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NESTA Making Innovation Flourish

Venture Capital

Now and After the Dotcom Crash

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Foreword

The future prosperity of the UK depends on the country's ability to foster and support growth businesses. The venture capital industry is ideally placed to be a cornerstone of this support and, though younger than the US industry, UK funds have already had some notable successes.

The financial crisis has hit all aspects of the private equity market hard, and this report shows that venture capital is no exception. With investment and fundraising slumping, it would be easy to become disheartened but our research highlights some promising signs. Successful exits have yielded good returns for funds even in the current recession; a good pipeline of investments initiated between 2004 and 2007 should bear fruit over the coming years and the introduction of the Innovation Investment Fund should help encourage investment in new businesses over the next few years. This year looks set to be tough but the industry has demonstrated its ability to work together to get the right level of funding to the very best growth businesses.

This work is part of a series of research projects led by NESTA which complements our own practical experience of running a venture capital fund targeted at early-stage companies.

As ever, we welcome your views.

Matthew Mead
Managing Director, NESTA Investments

July, 2010

NESTA is the National Endowment for Science, Technology and the Arts.

Our aim is to transform the UK's capacity for innovation. We invest in early-stage companies, inform innovation policy and encourage a culture that helps innovation to flourish.

Executive summary

High growth, innovative companies are disproportionately important for economic growth in the UK. Venture capital is an important source of finance for these companies, one of the few sources with an appetite for risk that matches the uncertainty that comes with pioneering, innovative ventures and the ability to provide management support to take a company from initial proof of concept to mass market growth. This has seen venture capital act as a catalyst for new industries and ground-breaking global companies.

And yet, the venture capital industry in the UK has been in a period of decline. This has been particularly true for early-stage venture capital as NESTA outlined last year. This report provides an update on the venture capital market in 2009, examines similarities and differences between the current crisis and the one triggered by the dotcom crash and considers prospects for a recovery.

The venture capital industry saw further entrenchment in 2009 across all areas. Investment activity has now seen an overall 40 per cent reduction over the past two years, the number of exits has fallen by 40 per cent and fundraising fell by over 50 per cent (both in terms of the number of new funds and total amounts raised).

The current crisis appears to have compounded issues that the venture capital industry was already facing following the dotcom crash. Two features particularly stand out about the venture capital market now:

- **Fundraising in 2009 was the lowest seen in the past decade.** Both the dotcom and financial crises resulted in a significant reduction in the number of new venture capital funds established. However current fundraising activity is considerably lower than levels seen after the dotcom crash and consequently it is at the lowest level seen in the last decade.

- **The time taken to successfully exit, through a flotation or acquisition, is getting longer.** Across the world, the time taken to successfully exit through flotation now averages almost seven and a half years, the longest time seen over the past two decades. This global trend is reflected in the UK market. This obviously has knock-on impacts on returns which leads to making it harder for funds to attract more money in order to be able to invest in new companies.

The situation now would be far worse without public funding. Public funds hardly featured in the dotcom era but now they participate in 40 per cent of all venture capital deals and 56 per cent of all early-stage deals.

Even, at this stage, the fundamentals of the UK venture capital market appear to be sound, illustrated by the fact that funds are exiting companies with good returns in this recession. The recovery of the venture capital industry hinges on exits. As the economy recovers, and the merger and acquisition market returns, fund performance should stabilise and improve. The venture capital market appears to be well placed now. Following the dotcom crash, significant amounts of capital were invested in a large number of new companies (between 2004 and 2007). These investments should bear fruit over the next few years and as funds successfully exit these companies, limited partner confidence in venture capital as a profitable asset class will return.

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Contents

Venture Capital
Now and After the Dotcom Crash

Part 1: Introduction 8

Part 2: Investment activity over the last decade 10

Part 3: Investment activity within individual sectors 19

Part 4: Fundraising activity over the last decade 23

Part 5: Conclusions 25

Appendices

Appendix 1: Methodology and data analysis 27

Appendix 2: Variables 28

Appendix 3: Regression analysis 30

Appendix 4: Tables and figures 35

List of Figures

Figure 1: Early-stage venture capital investments as a proportion of GDP per country, 2008 **9**

Figure 2: Venture capital investments, number of companies by stage, 2000-2009 **11**

Figure 3: Venture capital investments, amount invested by stage (£m), 2000-2009 **11**

Figure 4: Venture capital deals by source, 2000-2009 **12**

Figure 5: Early Stage venture capital deals by source, 2000-2009 **13**

Figure 6: Number of exited companies, UK, 2000-2009 **14**

Figure 7: Average time (in years) to exit through IPOs, 1990-2009, all countries **14**

Figure 8: Average time (in years) from initial investment to exit through IPOs and M&A, 2000-2009, UK **15**

Figure 9: Years to exit, median and dispersion **16**

Figure 10: Average total amounts raised by companies and number of funding rounds before exit, 2000-2009 **16**

Figure 11: Median cash in-to-valuation multiples for UK exited companies by sector, 2000-2009 **17**

Figure 12: Multiples by year, 2000-2009 **18**

Figure 13: Investments by industry 2009, number of companies **19**

Figure 14: Investments by industry 2009, amounts invested **19**

Figure 15: Investments by industry and by round, 2009 **20**

Figure 16: Median amount of investment by source of finance and industry, 2009 **20**

Figure 17: Proportion of exits by industry, 2000-2009 **21**

Figure 18: Average time (in years) from initial investment to exit through IPOs and M&A by industry, 2000-2009, UK **22**

Figure 19: Number of funds closed by stage, 2000-2009 **24**

Figure 20: Amounts raised by stage, 2000-2009 **24**

Figure 21: Proportion of amounts invested by stage (£m), 2000-2009 **37**

Figure 22: Proportion of number of deals by stage, 2000-2009 **38**

Figure 23: Cash in-to-valuation multiples, 2000-2009 – Number of deals **41**

List of Tables

Table 1: Gross IRR by percentile, 2000-2009 **18**

Table 2: Panel A: Deal level analysis **31**

Table 3: Panel B: Company level analysis **32**

Table 4: Early-stage investments by year and type of investor, 2000-2009 **35**

Table 5: Descriptive statistics – Time to exit (only exited companies with all available transaction data) **35**

Table 6: Industry categorisation **36**

Table 7: Exits by type, 2000-2009 **37**

Table 8: Fundraising activity, 2000-2009 **38**

Table 9: Descriptive statistics – Total amounts raised and financing rounds for exited companies, 2000-09 **39**

Table 10: Descriptive statistics – Cash in-to-valuation multiples **39**

Table 11: Tests for differences in the means of years to exit for UK-based venture capital-backed companies, 2000-2009 **40**

Table 12: Variable description **40**

Part 1: Introduction

The creation and development of high-growth businesses is vital to the future of the UK economy, because it is these businesses, and the entrepreneurs who create them, that are particularly suited to taking advantage of emerging technologies, novel business models, and new markets as well. For these companies to thrive, they need a financial architecture which offers multiple pools of capital with different appetites for risk.

Venture capital – whereby capital is provided to the company in return for a shareholding in the business with the aim of generating a return through a trade sale or flotation – is an important component of this financial architecture, capable of nurturing of high-tech, high-potential companies. The positive impacts of venture capital funding can be seen in the disproportionate number of patents and new technologies generated by venture capital-backed firms. These firms bring more radical innovations to market faster,[1] and are more likely to spawn new industries.[2]

Venture capital in the UK

Currently, after France, the UK boasts the second largest venture capital market in Europe, accounting for 21 per cent of all invested amounts.[3] The UK performs worse when only early-stage investments are considered, lagging behind Switzerland, Sweden and the US (Figure 1).

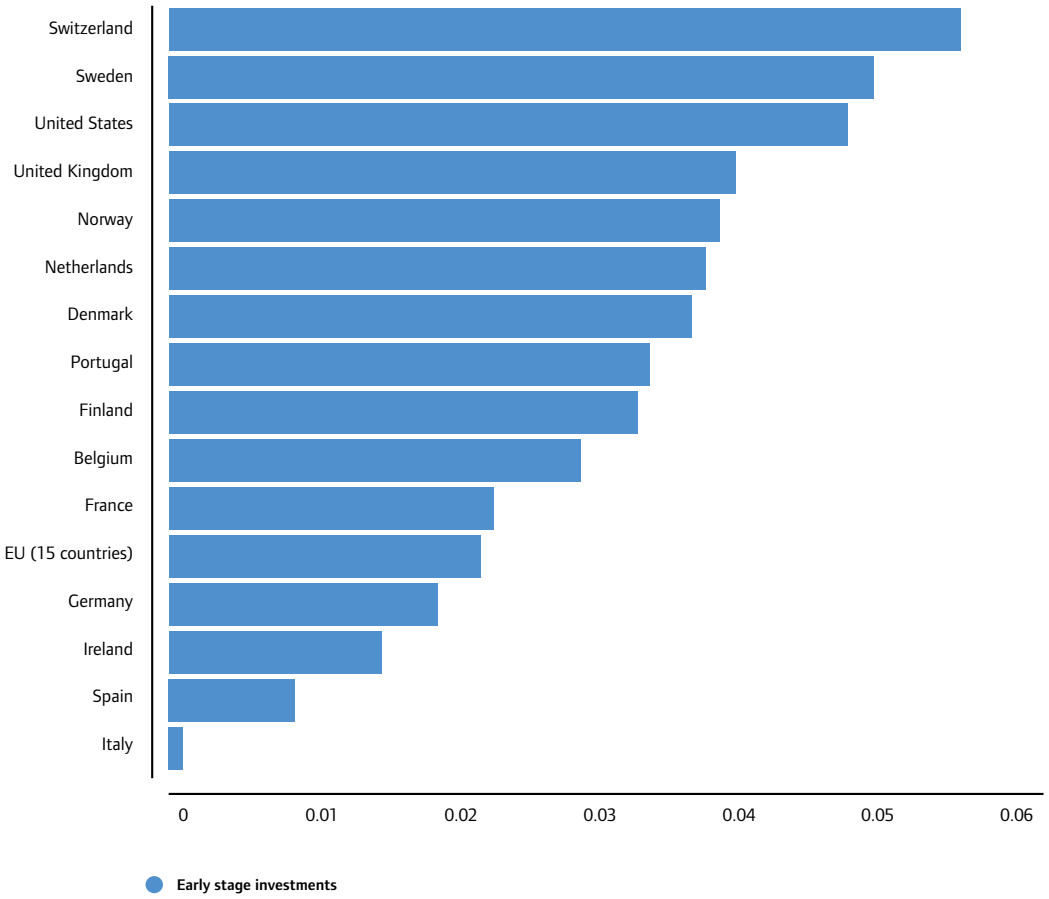
This comparatively low level of early-stage investments highlights one of the dominant trends in the UK venture capital market in the last decade, namely the shift of funding towards larger deals and more established companies. Venture capital has benefited little from the explosion in the value of private equity investments, which trebled between 2003 and 2007 from £4 billion to nearly £12 billion.[4] Where expansion has occurred in the venture capital market, this has typically been driven by an expansion in later-stage investments rather than early-stage.

The dearth of early-stage funding by private providers has prompted several UK government initiatives to improve access to finance for small high-growth firms. The government has attempted to address the supply-side problem by setting up a series of new funds, such as the High Technology Fund (2000), the University Challenge Funds (1999-2001), the Regional Venture Capital Funds (2002), the Early Growth Funds (2004) and, more recently, the Enterprise Capital Funds (2005). These funds followed a variety of tax incentives to individuals and corporations that were introduced in the mid 1990s to draw more capital into the venture capital market, including the Enterprise Investment Scheme (1994), the Venture Capital Trust (1995) and the Corporate Venture Scheme (2000).

The current downturn spurred the introduction of the Innovation Investment Fund to support the provision of early-stage finance to new, promising firms. This new government-backed fund of funds initiative was established in response to the impact of the recession on the venture capital industry. First, falling stock markets and poorer trading environments have made it harder for funds to sell or float their existing investments. Second, several limited partners suffering from liquidity problems have been unable to fund further investments. Third, several institutional investors have reduced their exposure to the venture capital market

1. Kortum, S. and Lerner, J. (2000) Assessing the contribution of venture capital to innovation. 'RAND Journal of Economics.' Vol. 31, No. 4, Winter 2000, pp.674-692; Hellman, T. and Puri, M. (2002) Venture capital and the professionalisation of startups: Empirical Evidence. 'Journal of Finance.' 57, pp.169-197; Kaplan, S. and Stromberg, P. (2001) Financial contracting meets the real world: an empirical analysis of venture capital contracts. 'Review of Economic Studies.' 2002, pp.1-35.
2. See Bygrave, W.B. and Timmons, J.A. (1992) 'Venture Capital at the Crossroads.' Cambridge, MA: Harvard Business School Press; and Timmons, A.J. and Spinelli, S. (2003) 'New Venture Creation, Entrepreneurship for the 21st Century.' New York: McGraw-Hill.
3. EVCA data for 2009, venture capital investments include seed, start-up and later-stage venture. It excludes growth capital, rescue/turnaround, replacement capital and buyouts. According to EVCA, in 2007, VC investments accounted for €2.14 billion in the UK, €1.12 billion in France and €890 million in Germany; in 2008, €1.66 billion in the UK, €1.08 billion in France and €1.04 billion in Germany; in 2009, €854 million in the UK, €896 million in France and €669 million in Germany.
4. In contrast, the number of companies that received private equity investment has remained fairly stable at around 1,300 over the same period (BVCA Investments Activity report, various years).

