addition, angel investment can vary greatly across countries, both in terms of volume and approach. Policies that have worked in one country may not necessarily work the same way, or be as successful, in another country. Also, while policies targeting angel investment are being put in place in a growing number of countries, there have been few formal evaluations of these programmes to date.

11. There are several reasons for the lack of knowledge about angel investment. Traditionally individual angel investors have preferred to keep information about their investments private. Even as the industry has professionalised with the formation of groups and networks, accurate data collection has remained a major challenge.

12. Another key issue is the one of definitions. Often the words business angels or angel investors, informal investor and informal venture capital are used interchangeably. However, most definitions clearly differentiate investment from founders, family and friends from angel investors, who do not have a personal connection to the entrepreneur prior to making an investment. Some studies use total informal investment (founders, family and friends plus angel investment) and others use only angel investment. This complicates data analysis as angel investment measures used in one study might not be comparable to those in another.

13. For policy makers to intervene in a market, there often needs to be evidence of a “market failure”. In the seed and early stage financing market there is a clear financing gap. While a financing gap is not necessarily a “market failure”, the funding gap has been persistent and has grown over time triggering greater attention from policy makers. In addition, there is a well-documented information asymmetry in the market (i.e. it is not easy for entrepreneurs and investors to find each other). Angel groups and networks can help to address this problem.

14. A second potential argument for policy action relates to the potential positive spillover effects of angel investment. Estimates indicate that companies backed by angel investments have been important contributors to economic and job growth. Representatives of a number of the countries interviewed during the project research highlighted these potential economic benefits as the main justification for implementing programmes focused on seed and early stage investment. Some countries also spoke about how these programmes form an important part of a broader economic development strategy focused on high growth and technology backed firms.

15. The angel investment market has developed significantly in a number of countries throughout the world, particularly over the past 5-10 years. In some countries, policies to encourage a greater number of angel investors seem to have played a role. These include supply side measures such as tax incentives and the creation of co-investment funds.

16. Tax incentive programmes have aimed to increase the number of angel investors as well as to address tax asymmetries in profit and losses. Countries such as the United Kingdom, with long standing angel tax incentive programmes cite the impact the programmes have had on increasing angel investment activity which in turn creates jobs and economic growth (and therefore greater tax returns). However, tax incentives can be difficult to structure and target appropriately so monitoring and evaluation is important. In addition, tax incentives are a hot political topic, particularly in today's economic environment.

17. Co-investment funds leverage public money with private money and also support the professionalisation of the industry. Co-investment funds have been implemented in Scotland, New Zealand, the Netherlands and other countries. These models have been examined and adapted by some countries around the world and interest is growing in this approach. Both tax incentive and co-investment programmes can have the side-benefit of collecting additional data on angel investment in a country.

18. Other areas in which policy makers have acted to develop the angel financing market include providing support directly to national angel associations or federations as well as networks and groups to help defray operating expenses. National angel associations and networks help raise awareness about angel investment, which is a critical step in building the market. Public support can play an important role in launching associations and networks but it should be structured in a way that sets clear benchmarks or provides incentives for these organisations to move to a self-sustaining model over time. Unlike angel groups, which consist entirely of angel investors, business angel networks (BANs) include service providers and other non-investors. If public support is given to BANs, it is important to make sure the angel networks are generating an appropriate level of angel investment activity.

19. Training of angel investors is seen to be important for professionalising the industry as well as for attracting new angel investors. However, it is an area that can often be overlooked by policy makers. Because angel investors are typically experienced entrepreneurs and business people, it is assumed that they also know how to invest. However, investing in start-ups differs greatly from being a financial investor or building a company in a particular sector. It requires a combination of both skill sets as well as specific technical skills in terms of conducting due diligence and determining company valuations. Therefore training and mentoring, in which new angel investors can learn from experienced angel investors is a very important part of the process.

20. While most policies have focused on the supply side, other policy actions have focused on demand side actions which may help to increase the quality and sourcing of deals. Developing human capability, whether on the investor or the entrepreneur side, is critical. Investment readiness of entrepreneurs is an area in which a number of countries have focused. In addition, public and private incubator and accelerators are increasingly emerging to focus on commercialisation of R&D as well as

serve as a catalyst or hub in the entrepreneurial ecosystem. The facilitation of networks, across sectors and geographies (local, national and international) are also important.

21. The lack of an entrepreneurial culture in many countries is seen as a critical barrier to entrepreneurship. Without entrepreneurs, there will not be any start-ups. Changing culture is difficult and requires a long-term effort. Initiatives to raise awareness about entrepreneurship, such as Global Entrepreneurship Week, the growing number of “Startup (country)” and other initiatives are playing a key role. In addition, entrepreneurship is increasingly being introduced into curricula in some or all education levels in a growing number of countries around the world.

22. A healthy entrepreneurial ecosystem is critical for successful angel investing. Entrepreneurship does not operation in a vacuum. It can only flourish in a healthy entrepreneurial ecosystem in which a range of stakeholders play a role, including entrepreneurs, investors, large companies, universities, governments, services providers, etc. Governments can help by making sure the appropriate legal and financial framework conditions are in place and by addressing market failures. However, the main actors in building the angel market must be angel investors themselves.

II. Overview of Financing for Seed and Early Stage Companies

Abstract

This chapter reviews the methodology of the project that resulted in this publication. It also briefly outlines various forms of financing, both debt and equity, for seed and early stage companies which is meant to provide background for the remainder of the publication which focuses on angel investment. The section on debt financing describes a Pilot OECD Scoreboard on SME and Entrepreneurship Financing Data and Policies. The equity section discusses informal as well as formal investment and discusses the role of venture capital.

1) Project overview

23. In June 2010, Australia supported the launch of a study on high growth financing to be conducted by the OECD within the programme of work of the Committee for Industry, Innovation and Entrepreneurship (CIIE). The project covered seed and early stage financing for high growth companies in OECD and non-OECD countries, with a primary focus on angel investment. An update was presented and discussed at the CIIE meeting at the end of March 2011. It provided a preliminary update and included core elements of the main paper as well as some of the data collected to date so the Committee could provide input and guidance.

24. The project focused on lessons learned by economies with well-developed angel activity, understanding the way business angels operate and assessing the scope for increasing angel investment and the role governments might play in particular markets. This final paper aims to:

- Provide some qualitative and quantitative information on the angel market in the different economies.
- Develop a clear understanding about the way business angels operate, including the sectors and stages of the firms in which they invest. Determine how their role is perceived by entrepreneurs and the nature of the interaction with venture capitalists, including differences between their respective roles in technology versus other sectors.
- Articulate lessons learned by economies with well-developed angel activity and networks to determine how these lessons may be implemented in economies with relatively undeveloped business angel activity.
- Describe financing gaps and possible market failures as well as the possible role of policy in some markets.

Methodology

25. The project work plan was developed in July 2010. The initial phase of the project began in September 2010, which consisted of conducting background research on angel investment, reviewing existing academic papers and speaking with several experts regarding the project plans and scope. Given the lack of angel investment data and the relatively small amount of academic research on the subject, particularly outside of the United States and the United Kingdom, it was decided to include a series of interviews as a key part of the project as a way to collect qualitative information, build relationships and investigate the feasibility of the proposed data phase of the project.

26. Interviewees were selected through research as well as recommendations from OECD member countries and interviewees. There has been tremendous enthusiasm for the project from both practitioners and policy makers. The number and range of interviews expanded beyond the initially planned scope and therefore took much more time than expected. However, the interviews have been a valuable method of collecting information and data from across OECD and non-OECD countries as well as building awareness and interest in the project.

Interviews

27. Interviews have been conducted with leading academics in entrepreneurial finance, key business angel associations, well-known angel investors, super angels, experienced serial entrepreneurs, venture capitalists and others key players in the entrepreneurial ecosystem. Over 100 interviews have been conducted in 32 countries including Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, China, Denmark, Finland, France, Germany, India, Ireland, Italy, Israel, Japan, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom (England and Scotland) and United States.

28. The interviews broadly followed an interview guide but went further into specific areas of focus depending on the interviewee's knowledge and experience. Most of the interviews were conducted by telephone. On average, the interviews lasted approximately 45 minutes and interviewees spoke under an agreement of confidentiality.

Participation in angel conferences

29. In addition to the interviews, participation in selected annual angel conferences has been an important source of information and contacts. The researcher and author attended the British Business Angel Association (BBAA) winter workshop in January 2011 and presented the project at the International Exchange during the US Angel Capital Association (ACA) annual conference in April 2011, the European Business Angel Association (EBAN) annual conference in May 2011 and the BBAA Annual Summit, London in July, 2011. Over the coming year, the project will be presented at selected angel conferences around the world.

Data collection

30. Some work was done to pull together existing sources of data on both angel and venture capital investment from as many countries as possible to provide background information for the paper. In the process of conducting the project, some different approaches to both collecting the data and estimating the total angel market size were found in different countries.

31. Further work is needed on data collection and analysis of the angel market in various countries. While that work is beyond the scope of this project, further work could be conducted in this area by the OECD in the future, leveraging the expertise developed and relationships built during this project. Meanwhile, the OECD Statistics Directorate (Entrepreneurship Indicators Programme) has conducted an initial investigation of business angel definitions and data collection methodologies, which is referenced later in this paper.

Next steps

32. This paper aims to analyse angel investment on a global basis, covering both OECD and non-OECD member countries. It draws upon academic research, web research, data from business angel associations around the world and interviews conducted with key players in the angel investment market – individual angel investors, associations, networks, entrepreneurs, academics, support organisations and

policy makers. The interviews were a critical component in ensuring global coverage of the topic as well as to capture the most recent developments in this rapidly growing segment of the market.

33. Within the OECD, efforts will continue to be made to link this work to other activities. This includes other work within the Science, Technology and Industry Directorate, work in the Statistics Directorate, particularly the Entrepreneurship Indicators Programme, work by the Working Party for SMEs and Entrepreneurship (WPSMEE) and the Centre for Entrepreneurship (CFE), the OECD horizontal project on gender, and work in the Directorate for Financial Affairs. In addition, some further project proposals in this area will be presented to CIIE at the November 2011 meeting.

2) Background on financing for seed and early stage companies

34. Access to finance for new and innovative small firms involves both debt (which is the prevalent source of external funding among all enterprises, including innovative ones) and equity finance. During the recent financial crisis, support by the financial system for firms, particularly for new entrants, faded (OECD 2009). The aversion to risk and the lack of exit opportunities for investors have remained issues and have continued to strain sources of seed, early stage and growth capital.

35. There is a common perception that financing for early stage and growth companies is linear (*i.e.* starting with debt and proceeding to angel, then venture capital) but this is rarely the case, particularly in today's market. In fact, some of the academic research as well as the project interviews highlighted the fact that many angel investors are supporting more and more companies all the way through exit instead of relying on venture capital investors to step in. This will be discussed in further detail in the section on angel investment.

a) Debt financing

36. Debt financing is the most common source of financing for small, young firms, including innovative ones, although innovative and high-growth firms seek equity financing more than other types of small firms (OECD 2010b). Debt financing involves the acquisition of resources with an obligation of repayment; *i.e.* the investor does not receive an equity stake. It includes a wide variety of financing schemes: loans from individuals, banks or other financial institutions; selling bonds, notes or other debt instruments; and other forms of credit such as leasing or credit cards (OECD 2009).

37. For young firms, and in particular innovative high growth oriented firms, access to credit is particularly difficult due to their lack of tangible assets, and therefore collateral, and their higher risk profiles. Credit constraints for small firms are also due to risks arising from information asymmetries between lenders and borrowers and higher transaction costs. Lenders are not easily able to separate potentially successful businesses from less successful ones and therefore may provide less funding than the company needs and require a higher interest rate. This in turn, can increase the risk of the borrowers and result in a greater share of higher risk firms in the pool of borrowers (adverse selection).

38. On the other hand, it is hard for lenders to be sure that once the funds are loaned, entrepreneurs will not take excessive risks or misuse the funds (moral hazard). One way for lenders to overcome the problems associated with information asymmetries is requiring collateral. However, for entrepreneurs and young innovative firms providing collateral might not be possible especially if their main assets are intangible. Therefore these firms are likely to be credit constrained, independently of their project quality and growth potential.

39. Data from the OECD Entrepreneurship Indicators Programme (EIP) survey for 2009 confirmed that firms have recently found it more difficult to get loans following the financial crisis. In addition, the

OECD's Working Party for SMEs and Entrepreneurship has done a considerable amount of work on the impact of financing for SMEs during the financial crisis, focusing heavily on debt financing (Box 1).

Box 1. Findings from the Pilot OECD Scoreboard on SME and Entrepreneurship Financing Data and Policies

In October 2009, the OECD Working Party on SMEs and Entrepreneurship (WPSMEE) launched a *Pilot OECD Scoreboard on SME and Entrepreneurship Financing Data and Policies*, to measure and monitor SME access to finance. The Scoreboard is composed of a set of indicators on debt, equity and broader market conditions, and includes measures and policies to ease or support SME and entrepreneurship financing (e.g. government direct loans, government guaranteed loans). The time frame of the pilot analysis was 2007-2009 and covered 11 countries (Canada, Finland, France, Italy, Korea, Netherlands, New Zealand, Sweden, Switzerland, Thailand, United States). The pilot offered unique insights into the impact of the global financial crisis on SMEs and entrepreneurs.

Since SMEs generally depend heavily upon banks for their financing, they suffered heavily from the tightening of bank lending to businesses in most of the pilot countries. In Canada, Finland and the United States, negative growth was observed for both business loans and SME loans, although some of this drop could have also been dropping demand for credit as companies tried to deleverage due to the recent financial crisis. Venture capital investment fell dramatically during the crisis in all 11 countries.

SMEs were affected more than larger companies by tighter credit conditions, as seen in increased interest rate spreads (*vis-à-vis* large firms), shortening maturities and increased requests for collateral and guarantees. The difference with larger firms became more acute during the crisis, indicating that smaller firms were considered to be a higher risk. In most of the countries surveyed, declining sales, an increase in late payments and the sharp increase in loan rejection rates caused cash flow problems for SMEs. SMEs generally responded by taking steps to lessen external borrowing, by reducing operating costs, running down inventories and cutting investment. With some exceptions (*i.e.* Canada and Korea), between 2007 and 2009 there was also a corresponding rise in bankruptcies for all businesses, the sharpest of which occurred in the United States (114%).

Governments in several countries extended their traditional guarantee and direct loan programmes and implemented measures to facilitate export. For example, in the Netherlands, the maximum guarantee per company was raised from EUR 1 million to EUR 1.5 million; in Germany, the maximum percentage of a loan that could be guaranteed by SME guarantee banks was raised from 80% to 90%; in France, the percentage of total credit that could be guaranteed was increased from 60% to as much as 90%. Some governments complemented these programmes with other emergency measures, such as credit mediation.

Going forward

The SME Finance Scoreboard is now being extended to other OECD and non-OECD economies, and refined to improve the comparability of its indicators. The results of this work are contributing to both the G8 and G20 agendas on SME and entrepreneurship financing. Over time, the Scoreboard aims to become an international reference for monitoring developments and trends in SME finance.

Source: OECD 2010b.

b) Equity financing

40. Often entrepreneurs start their ventures with informal financing - their own funds and those of friends and family. Depending on the size and scope of the venture, entrepreneurs may need other external sources of seed capital such as angel investment or venture capital. Typically these types of investments are focused on potential innovative high growth firms.

Founders, friends and family

41. The majority of financing comes from entrepreneurs self-financing their ventures. This might be through investing their existing personal assets or leveraging credit cards. The next source of financing typically consists of support from friends and family.

Angel investment

42. Angel investors, who are often experienced entrepreneurs or business people, have become increasingly recognised as an important source of equity capital at the seed and early stage of company formation (Harrison and Mason, 2010). They operate in a segment which falls in between informal founders, friends and family financing, and formal venture capital investors (Freear and Wetzel 1990; Sohl 1999). Below is a table for illustrative purposes, however it should be noted that the investment process is not necessarily linear (or a funding “elevator”) as was presumed in the past.

Table 1. Equity investors at the seed, early and later stage of firm growth

INFORMAL INVESTORS		FORMAL INVESTORS	
Founders, Friends and Family	Angel Investors (typical investment size: 25-500K USD)	Venture Capital Funds (typical investment size: 3-5M USD)	
<i>Seed Stage investments</i>	<i>Early Stage Investments</i>	<i>Later Stage Investments</i>	

**Financing Gap**

43. With fewer and fewer venture capitalists investing at the early stage, the equity funding gap between individual angel investment and venture capital is in the USD 500K to 3M range (EBAN 2010b). Angel investors have sought to fill this gap by investing with other angel investors through groups and syndicates, increasing the total deal size for companies seeking early stage financing. Angels also might co-invest in seed and/or venture funds.

44. The angel investment sector is not only growing, but it is becoming more formalised and organised (Ibrahim 2010) through the creation of angel groups and networks in a growing number of countries around the world. Angel investment is discussed in much more detail in the remainder of the paper.

Venture capital

45. Venture capital is “formal” or “professional” equity, in the form of a fund run by general partners, to invest in early to expansion stages of high growth firms. Venture capital is a subset of the broader private equity asset class, which includes buyouts (a transaction financed by a mix of debt and equity, in which a business, a business unit or a company is acquired with the help of a private investor from the current shareholders). Buyouts are normally focused on medium to large companies.

46. Venture capital is an important source of funding for young, technology-based firms and has played a key role in industries such as ICT and biotech and, more recently, in the clean tech industry. However, venture capital is only appropriate for a small proportion of start-ups (high growth firms which are usually technology or science based companies with scalable, high growth business models) and therefore should not be viewed as the panacea for new venture financing. VCs seek to invest in promising, high-growth firms but, given the risks involved, a large percentage of those firms fail. Successful VCs are those that manage their portfolio in a way that enables them to focus on the most promising firms. On average 65% of a VC investment portfolio generates 3.8% of the returns, while 4% of the portfolio generates more than 60% of the returns (Nanda 2010).

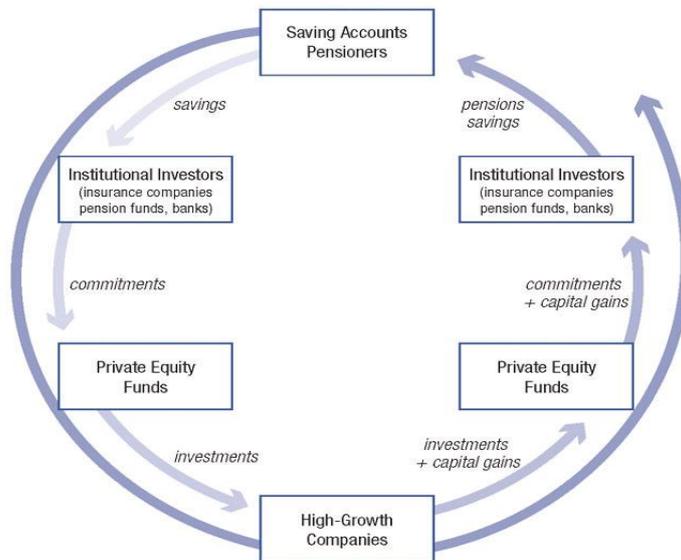
47. Venture capital differs significantly among countries (in terms of development of the market and investment activity) and is very sensitive to market cycles not only in terms of the amounts invested but also in terms of the stages of investment (Lerner 2010). Depending on market conditions, venture capital funds might invest more in the later stages, leaving gaps at the pre-seed and seed stages where profit expectations are less clear and investment risk is much higher, as is the case in the current financial climate. This further highlights the importance of angel financing.

48. Venture capital firms focus on investing in high-potential companies, either in sectors which are in fields of new technologies and thus rapidly developing, or those where market or operational inefficiencies can be improved thereby enhancing the competitive situation of existing businesses. Venture capital firms invest in a portfolio of companies, knowing that some will succeed, some will fail and the majority will have average or sub-par performance. Venture capital firms not only fund but also proactively support the development of high potential companies in the early stages of their development and growth, often creating highly skilled employment in new and innovative areas and where other sources of finance are hard to access. Ways in which VCs help portfolio companies include playing an active role on the board, helping in recruiting senior management, providing critical business development introductions and providing expertise and contacts on an ongoing basis.

49. Venture capital is invested through funds (in the industry, these venture capital funds are called “General Partners” or GPs) which are provided by institutional investors (called “Limited Partners” or LPs). The VC funds (GPs) collect management fees (normally 1-2% of the capital committed) from the LPs which covers the operating costs of the team, enabling the VC firm to hire a group of professionals (angel investors do not have the same “luxury”). These funds are then invested directly in entrepreneurial ventures (called “Portfolio Companies” or PCs). Institutional investors consist of pension funds, endowments, fund of funds, banks, insurance companies and can also include high net worth individuals and family offices. Institutional investment allows the pooling of funds for investing in private companies and the delegation of the investment process to experienced fund managers with both the experience and incentives to invest in and support high growth companies (EVCA 2010a).

50. Venture capital is a subset of a larger private equity asset class which includes expansion or growth capital and buyouts. Given the varying use of definitions in countries across the world, there is often confusion about which investment stages should be considered venture capital. However, the model described in the previous paragraph and outlined below in Figure 1 is similar for all stages from venture to buyouts (although not for angel investment).

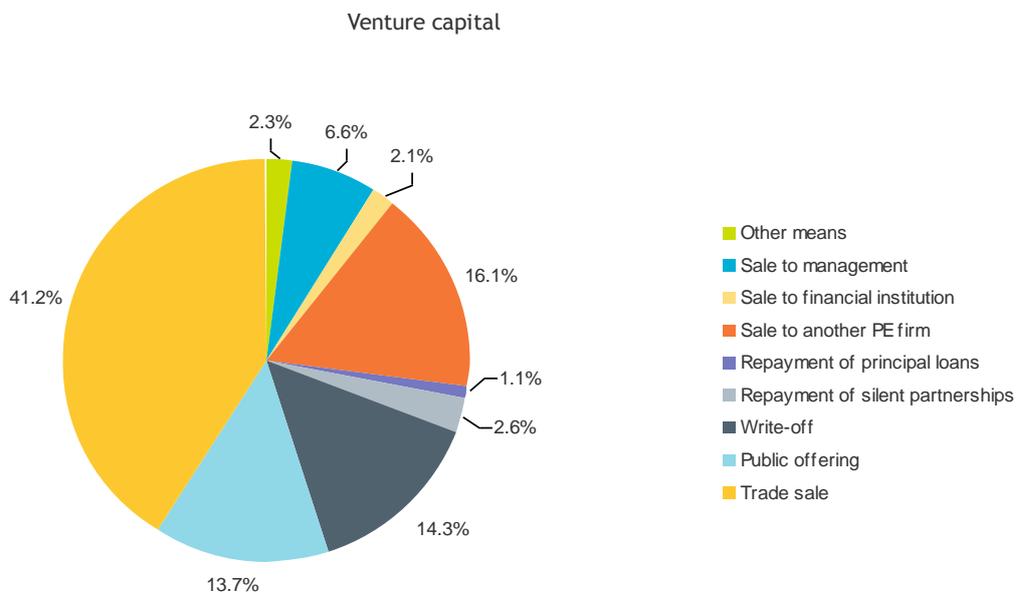
Figure 1: Private equity and venture capital financing cycle



Source: European Private Equity and Venture Capital Association 2005

51. In Europe, according to EVCA data, the majority of venture capital exits in 2010 were through trade sales (41.2%). This was followed by the sale of the investment share to other private equity firms (16.1%) and then write-offs of investments (14.3%). IPOs, normally the most lucrative exits, were only 13.7%. See Figure 2 below. The IPO markets in many countries, including the United States, have been heavily affected by the recent financial crisis.

Figure 2: European Venture Capital Exits in 2010



Source: EVCA/PEREP Analytics 2011

III. Angel investment: Definitions, Data and Processes

Abstract

This chapter provides definitions of key terms in angel investment as well as an overview of the angel investment process. This includes individual angel investment, investment through groups or business angel networks (BANs) and the emerging category of “super angels”. The chapter also discusses the relationship between angel investors, venture capitalists, incubators, universities and other players in the entrepreneurial ecosystem. The chapter then provides an overview of available data on the angel market in OECD and non-OECD countries. It also discusses the data and definition issues in the angel market, including the challenges of measuring the “visible” and estimating the “invisible” portions of the market. Examples and case studies provide further elaboration of angel investment models and approaches.

52. While angel investment has existed in practice for centuries, the concept of angel investors as a powerful source of financing for high growth companies has emerged over the past couple of decades in the United States and Europe (Harrison and Mason 2010) and is rapidly growing in other regions around the world. The angel investment sector is not only growing, but it is becoming more formalised and organised (Ibrahim 2010) through the creation of angel groups and networks.

53. In addition to the money provided, angel investors play a key role in providing strategic and operational expertise for new ventures (Harrison and Mason, 2010) as well as social capital. Social capital is defined as networks of strong personal relationships that provide the basis of trust, co-operation and collective action (Nahapiet and Ghoshal, 1998). Research on business angels has consistently documented that entrepreneurs value the experience of angel investors perhaps even more than the financing itself (EC 2002). Also, investment by business angels often serves as a signalling effect (Ibrahim 2010) for other investors, demonstrating that these firms have passed a first screening of due diligence by investors with experience in the field.

54. Business angels traditionally invest locally (within a few hours’ drive) and in a wider range of sectors than venture capitalists. This means there is broader investment coverage, both in terms of geography (angels live everywhere, not only in areas where VCs have offices, which tend to be concentrated in a few technology or science hubs (Lerner et al 2011) and industry sectors than there is for venture capital investment (EBAN 2010b). However, it also means that angel investors can also be involved in companies that are not necessarily technology intensive or high growth as well as companies in later stages of development (Shane 2009). Angel investors tend to invest in a portfolio of companies, not just in one or two.

1) Definitions of angel investment

55. Despite the growing interest in angel investment over the past decades, definitions are neither uniform nor consistently applied (Avdeitchikova, 2008). This also has important implications for the accuracy and comparability of data, which will be discussed in detail further in the paper.

Sophisticated investors

56. All informal and formal investors in start-ups normally must be accredited as sophisticated investors given the complex nature of investing in young firms.

‘An investor recognised by a third party as someone who is sufficiently knowledgeable to understand the risks involved with investing in an unquoted company. The individual has already made previous investments and has a long history of investing in a range of financial instruments.’ (EBAN website¹)

Angel investors

57. In the United States, angel investors are defined as high net worth individuals approved as “accredited investors” under securities laws (Ibrahim 2010). In many European countries, certification is necessary but, in many cases, this can be self-certification. The purpose of these requirements is to ensure that the investors have the necessary financial resources as well as an understanding of the implications of investing in start-up companies. Some common definitions of angel investors are highlighted here for comparison.

‘A high net worth individual, acting alone or in a formal or informal syndicate, who invests his or her own money directly in an unquoted business in which there is no family connection and who, after making the investment, generally takes an active involvement in the business, for example, as an advisor or member of the board of directors.’ (Mason and Harrison 2008).

‘An angel is a high net worth individual who invests directly into promising entrepreneurial businesses in return for stock in the companies. Many are entrepreneurs themselves, as well as corporate leaders and business professionals.’ (ACA website²).

‘A business angel is an individual investor (qualified as defined by some national regulations) that invests directly (or through their personal holding) their own money predominantly in seed or start-up companies with no family relationships. Business angels make their own (final) investment decisions and are financially independent, i.e. a possible total loss of their business angel investments will not significantly change the economic situation of their assets. BAs invest with a medium to long term set time-frame and are ready to provide, on top of their individual investment, follow-up strategic support to entrepreneurs from investment to exit.’ (EBAN website).

‘A wealthy individual who invests in entrepreneurial firms. Although angels perform many of the same functions as venture capitalists, they invest their own capital rather than that of institutional or other individual investors.’ (Lerner and Kortum, 2000).

Angel groups or syndicates

58. In the United States and a number of other countries, most angel investment is done either through individual investment or through angel syndicates or more formalised groups. These typically consist of experienced and active angel investors.

‘Individual angels joining together with other angels to evaluate and invest in entrepreneurial ventures. The angels can pool their capital to make larger investments.’ (ACA website).

‘The gathering of several business angels into an informal consortium for the purpose of creating a critical mass of funds above what each business angel could or would be prepared to invest. This term also applies to the pooling of competencies in order to offer more managerial skills than any individual business angel could display.’ (EBAN website).

¹ <http://www.eban.org/resource-center/glossary>

² <http://www.angelcapitalassociation.org/>

Angel networks

59. In Europe and other parts of the world, particularly those with smaller numbers of angel investors, more and more business angel networks are forming as a way to facilitate match making between potential angel investors and entrepreneurs. The Business Angel Network itself does not make any investments or investment decisions.

‘A Business Angel Network (BAN) is an organisation whose aim is to facilitate the matching of entrepreneurs (looking for venture capital) with business angels. BANs tend to remain neutral and generally refrain from formally evaluating business plans or angels. Angels continue to make their own individual investment decision, and the BAN does not decide which investors will invest in a deal. BANs also often provide a number of added value services to both angels and entrepreneurs, such as investor/investment readiness, syndication opportunities, etc.’ (EBAN website).

Angel associations

60. Across the world, national angel associations or federations are emerging as trade bodies to support the development of the angel capital market within the country and to provide a collective voice for angel investors to policy makers and others. These organisations can play an important role in raising awareness about the industry, sharing best practices, developing local angel groups/networks, providing networking opportunities and collecting data. The role of a national angel association is to provide support to the angel industry as a trade body, which means they themselves neither invest nor play a match making role.

Early stage funds

61. These are formal institutional venture capital funds. While venture capital funds can invest in many stages throughout the growth of a start-up, most currently tend to focus at the later stages where the risks are lower. The early stage funds that do exist can be important partners for angel investors and increasingly national angel associations are including them in their membership.

