**THE INFORMAL VENTURE CAPITAL MARKET IN THE UNITED KINGDOM: ADDING THE TIME DIMENSION**

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**Abstract**. Studies of venture capital rarely incorporate a time dimension. This is particularly true in the case of the informal venture capital market where the lack of statistical information has prevented any analysis of how this market has changed over time. This chapter addresses this omission by providing an overview of how the environment in the UK for business angels has changed over the past decade and the impact of these changes on investment activity. There have been significant changes in tax incentives, the regulatory environment and the institutional context. Specific consideration is given to the impact of the post-2000 technology downturn on angel investing. Finally, the chapter utilises data on deals made through business angel networks (BANs) from 1993-2003 to indicate trends in investment activity. Three inter-related developments can be observed: the increasing proportion of large deals (over £250,000); the decrease in large investments by individuals and the increase in smaller investments; and the increase in the number of syndicated investments involving large numbers of individual investors. These trends are, in turn, a function of the changing organisation of the market, notably more business angel syndicates, more organisations offering ‘packaged’ investment opportunities aimed at passive investors, and the remaining BANs operating more pro-actively to build *ad hoc* angel syndicates around specific deals.

1. Introduction

The venture capital market comprises two distinct parts. First is the *formal*, or *institutional*, market comprising specialist intermediaries (venture capital fund managers) who raise finance from the financial institutions (e.g. banks, insurance companies, pension funds) and other sources (companies, charitable trusts, wealthy families) for fixed-life funds which, in turn, invest in growing companies and ownership change situations. These funds normally have a specific investment focus, for example, in terms of stage of business, industry and location. The investors in the fund (termed ‘limited partners’) lack the resources and expertise to invest directly in companies, and, in any case, are only allocating a small proportion of their investments to this asset class (typically a maximum of 1-2%) and so find it more convenient to invest in funds managed by venture capital firms (or ‘general partners’) who have specialist abilities which enables them to deal more efficiently with asymmetric information than other types of investor (Amit et al, 1998; 2000).

The formal venture capital industry is highly visible. Most venture capital firms are members of national or regional associations (e.g. British Venture Capital Association, European Venture Capital Association), statistics are collected on their investments activity both by the national/regional associations and also by private sector organisations (e.g. PwC’s *Money Tree*) and their activity is reported and discussed in various trade magazines (e.g. *Red Herring, Venture Capital Journal, Real Deals*). It has also attracted considerable scholarly attention from researchers in various disciplines, notably entrepreneurship and financial economics.

The other part is the *informal* venture capital market which comprises high net worth individuals – termed *business angels* - who invest their own money directly in unquoted companies in which they have no family connection in the hope of financial gain and typically play a hands-on role in the businesses in which they invest. This activity is largely invisible. Business angels are not obliged to report their investment activity, and in most cases seek privacy and anonymity which makes it very difficult to identify them for survey purposes. Thus, there are no statistics on business angel investments. Our knowledge of business angels and their investment activity is derived from a relatively small number of academic studies which have typically been based on samples of convenience and, as a consequence, quite possibly unrepresentative. However, because the population of business angels can never be identified it is not possible to test samples of business angels for their representativeness (Wetzel, 1981). Nevertheless, the findings from studies of business angels in various countries reveal a remarkable degree of similarity in their characteristics, motivation and investment behaviour (Hindle and Rushworth, 2001; Mason and Harrison, 2000a; Mason, 2006). The informal venture capital market has attracted relatively little attention from scholars which is no doubt linked to the lack of statistical information and the challenges involved in undertaking original data collection.

Contrary to popular views, and to the attention that it receives, the formal venture capital industry plays a relatively minor role in funding new and recent start-ups. In the USA in 2004 seed and start-up investments accounted for only 5.% of all venture capital investments and just 1.7% of the amount invested. It is a similar story in Europe where investments in start-ups account for only 6% by value in 2003. In the UK, just 4% of investments by venture capital funds were in start-ups in 2004, and they accounted for under 1% of the total amount invested. The focus of the formal venture capital industry is in fact on providing growth capital to existing companies, and, increasingly, in funding ownership changes in existing mature businesses – typically in the form of management buy-outs and buy-ins. Most new and recently started businesses obtain venture capital from business angels. Indeed, best estimates suggest that businesses angels may make ten to twenty times the number of investments as venture capital funds at the seed, start-up and early growth stages (Wetzel, 1987; Gaston., 1989; Mason and Harrison, 2000b; Sohl, 2003). However, the much smaller size of investments made by business angels means that their significance in terms of amounts invested is less. Some of the businesses that raise their initial funding from business angels go on to raise further rounds of finance from venture capital funds in a process that some observers have suggested is akin to a relay race (Benjamin and Margulis, 1999; Harrison and Mason, 2000). However, most do not either because they do not need further funding, or they do not meet the investment criteria of the venture capital funds. Governments and regional development agencies around the world have recognised that business angels are a key ingredient in an entrepreneurial eco-system and have therefore sought to stimulate both their emergence and investment activity by various forms of interventions, notably through tax incentives and mechanisms which enhance the flow of information on investment opportunities.

The literature on the informal venture capital market is both relatively young and, in comparison to studies of the formal venture capital market, relatively small. The pioneering studies by Wetzel and colleagues in the USA were undertaken in the 1980s and early 1990s (e.g. Wetzel, 1981; 1983; 1987; Freear and Wetzel, 1990; Freear et al, 1994a; 1994b; 1995). These and other US studies (e.g. Haar et al, 1988; Gaston, 1989) – which tended to focus on the characteristics of business angels and their investment activity – were replicated during the 1990s in Canada, Australia and various European countries (e.g. Riding and Short, 1989; Harrison and Mason, 1992a; Mason and Harrison, 1994; Landström, 1993; Hindle and Wenban, 1999; Reitan and Sørheim, 2000; Brettell, 2003; Stedler and Peters, 2003). Mason and Harrison (2000a) describe these as ‘first generation’ studies. More recent work – ‘second generation’ studies – have focused on specific aspects of the investment process, for example, investment decision-making (Mason and Rogers, 1997; Feaney et al, 1999; Haines et al, 2003), the post-investment relationship (e.g. Harrison and Mason, 1992b; Mason and Harrison, 1996; Madill et al, 2005) and the exit process and returns (Mason and Harrison, 2002a).

One of the major gaps in the informal venture capital literature is the absence of longitudinal studies which examine its evolution. Studies of the formal venture capital market highlight its cyclical nature: investment returns, the flow of finance into the industry and the level of investment activity all fluctuate over time (Bygrave and

.Timmons, 1992; Gompers and Lerner, 2001, ch. 5

). There are also secular trends, notably the shift from what Bygrave and Timmons (1992) term ‘classic’ venture capital in favour of ‘merchant’ capital’ – that is, the move away from early stage investments, which requires company building skills, in favour of later stage investments in established firms where the key skill sets are financial engineering and deal crafting. However, the time-dimension has been absent in studies of the informal venture capital market. There are good reasons for this. First, in contrast to the position in the formal venture capital industry, investments by business angels are not reported or recorded, thus there is no body of statistical information on angel investment activity. Second, although some ‘snapshot’ surveys of business angels have been undertaken at various points in time over the past 15 years they cannot be compared because of differences in methodologies and definitions.

This chapter seeks to rectify this omission by giving explicit emphasis to the changing nature of the informal venture capital market in the United Kingdom over the past ten years. First, it provides a qualitative overview of changing investment environment, looking at three aspects in particular: the tax regime, the regulatory environment and the institutional context. Second, it examines what happened to angel investment activity during the post-2000 technology downturn. Third, it draws upon statistics that have been collected on an annual basis on investments that are made through business angel networks (BANs), to examine the changing nature of angel investment activity. BANs are organisations that seek to overcome the informational deficiencies in the market for early stage venture capital by providing mechanisms which enable investors and entrepreneurs seeking finance to connect with one another. The significant limitation of these data, of course, is that they are measuring the tip-of-the-iceberg. The vast majority of investments are made without the involvement of a business angel network. However, it is the only part of the market that is visible. If we make the assumption that the investments that are made through BANs are not significantly different from those which go unrecorded then we can regard this data as providing a useful insight into temporal trends in the characteristics of business angel investments in the market as a whole (e.g. size, stage, sector, amount), even though it is unable to say anything about the volume of investment activity.