Figure 1: Early-stage venture capital investments as a proportion of GDP per country, 2008



Source: Eurostat

while others are leaving the early-stage market altogether.[5]

With the current recession beginning to ease, this is a timely opportunity to examine how the venture capital industry faired last year both in terms of investment activity and fundraising. Additionally, examining how this crisis compares to the one that followed the dotcom crash also helps inform when a recovery might begin.

5. NESTA (2009) 'Reshaping the UK economy.' London: NESTA.

Part 2: Investment activity over the last decade

The financial crisis, which began in earnest in 2008, continued to severely impact venture capital investment activity in 2009. Every part of the industry saw retrenchment, from deal activity to time to exit.

Comparison of the current and the dotcom crises highlights that investment activity has reached some of the lowest levels seen in the last decade, with seed and early-stage financing continuing to be particularly hard hit. In parallel, the time taken to exit companies has grown over the last two decades, last year hitting a historic high.

Investments activity by venture capital continued to decline in 2009

In 2009, the number of investments made by venture capital companies fell by 17 per cent compared with 2008. Only 266 companies received investments in 2009, down from 322 in 2008 (Figure 2). As a result, the amount invested by venture capital funds in UK companies was only £677 million in 2009, a drop of 27 per cent compared with the year before, when £930 million was invested (Figure 3). This follows significant falls in activity in 2008.[6]

Venture capital funds have tended to focus their investments on their existing portfolio companies, so there was only a modest fall in follow-up funding. Instead, 2009 was a particulary difficult year for new companies seeking venture capital finance for the first time. Seed and first round financing suffered a sharp drop of 53 per cent in total amounts invested and 29 per cent in terms of the number of companies backed since 2008.

Investment activity is lower now than after the dotcom crash, with seed and first round funding being particularly hard hit

The collapse in investment activity in the current downturn has left the total number of companies receiving investment during this crash at the lowest level of the decade, even lower than that observed after the dotcom crash. Comparison between the two crises highlights some key findings:

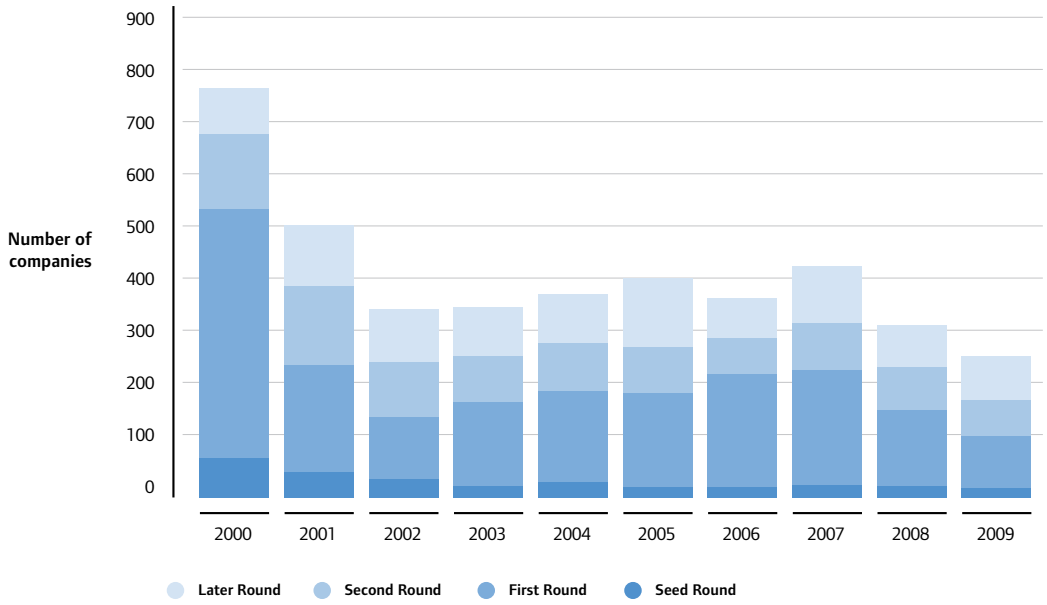
- In the two-year period 2007-2009, the number of companies receiving venture capital finance decreased by 38 per cent while the total amount invested fell by 37 per cent.[7] By comparison, there was a more radical decrease between 2000-2002 where the number of recipient companies fell by 54 per cent while total investment was 77 per cent lower by 2002.

- With the start of the financial crisis (2008) the number of investments fell back dramatically to 2002 levels, dropping in 2009 to the lowest level of the decade. Total amounts invested in 2009 were broadly similar to that seen in 2003 (Figure 3).

- In both crises, seed and first round investments (first-time financing) have been extremely volatile. Between 2007-2009, total investment in seed and first round companies decreased by 58 per cent with 52 per cent fewer companies backed. A more severe drop was experienced between 2000-2002 where amounts invested dropped by 90 per cent and first stage-financed companies fell by 73 per cent. The volatility of first-time financing is clear as well if the full decade is considered. In 'good years' they

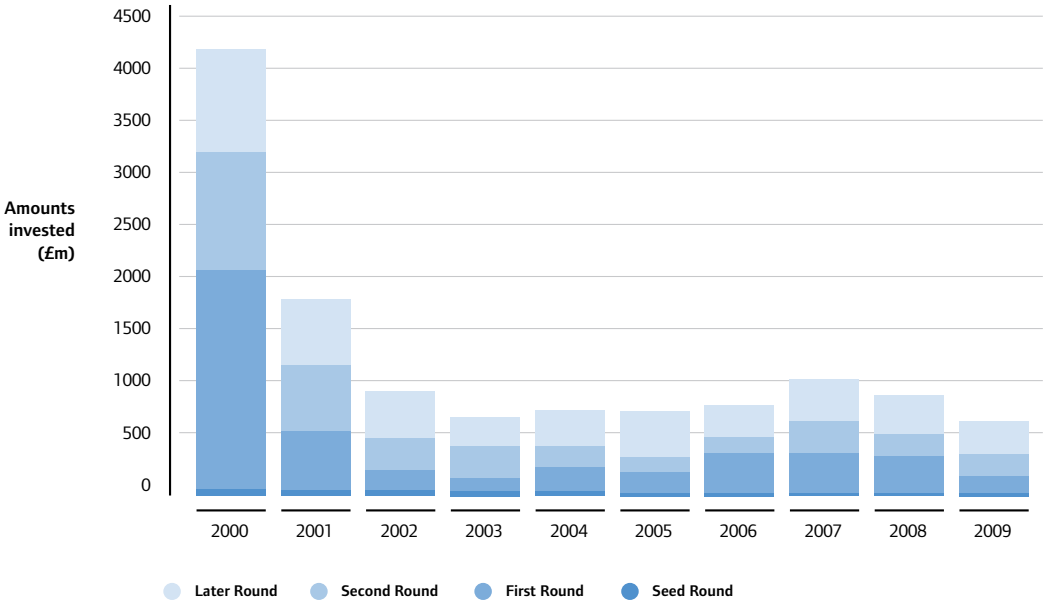
6. BVCA reports on an annual basis the UK venture capital activity of its members. For 2009, BVCA reported a drop of 18 per cent in amounts invested and 15 per cent in terms of number of deals (BVCA Investments Activity 2009), broadly similar trends to those observed in the analysis above. The discrepancy in the reported figures may be explained by slightly different definitions of venture capital used and by the origin country of the investment.
7. BVCA figures suggest a drop of 32 per cent in terms of amounts invested and 23 per cent in the number of companies backed during the same period.

Figure 2: Venture capital investments, number of companies by stage, 2000-2009



Source: VentureSource Dow Jones

Figure 3: Venture capital investments, amount invested by stage (£m), 2000-2009



Source: VentureSource Dow Jones

tend to account for the majority of deals, peaking with 70 per cent in 2000 and 60 per cent in 2006, while in the 'bad years' it falls, reaching the bottom in 2003 and 2009 with around 42 per cent (Figure 22 in appendices). Later stages rounds tend to be larger, so they have consistently attracted the largest share of investment funding, with the exception of 2000 and 2006 when early-stage activity peaked.

Sustained levels of publicly backed investments

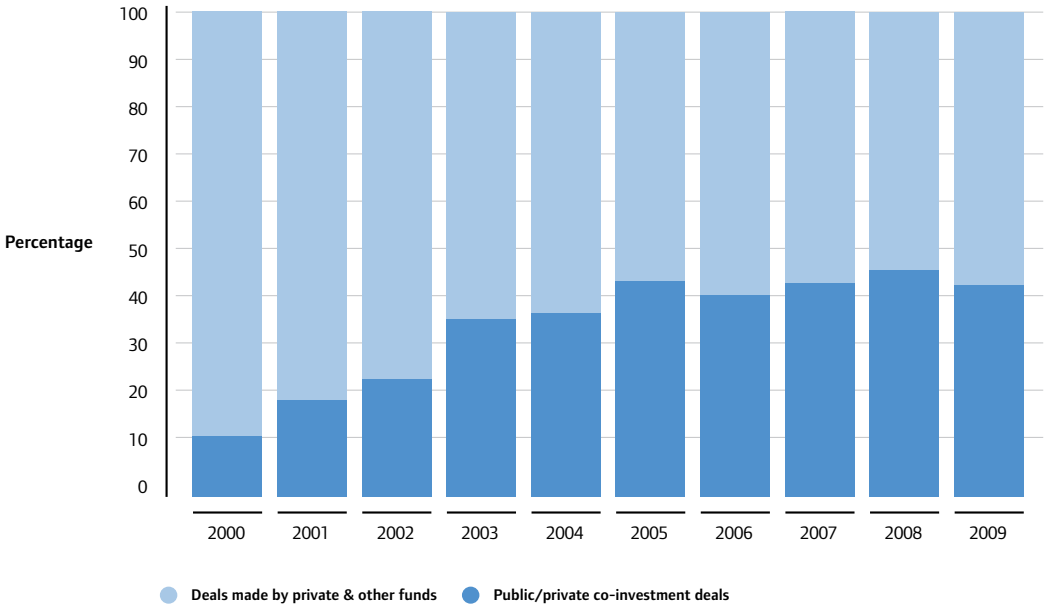
Publicly backed funds have become increasingly important over the past decade: they participated in 42 per cent of all venture capital deals in 2009.[8] Since 2005, there has been a broadly stable representation of the public sector in the venture capital market, after a significant increase in the portion of deals that are publicly backed following the dotcom crash (Figure 4). In 2002, deals involving a publicly backed fund counted for over 20 per cent of all deals while their share doubled to over 40 per cent by 2009. This has been driven both by falls in private sector funding and increases in government funding.

Public funding is particularly prominent in early-stage funding.[9] Only 20 per cent of all early-stage investments had public backing in 2000. Since then the increase in publicly backed deals saw funding peaking at 68 per cent of all early-stage investments in 2008. The proportion has since fallen back a little: in 2009, 56 per cent of all early-stage deals had public backing (Figure 5).

This fall does not signal the return of private investments into the early-stage market, rather it reflects many government-backed schemes coming to an end (e.g Regional Venture Capital Funds) and the newly established ones (e.g. UK Innovation Investment Fund) not yet being fully operational (see Table 4 in appendices). Many publicly backed funds only co-invest with private funds and a decrease in private venture capital activity will naturally decrease the activity of those funds too.

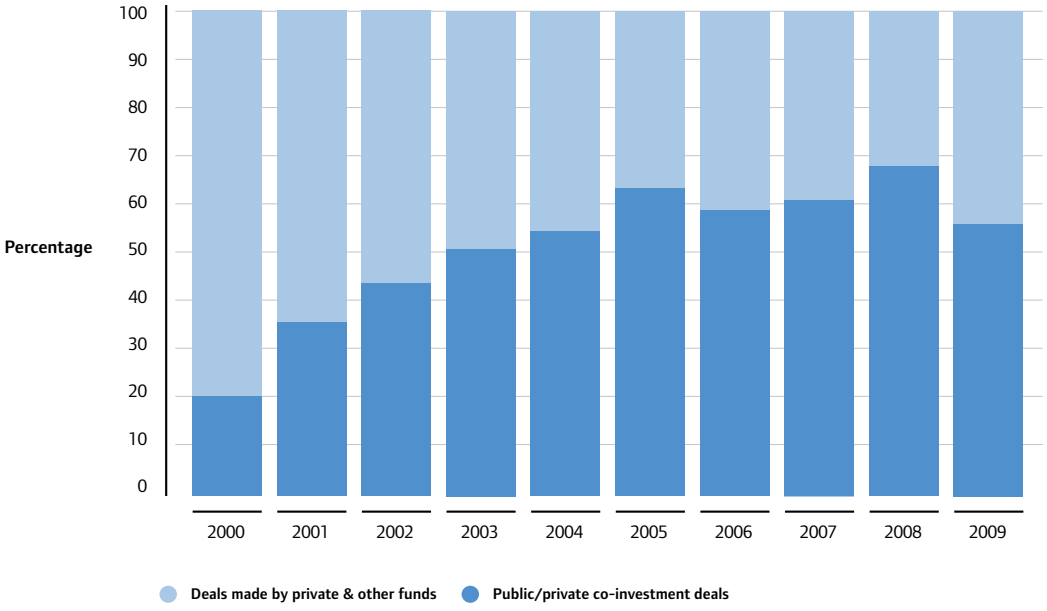
8. Although not reported here, publicly backed funds were involved in deals that counted for 21 per cent of all invested amounts in 2009.
9. We define early-stage deals as investments involving amounts below £2 million and in funding rounds 1, 2 or 3.