‘Early stage venture capital and seed funds are those who invest in the equity gap (EUR 500 000 to EUR 3 million), *i.e.* making a maximum of EUR 3 million investment per company in young innovative SMEs across Europe.’ (EBAN website)

Exits

62. Returns from venture, and also angel, investment are predicated on (positive) exits, in the form of trade sales (M&A) or IPOs. Sometimes the exit involves a sale to another investor. In reality, the majority of exits are negative – failure or bankruptcy of the firm given the risks of investing in early stage companies. Investors therefore should take a diversified approach to their portfolio *to spread their risk*.

63. The importance of exits and exit markets is often not fully appreciated by policy makers and others wanting to promote angel and venture investment. Venture funds are structured in a way that requires an exit within the life cycle of the fund, which is typically 10 years, to enable the investors to realise a gain (or loss) and to reinvest the proceeds in other ventures. For both venture capital and angel investors, knowing when to exit, and having the will to do so in the case that the exit is negative, is as critical as making the initial investment decision.

‘The ways in which business angels sell their stake in an investee drives the business. Possible exit routes include management buyouts, sale of stock to another business angel or a formal venture capital firm and—in few cases—listing on the stock market.’ (EBAN website).

2) Angel Investment Process

64. Angel investors play a key role in providing strategic and operational expertise for new ventures (Harrison and Mason 2010) as well as providing important contacts and introductions. It is for this combination of reasons, not just for the funding, that many entrepreneurs seek angel investment. Typically, angel investors make investment decisions based on their experience in a particular sector (EC 2002) and invest in companies within their local area.

65. According to a study in the United Kingdom, angel investors typically acquire about 8% of the companies in which they invest (Wiltbank 2009). In Norway, the figure is higher – an average of 18% (Grünfeld et al 2010). The typical average is between 10-20%. Venture capitalists usually seek a larger share of companies as well as a board seat. Angels often wish to remain minority shareholders as they know that the entrepreneur will need to receive consecutive rounds of funding to expand the company and they are comfortable with the entrepreneur remaining in the driving seat with significant “skin in the game” and incentives to succeed.

Individual angel investment

66. Angel investors are typically former successful entrepreneurs who are interested in helping other entrepreneurs succeed by providing both funding and expertise. As highlighted in the definition section above, they differ from “friends and family” as they are investing in entrepreneurs with whom they had no prior personal relationship. The majority of business angels invest alone, not as part of a network or group (EC 2002) but participation in groups and networks is growing and many angels invest both individually as well as through groups. Instinctive judgements about the entrepreneur, company or product can play a big part in the investment decisions of angel investors, particularly for angels who invest individually (Sahlman and Richardson 2010).

67. Angel investors, whether investing alone or through a group, typically take a portfolio approach to investment in that they invest in several companies over their investment horizon. This allows them to diversify risk, knowing that a large portion of the companies will not succeed while some will. Of course they hope that one or two will be huge winners as those are the deals that can generate high returns and cover losses of the firms that don't make it.

Angel syndicates or groups

68. The formation of syndicates and groups began growing in the United States in the mid 1990's and more recently in other parts of the world. This growth is driven by a combination of increased awareness about angel investing and a demand for syndicated deals to fill the market gap between individual angel investment and venture capital. Investing through groups also allows angel investors to see a wider range of companies (deal flow) and to identify potential angel co-investment partners. This form of investment is prevalent in the United States, the United Kingdom and some other countries.

69. Angel groups are easier to find than individual angel investors, addressing the information gap that exists in the angel/early stage financing market. At the same time, angel investors (like VCs) generally prefer a referral from a member of the group or a trusted service professional rather than unsolicited business plan submissions (Kauffman 2004).

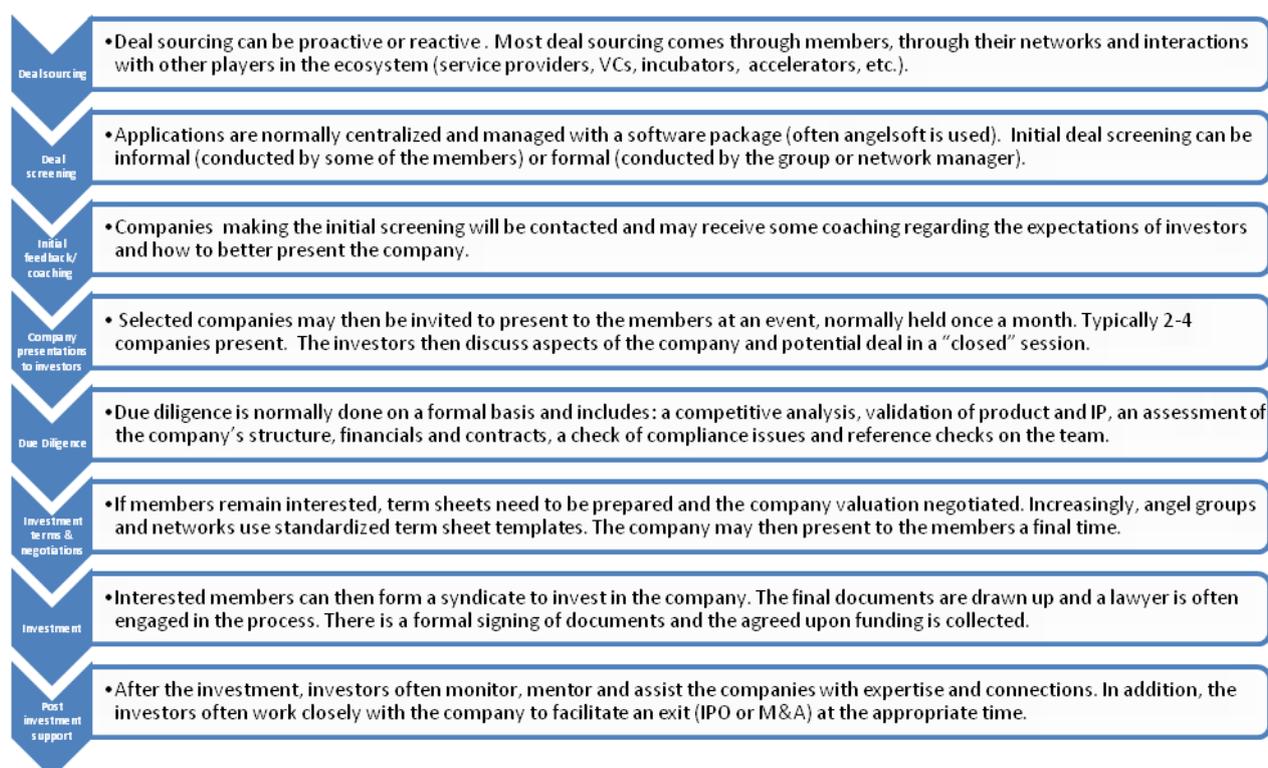
70. Awareness of angel investment as an asset class has increased both among accredited investors and entrepreneurs as well as with policy makers. As an indication of growing visibility of this market, media interest in angel investing has increased from almost nothing a decade ago to frequent articles in mainstream journals and magazines. Angel investing is also a popular topic on blogs and twitter.

71. There is some evidence that investors that invest through groups make better investments than the majority of angels investing alone (although there are many successful, experienced angels who do very well investing on their own, particularly “super angels” – see later section). There are a number of reasons for this hypothesis, including the stronger rigour in the due diligence process, the professional term sheets and other documents and the sharing of workload among angels (as individual angels become more visible and receive more business propositions, it is harder for them to process everything themselves). Many people believe that groups or networks help angels become more sophisticated investors.

Investment Process

72. For angels investing through groups or networks, there are many stages of the investment process. These are outlined in Figure 3 below and help to illustrate why many angel investors choose to invest with others as opposed to trying to conduct these steps on their own.

Figure 3: Typical Angel Investment Process



Source: OECD 2011, summarised from ACA, EBAN and Tech Coast Angel materials

73. The interviews highlighted the fact many potential business angels get involved in investing because they want to “give back”. They were fortunate to be successful as entrepreneurs or business people and want to support and help others succeed. In addition, investing in start-ups is an activity these angel investors enjoy, whether they do it on their own or through syndicates.

Models of angel syndicates and groups

74. While many different organisational approaches can be successful, there are two main models for running angel syndicates or groups. Member-led groups (angels run the group themselves) used to be the predominate model, however, the manager-led model (a professional manager is hired to run the group) is

now used in over 50% of the groups in the United States (Sahlman & Richardson, 2010). It should be noted that success is defined according to the incentives and motivations of the group, not necessarily the return on investment.

Member-Led: run by a lead angel investor or committee on a volunteer and perhaps rotating basis. Members are responsible for the group and actively participate in various roles in the screening and investment process. The organisational structure might be informal (a group of individuals loosely associated under no specific legal structure) or in the form of a non-profit organisation, limited liability company, corporation or limited partnership. The members might hire a part-time or full-time administrative person to support the group on operational details.

Benefits: lower cost, true commitment from members (volunteering time)

Challenges: consistency, sustainability

75. Groups often charge membership fees to cover their operating expenses. In addition, they often seek sponsorship and/or others sources of support to help cover costs.

Box 2. Tech Coast Angels
(one of the largest groups in the United States)

Founded: 1997

Location/Region: Southern California, United States

Investment Focus: seed and early stage investments, \$500-1M series A (first investment round), sometimes participate in follow-on rounds.

Operating Model: Member-led. No common fund. Members collaborate on due diligence, but make individual investment decisions under common valuation and terms.

Membership: Founders, VCs, business leaders who have funded and built world-class companies.

Evolution: Began with monthly dinner meetings with one or two ventures looking for financing with the goal of funding at least half of those presenting. The odds of over 50% attracted the best venture opportunities in the area, which in turn attracted the leading angels interested in early stage investing (Kerr *et al.* 2010).

Structure: 300 angel investors in five chapters.

Track record: Invested in over 170 companies since TCA was founded. Look at over 500 new ventures each year and fund approximately one per month. Funded 31 companies in 2010. Invested USD 6.3 million and raised another USD 33 million in 2010.

Source: www.techcoastangels.com.

76. Most groups allow members to make their own investment decisions although they might set minimum annual investment requirements. Other groups may pool money into a group investment vehicle and require a minimum investment amount (Kauffman 2004).

Manager-Led: run by a full or part-time paid manager (although role can vary greatly between groups and networks) often supported by administrative staff. The organisational structure would be more formal than for a member-led group in the form of a non-profit organisation, limited liability company, corporation or limited partnership. Angel investors can often also invest additional money through “side car funds”. The hired management would be responsible for the majority of the activities for the group, working in partnership with the members. However, unlike the member-led model, member engagement would not be expected but would depend on their interest and expertise. The manager is often eligible for carried interest in the fund, providing an incentive to identify and facilitate investments in the most promising companies. In some cases, the staff can receive a small (2-3%) percent of the committed capital of the group as fees (Kauffman 2004).

Benefits: professional management allowing more professional processes which can lead to better investments, single point person for entrepreneurs, continuity

Challenges: cost

Box 3. Common Angels

Founded: 1998

Location/Region: Boston and North East region of United States.

Investment Focus: early stage information technology companies. Investment range from USD 500k-5m investments but normally investment size is USD 1-2m.

Operating Model: Manager-led (James Geshwiler, Managing Director).

Membership: Current and former entrepreneurs and senior executives of technology companies.

Evolution: Started as an informal group of software entrepreneurs and has grown to 75 angel investors from across the North East region of the United States. They now operate like a VC fund with “side car” investments from angel investors (Sahlman & Richardson, 2010).

Structure: Larger seed and small series A rounds through angel group (approximately USD 25M). Small seed investments through the micro-cap seed fund (third fund of USD 10M raised in 2010).

Track record: Invested in over 40 companies since 1998 with 6 exits to date (all M&A).

Source: www.commonangels.com

Business angel networks

77. Business angel networks (BANs) play a match-making function between angel investors and entrepreneurs - they do not invest directly themselves (EBAN 2006). This role is structured to address the information gaps discussed earlier. BANs help to make the investment process more efficient by connecting angels wanting to invest with other players in the local ecosystem (incubators, VCs, development agencies, banks, stock exchanges and others) and, most importantly, with entrepreneurs looking for capital (EC 2002). One of the most important and basic roles of BANs is to give visibility to the angel activity in a region, and therefore serving as “front door” for entrepreneurs looking for financing, without necessarily giving individual visibility to the angels, who often prefer to keep a low profile.

78. BANs can be national, regional or local. They can also focus on particular sectors. More recently, a growing number of “affinity” BANs have been created for groups of people with similar backgrounds, experiences, cultures or nationalities (*i.e.* alumni of universities, diaspora groups, etc.). The mode of operating, including the frequency of meetings and membership criteria can vary tremendously. BANs usually have one or more paid employees and normally operate as a non-profit (EC 2002). BANs are much more prevalent in Europe (excluding the United Kingdom) than groups.

Box 4. Examples of the different organisational forms of BANs in France

Associative networks

These networks typically hold regular meetings in which 3-4 selected entrepreneurs present companies/projects to a group of potential investors. These networks are low cost and mainly meant for projects requiring low sums of money (usually less than EUR 200 000). These networks are normally relatively visible in the region and open. The Business Angel member of such a network can freely choose to invest or not in the presented projects.

“Investment society” networks

Some Business Angels (especially in limited numbers, between 10 and 20) wish to stay among themselves and are not looking for a high regional visibility. Thus, they accept to put their money in a “common pool”.

In order to create an Investment Society, it is necessary to implement strict operating rules (Board of Directors, Chairman, etc.) and of investment decisions (investment committee). The members must be disciplined but this increases efficiency and, in theory, can lead to quicker and better quality decisions.

Mixed organisation: association + investment society

More and more networks are coming to the conclusion that a two-fold structure holds many advantages. The associative structure allows an easier integration of new Business Angels with less experience, and systematically puts them into contact with entrepreneurs looking for funding. In an Investment Society structure the decision-making process is organised and decisions are taken collectively and with more rigour.

Clubs

Clubs bring together potential investors who are friends or have the same professional expertise or backgrounds. They do not intend to be visible, are usually more exclusive and it can be difficult for new members and entrepreneurs to join them. Clubs' potential level of investment fluctuates greatly according to their members' goals but can be important if the club has many wealthy and active Business Angels.

Source: www.franceangels.org

Activating “latent” angels to invest

79. While more and more angels are joining groups and networks, it is important that angels actively invest, not just participate in interesting meetings with entrepreneurs. “Latent” angels are defined as those who have not invested capital in the past 12 months, although they likely have invested knowledge in the process of reviewing potential investments. Training and mentoring of angel investors is often helpful in encouraging angels to invest. At the same time, given the relatively small number of investments made by groups and networks each year, it cannot be expected that all members will invest each year. In reality, in each group, there are a few angels who consistently invest more frequently than the others. More research needs to be done into the investment patterns within groups and networks.

“Super angels”

80. While the term “super angels” has been used in the United States for many years, it is becoming increasingly popular in the United Kingdom and other countries. However, there is still a debate about whether there really is such a thing as “super angels” or whether these are simply micro venture capital funds since, in a growing number of cases, the investor is also investing other people's money instead of just their own which makes them a professional money manager rather than an “angel” investor.

81. In the United States, the number of super angel funds has been growing rapidly creating an investment segment in between the angel and VC market. During 2009-2010, ten super angel funds were raised (Sahlman and Richardson 2010). These funds often have full time managers and, like VC funds, take a management fee and percentage of investment profits. Super angels have strong personal networks

and are often as easily able to attract entrepreneurs as venture capital funds (Litan and Schramm, forthcoming 2012). Super angels in the United States have sky rocketed in visibility in the past couple of years and have generated a great deal of interest as well as intense debate in the United States media.

82. Although traditionally there was a clearer differentiation between operating models of angel and venture capital investors, there are still several grey areas (Avdeitchikova et al 2008) and the lines have blurred further with the emergence of “super angels”. The table below highlights the traditional characteristics of angel and VC investors but in reality there is a growing spectrum across some of these areas. It also should be noted that angel investors often invest in multiple ways at the same time (as individuals and through groups or networks) as well as at different stages (in addition to their seed investments, they are often invested in more mature companies as well as other investment vehicles).

Table 2. Differentiating the key characteristics of angel and VC investors

Characteristics	Angel Investors	Venture Capitalists
Background	Former entrepreneurs	Finance, consulting, some from industry
Investment approach	Investing own money	Managing a fund and/or investing other people's money
Investment stage	Seed and early stage	Range of seed, early stage and later stage but increasingly later stage
Investment instruments	Common shares (often due regulatory restrictions though)	Preferred shares
Deal flow	Through social networks and/or angel groups/networks.	Through social networks as well as proactive outreach
Due diligence	Conducted by angel investors based on their own experience.	Conducted by staff in VC firm sometimes with the assistance of outside firms (law firms, etc.).
Geographic proximity of investments	Most investments are local (within a few hours' drive).	Invest nationally and increasingly internationally with local partners
Post investment role	Active, hands-on	Board seat, strategic
Return on investment and motivations for investment	Important but not the main reason for angel investing	Critical. The VC fund must provide decent returns to existing investors to enable them to raise a new fund (and therefore stay in business)

Source: OECD 2011, adapted from EBAN 2006 referencing Wong 2002 and Ibrahim 2010.

83. Angel investors have a broader set of motivations for investing than venture capitalists; they therefore consider both a wider range of investment in terms of sector and are willing to make smaller investments than venture capitalists (Mason 2009).

84. Venture capital firms raise and invest money from institutional investors in exchange for a management fee (traditionally 2% but recently there has been pressure on VCs to lower the percentage) and a share of the profits (typically 20% beyond a specified hurdle rate for the institutional investors). They therefore have an incentive to raise the largest funds possible and need a few big hits to generate sufficient returns for their investors and themselves. Angel investors are more willing to take smaller exits rather than striving for the big hits that VCs seek (Sahlman and Richardson 2010).

Relationship with venture capitalists

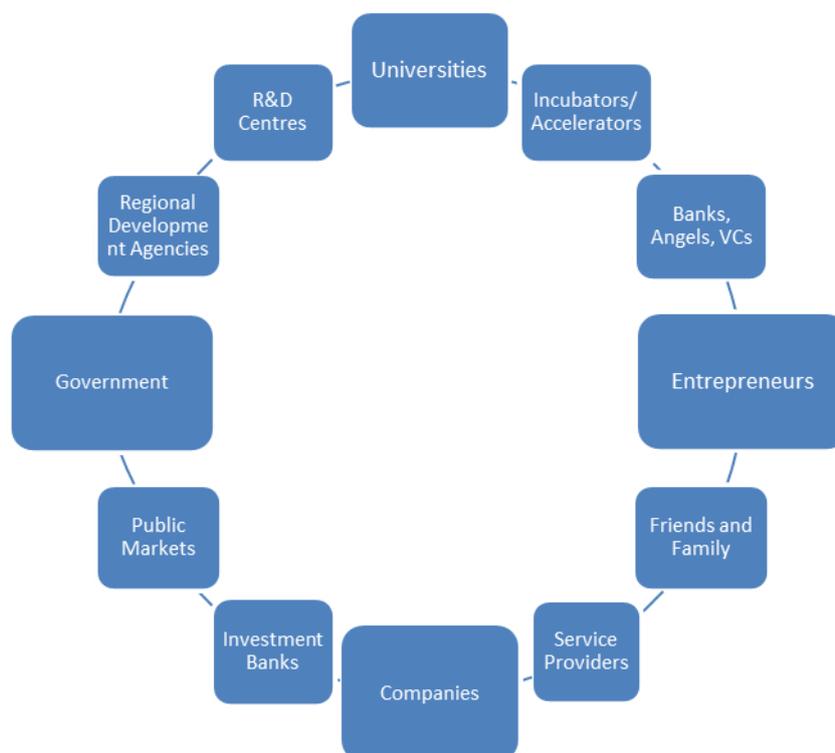
85. Angel investors can play an important bridging role with other potential investors such as venture capitalists. However, co-operation and trust is important, as angel and VC investors have different motivations for investment, exit horizons, and prefer different types of investment instruments (EC 2002).

86. The interviews have reflected the varying views and relationships between angels and venture capitalists. In some situations, the relationship can be positive and mutually reinforcing but in others, it can be negative. The angel investors' share of the company will be diluted over time as further investments are made in the company but as long as the valuation of the company is growing, this is normally not a major issue. However, in "down rounds" it is more problematic. In addition, angel investors normally invest through common shares and venture capitalist through preferred shares, resulting in different investment rights which can be in conflict.

87. The academic research as well as the project interviews highlighted the fact that many angel investors are supporting more and more companies through to exit instead of relying on venture capital investors to step in. This approach, coined "early exits" (Peters 2010) is most relevant for investments in firms in the internet and social networking sectors. These sectors require smaller amounts of initial capital than more traditional technology and science sectors, allowing greater capital efficiency and more rapid testing and adjustment of products and/or business models (Ries 2011). As a result, these companies are able to succeed or fail more rapidly, with those succeeding sometimes able to reach a potential exit earlier than normally might be the case.

Relationship with other organisations in the ecosystem

88. Angel investors and entrepreneurs operate in a broader ecosystem in which various players such as accelerators, incubators, universities, entrepreneurship centres, venture capital firms and service providers (lawyers, accountants, investment bankers and others) play important roles.

Figure 3: Types of Organisations in the Entrepreneurial Ecosystem

Source: OECD 2011.

89. Universities have increasingly been highlighted as a potential source of start-ups, however, the reality is often that many university spin-outs are more research rather than commercially focused and therefore do not always succeed in securing angel or venture capital. It was noted that researchers are often not the best entrepreneurs, although there are exceptions. More spin-outs originate from industry than directly from universities.

90. During the interviews conducted as part of the project, a number of people indicated that while R&D and innovation activities appear to be growing in many countries, there is a gap when it comes to entrepreneurs being able to take those innovations to market. Finance was acknowledged as a barrier. Even entrepreneurs who are able to secure some funding are often not able to secure the amounts needed. However, several people also pointed out a “disconnect” between R&D and innovation policies on one hand and entrepreneurship and start-up policies on the other. Many governments are pouring money into R&D at universities to assist innovation systems however high growth firms are not necessarily generated from universities alone. A 2008 research study assessing the impact of the Israeli governmental support to industrial R&D during the period from 1991-2007 showed that most of the R&D spillovers were derived from medium to large firms or very large firms (Lach et al 2008).

91. Incubator programmes have been evolving and are playing a greater role in the commercialisation of R&D. Many countries have put incubators programmes in place, often with some government support. Below are two examples, one from Turkey, which has been in place since 2002 and another one from Israel, which has been in place since 1991 administered by the office of the chief scientist.

Box 5. METUTECH, Turkey

Ortodogu Teknopark AS, which is a not-for-profit company, is the management body of METU Technopolis (METUTECH) being the first and the biggest science and technology park in Turkey. It works to create synergy between industry, university and public institutions.

METUTECH has reached to a scale of more than 250 firms, 75% of which are SMEs, employing more than 3 600 personnel. The existing company profile of METUTECH is based on high technology research, software development, IT, defence and electronics industry. The incubation centre of METUTECH serves 40 micro sized companies including spin offs from Middle East Technical University. More than 658 R&D projects have been completed between METUTECH companies and METU academicians since 2002.

Within the frame of METUTECH strategic plan, METUTECH is working hard to encourage techno-preneurship, facilitate university-industry collaboration and increase internationalisation of its companies. Student Business Plan Contest (YFYI www.yfyi.info), Technology Transfer Office (METUTECH TTO – www.metutech-tto.org), Pre-incubation Centre for Students (METUTECH ATOM www.metutech.metu.edu.tr/atom) and Association of Business Angels Network (METUTECH BAN www.metutechban.org) are major components of this quest.

Source: www.metutech.metu.edu.tr.

Box 6. Technological Incubators Programme, Israel

The programme was founded in 1991 and is administered by the office of the chief scientist in the Ministry of Industry, Trade and Labor. The programme nurtures novice entrepreneurs at the earliest stage of technical innovation, helping them implement ideas by turning them into exportable commercial products and form productive business ventures in Israel. The incubators provide physical premises, financial resources, tools, professional guidance and administrative assistance. The standard term in the incubator is two years. Of the 26 incubators in Israel, 16 are located in “peripheral” areas. Two hundred companies, at various stages of R&D, are at the incubators at any given time.

The government provides 85% of the incubator budget as a soft loan to the incubator for each approved project (approximately USD 500K for the project’s two year term). The incubator receives the loan and invests in the project. The incubator receives up to 5% of equity in the project to cover operational costs. The incubator service providers (including providers of supplementary funding) receive a large share of equity although the majority is normally help by the entrepreneur depending on financing, terms and negotiations. Payback of the loan is only required in the case of success.

In 2002, a privatisation programme started to shift the ownership of the incubators from the public to the private sector and from non-profit to for-profit status.

Source: www.incubators.org.il.

92. In addition, some other countries are taking other approaches to focusing on commercialisation of R&D. In 2010, Australia launched an extensive programme in this area (see box below).

Box 7. Commercialisation Australia

Commercialisation Australia is a competitive, merit-based assistance programme delivered by the Australian Government to assist Australian firms, entrepreneurs, researchers and inventors convert their intellectual property into marketable products. It provides a range of funding and resources tailored to the needs of the participant. The program has funding of AUD 278 million over the five years to 2014, with ongoing funding of AUD 82 million a year thereafter.

Specific programme components include:

- **Skills and Knowledge** support to help build the skills, knowledge and connections required to commercialise intellectual property, providing funding of up to AUD 50 000 to pay for specialist advice and services. This funding is provided in the ratio of 20% contribution by the applicant to an 80% contribution from the grant, to a maximum grant amount of AUD 50 000 (e.g.: AUD 12 500 from the applicant and AUD 50 000 from the grant).
- **Experienced Executives** which provides funding up to AUD 200 000 over two years to assist with the recruitment of a Chief Executive Officer or other senior executive. This assistance is provided on a 50:50 matching basis.
- **Proof of Concept** grants of AUD 50 000 to AUD 250 000 to test the commercial viability of a new product, process or service. This assistance is provided on a 50:50 matching basis.
- **Early Stage Commercialisation** repayable grants of AUD 250 000 to AUD 2 million to develop a new product, process or service to the stage where it can be taken to market. This assistance is provided on a 50:50 matching basis.

In addition to funding, Commercialisation Australia participants have access to a network of 22 **Case Managers** - highly skilled business builders who are available to work with successful applicants and guide them through the various stages of commercialisation. Commercialisation Australia can also link its participants with **Volunteer Business Mentors**. These are people with significant business, commercialisation, domain and investment expertise able to share their insights and help participants make important business decisions and connections.

Commercialisation Australia acknowledges the high risk nature of projects supported by the Program and recognises that some projects will fail. Commercialisation Australia expects some participants will realise during the term of their project that it will not achieve its objectives. In such a case Commercialisation Australia encourages the participant to 'fast fail' the project and will view it as a positive indicator of the management team's capability in any future application for funding under the programme.

Source: www.commercialisationaustralia.gov.au

3) Data on angel financing

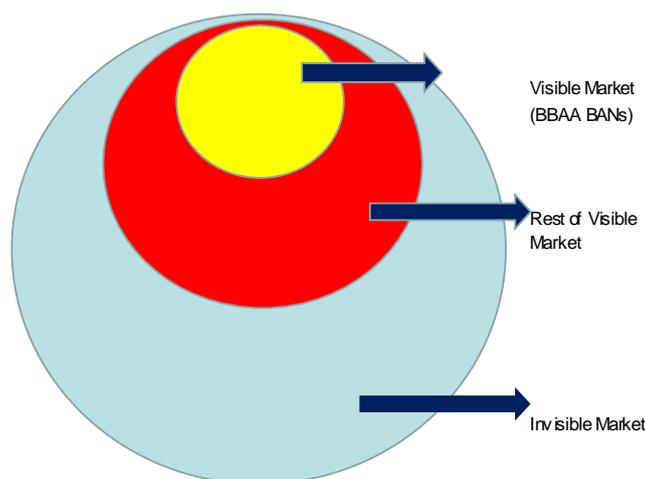
93. In working on this project, the OECD has collaborated with angel associations and networks throughout the world to collect data. The data provided in this section has been pulled together primarily from these sources as well as venture capital associations. The data is not necessarily directly comparable, however it provides a picture of trends in the countries for which data was available.

Data issues

94. While definitions of angel investors can vary, it is generally understood that angel investment excludes investments made by family and friends. However, data (such as GEM) sometimes includes family and friends (perhaps by "default") by considering all non-institutional equity investments in early stage companies as "informal investment" (Avdeitchikova et al 2008). This is an important issue to address otherwise different measures will continue to be used in different countries and/or for different research reports, further confusing an already difficult data situation.

95. Another serious challenge is the lack of data. Currently, the only data available is that collected by angel associations from angel groups and networks. However, this data only represents a fraction of the market termed the “visible” market (Harrison and Mason 2010). In countries such as the United Kingdom and New Zealand, other “visible” market data can be collected through other methods such as angels participating in government tax incentives and or co-investment schemes. However, the majority of angel investment is individual and that information is private and therefore extremely difficult to measure. This comprises the “invisible” portion of the market (see smaller circle in the centre of figure 4 below).

Figure 4: Challenges in Measuring the Angel Market



Source: Harrison & Mason 2010.

96. While methods of estimating the invisible market, and therefore the full angel market size are currently more art than science, it has been demonstrated through various studies over the past several years that total angel investment is likely greater than VC investment in terms of its total amount (Kerr, Lerner and Schoar, 2010) in countries with developed angel markets such as the United States and some countries in Europe. To give a sense of the magnitude of estimated differences in the size of the United States, Europe and United Kingdom markets, we have included the table below. These figures are based on data from the United States, Europe and the United Kingdom on angel investment through groups and networks (“visible market”) as well as total market estimates from the Centre for Venture Research in the United States and EBAN in Europe (“invisible” market estimate).