2. The Evolution of the Investment Environment

Private individuals making investments in other peoples’ businesses is not a new phenomenon. Sohl (1999) reports that in the USA some of the key businesses of the industrial era, including The Bell Telephone Company and Ford, were started with funding from business angels. A more recent example is *Amazon.com* which was initially funded by the founder and family and then used business angels for its second and third funding rounds before going on the raise money from venture capital funds and then obtain a stock market listing (van Osnabrugge and Robinson, 2000). In the UK, one of the most famous examples of a business angel investment, on account of its success, was made in 1976 in *The Body Shop*. An investment of £4,000 to enable Anita Roddick, the founder of the business, to open a second shop propelled the investor, a local garage owner, into the UK ‘rich list’ once the company went public in the early 1980s. However, the first studies of UK’s informal venture capital market only appeared in the early 1990s (Harrison and Mason, 1992a; Mason and Harrison, 1994) and it took until the mid-1990s for the term ‘business angel’ to become understood and widely used. This section looks at three aspects of the investing environment in the UK over the past ten years: tax, regulation and institutions.

*2.1 Tax*

The significance of tax incentives as a means of stimulating informal venture capital investment activity continues to be a matter of some debate. Certainly, the tax regime appears to be one of the few ‘environmental’ factors that has the ability either to encourage, or to discourage, angels from investing (Mason and Harrison, 2000c). On the other hand, ongoing research involving focus groups suggests that angels vary quite significantly in terms of their sensitivity to tax. Moreover, tax is not a consideration when the merits of a potential investment is being considered. Thus, the evidence from studies of business angels suggests that the tax regime is more important in a negative sense, having the ability to discourage high net worth individuals from investing. Tax incentives, in contrast, probably have only a marginal effect, at least on genuine business angels who make their own investment decisions and provide support for their investee companies and whose motivation for investing is as much for fun as financial return, although may have a greater effect on passive investors whose portfolio allocation is influenced by tax considerations.

There are various ways in which the tax system can be used to incentivise potential investors to invest in unquoted companies. First, tax relief can be provided on the capital gains that accrue when investments are sold. Since angels are motivated by financial gain this might seem to be the most appropriate form of incentive. Second, tax relief can be set against income, thereby lowering the real cost of the investment and increasing the potential post-tax return. Third, losses can be offset against gains. Fourth, liability for capital gains incurred from the sale of other assets can be deferred if the gain is invested in unquoted companies and only becomes payable if these investments generate capital gains. In the UK the tax reliefs have included all four forms, although the main emphasis has been on setting qualifying investments against income tax.

The UK has had a favourable tax environment for business angels for many years. The Business Start-Up Scheme, introduced in 1981, and changed to the Business Expansion Scheme (BES) in 1983, was the first tax-based incentive with the objective of stimulating private investors to make investments in unquoted companies, especially young technology companies, even though it was launched in an era which preceded the awareness of business angels and their role in funding and supporting young companies. Investors could invest up to £40,000 per annum. A combination of the generous tax incentives, with investors receiving relief at their top marginal rate (originally 60% but subsequently reduced to 40%), and the creativeness of the financial community in using and promoting the scheme resulted in £779m being invested in nearly 4,000 companies its first five years of operation. However, a large proportion of the money that was raised was invested either in the form of large public offers (in the form of a prospectus issue or private placing) or made through BES funds (pooled investment vehicles run by professional fund managers), and so appealed to passive investors seeking tax-efficient investments (Mason et al, 1988). Furthermore, the financial community promoted the BES as a low risk investment and so most of the money invested through public offerings and by BES funds in were asset-backed companies, such as hotels and nursing homes, a very different outcome to that envisioned when the scheme was launched. Moreover, since one of the rules was that investors could not be, or become, ‘closely connected’ with the companies that they invested in, such as a paid director, the Scheme actually discouraged ‘hands on’ investors. Nevertheless, the most common type of investments in numerical terms were small direct investments which can be assumed to be ‘angel-type’ investments.

In 1988 the Scheme was – inexplicably - widened to include investments in private residential rented property (‘assured tenancies’). Moreover, whereas housing projects could raise up to £5m per year, the amount which trading companies could raise under the Scheme was capped at £500,000 (subsequently raised to £750,000). The effect was to transform the scheme from a business support measure to a tool of housing policy. From 1988 until 1993, housing projects attracted well over 90% of the funds invested under the Scheme. The closure of the BES was announced in the 1992 Budget, taking effect in the following year, on the grounds that the development of a venture capital industry had filled the equity-gap in the UK.

However, this decision was reversed in the next Budget by a new Chancellor of the Exchequer. Two new schemes were introduced: the Enterprise Investment Scheme (EIS) and Venture Capital Trusts (VCTs). Both are still in operation. The EIS provides tax reliefs for investments that are made directly in unquoted businesses. In a deliberate attempt to appeal to business angels (which by this time were becoming recognised for their importance as a source of both finance and expertise for young companies) investors were not allowed to be ‘closely connected’ with the company prior to investment (to prevent directors from using the Scheme to invest in their own companies) but could become a paid shareholders after investing. The maximum shareholding was 30%. Investments in property-based activities were excluded in order to channel funding into trading companies. VCTs, in contrast, are professionally managed collective investment vehicles which invest in both unquoted businesses and also businesses that are listed on AIM, the ‘junior’ stock exchange. Thus, whereas the EIS is targeted at angel-style investors VCTs are appealing to passive investors.

The EIS provides a rich cocktail of incentives: tax relief at the basic rate (20%), exemption from capital gains tax (CGT), the ability to ‘roll-over’ capital gains made on other types of investment if they are invested in companies qualifying for the EIS, and income and capital gains tax relief on losses on EIS shares. Investors can invest up to £150,000 per annum (raised from £100,000) while there is no limit on the size of investment qualifying for deferral of liability for capital gains tax. Companies can raise up to £1m per annum. Investors must hold their shares for at least three years (reduced from five years in 2000). After a slow start the EIS proved to be extremely successful in channelling money into unquoted companies. In the ‘tech-boom’ years from 1998-99 to 2000-1 the amounts invested tripled, peaking at over £1bn in 2000-1, fuelled, on the demand side, by the entrepreneurial frenzy of those years, and on the supply size by the capital gains that many investors had made in the ‘bubble’ which they wanted to defer (Table 1). Indeed, ‘deferral investors’ made larger investments than other types of EIS investors (Boyns et al, 2003). Not surprisingly, the amounts invested under the EIS fell back in the aftermath of the ‘bubble’ (see Table 1). In response, the 2004 Finance Act raised the maximum annual amount that an investor was permitted to make to £200,000.

TABLE 1 ABOUT HERE

A survey of business angels conduced four years after the launch of the EIS suggested that it was being widely used, with 40% of investors in the sample making one or more investments under the Scheme and 43% of the investments made by the sample of angels being made under the Scheme. Moreover, it appeared to be achieving high additionality, with 77% of investors making more investments than would have otherwise been the case in the absence of the Scheme and 56% making larger investments on account of its existence. However, the additional money invested as a result of the Scheme was much more modest at just 10%. The EIS has been much less successful in altering investment preferences, with only 17% stating that it had encouraged them to make investments in businesses that they would not otherwise have considered (Mason and Harrison, 1999).

The ability to ‘roll-over’ capital gains by investing them through the EIS achieved an even higher additionality, with 15% more monies invested, 88% of investors stating that they made more investments as a result, and 56% stating that it enabled them to make larger investments. It has also had more of an impact on changing investment preferences, with 29% stating that roll-over relief had encouraged them to invest in businesses that they would otherwise not have considered. This might be explained by the three year time limit on re-investing capital gains. (Mason and Harrison, 1999).

An evaluation of the EIS in the period up to 2000-01 concluded that more than half of the monies invested would not have been invested by these same investors in the absence of the scheme. Companies benefited from having hands-on investors who provided them with advice and expertise (Boyns et al, 2003). However, only 27% of investors reported having a ‘hands on’ role (Boyns et al, 2003), suggesting that the scheme has also attracted a lot of passive investors who would not meet the convention definition of a business angel.