Figure 4: Venture capital deals by source, 2000-2009



Source: for the years 2000-2008 Library House and for 2009 VentureSource Dow Jones, Thomson One and desk research

Figure 5: Early-stage venture capital deals by source, 2000-2009



Source: for the years 2000-2008 Library House and for 2009 VentureSource Dow Jones, Thomson One and desk research

Business angels have partially stepped in

Analysis of business angel investors reveals that over the last decade they have become more significant in both absolute and relative terms.[10] Each year between 2005 and 2008, they were involved in more than 40 per cent of all deals in which public sector funds participated.[11] Although the actual number of Business Angel involvement in venture capital deals decreased in 2009 following the overall trend in the market, they continue to be important co-investment partners.

Deals in which one or more Business Angels participated were two and a half million pounds smaller than deals made by private funds solely.[12] This trend is seen even when angels invest in later stages.

The total number of exits has fallen, while the time taken to exit has lengthened

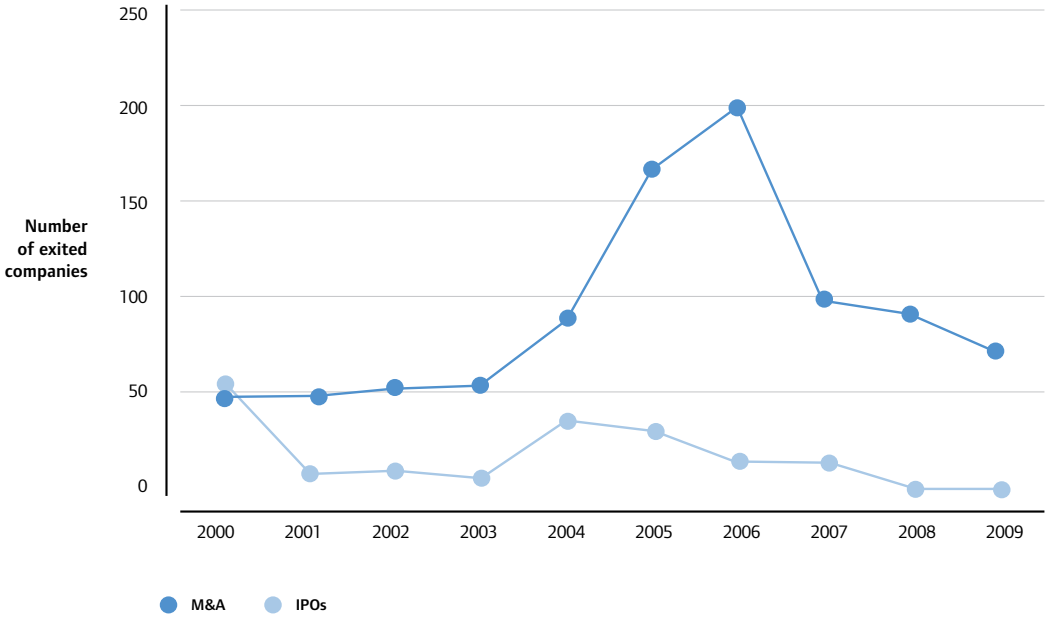
The number of exits, either through public flotation or acquisition, has been decreasing each year since the peak in 2006 with 215 exits (Figure 6). This has dropped even further in the current recession, with only 74 exits in 2009. This is in line with the trends also identified in the US venture capital market.[13] The fall precedes the financial crisis, so it is likely to partly reflect the decline in investments after the dotcom crash.

The time it takes for a company to go from initial investment to IPO exit has lengthened around the world since 2000. At the peak of the Asian crisis in 1997 the average time to exit through flotation reaching close to seven years and then it dropped to three years during the dotcom boom before increasing once again to five to six years in the dotcom crash period (Figure 6).[14] But the time to exit has lengthened even further in the latest crisis with the average time hitting an historic high of 7.4 years in 2009. The median time to exit (which is less affected by extreme values) has been less volatile but suggests a bigger increase in the time to exit between the 1990s and the current financial crisis (Figure 7).

Data for UK-based exits through acquisitions is only available after 2000. Analysis of these data confirms the phenomenon of lengthening times to exit through flotation and acquisitions (Figure 8).

10. Mason, C. and Pierrakis, Y. (2009) 'Venture Capital, the regions and public policy.' Hunter Centre for Entrepreneurship Working Paper 09-02. Glasgow: Strathclyde University.
11. Ibid.
12. See Table 2 in appendices.
13. NVCA/PwC (2008) 'The exit slowdown and the new venture capital landscape.' Arlington, VA: National Venture Capital Association and PricewaterhouseCoopers.
14. Investment activity before 2000 is not as well documented as for more recent times. The analysis presented for this period focuses mainly on IPOs. Data before 2000 for UK-based companies are somehow patchy. Although years to exit through an IPO may be slightly different from the years to exit through an acquisition, it provides some evidence of the time that a company needed to exit before 2000.

Figure 6: Number of exited companies, UK, 2000-2009

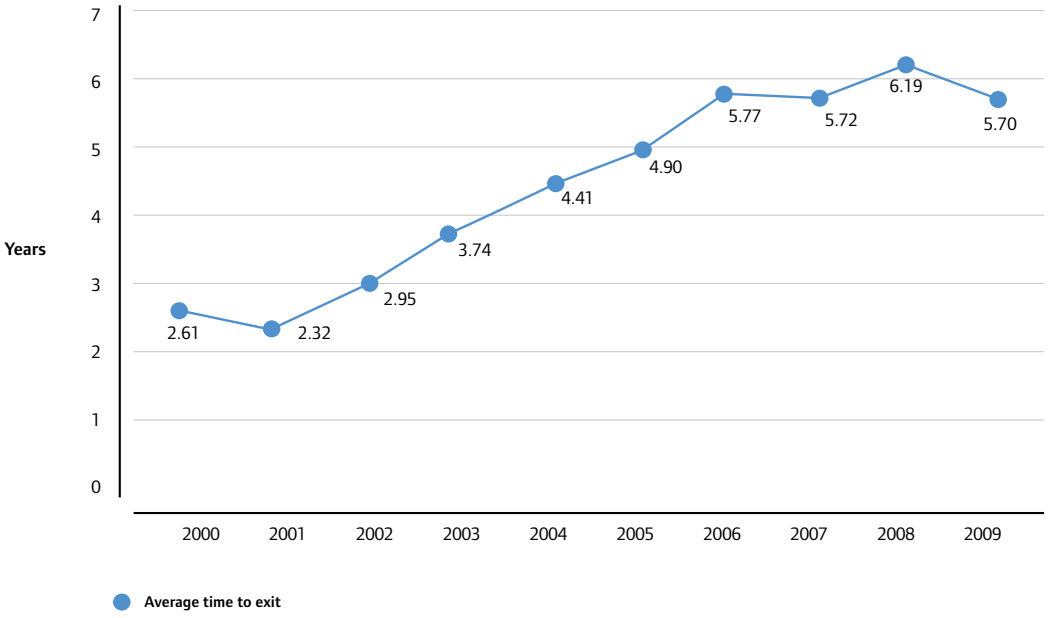


Source: VentureSource Dow Jones

Figure 7: Average time (in years) to exit through IPOs, 1990-2009, all countries

Source: Thomson One

Figure 8: Average time (in years) from initial investment to exit through IPOs and M&A, 2000-2009, UK



15. See Table 11 in appendices.

UK-based companies that exited in 2008 and those in 2009 needed over three more years to exit on average than companies that exited in 2000.[15] The sample average life cycle from initial invest to exit was 5.7 years; in 2008 it was over 6.2 years, the highest level of the decade. Time to exit is growing but this is part of a longer trend in the venture capital industry. The dotcom crisis had a severe impact on the length of time needed to gain a return, with an annual increase of 27 per cent in the time to exit in 2002 and 2003. In contrast, the change was only 8 per cent in 2008. However in absolute terms, the change was seven to nine months in 2002 and 2003 and five months in 2008 as the time to exit was already high.

There is more uncertainty on how long it will take to exit an investment

Further analysis reveals that it is not only the time to exit that has increased throughout the decade, but there is also greater uncertainty on the expected time to exit. Between 2000 and 2003 there was little dispersion on the time to exit for different investments, with all values concentrated around the median (the blue boxes in Figure 9, which length indicates that the difference between the percentiles 25 and 75 of the distribution were narrow). This is not true anymore. In recent years, particularly since 2007, there is a greater uncertainty about the time it would take to realise a return (the blue boxes in Figure 9 were higher).

Overall this suggests that it now takes longer for investors to realise a return and there is less certainty about how long it will take them to do so. This will affect strategy planning for venture capital funds.

Companies require more rounds of funding before reaching the exit stage

During the dotcom crash years (2001-2003), companies raised on average around £10 million in approximately three funding rounds before flotation or acquisition (Figure 10). Since 2007, the total amounts have been decreasing while the number of funding rounds

Figure 9: Years to exit, median and dispersion

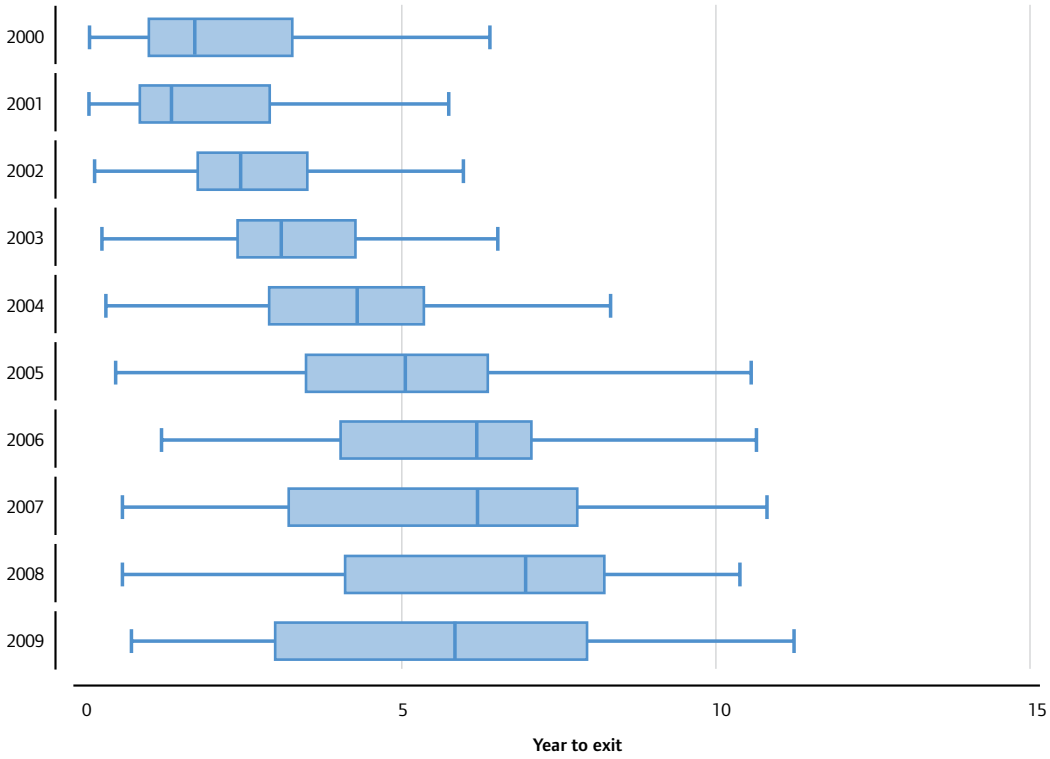
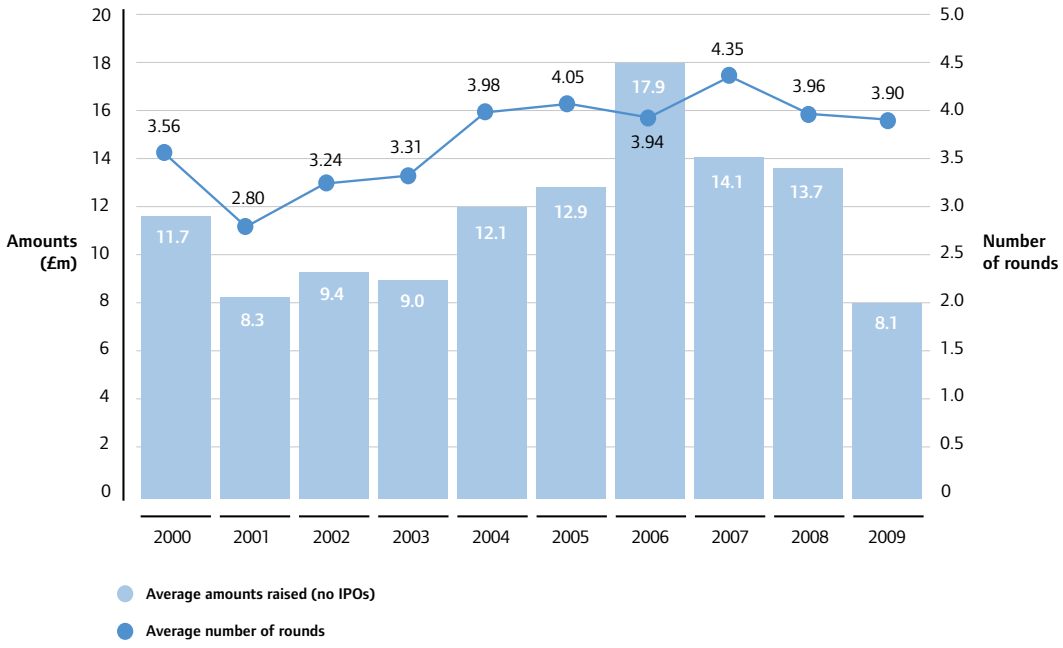