Table 3: Estimates of the Angel Market and Comparisons with Venture Capital

	“Visible” angel market size (share of total market) in 2009 in USD million	Estimated size of angel market in 2009 in USD million	Total VC* market in 2009 in USD million
United States	469 (3%)	17 700	18 275
Europe	383 (7%)	5 557	5 309
United Kingdom	74 (12%)	624	1 087
Canada	34 (9%)	388	393

*Note: VC market size includes VC investments in all stages: *i*) seed, *ii*) start-up, *iii*) early, *iv*) expansion, and *v*) later stage.

Source: OECD based on estimates by the Centre for Venture Research (CVR), EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players), and Canada’s National Angel Capital Organisation (NACO). VC data based on industry statistics by EVCA/PEREP_Analytics and PricewaterhouseCoopers/National Venture Capital Association MoneyTree Report and Canada’s National Angel Capital Organization.

97. The interviews and research revealed that there is a strongly held belief that there is tremendous room for growth to reach the full market potential of angel investing, with the United States often used as a benchmark. For example, the number of angel networks in Europe now exceeds the number of United States angel groups and yet the total estimated market of angel investment in Europe is only one third of the United States. This also highlights the need to make sure that angel networks in Europe are leading to active investment, an issue which EBAN is working to address through professionalisation of the industry in Europe. It should be noted, that market size and growth potential are relative to the size and market structure of each country.

98. While the national data collected by the angel associations provides some useful indications of activity trends within a country, caution should be used in drawing conclusions from national averages as various pockets of the angel population will have very different activity profiles. Outside of national angel associations, there is currently no collection of data for angel investment on a globally comparable basis so academic literature draws upon survey based data, with all the resulting biases and issues (Kerr, Lerner and Schoar, 2010).

Box 8. Measuring business angels: Moving forward

The angel capital industry suffers from a lack of publicly available, comparable data. As there are no formal reporting requirements concerning angel investment, it is difficult to identify the population of business angels. Since the beginning of research on angel capital in the 1980s, concerns about the methodologies for sampling angel investors have been at the centre of the academic debate.

In the context of the OECD-Eurostat Entrepreneurship Indicators Programme, the OECD conducted a review of data sources and main approaches to data collection on business angels. The use of *ad hoc* samples of business angels is the most frequently used method, while studies surveying a random population are rare. The review highlighted that all collection methods used to gather data on angel activity present limitations. There are, on one side, data sources providing detailed information about individual investments, although with no indications of the total industry covered by samples analysed (e.g. data from angel network/associations). On the other side, there are sources that estimate the overall market size of business angels, but their methodology is often not transparent (e.g. CVR). Further investigation into these estimation methods is needed to be able to calculate internationally-comparable macro-level figures.

Two proposals for improving international data collection on business angels are being discussed within the OECD. The first focuses on ameliorating the comparability of data collected by business angel associations. While not representative of the total (unknown) population, data regularly gathered by BANs remains very informative about trends in the market. Implementing harmonised definitions and sound methodologies across business angel associations would improve the international comparability of data on angels belonging to groups or networks. In particular, improving data collected by associations of business angel groups and networks would involve the following:

- A common definition of business angels.
- A minimum set of common questions in the questionnaire survey used for data collection.
- A standard methodology for administering the survey questionnaire and for the data treatment (for example, how to treat non-responses, how to correct for double counts, etc.).

The second, complementary approach points to the intelligent use of microdata databases available from commercial sources such as Bureau van Dijk a provider of business information. Their databases contain detailed information on public and private companies as well as data on mergers and acquisitions which include micro-level data on the target firms, the investors and the deal structure. Matching this detailed information with data collected by business angel associations/networks can provide some additional useful data about the firms in which angels invest.

Source: OECD Statistics Directorate, Entrepreneurship Indicators Programme working paper (forthcoming 2011).

99. It is clear that further work is needed to improve methods and accuracy of data collection for seed and early stage investment in general. Population surveys or mappings, in which data is collected from as many people in the country as possible, would be the most comprehensive methods but to date has only been attempted in Norway in a project undertaken last year (Grünfeld *et al.* 2010). These types of studies are time consuming, costly and difficult in countries in which a process is not already in place to collect data of this type. In Norway, researchers have done a comprehensive study on the angel market, based on more extensive access to data than is available in many other countries. While they found that overall angel investment is higher than VC, the segment of angel investors focused on high technology based firms is smaller than VC. However, each country varies in terms of investment opportunities and patterns so without better data from other countries, it is difficult to draw general conclusions.

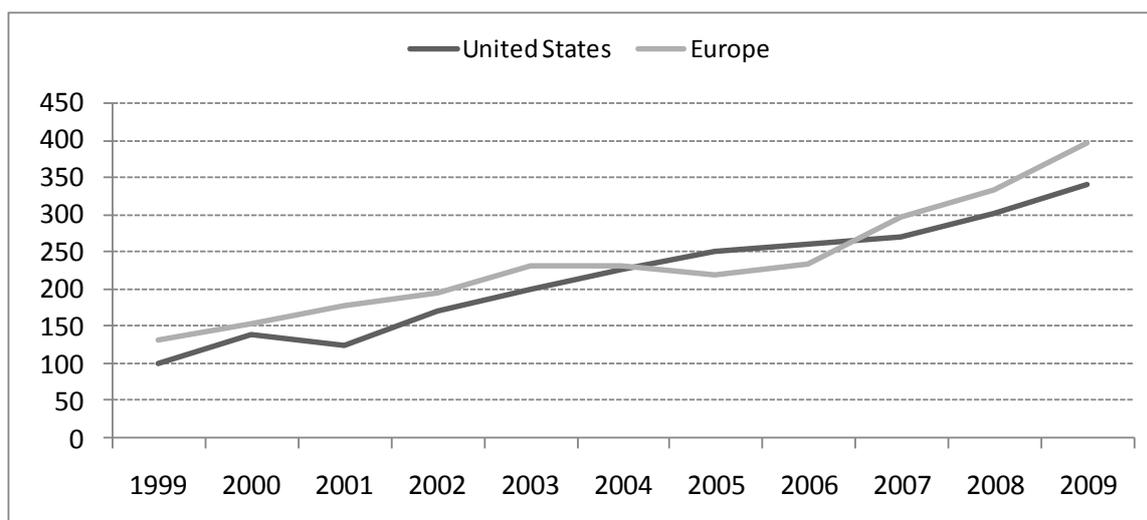
100. Some new initiatives are emerging to address the data question. In the United States, a new partnership was recently announced between the Angel Capital Education Foundation (ACEF), Silicon Valley Bank and CB Insights. Together these organisations will produce a quarterly research report, to be called the “Halo Report”, which will highlight angel investment activities and trends in the United States and Canada. In Europe, EBAN has recently announced a partnership with Bureau van Dijk which will enable them to match and supplement existing EBAN data with the extensive public and private data in the Bureau van Dijk databases. This is part of an on-going EBAN effort to expand the amount of information available and increase transparency on angel investment in Europe.

Data across OECD and non-OECD countries

101. As background information for this project, data was pulled together from existing sources (national angel associations) around the world. It is important to remember that this data only captures part of the “visible” market, not the full angel market in each country. Nor is the data fully comparable. The charts below show some of the available data pulled together so far for illustrative purposes however, the data is being further investigated and will be adjusted in the final version of the paper.

102. The number of angel groups and networks in the United States and Europe has grown tremendously over the past decade.

Figure 5: Total number of angel groups/networks in operation in the United States and Europe, 1999-2009

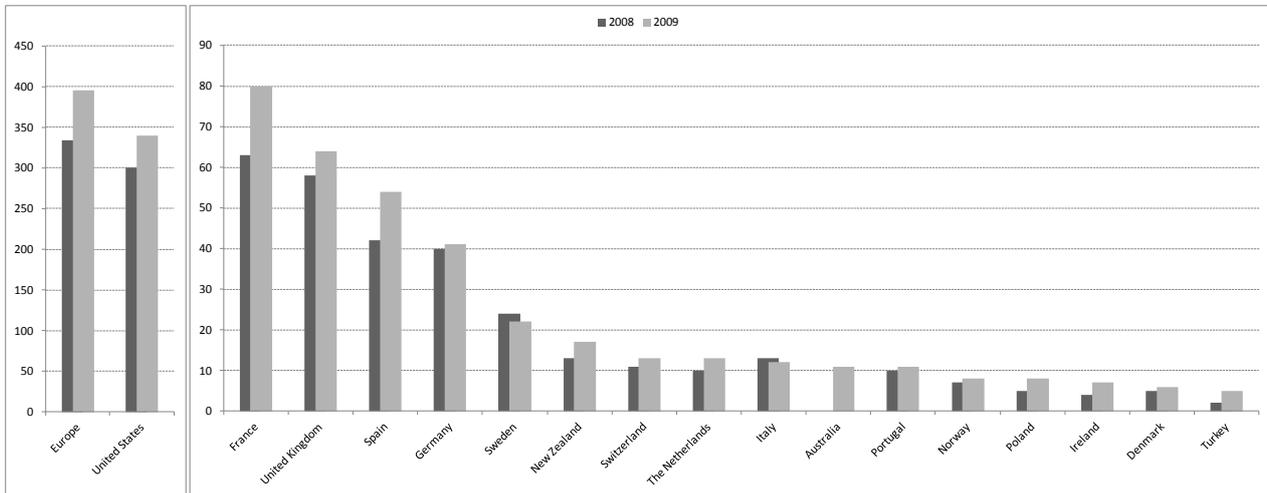


Note: Based on groups and networks surveyed.

Source: OECD based on ACA (Angel Capital Association) and EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players).

103. While the data in Figure 5 only shows the United States and Europe, where the largest number of groups and networks currently exist, the markets have also been developing and growing in other countries around the world (see Figure 6 below which includes data country by country).

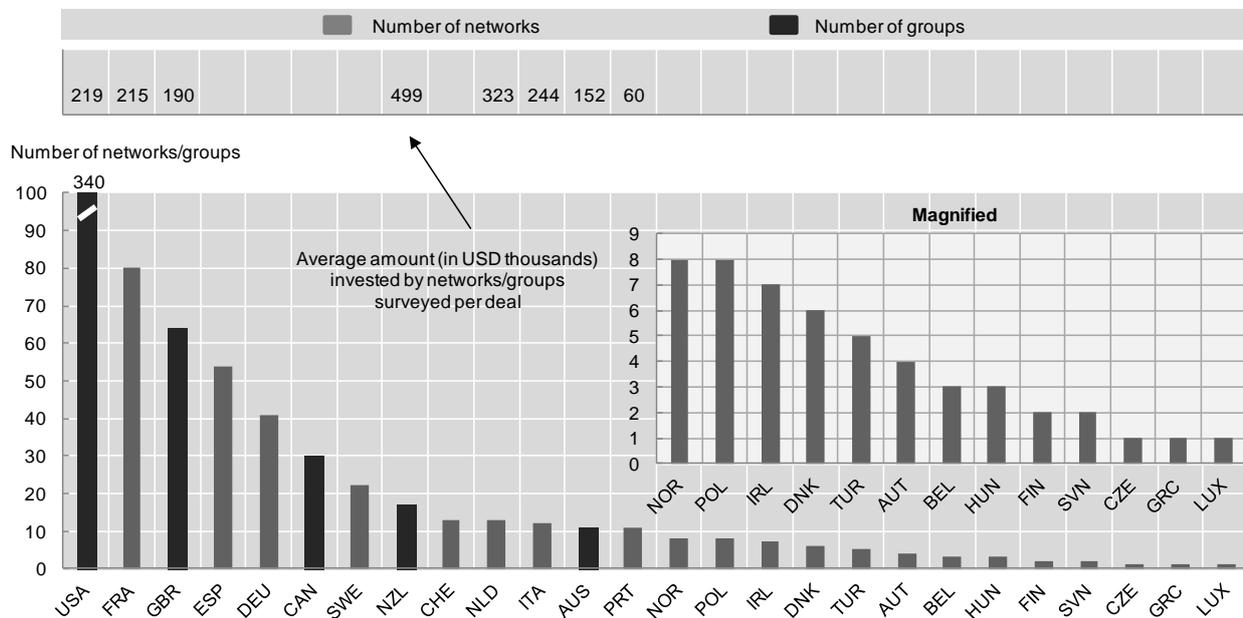
Figure 6: Total number of groups/networks in operation in selected countries, 2008-09



Source: OECD based on EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players) and ACA (Angel Capital Association)

104. The following figure shows the numbers from 2009 breaking out groups and networks. It also includes data from Canada (although that is 2010 data).

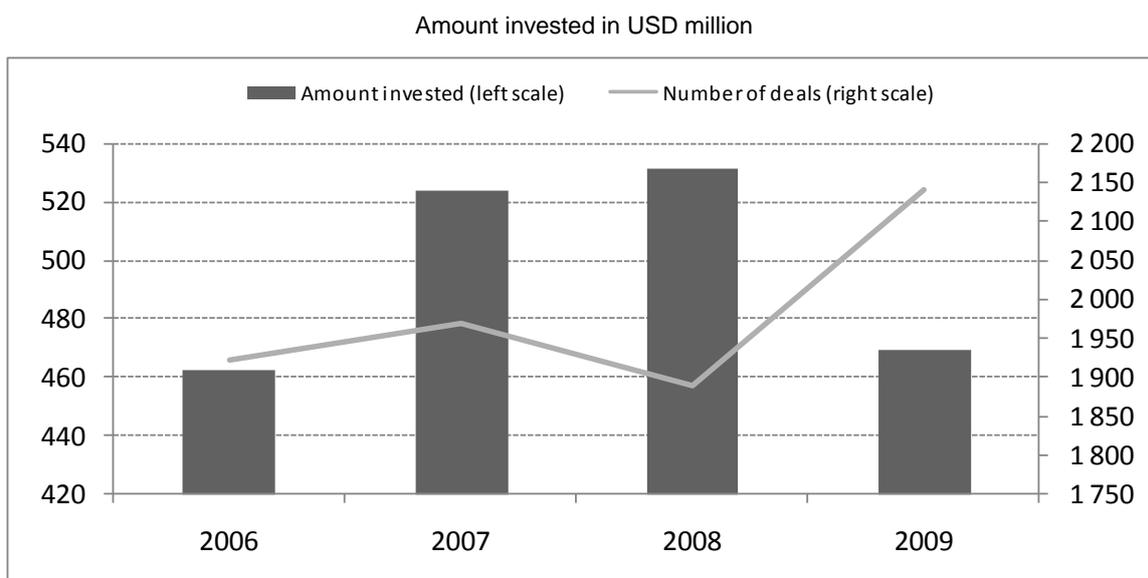
Figure 7: Total number of groups/networks in operation in selected countries, 2010



Source: OECD calculations, based on EBAN (The European Trade Association for Business Angels, Seed funds and other Early Stage Market Players), ACA (Angel Capital Association), NACO (National Angel Capital Organization), AAAI (Australian Association of Angel Investors) and AANZ (Angel Association New Zealand).

105. Regarding investment, the following figures show trends in terms of the number of deals and amount invested by angel groups/networks (*i.e.* the “visible market”) in the United States, Europe and New Zealand. In the United States the impact of the financial crisis is clear in the reduced size but increased number of the deals implying angel investors, at least those investing through groups, continued to invest but at much lower amounts per deal.

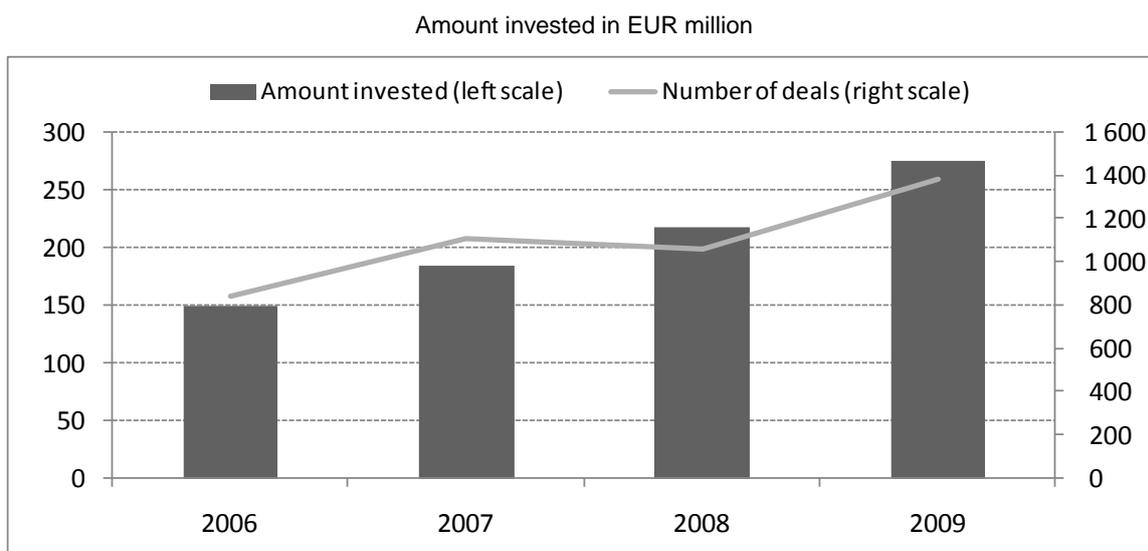
Figure 8: Investments by business angel groups in the United States, 2006-09



Note: Number of deals estimated based on number provided by ACA (Angel Capital Association).
 Source: OECD based on ACA (Angel Capital Association).

106. Meanwhile, in Europe, both the number of deals and the amount invested through angel networks have continued to increase, although there was a slight dip in the number of deals in 2008, likely due to the financial crisis.

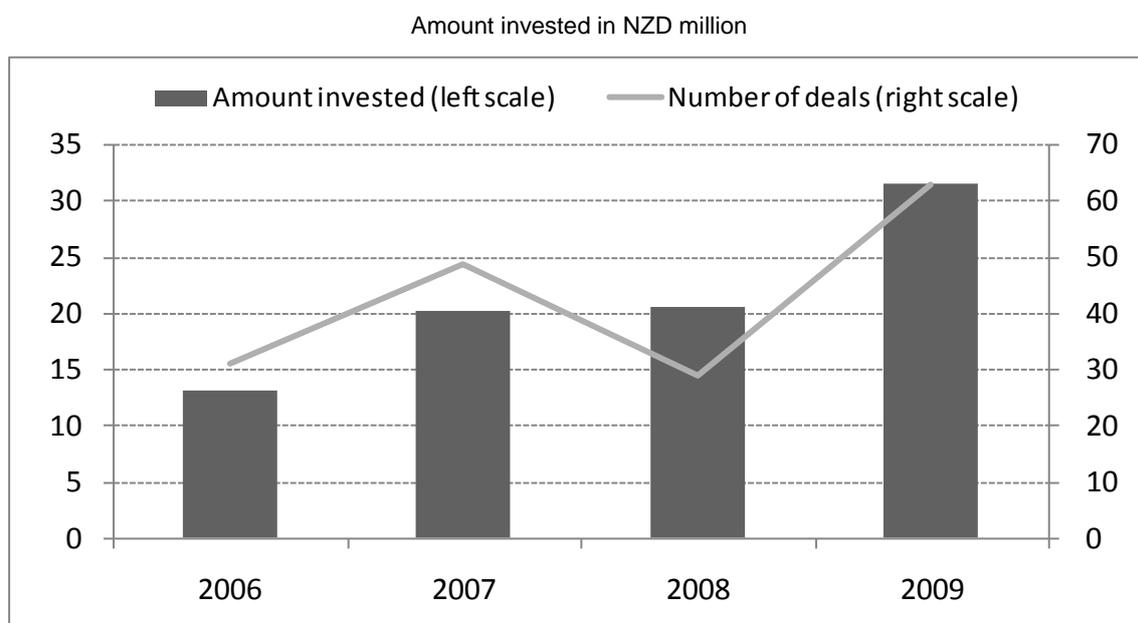
Figure 9: Investments by business angel networks in Europe, 2006-09



Source: OECD based on networks surveyed by EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players).

107. In New Zealand, investment amounts of angel groups have grown as well as the number of deals (despite a drop in 2008). This growth could be linked to a government co-investment fund put in place in 2005, which not only provided more incentives for angel investment but also helped to capture more data on investment.

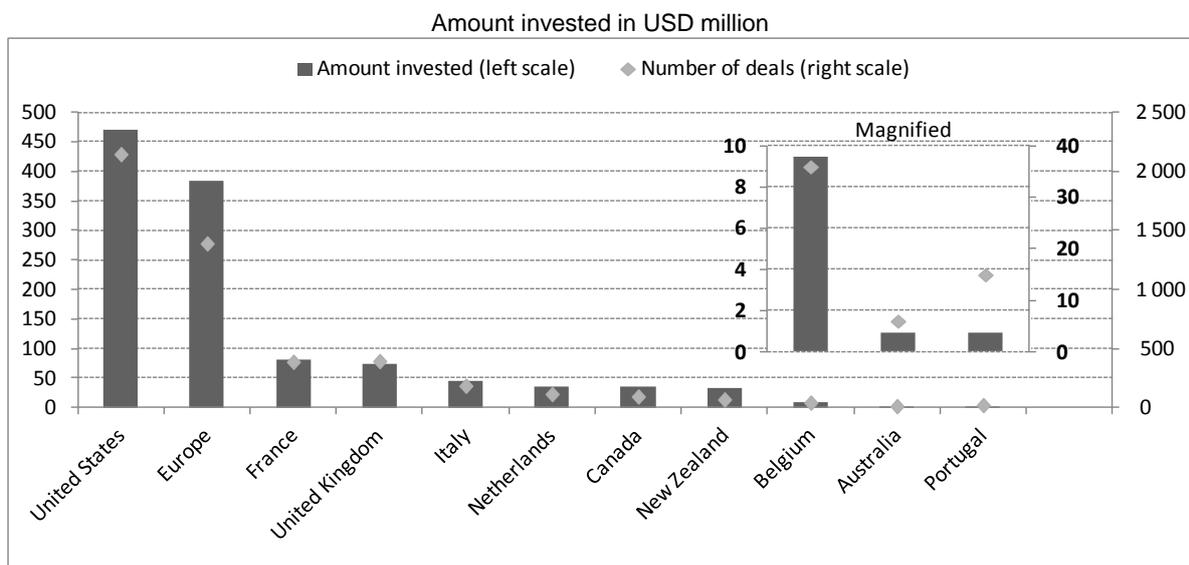
Figure 10: Investments by business angel groups in New Zealand, 2006-09



Source: OECD based on the Young Company Finance (YCF) Deal Monitor provided by AANZ (Angel Association New Zealand).

108. Figure 11 below gives a snapshot, according to data available from the angel groups/networks, of the amount invested by angel groups/networks and the number of deals in 2009 in selected countries. Clearly the United States and Europe, where the angel markets are further developed, are the most active but other markets are developing rapidly. This data only shows the “visible” data tracked through groups/networks and does not include the full angel investment amounts as the “invisible” or individual investment data is not available.

Figure 11: “Visible” investments by business angel networks/groups in selected countries, 2009

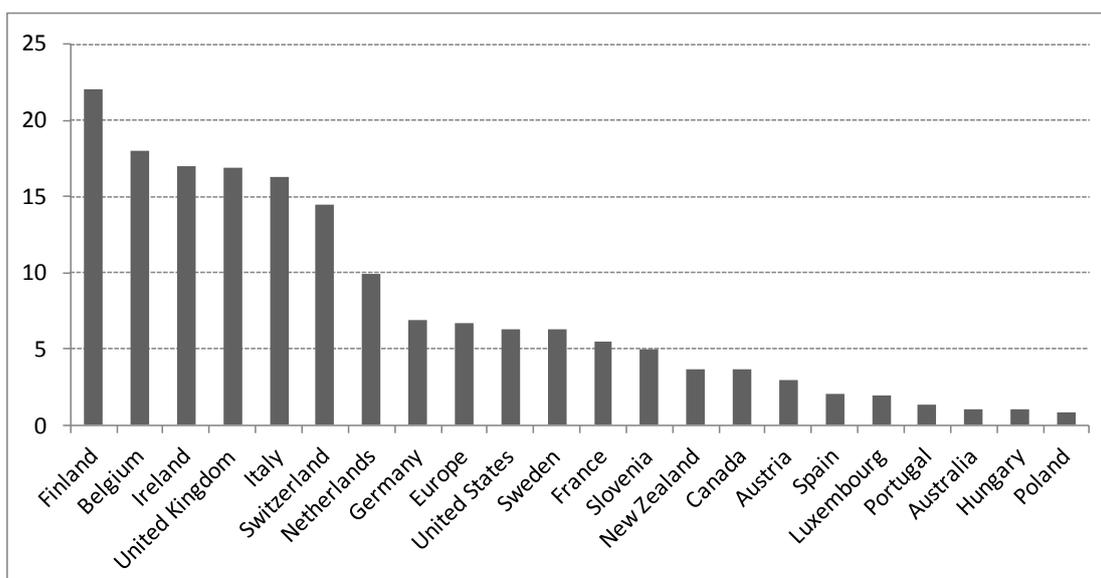


Note: Amount invested and number of deals for Australia only include new deals; Number of deals for the United States estimated based on number provided by ACA (Angel Capital Association); Data for Canada refers to 2010.

Source: OECD based on EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players), ACA (Angel Capital Association); AANZ (Angel Association New Zealand) and Canada’s National Angel Capital Association (NACO).

109. According to data reported by groups and networks, the average number of deals invested in by angel groups or networks in 2009 was approximately 5-20 deals per year. Newer groups might only do a few deals per year. However, it should be noted that there can be discrepancies between the actual number of deals done by groups and networks and the amounts reported to the national associations.

Figure 12: Average number of deals per network/group in selected countries, 2009



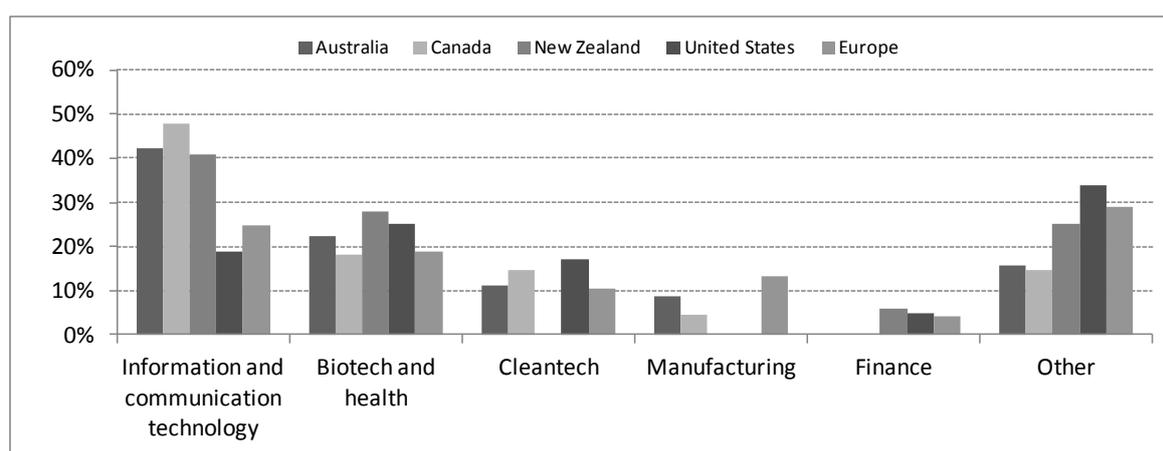
Note: Number of deals for Australia only includes new deals; Number of deals for the United States estimated based on number provided by ACA (Angel Capital Association); Data for Canada refers to 2010.

Source: OECD based on EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players), ACA (Angel Capital Association); AANZ (Angel Association New Zealand) and Canada’s National Angel Capital Association (NACO).

110. While angel investors consider and invest in a broader range of sectors than VCs, the majority of investment, at least as documented through groups and networks, is in the ICT sector followed by biotech and health. In 2009, the United States appeared to be an exception, with less investment in ICT and more in biotech and health as well as clean tech, an area in which investment is beginning to grow around the world. Possibly angels investing alone invest in an even broader set of sectors.

Figure 13: Business angel network investments by sector in selected countries

As percentage of amount invested

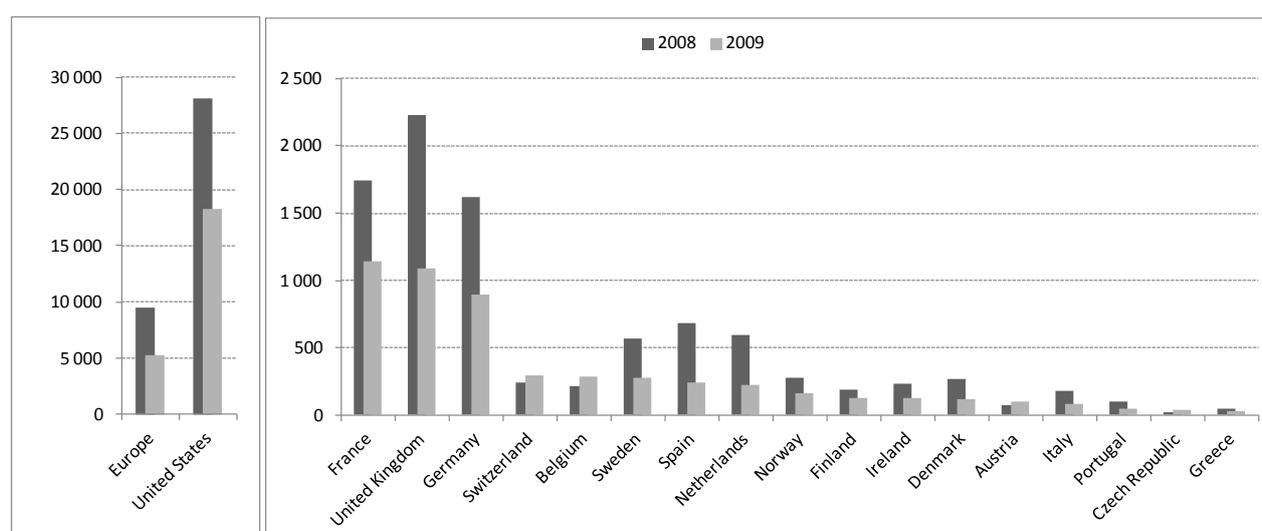


Source: OECD based on EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players), estimates of the Centre for Venture Research (CVR), AAAI (Australian Association of Angel Investors), AANZ (Angel Association New Zealand) and Canada's National Angel Capital Association (NACO). Note: Canada refers to 2010 data.