A further significant change in the tax environment has been taper relief which were first introduced in the 1998 Finance Act and subsequently improved two years later. This provides investors with an effective rate of CGT 10% on their ‘business asset’ investments after two years.

Thus, the business angels in the UK have enjoyed a very favourable fiscal environment for investing for more than 20 years. Indeed, with the introduction of the CGT taper and the recent increase in the EIS investment threshold the incentives have improved. Moreover, whereas the BES attracted criticism for being a ‘tax shelter for the rich’, no such criticisms have been made of the EIS. Public opinion would appear to accept that it is legitimate to provide some tax incentives to encourage entrepreneurship in recognition of the investment risk that is involved. However, as the post-technology bubble years revealed, economic context overrides tax incentives. Angels will be reluctant to invest, regardless of tax incentives, if they are nursing large investment losses and the ability to roll-over capital gains will be negated in periods when investors do not have capital gains. Moreover, there has to be good investment opportunities available. Policy-makers therefore have to ensure that initiatives to encourage informal venture capital investment activity are appropriate for the economic conditions of the time.

*2.2 Regulation*

Financial securities legislation imposes restrictions on the ability of ‘unauthorised persons’ to promote particular investments or to encourage individuals to engage in investment activity unless it has been approved by an authorised person such as an accountant or stockbroker. The intention of this legislation is ensure that potential investors are aware of the risks prior to making an investment. Consequently, until very recently, it would have been a criminal offence for a business owner to send a business plan to a business angel because it would have been deemed to be an investment advertisement. The objective of protecting ‘widows and orphans’ from unscrupulous promoters is appropriate. However, the effect of providing protection in the form of a ‘one size fits all’ format has been to prevent small businesses seeking to raise finance from circulating information to business angels because the costs of associated with obtaining approval would normally to be too high in relation to the amount of finance that is typically being sought. Admittedly, the actual effect of this restriction has never been empirically established. However, it is widely thought to have discouraged intermediaries such as accountants and lawyers from introducing their personal high net worth clients to business clients who were seeking to raise finance on account of the legal risks. In practice it is no doubt the case that many ‘introductions’ have been made informally either in defiance or in ignorance of the law (Mason and Harrison, 2000c). Nevertheless, this legislation is likely to have exacerbated the information barriers in the informal venture capital market and to have contributed to the situation in which many business angels were dissatisfied with the availability of investment opportunities which, in turn, prevented them from investing as frequently as they wished (Mason and Harrison, 1999; 2002b).

Business angel networks were given an exemption under the Financial Services Act (1986) from promoting investment opportunities to their registered investors as long as their principal objective or one of their principal objectives is the promotion of ‘economic development’ and they did not have any pecuniary interest in the outcome of the introduction other than to enable the recovery of the costs of providing the service. (Clarke, 1996). This enabled BANs to circulate information on investment opportunities to its registered investors but only if it included a prominent ‘wealth warning’ about the potential risks of investing in unquoted companies. However, they were not permitted to give any investment advice or recommend particular investments.

In response to extensive lobbying from the business angel community, and following consultation, the Financial Services and Markets Act 2000 (which replaced the Financial Services Act 1986) created an important exemption to enable unquoted firms to raise equity capital without the substantial costs of getting their financial promotion approved if the promotions are made to potential investors who are certified as high net worth individuals or sophisticated investors. In order to obtain a high net worth individual exemption, investors had to obtain a certificate from either their employer or accountant stating that they either earn in excess of £100,000 or have net assets worth at least £250,000 (excluding their principal residence and pension benefits). The sophisticated investor exemption required an authorised person to certify that the investor is sufficiently knowledgeable to understand the risks associated with the investment. However, because there has been no policing of this certification system it has been widely ignored by the business angel community who have seen it as being time-consuming, costly and intrusive while it appears that authorised persons (such as accountants) have been reluctant to certify investors as sophisticated because of the subjective nature of the test, leading to concerns that they might be liable if investors lost money on their investments. The cost of obtaining an exemption because of the due diligence that an authorised person must undertake to avoid making an incorrect certification has been a further deterrent (HM Treasury, 2004a).

In order to address these problems the Government has introduced a *self*-certification scheme whereby potential investors would be allowed to self-certify themselves as either high net worth individuals or sophisticated investors, without having to go through an authorised intermediary. The high net worth criterion of earnings of at least £100,000 a year or net assets of at least £250,000 (excluding principal residence and pension) are as before. Individuals can self-certify as sophisticated investors if they meet one of the following conditions: a member of a network or syndicate of business angels for at least six months; have made more than one investment in unlisted companies in the previous two years; working, or have worked in the previous two years in a professional capacity in the private equity sector or in the provision for finance for small and medium sized enterprises; or is currently, or has been in the previous two years, a director of a company with an annual turnover of at least £1 million. Accordingly, firms can now promote to individuals that they ‘reasonably believe’ are self-certified as high net worth or sophisticated investors, confident that they are operating within the law (HM Treasury, 2004b). By making it easier for small firms to approach and attract investors and, at the same time, improve the deal flow for business angels this change should represent a significant improvement in the informal venture capital environment.

*2.3 Organisations*

The informal venture capital market has traditionally been invisible, fragmented and unorganised, dominated by individuals and small *ad hoc* groups of individuals who strive to keep a low profile and rely on word-of-mouth for their investment opportunities. This is a key reason why the market has been characterised by informational barriers, high search costs for both investors seeking investment opportunities and entrepreneurs seeking to raise finance, and the existence of discouraged investors and entrepreneurs. Much of the market continues to operate in this way. However, since the mid-1990s there have been various attempts to organise this market in order to enhance its efficiency.

One of the major findings from the first study of the UK’s informal venture capital market was that business angels had money available to invest because they could not find sufficient investment opportunities (Mason and Harrison, 1994). This was attributed to the invisibility of both potential investors and entrepreneurs seeking finance and the desire of investors to retain their anonymity. In the light of evidence of the success of *Venture Capital Network* in the USA (Wetzel, 1984; Wetzel and Freear, 1996), a computer-based introduction service which enabled business angels to review investment opportunities without compromising their anonymity, Mason and Harrison (1992; 1993; 1994; 1995) proposed the establishment of similar organisations in the UK. This suggestion was adopted by the Government which funded five local demonstration projects in conjunction with local partners to assess the performance of different models of operation. In the light of evidence that these organisations – subsequently termed *business angel networks* (BANS) – were achieving success in facilitating investments (Harrison and Mason, 1996) others were established. Indeed, by the late 1990s there were just under 50 BANs across the UK (Table 2)

TABLE 2 ABOUT HERE

About half of the BANs that were established during the 1990s were founded by local or regional government agencies of one kind or another under an economic development remit and operating within geographically defined territories. The rest were established by private sector organisations and operating on a fully commercial basis, or at least seeking to do so. The private sector promoters were quite varied, including corporate finance advisers, accountants and interim management firms as well as groups of private investors. These BANs generally operated across much larger geographical territories including, in some cases, the entire country. One of the key features of the commercial BANs is that the fees charged to investors are much higher than that of public sector BANs and they also charge a ‘success fee’ in the form of a proportion of the amount raised. (Some public sector BANs subsequently adopted this practice). As a consequence, private sector BANs are positioned differently to that of public sector BANs, focusing on bigger deals, syndications, later stage and low-tech businesses (Mason and Harrison, 1997).

In response to this further fragmentation of the market and the difficulties created by boundary problems, Government created an umbrella organisation – the National Business Angel Network (NBAN) – to foster collaboration between BANs. One of its activities was publication of an investment bulletin containing brief summaries of investment opportunities offered by all of the BANs that were members of NBAN. This was circulated to investors registered with all of these BANs. Thus, an investor in, say Manchester, would be able to see what investment opportunities were available not just locally but across the UK. However, since most investors limit their investment to ‘one hour’s driving time’ from home, this information may have had little or no value for most investors.