Figure 10: Average total amounts raised by companies and number of funding rounds before exit, 2000-2009



Source: VentureSource Dow Jones

received before exit have started to edge up. In 2009, exited companies raised on average £8 million in four funding rounds.

But firms that were successful at exiting during the recession generated favourable returns for their investors

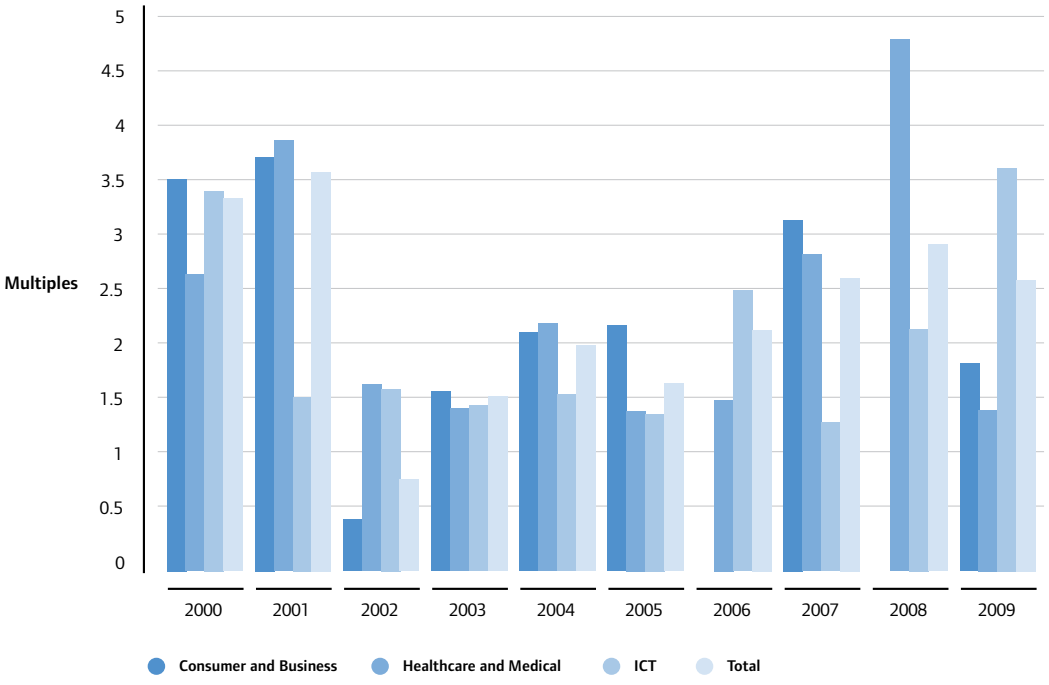
An encouraging picture emerges when returns that funds make from their investments are considered.[16] Following a dip after the dotcom crisis, return multiples have recovered (Figure 11). This trend – which is statistically significant[17] – has not been impacted strongly by the recent financial crisis which suggests that returns have been fairly stable for those companies which have managed to exit over this time. This suggests that during the dotcom crisis companies were of lower quality and subsequently achieved lower returns, while instead the quality of the companies being exited in the financial crisis has not been affected.

During the last decade 54 per cent of the UK exits recovered between one and five times the amount invested, while 10 per cent of exits returned five to ten times their invested capital. There were approximately 9 per cent homeruns, investments in which the venture capital funds made more than ten times what they had put in. In contrast, 27 per cent of the exits returned less capital than was initially invested.[18]

In the last two years there has been a fall in the number of exits, but those that have exited have seen stable multiples. This is in contrast with the years that followed the dotcom crash, when the main issue appears to have been the quality of the underlying portfolio. This trend is supported by examining IRR data (Table 1).

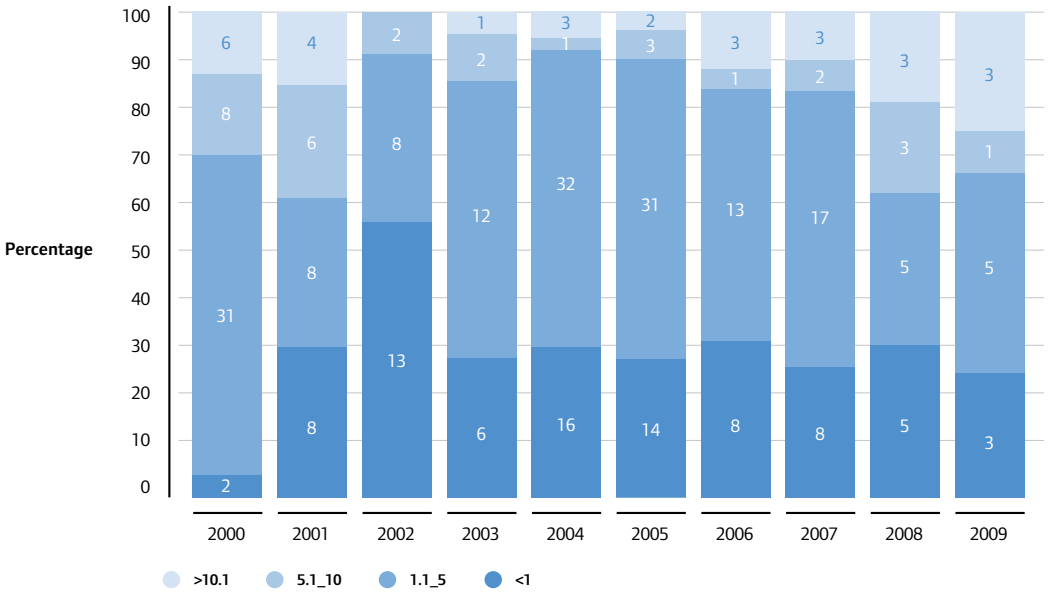
16. Information regarding cash in-to-valuation multiples and gross internal rates of return (IRR) is scarce. Thus, a limitation of this analysis is that we only consider the small number of exited companies with all transaction details and post-valuations disclosed, especially for the years 2008 and 2009.
17. See Table 3, Panel B, columns (v) and (vi).
18. See Figure 23 in appendices.

Figure 11: Median cash in-to-valuation multiples for UK exited companies by sector, 2000-2009



* There was no sufficient number of ICT exits in our sample for the year 2006 and 2008

Figure 12: Multiples by year, 2000-09



Note: The numbers in the columns represent the numbers of exits included

Table 1 provides an overview of the investment return expressed as Gross Internal Rate of Return (IRR) by exited companies per percentile and per year. Note that this is not the fund level performance IRR but simply the IRR by exited companies. There are big variations in the company returns. Since 2002, the top 25 percent of companies experienced returns of between 50 per cent and 78 per cent while the median size of returns has been between 17 per cent and 34 per cent.

Table 1: Gross IRR by percentile, 2000-2009

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
N	Valid	45	25	21	21	48	51	25	29	15	14
Percentiles	10	115%	-45%	-68%	0%	-8%	-14%	-1%	0%	-7%	0%
	25	173%	0%	-2%	0%	0%	0%	2%	0%	0%	0%
	50 (median)	429%	44%	0%	17%	26%	29%	34%	19%	25%	18%
	75	7,177%	1,977%	59%	78%	68%	58%	72%	53%	50%	67%

The returns are annualised

Part 3: Investment activity within individual sectors

Individual sectors have their own characteristics, and this is also true when it comes to venture capital financing for companies in different industries. Our analysis of venture capital activity in 2009 within sectors highlights that ICT still dominates venture capital investments and energy investments received higher levels of funding. Healthcare companies that exited between 2000-2009, received on average £3 million more funds per funding round and needed nine months more to exit compared with companies operating in the Consumer and Business sector.[19]

ICT continues to dominate venture capital investments

In 2009, ICT continued to attract the largest proportion of investments followed by Consumer and Businesses and Healthcare and Medical industries with 26 per cent and