111. In looking at the venture capital market by comparison, we can see that total investment in venture capital, including seed, early and later stage, in the United States far outweighs Europe. However, in both markets, VC investments dropped significantly from 2008 to 2009. As with the data on business angels, data on venture capital are not standardised across countries and are therefore not necessarily fully comparable.

Figure 14: Venture capital investments in selected countries, 2008-09

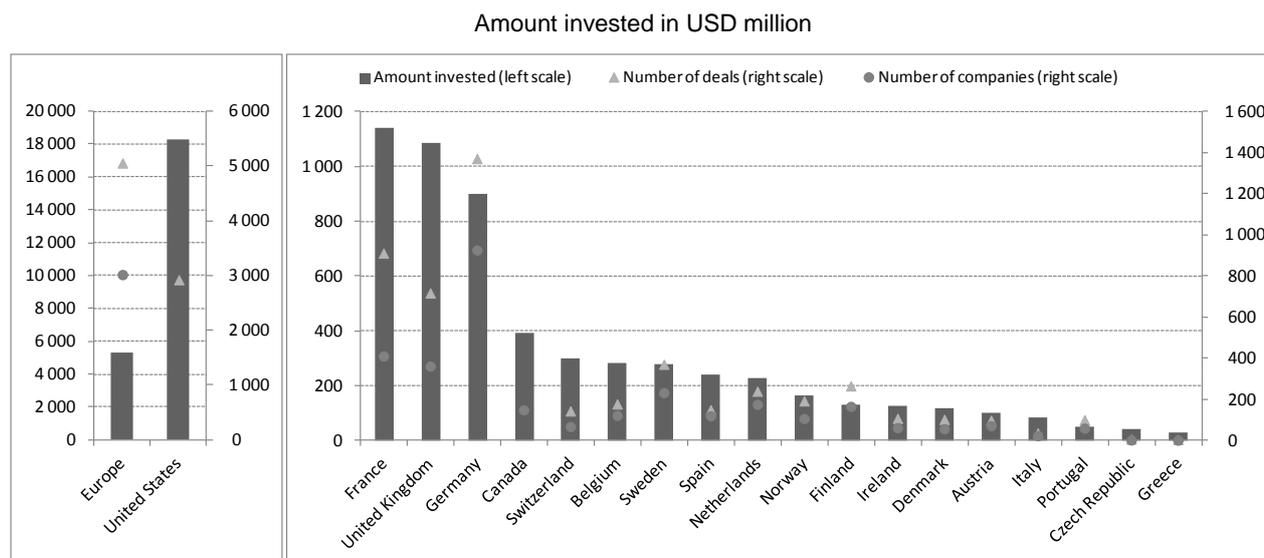
USD million



Source: OECD based on industry statistics by EVCA/PEREP_Analytics and PricewaterhouseCoopers/National Venture Capital Association MoneyTree Report data.

112. The relative size of VC investments is shown in Figure 15. According to this data, European VC deals are approximately a large magnitude smaller than United States VC deals. However, the number of VC deals in Europe is higher than in the United States, showing that VCs are dispersing funds more broadly through smaller deals. Return on investment data from the United States and Europe in the past decade has demonstrated that the United States VC market outperforms the European VC market on average, although the top funds have more comparable returns. This reinforces evidence that both experience and size of fund has an impact on VC returns (Lerner *et al.* 2011).

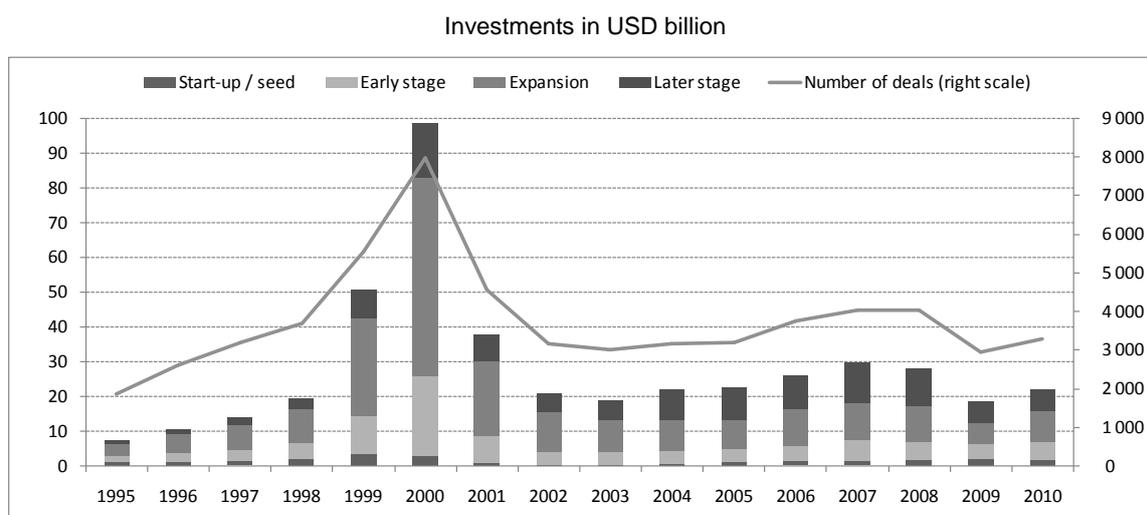
Figure 15: Venture capital investments in selected countries, 2009



Source: OECD based on industry statistics by EVCA/PEREP_Analytics and PricewaterhouseCoopers/National Venture Capital Association MoneyTree Report data.

113. A closer look at the United States data, demonstrates that seed and early stage investment remains the smallest portion of overall VC investment.

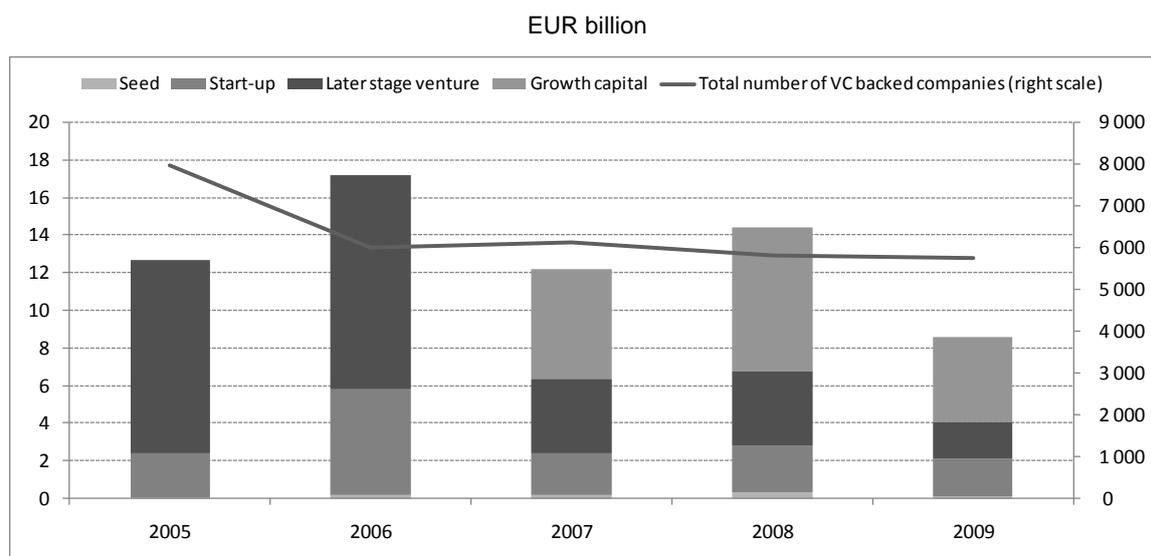
Figure 16: Venture capital investments in the United States, 1995-2010



Source: OECD based on PricewaterhouseCoopers/National Venture Capital Association MoneyTree Report data.

114. In Europe, while the definitions of stages within VCs differ from the United States (another definition and data issue referenced earlier), clearly the seed and early stages, like in the United States, are a smaller proportion of VC investment. The figure below uses comparable stages even though the titles for each stage are classified differently in the United States and Europe. Note that EVCA changed their data collection methods in 2006, allowing a distinction between what they define as later stage and growth capital in the following years.

Figure 17: Venture capital investments in Europe, 2005-09

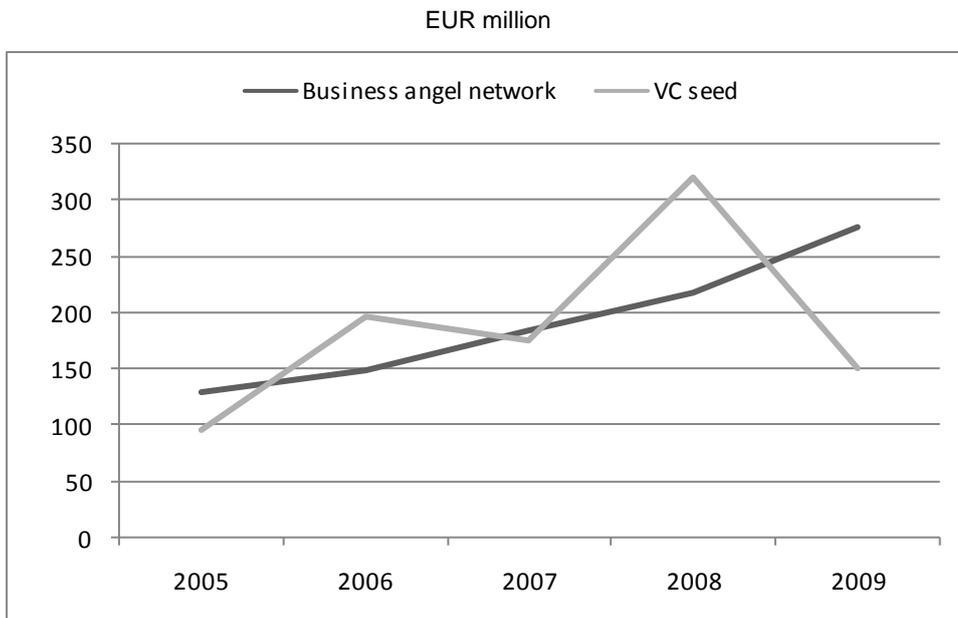


Note: "Later stage venture" in 2005 and 2006 includes "growth capital".

Source: OECD based on industry statistics by EVCA/PEREP Analytics for 2007-2009; EVCA/Thomson Reuters/PwC for previous years.

115. In terms of comparing VC investment at the seed stage only with the "visible" angel market (data collected through networks) in Europe, we can see that total investment through the networks has already surpassed seed VC investment. If we take the "invisible" market into account, the total estimated angel investment in Europe (approximately EUR 4 billion according to EBAN) greatly exceeds VC seed and, in fact, already equals all seed, early and later stage VC investment in Europe.

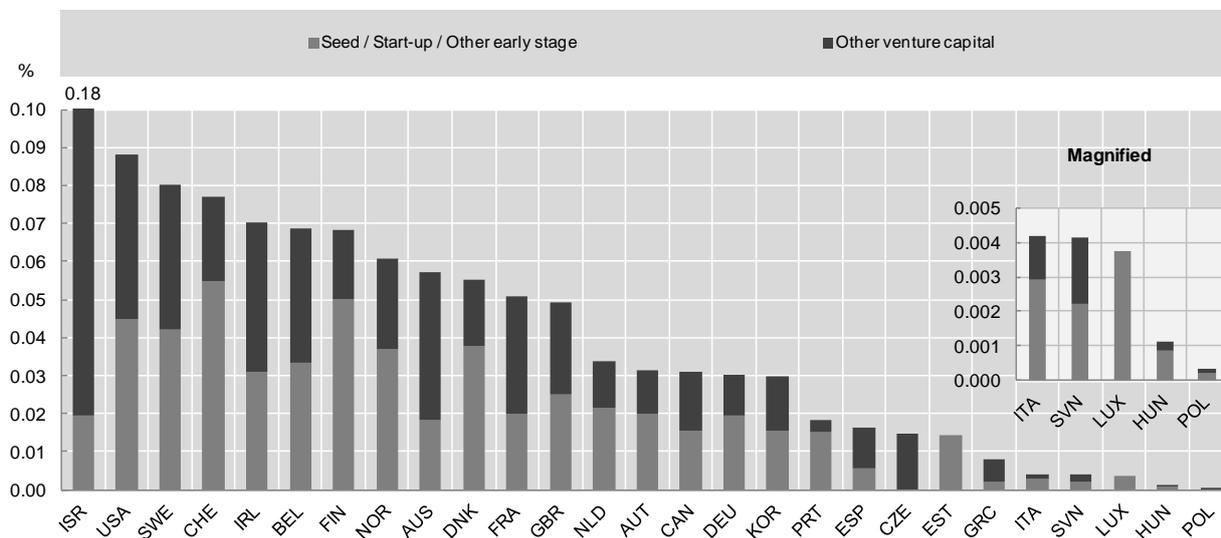
Figure 18: Business angel network and venture capital seed investments in Europe, 2005-09



Source: OECD based on industry statistics by EVCA/PEREP_Analytics for 2007-2009; EVCA/Thomson Reuters/PwC for previous years; and business networks surveyed by EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players).

116. In looking at venture capital as a percentage of GDP, we see that Israel and the United States have the greatest percentage.

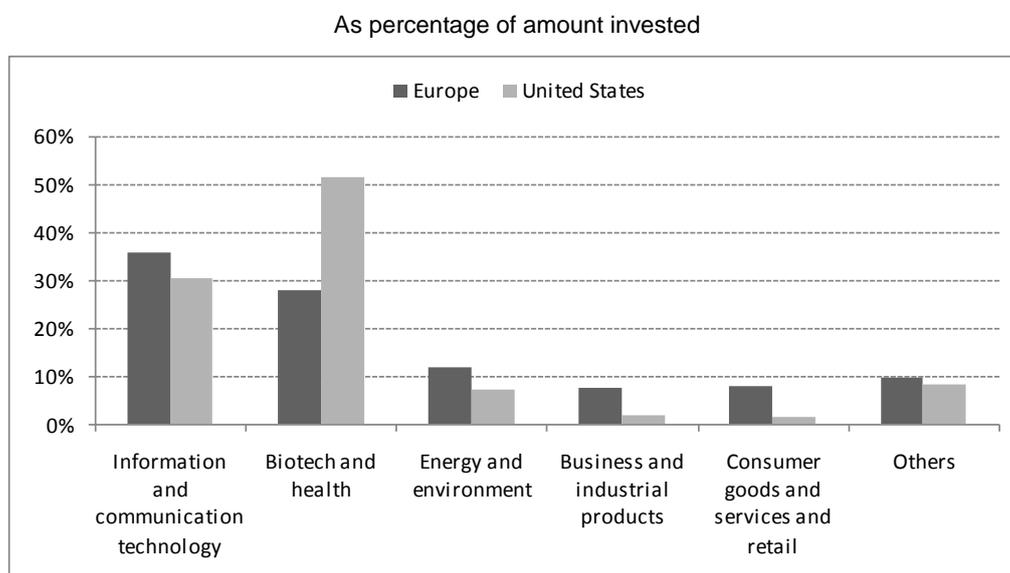
Figure 1. Figure 19: Venture capital investment, 2009



Source: OECD (2011), *Entrepreneurship at a Glance*; OECD, Paris based on OECD Entrepreneurship Financing Database, June

117. In terms of the VC investment sector, ICT remains the lead sector in Europe but biotech and health lead in the United States. Also, clean tech (energy and environment) has grown in both regions with a higher percentage of investment in Europe.

Figure 20: Venture capital investments by sector in Europe and the United States, 2009



Note: Share for the United States based on seed, start-up and early stage investments.

Source: OECD based on industry statistics by EVCA/PEREP_Analytics and PricewaterhouseCoopers/National Venture Capital Association MoneyTree Report data.

Return on investment

118. In terms of returns on angel investment, there is again little data. However, recent studies in both the United States and United Kingdom have indicated that angel investing can generate significant returns through portfolio investing. As with venture capital investments the majority of angel investments will lose money. In addition, there will be a broad distribution of performance with the more experienced investors reaping the best returns.

119. A study conducted for the ACA in the United States showed that overall returns to angel investment were 2.6x in 3.5 years (Wiltbank and Boeker, 2007). It should be noted that several factors needed to be considered when evaluating those stronger than expected return estimates, including the investment period studied, the research methodology and the sample size.³ The study also showed that the rate of return improved with three core factors: increased due diligence prior to investment, experience of the angel investors and active involvement in the company once the investment has been made. This demonstrates the importance of angels investing in sectors in which they have experience as opposed to venturing into other sectors. It also shows the overall importance of due diligence. The study also showed a negative correlation between follow on rounds and return on investment.

120. A similar study was done in the United Kingdom by the same researchers. The study showed that the overall return was 2.2x with a holding period of approximately 4 years, resulting in a 22% IRR

³ The findings in this study are based on the largest data set of accredited angel investors collected in the United States as of that date, with information on exits from 539 angels. These investors have experienced 1 137 “exits” (acquisitions or Initial Public Offerings that provided positive returns, or firm closures that led to negative returns) from their investments during the previous two decades, with most exits occurring since 2004.

(Wiltbank 2009). These return estimates are higher than might have been expected and therefore should be considered within the context of the particular timeframe and research methodology.⁴ The study also showed that while 56% of the companies fail, 9% generate more than 10x. As in the United States study, experience of the angel investors (in terms of knowledge of the sector) and the performance of due diligence (in terms of detailed background checks into the entrepreneur's background, the team, the product and the business model) had a strong influence on returns.

121. In both studies, angel investors conducting follow on rounds often had lower returns. This could be related to the issue discussed earlier of the difficulty investors can have in determining when to exit investments, particularly ones that do not appear to be successful. During the interviews for this project, it was noted that VCs and angels in groups or networks can have more difficulty in deciding to write-off an investment than individual angel investors. Further research in this area would be helpful to determine the implications of this and how this impacts the relationship with VCs.

122. At the same time, angels do not necessarily measure success by return on investment. For each individual angel investor, success is determined by their personal interests and needs. This might include a mix of return, satisfaction from having helped other entrepreneurs (perhaps not unlike themselves at an earlier stage), interest in a business model or sector, etc. For angel groups or networks, success is often measured by more immediate and quantifiable measures such as member retention, investment rate, accomplishment of goals, and member satisfaction (Kauffman 2004).

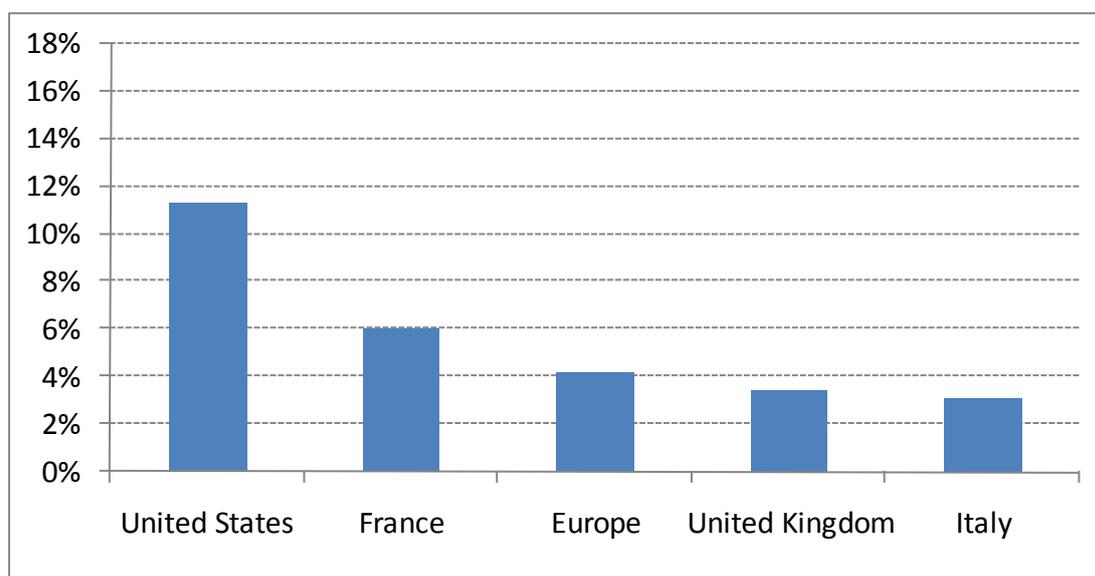
Gender

123. Numerous academic studies over the past decade (Greene *et al.* (2001), Brush *et al.* (2001), Hudson, Kenefake and Grinstead (2006), Harrison and Mason (2007), and Becker-Blease and Sohl (2007), Padnos (2010) and various Kauffman Foundation reports) have provided evidence that a substantially higher proportion of angel investors are male. Recent estimates suggest that 85-95% of angel investors are male (EBAN 2010c). The recent mapping of the Norwegian angel market showed similar figures (Grinfeld *et al* 2010).

124. A recent survey by EBAN showed that the proportion of female business angels in Europe has remained at a very low level of 5%, while in the United States the proportion of female business angels has remained over 10% (EBAN 2010c).

⁴ The data in this study is drawn from a survey of 158 UK-based angel investors in late 2008. They have invested GBP 134 million into 1 080 angel investments between them, and have exited 406 of those investments ('exit' in this study refers to any termination of an investment, including a venture going out of business, being acquired, or going public). The sample is limited in its size and its focus is entirely on those who are members of groups.

Figure 21: Share of female angel investors in selected countries, 2009



Note: Data for United Kingdom does not include Scotland.

Source: OECD based on EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players) and the Centre for Venture Research (CVR).

125. The United States figure had grown to 15% but has since dropped to 12% suggesting that in the recent financial crisis, females have left angel investment at a higher rate than males (Sohl 2010). A further investigation should be done to uncover the reasons behind the drop. In the venture capital industry, females comprise only 17% of professional staff and estimates are that the figure is less than 10% in Europe.

126. According to EBAN, 40% of entrepreneurs in Europe are females and 11.5% of corporate board seats are held by women. In addition, their report states that females own over 50% of the world's wealth, however, this is not translated into control over assets nor greater angel investment by women. More research is needed to understand the reasons behind this as well as how to identify opportunities to unlock the tremendous investment potential of females.

127. One hypothesis is that there is a lack of high growth female entrepreneurs (*i.e.* those in technology and science based companies), which, if addressed, would help build the potential pipeline of female angel investors. Organisations like Astia focus on promoting and supporting women in high growth firms (Box 6).

Box 9. Astia

Astia is a community of over 1000 experts committed to building women leaders and accelerating the funding and growth of high potential, high-growth, women-led start-ups. Founded in 1999 in Silicon Valley, Astia is an innovative global not-for-profit organisation that aims to propel women's full participation as entrepreneurs and leaders in high-growth businesses, fuelling innovation and driving economic growth. Astia programmes focus on providing access to capital, enabling sustainable high-growth, building networks and developing the executive leadership of the women on founding teams of start-ups.

Astia is designed *for entrepreneurs by entrepreneurs* who understand the value of extraordinary relationships and believe in the give-back, Astia connects entrepreneurs to investors, industry leaders, advisors, and service providers encircling the entrepreneur with a comprehensive value-add network. The Astia Advisor Network includes more than 125 investors and 100 current and former CEOs.

In the United States where it was founded, Astia has demonstrated, since 2003, a greater than 60% fundraising success rate for member start-ups within one year of joining Astia with more than USD 940M raised by presenting companies and 21 successful exits to date including 2 IPOs. Astia has recently expanded to Europe and India.

Source: www.astia.org.

128. In the United States and some other countries around the world, female angel groups have been created to help facilitate female angel investment. There is an ongoing debate about whether female angels should be investing through women-only groups or whether there should be an effort to “mainstream” women into existing angel groups to maximise the benefits on both sides. Clearly the later is the most desirable in the longer term but, as highlighted at a recent OECD supported conference on women in private equity⁵, females need to be introduced to angel investment and get started by whatever means might be most comfortable for them. This view was reinforced at the recent “We Own It” Summit⁶ hosted by Astia and the Kauffman Foundation, which highlighted the importance of finance and angel investment training for women to help create the interest and confidence necessary to engage in angel investment.

Box 10. Golden Seeds

Golden Seeds is a network of angel investors, both men and women, dedicated to investing in early stage companies founded and/or led by women. Founded in 2004, Golden Seeds has more than 185 accredited investors, with locations in New York, Philadelphia, Boston and San Francisco.

Members invest directly or through a managed fund in sectors that include consumer products, technology, software and life sciences. Members also participate in screening and supporting these new businesses with their expertise and experience. The Golden Seeds Academy provides education, advice and training to entrepreneurs, investors and academic institutions on all aspects of entrepreneurship.

Golden Seeds is dedicated to empowering women financially, based on a commitment that diversity in business ownership and management improves corporate performance and creates a stronger economy.

Source: Interviews and website: www.goldenseeds.com.

⁵ Seminar on Women in Private Equity: New Frontiers for the MENA Region, 23 May 2011, Paris, France. For more information, see: www.oecd.org/document/60/0,3746,en_34645207_43984956_47556284_1_1_1_1,00.html.

⁶ We Own It Summit, 9-10 June 2011, London, UK. For more information visit: www.weownitsummit.org/

129. Males are more likely to invest in earlier-stage projects than females and they also fund a greater proportion of proposals (Becker-Blease and Sohl, 2008). A growing body of research demonstrates the critical role that social networks play in the funding and success of high-growth ventures (Stuart and Sorenson, 2010). Traditionally female entrepreneurs have had less access to equity, angel and venture capital, networks (Coleman & Robb 2012 forthcoming). As a result, women are more likely to seek capital from other women, which implies that female entrepreneurs have less access to capital than males (Becker-Blease and Sohl, 2008). In the United States, women owned firms receive only 7% of all venture capital even though they launch nearly half of all new businesses (Business Week 2010).

130. Data from the Kauffman Firm Survey shows that female entrepreneurs raise less capital at the start-up phase than males. Female entrepreneurs in high-tech were significantly less likely to seek external equity (Kauffman Foundation 2009). Data from the United Kingdom also shows that women start companies with less capital than men and indicates the negative implications this has on building high growth firms (Hart *et al.*, 2010). At the same time, companies built by women are more capital-efficient than those founded by males, and they use less capital to achieve the same or higher revenue performance in early-stage years (Padnos 2010).

131. Despite the widespread awareness of the gender gap in angel investment, little research has been conducted to date to understand the barriers preventing women from participating more actively. However, in their recent White Paper on “Women & European Early Stage Investing” EBAN has proposed a number of actions to not only identify but address this gap. These include conducting further research, developing best practices, raising awareness, promoting professional standards and codes of conduct that encourage greater diversity and building networks in the female investment community.

132. There are many potential benefits to increasing the number of women participating in the angel investment community including increasing the number of business angels overall as well as increasing the diversity of skills and expertise (EBAN 2010c).

4) Trends and Developments in the Angel Market around the World

Abstract

This chapter provides an overview of the findings from interviews conducted with experts, angel investors and others in the process of conducting the research for this project. It provides an overview of the key success factors for angel investing and some of the challenges for the further development of the angel market. The chapter also provides an overview of recent trends and developments in the angel market followed by a review of developments in markets across the world. Topics covered include exit markets and the concept of “early exits”, “lean start-ups”, accelerators, online tools, crowd funding, cross-border investing, and impact investing.

133. The interviews conducted for the project have been extremely helpful in gaining a picture of developments in OECD and non-OECD countries. This section of the paper provides an overview of some of the developments in regions and countries across the world and is based on findings from the interviews, events attended as well as, in some cases, some additional online research. It is not meant to be a comprehensive listing of all initiatives and developments in all countries but rather illustrative of developments around the world.

Some of the key success factors for angel investing

134. The interviews highlighted several key areas and approaches that are important for successful angel investing.

- Experienced former entrepreneurs as angel investors

Successful entrepreneurs who become angel investors, not only reinvest the gains they received in their companies but are able to share their experience with new entrepreneurs and help them build their companies. Not every individual investor should be considered a potential angel investor – many are simply financial investors.

- Due diligence prior to investment

Conducting due diligence on start-up companies is difficult (as there is very limited data available) and time consuming (technical, business and personal checks are necessary). Individual angel investors can find it costly and overwhelming and this is often a reason they seek out groups or networks, where the work is shared or conducted by a professional. However, sometimes angel investors, especially individual ones, will skip due diligence and invest on “gut” feeling. Research by Professor Wiltbanks has shown, both in the United States and the United Kingdom, that any amount of due diligence improves returns and therefore it is critical for all angel investors.

- Investing in sectors in which the angel investor has experience

This should go without saying but sometimes angel investors become interested or tempted by companies outside of their area of expertise. In those cases, there is a greater chance of making a bad investment decision. In addition, the angel investor will have less ability to help the company in which they have invested. Research by Professor Wiltbanks has shown that there is a correlation between experience in the sector and investment returns.

- Portfolio investing

Even with careful screening and due diligence, the majority of angel investments will lose money as most of start-ups do not succeed. However, by using a portfolio approach to investment (*i.e.* investing in several companies over time and not just one or two), angel investors are much more likely to yield a return on their investments over time as they are spreading risk amongst a portfolio of companies, rather than putting all bets on one company.