There have been four significant developments in the organisational structure of the UK’s informal venture capital market. First, there has been a significant rationalisation in the number of BANs (Table 2). Indeed, the newly-formed British Business Angels Association (BBAA), which has replaced NBAN, has just 18 members. This has been prompted by a number of factors. First, it is linked to the post-2000 investment downturn which resulted in a significant decline in business angel investment activity. Second, many of the public sector BANs were ineffective. Their geographical operating areas were too small and so lacked a critical mass of investors and investment opportunities and they lacked sufficient funding and, in turn, high quality staff, to operate effectively. One of the key characteristics of the remaining public sector BANs is that most now operate on a regional rather than a local scale. This is linked to a third factor, namely the reorganisation of business support in England. This has involved a decentralisation of responsibilities from central government to nine new regional development agencies (RDAs). One of the consequences of this change is that Business Links – local public-private business support organisations – which had operated most of the public sector BANs have seen their role reduced, and in several regions RDAs have taken over responsibility for running BANs. However, because of their different system of governance, Wales and Scotland have both had a single BAN operation for more than ten years (Xenos and LINC Scotland). Fourth, several private sector organisations have also dropped out, having found that they could not operate BANs on a commercial. In the case of some professional accountancy and law firms that were members of NBAN, their actual involvement in facilitating investments was nominal.

The second development has been a broadening in the range of activities of many of the surviving public sector BANs from the provision of information on investment opportunities to include the training of both entrepreneurs and investors. Growing evidence that investors still could not find sufficient investment opportunities despite the plethora of BANs (Mason and Harrison, 1999; 2002b) highlighted the need for intervention on the demand side to improve the investability of businesses seeking angel funding (Mason and Harrison, 2001). Several BANs have received funding from Government to run ‘investment readiness’ demonstration projects (SQW, 2004) while others are running such courses on their own initiative. Somewhat less emphasis has been given to the training of investors, at least in comparison with Continental Europe where various ‘angel academies’ have been established (e.g. San Jose et al, 2005). Nevertheless, there are examples of BANs which have run investor training workshops, including London Business Angels whose *ready2invest* programme is targeted at ‘virgin angels’. It has also run a training course for women; women continue to be significantly under-represented in the population of active business angels (Harrison and Mason, 2005).

The third significant development has been in the changing nature of commercial BANs. The first generation of commercial BANs (such as *Venture Capital Report*) typically operated as introductions services, providing investors with information on businesses seeking finance. Investors were responsible for making their own investment decisions, doing their own due diligence and negotiating an investment. The only involvement of the BAN may have been to form individual investors into *ad hoc* syndicates because the deal sizes were often too large for an individual investor. However, a new generation of commercial BANs – such as Hotbed, C2 Ventures and Envestors – which are often run by people with venture capital or corporate finance backgrounds, operate on a private placement basis, pro-actively finding the deals, making the investment decision, negotiating the terms and conditions and then offering a packaged investment to their investors who can choose whether or not to invest.

A fourth development, following the trend in the USA (May 2002; May and O’Halloran, 2003), is the emergence of business angel syndicates which operate by aggregating the investment capacity of individual high net worth individuals (HNWIs). They can be member-led, requiring all members to be actively involved in all stages of the investment process, or manager-led, in which case members take a much more passive role. Angel syndicates have emerged because individual angels find advantages of working together, notably in terms of better deal flow, superior evaluation and due diligence of investment opportunities, learning from more experienced investors and with experience in a range of different industries, and the ability to make more and bigger investments, as well as social attractions.

Angel syndication is at a much earlier stage in its development in the UK than in the USA where there are currently estimated to be around 200 and growing evidence of specialisation by industry sector (e.g. health care angel syndicates) and type of investor (e.g. women-only angel syndicates). A national body to bring angel groups together for the purposes of transferring best practice, lobbying and data collection was created in 2003 ([www.angelcapitalassociation.org](http://www.angelcapitalassociation.org)) . No estimates are available for the number of angel syndicates in the UK. However, Scotland – which appears to be the most advanced part of the UK in this respect – has around half-a-dozen angel syndicates including the high profile Archangels and Braveheart groups which have each been operating for nearly ten years. It is significant that these syndicates now make more early stage investments in Scotland than the entire formal venture capital industry. There are also a number of angel groups in the technology cluster of Cambridge.

The emergence of angel syndicates is of enormous significance for the development and maintenance of an entrepreneurial economy. First, they reduce sources of inefficiency in the angel market. The angel market has traditionally been characterised by inefficiency on account of the fragmented and invisible nature of angels. There was no mechanism for angels to receive a steady flow of investment opportunities. Hence, they often found their deals by chance. The entrepreneur’s search for angel finance was equally a hit-or-miss affair. Investors and entrepreneurs both incurred high search costs (Wetzel, 1981; Mason and Harrison, 1994). This encouraged many to drop out of the market as either suppliers or seekers of finance. Angel syndicates, in contrast, are generally visible and are therefore easier for entrepreneurs to approach.

A further source of inefficiency was that each investment made by an investor has typically been a one-off that was screened, evaluated and negotiated separately. However, because of the volume of investments that angel syndicates make they have been able to develop efficient routines for handling investment enquiries, screening opportunities and making investment agreements.

Second, they have stimulated the supply-side of the market. Syndicates offer considerable attractions for HNWIs who want to invest in emerging companies and sectors, particularly those who lack the referral sources, investment skills or the ability to add value. Many individuals who have the networks and skills to be able to invest on their own have also been attracted by the reduction in risk that arises from investing as part of a syndicate, notably the ability to spread their investments more widely and thereby achieve greater diversification, and access to group skills and knowledge to evaluate investment opportunities and provide more effective post-investment support. Other attractions of syndicates are that they enable individual angels to invest in particular opportunities that they could never have invested in as individuals, offer the opportunity to learn from more experienced investors and provide opportunities for camaraderie and schmoozing with like-minded individuals. Syndicates are also attractive to individuals who want to be full-time angels. Thus, angel syndicates are able to attract and mobilise funds that might otherwise have been invested elsewhere (e.g. property, stock market, collecting), thereby increasing the supply of early stage venture capital, and to invest it more efficiently and effectively. It also provides a mechanism for ‘old money’ to be invested in new industries.

Third, angel syndicates are helping to fill the ‘new’ equity gap. Venture capital funds have consistently raised their minimum size of investment and are increasingly abandoning the early stage market. Most funds have a minimum investment size of at least £500,000 and the average early stage investment by UK venture capital funds in recent years has been around £1m (BVCA, 2004). This has resulted in the emergence of a new equity gap – roughly the £250,000 to £2m+ range which covers amounts that are too large for typical ‘3F’ money (founder, family, friends) and for solo business angels but too small for most venture capital funds. Angel syndicates are now increasingly the only source of venture capital for amounts in this range.

Fourth, angel syndicates have the ability to provide follow-on funding. One of the potential problems of raising money from individual business angels is that they often lack the financial capacity to provide follow-on funding. The consequence is that the entrepreneur is often forced to embark on a further search for finance. Moreover, in the event that the need for additional finance is urgent then both the entrepreneur and the angel will find themselves if a weak negotiating position with potential new investors, resulting in a dilution in their investments and the imposition of harsh terms and conditions. With the withdrawal of many venture capital funds from the small end of the market individual angels and their investee businesses have increasingly been faced with the problem of the absence of follow-on investors. However, because angel syndicates have greater financial resources than individual angels or *ad hoc* angel groups they are able to provide follow-on financing. This also makes it more efficient for the entrepreneur who avoids the need to start the search for finance anew each time a new round of funding is required.

Fifth, the ability of angel syndicates to add value to their investments is much greater. The range of business expertise that is found amongst angel syndicate members means that in most circumstances they are able to contribute much greater value-added to investee businesses than an individual business angel, or even most early stage venture capital funds.

Finally, angel syndicates have greater credibility as co-investment partners, especially with venture capitalists. Venture capital funds often have a negative view of business angels, seeing them as amateurs whose involvement in the first funding round of an investment could complicate subsequent funding rounds because of their tendency to over-price investments, use complicated types of investment instruments and make over-elaborate investment agreements (Harrison and Mason, 2000). Venture capitalists may therefore avoid deals in which angels are involved because they perceive them to be excessively complicated. However, because of the professionalism and quality of the membership of angel syndicates venture capital funds hold them in much higher esteem. Accordingly, the increasing prominence of angel syndicates results in much greater complimentarity between the angel market and venture capital funds, to the benefit of fast-growing companies that raised their initial funding from angel syndicates but now need access to the amounts of finance that venture capital funds can provide.