19. See Table 2 and Table 3 in appendices.

Figure 13: Investments by industry 2009, number of companies

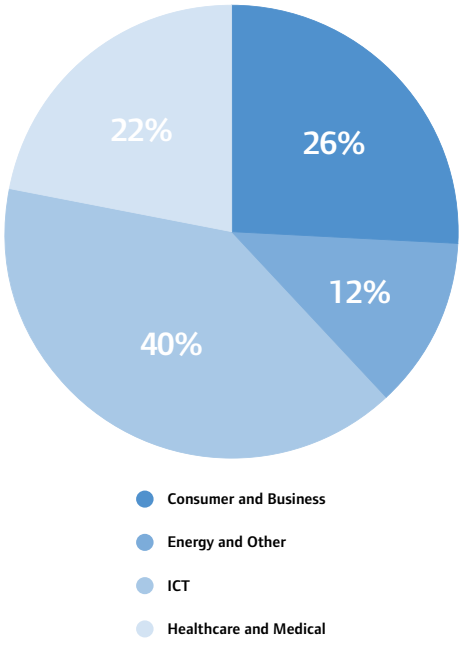


Figure 14: Investments by industry 2009, amounts invested

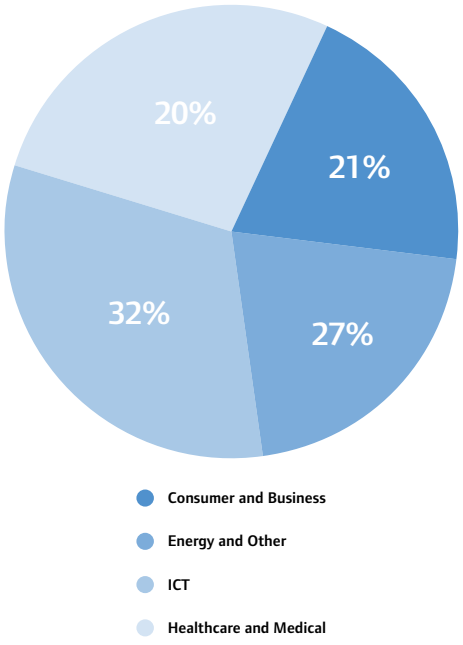


Figure 15: Investments by industry and by round, 2009

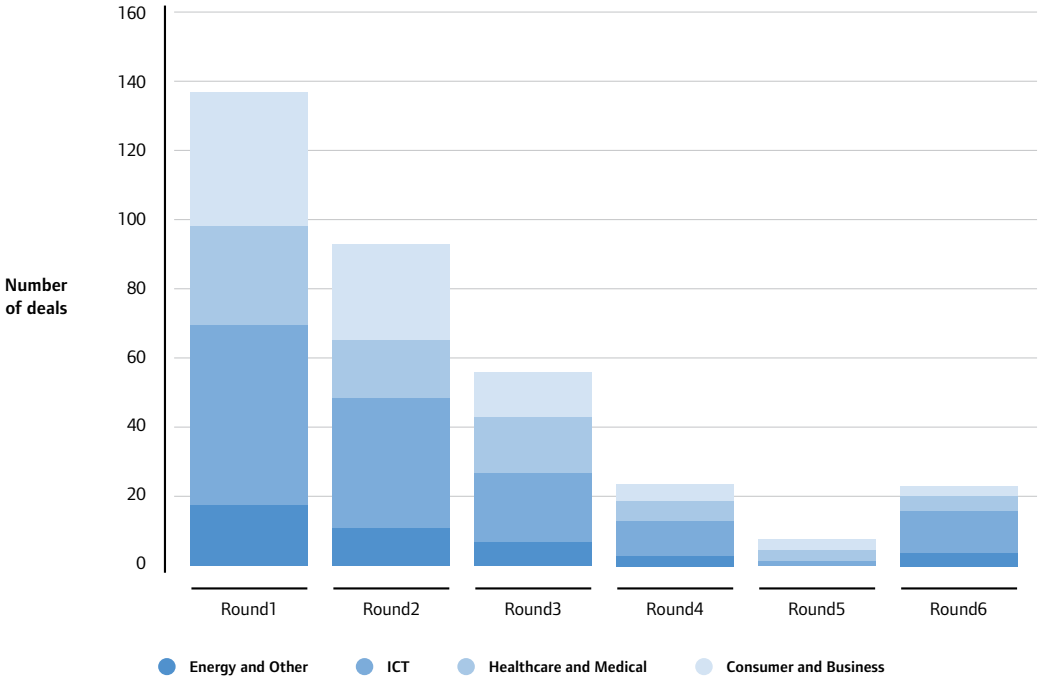
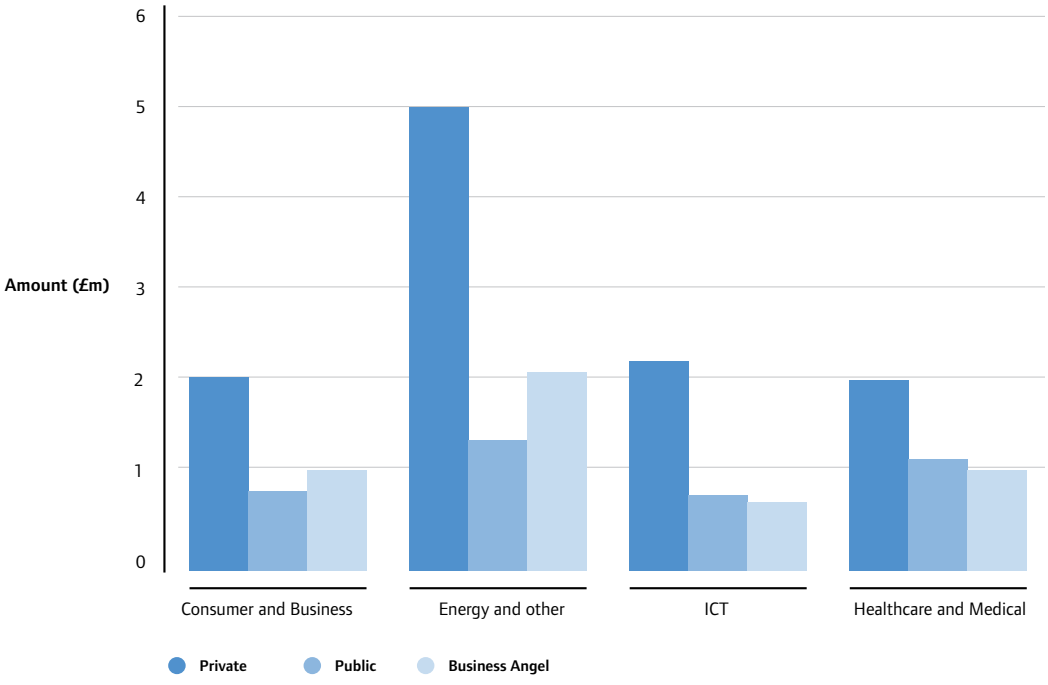


Figure 16: Median amount of investment by source of finance and industry, 2009



22 per cent respectively (Figure 13). Energy and others received 12 per cent.[20] Energy investments required significantly larger deal sizes, twice the level of all the other sectors considered.

Consumer and Business companies received fewer later-stage rounds compared with other sectors while Healthcare and Medical received the most in proportional terms (Figure 15). Around 76 per cent of all investments in the Consumer and Business sector were in first or second round deals, 70 per cent in Energy and Environment, 67 per cent in ICT and only 60 per cent in Medical and Healthcare.

Both business angel and public funds are active in all sectors, though their contributions to each sector varies (Figure 16).

Variations in time to exit between sectors exist, but are not large

Examining exits by sector as a proportion of overall exits suggests that there have been more exits in Healthcare and Medical companies in recent years, reflecting the increasing investments trend in Healthcare and Medical companies (Figure 17). In contrast, exits in Consumer and Businesses have been gradually decreasing as a proportion of all exits.

Examining time to exits for the different sectors highlights some differences. For example, venture capital funds take nine months longer longer to exit from Health and Medical companies compared with Consumer and Businesses companies (see Figure 18 Table 3 and Table 5 in appendices).

20. For industry description see Table 6 in appendices.

Figure 17: Proportion of exits by industry

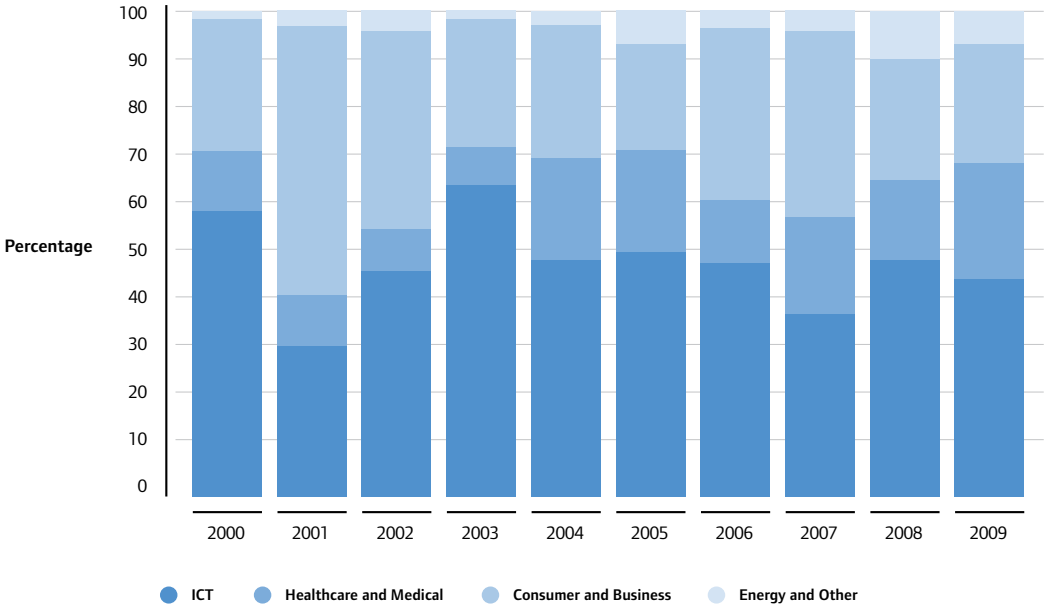
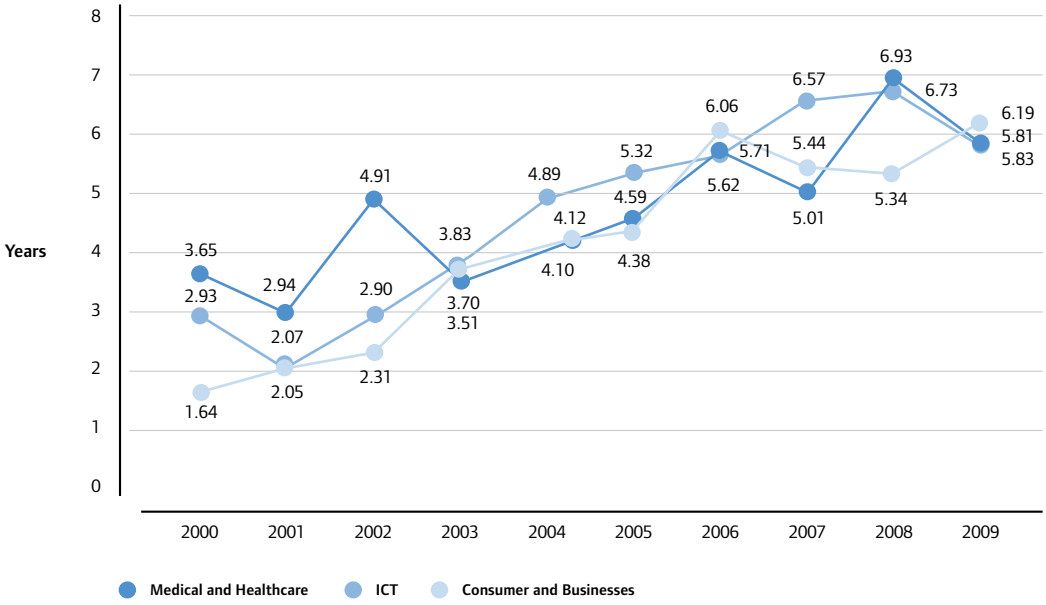


Figure 18: Average time (in years) from initial investment to exit through IPOs and M&A by industry, 2000-2009, UK



Part 4: Fundraising activity over the last decade

Examining fundraising activity gives an insight into market confidence and the prospects for a recovery in investment activity. Previous research published by NESTA highlighted that the situation in the UK was beginning to become quite constrained. Only 39 funds actively invested in the early-stage space over the last five years, and the current set of funds were largely tapped out.[21]

The picture emerging from 2009 does not suggest that growth will return quickly to the UK venture capital market. The trend of declining fundraising seen since the dotcom crash continues with both the number of new funds and total invested seeing drops of over 50 per cent in the last year. Public funding remains an important contributor towards fundraising. Without this funding, the early-stage market would be in a particularly perilous state.

Venture capital fundraising has been acutely hit by the recent crisis

Long-term issues may be developing as fundraising continues to be weak (Figure 19 and Figure 20). The decrease in fundraising activity that the market experienced in 2009 is significant. Only 11 funds (nine new and two existing) were able to raise capital in 2009 compared with 22 (20 new and two existing) in 2008 (a 50 per cent drop) raising a total of £573.6 million, down from £1,613 million in 2008 (a drop of 64 per cent).

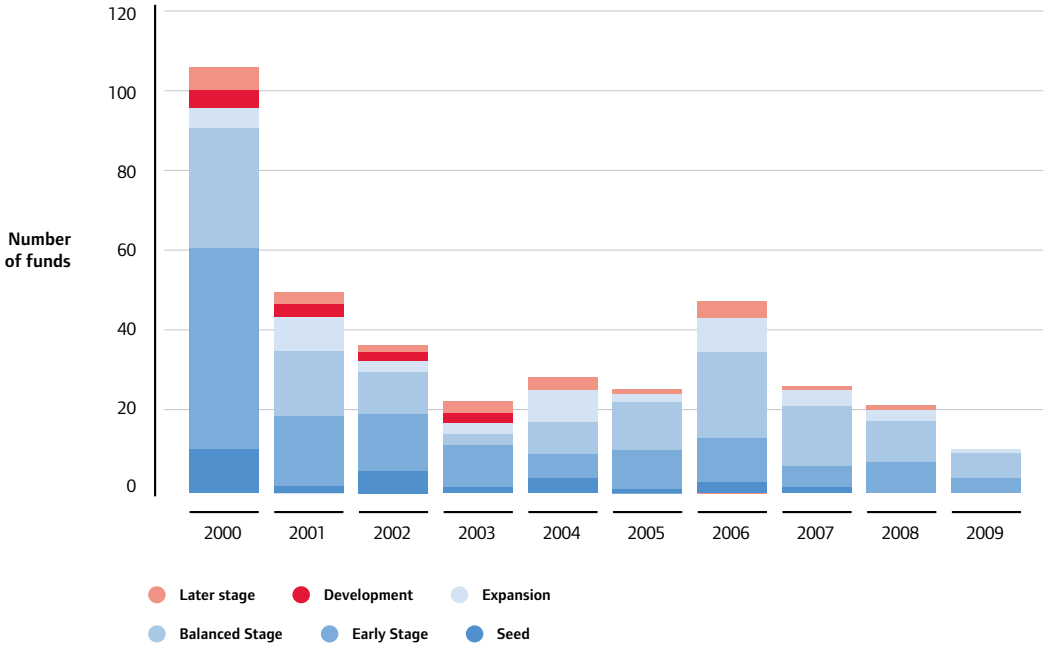
The number of funds closed fell from 106 funds worth £6,409 million in 2000 to 37 funds raising £919.5 million in 2002, representing a decrease of 65 per cent for the number of funds and 86 per cent on the amounts raised. However these falls were from a far higher level of fundraising than that seen in the recent crisis.

Early-stage funds have also been severely affected, falling from eight funds in 2008 to four funds in 2009 raising £128 million in 2009 compared to £329 million the year before (a drop of 50 per cent and 61 per cent respectively).