- Training, mentoring, coaching for new angel investors

It is important to continue building the pipeline of angel investors, particularly since at some point existing angel investors will have a fully invested portfolio and be temporarily unable to make new investments. As pointed out in other parts of the paper, angel investing requires specific skills and therefore training, mentoring and coaching is a critical part of the process.

- Well-functioning entrepreneurial ecosystem

This point came up over and over again in the interviews. There must be a well-functioning entrepreneurial ecosystem (described in chapter 2) for the angel investment model to work and the market to grow. Efforts to try to jump-start an angel market in which other players in the ecosystem do not yet exist are likely to fail.

- Social capital and networks (local and, increasingly, international)

Often the focus, particularly by policy makers, is on tangible investments such as in infrastructure. However, in a well-functioning ecosystem, it is the human capital and the relationships between key players which drive entrepreneurial activity. This is evident at the local

level and, increasingly at the international level. High growth firms need to grow beyond national borders and personal networks are critical in facilitating that growth.

Challenges for the angel investment market

- Lack of clear definitions, data and research

It is important, both for practitioners as well as for policy makers, to have more comprehensive data on angel investing to determine how the market is evolving and monitor results. With evidence on the true size and impact of this market, it is hard to take the appropriate actions to further develop the market.

- Follow-on funding

The increasing size of deals and the growing number of follow-on rounds needed (filling gaps where VCs used to operate) has had implications in terms of the ability to fund new investments (and the impact on returns). In addition, it is important for investors to decide when to stop funding a company when it seems that it is not meeting its milestones. Both venture capital and angel investors can be reluctant to write-off their investments in a timely matter and may fund unsuccessful companies longer than is optimal. There are a number of possible reasons. First the investors become attached to the companies in which they have invested. Second, it is hard to know when a company has hit a dead end as opposed to a dip in the road. Third, it is hard to admit to others (for VCs to Limited Partners and for angel investors for the group to agree) that an investment has failed.

- Exit markets

Financial and exits markets are of particular concern at the moment (Litan and Schramm, 2012 forthcoming). If angel investors are not able to capitalise their returns, through an IPO or trade sale (merger or acquisition), then they will not have funds to recycle into new investments. In difficult financial markets, such as those of the past few years, the lack of exits creates a serious issue for both the angel and the venture capital markets and will impact the future pipeline of investors.

- Financial sustainability of associations, BANs and groups

Associations, networks and even groups have costs associated to conducting their work which, in a number of countries, particularly in Europe, government has helped to support in the early years of operation. As outlined earlier, there are differences in the roles and operating models of associations, networks and groups, however, for each, building a self-sustaining operating model can be a challenge. One signal that was very clear in the interviews was the negative view that many associations take to any network or group charging fees to entrepreneurs, rather than or in addition to investors.

- Professionalisation of the market

The past decade has focused on growth of the angel market but now the focus is shifting to developing the quality of the market by building the capacity and capability of investors as well as developing benchmark and professional standards for the industry. The move towards standards and benchmarks will not be easy, in terms of defining what those should be and

building the necessary buy-in from members of associations, networks and groups but they are critical for the future credibility of the market.

•Gender

It was surprising to find the low percentage of women engaged in angel investing, particularly given the percentage of assets which women control globally. Encouraging more women to become angel investors is important for growing and developing the market.

Recent trends and developments

Lean start-ups

135. An important dynamic is currently occurring in the internet and social networking investment sectors where investments require smaller amounts of initial capital than more traditional technology and science sectors. These firms have been termed “lean start-ups” as they allow greater capital efficiency and more rapid testing and adjustment of products and/or business models (Ries, 2011). Angel investors have been able to invest in this space and support companies through an “early exit” (Peters, 2010) without needing VCs to come in for later rounds.

Accelerators

136. A new phenomenon of private sector accelerators has been spreading around the world, based around these new “lean start-ups”. Many of these are following the successful models of Techstars and Y Combinator in the United States. Accelerators proactively selected and focus on working with high potential teams for a defined period of time and differ from the approach of incubators, which are more focused on providing infrastructure and a broad set of services (see box below). Accelerators are playing an increasingly important role in boosting high growth start-ups and are becoming an increasingly important player in the entrepreneurial ecosystem for angel and VC investors.

Box 11. Accelerators vs incubators

According to a recent NESTA study, the accelerator programme model comprises five main features that differentiate them from incubators and other business creation support programmes:

- An application process that is open to all, yet highly competitive.
- Provision of pre-seed investment, usually in exchange for equity.
- A focus on small teams not individual founders.
- Time-limited support comprising programmed events and intensive mentoring.
- Cohorts or ‘classes’ of startups rather than individual companies.

Source: Bound and Miller 2011.

Online tools

137. Increasingly, groups and networks are using online tools, such as Angelsoft,⁷ to assist in the matching process. In addition, online angel networks or matching platforms have started to grow such as AngelList⁸ in the United States. AngelList has attracted a number of high quality experienced angel

⁷ For further information, visit: <http://angelsoft.net>

⁸ For further information, visit: <http://angel.com>

investors and provides extended matching between investors registered in the system and entrepreneurs. In addition, a new concept of “crowd funding” (using online platforms to enable lots of people to invest small amounts) has also started making its way into the seed and early stage markets.

138. These online services can reduce information search costs for investors, however, online platforms do not replace the necessity for personal contact and face-to-face interactions which are necessary for building confidence and trust between investors and entrepreneurs. The DBAN example in Denmark (referenced earlier) highlighted this point, particularly in markets in which the angel market is still in an early phase. In addition, these online platforms can be expensive to develop and maintain.

139. Online platforms often end up serving as vehicles for increasing the number of financial investments as opposed to the traditional model of angel investment, which would typically include hands-on support from the angel investor to the entrepreneur. EBAN is in the process of updating the European angel industry definitions and online matching platforms with no face-to-face interaction will probably not be qualified as "BANs" in the future.

International and cross-border co-operation

140. Over the past couple of years, angel associations and networks have begun reaching out across countries and regions to share experiences. In 2009, the World Business Angel Association (WBAA) was set up, as a non-profit organisation, to facilitate this growing dialogue and “stimulate the exchange of knowledge and practices about the importance of angel capital financing for high growth and innovative start-ups at the national level” (May 2010).

141. The WBAA membership currently consists of about 15 national angel associations or networks from countries across the world. In addition to holding some conferences and international exchange workshops, the WBAA has discussed important industry topics such as policy, professional standards, data collection and cross-border investment. The European Trade Association for Business Angels, Seed Funds and other Early Stage Market Players (EBAN), based in Brussels, has been appointed as the secretariat of the WBAA.

Cross-border deals

142. While there has been increasing talk about cross-border deals, the reality is that most angel investments are local. Cross-border deals are only possible when the necessary relationships are in place, there is sufficient knowledge about the other market and the legal systems permit deals to be done under similar terms. As a result, only a tiny fraction of deals are cross-border.

143. At the moment, the more prevalent cross-border deals tend to be in local communities situated near borders in which relationships have been built over time. That said, efforts continue to be made to build international networks and contacts to facilitate future cross-border deals. These include programmes, such as one initiated by Italian Angels for Growth, which take a set of angel investors to other countries to learn more about the markets and build relationships which could develop into future partnerships. In addition, initiatives such as the Seraphim Fund (see box below) are bringing together angel investors from different countries to invest in and help early stage firms grow internationally.

Box 12. Seraphim Fund

Seraphim is an early stage venture capital fund that invests between GBP 0.5 million and GBP 2 million into high growth early stage UK businesses. As well as looking to bridge the funding gap for high growth companies, Seraphim is also looking to address two other critical issues facing many companies: people and international expansion.

The Fund has been created through a collaboration of leading business angel networks. This provides the Fund access to a unique network of more than 1 000 business angels, consisting of successful and influential business leaders from across both the United Kingdom and United States.

In every company in which the fund invests, one of these business angels joins the board. These angels are typically industry experts who have already successfully built and sold their own businesses and are now looking to leverage their contacts and experience to help other early stage companies to access new customers and new markets.

In May 2011, Seraphim won the EBAN Early Stage Fund of the Year award.

Source: www.seraphimcapital.co.uk.

Affinity angel networks and groups

144. In the United States, the United Kingdom and other well developed angel markets, there are a number of sector specific angel groups. However, these tend to work only in areas in which there are heavy concentrations of entrepreneurship in those particular sectors, for example, in the Silicon Valley, Boston, Cambridge or London. Efforts to build sector specific angel groups across regions or countries have met with more limited success.

145. As mentioned earlier, a growing number of “affinity” BANs are being created for groups of people with similar backgrounds, experiences, cultures or nationalities (*i.e.* alumni of universities, Diaspora groups, etc.). There are estimated to be about a dozen university/alumni angel groups in the United States and there are several groups in countries across Europe.

146. University angel groups can be local (*i.e.* centred on the university community) or more wide spread (*i.e.* centred around alumni). Alumni angel groups, given the broader dispersion of the members, often tend to be more networking rather than investment vehicles. Local university angel groups are often linked to university incubators and accelerators which might limit the scope of deal flows. As mentioned earlier, the majority of angel backed companies do not come directly from universities as those firms are often more research rather than commercially focused. Association of University Technology Managers (AUTM) data indicates that there are about 500 university spin outs per year in the United States, however, experts in the angel market believe that only about 1% of angel deals are from university spin outs so out of the 20 000 new deals each year in the United States, they estimate about 200 are from university spin outs.

Impact investing

147. In the past decade, “social entrepreneurship”, broadly defined as entrepreneurial activity with an embedded social purpose (Austin *et al.*, 2006), has grown in popularity. More recently and as result of the growth of social entrepreneurship, new financial models have been developed to address the funding needs for organisations in this sector. Investment approaches and tools range from those which are “impact first” focuses to those which are more traditionally “financial first” focused with a number of interesting models developing in between (Monitor Institute 2009).

148. These and other financial approaches have been bundled under the label “impact investing”. EBAN recently issued a white paper early stage impact investing, defining it as “investing in for-profit businesses that have the specific objective of creating positive social and environmental impact, in the way the business is conducted and/or the products are realised.” (EBAN 2011). Some impact investment angel groups are being created in Europe and the United States, including Investor Circle which invests in early stage companies focused on the “triple bottom line”.

149. Further development in this area is likely, given the strong interest in the impact investment movement in general, however, clearer definitions are needed to more clearly determine what is “impact investing” and what is not. For example, impact investors claim that investments in sectors such as energy and environment are “impact investments” but these are also often for profit companies in which “financial first” investors are also engaged.

Evolution by region/country

150. While angel investing has been around for centuries in the individual form, angel investment through syndicates, groups and networks has mostly developed in the past decade or so, which has significantly increased the visibility and interest in angel investment. The rise of the dot com era attracted successful and high profile entrepreneurs to become angel investors and brought attention to this previously little known sector of the investment market. Following the dot com crash, high profile angel deals were replaced by the development of angel groups and syndicates which allowed angel investors to pool their investments and expertise as well as share risk.

151. The formalised angel markets in countries around the world have developed at different stages with North America and Western Europe being the most “advanced” in terms of measureable activity. In the past 5 years, angel investment has become much more visible in other regions such as Asia/Pacific, South and South East Asia, Israel and Latin America.

North America

United States

152. The concept of angel groups originated in the United States and has developed significantly in the last decade, both in the United States and abroad. There are now angel groups in nearly every United States state, although the bulk of the angel investors are in the entrepreneurial hubs on the east and west coasts. There are no incentives or programmes at the national level but there some programmes at the state and city level including tax incentives.

153. Given the success of the Silicon Valley, Boston and other entrepreneurial hubs, the entrepreneurial economy in the United States is often used as a reference point for other countries. The same applies for the angel investment market. Angel investment exploded in the dot com era – rising dramatically and then falling off as did venture capital. However, it has grown again over the past decade, with a dip in investment activity during the recent financial crisis but not as deep as in the venture capital market, which is still struggling.

154. Given a combination of factors, including the gap in the seed and early stage funding left by VCs and the lower cost of starting companies facilitated by technology and the internet, a new group of angel investors has evolved, called “Super Angels”. As discussed earlier in the paper, these are serial entrepreneurs with very deep pockets who can fund start-ups at the same levels as venture capital funds. In fact, many of these “Super Angels” have created their own funds.

Canada

155. There are currently 30 angel groups in Canada. Canada recently conducted survey of angel groups across the country (NACO 2011) and found that over half of the angel groups have been created in the past 3 years. The majority of these groups are small but three large groups have over 200 investors each. The majority (62%) of angel investments in Canada are made in Ontario followed by British Columbia (19%).

156. There are public sector programmes focused on venture capital at the national and provincial levels, including direct investment, co-investment and fund-of-fund investment. In addition, there is favourable treatment of capital gains on investments in start-ups if the gains are reinvested in other small businesses. In terms of angel investment, there are currently no programs at the national level but there are incentives and initiatives at the provincial level. These include tax incentives, support for angel groups and some co-investment programmes.

European region

157. In 1999, the European Commission supported the establishment of EBAN, a non-profit association representing the interests of business angels, business angels networks (BANs), seed funds and other entities involved in bridging the equity gap in Europe. EBAN was launched by a group of pioneer BANs in Europe and EURADA (European Association of Development Agencies), following a series of European Commission funded studies conducted by EURADA on the angel market in Europe. While it has the word “network” in its title, EBAN serves as a federation of both national federations and local BANs across Europe.

158. The angel network market in Europe has grown rapidly in terms of numbers of networks and members. The challenge now, which EBAN is addressing, is to professionalise the market and increase the actual investment activity generated through the networks. As seen in the data section earlier, the United Kingdom and France are the most active angel markets in Europe, followed by several other Western European countries. Angel investing is relatively new in most Central and Eastern European countries, as well as in Russia, but interest and activity is growing.

159. Angel activity varies greatly across Europe and policy makers in the various countries have taken different approaches to supporting the market. Some countries have tax incentives in place and others are discussing them. A few countries have co-investment funds and other countries are discussing introducing them. Within most European countries, national federations and local BANs also receive some public support.

Austria

160. In Austria, policy makers have sought to address what they perceived as market failures in both financing as well as information symmetry by creating a business angel matching service as part of a broader set of activities at Austria Wirtschaftsservice (AWS). Through the i-2 Business Angel Matching Service, AWS seeks to reduce the cost to potential angel investors of trying to determine good deals from bad (which can be significant enough to discourage potential investors from pursuing an investment in start-ups) by pre-screening investment opportunities and conducting the preliminary technology and economic due diligence.

Box 13. Austria Wirtschaftsservice

AWS is Austria's national state-owned promotional bank. As a one-stop-shop for business it is set to realise the key objectives of the Austrian government's economic policies. Created in 2002 by pooling the knowledge of four organisations – the BÜRGEs-promotional bank for SMEs (1954), the Financing-Guarantee-Association (1969), the Innovation-Agency (1984) and the existing ERP European Recovery Program Fund (1962) – it represents a professional intermediary which offers a broad range of company-related investment assistance programmes and services – from the start up to the expansion and internationalisation stages.

AWS instruments

- Grants: AWS promotes through grants particularly start-ups, company succession, investments and employment creating actions.
- ERP-loans: Low interest loans with long repayment periods are used to support growth promoting projects.
- Guarantees: By assuming guarantees for loans, private equity investments and other financing modes AWS takes part of the project or financing risk.
- Service & Consulting: Research, Patent utilisation and i2 - The business angels matching service.

Types of assistance

- Promoting and financing – support of Austrian enterprises in all phases of development
- Technology and innovation – support of high tech projects in growth areas
- Equity and capital market – support of the development of Austrian equity markets, equity financing and business angels
- Research & knowledge management – promoting Austrian companies through information-oriented services (patenting, market & technology research)

Source: AWS, 2011.

161. The AWS i2 Business Angel Matching Service has been in place since 1997 and has supported 65 business angel deals totaling more than EUR 10 million over the past 10 years for an estimated average of about EUR 156 000 per investment (although the range per deal can be from EUR 30 850k). The funds are all from private investors - AWS does not invest, however, these investments are often leveraged with other AWS instruments such as guarantees. AWS conducts the due diligence through its network of experts and provides the connection between the angel investors and the entrepreneurs. AWS seeks out and cultivates entrepreneurs and also proactively recruits new investors through the publication of success stories and ongoing outreach. There are no other formal angel networks in Austria.

Belgium

162. Belgium has been active in the angel market for many years but reported investment activity has been relatively low. After the development of a variety of networks across the country, the government decided to consolidate the BANs into two main ones; BAN Vlaanderen in the Flemish region and BeAngels in the French speaking portion of the country. These two networks have large memberships. Within Belgium, there are various programmes to support angel investment including co-investment vehicles.

Denmark

163. In Denmark the government funded the creation of a national business angel network; the Danish Business Angel Network (DBAN) in 2001. DBAN was established to match business angels and entrepreneurs through regional angel networks and an internet-based matching service “Markedspladsen”

(“The Marketplace”). From 2001 to 2004, five regional networks were established and the online marketplace was created. However, the online service was expensive to create and it was never used as angel investors and entrepreneurs, particularly in markets in which this type of investment is new, prefer to have face-to-face contact. As mentioned earlier, trust and relationship building is an important part of angel investing.

164. After 3 years of government funding, DBAN was “privatised” and moved into the Danish Venture Capital and Private Equity Association (DVCA). While DBAN itself no longer exists, the regional networks are now members of DVCA. However, other than lobbying on tax issues, there is little support from DVCA for the angel market.

Finland

165. In Finland, the government has long been a player in the seed and early stage market through Sitra, the Finnish Innovation Fund. Veraventure Ltd was established in 2003 as a venture capital investment company serving as the hub for public early-stage venture capital investment. Veraventure also manages a business angel network under the name InvestorExtra. Recently, a privately initiated network, FiBAN, has been working to increase private sector investment in innovative Finnish start-ups as well as develop the necessary human capacity for angels to help entrepreneurs grow their business. Two years ago it set up an accelerator programme, called Vigo, and is very pleased with the results to date.

France

166. France has been one of the most active angel markets in Europe. This has been the result of the work of France Angels in helping to develop the market, acting as a national federation or umbrella association for angel groups across the country, as well as potentially tax incentives provided by the government to encourage angel investment. There are many types of angel networks across France, including many university alumni groups.

Germany

167. Germany was early in establishing a national BAN, with federal government support, and local BANs with regional government support, however, the visible activity level of the BANs in Germany has not been comparable with other countries in Europe. During the interviews it was noted that a large portion of the angel investment in Germany is conducted by individuals and is not reported through the BANs. At the same time, there are a group of “Super angels” who have emerged and are actively investing, however, these figures are not included in BAN numbers as these individuals operate more like micro-VC firms rather than angel investors.

168. Germany has had a High Tech Seed Fund programme in place since 2005 (see box below). There are ongoing discussions in Germany regarding how to facilitate more high growth firms and the government has set up an expert commission to address these issues. Tax issues have been one of the hot topics.

Box 14. High-Tech Gründerfonds (High Tech Seed Fund), Germany

Objectives: Stimulate and support the German seed financing market

Founded: 2005

Focus: Innovative high-tech companies in the seed phase (start of operations < 12 months)

Investors: Public and private including Federal ministry of economics, KfW, BASF, Dt. Telekom, Siemens, Daimler, Bosch, Zeiss

Investment amounts: Up to EUR 2 million per company (often EUR 500K in the seed round)

Standard terms:

- 15% equity stake without valuation plus convertible loan as dilution protection
- Deferral of interests in the first 4 years
- Conversion of loan and interest into equity in follow-on financing rounds
- Obligatory contribution by the founders $\geq 20\%$ ($\geq 10\%$ in former Eastern Germany and Berlin) relative to HTGF-investment

Expected duration: 6 years investment plus 7 years disinvestment period

Value add: Operational support through local coaches and hands-on and strategic support by investment managers

Key achievements since September 2005:

- 237 portfolio companies
- 260 follow-on financing rounds with a contribution through third parties totalling EUR 316M, thereof:
 - ~72% private capital (66% VC, 17% BA, 17% Corp.Inv.)
 - ~46M € sourced from foreign investors (EUR 6,4M ex-Europe) into 38 companies
- 14 exits (thereof 9 profitable); 5+ more profitable exits under negotiation
- 23 insolvencies
- > 75 management additions/replacements within portfolio companies
- Sustainable stimulation of the German seed- and VC-market

Source: High-Tech Gründerfonds Management GmbH.

Ireland

169. To date, reported angel investment activity in Ireland has been relatively low. Recently the government, through a joint initiative of InterTradeIreland and Enterprise Ireland, created the Halo Business Angel Network (HBAN) as an all-island umbrella group for business angel investing. HBAN is focused on creating angel investor syndicates across Ireland and is actively working to increase the number of angel investors who are interested in investing in early stage technology companies.

Italy

170. There are a number of active groups in Italy, including the Italian Angels for Growth, which has been proactive in pan-European and other cross-border initiatives as well.

Netherlands

171. In the Netherlands, policy makers have been very proactive in supporting high growth entrepreneurship, in areas of education to financing. In terms of the angel market, the government initially supported the development of BANS and, more recently, partially supports a co-ordinating mechanism for the seven networks that exist in the country today.

172. The government also set up a seed and early stage co-investment fund which is discussed in further detail in chapter 5. There also are small tax incentives in place for informal investors in start-ups. These include family and friends, not just business angels.

Norway

173. As discussed in further depth in other parts of the publication, Norway has been very proactive in mapping angel investment in the country. While the data reported through EBAN shows low figures for Norway in terms of investment through angel networks, the mapping done within the country was able to capture individual angel investment as well and provide insights into the behaviours of angel investors within the country. This mapping study will be further discussed by the OECD member countries to determine if similar studies can be conducted in other countries.

Portugal

174. In Portugal, the national angel associations have been extremely active in promoting policy measures to encourage angel investment in the country. At the end of 2009, a co-investment Fund for Business Angels was approved and in 2010, a “Tax Benefits Law” was introduced. While angel investment in Portugal has been lower than in other countries, this is expected to increase with the new measures. Preliminary data shows that activity has increased during the first 6 months of the new co-investment fund.

Spain

175. In Spain, there are many active angel networks and the reported level of angel investment activity in the country is relatively high (third after France and the UK). In addition, there are a number of active “alumni” angel networks that were created by the leading business schools in Spain, including IESE and ESADE.

Sweden

176. Sweden followed a similar path to Denmark with government support for creating a national association several years ago, which was later merged into the Swedish Venture Capital and Private Equity Association (SVCA). While angel activity has continued, there is likely further room for development. Sweden has funded some important research on the angel market which has served as a reference in the international community. Discussions are ongoing in terms of further actions the country might take in this area.

Switzerland

177. Switzerland has an active private venture capital community and a growing angel community, through both public (CTI) and private initiatives such as Go Beyond and other networks.

178. The Swiss Innovation Promotion Agency CTI has played a lead role in the promotion of start-ups in the country. CTI’s start-up promotion offers entrepreneurs a wide range of training and coaching. These seminars are modular in structure and enable young entrepreneurs to selectively get the knowledge they need. The promotion of entrepreneurship specifically targets growth-oriented business projects with a technological focus. In the field of start-up promotion, CTI offers the following four areas: CTI Entrepreneurship, providing training and further education modules of «venturelab» for potential business founders; CTI Start-up, a coaching programme for business founders and young entrepreneurs; CTI Project Support R&D, a development programme for application-oriented research and development and CTI Invest, a platform for business financing through business angels as well as both national and international venture capital firms (see box below).

Box 15. CTI Invest

CTI Invest was founded as a private association in May 2003. The association members include over 50 business angels, venture capital and risk capital firms both at home and abroad. It acts as the leading financing platform in Switzerland, where entrepreneurs may find early and later stage capital and also access to experience and the network of the investor members during the foundation and ramp-up in Switzerland and abroad. The investors are offered the opportunity to make investments into Swiss High Tech companies, mainly out of the CTI Start-up coaching and/or companies of the portfolio of the fellow members.

Results: The total early and later stage financing achieved through the exposure of more than 180 start-up's in the past years in Switzerland and abroad at the Match Making events amounted to more than CHF 300 M (approx. 50 % of all presented companies were financed).

Membership Fees: CHF 2 500 for Swiss Investors, BA Clubs, Family Offices and Industrial Partners
(annual) CHF 500 for Business Angels
EUR 1 000 for Foreign Institutional Investors

Source: www.cti-invest.ch.

United Kingdom

179. The United Kingdom has been the most active angel market in Europe with Scotland being particularly active. The market began developing privately and government later provided a catalyst to this development through tax incentives and co-investment programmes which are discussed in detail in section 5 of the paper. In addition, the British Business Angel Association (BBAA) has played an important role in representing and developing the market, both within the country and internationally.

Middle East and Africa

180. With the exception of Israel, the angel market has not yet developed across the Middle East and Africa. There have been a number of initiatives, launched by well-intentioned foreigners, to start initiatives in a couple of countries in the Middle East but none of those ever gained any traction, including an Arab region-wide initiative.

Israel

181. The success of the Israel start-up model has been well-documented and recognised, most recently through the book “Start-up Nation” (Senor & Singer, 2009) which chronicles the story of how Israel built an innovation culture and created an economic success story. Through investment in R&D, the development of the technology industry and programmes such as the Yozma Fund, Israel was able to build a vibrant entrepreneurial ecosystem for high growth technology-based firms, including a skilled venture capital community. In the 1990s, this was aided by a wave of immigrants from the former Soviet Union with engineering and technology skills.

182. The angel community has been less visible but it is also beginning to grow, although more informally. There is a core group of successful serial entrepreneurs who have become “Super Angels” and are driving much of the activity in this segment of the market. In addition, new private sector accelerators are being launched and are driving new models in the seed and early stage market.

183. The High Tech Industry Association (HTIA) has been proactive in encouraging the government to focus on the angel investment market and recently introduced tax incentives aimed to increase the number and amount of angel investments. Co-investment funds are currently under consideration.

Turkey

184. In Turkey, the entrepreneurial climate has been developing rapidly with many recent initiatives and activities, including technology parks, incubators, accelerators, entrepreneurship programmes, etc. The business angel market has only recently begun to develop but there are currently eight angel networks in the country, including three university-based ones. This year, a new national angel association was established but it is not yet active. There is an incentive for investments in start-ups – if an investor holds the stock of a start-up for two years after it goes public, there is no tax on the profit. There are currently no other public programmes directly supporting the angel market in place but discussions are well underway about a potential co-investment fund.

South Africa

185. A new initiative has recently been launched by a native South African living in the United States to create the first angel group in Africa. It is called “AngelHub” and is a national South African Group with two sub-groups, one in Cape Town and another in Johannesburg. A local leadership team, with experience with early stage companies, has been put in place. They are also working to develop South Africa’s emerging start-up ecosystem.

Asia and Pacific

Australia

186. The angel market in Australia began to formalise in 2007 with the creation of the Australian Association of Angel Investors (AAAI). This initiative was launched by key individuals who had been active in angel investing and angel groups across the country. AAAI has focused on developing and professionalising the growing angel investment community in Australia as well as building international links and relationships with angel organisations abroad.

187. The first angel group started in Melbourne in the late 1980s but angel investment was poorly understood by the Australian business community and there was little interest. A decade later, groups began forming in a number of cities across the country. Australian Government subsidies were provided to business introduction services in Australia from 1994 to 1997, partly on the basis that it was expected to take some time for such services to become established and self-financing. The Federal Government subsidies were part of measures to assist SMEs particularly in the area of access to finance.⁹ For example, through the Business Equity Information Service, the Government provided funding to investor matching or broking services which aimed to improve the efficiency of the informal equity market, or business angels, by matching potential investors and small and medium sized enterprises. The Business Equity Information Services Program terminated on 30 June 1997.

188. In 1997 the issue of provision of seed-funding support was discussed by the Industry Commission (now the Productivity Commission) in a paper entitled ‘Informal Equity Investment’. The Commission concluded that some business introduction services were performing well without public subsidies at the time of the paper, and were likely to continue to do so.

189. In November 2006, a paper titled ‘Study of Business Angel Market in Australia’ was commissioned by the then Department of Industry, Tourism and Resources to survey business angels on who they are, how they invest and how the market works. This study suggested that around two thirds of angels were not part of formal angel networks, nor did they wish to be. The survey also indicated support

⁹ Industry Commission, “Informal Equity Investment”, April 1997, p.64

for education to increase the number of ‘investment ready’ opportunities. The main suggestion was for appropriate business education to be provided to entrepreneurs, researchers and students on all aspects of angel investing.¹⁰

New Zealand

190. The angel market in New Zealand has developed strongly but as the interviewees have pointed out, there was a pre-existing entrepreneurial ecosystem already in place as a result of a series of programmes and activities developed over time, which were part of the broader economic development strategy of the country but driven by the needs of the private sector. These included incubators and the development of a venture capital market.

191. In 2003, the government put a co-investment fund in place which has helped to develop and grow the market. This is discussed in detail in section 5 of the paper. There are no “tax incentives” in place, however as in some other countries, there are no capital gains taxes in New Zealand. There has been support for capacity building in the angel market, including some support for the national association.

China

192. China has a small but developing business angel community. A number of successful entrepreneurs are beginning to engage in early-stage investing, however, much of the current investment in early-stage ventures is from family and friends and remains very local. Several young angel groups do exist and there have been some recent public sector initiatives to facilitate angel investment in some cities in China, including Shanghai and Suzhou. In addition, the government has invested heavily in incubator and other programmes focused on technology. However, there is not yet an entrepreneurial ecosystem in China. Graduates from university are reluctant to become entrepreneurs and opt for more socially acceptable corporate or government jobs.

193. Early in 2011, Shanghai hosted the “China Early-Stage Investor Forum” and the “Asian Business Angels Forum”. As the angel market has evolved, it has begun to split into two segments – one consisting of English speaking foreigners/expats and another, more rapidly growing one, of Chinese.