These organisational changes are extremely significant. First, it is leading to the transformation of the angel market place from a ‘hobby’ activity to one that is increasingly professional in its operation, with published routines for accessing deals, screening deals, undertaking due diligence, negotiating and investing. Second, it is becoming harder to be a solo angel, especially in technology sectors, because the time, resources, networks and expertise needed for a good quality deal flow and to undertake the due diligence. The emergence of various intermediary organisations is making it easier for high net worth individuals to participate in the informal venture capital market even if they lack sources of deal flow, investment skills, value-added skills or time. Moreover, the diverse nature of these organisations means that they cater for investors with different capabilities for investment, in terms of amounts available to invest and degree of involvement. Third, it is leading to a more organised market place in which it is becoming easier for entrepreneurs to identify sources of informal venture capital. The Government’s new Enterprise Capital Funds (HM Treasury 2002; 2003) which are modelled on the USA’s Small Business Investment Companies and designed to make investments in the £250,000 to £2 million range is likely to promote further organisational innovation. Government will invest up to twice the amount raised by the private sector in each Fund but will take a smaller share of the profits but an equal share of the losses. It is expected that at least one of the three or four funds that are planned will be business angel-led.

3. Angel Investment in the Post-2000 Downturn

When the technology ‘boom’ turned to ‘bust’ in 2001 the immediate effect was a significant drop in investing by venture capital funds while a subsequent effect was a decline in the number investors, as funds either wound-up, returned money to their limited partners or amalgamated. This has been well documented in the business media (although not in the academic literature, at least to date). What is unclear is the effect of the investment downturn on the angel community. However, based on conversations with participants in the market place, media reports and ongoing research on Ottawa’s technology cluster, the following crude analysis can be proposed.

It is clear that many business angels suffered serious losses in the technology downturn. Those most affected were investors in technology businesses. Many of these businesses failed as a result of market decline or faulty business models. However, business angels also lost out in situations where businesses were able to raise further funding from either their existing venture capital investors or from new investors. In these circumstances, a combination of the inability of angels to provide follow-on funding, the much lower valuation of the subsequent funding compared with the original investment by the angels (‘down-rounds’) and their loss of rights as a result of the very onerous terms and conditions under which the venture capital funds invested in down rounds (e.g. liquidation preferences) resulted in a significant dilution in the angel’s investment, often to the extent of rendering it worthless even if the investee company was a going concern. The consequence of this aggressive behaviour by venture capital funds has been to create considerable bad feeling between them and the angel community.

The losses experienced by the angel community prompted many to withdraw from the market. This is reflected in the earlier evidence on the decline in EIS investing as well as from anecdotal evidence on declines in both the membership of BANs and the investment activity of members. No doubt a significant proportion of the investors who lost money were people who should not have been making such investments in the first place – lacking business or domain experience and contacts but pulled in by the speculative frenzy of the late 1990s. Some of these inexperienced angels may actually have contributed to the failure of their investee companies because of their unwillingness to let them raise further finance on terms that would significantly dilute their position.

To the extent that angels have re-entered the market, there is some suggestion that many are now returning as member of organised angel groups rather than continuing to invest as individuals, having recognising the reality that if you cannot follow your money then you are exposed to being diluted. The deeper pockets of angel groups enables them to provide follow-on funding, increasing their power relative to a new venture capital fund investors, and even to fund a business’s entire funding needs to an exit. There is also a suggestion that those angels who have dropped out of the market to nurse their losses have been replaced by a new breed of angel who are more professional and hard-nosed (D’Amico, 2005).

There is also a suggestion that because of the bad feeling between angels and venture capital funds business angels, both individually and in groups, are now seeking to operate as far as possible independently of venture capital funds by investing in businesses with relatively modest financial needs that can be funded largely or entirely by themselves. One of the consequences may be that angel financing will become increasingly restricted to certain technology sectors (such as software) and become increasingly rare in those sectors with substantial funding requirements (e.g. semi-conductors, life sciences).

Finally, re-iterating a point that was made earlier, it is clear that as a result of the withdrawal of the formal venture capital industry from early stage, sub-£5 million investing business angels now have this market largely to themselves. Since few angels investing on their own or in small groups are able to invest in excess of £250,000, this has been one of the factors that has fuelled the organisational innovations discussed earlier which are serving the demand from companies seeking investments in the £250,000 to £5 million range. One of the consequences of this development is that angel syndicates have found themselves having to do more financing rounds because they were no longer able to pass them on to venture capital funds. This has imposed both liquidity and resources constraints on angel syndicates which prevented them from making new investments. This situation prompted Government to respond by establishing co-investment schemes to invest alongside approved angels and angel groups on the same terms and conditions up to matched funding. This has had a significant effect in improving the ability of angel groups to continue to invest during the investment downturn of 2001 to 2003.

One of the consequences of the flight of venture capital funds to bigger and later stage deals and the tensions created by the technology downturn has been to further widen the disconnect between business angels and venture capital funds (Harrison and Mason, 2000; GP Capital, 2004). This contrasts with the USA where the relationship between angels and venture capital firms appears to be much more harmonious (Stanco and Akah, 2005). The dominance of negative views that each side has of the other impacts on their willingness to work together, with venture capitalists critical of the level of sophistication of angels while angels are critical of the risk adverseness of venture capitalists (GP Capital, 2004). This is perhaps inevitable. Venture capitalists and business angels have different economic constraints and motivations. Venture capital funds are aligned to their limited partners who demand extraordinary returns. Angels, in contrast, are investing their own money and so are accountable only to themselves are more likely to align themselves with the entrepreneur.

However, the emergence of professional business angel syndicates, the creation of government supported regional venture capital funds which have a remit to work with business angels, the creation of quasi-public sector seed capital funds (such as University Challenge Funds and NESTA) as well as the formation of co-investment vehicles are all providing alternative co-investment partners for the informal venture capital community.

4. Angel Investment Trends: Evidence from Business Angel Networks

The only part of the informal venture capital market that is visible are the investments that are made through BANs. This represents the tip-of-the-iceberg in terms of overall market activity. However, it is the only part of the market for which statistics can be collected. Investments that have been facilitated by BANs have been reported annually in conjunction with the publication of an annual directory of BANs by the British Venture Capital Association between 1993-94 and 2001 and in 2002 by the National Business Angel Network. Investment information was also collected for 2002 and 2003 but never published. Because these statistics have been collected on an annual basis they can provide some insight into the changing nature of informal venture capital investment activity.

It is important to appreciate both the coverage and limitations of this data. In terms of coverage it only includes investments that were made by one or more private investors who were registered or otherwise connected to a business angel network. Investments by business angels not registered with a BAN and investments by venture capital funds, private companies and other investors registered with networks are excluded. It is also limited to companies based in the United Kingdom. However, there is no restriction on the location of investors, thus investments made by non-UK-based investors in UK-based companies are included. The networks were asked to provide information on ‘matches’ that involved any business angels registered with their network investing in companies registered with their network. It was left to the individual networks to make their own judgement on whether their role in enabling the investment to occur was sufficiently significant to claim it as a ‘match’. There was no attempt to verify the data provided. Follow-on financings in which the original investment occurred in a previous year are included in the figures for the current year. Companies which raised finance from the *same* investor/s in any one year are counted only once. Where two or more investors have each invested independently of one another in the same company at different times in the same year then each of these investments is included separately. The statistics are vulnerable to non-response by major BANs (as occurred in 2002 and 2003). There is also the problem of missing information because some BANs are not informed by their investors of all of the relevant details of an investment. This is a particular problem in situations where business angels have invested alongside other investors (e.g. venture capital funds, banks, government grants, other business angels not connected with the network) as part of a financial package. These amounts are reported separately. However, because many business angel networks are not always aware of such situations, or the details of the other investments, this information is subject to significant under-counting. Finally, there is a significant discontinuity in the time-series data which arises from the fact that the statistics were originally collected on a mid-year to mid-year basis but changed to a calendar year basis in 2001.