The lack of distributions that limited partnerships have received from existing investments (and other allocations issues arising from the market turmoil) means that they have less capital available to commit to new funds; and although the majority of investors will be active in 2010, they are anticipated to invest less than in recent years.[22]

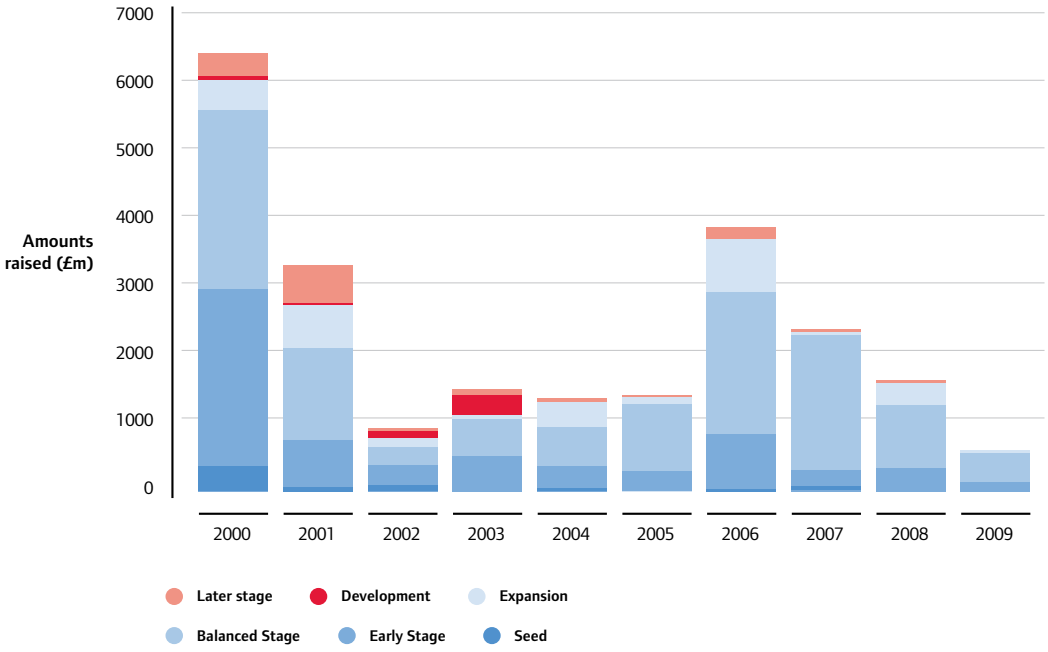
21. NESTA (2009) 'Reshaping the UK Economy.' London: NESTA.
22. AltAssets, 13 Jan Newsletter.

Figure 19: Number of funds raising capital by stage, 2000-2009



Source: Thomson One

Figure 20: Amounts raised by stage, 2000-2009



Source: Thomson One

Part 5: Conclusions

The current financial crisis, while it originated outside the industry, has been particularly hard felt by the venture capital industry. More pessimistic prospects for their venture capital-backed companies, less welcoming exit markets and a tight funding environment have all contributed to the retrenchment of all elements of the industry in 2009. Amounts invested fell by around 27 per cent over the past year, the number of exits either through public flotation or acquisition has dropped by 40 per cent and fundraising fell by over 50 per cent (both in terms of the number of new funds and total invested).

The dotcom crisis had a different origin, triggered as it was by over-exuberant assumptions on the speed of internet development, but also deeply impacted the venture capital industry. Examining the two crises shows some similarities – in the dotcom crisis, as in the financial crisis, there was a significant reduction in investments after the crisis. The venture capital market suffered contractions for two years in a row, with early-stage investments the first to be cut back, in both recessions.

But there are important differences.

- **Fundraising in 2009 is the lowest in the past decade.** Both the dotcom and financial crises resulted in a significant reduction in the number of new venture capital funds established. However current fundraising activity is considerably lower than levels seen after the dotcom crash and consequently the lowest levels seen in the last decade.

- **The situation now would be far worse without public funding.** Public funds hardly featured in dotcom era venture capital. Now they participate in around 40 per cent of all venture capital deals. Public policy matters in this area.

- **It is taking longer for investors to see returns on their investment.** Across the world, the time taken to successfully exit through flotation now averages almost seven and a half years, the longest time seen over the past two decades. This global trend is reflected in the UK market. This obviously has knock-on impacts on a fund's ability to invest in new companies.

- **Even with all this gloom, the fundamentals of the UK venture capital market appear sound.** Funds are still capable of exiting good companies, with returns much stronger than they were immediately after the dotcom. Even if funds had hoped for better returns from these companies, their exits allow track records to be developed which will enable new funds to be raised. Additionally venture capital funds are delivering companies to exit with lower total capital invested than in previous years.

When is a recovery likely?

Following the dotcom crisis, the venture capital industry underwent two years of contraction before recovering. This pattern was seen both in terms of investment activity and fundraising. The current recession has now seen two years of contraction. However, there is little evidence to suggest that activity will increase significantly during 2010, especially for seed and early-stage companies. The key differences between the current and last venture capital

crisis highlight why a recovery appears unlikely in the next few months.

- First, fundraising activity is very low and venture capital funds are already largely tapped out. Fundraising recovery precedes investments, as seen with the increase in early-stage fundraising in 2003, which led to higher investments activity in 2004. The continued downturn of fundraising in 2009 does not bode well for a near-term recovery.

- Second, it is taking longer than ever for investors to realise returns. Leading venture capital funds are concentrating on their existing portfolios, rather than searching for new business opportunities. Low levels of stock market activity coupled with decreasing numbers of mergers and acquisitions suggest that UK venture capital-backed companies face continuing difficulties in identifying ways of exiting. Without clear exit routes, funds will continue to preserve their existing portfolio.

The launch of the UK Innovation Investment Fund earlier this year should bolster the venture capital industry. As funding kicks in, investments are anticipated to be made over the course of the year. The impact of public funds, and a gradual recovery of the UK economy, may result in the venture capital market beginning to recover towards the end of the year and a mild upturn in investments activity in 2011.

The key to the recovery of the industry will be driven by economic financial stability resulting in a more active M&A market and greater confidence of investors allocating a percentage of their portfolios towards venture capital. The 'recovery years' between 2004 and 2007 following the dotcom crash saw an increase in new investments that should be ripening for exit over the next few years. This will give the best performing venture capital funds the track record they need to raise new funds.

Appendix 1: Methodology and data analysis

The study draws information on investments from commercially available databases. Though no commercial database provides total population coverage of venture capital investments made to UK companies, the study assumes these databases provide a representative sample of the population.

For the purpose of this study, VentureSource Dow Jones, Thomson One Private Equity and Library House (now absorbed into VentureSource Dow Jones) are the main sources of data. These databases provide disaggregated data on investments and enable analysis of particular characteristics of deals, such as name of company that received finance, stage and source of finance and industry focus.

Appendix 2: Variables

Venture capital investments

Data on investments activity, number of deals and amounts invested, are presented by funding rounds (seed rounds, first and second rounds and later-stage rounds) and by year.[23] Aggregated data have been obtained by VentureSource Dow Jones.

Fundraising activity is assessed by the total number of funds and amounts raised by venture capital firms in a given year. The Thomson One database has been used to collect aggregated data by stage of development. Data are reported in five stages: seed, early-stage, expansion, development and later-stage.[24]

Publicly backed investments

For the years 2000 to 2008, figures of public investments were obtained from previously published NESTA reports.[25] For 2009, two commercial databases, VentureSource and Thomson One, have been merged for the purpose of this analysis. Desk research, supported by interviews, was used to identify all venture capital funds that received public money have been identified.[26]

The type of investment has been separated into two categories:

- Those involving one or more private sector investors. This category primarily captures venture capital firms. It also identifies investments made by some types of Business Angels, specifically investor networks (e.g. angel syndicates), family offices and named and un-named high net worth individuals. Because of their size, these investments are much more visible than those of typical Business Angels. However, a key limitation of the data is that investments by Business Angels are only identified where they have co-invested with either private or public sector funds. Investments made by individual angel investors or syndicates by themselves will not be captured here.
- Those involving one or more publicly backed funds (e.g. Regional Venture Capital Funds, University Challenge Funds, Enterprise Capital Funds). These are funds that have received some or all of their capital from the public sector, including central government departments, regional development agencies and the European Union (e.g. European Regional Development Fund). They are normally managed by independent fund managers.

Venture capital investments have been also partitioned into early-stage; equal to investments made for amounts equal or less than £2 million, in founding rounds 1, 2 or 3. The £2 million cap has been used as it has been identified by government as the main area of market failure.[27]

Industry categorisation

The two databases (VentureSource and Thomson One) provide industry classifications which do not entirely match, and are narrow. To overcome this issue, four new industry categories have been created and all sub-sectors were grouped under these new categories (Consumer and Businesses, ICT, Medical and Healthcare and Energy and

23. VentureSource classifies equity rounds as follows. Seed rounds: are initial rounds invested in companies at very early stages of development, typically with the founders and product developers such as engineers or molecular biologists on board, but without a complete management team in place. First Round, Second Round: this ordinal nomenclature is used to describe most venture rounds. Companies often refer to financing rounds as 'first', 'second', 'third' etc. even though the legal term for the transaction as stated in closing documents and amendments to the documents of incorporation may refer to them as series A preferred, series B common, etc. Later Stage: 3rd, 4th, 5th, 6th, 7th, 8th, 9th. Later: VentureSource classifies all equity rounds subsequent to the second round as later rounds.
24. Thomson One provides the following classification. Early Stage: this stage describes funds that make investments into portfolio companies after the Seed Stage/Start-up for product development, initial marketing, manufacturing and sales activities. Seed Stage: this stage describes funds that make investments in newly formed companies thereby helping a company's founders to develop and design a product or service. Expansion: expansion stage funds invest into portfolio companies that have products and services that are currently available, and require additional capital to expand production to increase revenue. Development: this stage describes funds that are managed by firms that belong to the business development group. Business development funds make investments into portfolio companies whose primary objective is to increase investments, employment, and revenue to a regional geographic area. Later Stage: this stage describes funds that make investments into portfolio companies that have an already established product or service that has already generated revenue, but may not be making a profit. Later stage funds make the last round of investments in portfolio companies before an exit in the form of an IPO or acquisition by a strategic partner.
25. NESTA (2008) 'Shifting Sands.' London: NESTA; and NESTA (2008) 'Venture capital fundraising activity. London: NESTA.
26. This includes funds that are 100 per cent publicly backed e.g. NESTA and those that receive finance through a government scheme such as RVCFs, ECFs etc.
27. Almeida Capital (2005) 'A Mapping Study of Venture Capital Provision to SMEs in England and Wales.' Sheffield: Small Business Service.

Other). For a detailed analysis of the industries by sub-sector, see Table 6 in appendices.

Exits

Exits are defined as mergers, acquisitions, asset acquisitions and IPOs. The VentureSource Dow Jones database has been used to conduct this analysis. In the study sample, acquisitions are the dominant exit path.[28] To calculate the time to exit, only companies that had information for all their transaction dates from first investment to exit have been included. Therefore, exited companies with missing transaction date information have been excluded from the study sample. In several cases information provided only for the date of the exit and no previous transaction information were available. The study sample contains over 3,000 investment transactions for approximately 800 venture-backed firms that were exited between 2000 and 2009.

Time to exit

The 'time to exit' for each company that exited with all information of transactions disclosed has been calculated as the duration (in years) from the date of the first investment to this company (seed round, individual investment, first venture capital investment) until the date of its first acquisition, asset acquisition, IPO or merger. It is worth noting that Thomson One captures only a limited number of investments made by individuals and therefore the most likely form of first investment in the database is first round venture capital investment.[29] Therefore, the figures reported here may not be necessarily representative when the very first investment comes from a Business Angel.

Returns

Beyond the dates of the funding rounds, the identity of the investors, type of investment and type of exit, VentureSource Dow Jones often provides post-valuation information. For exited companies with detailed information for all amounts raised prior to exit and post-valuations, two performance indicators have been constructed.

As a substitute to the return multiples, an indicative value has been used. This is expressed as the ratio of the total cash inflows to the post-valuation for each exited company. When calculating return multiples, IPOs have been treated as exits and the amounts raised through an IPO are not included. The International Private Equity and Venture Capital Valuation Guidelines[30] for calculating return multiples have not been adhered to where there is insufficient information. However these ratios can be used as an indication of venture capital performance investments over time.

In order to control for the effect of time on financial returns, the gross internal rate of returns (IRRs), which provides the return for a schedule of cash flows that is not necessarily periodic, has been calculated as follows: all cash flows that corresponded to a schedule of payments in dates have been captured. The first payment corresponds to a cost or payment that occurs at the beginning of the investment and all succeeding payments are discounted based on a 365-day year.

The total funds that a company raises before exit have also been measured. Total amount raised is the sum of all invested amounts to a given company. IPOs are treated as exits and therefore amounts raised through an IPO are excluded. Individual invested amounts, complete transaction details and post-valuation data were obtained from VentureSource Dow Jones.