India

194. While India has a very entrepreneurial culture, the entrepreneurial ecosystem is still very nascent. Formalised angel investing is less than five years old and currently only a few angel groups exist. At the same time, there are several “Super Angels” who have recently become more visible and are raising awareness about angel investing. There is currently no national angel association but both groups participate in international angel events to share experiences and network with other angel associations and groups. There have not been any public policies or programmes focused on angel investment.

Singapore

195. As in the rest of Asia, angel investing is relatively new in Singapore. The high tech start-up market only began developing in the late 1990’s and a number of these entrepreneurs have become angel investors (Wong 2011). The Business Angel Network of Southeast Asia (BANSEA) was created in Singapore in 2001 to develop the professionalism of the angel market and build international links to organisations across Asia and in other parts of the world. In 2007, SPRING, the Singaporean government

¹⁰ Commissioned by the Department of Industry, Tourism and Resources, “Study of Business Angel Market in Australia” November 2006
www.innovation.gov.au/Innovation/ReportsandStudies/Documents/BusinessAngelReport.pdf

agency in charge of promoting entrepreneurship, began providing public funding for BANSEA. In that year, BANSEA began focusing on the collection of data on the angel market. In 2010, BANSEA created the Asian Business Angel Forum, which took place in Singapore that year and in China the year afterwards.

Latin America

196. In Latin America, although there is a growing awareness of the importance of entrepreneurship and innovation as vehicles for economic growth and job creation, the development of an entrepreneurial ecosystem is still nascent. However, as a growing number of entrepreneurs experience success, they are engaging and helping others through mentoring and, in a growing number of cases, angel investing.

197. Awareness and interest in angel investing has grown over the past decade and more and more groups and networks are being set up across the region. At the same time, with exception of those in Argentina, Brazil, Chile and Mexico, most of the angel networks and groups in the region are less than five years old. As of 2010, there were 24 networks representing a total of 540 members across the region with 67 officially recorded investments. Last year, a new initiative to create a Latin American Angel Investors Association was launched. However it has yet to gain traction.

198. There is still not an “equity culture” (neither angel nor venture capital) in Latin America. Chile has been an exception in the region. There is a vibrant private sector as well as a long track record of public sector support in facilitating entrepreneurship and innovation, including most recently through programmes such as “Startup Chile”. Brazil, with its large, dynamic and growing economy, has also begun developing a more vibrant entrepreneurial economy and angel market. The angel markets in Argentina and Mexico have also been growing but in many other countries in the region, it is just starting. In Columbia, the public sector is aiming to launch the business angel market through a set of programmes and support.

199. While there has been some local government support for angel activities across the region, most countries do not yet have any national policies, programmes or incentives targeting angel investors, however, some of the angel networks and groups have initiated discussions.

5) The Role of Policy in Facilitating Angel Investment

Abstract

This chapter reviews policy measures for seed and early stage financing. It provides an overview of different types of public interventions. It then focuses on specific public policies for promoting angel investment, providing examples from countries around the world. These include both supply and demand side measures. On the supply side, these include tax incentives, co-investment funds, support to angel associations, networks or groups and the training and development of angel investors. On the demand side, these include investment readiness for entrepreneurs and developing the entrepreneurial ecosystem.

200. While there are clearly a number of gaps in the seed and early stage investment market, including funding gaps, information gaps and even experience gaps (EC 2002), there is still some debate about whether or not these constitute a “market failure”. Policy makers in some countries have sought to address these market gaps through both demand and supply side measures, although mostly the latter. These have been in the form of both debt and equity instruments. After many years of leveraging debt instruments, public sector interest has grown in utilising equity instruments.

201. Following the recent financial crisis, access to finance for start-ups has become a growing concern. With banks hesitant to extend loans to start-ups with no assets or credit history, equity has become increasingly important.

1) Overview of public intervention in seed/early stage financing

Fostering financial markets

202. The financial system has a central role in fostering innovation and growth. Policies and reforms of financial institutions and markets can facilitate financing of entrepreneurial firms. Evidence shows that start-up, small and medium sized companies are more constrained by financing and other institutional obstacles than large enterprises, which is exacerbated in many developing countries by the weaknesses in the financial systems (Beck 2007).

203. An effective integrated market for financial services is necessary to provide more capital for investment, including equity sources such as angel and venture capital. Efficient legal investment structures and stock markets are necessary to recycle and redeploy financial wealth. Secondary stock markets, geared towards smaller firms, play an important role in entrepreneurship and innovation. In addition, it is important that financial securities legislations do not inadvertently impede the creation and growth of early stage ventures.

Removing fiscal regulatory barriers

204. These vary by country but often the tax and regulatory system is too complex and/or has hidden disincentives for young innovative firms and/or investors. Many countries are working to address these issues. In Germany, an Expert Commission has been set up to assess innovation incentives for high growth firms. In Australia, as part of the Corporate Law Economic Reform Program, the Government reduced regulatory barriers that were restricting sophisticated investors, like business angels, from investing in SMEs.

Box 16. Corporate Law Economic Reform Program (CLERP)

Australia has undertaken a number of review processes of financial sector regulation in recent decades. The Corporate Law Economic Reform Program (1997-2007) was one of these review processes and was designed to improve productivity and promote business activity and economic development.¹ As part of the CLERP reforms, access to capital was made easier for small businesses by introducing a range of measures to assist small and medium sized enterprises (SME) including enabling companies to raise up to AUD 5 million using an Offer Information Statement, up to AUD 2 million from 20 private investors and amounts of less than AUD 500 000 from individual 'business angels' without a prospectus.² This facilitated SME fundraising by reducing regulatory barriers and compliance costs associated with meeting the information requirements that would otherwise apply to raising funds.

¹ "Regulatory Efficiency and Effectiveness: Case Study from Australia - Overview of recent regulatory review and reform of Australian financial sector regulation" 25-26 October 2007.

[www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/CMF\(2007\)18/PART1&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/CMF(2007)18/PART1&docLanguage=En)

² Corporate Reform Economic Reform Program" www.treasury.gov.au/documents/264/PDF/clerp.pdf

Policies for increasing debt financing

205. Government programmes in some countries have tried to help overcome these funding gaps in different ways. One way in which government has intervened is by providing direct funding to credit constrained small, young and innovative firms through loans or grants. Governments sometimes act as guarantors for loans through loan guarantees programmes targeted to firms below a certain age or size.

Loans and loan guarantees

206. Public support programmes for small firms to get easier access to external finance are widespread across OECD and non-OECD economies. This type of support can take the form of direct lending to young and small businesses or start-up subsidies to encourage people to start a business. Government can provide support by providing loan guarantees which provide a form of insurance to lenders against the risk of default. However, evidence on the effectiveness of these programmes is scarce relative to their extensive use across countries and is mixed. Evaluations have mainly focused on additionality, *i.e.* to what extent the programmes have benefited firms that would have not been able to access loans otherwise, and the level of default.

Grants

207. Normally grants are provided to firms in a competitive manner rather than automatically. This is especially the case for grants for innovation activities. The selective process for grants has been recognised as having an additional positive effect for those firms receiving support in that it provides a screening device for lenders on the quality of the project/firm. SBIR was launched in the United States in 1982 and is a highly competitive programme that encourages small business to explore their technological potential and profit from its commercialisation.

208. Other countries have developed SBIR-type instruments including the United Kingdom, Netherlands and others. More recently in France, the innovation agency OSEO has begun to catalyse funding for innovative start-up companies with a new approach to de-risking the development and commercialisation of novel technology (Science Business 2010). One third of OSEO's funding is through a grant and two thirds through a loan. In addition, the total amount is limited to 50% of the start-ups funding needs to ensure that other investors are also engaged.

Policies to promote equity financing

209. As discussed earlier, outside equity such as angel or venture capital investment, is typically only appropriate for high growth oriented firms. The majority of measures to promote equity financing in the past decades have focused on stimulating the venture capital market although some have also applied to the angel market, which will be discussed in greater detail in the following section.

Tax incentives

210. Increasingly, tax incentives are being used in a number of countries as a way to address asymmetries in the treatment of profit and losses (Poterba 1989, Gendron 2001, Cullen and Gordon 2007) which can help in removing barriers and encouraging more investment in start-ups. This is particularly important for venture and angel investors who take a portfolio approach to investment knowing that many of the investments will fail and hoping that some will succeed. Tax incentives for angel investors are discussed in further detail in the next section.

Direct investment through funds, co-investment funds and fund-of-funds

211. Another common approach of the public sector is to facilitate the growth of venture funding, whether directly, through funds or co-investment funds (in which public money is used to encourage and leverage private investment), or through fund-of-fund vehicles (a "fund of funds" is an investment strategy consisting of holding a portfolio of other investment funds rather than investing directly in shares, bonds or other securities). When public funds are deployed, they should be channeled through existing market-based systems, namely private funds, and shaped with a clear market approach to yield the intended results (Lerner 2010). In addition, the public contribution should be limited to less than 50% of the total funding

(EVCA 2005a). Experience in Europe has demonstrated that public intervention itself, without the leveraging of private money (institutional investors), will only serve to grow an unsustainable venture market (EVCA 2010a).

212. Public funds should only be utilised where a tangible or imminent market failure in the private sector is evident. These vehicles should be designed in line with the market needs. Furthermore, in order to assess their accuracy and efficacy, a periodic review should take place and adjustments made as needed. At the same time, there should be a focus on development of the market, rather than solely on a provision of financing. This requires creating the proper incentives and supporting the development of the necessary quality, skills and experience in the venture firms to match international norms (Lerner 2009).

213. The Yozma Fund in Israel is an often referenced example of effective government policy for developing the local venture capital community. It was targeted on building the market by bringing in experienced venture capital funds from outside of the country to work in partnership with local venture capital firms. Public funds were used to catalyse and leverage private funds and the public support was withdrawn after a set period of time to avoid crowding out of the private market.

Box 17. Yozma Fund, Israel

The government effectively created the Israeli VC market by investing USD100M in 10 VC funds over the period of 1992-1997. The goal was to attract private funding from experienced international venture capitalists. In parallel Yozma started making direct investments in startup companies. This marked the beginning of a professionally managed venture capital market in Israel.

Each new VC fund had to be represented by 3 parties: *i)* Israeli VCs “in training”; *ii)* foreign VCs; and *iii)* an Israeli investment company or bank. The 10 Yozma funds raised over USD 200M with the help of the government funding. Those funds were bought out or privatised within five years and now constitute the backbone of the Israeli venture market. In addition many other new VC firms have been created.

Many countries have studied the Yozma fund model. The key success factors appeared to be two-fold. First, the government shared the risk but offered all reward to the investors, which was extremely attractive to experienced foreign investors. The government retained 40% of the equity in the new fund but the partners had an option to buy out the shares after five years if the fund was successful. The second success factor was that the government exited from the programme once it has served its purpose rather than continuing the programme indefinitely.

Source: Yozma fund website: www.yozma.com and “Start up Nation” (Senor & Singer 2009).

214. The concept of co-investment funds, to promote both angel and venture capital investment has been spreading across OECD countries and will be discussed further in the following section.

2) Targeted angel financing policies

215. Policy interventions in the angel market have been relatively recent starting in the early 1990’s in the United Kingdom and the late 1990’s in the other parts of Western Europe (Mason 2009) and, more recently, other regions around the world.

216. While policy makers have increasingly become interested in growing angel investment in their countries, there have often been internal debates regarding whether policies and programmes which support these high net worth individuals is justified. While the empirical evidence of the impact of angel investment on productivity and economic growth may currently be lacking due to scarcity of data, several arguments could be considered.

217. For policy makers to intervene in a market, there often needs to be evidence of a “market failure”. In the seed and early stage financing market there is a clear financing gap as highlighted earlier. While a financing gap is not necessarily a “market failure”, the funding gap has been persistent and has grown over time triggering greater attention from policy makers.

218. In terms of market failures, there is a well-documented information asymmetry in the seed and early stage between entrepreneurs and investors. Entrepreneurs have more information about the prospects for the success of the business than potential investors and may, whether intentionally or unintentionally, misrepresent it. This requires the potential investor to conduct a costly due diligence process to avoid adverse selection. On the other side, firms have less information about the investment process and the expectations of investors. During and after the investment process, neither party has transparency on the actions of the other which might impact outcomes. In addition, the costs to the investors of structuring, negotiating and monitoring contracts, in order to avoid moral hazard, can be high relative to the size of the investment (Mason 2009).

219. Information asymmetry is particularly pronounced for young technology-based firms. These firms have little or no track record and often lack collateral which otherwise could be used to overcome information problems. It can also be difficult to assess the potential of innovative new products.

220. Another potential argument for government intervention relates to the potential spillover effects of angel investment, as angel investment contributes to greater economic growth. Estimates indicate that companies backed by angel investments have been important contributors to job growth. In the United States, estimates suggest that approximately 250 000 new jobs were created in 2009 by firms supported by angel investment, representing 5% of new jobs in the United States (Sohl 2010). Recent research in the United States also shows that young firms which have had angel financing have an increased probability of survival and improved performance and growth by 30 to 50% on average (Kerr, Lerner and Schoar, 2010).

221. Other potential rationale for supporting the angel market is the fact that angel investors have much lower cost structures than venture capital funds, are able to make smaller investments and are more geographically spread (Mason 2009). This means they are able to invest in areas in which venture capital firms would not.

222. One of the challenges for policy makers is not only to determine which policies to implement but whether policies should be implemented at the national, regional or local level. Given the local nature of angel investing, there is no homogeneous national angel market. The level, sophistication and dynamics of angel investment can vary greatly across regions within countries and therefore policies must take this into account. In fact, in a number of countries such as Canada and the United States, angel policies are implemented at the regional rather than the national level.

223. This section highlights the various types of policy interventions utilised to support the development of the angel investment market in various countries around the world. Most of the policy measures are focused on the supply side, however, demand side policies are also important. Moreover, the proper framework conditions need to be in place, including appropriate legal and administrative arrangements that minimise burdens for new and young firms.

Supply side measures

i) Tax incentives

224. One of the ways in which policy makers can encourage angel investment is through tax incentives for private individuals investing in specified types of investments and businesses (Mason 2009). This includes tax relief on investment, capital gains and losses (including write-offs and roll-overs). The

goal of these tax incentives is to increase both the number of angel investors as well as the amount of capital invested. Both in countries with and without specific tax incentives, the interviews highlighted a need for greater clarity about tax rules as they relate to investments in start-ups.

225. This section highlights tax incentives implemented at the national level in several countries and the table below summarises those examples to more clearly show the types of incentives used. However, it should be noted that this chart does not include all countries nor does it include countries with tax incentives at the regional or local levels, such as the United States and Canada. In addition, some countries, such as New Zealand and Switzerland, do not have any tax on capital gains.

Table 4: Summary of national angel tax incentives in selected countries

Country	Tax deduction on Investment	Tax Relief on Capital Gains	Roll over or carry forward of capital gains	Roll over or carry forward of losses
France	25% (with cap of EUR 20-40K/year) + 75% wealth tax reduction (with a cap of EUR 50K/year) <i>*Also applies to investments in other EU member states</i>			
Ireland	✓			
Israel	Treated as capital loss			Yes, but with limits
Italy		If reinvested in start-ups within 24 months		
Japan		✓	✓	✓
Portugal	20% (not to exceed 15% of income)			
UK	30% on a max of GBP 500K (to increase to GBP 1M in 2012)	✓	✓	✓

Note: This table does not represent a comprehensive review of all programmes globally.

226. The United Kingdom has had a programme, the Enterprise Investment Scheme (EIS), in place since 1995 and is the most often cited example of a well-functioning angel investor tax incentive programme. The programme has been evaluated every five years and, each time, the thresholds have been increased and the programme tweaked to help it more effectively reach its intended goals. Following a review earlier this year, the United Kingdom government increased the taxation relief available to investors in EIS schemes up to 30% on the amount invested.

Box 18. Enterprise Investment Scheme (EIS), United Kingdom

The Enterprise Investment Scheme, or EIS as it is also known, was introduced by the British government to encourage inward investment in small and medium enterprises. There are various tax reliefs available to potential investors, which are designed to encourage investment into these types of opportunities, which otherwise may struggle to secure funding.

The maximum taxation relief which is available is GBP 500 000 per tax year, and an investment can be carried back to the previous tax year, in addition to the current tax year at the time which the investment is made.

There are two broad types of EIS investment opportunities:

- Companies – An EIS company must have a maximum capitalisation of no more than GBP 2 million at the time of inception.
- Fund – An EIS fund must have a maximum capitalisation of no more than GBP 7 million at the time of inception. An EIS fund will then go on to invest in a number of EIS Qualifying Companies on your behalf.

Investment into an EIS company, must be into a “small company”, the definition of which is as follows: A gross assets test, where the gross assets of the company cannot exceed GBP 7 million immediately before any share issue, and GBP 8 million immediately after shares are issued.

Investors will receive **income tax relief** on 30% of the amount invested, this is offset against an investors income tax bill when they come to do their tax return. So for example, if an investor is to invest GBP 10 000, then they would be able to offset GBP 3 000 against their income tax bill for either the current or previous tax year. At the time of writing, the 30% taxation relief is subject to state aid approval from the European Union. Therefore investors will initially receive 20% relief, with a further 10% to be received once state aid approval is granted.

For income tax relief to apply investors would need to hold their shares for a minimum of three years, otherwise their previous income tax would fall due. In addition, the company in which investors choose to invest will need to continue a “qualifying trade” for a minimum of three years from the date of investment.

In addition, investors are able to **roll capital gains** which have been incurred into an EIS company. So for example if an investor has exited a significant shareholding or sold some property which had increased in value over a period of time from the initial purchase price, then they could roll this gain into an EIS company. This creates a deferral of the capital gain, meaning that it would only be at the point when the gain is realised that the capital gains tax would be incurred.

Where a positive return is generated through investment in an EIS company, upon the subsequent exit, this return would **not be subject to capital gains tax**. Investors are also eligible for inheritance tax relief, providing they have held their shares for a minimum of two years prior to the date of their death.

It is possible that if an investor is to invest in an EIS company, and if the value of the shares which the investor purchases' subsequently drop, it is possible for investors to claim **share loss relief**, on the price which they paid for their shares, providing that the company has continued a qualifying trade for the required period

Source: www.enterpriseinvestmentschemes.co.uk.

227. A NESTA study conducted in the United Kingdom a couple of years ago showed that 80% of investors surveyed used the Enterprise Investment Scheme (EIS) at least once and 57% of investments made use of EIS. In addition, investors indicated that 24% of investments would not have been made without EIS (Wiltbank 2009).¹¹ Earlier evaluations of EIS were also positive and suggested significant

¹¹ The data in this NESTA/BBAA study is drawn from a survey of 158 UK-based angel investors in late 2008. They have invested GBP 134 million into 1 080 angel investments between them, and have exited 406 of those investments. The sample is limited in its size and its focus is entirely on those who are members of groups.

additionality in terms of the amount of money invested (over 50%) as well as a positive impact on the companies in which they invested (Mason 2009).

228. A number of other countries also offer tax incentive programmes including France, Ireland, Japan, Israel and others. In France the high level of tax deduction on wealth taxes (called ISF, France is one of the few countries that still has wealth taxes) brought in many financial investors instead of the targeted angel investors however, the percentages have recently been reduced from 75 to 50% with a limit of EUR 45K.

229. In Ireland, tax incentives are provided under the Business Enhancement Scheme (BES), which provides a tax incentive on the initial investment but no protection on any potential upside later. Japan introduced an angel tax incentive as early as 1997, with amendments in subsequent years to make the tax incentives more appealing (see box below).

Box 19. Angel Tax System in Japan

Japan, recognising the important role angel investors play in the creation and development of start-ups, introduced tax incentives designed to promote angel investment. Since 1997, when it adopted an angel tax system, Japan has added a series of amendments. In 2003, it introduced the three following measures:

- a) For a year when an investor makes angel investment, he or she can defer the amount of the equity which does not exceed gains she realised in the year from sale of other stocks to the point of time when it is sold.
- b) If he or she achieved any gain from sale of the equity, the taxable capital gains are halved.
- c) If he or she sold the equity with loss, the loss is permitted to be carried forward three years from the following year.

Angel taxation in Japan, however, is only used for a small amount of investment. In 2006, the favourable tax treatment only applied to angel investments of around JPY 1 300 million in total. Even in 2005, when the all-time record was set, it failed to reach JPY 2 500 million. Recent records show angel investments appear to fluctuate in line with changes in prices in the stock market. The linkage is believed to take place because the treatment of investment being deterred for the year when the equities are purchased, mentioned above in (a), is linked to gains realised in the year from sale of stocks.

Against such a background, the government and the ruling coalition parties, recognising that more attractive incentives must be offered to increase angel investment, have decided to introduced an “income exemption system” as part of the 2008 amendment of the tax code. Under the system an angel who made an angel investment in a start-up established within the past three years which satisfies specific conditions is allowed to deduct from his or her total income for the year of investment the amount of money substantially equivalent to the investment (less JPY 2 000, with the upper limit of JPY 10 million), and he or she can choose either the new exemption system or the existing treatment.

Introduction of the income exemption system should provide a greater incentive for people who refrain from selling any stocks and, naturally, have no profits made in trading, though such people have so far been refused tax advantages offered for the year of investment. It is also supposed that people in parts of Japan who intend to support a “company with high potential” in its foundation, including friends of the founders, should be encouraged by the tax treatment in quite an effective way to make investment, and that it should make great contribution to the revitalisation of local communities.

Source: METI, 2011.

230. Portugal and Israel have recently launched programmes. In Portugal, the new “Tax Benefits Law”, approved in 2010, enables informal investors, individually certified by the Portuguese SME and Innovation Support Institute (IAPMEI), to receive tax deductions of 20% on investments in seed and early stage companies.

231. In Israel, a new “Angel Law” allows investment deductibility, over three years, from any income source on investments of NIS 25K to 10M in private high tech companies, registered in Israel, with a limit of NIS 5M per individual per company. The high tech companies must meet certain criteria in terms of revenue and R&D expenses. In addition, the initial investment is considered as capital loss on the day of investment (Peshin 2011).

232. In Italy, there is a tax exemption on capital gains deriving from investments in start-up companies, provided by private investors (Business Angels), if reinvested in other start-ups (belonging to the same sector) within 24 months. Sweden and a number of other European countries are currently discussing the introduction of tax incentives for angel investors. Finland had advanced a proposal several years ago but it has not been implemented.

Pros and cons of tax incentives

233. While tax incentives can have a positive effect in terms of increasing both the number of investors as well as the amount of investment, there are also some potential downsides, including fiscal considerations particularly in the tight budget situation facing many countries following the recent financial crisis.

234. Tax schemes can also be complex and may have some unintended consequences. Providing greater incentives for high net worth individuals may increase the number of financial investors but not “angel” investors, *i.e.* the ones who are presumably providing expertise and contacts in addition to money. In addition, there is a danger of intermediaries distorting tax schemes to reduce investment risks (Mason *et al.*, 1988). It is therefore important that programmes are evaluated on a periodic basis and the necessary changes are put in place to adjust the incentives as necessary.

235. The introduction of tax incentives for angel investors has been a topic of heavy debate in a growing number of countries. Those against tax incentives argue that they are “expensive” and cite the lack of political justification to provide advantages for wealthy individuals, particularly in today’s economic climate. Those in favour point to evidence in the United Kingdom and other countries of the increase in both the amount of angel investment and number of angel investors. They also counter the notion that tax incentives are “expensive” by pointing out that the amounts involved are small and the upside, in terms of increased potential tax revenues (more investment, more companies, more jobs and growth), can more than cover the cost. Regardless of the amounts involved, policy makers will want to ensure that any tax incentives provide a net economic benefit.

236. Tax incentives can be a “blunt” instrument (*i.e.* difficult to target effectively), as seen in the French example earlier, so careful design, monitoring, evaluation and adjustment is necessary to ensure the intended results are achieved. The lack of robust data on the angel investment market does not help as it makes it difficult to create evidence-based policies. Some countries have tried to correlate the additionality of these programmes in terms of economic growth and employment and have found positive results but, of course, the direct causality is difficult to prove.

237. More work is needed in assessing additionality as well as the net cost and benefits of tax incentives as well as the methodologies employed. This is beyond the scope of this paper but could potentially be covered in future OECD work.

ii) Co-investment funds

238. In some countries, policy makers have launched co-investment funds to address the seed/early stage equity financing gap and to help develop and professionalise the angel investment market. Typically

these programmes work by matching public funds with those of private investors (on the same terms - *pari-passu*), who are approved under the scheme.

239. The table below provides an overview of co-investment fund programmes targeting angel investors in various countries. Most of the highlighted programmes below focus on angel investors but some include other investors such as venture capitalists. It should be noted that a significant amount of time in planning (and, in many cases, securing all the necessary approvals) was necessary before the funds were launched. Further details about several of the programmes are provided in the following text.

Table 5: Countries with co-investment funds targeting angel investors

Country	Name and year established	Overview
Finland	Finnvera's Seed Fund Vera Ltd (2003)	Finnvera's Venture Capital Investments serve as the hub for public early-stage venture capital investments. Finnvera makes direct investments in early-stage innovative enterprises through its subsidiary Seed Fund Vera Ltd.
UK – Scotland	Scottish Co-Investment Fund (2003)	For both angel and VC investors GBP 72 M equity investment fund, partly funded by the European Regional Development Fund (ERDF).
Netherlands	TechnoPartners Seed Facility (2005)	Loan facility that can equal a maximum of 50% of the fund's investments, up to a maximum of EUR 4 million. Once revenues are generated, the fund will only have to pay back 20% until it has earned back its investment. After that, the fund will have to turn over 50% until TechnoPartner has earned back its investment. If the fund keeps receiving revenue, the additional income is divided between the fund and TechnoPartner on an 80%-20% basis.
New Zealand	Seed Co-Investment Fund (SCIF) of the New Zealand Venture Investment Fund Ltd (2005)	The Fund provides NZD 40 million of matched seed funding to support the further development of early-stage investment markets through a co-investment fund alongside selected Seed Co-Investment Partners.
Denmark	Vaeksfonden Partner Capital (2007-2010). <i>The fund closed last year due to lack of angel investment.</i>	Provided a maximum of 50% of the needed capital (on average 10-40% of start-up equity). USD 5-20 million in total syndication. Evergreen fund but expected time to exit of 3-5 years. Targeted IRR 20%. Targeted 4-5 investments per year.
Portugal	Co-Investment Fund for Business Angels (2009)	The fund was modelled on the TechnoPartners fund in the Netherlands, particularly in terms of the distribution of returns (and therefore the incentives for investors)
UK – England	A new GBP 50M co-investment fund is in the process of being created (2011)	Funded by the UK Government's Regional Growth Fund, the fund will invest alongside business angel networks or syndicates into eligible SMEs. The fund will operate by investing on the same terms as angel networks and syndicates.

240. Co-investment funds have become increasingly popular in recent years, due in part to the perceived success of such a programme in Scotland which some other countries have used as a model for creating co-investment funds in their country. Box 20 below provides further details about the Scottish Co-

Investment Fund (SCF). A Scottish Enterprise commission evaluation showed that over half of SCF investee companies felt their chances of raising capital would not have been possible without SCF and 78% stated that the fund was vital to their survival (Harrison 2009). This study also showed that SCF has had a positive economic impact on the companies they have supported in terms of turnover, gross value added and employment.

Box 20. Scottish Co-Investment Fund (SCF)

Founded: 2003

Geographic scope: Scotland

Scope: Angel and VC investment

Size: GBP 72 million equity investment fund, partly funded by the European Regional Development Fund (ERDF).

Funds managed: SCF is part of a portfolio of funds managed by Scottish Enterprise:

- SCF: invests between GBP 100 000-1 million in deals up from GBP 500 000-1 million. The SCF invested GBP 12.3m in 63 deals during 2009/10.
- Scottish Seed Fund: invests up to GBP 100 000 in deal sizes up to GBP 500 000. The Scottish Seed Fund invested GBP 1.7 million in 21 deals during 2009/10.
- Scottish Venture Fund: invests GBP 500 000-2 million in deals between GBP 2-10 million. The Scottish Venture Fund invested GBP 16.7 million in 18 deals during 2009/10.

Model: SCF is a pari passu investor alongside private sector investors. No public sector investment in a managed partner fund. SCF does not find and fund its own deals. It forms contractual relationships with active business angel syndicates and VC fund managers from the private sector. Those partners find the opportunities, conduct the due diligence, negotiate the terms of the deal and commit their own resources. Partners are vetted and SCF automatically matches all qualifying investments from registered partners subject to eligibility.

Structure: SCF funds are not placed in a Limited Partner agreement with the partners. Instead the agreed funding is legally guaranteed by SCF and funds are only drawn down once an investment has been legally concluded and subject to meeting all of the criteria. Partners are paid a flat fee of 2.5% of the SCF funds invested and are awarded partnership status with SCF for three years (with funds drawn down over that time period, reviewed every 6 months and with an annual partner review).

Process: Company approaches SCF partners for investment and goes through screening and evaluation. Partner notifies SCF and they check eligibility (size, sector, location) and gives approval of co-investment if deal goes ahead. Partners set up deal. SCF invests pari passu (equal risk, equal terms between public and private investors and therefore respecting EU state aid rules), in whatever instrument is used (type of share, loan stock, convertible preference) and invests pro-rata with the partner on the same terms and conditions.

Operating Principle: Operate at minimum cost to the public finances on a fully commercial basis (and therefore with no subordination of the public funds).

Criteria:

- a) Company is incorporated, has less than 250 employees, net assets less than GBP 16 million and are in an "approved business sector". Deal must be less than GBP 2 million, involving an equity interest, with an approved SCF investment partner, predominated located in Scotland (main or head office).
- b) SCF can invest up to GBP 1 million in any one company, either in tranches or multiple rounds and total deal size must not exceed GBP 2 million. The investment must be matched by the partner on an equal basis. SE can't own more than 29.9% of the voting rights of the company and public money can't be more than 50% of the total risk capital funding.
- c) Partners can be VCs and corporate investors. Partners from the rest of the UK and/or Europe are also allowed.