As Table 3 shows, the volume of investment activity increased fairly steadily from 1993-94 to 1997-98, no doubt largely as a function of the increasing number of BANs (see Table 2). Between 1997-98 and 2001 there was a significant increase in the amount invested by business angels (apart from a short blip in 1998-99) but this is not matched by the trends in either number of investments, number of companies raising finance or the number of business angels investing. However, as might have been anticipated from the earlier discussion (section 3), there was a significant decline in both the number of investments and the amount invested between 2001 and 2002 but this was reversed in 2003 (the latest date for which data are available). Nevertheless, investment activity in 2003 remained below the level recorded in 2001.

INSERT TABLE 3 HERE

Table 3 also indicates that the average size of investment has also increased. It rose fairly steadily from 1993/94 (£69,000) to 2000-01 (£138,000) , then peaking sharply at the top of the ‘tech bubble’ in 2001-02 (£193.000), falling back slightly in 2002 and 2003 (£162,000) as valuations dropped in the aftermath of the downturn.

The number of business angels involved in each deal is shown in Table 4. This only includes the number of investors registered with the same BAN. In a small minority of cases the deal also involved other business angels that were not associated with the reporting BAN and so are not included here. So, here again there is an element of undercounting. Nevertheless, what Table 4 shows quite clearly is that there has been a dramatic decline in the role of solo investors, especially in 2002 and 2003, and an equally dramatic growth over the same period in the proportion of syndicated deals involving more than five investors. These investments accounted for less than 5% of investments during the second half of the 1990s compared with 22% in 2002 and 28% in 2003. This includes three types of situation: organised angel syndicates, ‘packaged investments’ which have raised small amounts of finance from multiple investors operating independently from one another, and deal-specific syndicates that have been formed by BANs. Unfortunately it is impossible to say whether this trend simply reflects the changing organisation of the visible market as discussed earlier or is also seen in the wider, invisible, marketplace. However, it is possible that a combination of three developments - the demise of most of the BANs that were operated by Business Links and which tended to offer relatively small investment opportunities (Mason and Harrison, 1997), the re-focus of some BANs on serving syndicates rather than individual investors and the rise of commercially organised BANs offering ‘packaged investment opportunities’ - may be driving the small-scale, solo, hands-on business angel out of the visible market, and possibly out of the market altogether.

INSERT TABLE 4 ABOUT HERE

Tables 5 and 6 examine the size of investments. Table 5 presents the collective amount invested by business angels. There has been a gradual shift over time in favour of bigger investments (as previously indicated in Table 3). Analysis of the amounts invested by individual business angels (Table 6) is hampered by the large number of missing values which arise because BANs often do not know how many members of a syndicate invest in an opportunity. No clear trend in observable up to 2000-01. However, in 2002 and 2003 smaller investments by individuals (under £25,000 and especially under £10,000) have become more significant while large investments (over £250,000) by individuals have becomes less significant. Here again, this may reflect the role of the more pro-active BANs in breaking down big investments into smaller components to make it easier for individual investors to participate. This may, in turn, have led to ‘super-angels’ withdrawing from the visible market. Alternatively, such investors may now be more actively diversifying, making a larger number of smaller investments.

INSERT TABLE 5 HERE

INSERT TABLE 6 HERE

The stage at which business angels invest shows little change over time (Table 7). They invest predominantly at the start-up, early and expansion stages. Although not documented, several of the expansion financings represent follow-on funding by angel syndicates. The recent creation of co-investment funds enables syndicates to do more follow-on investments than was possible in the past. Few angels invest in MBOs or MBIs: indeed, these types of investments account for a diminishing proportion of angel investment activity. Neither do angels invest in receiverships or other types of investment situations. Finally, the lack of involvement of angels at the seed stage is striking and underlines the need for public sector sources of finance for pre-start-up businesses.

INSERT TABLE 7 HERE

Finally, there is a significant long-term trend for business angels to increasingly focus their investments on technology sectors. The proportion of investments in technology sectors has risen from around one-quarter in the mid-1990s to approximately half in 2001/2002 and increasing further to 61% in 2003. Technology’s share of the proportion of the total amount invested by angels has also increased, albeit rather more erratically, accounting for two-thirds of the total in both 2001 and 2003 (Table 8). Disaggregation by sector indicates that angel investments are distributed across a wide range of technology sectors. However, software and internet dominate, particularly in numerical terms, but there is no evidence that these sectors are increasing in relative importance as speculated earlier. When looked at in terms of the amount invested the picture is confused by occasional large investments in particular sectors. Overall, there are no clear discernable trends in technology investing by business angels, at least at this level of industry disaggregation.

INSERT TABLE 8 ABOUT HERE

INSERT TABLE 9 ABOUT HERE

5. Conclusion

The lack of longitudinal studies - which, in turn, stems from the absence of time-series statistical information – is a major barrier to the better understanding of the informal venture capital market. As an initial foray into this topic this chapter has examined the UK’s informal venture capital market over the part ten years or so from a combination of both qualitative and quantitative perspectives. From a qualitative perspective it is clear that there have been some significant changes in the investment environment, notably in terms of tax, regulation and organisation. Business angels now enjoy very favourable tax breaks for investing in unquoted companies. Financial services legislation has improved information flow in the market – although since the previous rules were largely ignored the actual impact may be muted. A variety of new organisations have emerged which facilitate the investment process in much more ambitious ways than the business angel ‘introduction services’ that were established in the early 1990s.

It is also clear that the post-2000 investment downturn has had a significant effect on the informal venture capital market. In particular, it resulted in significant investment losses by the angel community, the exit of some angels (although it is quite possible that many of these individuals should not have become investors in the first place but were drawn in by the speculative frenzy of the late 1990s) and where angels have re-appeared it has often been as member of syndicates. The downturn also resulted in a breakdown in the relationship between the business angel community and venture capital funds, with angels believing that they were subject to over-aggressive behaviour by venture capitalists which led to them being diluted out of existence in many investments. It does not look as if this rift will be quickly healed, although a number of alternative co-investment opportunities for business angels are emerging.

The quantitative analysis was based on statistics on investment activity by BANs. This is the only time-series data available on informal venture capital activity but it is restricted to the visible market place which is only a small proportion of overall market activity and may not be representative. Some of the qualitative trends were reflected in the statistics. Nevertheless, clear trends were difficult to discern in many of the tables. The informal venture capital market appears to be characterised by a lot of stability, for example in terms of stage of investment. Where change does occur it is often gradual. However, it is clear that the post-2000 period has been one of significant upheaval in the informal venture capital market, with some potential discontinuities from previous trends, notably:

* the increasing proportion of big deals (over £250,000)
* the decrease in large investment by individuals and the increase in small individual investments (less than £25,000)
* the growth in the number of ‘syndicated’ investments involving large numbers business angels.

These trends are, of course, connected and are linked to the changing organisational structure of the market, with more business angel syndicates, more organisations offering packaged investment opportunities and the remaining BANs operating more pro-actively to build deal-specific angel groups around investments. These developments can also be seen as representing the evolutionary response of the informal venture capital market to developments in the institutional venture capital market which is creating a funding gap for businesses seeking £250,000+ to £5 million. However, one of the key questions that arises from these developments is where does this leave the ‘traditional’ business angel with relatively limited financial resources who wants to invest alone and play a hands-on role in supporting the company afterwards. Will they become marginalised as first-generation BANs increasingly focus on serving the needs of syndicates while second-generation BANs focus on providing investment opportunities for passive investors who play no role in any stage of the investment process? The informal venture capital market is often described a ‘smart capital’. The emerging models of investment intermediation may well be more effective in raising and channelling capital to entrepreneurial businesses. However, there is a concern that in at least some models the ‘smart’ aspect may become diluted or even lost.

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Table 1. Investment Activity Under the Enterprise Investment Scheme: position at September 2004

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year (1) | Companies raising finance for the first time | All companies raising funds | Subscriptions (2) | |
|  | Number | Number | Number | Amount £m |
| 1993-94 | 77 | 77 | 479 | 3.9 |
| 1994-95 | 399 | 427 | 4,966 | 41.4 |
| 1995-96 | 440 | 550 | 5,137 | 52.9 |
| 1996-97 | 474 | 651 | 11,809 | 94.3 |
| 1997-98 | 531 | 724 | 11,386 | 113.4 |
| 1998-99 | 1,035 | 1,266 | 15,340 | 293.9 |
| 1999-2000 | 1,638 | 2,102 | 29,308 | 612.2 |
| 2000-01 | 2,370 | 3,305 | 45,656 | 1,056.6 |
| 2001-02 | 1,661 | 2,827 | 25,367 | 751.2 |
| 2002-03 | 1,220 | 2,303 | 26,921 | 631.9 |
| 2003-04 | 656 | 1,492 | 20,469 | 445.5 |
| All years | 10,531 | [see note 3] | 198,540 | 4,132.1 |

Notes.