28. See Table 7 in appendices.
29. Initial investment from an individual represented only 8 per cent of the exited companies in our sample.
30. The Guidelines were developed by the Association Française des Investisseurs en Capital (AFIC), the British Venture Capital Association (BVCA) and the European Private Equity and Venture Capital Association (EVCA) and were launched in March 2005.

Appendix 3: Regression analysis

Regression analysis has been conducted in order to explore whether the relationships uncovered by visually examining the data were statistically significant as well as not just driven by other factors not captured by the graphs. Several regression models have been estimated to analyse the impact of the financial crisis on the VC industry while accounting for characteristics of the investment deal, the VC source and the industry. Using regression analysis, the effect of the financial crisis on the average amount of funds raised in each funding round, the time to exit and the financial return on investment have been measured.

The size of individual deal per round has been compared on a set of dummies for the source of finance, time since last investment, round number, industry dummies and year of investment (Panel A). At the company level, the impact of the same variables to the time that a company needs to exit has also been examined (Panel B). Financial return indicators (cash in-to-valuation multiples and gross IRR) have been regressed on variables such as the number of rounds and the time to exit, controlling for a set of dummies for different years of investment (first and last investment (Panel B)). All regressions include control dummies for different sources of finance (public, private or Business Angel investment) and industries (Energy and Other, Medical and Health, ICT and Consumer and Business). Private investments, Consumer and Business industry, year 1995 for Panels A and year 1987 and 2000 for Panel B are the omitted categories. Quantile regressions have also been examined since there are outliers that may influence the results of the OLS model.

Panel A shows regression coefficients for the amount of funds raised by an exited company per funding round. Investments with Business Angel or publicly backed fund involvement were approximately two and a half million pounds smaller in size than those made solely by private funds (coeff: -2.473*** and -2.786***). Industry variables coefficients suggest that Healthcare and Medical exited companies received larger deals (by three million pounds) compared with companies operating in the Consumer and Businesses sector (coeff: 3.035***). Investments made in 2000 were significantly larger and their size dropped in 2002. Column (ii) shows results from a quantile regression and the coefficients are very similar but smaller. Regression coefficients for the natural log of the amount of funds raised by an exited company per funding round although not reported here, show similar results.

Columns (i) and (ii) in Panel B examine the effect of the source of finance (public, private or Business Angel) on the time that a company needs to exit. Companies that at any point in time received investment by a Business Angel or a publicly backed fund do not differentiate from companies that received finance from solely private VC in terms of time to exit. In addition, the total amount of money that a company raises before exit does not seem to affect the time to exit (coeff: .005). Column (ii) shows results from a quantile regression and, again, the relevant coefficients are slightly larger but do not significantly change. Industries coefficients suggest that companies operating in the Healthcare and Medical sector need more time to exit (nine months) than companies from the Consumer and Business sector.

Table 2: Panel A: Deal level analysis

	(i) OLS Deal size (£m)	(ii) Quantile Deal size (£m)
Business Angel involvement	-2.473*** (-2.66)	-1.060*** (-4.76)
Public fund involvement	-2.786*** (-3.73)	-1.504*** (-4.34)
Time since last investment	0.091 (1.25)	0.142*** (6.73)
Round number	1.994*** (3.77)	0.428*** (7.37)
Industry dummies		
Energy & Other	-1.672 (-0.73)	1.017** (2.05)
Healthcare & Medical	3.035*** (3.03)	2.218*** (7.71)
ICT	1.454 (1.44)	0.737*** (3.21)
Year of investment		
1996	2.922 (0.72)	2.795 (1.37)
1997	-0.383 (-0.20)	1.759 (0.95)
1998	-1.094 (-0.51)	1.450 (0.86)
1999	2.646 (1.52)	3.434** (2.10)
2000	9.574*** (4.15)	5.069*** (3.15)
2001	2.265 (1.09)	3.272** (2.03)
2002	-0.011 (-0.01)	1.670 (1.04)
2003	-0.447 (-0.21)	1.926 (1.19)
2004	-0.050 (-0.02)	1.630 (1.01)
2005	-1.356 (-0.57)	1.812 (1.11)
2006	-1.190 (-0.47)	1.843 (1.12)
2007	-4.160 (-1.47)	1.885 (1.10)
2008	-0.717 (-0.23)	1.254 (0.68)
Constant	-3.005*** (-1.21)	-1.859 (-1.15)
Observations	1239	1239
R-squared	0.13	

Note: Robust t statistics in parentheses, * significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent, Consumer and Business is used as the reference industry. Year 1995 has been omitted.

Table 3: Panel B: Company level analysis

	(i) Time to exit	(ii) Time to exit (quantile)	(iii) Multiples (log)	(iv) IRR (log)	(v) Multiples (log)	(vi) IRR (log)
Business Angel involvement	0.105 (0.55)	0.130 (0.56)	0.115 (0.66)	0.161 (1.17)	-0.067 (-0.42)	0.083 (0.69)
Public fund involvement	0.362 (1.52)	0.529 (1.61)	-0.058 (-0.23)	-0.011 (-0.06)	0.085 (0.36)	0.050 (0.27)
Number of rounds	0.520*** (8.65)	0.623*** (9.12)	-0.175*** (-3.65)	-0.070 (-1.37)	-0.208*** (-4.72)	-0.082* (-1.91)
Time to exit			-0.088** (-2.31)	-0.023 (-0.84)	-0.035 (0.76)	-0.027 (-1.00)
Total amount raised before exit	0.005 (1.62)	0.005 (1.27)	-0.003 (-1.15)	-0.004* (-1.66)	-0.003 (1.52)	-0.003* (-1.83)
Industry dummies						
Energy and other	0.246 (0.47)	0.531 (0.86)	0.470 (1.38)	0.003 (0.01)	0.748** (2.56)	0.058 (0.20)
Healthcare and Medical	0.379 (1.34)	0.856** (2.39)	0.134 (0.53)	-0.058 (-0.30)	-0.100 (-0.44)	-0.118 (-0.65)
ICT	0.029 (0.14)	0.563** (2.17)	0.179 (0.83)	-0.022 (-0.15)	-0.015 (-0.07)	-0.156 (-1.16)
Year of first investment						
1988	6.313*** (8.08)	13.682*** (9.26)	1.445*** (6.54)	0.211 (-1.26)		
1990	7.576*** (39.77)	15.244*** (22.13)				
1991	0.000 (.)	7.643*** (10.72)	-0.419 (-1.23)	-0.960*** (-3.73)		
1992	-0.822 (-0.81)	8.370*** (5.72)	-0.179 (-0.42)	0.225 (0.58)		
1993	-0.884 (-0.65)	5.086*** (3.40)	-1.573 (-1.20)	-0.019 (-0.02)		
1994	-1.408 (-1.04)	6.443*** (5.43)	-1.136* (-1.75)	0.908* (1.76)		
1995	-3.946*** (-3.82)	4.022*** (3.80)	-0.673 (-0.84)	0.187 (0.40)		
1996	-2.794*** (-3.43)	4.564*** (4.68)	-1.667** (-2.49)	-0.129 (-0.24)		
1997	-3.758*** (-7.90)	3.762*** (4.53)	-1.769*** (-3.27)	-0.127 (-0.31)		
1998	-4.398*** (-13.84)	3.366*** (4.58)	-1.779*** (-3.40)	-0.442 (-1.04)		
1999	-4.749*** (-16.48)	3.196*** (4.57)	-1.677*** (-3.05)	-0.135 (-0.33)		
2000	-5.221*** (-25.05)	2.486*** (3.57)	-2.088*** (-3.96)	-0.539 (-1.32)		
2001	-4.866*** (-18.81)	2.927*** (4.05)	-1.587*** (-2.93)	-0.030 (-0.07)		
2002	-5.225*** (-14.75)	2.539*** (3.50)	-1.218** (-1.97)	0.151 (-0.37)		
2003	-5.967*** (-17.78)	1.628** (2.10)	-1.706*** (-2.70)	-0.440 (-0.89)		

	(i) Time to exit	(ii) Time to exit (quantile)	(iii) Multiples (log)	(iv) IRR (log)	(v) Multiples (log)	(vi) IRR (log)
2004	-5.872*** (-17.45)	1.855** (2.37)	-1.411** (-2.47)	0.138 (0.31)		
2005	-6.065*** (-22.55)	2.108** (1.97)	-0.128 (-0.20)	0.129 (0.28)		
2006	-5.837*** (-24.94)	1.929* (1.93)	-2.309*** (-3.38)	-0.194 (-0.31)		
2007	-6.642*** (-20.42)	1.533* (1.66)	-1.454 (-1.60)	-0.268 (-0.30)		
2008	-7.955*** (-14.35)					
Year of exit						
2001					-0.861** (-2.03)	-0.808*** (-3.24)
2002					-1.782*** (-6.28)	-0.885*** (-4.08)
2003					-1.237*** (-3.94)	-0.419* (-1.93)
2004					-0.781*** (-3.01)	-0.273 (-1.36)
2005					-0.675*** (-2.71)	-0.290 (-1.38)
2006					-0.650* (-1.85)	-0.034 (-0.16)
2007					-0.522 (-1.62)	-0.174 (-0.87)
2008					-0.170 (-0.41)	-0.011 (-0.04)
2009					-0.422 (-0.99)	-0.104 (-0.37)
Constant	7.050*** (23.36)	-1.564** (-2.32)	3.290*** (5.47)	4.920*** (11.21)	2.357*** (10.78)	5.124*** (30.12)
Observations	574	574	289	283	289	283
R-squared	0.44		0.20	0.13	0.22	0.13

Note: Robust t statistics in parentheses, * significant at 1 per cent; ** significant at 5 per cent; *** significant at 10 per cent, Consumer and Business is used as the reference industry. Year 1987 has been omitted for columns 1 to 4. Year 2000 has been omitted for columns 5 and 6.

The rest of Panel B shows regression coefficients for the natural log of the price to cash multiples and the gross IRR. Columns (iii) and (iv) control for the year of the first investment made to exited companies while columns (v) and (vi) control for the year that the company exited. The results suggest that the number of rounds, controlling for the overall time to exit, is negatively related to the multiple returns and one extra round of finance reduces the multiple returns by approximately 20 per cent. However, the number of rounds has only a small impact on the IRR returns. The time to exit can be associated with negative returns. One extra year in the lifecycle of the company reduces the multiples by approximately 9 per cent but its impact on IRR is not significant. The size of the total amounts raised by the company before exit does not significantly affect financial returns.

Examination of the impact of the two crises on the returns unveils a significant decrease (approximately 1.8x in terms of multiples and 89 per cent in terms of IRR) of returns during the dotcom crisis (2002) but shows no evidence of such decrease during the current financial crisis. This suggests that during the dotcom crisis there was a realisation that companies were of low quality, which brought the returns down, while instead the quality of the companies being exited in the financial crisis has not been affected. Quantile regressions do not show significant differences in the results and therefore are not reported here.

Further analysis particularly concerned with the effect of company characteristics such as quality and age of business in different years, would contribute to the robustness of this analysis.

Appendix 4: Tables and figures

Table 4: Early-stage investments by year and type of investor, 2000-2009

Year	Deals made by private and other funds	Publicly backed investments	Total	Publicly backed investments as a percentage of all early-stage deals
2000	105	27	132	20%
2001	110	61	171	36%
2002	94	74	168	44%
2003	122	127	249	51%
2004	143	172	315	55%
2005	122	211	333	63%
2006	118	170	288	59%
2007	114	176	290	61%
2008	67	141	208	68%
2009	68	86	154	56%

Source: For the years 2000-2008 Library House and for 2009 VentureSource Dow Jones, Thomson One and desk research[31]

31. This source was also used by NESTA (2008) and Mason and Pierrakis (2009). Some of the figures reported here may differ slightly from those cited by NESTA (2008): (i) the Library House database is live and so is continually being updated; (ii) further cleaning of the data by the authors. However, these changes do not change the observed trends and the argument made by NESTA (2008).

Table 5: Descriptive statistics – Time to exit (only exited companies with all available transaction data)

Year	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
2000	77	2.605	2.368	20	1.636	1.363	1	5.504	.	9	3.635	3.291	43	2.934	2.438
2001	64	2.316	2.463	35	2.049	2.458	2	7.225	6.885	7	2.940	2.312	20	2.073	1.498
2002	71	2.951	2.078	28	2.315	0.851	3	1.711	1.346	6	4.949	4.233	32	2.898	1.563
2003	65	3.735	2.389	17	3.697	1.721	1	3.118	.	5	3.513	2.601	41	3.827	2.683
2004	104	4.409	2.168	28	4.117	1.866	3	2.247	0.477	22	4.102	2.325	50	4.894	2.203
2005	121	4.903	2.300	26	4.382	2.435	8	4.704	2.740	25	4.594	2.324	60	5.317	2.158
2006	108	5.769	2.263	37	6.057	1.888	4	5.497	1.759	14	5.712	2.537	51	5.616	2.470
2007	71	5.715	2.879	27	5.443	2.671	3	3.825	1.603	14	5.007	2.362	27	6.565	3.267
2008	74	6.188	3.054	18	5.342	3.297	7	5.638	4.365	12	6.929	1.978	35	6.727	2.811
2009	60	5.696	2.884	14	6.189	3.075	4	3.518	2.429	14	5.831	2.853	26	5.809	2.898
Total	**815**	**4.517**	**2.777**	**250**	**4.060**	**2.698**	**36**	**4.432**	**3.048**	**129**	**4.922**	**2.729**	**385**	**4.756**	**2.782**

Note: Financing Completion Date: No Earlier Than:01-Jan-00 No Later Than:31-Dec-09; Financing Round Class: Acquisition, Merger, Public Investment, Buyout; Business Status: Private or Independent, Publicly Held, Out of Business, Acquired or Merged, In IPO Registration, In Bankruptcy.