Sources: Mason 2009, Scottish Enterprise 2010 and www.scottish-enterprise.com.

241. New Zealand has had co-investment funds in place for a number of years. Initially, they set up a co-investment fund for venture capital investment (VIF in 2002) and later created one focused on angel investment (SCIF in 2005, see box below for further details) which was modelled on the Scottish Co-investment Fund. The rationale for the funds was based on the financing difficulties of start-ups with high growth potential (innovative, technology-based firms) at the seed and early stages.

Box 21. The New Zealand Seed Co-Investment Fund (SCIF)

The Seed Co-Investment Fund (the Fund) is managed by the New Zealand Venture Investment Fund Ltd (NZVIF), and is an equity investment fund aimed at small to medium sized businesses at the seed and start-up stage of development that have strong potential for high growth. The key objectives of the Fund is to enhance the development of angel investor networks, stimulate investment into innovative start-up companies, and to increase capacity in the market for matching experienced angel investors with new, innovative start-up companies. The Fund commenced in July 2005 and provides NZD 40 million of matched seed funding to support the further development of early-stage investment markets through a co-investment fund alongside selected Seed Co-Investment Partners.

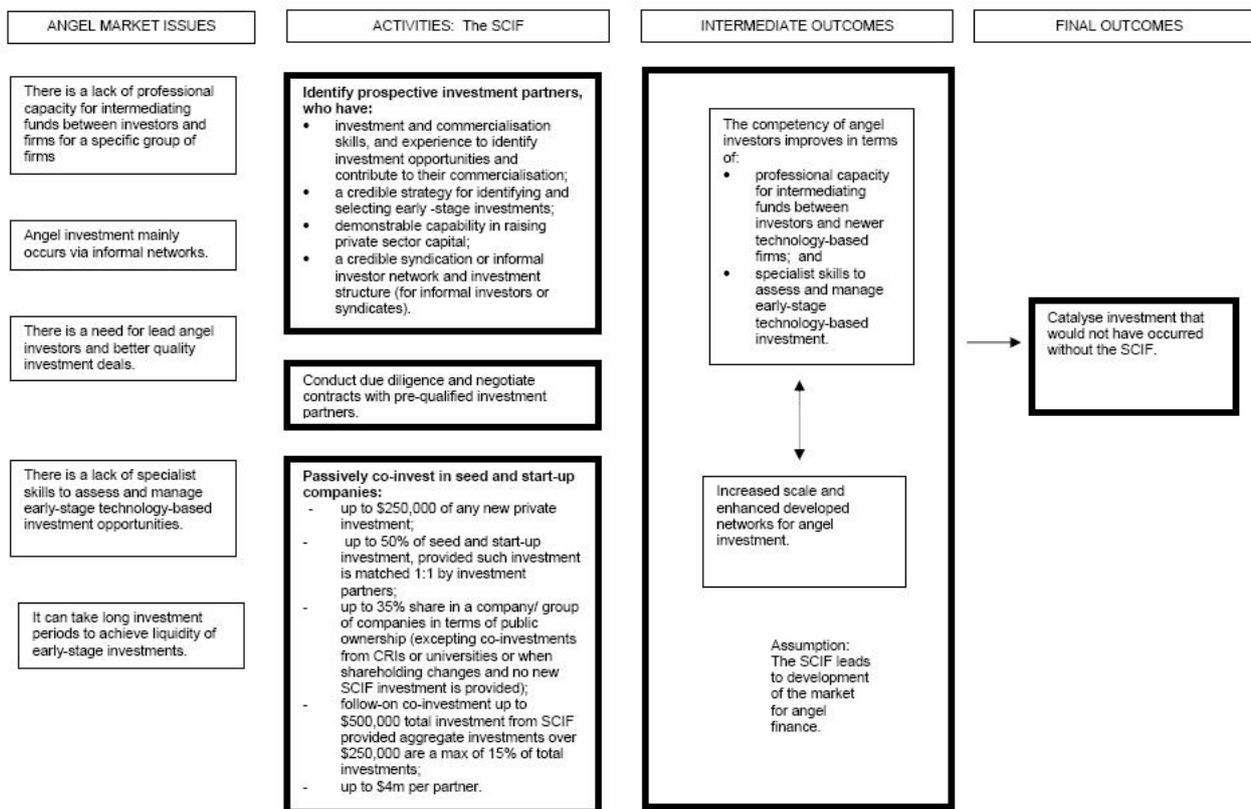
Key Features of the Seed Co-investment Fund:

- A total of NZD 40 million will be available for investment through the Fund over a 5-6 year period;
- The Fund will operate for a period of 12 years in total, with an expected investment period of 5-6 years;
- Seed-stage and start-up investments will be eligible for the Fund;
- Investment alongside selected private investor groups ("approved co-investors");
- NZD 4 million total per co-investment partner;
- Investments through the Fund would be limited to a maximum investment of NZD 250 000 in any one company or group of companies; with the possibility of another NZD 250 000 in follow-on capital at the discretion of NZVIF;
- 50/50 matching private investment is required for the Fund to invest;
- To act as a direct investor on the same terms as the co-investment partner;
- Any investments must be made in New Zealand businesses. A New Zealand business is defined as having the majority of assets and employees in New Zealand at the time that the initial investment is made;
- To act as a direct investor on the same terms as the co-investment partner;
- The Fund will exclude investment in property development, retailing, mining and hospitality industry businesses.

Source: www.nzvif.co.nz/seed-co-investment-overview.html

242. The overall policy objective of the New Zealand Seed Co-investment Fund (SCIF) is to support the development of the angel equity finance market in the country by developing a greater professional capacity in the market for intermediating funds between investors and technology-based start-ups, increasing the depth of specialist skills needed to assess and manage early stage investments, increasing the scale and enhancing networks for early stage investment, catalysing investments that would have not have been made without the programme, minimising fiscal risk and covering costs. An impact evaluation is scheduled for 2011/2012. This will include an evaluation of the outcomes of the programme, the level of additionality associated with the outcomes of the programme and the unintended consequences, both positive and negative (New Zealand Ministry of Economic Development, 2007).

Figure 22: New Zealand SCIF Logic Model



Source: New Zealand Ministry of Economic Development (www.med.govt.nz).

243. An added benefit of the SCIF is the collection of data on the angel investment market in New Zealand. According to the New Zealand Young Company Index, more than NZD 53 million was invested in young companies in 2010 by angel investors, representing an increase of 5.3% from the previous year. In 2010, 47% of the deals were syndicated, representing a jump from 2006 when only 27% of the deals were syndicated (New Zealand Young Company Finance, 2011).

244. Other countries are launching or considering launching co-investment programmes. The challenge is that angel syndicates or groups need to already exist or be created so that the co-investment fund can work with an entity of some form, with one lead investor serving as the contact point, rather than dealing with a set of individual investors themselves.

245. In Portugal, the government decided to launch a Co-Investment Fund for Business Angels at the end of 2009 due to the low level of investment in seed stage capital by the Portuguese venture capital industry and what the policy makers identified as the crucial role of business angels at the early stage of financing. Portugal based the fund on the model of the TechnoPartners Seed Fund in the Netherlands (see box below). The goal of the fund in Portugal is to stimulate business angel activity, allowing it to grow and thus contribute to the development of innovation and a new generation of Portuguese companies. In its first 6 months of operations, the angel investments made through the new Portuguese co-investment fund have surpassed EUR 3 million.

Box 22. Netherlands TechnoPartner Seed Facility

Date launched: 2005

Rationale:

Technostarters have contributed more and more to the growth in productivity, offering, in fact, more growth potential than 'regular' start-up companies. For many technostarters, the lack of sufficient risk capital during the early business stage, the "equity gap", can prevent them from establishing their companies.

Capital providers tend to refrain from investing in technostarters because the risks are too high and the returns too low, especially when the relatively long investment period is taken into account. This called for the Seed Capital Arrangement for technostarters (Seed facility), one of the action lines set up by the TechnoPartner Action Programme.

Operating Model:

The objective of the TechnoPartner Seed facility is to encourage and mobilise the bottom end of the Dutch risk-capital market in such a way that technostarters are able to meet their capital requirements. Closed-end venture capital funds are eligible for the Seed facility. Participating funds which invest in high-risk technostarter businesses can apply for a loan at TechnoPartner.

The Seed facility loan can equal a maximum of 50% of the fund's investments, up to a maximum of EUR 4 million. Once revenues are generated, the fund will only have to pay back 20% until it has earned back its investment. After that, the fund will have to turn over 50% until TechnoPartner has earned back its investment. If the fund keeps receiving revenue, the additional income is divided between the fund and TechnoPartner on an 80%-20% basis.

Source: Dutch Ministry of Economic Affairs (EZ).

246. According to policy makers in the Netherlands, the Technostarters Seed Facility has functioned well and helped boost funding for early stage technology firms. The facility matches funds from both venture capital firms and angel syndicates. They identified the key success factor as the three phase payback scheme, which provides earlier payback to the private investors and potentially higher reward if the companies perform well.

247. In England, a new GBP 50 million co-investment fund is in the process of being created as the result of a successful bid to the UK Government's Regional Growth Fund. The fund will invest alongside business angel networks or syndicates into eligible SMEs and will invest on the same terms as angel networks and syndicates.

248. Belgium and Finland have had co-investments programmes in place for many years. In Finland, the government has long been a player in the seed and early stage market through Sitra, the Finnish Innovation Fund. Veraventure Ltd was established in 2003 as a venture capital investment company serving as the hub for public early-stage venture capital investment. In addition to Finnvera's seed fund, Vera, the government has recently established a new EUR 45M fund focused on the commercialisation of innovations. Unlike in past schemes in Finland, the government will only invest in these companies if the private sector invests, therefore the investment decisions will be made mostly by the market and private sector.

249. The European Commission, through the European Investment Fund, has been active in the seed and early stage market through their JEREMIE programme. Through that program, a EUR 8 million co-investment fund focused on angel investors has been established in Lithuania, which apparently has begun to help develop the angel market after previous local efforts to develop a business angel network failed. In addition, the EIF has recently launched a pilot angel co-investment programme in Germany. While most co-investment funds are structured to invest alongside angel groups, networks or syndicates,

this pilot will provide co-investment with approved individual angel investors. If successful, the program will be rolled out to other countries across Europe.

Pros and cons of co-investment funds

250. Co-investment funds can help develop the local financial community by increasing deal capacity of investment partners and attracting new investors. However, the Scottish Co-Investment Fund is the only programme which has been formally evaluated to date. While most countries with co-investments funds in place spoke during the interviews about additionality and spillover effects of these programmes, further evaluations would be useful to better establish causality and the cost/benefit of the government funding.

251. During the interviews conducted as part of this research project, many people indicated that co-investment schemes can be an important driver in building, growing and professionalising the angel market by providing a more structured investment process. However, the countries with successful programmes have cited the pre-existence of angel groups as one of the key success factors of the co-investment funds. This should be taken into consideration by countries with less developed angel markets.

252. In Denmark, an angel co-investment fund was established by the Danish Investment Fund, Vækstfonden in 2007. This was a few years after the national Danish Business Angel Network (DBAN) was established which was later merged with the existing Danish Venture Capital and Private Equity Association (DVCA). As a result, there was less attention given to seed and early stage given the DVCA's focus on their core membership of venture capital and buyout firms. While Vækstfonden has had success in the venture capital segment of the market (see box below), the angel co-investment fund, Partner Capital, was not successful as there were too few angels making too few investments. The Partner Capital of Vaeksfonden was closed at the end of 2010.

Box 23. Vækstfonden (The Danish Investment Fund)

Vækstfonden is a state investment fund, operating independently, which aims to create new growth companies by providing venture capital and market capacity building. Since 1992 Vækstfonden has, in cooperation with private investors, co-financed growth in 3 700 Danish companies with a total commitment of approx. DKK 10 billion. Vækstfonden invests equity or provides loans and guarantees in collaboration with private partners and Danish financial institutions. The companies which Vækstfonden has co-financed since 2001 represent a total turnover of approximately DKK 27 billion and employ approximately 22 000 people all over the country.

Source: Vaeksfonden website: www.vf.dk/

253. During the interviews, it was highlighted that models working in one country can not necessarily be copied directly in another country. Local conditions need to be taken into account and the model adjusted appropriately. Both the timing (*i.e.* making sure there is a functioning angel market already existing in the country) and structure of the terms of the co-investment fund will make the difference between success and failure. In addition, it was noted that government funding should not be more than 50% otherwise there is a risk of crowding out the private sector.

iii) Support to angel associations, networks and groups

254. Over the past decade, a number of governments have supported the development of the angel investment market through the provision of some financing for angel networks, groups and associations or federations. In most cases, the goal of the funding was to address information asymmetries in the market between angel investors and entrepreneurs. Much of that support was intended to help start these organisations with the goal of later transitioning them to the private sector.

National angel associations/federations

255. National angel associations, or federations, play a very important role in developing the angel market in a given country by raising awareness about angel investment, collecting data, providing training and liaising with policy makers. In many countries, the development of an “organised” angel market often starts with the creation of the first network or group. Other groups and networks might then begin to form and one of them may evolve into playing a broader development role for the industry within the country.

Box 24. Typical role of a national association or federation

- **Raising awareness of the industry**
National and regional associations or federations produce reports and materials explaining how the angel market functions and help entrepreneurs and others identify which groups or networks exist.
- **Representing the industry to policy makers**
These organisations also play an important role in liaising with policy makers to explain how the industry is evolving and identify barriers or opportunities to facilitate its development.
- **Training and development of angel investors**
Increasingly, a number of these organisations are developing training and mentoring programmes for their members. The PAI programme developed by ACEF has been licensed in many countries.
- **Developing professional standards**
National and regional associations or federations are increasingly focusing on developing the quality, rather than just the quantity of angel investors by developing standardised processes and guidelines.
- **Providing a platform for the sharing of practices (annual conference, workshops, etc.)**
Most of these organisations hold events to bring together members of the angel community for networking and the sharing of practices. Annual conferences, in particular, also help raise visibility for the industry.
- **Collecting data from member organisations**
Most national and regional associations or federations collect data from their members, which are groups, BANs and individual angel investors. While not all angel investors are members, the data provides a useful picture of developments in the “visible” angel market within the country.

Source: OECD 2011.

256. Over the past 5-10 years, national associations or federations have been created as umbrella organisations for the growing number of groups and networks within a country. In appendix II, there is a list of most of the national associations or federations that exist today, including regional ones. Given the lack of clear definitions in the market, sometimes it can be difficult to separate a network from a national association or federation. Some national associations/federations started as networks but later learned that, to represent the industry nationally, they could not mix the two roles (representation and investment match-making).

Table 6: Initiation years of angel associations or federations around the world

0-5 years	5-10 years	+10 years
Portugal (2006 & 2007) Russia (2006 & 2009) Australia (2007) China (2008) Spain 2 nd (2008) New Zealand (2008) Ireland (2009) Israel (2009) Netherlands (2009) World/WBAA (2009) Latin America (2011) Finland (2011) Turkey (2011)	Canada (2002) US (2004) UK/England (2004) Chile (2004) Spain 1 st (2004)	UK/Scotland (1993) Europe/EBAN (1999) Italy (1999) Germany (2000) France (2001) South East Asia/BANSEA (2001)

Source: OECD 2011.

257. Associations are typically set up as non-profit associations and usually require some outside funding to get started. In the United States, the Kauffman Foundation supported the creation of the Angel Capital Association (ACA) in 2004 and later the Angel Capital Education Foundation (ACEF) which is now called the Angel Resource Institute (ARI). In other countries, the few national associations or federations that exist often had public support in getting started. In some of those cases, the market was still too young and the association was not able to build enough momentum to develop.

258. In a number of countries, such as Denmark and Sweden, national BANs were created as a pilot project over a period of a few years but then funding was stopped and the BANs were merged with national venture capital and private equity associations with little to no motivation and funding to support and develop the angel market. In some other countries, there are two or three “national” associations which might dilute efforts or cause some confusion in the market.

259. In a number of countries, what started out as the first BAN in a country is moving towards becoming a national association seeking to further develop the angel investment market in their country and connect with angel organisations in other countries and regions. National associations are increasingly collaborating and sharing best practices. Regional federations such as EBAN (Europe), BANSEA (South East Asia) and the newer LAEI (Latin America) and WBAA (World), are playing important roles in bringing existing and aspiring associations together to learn from each other.

Business Angel Networks (BANs)

260. In Europe, the initial focus was on the creation of BANs, rather than angel Groups, to play a match-making role between potential angel investors and entrepreneurs addressing the information asymmetries in the market. EBAN was created in 1999, with European Commission support, as a federation of BANs across Europe. This was followed by national BANs or associations in several other countries including Italy in 1999, Germany in 2000, France in 2001 and the United Kingdom in 2004 as well as the growth of BANs within countries.

261. After initial support from the European Union and, in many cases, on-going support from national governments, the number of BANs in Europe grew dramatically but the success and investment activity of these BANs varies. BANs have broader membership criteria than angel groups, which consist

only of angel investors. BANs often include service providers and others who are either not investors at all or who are financial, not angel, investors and therefore are unwilling and/or unable to provide the necessary assistance to entrepreneurs that normally accompanies angel investment. EBAN, the pan-European association for the industry, is working on developing a set of professional standards, including some type of criteria for determining the activity level of BANs, which can also serve as benchmarks for BANs.

262. While angel networks can help to address the information asymmetry problem, evidence is still lacking in terms of the track record of individuals BANs. A study in Belgium showed that angel investors would not have known about 82% of the deals in which they invested had it not been for the business angel networks (Collewaert *et al* 2010). Meanwhile, it was noted in the interviews that sometimes the best investment opportunities are channelled to the better known angel investors who may not need or have an incentive to co-invest through BANs.

Operating models and sustainability

263. Associations, networks and even groups have costs associated to conducting their work which, in a number of countries, particularly in Europe, government has helped to support in the early years of operation. As outlined earlier, there are differences in the roles and operating models of associations, networks and groups. However, for each, building a self-sustaining operating model can be a challenge. Therefore government support can be very helpful but it should be linked to clear milestones and measures to ensure that the organisation is filling a real need.

264. With less public money available due to tighter public budgets in countries around the world, angel associations, networks and groups have been seeking new operating models to ensure sustainability. Given the market development role and data collection role of national associations, in particular, it is important that these organisations find the necessary resources to continue their work. In markets in which angel investment is new, time is needed for the BANs and groups to gain traction and also for investors to be “trained” and/or mentored in angel investing, as it differs dramatically from being an entrepreneur or a financial investor (see next section).

265. At the same time, there is a trade-off between encouraging the development of the angel market and attracting too many people who are not really angel investors. In the early stages of the market development, support for networks and, in some cases, groups, can be useful to raise awareness and get the market started. However, this support should be linked to measures of intended outcomes. In particular, there should be some measures in place to make sure that supported networks or groups are actively contributing to the development of the angel market and growth of angel investment over time (subject to market conditions).

266. As mentioned earlier with co-investments funds, there needs to be some level of organised angel activity, in the form of groups, networks or very active individual angel investors, before certain policy measures can be a catalyst for further developing the market. One of the key success factors for the development of associations, networks and groups identified during the interviews, was initiation by local private players. It is difficult for the government and also for well-intentioned foreigners from outside a country or region to “create” an angel market without leadership from local private angel investors.

iv) Training and development of angel investors

267. Training of angel investors is extremely important for professionalising the industry as well as for attracting new angel investors. However, it is an area often overlooked by policy makers. Because angel investors are typically experienced entrepreneurs and business people, it is assumed that they also know

how to invest. However, investing in start-ups is very specific and therefore training and learning from experienced angel investors is a very important part of the process. Angel investors need to be trained because being an investor requires different perspectives, understanding and skills to being an entrepreneur. This is not dissimilar to the need for experienced managers to receive training to enable them to operate successfully as non-executive directors.

268. Training and mentoring therefore play very important roles in turning interested accredited investors into successful angel investors. Entrepreneurs and angel investors prefer to learn from practitioners. In addition, they want to learn the most relevant items for their immediate needs and therefore prefer short workshops and/or mentoring from experienced practitioners as opposed to longer courses from academics, agencies or others.

Box 25. Power of Angel Investing (PAI) Training Programme

The *Power of Angel Investing* is a series of education programmes about angel investing, developed by the Ewing Marion Kauffman Foundation, with content provided by angel experts and angel group leaders from across the United States. The Angel Capital Education Foundation (ACEF) distributes the education programmes for the Kauffman Foundation. Lead instructors are experienced practitioners certified by ACEF as experienced angel investors. The seminars and workshops are targeted for audiences of investors, economic development professionals, university leaders, service providers and entrepreneurs.

Courses include:

- Angel investing overview
- Starting an angel organisation
- Angel investing basics for economic development professionals
- Doing the deal: term sheets
- Due diligence
- Valuation of early-stage companies
- Trends in raising capital
- Early exits

Source: www.angelcapitaleducation.org/education/.

269. The first two courses outlined in the box above are more general seminars geared towards new/prospective angels or for broader members of community. These could include a variety of key players in the local entrepreneurial ecosystem, including community leaders; entrepreneurial support professionals who are interested in promoting angel investing in their communities; leaders of organisations that support entrepreneurs through mentoring, coaching, education, and connection to resources; university leaders and directors of entrepreneurship, innovation, or emerging technology initiatives in academic institutions; professional service providers who work with entrepreneurs or investors who want to learn best practices in angel group development. In addition to the set of topics listed in the box above, other popular topics for angel investor seminars include post investment relations with entrepreneurs and other investors and how to build a strong board of directors.

270. Experience from the United States indicates that seminars tend to work best when they are limited to about 20-30 people. These programmes are held in a variety of venues, which are often offered by sponsors (companies, universities and others). Financial support and sponsorship for these programmes might come from national, regional, local government or agencies, universities, foundations or companies (banks, law firms, head hunters and other service providers for start-ups).

271. At the same time, experienced trainers suggest that courses should not be offered for free, emphasising the importance of charging a fee to make sure the participant is committed to the programme.

Fees in the United States for a half day seminar might run from USD 50-200 depending on the level of sponsorship. For full day, a seminar might be USD 150-400. It was noted in the United States that multi-day programmes are typically not popular with angel investors.

272. While angel investors, whether new to the market or not, may not like the notion of “training”, many people in the interviews pointed to the importance of ensuring that angel investors have the necessary skills as well as understanding of the investment process. As mentioned earlier, the effectiveness of these programmes will depend on who is conducting the training. During the interviews, many people stressed the importance of having experienced angel investors provide the training.

273. The ACEF Power of Angel Investing (PAI) courses are licensed by a growing number of countries around the world although with adjustments made to the content to adapt to the local context. For example, the Australian Association of Angel Investors (AAAI) which has put an emphasis on the development of the angel market since it was founded in 2007, originally licensed PAI. In addition to running an annual conference, the AAAI has developed and continues to develop its own training programmes and resources to complement and, in some cases, replace the ACEF materials with content relevant to the Australian context. More than six training workshops have been run each year in cities across Australia.

274. At their annual conference in 2011, the AAAI also launched a new Fellows programme. The AAAI believes that by enabling its members to be more successful as investors, more entrepreneurial businesses will be successful and the members will derive greater returns from their investments. This success will then encourage members to continue to invest in similar activities, thus promoting increased and ongoing investment and a sustainable “virtuous cycle” of investment driving the Australian innovation economy.

275. Other approaches to training and building the market can include inviting expert or “master” trainers to a country for an extended period of time to work with the local angel communities, run some initial training programmes and help raise awareness about angel investment. In 2010, New Zealand invited experienced angel investor and trainer, Bill Payne, to visit for several months to work with the industry, policy makers, conduct training programmes and speak to the media.

276. In the interviews conducted as part of the project, people from countries across the world emphasised the need to develop human capability – both on the investor and the entrepreneur side (see next section).

Demand side measures

i) Investment readiness of entrepreneurs

277. Investment readiness programmes for entrepreneurs is another area policy-makers have supported in a number of countries. These are programmes which help entrepreneurs develop their business plans and presentations to a level which answer the most pertinent questions for investors – such as the vision, business model and skills balance within the team as well as business development and access to market plans.

278. Programmes for entrepreneurs are typically focused on “pitching” the company and investor readiness but can also include some of the topics highlighted in the section above including an overview about angel investing and/or programmes on deal negotiations, term sheets, valuation and exits. In many countries, these programmes are run at universities, incubators/accelerators and/or by specialised agencies.

279. These programmes address the entrepreneur's side of the information asymmetry issue by helping entrepreneurs better understand the expectations and needs of investors and prepare themselves accordingly, which in turn can result in greater success in securing funding.

ii) Supporting the development of an entrepreneurial culture and ecosystem

280. As quoted from an article in the Economist, "If we learn anything from the history of economic development, it is that culture makes almost all the difference." (Economist 2009). All the programmes and policies put in place to build an entrepreneurial economy won't have an impact if only a small proportion of population in a country want to be entrepreneurs.

Education and culture

281. During the interviews, many people cited the lack of an entrepreneurial culture as a critical barrier to entrepreneurship. Education and awareness-raising play important roles in changing culture over the longer term. Introducing entrepreneurship into the educational system at all levels (primary, secondary, higher and vocational education) can help develop the entrepreneurial skills, attitudes and behaviours (World Economic Forum 2009).

282. Programmes such as Global Entrepreneurship Week,¹² in which over 115 countries around the world now participate, are vehicles for engaging key stakeholders within countries, building networks, raising awareness about entrepreneurship and providing local information about key aspects of creating and growing firms, including financing.

Entrepreneurial ecosystem

283. As referenced in an earlier section and highlighted in that section in Figure 3, angel investors and entrepreneurs operate in a broader ecosystem in which various players such as accelerators, incubators, universities, entrepreneurship centres, venture capital firms and service providers (lawyers, accountants, investment bankers and others) play important roles. During the interviews, it was continually pointed out that a healthy entrepreneurial ecosystem is critical for successful angel investing.

284. If there is a well-functioning entrepreneurial and financial ecosystem, the actions of any one group are likely to have positive spill-over effects for their peers (Lerner 2010). Government intervention can play a catalytic role both in facilitating the functioning of the ecosystem and targeting actions to trigger its further development. However, these actions should provide incentives for the engagement, not the replacement of the private sector and should be conducted in a manner conducive to the market (EVCA 2010a).

285. Policy makers in Finland have sought to catalyse growth entrepreneurship as part of the ecosystem through a new accelerator programme called Vigo (see box below). The programme was inspired by Israel but developed for the market in Finland. The aim of the new accelerator programme is to attract more international talent from overseas, by offering an attractive financial upside, to help the companies successfully grow. There is strong representation from serial entrepreneurs, high level investors and entrepreneurs on the board of Vigo and as mentors.

¹² For further information on GEW, visit www.unleashingideas.org.

Box 26. Vigo business accelerator programme, Finland

Vigo is a new type of acceleration programme designed to complement the Finnish innovation ecosystem. It bridges the gap between early stage technology firms and international venture funding. The Vigo programme was founded by the Ministry of Employment and the Economy in March 2009 with the aim to bring together serial entrepreneurs, private financing and public innovation funding.

The backbone of the programme is formed by the Vigo accelerators, carefully selected independent companies run by internationally proven entrepreneurs and executives. These accelerators help the best and the brightest start-ups to grow faster, smarter, and safer into the global market. The accelerators are not consultants – they are co-entrepreneurs who invest in the companies they work with to guarantee common goals and passionate development effort. As independent companies, the accelerators negotiate on a case-by-case basis agreements with the target companies and investors, including the investment amounts, activities and objectives, ownership shares, possible service fees, etc.

The target companies have access to both private and public funding sources. Private sources include venture capital funds, business angels, and the accelerators themselves. The public funding of the programme consists of funding from Tekes, and Finnvera (see resp. www.tekes.fi and www.finnvera.fi). All fund providers make independent funding decisions, but the process is co-ordinated and streamlined. Standard criteria are used in the program for public funding *i.e.* there are not any programme specific public funding instruments.

There are currently six accelerators in the programme with the intention of expanding the programme towards the end of 2011. So far the combined portfolio is about 40 companies and they have raised about EUR 70 million of funds. Out of this roughly two thirds come from private sources out of which more than half from international angels and VC's. The programme has been running effectively now for about 18 months. The portfolio companies have so far employed several hundreds of professionals. The deal flow is considered sufficient and good in quality by the accelerators.

Source: www.profiact.fi

286. An entrepreneurial economy consists of individuals and institutions in an interconnected system (Schramm 2006) in which multiple stakeholders play a role in facilitating entrepreneurship and innovation. This includes business (large and small firms as well as entrepreneurs), policy-makers (at the international, national, regional and local levels), and educational institutions (at all levels but particularly at higher education institutions).

287. However, even more important are the linkages between these institutions – the functioning of the entrepreneurial ecosystem. Too often these links, whether between universities and businesses or between entrepreneurial and large firms, do not function well or in some cases even become bottlenecks. The key to the facilitating an entrepreneurial ecosystem is therefore in facilitating better linkages between these actors, not necessarily in building infrastructure. The links in the entrepreneurial ecosystem are primarily through personal networks or “social capital”. A growing body of research demonstrates the critical role that social capital plays in high-growth ventures (Stuart and Sorenson, 2010).

Box 27. Social capital

Social capital (Coleman, 1988; Burt 2000) is defined as the importance of networks of strong personal relationships that provide the basis of trust, co-operation and collective action (Nahapiet and Ghoshal, 1998). It is further distinguished between three facets of social capital, being structural, relational and cognitive. Structural social capital describes the configuration of linkages between people and units, while relational social capital describes the personal relationships that people have developed through a period of interaction.