1. Because of time lags in the receipt of tax claims, figures for more recent years are less complete than for earlier years. All figures are subject to revision. In particular, information for 2003-4 gives a very partial figure. Claims received for 2004-5 have not been included.
2. The number of subscriptions is not equal to the number of investors as an individual can invest in more than one company.
3. The total is not given as companies may raise funds in more than one year.

Source: Inland Revenue

Table 2. Business angel networks in the United Kingdom

|  |  |  |  |
| --- | --- | --- | --- |
| year | Public sector networks | Private sector commercial networks | total |
| 1993-94 | 9 | 8 | 17 |
| 1994-95 | 13 | 19 | 32 |
| 1995-96 | 14 | 22 | 36 |
| 1996-97 | 18 | 22 | 40 |
| 1997-98 | 22 | 21 | 43 |
| 1998-99 | 23 | 22 | 45 |
| 1999-2000 | 26 | 22 | 48 |
| 2001 | 26 | 20 | 46 |
| 2003-04 | 17 | 14 | 31 |

Note: no information was published for 2002.

Sources: *Sources of Business Angel Capital* (British Venture Capital Association), published annually from 1993-94 to 2001; *Business Angel Finance 2003-04* (National Business Angel Network)

Table 3. Trends in business angel investment activity 1993/4 to December 2003: investments in UK-based companies

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 20032 | 20021 | 2001 | *01*  *H2* | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 | 95/96 | 94/95 | 93/94 |
| Number of investments | 161 | 136 | 186 | *74* | 217 | 224 | 192 | 225 | 190 | 209 | 170 | 99 |
| Number of companies raising finance | 159 | 134 | 182 | *73* | 211 | 215 | 185 | 221 | n/a | n/a | n/a | n/a |
| Number of registered business angels | 3533 | 2163 | 3113 | *112* | 346 | 386 | 280 | 365 | 341 | 385 | 326 | 247 |
| Amount invested by registered business angels (£m) | 26.1 | 20.4 | 32.4 | *14.3* | 30.0 | 28.3 | 20.0 | 23.4 | 17.4 | 21.7 | 15.7 | 6.9 |
| Amount raised from other financial sources (£m)4 | 27.7 | 18.0 | 20.3 | *9.5* | 19.6 | 23.2 | 14.1 | 17.0 | 19.3 | 22.8 | 18.5 | n/a |

Notes:

1. CMR is a non-response for 2002

2. It is possible that the level of investment activity in 2003 is inflated because statistics for Beer and Partners may include some investments in which angels were excluded. A general circular from the firm reported 25 investments amounting to £7.2 million.

3. In some cases where the investment was made by a syndicate the BAN was unaware of the actual number of investors involved. Consequently this statistic is under-stated for 2001, 2002 and 2003.

4. As noted in the text, many BANs are unaware of whether the firm has raised finance from other sources at the same time as receiving angel funding. In some cases the BAN is aware that other funders are involved but do not know the amounts involved. These statistics therefore a significant under-estimate of the overall deal sizes.

Table 4. Number of registered business angels in each investment

(a) Numbers

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Number of investments | | | | | | | |
| Number of business angels | 2003 | 2002 | *01[2]* | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 |
| 1 | 50 | 72 | *44* | 151 | 163 | 146 | 167 | 140 |
| 2 | 20 | 20 | *16* | 32 | 35 | 30 | 37 | 33 |
| 3 | 9 | 3 | *3* | 7 | 6 | 5 | 7 | 8 |
| 4-5 | 13 | 6 | *4* | 8 | 12 | 7 | 7 | 5 |
| >5 | 35 | 28 | *1* | 9 | 7 | 4 | 7 | 4 |
| Sub-total | 127 | 129 | *68* | 207 | 223 | 192 | 225 | 190 |
| Missing data | 34 | 7 | *6* | 10 | 1 | - | - | - |
| Total | 161 | 136 | *74* | 217 | 224 | 192 | 225 | 190 |

(b) Percentages

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Number of business angels | 2003 | 2002 | 01[2] | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 |
| 1 | *39* | *56* | *65* | *73* | *73* | *76* | *74* | *74* |
| 2 | *16* | *15* | *24* | *15* | *16* | *16* | *16* | *17* |
| 3 | *7* | *2* | *4* | *4* | *3* | *3* | *3* | *4* |
| 4-5 | *10* | *5* | *6* | *4* | *5* | *4* | *3* | *3* |
| >5 | *28* | *22* | *1* | *4* | *3* | *2* | *3* | *2* |
| Total | *100* | *100* | *100* | *100* | *100* | *100* | *100* | *100* |

Table 5. Amount invested per deal collectively by registered business angels

1. Number

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total amount invested by | Number of investments | | | | | | | |
| *registered* business angels | 2003 | 2002 | *01*  *[H2]* | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 | |
| Up to £10,000 | 8 | 7 | *3* | 16 | 8 | 22 | 17 | 16 | |
| £10,001-£25,000 | 21 | 20 | *12* | 29 | 28 | 31 | 38 | 44 | |
| £25,001-£50,000 | 35 | 28 | *15* | 46 | 49 | 48 | 65 | 57 | |
| £50,001-£100,000 | 27 | 32 | *21* | 53 | 66 | 45 | 42 | 36 | |
| £100,001-£250,000 | 25 | 32 | *14* | 49 | 51 | 32 | 39 | 20 | |
| Over £250,000 | 20 | 16 | *9* | 24 | 22 | 14 | 24 | 17 | |
| Total | 1362 | 1351 | *74* | 217 | 224 | 192 | 225 | 190 | |

Note:

1. one missing value
2. 25 missing values
3. Percentages

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total amount invested by | % of investments | | | | | | | |
| *registered* business angels | *2003* | *2002* | 01  [H2] | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 |
| Up to £10,000 | *6* | *5* | *4* | *7* | *4* | *12* | *7* | *8* |
| £10,001-£25,000 | *15* | *15* | *16* | *13* | *12* | *16* | *17* | *23* |
| £25,001-£50,000 | *26* | *21* | *20* | *21* | *22* | *25* | *29* | *30* |
| £50,001-£100,000 | *20* | *24* | *28* | *24* | *29* | *23* | *19* | *19* |
| £100,001-£250,000 | *18* | *24* | *19* | *23* | *23* | *17* | *17* | *11* |
| Over £250,000 | *15* | *12* | *12* | *11* | *10* | *7* | *11* | *9* |
| Total | *100* | *100* | *100* | *100* | *100* | *100* | *100* | *100* |

Table 6. Size of individual investments by business angels

(a) Number

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Amount invested | Number of investments | | | | | | | |
| *by individual* business angels | 2003 | 2002 | 01 [H2] | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 |
| Up to £10,000 | 66 | 22 | 4 | 35 | 9 | 30 | 49 | 46 |
| £10,001-£25,000 | 75 | 56 | 20 | 52 | 63 | 37 | 87 | 68 |
| £25,001-£50,000 | 53 | 42 | 18 | 58 | 67 | 63 | 80 | 77 |
| £50,001-£100,000 | 31 | 32 | 16 | 42 | 76 | 63 | 44 | 24 |
| £100,001-£250,000 | 12 | 11 | 9 | 40 | 58 | 44 | 35 | 20 |
| Over £250,000 | 0 | 7 | 7 | 18 | 24 | 19 | 19 | 13 |
| Total [1] | 237 | 170 | 112 | 346 | 386 | 280 | 365 | 341 |

NOTE

1. There are a significant but unknown number of missing values. This is because in many cases involving more than one investor, particularly the large syndicated investments, the business angel networks were unaware of the amounts invested by the *individual* investors.