Table 6: Industry categorisation

Industry Group	Industry
Consumer and Businesses	Business Services (Not Financial)
	Cons/Bus Products
	Cons/Bus Services
	Consumer & Business Services: Other
	Consumer Services
	Education & Training Services
	Financial Institutions & Services
	Media, Content & Information
	Restaurants & Food Service
	Retailers
	Retailing & Mass Merchandising
	Specialty Retailers
	Transportation Services
Energy and Other	Adv Spec Mat & Chem
	Agriculture
	Coal
	Energy
Healthcare and Medical	Alternate Sites (Out-Patient)
	Biopharmaceuticals
	Biotechnology Therapeutics
	Diagnostic Equipment (Not Imaging)
	Drug Development Technologies
	Healthcare Services
	Medical & Lab Services
	Medical Devices/Equipment
ICT	Application-Specific Integrated Circuit
	Broadcasting
	Business Applications Software

Industry Group	Industry
ICT	Communication & Networks
	Communications & Computers
	Computer Systems
	Connectivity & Communications Software
	Connectivity Products
	Data Management Services
	Database Software
	Design Automation Software
	Electronic Components
	Electronics & Computers
	Fibreoptic Equipment & Photonics
	General Purpose Integrated Circuits
	IT Consultants
	Information Services
	Integrated Circuit Production
	Medical Software
	Multimedia Networking Software
	Network & Systems Management Software
	Recreational & Home Software
	Semiconductors
	Software
	Software Development Tools
	Software: Other
	Tele/Videoconferencing Equipment & Serv
	Telecommunications Service Providers
	Vertical Market Applications Software
	Wireless Communications Equipment

Table 7: Exits by type, 2000-2009

Round Type	Freq.	Per cent	Cum.
Acquisition	503	61.58	61.58
Asset Acquisition	43	5.3	66.87
Buyout – LBO	15	1.85	68.72
Gov't Grant	1	0.12	68.84
Management Buy-In	4	0.49	69.33
Management Buyout	70	8.62	77.96
Merger	17	2.09	80.05
Public Invest. – PPPE	1	0.12	80.17
Public Invest. – 2PO	1	0.12	80.3
Public Invest. – IPO	150	18.47	98.77
Reverse Merger	10	1.23	100
Total	**815**	**100**	

Figure 21: Proportion of amounts invested by stage (£m), 2000-2009

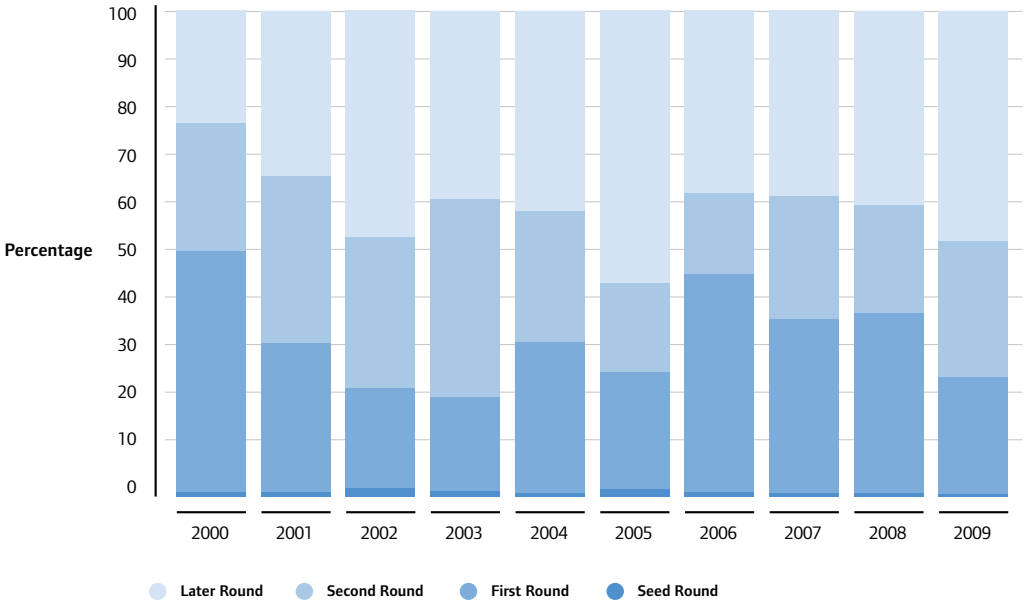


Figure 22: Proportion of number of deals by stage, 2000-2009

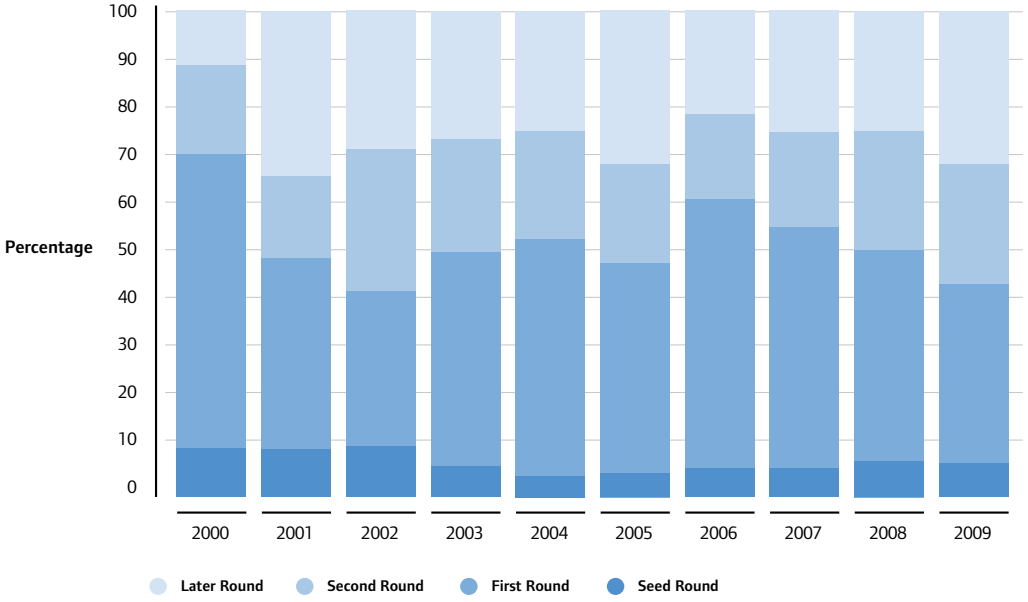


Table 8: Fundraising activity 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number of funds										
Seed	11	2	6	2	4	1	3	2		
Early Stage	50	17	14	10	6	10	11	5	8	4
Balanced Stage	30	16	10	3	8	12	21	15	10	6
Expansion	5	9	3	3	8	2	9	4	3	1
Development	4	3	2	2						
Later stage	6	3	2	3	3	1	4	1	1	0
Total	**106**	**50**	**37**	**23**	**29**	**26**	**48**	**27**	**22**	**11**
Size in GBP millions										
Seed	348.7	45.9	57.9	8.7	15.7	6	16.6	51.3		
Early Stage	2609.6	705.5	310.2	499.1	334.2	264.1	813.1	240.6	329.3	128.2
Balanced Stage	2604.7	1322.2	265.6	534.2	582.7	978.3	2070.6	1978.6	915.5	400
Expansion	452.2	651.9	127.8	63.2	362.9	119.4	772.2	48.3	332.1	45.4
Development	54.3	20.5	106.8	300						
Later stage	339.7	554.4	51.2	66.2	47.2	37.7	174	38.7	36.5	0
Total	**6409.2**	**3300.4**	**919.5**	**1471.4**	**1342.7**	**1405.5**	**3846.5**	**2357.5**	**1613.4**	**573.6**

Source: Thomson One

Table 9: Descriptive statistics – Total amounts raised and financing rounds for exited companies, 2000-09

Year	Rounds			Total amounts raised (no IPOs)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation
2000	75	3.56	2.158	59	11.726	15.6315
2001	64	2.80	1.115	43	8.277	19.1310
2002	71	3.24	1.399	56	9.350	18.1948
2003	65	3.31	1.310	54	9.013	14.3801
2004	104	3.98	1.911	89	12.117	24.5765
2005	121	4.05	1.966	96	12.862	20.3530
2006	108	3.94	1.631	74	17.942	42.9843
2007	71	4.35	2.192	49	14.117	19.2432
2008	74	3.96	2.030	53	13.685	47.3824
2009	60	3.90	1.980	36	8.082	9.6516

Table 10: Descriptive statistics – Cash in-to-valuation multiples

Year	N	Minimum	Maximum	Sum	Mean	Deviation
2000	48	0.358	32.182	268.308	5.58974	6.151991
2001	26	0.063	38.64	180.308	6.93491	10.38065
2002	23	0.094	7.253	40.259	1.75041	2.018292
2003	21	0.133	13.56	48.335	2.30168	3.077858
2004	52	0.016	30.08	167.344	3.21815	5.513188
2005	51	0.061	128.656	253.917	4.97876	17.85689
2006	25	0.019	50	136.085	5.44339	10.696
2007	30	0.016	28.068	131.018	4.36728	6.366624
2008	16	0.129	20.495	86.944	5.43399	6.210825
2009	12	0.565	17.365	64.759	5.39661	6.027179

Table 11: Tests for differences in the means of years to exit for UK-based venture capital-backed companies, 2000-2009

Year	N	Coef.	Std. Err.
2001	64	-0.421	0.414
2002	71	0.09	0.393
2003	65	0.581	0.403
2004	104	1.651***	0.365
2005	121	1.935***	0.319
2006	108	3.010***	0.356
2007	71	2.961***	0.4
2008	74	3.580***	0.387
2009	60	3.325***	0.409
_cons		2.753	0.268
R sqr		0.22	
N		807	

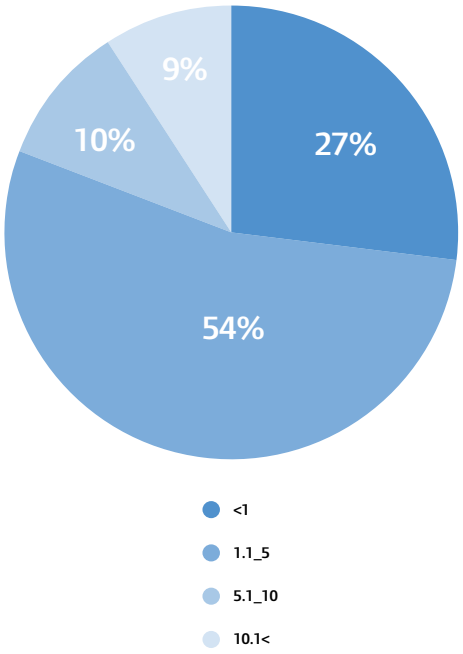
Note: *** denotes values which are statistically different from those of 2000 at the 1 per cent level.

Table 11 reports summary statistics for the explanatory variables years to exit. It tests for differences in sample means between each year between 2001 and 2009 and 2000 in terms of the time that takes for a company to exit. The table includes all exited companies with transaction details. The number of observations is as recorded in the second column.

Table 12: Variable description

Variable name	Description
Business Angel involvement	Dummy that takes the value 1 if one or more Business Angel participated in the deal and 0 otherwise
Public fund involvement	Dummy that takes the value 1 if one or more Publicly backed funds participated in the deal and 0 otherwise
Time to exit	Time (expressed in years) that company needed to exit
Deal size	Amount of funds raised in the funding round
Total amount raised before exit	Total amount of funds raised by a company before exit
Multiples (log)	Natural log of the multiples
IRR (log)	Natural log for gross IRRs
Number of rounds	Number of rounds that company received before exit
Round number	The number of round at the time of investment
Industry dummies	
Energy & Other	Dummy variable equal to 1 if company operating in Energy & Other sector
Healthcare & Medical	Dummy variable equal to 1 if company operating in Healthcare & Medical sector
ICT	Dummy variable equal to 1 if company operating in ICT sector

Figure 23: Cash in-to-valuation multiples 2000-2009 – Number of deals



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