288. A University of Cambridge research study explored the Cambridge high technology cluster with individuals as the principal focus (rather than companies and industries which have traditionally been the units of analysis), shedding a new light on entrepreneurial processes. This research investigated serial entrepreneurship in the cluster using a family-tree and interlocking directorships approach. It reveals a mini-cluster of Cambridge entrepreneurs as the key influence on the success of the cluster growth process and their links between the companies as the structural and relational social capital of the cluster. In particular, there was a high-level of relational social capital in Cambridge arising from the association of individuals who worked together in other companies' over time. The high-level of structural social capital was the result of interlocking directorships, supplemented by clustering of VC investments and by membership of business angel groups and networking organisations (Myint *et al.*, 2005).

289. Government needs to create a proper regulatory framework in which entrepreneurship and the entrepreneurial ecosystem can thrive. However, government policy alone is not enough to develop an entrepreneurial ecosystem. Policies are often broad and responsibility for implementation lies with other actors who should also be engaged in the process of developing the policies and implementation plans. NGOs, foundations, agencies and other intermediaries play key roles in the entrepreneurial ecosystem by functioning as "champions" or connectors between the different sectors.

290. In the United States, the entrepreneurial ecosystem was developed over time through an on-going and interactive series of steps taken by the public and private sectors. In Israel, the high technology focused entrepreneurial ecosystem was a product of a series of actions over a sustained period of time, not one policy or programme. There is growing interest and research in how entrepreneurial ecosystems develop and the roles of the various stakeholders. The OECD may want to consider work in this area.

iii) Implementing policies

291. Many countries do not have any policies to encourage and support angel investment. However, interest has been growing and more countries have been looking to implement policies at the national and/or regional levels. In the United States, many states are starting to adapt tax incentive policies. In Canada, provincial policies and incentives have been in place for a while. In Israel, the new angel law (described in the section on tax incentives above) has been approved and is in the process of being implemented.

292. The experience and sequencing of policies has varied greatly in countries around the world. It is important to assess the local environment and to seek to implement the relevant instruments for the appropriate timeframe. Evaluation of the policies is critical in making sure they are having the intended outcomes and to enable the necessary modifications to be made along the way.

293. As discussed earlier, tax incentives can encourage more people to become angel investors as well as encourage existing angel investors to invest more. At the same time, the right balance needs to be found to make sure that the people receiving the incentives are angel (*i.e.* experienced entrepreneurs or business people with an interest in helping the start-ups) not only financial investors. Tax incentives can help build a pipeline of new investors and angel groups. It is important to keep a flow of new angel investors coming into the market as existing angels can become fully invested and focused on existing rather than new investments for periods of time.

294. It is important to raise awareness about angel investment and its role in the seed and early stage market, particularly relative to venture capital which tends to attract greater attention and focus by policy makers. To that end, support of angel associations, networks and groups can help build the market. Once there is a stable level of angel activity, it is useful to have a single national angel association or federation which can stimulate collaboration between local networks and groups and represent the needs of the angel

market to policy makers with a common voice. Throughout the process, the training, mentoring and development of angel investors is important to make sure that those participating in these activities have the necessary skills and willingness to invest in and help start-ups.

295. Once a functioning angel market has been established, co-investment funds can help in leveraging and encouraging more private investment. The requirements and standardised process of co-investment funds also help to develop and professionalise the angel market. As mentioned earlier, these funds need to be designed in a way that they provide the right incentives to the private sector without cumbersome restrictions. Many countries are looking into establishing such funds and have sought to learn from the existing models as they design their own.

296. At all stages, it is important to help entrepreneurs better understand the financing options available as well as the expectations of potential investors. Investor readiness programmes help entrepreneurs anticipate the needs of investors and prepare for presenting or “pitching” to them.

297. It is also important to help develop the exit market by building links between angel groups and companies which might be potential M&A partners. Exits are one of the key challenges for the industry at the moment. With the current state of the financial markets, IPOs on stock exchanges are rare and therefore the only option for high growth entrepreneurs and their investors to realise the gains from the company are to sell or merge it with another company at the appropriate time. To that extent, programmes that help develop international networks or connections between start-ups and larger companies can be helpful.

298. Finally, it is important, both for practitioners as well as for policy makers, to have more comprehensive data on angel investing to determine how the market is evolving and monitor results. National associations or federations are already playing a useful role in collecting data available through the groups or networks in their country. In addition, associations and federations around the world have recognised the need not only for national data collection but also for internationally comparable data collection. The World Business Angel Association (WBAA) has been working with national angel associations across the world to further discuss this issue and identify possible ways to proceed.

299. Some countries have conducted research, through surveys or mappings, to better quantify and understand the angel market in their countries. These studies are important as they go beyond the data from the “visible” portion of the market collected through associations, groups and networks. These efforts should be assessed more thoroughly to identify some methodologies which could be used more broadly.

IV. Conclusions and further work

300. This paper has sought to explain what angel investment is, how it works and why it is important. It has also highlighted developments in angel investment around the world and outlines areas in which policy makers can support this important source of finance, highlighting current policies in several OECD and non-OECD countries. It is clear that, as with venture capital (Lerner 2009), policies should have a market-oriented approach, be structured in a way that fits the local context and have the appropriate time horizon (early stage investments are typically long term ones).

Research

301. Angel financing continues to be an under-researched area with many possibilities for further work (Kerr, Lerner and Schoar, 2010). For example, research could be undertaken to examine the various forms of angel investment (individual angels, angel groups, angel networks, super angels) and the outcomes of each which would shed further light on potential policy implications. In addition, further work could be conducted to examine the international growth of angel financing, both in terms of how angel

financing has developed in different contexts around the world but also in terms of the increasing role international syndication might play as angels move into larger deals to fill gaps left by venture capitalists.

Gender

302. Further research is also needed to identify the barriers for women engaging in angel investing. The OECD's current "Women Economic Empowerment" project, which is analysing gender issues in education, employment and entrepreneurship, could provide an important contribution to this topic. Work has also been conducted by EBAN and other groups. Continued work in these areas is needed as well as actions to encourage more women to become angel investors.

Data

303. Most importantly, work is needed on the data methodology and collection front. Methodologies need to be developed to better measure and evaluate angel and early stage investment so that the appropriate policies can be put in place to address potential market failures (Mason 2009). Given the difficulty in collecting data on angel investment and the lack of comprehensive and comparable numbers, it is extremely difficult for policy makers and practitioners to measure progress and determine appropriate actions. Norway and Sweden have recently undertaken extensive studies in this area which serve as examples of how angel data might be collected by other countries in the future. EBAN and the ACA have also initiated major data initiatives. An organised effort between countries, whether through the OECD, WBAA or another organisation, could provide a valuable window into the seed and early stage of the market which will help guide further action.

Angel investment plays a critical role in early stage financing, more so than venture capital, and therefore should receive increased focus from both the policy and the research community. Much more work is needed to understand the dynamics, success factors and challenges of angel investment as well as the impact angel investment has on economic growth, productivity and job creation.

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APPENDIX I: List of interviewees

The following people participated in interviews and/or provided background material for the project. Over 100 interviews were conducted to date with people in 32 countries across the world. The majority of the interviews took place by telephone and were, on average about 45 minutes long.

Argentina

Silvia de Torres Carbonell, Latin American Association of Angel Investors and Professor, IAE Business School

Australia

Jenny Allen, Manager, Industry Policy Unit, The Treasury

Stewart Gow, Manager, Venture Capital Attraction for Invest Queensland; co-founder Archers Angels, Brisbane Angels and the Australian Association of Angel Investors

Jordan Green, co-founder and Deputy Chairman of the Australian Association of Angel Investors; founder and head, Melbourne Angels Inc.

John Mactaggart, Chairman, Australian Association of Angel Investors Limited; Non-Executive Director, Technology One Limited (TNE)

David Malloch, Managing Director of Malloch Digital Design

Austria

Bernd Litzka, Equity Finance i2 - Business Angels matching service, Austrian Economy Service Ltd. (Austria Wirtschaftservice – AWS)

Belgium

Sophie Manigart, Professor, Vlerick Leuven Gent Management School

Reginald Vossen, Managing Director, BAN Vlaanderen

Brazil

Antonio Botelho, President, Gávea Angels

Canada

Evelyne Bolduc, Policy Analyst, Strategic Policy Branch, Industry Canada

Shane Dolan, Industry Canada

Bryan J. Watson, Executive Director, National Angel Capital Organization

Chile

Fernando Prieto, Chairman, Southern Angels

China

Mannie Liu, Professor, Director, Venture Capital Research Center, Renmin University Center for Business Angel Research, China (CBAR)

Rob Scott, Co-founder, CEO & Chairman, Angels Shanghai

Denmark

Glenda Napier, FORA, Danish Enterprise and Construction Authority

Europe

Claire Munck, Managing Director, European Business Angel Network (EBAN)

Thomas Meyer, Director, Investors Platform, European Private Equity and Venture Capital Association (EVCA)

Christian Saublens, Director, EURADA

Dr. Markus Schillo, Head ERP-EIF Dachfonds, European Investment Fund

Vesa Vanhanen, Deputy Head of Unit, Financing Innovation and SMEs, DG Enterprise and Industry European Commission

Finland

Juha Kurkinen, Chairman, FiBAN and business angel

Mr. Ari Korhonen, Vice-Chairman, FiBAN and business angel

Markko Maula, Professor, Aalto University

France

Helene Clement, Polinvest

Philippe Gluntz, President, France Angels and Vice President, EBAN

Candace Johnson, Angel investor and Sophia Business Angels

Germany

Micheal Brandkamp, Managing Director, High-Tech Gründerfonds

Dietmar Harhoff, Professor, LMU

Arne Hostrup, Netzwerk Nordbayern Germany

Georg Licht, Head of Department, Industrial Economics and International Management Centre for European Economic Research

Klaus Nathuis, Managing Partner, GENES Venture Services GmbH

Robert Redweik, Doctoral Candidate & Project Manager, LMU Entrepreneurship Center

Johannes Velling, Federal Ministry of Economics and Technology

India

Anil Joshi, Mumbai Angels

Sasha Mirchandani, Co-Founder, Mumbai Angels

Ireland

Shay Garvey, General Partners, Delta Partners

Michael Culligan, Business Angel Partnership

Diane Roberts, Halo Business Angel Network

Italy

Maria Ludovica Agro, Director, Made in Italy sector support and development policies, Department of Enterprises and Internationalisation, Ministry of Economic Development

Luigi Amati, CEO and co-founder META Group, Vice President, EBAN and Founder, Italian Angels for Growth Club

Paolo Anselmi, Founder of IBAN and President of INSME

Israel

Avi Hasson, Chief Scientist

Oded Hermoni, Director General, High Tech Industry Association

Chemi Peres, Managing General Director and Founder, Pitango Venture Capital

Esti Peshin, Director General, High Tech Lobbying Group

Yossi Smoller, Technological Incubators Program, Office of the Chief Scientist, Ministry of Industry & Trade

Yossi Vardi, Serial entrepreneur and angel investor, various former government roles including play a key role in the founding of the Yosma Fund.

Carmel Vernia, Founder, Start-up Factory and formerly Chief Scientist in Ministry to Industry, Trade & Labor

Japan

Yoshiaki Kuroda, Deputy Director, Ministry of Economy, Trade and Industry

Mexico

Hernan Fernandez, Angel Ventures Mexico

Netherlands

Jochebed Heiland, Senior Policy Advisor, Ministry of Economic Affairs, Agriculture and Innovation Directorate General for Enterprise and Innovation/ Department of Entrepreneurship

Jan Dexel, Directorate-General for Enterprise & Innovation, Ministry of Economic Affairs, Agriculture and Innovation

New Zealand

Andy Hamilton, CEO, ICEHOUSE and former chairman of first angel network in New Zealand

Phil McCaw, Founding Council Member and Chairman, Angel Association of New Zealand

Colin McKinnon, Executive Director, Angel Association of New Zealand

Chris Twiss, New Zealand Investment Fund Limited, New Zealand

Norway

Carl Gjersem, Senior Advisor, Ministry of Trade and Industry

Leo Grunfeld, MENON Business Economics

Poland

Jacek Blonski, CEO, Lewiatan Business Angels and Vice President, EBAN

Piotr Tamowicz, Managing Partner, Taylor Economics Ltd.

Portugal

Paulo Andrez, Vice President, National Federation of Business Angels Associations FNABA and Vice President, EBAN and Chair of the EBAN Research Committee

Francisco Banha, President of the Board, National Federation of Business Angels Associations FNABA, Board member of EBAN and WBAA

Gonçalo Moreira Rato, Secretary General, Association of Portuguese Business Angels

Singapore

Poh Kam Wong, Professor and Director of the NUS Entrepreneurship Centre, National University of Singapore (NUS) and Founding Chairman of the Business Angels Network South East Asia (BANSEA).

Slovakia

Jan Oravec, President, Entrepreneurs Association of Slovakia

Peter Pacek, Director of National and International Programmes Section, National Agency for Small and Medium Sized Enterprises

Slovenia

Jaka Lindic, Faculty of Economics, University of Ljubljana

Spain

Miguel Ángel López Trujillo, Orkestra - Instituto Vasco de Competitividad

Sweden

Sophia Avdeitchikova, Assistant Professor, Director of Studies/CIRCLE, Lund University

Hans Landström, Professor, Professor in Entrepreneurship, Institute of Economic Research/CIRCLE, Lund University

Lennart Ohlsson, Professor KTH

Karin Östberg, Swedish Agency for Economic and Regional Growth

Switzerland

Brigitte Baumann, Founder, Go Beyond and Chair of EBAN

Martin A. Bopp, Head of Section CTI Start-up and Entrepreneurship at Innovation Promotion Agency CTI

Jean-Pierre Vuilleumier, Managing Director of CTI Invest, the Swiss Venture Platform

Turkey

Baybars Altuntas, President, Turkish Business Angels Network

Ziya Boyacigiller, Entrepreneur and investor

Ihsan Elgin, Director, Startup Factory (accelerator) at Ozyegin University

Selcuk Kiper, Co-Chair, MIT Enterprise Forum, Turkey

Mustafa Kiziltas, General Director, METU Technopark

Jose Romano, Head of Turkey and Istanbul Venture Capital Initiative, EIF

Ussal Sahbaz, Coordinator of Entrepreneurship Programs, Economic Policy Research Foundation of Turkey (TEPAV)

United Kingdom

England

Anthony Clarke, Chief Executive, Angel Capital Group; Managing Director, London Business Angels; President Emeritus, European Business Angels Network (EBAN); co-Chair, World Business Angels Association (WBAA)

Ken Cooper, Managing Director, Equity, Capital for Enterprise Ltd

Sherry Coutu, Entrepreneur and angel investor

Richard Harrison, Professor, Queen's University Belfast

Hermann Hauser, Serial entrepreneur and venture capitalist

Colin Mason, Professor, University of Strathclyde
Struan McDougall, General Manager, Cambridge Capital Group
Gordon Murray, Professor, University of Exeter Business School
Ray Perman, Chair, BIS Access to Finance Group
Reshma Sohoni, Partner, Seedcamp
Mike Young, BIS Access to Finance Group
Niklas Zennstrom, Serial entrepreneur (co-founder of Skype) and venture capitalist

Scotland

David Grahame, Executive Director LINC Scotland
Nelson Gray, Business Angel
Gerard Kelly, Senior Director, Scottish Investment Bank, Scottish Enterprise
John Waddell, Chief Executive, Archangel Informal Investment Ltd

United States

Dave Berkus, Chairman Emeritus, Tech Coast Angels
Gwen Edwards, Golden Seeds
Stephanie Hanbury-Brown, Founder, Golden Seeds
Marianne Hudson, Executive Director, Angel Capital Association
Josh Lerner, Professor, Harvard Business School
John May, Co-chair, WBAA and New Vantage Group
Jo Anne Miller, Golden Seeds
Randy Mitchell, ITA, U.S. Department of Commerce
Bill Payne, entrepreneur, angel investor and educator
Bill Sahlman, Professor, Harvard Business School
Jeffrey Sohl, Professor & Director of the Center for Venture Research, Whittemore School of Business and Economics, University of New Hampshire
Robert Wiltbank, Associate Professor of Strategic Management, Willamette University

Related Conferences And Events Attended

British Business Angel Association (BBAA) Winter workshop, January 2011
US Angel Capital Association (ACA) Annual conference, April 2011
European Business Angel Association (EBAN) annual conference, May 2011
NESTA, The Startup Factories report launch and conference, London, UK (June 21, 2011)
BBAA Annual Summit, London, UK (July 1, 2011)
Go Beyond Angel investor introductory session, Geneva, Switzerland (July, 7, 2011)

APPENDIX II: LIST OF ANGEL NATIONAL ASSOCIATIONS/FEDERATIONS

AUSTRALIA

National Angel Association: Australian Association of Angel Investors Limited (AAAI)

www.aaai.net.au

Created: 2007

Mission:

AAAI promotes a vibrant Angel community and culture in Australia through the promulgation of best practice, fostering the development of Angel Investor groups, providing continuing education for Angel Investors, nurturing international relationships with the global community of Angel Investors and representing its members through policy advocacy and collaborative initiatives with Australian governments to encourage and develop an efficient and effective risk capital market in Australia.

CANADA

National Angel Capital Organization (NACO)

www.angelinvestor.ca

Created: 2002

Mission:

The National Angel Capital Organization (NACO) is the industry association representing Canadian Angel capital. NACO promotes a vibrant Angel community and culture in Canada through the development of formal Angel investor groups, best practices education and mentoring programs, and the formation of collaboration and co-investment mechanisms to encourage an efficient risk capital market in Canada.

Their mission is to increase the quantity, quality, and success of Angel investments in Canada, thus creating a greater pool of capital for innovative start-up companies.

CHILI

Southern Angels

www.southernangels.cl

Created: 2004

Mission:

To be the first and main instance of angel investment in Chile, providing a “matching” service between investors and early stage companies. Southern Angels seeks to strengthen the immature early stage financing industry by achieving many and good invests to be considered “the model” for the Chilean and Latin-American angel investors industry.

CHINA

China Business Angels Association

www.chinaangels.org

Created: 2008

Mission:

Build a platform to promote the development of business angel in China. Specific objectives include: promote business angel exchanges and cooperation between China and worldwide; promote the research of business angel and early stage venture capital from theory to practice in China; structure platform for

business angel exchanges and cooperation between the parties; promote business angel projects transformation and development in China.

DENMARK

Danish Venture Capital and Private Equity Association (DVCA)

www.dvca.dk

No separate angel association

FINLAND

Finnish Business Angels Network (FiBAN)

www.fiban.org

Created: 2011

Mission:

FiBAN is a Finnish association of private investors that aims to improve the possibilities for private persons to invest into unlisted potential growth companies. The association's work is based on contributions of the development of Finnish businesses and to the birth of new jobs via potential growth companies. The objective of FiBAN is to grow and develop the profession of private equity investors, *i.e.* so-called business angels. To cater to new high growth companies, FiBAN offers training and events, developing business angel networks and improving co-operations with private equity investors.

FRANCE

FranceAngels

www.franceangels.org

Created: 2001

Mission:

France Angels was created to promote investment by Business Angels in France in order to quickly and strongly increase their number and thus make this resource available to as many entrepreneurs as possible who are looking for funding, represent Business Angels within French and European institutions, public and private, notably in order to create favourable conditions for the development of this activity, and accompany the development of Business Angels networks and professionalise their action by facilitating the exchange of "best practices" between networks themselves, and between the networks and external partners (seed funding and venture capital organisations in particular), at a regional, national and international level.

GERMANY

Business Angels Netzwerk Deutschland e.V. (BAND)

www.business-angels.de

Created: 2000

Mission:

Business Angels Netzwerk Deutschland e.V. (BAND) is committed to building the business angels culture in Germany, organising exchange of experiences and promoting co-operation. As an umbrella organisation of the business angel networks in Germany, BAND represents the interests of young and innovative companies at the policy level.

IRELAND

HALO Business Network (HBN)

www.halobusinessnetwork.com

Created: 2009

Mission:

Halo Business Angel Network (HBAN) is an all-island umbrella group for business angel investing in Ireland focused on creating angel investor syndicates across Ireland. HBAN is actively working to increase

the number of angel investors who are interested in investing in early stage technology companies. HBAN is dedicated to promoting best practice angel investment and supporting the early stage entrepreneurial community in Ireland. HBAN also works to create an eco-system that promotes and supports the early stage investment market. HBAN supports the formation of new and existing angel syndicates, both regionally and internationally, and within industry sectors. HBAN also acts as a voice to government, stakeholders, business and the media to promote the interests and needs of the angel and early stage investment community. HBAN is a joint initiative of InterTradeIreland and Enterprise Ireland.

ISRAEL

High Tech Industry Association

www.iva.co.il

Created: 2009

Mission:

The High Tech Industry Association is a broad based membership organisation with over 150 members. The mission is to strengthen the Israeli high tech industry across the whole value chain, by creating the required market conditions that allow the building of world class technology companies. The association acts to promote the interests of the entrepreneurs, companies and investors across the entire ecosystem. The High Tech Industry Association is the leading public policy advocate for the high tech, angel and venture capital industry with the aim of strengthening the global competitiveness of the Israeli high tech industry.

ITALY

Italian National Association (IBAN)

www.iban.it

Created: 1999

Mission:

The Italian National Association is focused on the development and the growth of the Business Angels phenomena in Italy. IBAN's members are BAN's, investors clubs, business angels and professionals in matching investors (formal and informal) with entrepreneurs. IBAN has always aimed to create a strong "relationship network" that links institutions and economic operators know-how and expertise, covering all "value chain" in the "early stage phase". In this way, IBAN can really support "start-up" enterprises in their growing process.

NETHERLANDS

BAN Netherlands

www.bannederland.nl

Created: 2009

Mission:

BAN Netherlands is the umbrella organisation of match-makers and intermediaries between entrepreneurs and private investors (business angels). BAN Netherlands was formed by the joining of seven independent networks.

NEW ZEALAND

Angel Association New Zealand

www.angelassociation.co.nz

Created: 2008

Mission:

The Angel Association is an organisation that aims to increase the quantity, quality and success of angel investments in New Zealand and in doing so create a greater pool of capital for innovative start-up companies. The primary objectives of the Angel association are to promote the growth of angel investment in New Zealand, including encouraging and educating entrepreneurs, new angel investors and angel groups

and ensure the on-going success of the industry through developing industry strategy, encouraging collaboration between members and providing education for those involved.

PORTUGAL (2 national federations)

National Federation of Business Angels Associations

www.fnaba.org

Created: 2007

Mission:

FNABA aims to be a conciliator entity, FNABA aims to provide institutional representation to member Networks at national and international level, preserving each member orientation and independence while promoting the Business Angel activity in Portugal.

Associacao Portuguesa de Business Angels (APBA)

www.apba.pt

Created: 2006

Mission:

The mission of the APBA is to foster the development of Business Angels in Portugal in order to develop the spirit of entrepreneurship and contribute to the growth of a vibrant and innovation economy.

RUSSIA (2 national federations)

National Business Angel Association (NBAA)

www.rusangels.ru

Created: 2009

Mission:

NBAA is a country-wide industry body for business-angels, seed funds, and other early stage VC market players. The members are major early stage VC market players in Russia – well established angels networks, seed and early stage funds scattered all over the country. The NBAA objectives include helping members to grow and prosper and helping to grow the market. This is done in close co-operation and collaboration with major government agencies, state development institutions, professional organisations, and other interested parties.

The National Union of Business Angels of Russian Federation (RUSSBA)

www.russba.ru

Created: 2006

Mission:

RUSSBA is a non-profit partnership that brings together individuals and legal entities, private and institutional investors that invest in innovative technology companies and organisations providing services in the areas of investment and innovation. The goal is to support the establishment and development of new industries in the economy through the creation of an enabling environment for business angel activity in Russia.

SPAIN (2 national federations)

ESBAN - Red Espanola de Business Angels

www.esban.com

Created: 2004

Mission:

ESBAN co-ordinates and promotes the different Business Angels networks in Spain. For these networks ESBAN has a number of roles ranging from highlighting the contribution that business angels make to the entrepreneurial culture, supporting its members and lobbying government to encourage the exchange of best practice, experiences and ideas among members. ESBAN counts with the support of Spanish government through the DGPYME (General Secretariat of SMEs) which is member of ESBAN foundation Board.

AEBAN - Asociación Espanola de Business Angels

www.aeban.org

Created: 2008

Mission:

AEBAN is the Spanish Association of Business Angel Networks, a non-profit and independent organisation representing angel networks in Spain. The main mission is to promote the activity of Business Angels and BANs in Spanish territory. AEBAN provides a forum for exchanging information, experiences and projects between representatives of business angel networks, government, educational institutions and other bodies or institutions interested in the aims of the Association. AEBAN promotes business angel activity; identifies, promotes and shares best practices and disseminates information on the angel market in Spain.

SWEDEN

Swedish Venture Capital and Private Equity Association (SVCA)

www.svca.se

No separate angel association

SWITZERLAND

Swiss Private Equity & Corporate Finance Association (SECA)

www.seca.ch

No separate angel association

TURKEY

Turkey Business Angels Association (TBAA)

www.melekyatirimcilardernegi.org

Created: 2011

Mission:

TBAA's mission is to enable Turkish entrepreneurs to become familiar with a culture of partnership. Now is time for Turkish entrepreneurs to embrace a completely new model of entrepreneurship introduced by the TBAA –Business Angels Association of Turkey – a 'partnership culture' whereby business people of acumen are invited to form partnerships with rising entrepreneurs.

UNITED KINGDOM

British Business Angel Association (BBAA)

www.bbaa.org.uk

Created: 2004

Mission:

The British Business Angels Association (BBAA) is the national trade association dedicated to promoting angel investing and supporting early stage investment in the United Kingdom. BBAA works to create an

ecosystem to help support the industry through bringing together angel networks, private investors, early stage funds and professional advisors.

Created in 2004, the BBAA has grown rapidly into a vibrant community of like-minded organisations. BBAA represents almost 100 organisations including the vast majority of business angel networks across the UK, over 20 early stage venture capital funds, as well as professional service providers and advisers, including accountancy and law firms, corporate finance, banks, regional development agencies, universities and public policy-makers.

LINC Scotland

www.lincscot.co.uk

Created: 1993

Mission:

To improve the economy of Scotland by ensuring that ambitious high-growth companies in the SME sector have efficient access to an adequate supply of the added-value business angel capital best suited to help them achieve their full potential. Objectives include: growing the population of competent, active, business angel investors in the Scottish marketplace; harnessing the supply of capital available from the growing number of passive investors, lacking normal business angel characteristics, who nevertheless wish exposure to high-growth SMEs as part of an overall investment portfolio; growing the population of SMEs willing, and equipped, to secure and benefit from business angel investment; influencing United Kingdom and European Union governments to maintain a favourable tax and regulatory environment for business angel investment; influencing government to operate supportive policies, and Scottish Enterprise to deliver interventions, which enhance and complement the operation of our business angel market place; continuously improving our understanding of the operation, trends and needs of the business angel marketplace and applying this to the development of innovative measures to facilitate the working of that marketplace.

UNITED STATES

Angel Capital Association (ACA)

www.angelcapitalassociation.org

Created: 2004

Mission:

The Angel Capital Association (ACA) is the trade association of leading angel investment groups in North America. ACA's mission is to support the growth, financial stability and investment success of its member angel groups by sharing best practices and industry data, providing professional development, and promoting group membership, networking and collaboration. The association also serves as the public policy voice of the angel community and is focused on advancing policies at the state and federal level that support and promote angel investing.

REGIONAL ASSOCIATIONS/FEDERATIONS

Business Angels Network South East Asia (BANSEA)

www.bansea.org

Created: 2001

Mission:

BANSEA's vision is to foster a vibrant start-up ecosystem, in which angel investors fund entrepreneurs who eventually become angels themselves. The primary mission is to facilitate good deals between members and seed-stage start-ups; not just financing but mentoring and connections too. BANSEA also seeks to grow the angel investment community in Asia through educational workshops, research, conferences, and networking sessions with international angel groups.

European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players (EBAN)

www.eban.org

Created: 1999

Mission:

EBAN is the European trade association for early stage investors, an independent and non-profit association representing the interests of business angels networks (BANs), early stage venture capital funds and other entities involved in bridging the equity gap in Europe. EBAN was established with the collaboration of the European Commission by a group of pioneer BANs in Europe and EURADA (the European Association of Development Agencies) in 1999 to enhance the representativeness of the early stage investment market and increase the visibility of the added value brought by BAs, BANs and early stage funds in the equity market.

Latin American Association of Angel Investors

Created: 2010

Mission:

The mission of this new organisation is to promote investments and networks that contribute to the strengthening of a culture of entrepreneurship in order to support economic development, job creation and wealth creation in the Americas. The initiative is supported by the Inter-American Development Bank. The objectives of the new angel association are to support the creation and development of networks of angel investors throughout Latin America and the Caribbean, stimulating the exchange of knowledge and promoting the adoption of best practices; develop activities for the education and training of angel investors, creating a knowledge base in common between investors and entrepreneurs; support sustainability among entrepreneurs during the early years, creating tools for investment and sources of financing based in a culture of cross border investment; and encourage Latin-American and Caribbean governments to develop an ecosystem to stimulate angel investing that includes the financial incentives that encourage them to assume risks.

World Business Angel Association (WBAA)

www.wbaa.biz

Created: 2009

Mission:

The primary mission of the WBAA is to raise global awareness of the importance and practice of business angel investment, stimulate the exchange of best practices in angel investing, and enhance the development of cross-border angel investing. It does this by promoting the professionalisation of the angel market through the fostering of angel groups and associations; co-ordinating research produced on the angel market worldwide; standardising terminology at an international level regarding angel investing; organising in-person meetings and conferences for international angel investors; and developing online resources for information about, and access to, local, regional and cross-border angel investing resources.