(b) Percentages

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Amount invested by | % of investments | | | | | | | |
| *individual* business angels | 2003 | 2002 | 01[H2] | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 |
| Up to £10,000 | *28* | *13* | *5* | *14* | *3* | *12* | *16* | *19* |
| £10,001-£25,000 | *32* | *33* | *27* | *21* | *21* | *14* | *28* | *27* |
| £25,001-£50,000 | *22* | *25* | *24* | *24* | *23* | *25* | *25* | *31* |
| £50,001-£100,000 | *13* | *15* | *22* | *17* | *26* | *25* | *14* | *10* |
| £100,001-£250,000 | *5* | *6* | *12* | *16* | *19* | *17* | *11* | *8* |
| Over £250,000 | *0* | *4* | *10* | *7* | *8* | *7* | *6* | *5* |
| Total | *100* | *100* | *100* | *100* | *100* | *100* | *100* | *100* |

Table 7. Investment by financing stage

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Financing stage | 2003 | 2002 | 01[2] | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 |
| Seed | 4 | 3 | 6 | 5 | 19 | 13 | 7 | 5 |
| Start-up | 33 | 42 | 18 | 61 | 70 | 43 | 67 | 37 |
| Other early stage | 35 | 44 | 23 | 79 | 44 | 59 | 46 | 60 |
| Expansion | 46 | 37 | 20 | 60 | 74 | 49 | 77 | 64 |
| MBO/MBI | 4 | 5 | 3 | 7 | 9 | 21 | 17 | 10 |
| Other/receivership | 5 | 3 | 2 | 4 | 8 | 7 | 10 | 14 |
| Sub-total | 127 | 134 | 72 | 216 | 224 | 192 | 224 | 190 |
| Missing data | 34 | 2 | 2 | 1 | - | - | 1 | - |
| Total | 161 | 136 | 74 | 217 | 224 | 192 | 225 | 190 |

(b) Percentages

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | % of investments | | | | | | | |
| Financing stage | 2003 | 2002 | 01[H2] | 00/01 | 99/00 | 98/99 | 97/98 | 96/97 |
| Seed | *3* | *2* | *8* | *2* | *8* | *7* | *3* | *3* |
| Start-up | *26* | *31* | *25* | *28* | *31* | *22* | *30* | *19* |
| Other early stage | *28* | *33* | *32* | *37* | *20* | *31* | *21* | *31* |
| Expansion | *36* | *28* | *28* | *28* | *33* | *25* | *34* | *35* |
| MBO/MBI | *3* | *4* | *4* | *3* | *4* | *11* | *8* | *5* |
| Other/receivership | *4* | *2* | *3* | *2* | *4* | *4* | *4* | *7* |
| Total | *100* | *100* | *100* | *100* | *100* | *100* | *100* | *100* |

Table 8. Investments in technology sectors: totals

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| year | number | % | Amount £000 | % |
| 1995/96 | 44 | *21* | 5,724 | *26* |
| 1996/97 | 53 | *28* | 4,138 | *24* |
| 1997/98 | 67 | *30* | 7,865 | *34* |
| 1998/99 | 59 | *31* | 5,793 | *29* |
| 1999/2000 | 101 | *45* | 13,834 | *49* |
| 2000/01 | 95 | *44* | 10,015 | *33* |
| 2001 – H2 | 36 | *49* | 9,640 | *67* |
| 2002 | 65 | *49* | 10,133 | *50* |
| 20031 | 83 | *61* | 12,240 | *66* |

Note.

1. This excludes the 25 investments reported with no detail by Beer and Partners (see Table 3)

Table 9. Types of technology investments

A: Number of investments

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Number of investmemts | | | | | | | % of investments | | | | | | |
| Technology sector | 2003 | 2002 | 01  [H2] | 00/  01 | 99/  00 | 98/  99 | 97/  98 | 2003 | 2002 | 01  [H2] | 00/  01 | 99/  00 | 98/  99 | 97/  98 |
| Communications | 8 | 4 | - | 7 | 7 | 1 | 6 | *10* | *6* | *-* | *7* | *7* | *2* | *9* |
| Computers: hardware | 1 | 1 | 1 | - | 1 | 3 | 3 | *1* | *2* | *3* | *-* | *1* | *5* | *5* |
| Computers: internet | 12 | 8 | 7 | 26 | 37 | 11 | 4 | *14* | *12* | *19* | *27* | *36* | *19* | *6* |
| Computers: semi-conductors | 1 | 1 | - | 1 | 0 | 0 | 0 | *1* | *2* | *-* | *1* | *-* | *-* | *-* |
| Computers: software | 23 | 23 | 19 | 34 | 21 | 16 | 27 | *23* | *35* | *53* | *36* | *21* | *27* | *40* |
| Other electronics related | 4 | 4 | 2 | 8 | 15 | 11 | 11 | *4* | *6* | *6* | *8* | *15* | *19* | *16* |
| Biotechnology | 5 | 6 | 3 | 9 | 6 | 7 | 3 | *5* | *9* | *8* | *9* | *6* | *12* | *5* |
| Medical: instruments | 8 | 5 | 2 | 3 | 9 | 7 | 4 | *8* | *8* | *6* | *3* | *9* | *12* | *6* |
| Medical: pharmaceuticals | 5 | 3 | 1 | 2 | 4 | 0 | 5 | *5* | *5* | *3* | *2* | *4* | *-* | *7* |
| Medical: healthcare | 6 | 3 | 1 | 1 | 1 | 0 | 4 | *6* | *5* | *3* | *1* | *1* | *-* | *6* |
| Other | 10 | 7 | - | 4 | 0 | 3 | 0 | *10* | *11* | *-* | *4* | *-* | *5* | *-* |
| Total | 83 | 65 | 36 | 95 | 101 | 59 | 67 | *100* | *100* | *100* | *100* | *100* | *100* | *100* |

B: Amount invested

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Amount invested £000 | | | | | | |  |  |  |  |  |  |  |
| Technology sector | 2003 | 2002 | 00  [H2] | 00/01 | 99/00 | 98/99 | 97/98 | 2003 | 2002 | 01  [H2] | 00/01 | 99/00 | 98/99 | 97/98 |
| Communications | 796 | 685 | - | 887 | 2,160 | 250 | 1,321 | *6* | *7* | *-* | *9* | *16* | *4* | *17* |
| Computers: hardware | 50 | 200 | 300 | - | 65 | 400 | 410 | *\** | *2* | *3* | *-* | *\** | *7* | *5* |
| Computers: internet | 1,368 | 652 | 597 | 1,468 | 4,995 | 670 | 560 | *11* | *6* | *6* | *15* | *36* | *12* | *7* |
| Computers: semi-conductors | 123 | 150 | - | 100 | 0 | 0 | 0 | *1* | *1* | *-* | *1* | *-* | *-* | *-* |
| Computers: software | 2,955 | 3,397 | 2,521 | 4,229 | 1,971 | 1,265 | 3,302 | *23* | *34* | *26* | *42* | *14* | *22* | *42* |
| Other electronics related | 800 | 591 | 240 | 666 | 2,600 | 1,465 | 928 | *7* | *6* | *3* | *7* | *19* | *25* | *12* |
| Biotechnology | 1,041 | 1,187 | 2,065 | 1,800 | 962 | 971 | 610 | *9* | *12* | *21* | *18* | *7* | *17* | *8* |
| Medical: instruments | 1,758 | 556 | 117 | 303 | 680 | 550 | 260 | *14* | *5* | *1* | *3* | *5* | *9* | *3* |
| Medical: pharmaceuticals | 720 | 1,225 | 3,500 | 146 | 341 | 0 | 260 | *6* | *12* | *36* | *1* | *2* | *-* | *3* |
| Medical: healthcare | 355 | 705 | 300 | 10 | 60 | 0 | 214 | *3* | *7* | *3* | *\** | *\** | *-* | *3* |
| Other | 2,445 | 779 | - | 405 | 0 | 222 | 0 | *20* | *8* | *-* | *4* | *-* | *4* | *-* |
| Total | 12240 | 10133 | 9640 | 10014 | 13834 | 5793 | 7865 | *100* | *100* | *100* | *100* | *100* | *100* | *100* |

Note: \* denotes less than 1%